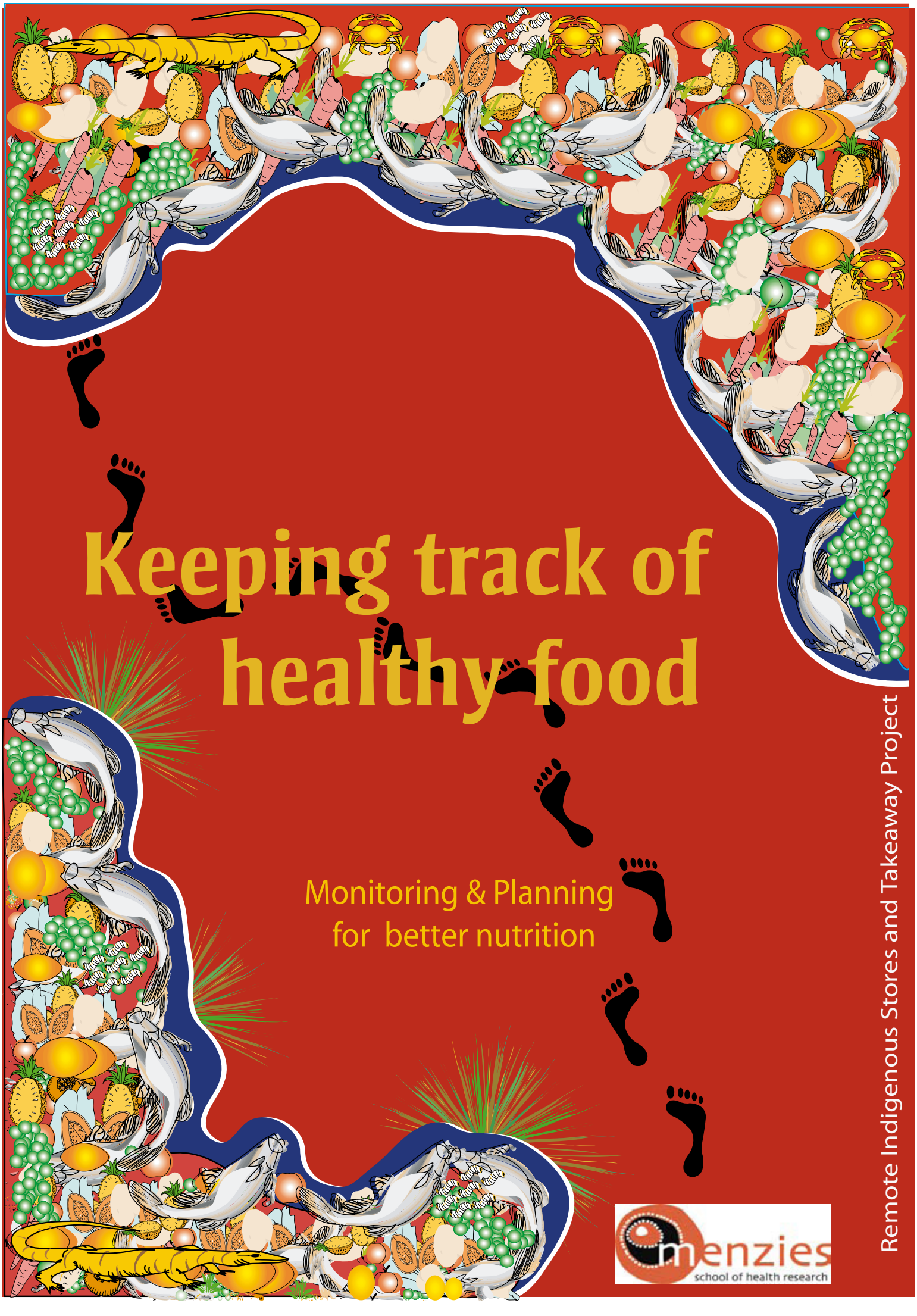

Keeping track of healthy food

Monitoring & Planning for better nutrition

Remote Indigenous Stores and Takeaway Project

menzies school of health research

Keeping track of healthy foods

Towards improving the nutritional quality of foods sold in community stores in remote Australia

Menzies School of Health Research

Julie Brimblecombe

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Remote Indigenous Stores and Take-away project (RIST).

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Table of contents

List of figures

List of tables

Summary

This report provides the rationale for key indicators designed to monitor the nutritional quality of food available through remote community stores. The indicators have been developed in the context of the Dietary Guidelines for Australians[1]and the Eat Well Australia framework[2] and National Aboriginal and Torres Strait Islander Nutrition Strategy and Action Plan 2000 to 2010 (NATSINSAP)[3]. The purpose of this report is to describe each of the selected indicators and the method applied in determining these indicators, to propose a framework for their use and to make recommendations for their further development. Profiles for each of the indicators are presented according to a framework proposed by Briggs et al[4].

This work builds on the store turnover method to assess the nutritional quality of foods available through remote community stores developed by Lee et al[5] in the 1980s. It also links with previous work relating to food and nutrition monitoring conducted by the Australian Food and Nutrition Monitoring Unit (AFNMU)[6-8] and draws on the framework and business case for establishing a national food and nutrition monitoring and surveillance system developed by Masters et al[9], and a report on national indicators for food and nutrition by the Australian Institute of Health and Welfare[10].

It is recognised that issues of availability, quality and affordability of nutritious foods in remote community stores and take-away food outlets are barriers to Indigenous Australians accessing healthy food[11-13]. NATSINSAP aims to reduce these barriers in addressing problems of poor nutritional health reported among Aboriginal and Torres Strait Islander populations. The development of a national food and nutrition information system that meets the needs of Aboriginal and Torres Strait Islander peoples and provides timely and relevant feedback on food supply, access, food intake, nutritional status and related health outcomes to communities, policy makers, the nutrition workforce and other stakeholders is one of the seven action areas outlined in NATSINSAP. Presently there is no co-ordinated system to collect data and provide feedback on the nutritional quality of food available to Indigenous Australians living in remote Australia. This lack of data makes it difficult to make informed decisions in relation to the development of appropriate and effective strategies for nutrition improvement.

The Remote Indigenous Stores and Take-away project was developed to assist in the implementation of NATSINSAP strategies relating to remote community stores and take-aways. One of the aims of the RIST project was to develop a mechanism for monitoring the nutritional quality of food available through stores in remote Indigenous communities. Menzies School of Health Research (MSHR) was commissioned by the RIST project to undertake this work. The aim of the project undertaken by MSHR was to develop a monitoring tool based on indicator foods that reflected key dietary problems in remote communities and that could be used by stakeholders as part of a progressive cycle of planning, action and reassessment for improved nutritional quality of foods available for sale through remote community stores.

This report presents the findings of the project's aim and objectives.

The indicators presented in this report and the proposed monitoring tool provide an important starting point to provide timely and relevant feedback for Aboriginal and Torres Strait Islander community members and key stakeholders on the nutritional quality of food sold in community stores. While this tool offers an exciting development in the potential to provide timely and relevant information for planning, evaluation and decision-making, its application at the community and policy levels needs to be developed and evaluated. Further work is required once comparative data is available to determine realistic and across store performance targets for each of the indicators. It is envisaged that this work will ultimately contribute to determining a set of key performance indicators for use at the national level to evaluate food and nutrition related policy for Indigenous Australians.

Introduction

Stores in remote Australian Indigenous communities provide a unique context to provide data on community level dietary intake. In addition to being the main food supply in many communities, the remote community store is considered a priority intervention setting for achieving nutritional goals for Indigenous Australians that relate to food access and availability. Availability of nutritious foods through the community store has been previously reported to be a key factor hindering access to healthy food and challenging nutrition improvement for Indigenous Australians living in remote areas[14;15]. In turn there are a number of factors that determine the availability of good quality foods. Store managers, for example, have been shown to positively influence the nutritional quality of the store food supply[16] by either ensuring the availability of nutritious foods, such as fresh fruit and vegetables, wholemeal bread and sandwiches, or by supporting store-based strategies to influence purchasing behaviour[17]. Other factors identified in the literature that influence the availability of good quality foods through the store are: consumer demand[18;19]; store management and efficient operations[18;19;20]; in-store marketing and consumer education[11;19;21]; adequate infrastructure and carrying capacity[18;20;22]; and adequate and reliable transportation of produce[18;19].

Lee and Bailey[23] were the first to demonstrate improvements in the nutritional quality of the store food supply through intervention. The intervention described by Lee et al[11] was two pronged. It involved modifying the availability of recommended foods, such as introducing fresh salad sandwiches into the take-away and ensuring an adequate and reliable daily supply of fresh fruit and vegetables and wholemeal bread, together with point of sale consumer education using "shelf talkers" and community-wide food and nutrition education. Scrimgeour et al[17] showed that the purchasing behaviour of young children could be modified through increasing the provision, promotion and marketing of "healthy foods". For example, one such strategy, to encourage young people to purchase fruit rather than a cold sweetened drink, was to place a bowl of fruit at the store counter near where children were playing game machines[17].

Improvements in the availability of fresh fruit and vegetables, fresh sandwiches and leaner cuts of meat have also been shown to occur as a result of a "whole-of-store" approach to improving food quality through better business practices, including employment and training, and applying stock management procedures[20]. Increases in fresh fruit and vegetable turnover have been shown to occur with instalment of appropriate refrigerated storage and display bins[14]. Lee et al[15] and Goto[22] have also demonstrated shifts in the nutritional quality of the store food supply in the absence of externally driven intervention and community-wide education. Where improvements in relation to availability, quality and affordability have been shown to occur without external intervention[14], it is largely through store managers addressing the various components of the store's operating system to improve store practices. The strategies described here demonstrate that intervention at the store level can impact on the nutritional quality of foods available for purchase. These studies have all relied on some measure of food turnover to evaluate the effectiveness of the store intervention.

Six stores across remote Australia (including 2 stores in the NT, 1 in Western Australia, 1 in New South Wales and 2 in Northern Queensland) participating in the RIST project, were invited to provide point-of-sale data to MSHR on all food and non-alcoholic beverages sold for the period July to September 2006. These data were collated and analysed to determine key foods and/or food groups contributing to nutrient availability for each of the stores and to examine differences and consistencies across the six stores. From this analysis key foods and food groups were identified to serve as proxies in assessing the nutritional quality of the food supply in line with the Dietary Guidelines for Australian Adults. The National Health and Medical Research Council's Dietary Guidelines for Australian Adults (the Australian Dietary Guidelines) are a key statement of Australia's policy goals and directions for supporting better nutritional outcomes for the Australian population[10]. Providing information on these areas has been highlighted as an essential component of a food and nutrition monitoring system[24] (p 272).

The aim and objectives of the project undertaken by MSHR were as follow.

Aim:

To develop a monitoring tool based on indicator foods that reflect the key dietary problems in remote communities and that can be used by stakeholders as part of a progressive cycle of planning, action and reassessment for improved nutritional quality of the food supply.

Objectives:

- *To develop a set of performance indicators based on the nutritional composition of foods sold through six community stores across remote Australia*
- *To design an automated system linked to point of sale scanning software to report on the performance indicators*
- *To develop an operation manual for the reporting system*
- *To test the monitoring tool in two communities*

This report presents the findings of each of these objectives and the overall project aim. The indicators to monitor the nutritional quality of foods available for sale in community stores in remote Australia are presented in Table 1 in the context of the Dietary Guidelines for Australians. Existing measures for food and nutrition monitoring at the national level are also presented in Table 1. No measures relating to the Australian dietary guidelines pertaining to food variety, alcohol consumption, food safety or preventing weight gain have been included. An indicator relating to the breastfeeding practices guideline is proposed in Table 33 and Table 34 but is not included in the set of indicators to be monitored at the store level. Section 1.2 describes the method in determining the set of indicators. Findings are presented in Section 1.3 and discussed in Section 1.4. Table 18 to Table 34 (Appendix i) present the rationale and profile for each of the indicators. Section 1.5 proposes recommendations for further development of the indicators and monitoring tool.

Table 1 Performance indicators presented in the context of the Australian Dietary Guidelines and existing measures for wider Australia

Dietary guideline	Indicators	Existing measures for food and nutrition monitoring in Australia
Eat plenty of vegetables, legumes and fruits	• Quarterly turnover of total fruit • Quarterly turnover of total vegetables • Proportion of fresh fruit to total fruit turnover • Proportion of fresh vegetables to total vegetable turnover • Percent of total fruit sales (dollar value) to total food sales (dollar value) • Percent of total vegetable sales (dollar value) to total vegetable sales (dollar value) .	• Apparent consumption of fruit and vegetables in Australia in kg/head/ year and in g/head/day • Proportion of adults (19+ years) by usual number of serves of vegetables – including potatoes (≤1; 2-3; ≥ 4 serves per day) and fruit per day – excluding fruit (≤1 or ≥2 serves per day ((1995 National Nutrition Survey (NNS))
Eat plenty of cereals (including breads, rice, pasta and noodles), preferably wholegrain	• Quarterly turnover of wholegrain and high-fibre bread • Percent contribution of wholegrain and high-fibre bread weight to total bread weight	• Apparent consumption of grain products (wheaten flour, breakfast foods, table rice, bread) in Australia in kg/head/year and in g/head/day • Average daily intake of cereals among adults (1995 NNS) • Proportion of adults meeting core food group target for cereals (1995 NNS) • Average daily intake of fibre among adults (1995 NNS)
Include lean meat, fish, poultry and /or alternatives	• Quarterly turnover of canned meats • Proportion of canned meat and lean meat cuts to total weight of meat and meat products • Availability of skinless chicken cuts, lean mince meat and lean meat cuts • Total weight of fish (fresh/ frozen and canned) sold by quarter • Percent contribution of total fish and seafood weight (fresh/ frozen and canned) to total meat and meat product weight • Availability of fish and seafood (fresh/ frozen) and canned fish	• Apparent per capita consumption of meat and meat products, poultry, seafood, nuts and eggs • Average intakes of meat and meat dishes, fish, poultry and alternatives among adults (1995 NNS)

Include milks, yoghurts, cheeses and/or alternatives: reduced fat varieties should be chosen, where possible	• Total turnover of all liquid and powdered milk products by quarter • Proportion of reduced fat milk and reduced fat flavoured milk to total milk turnover • Proportion of reduced fat plain milk to total plain milk turnover • Proportion of reduced fat flavoured milk to total flavoured milk turnover • Total weight of reduced fat cheeses by quarter • Proportion of reduced fat cheese to total weight of cheese • Availability of reduced fat cheese; reduced fat powdered milk; reduced fat liquid milk and reduced fat flavoured milk	• Apparent per capita consumption of milk and milk products (fluid whole milk; condensed, concentrated and evaporated milk - full cream and skim; powdered milk – full cream and skim; cheese) • Average intakes of milk products and dishes among adults (dairy milk, yoghurt, cream, cheese, frozen milk products, other dishes, milk substitutes, flavoured milks) (1995 NNS)
Limit saturated fat and moderate total fat intake	• Total weight of pies and sausage rolls sold by quarter • Percent contribution of pies and sausage roll sales to total food sales (dollar value) • Number of days out of 5 days that sandwiches, salads, hot dishes, boiled eggs, corn/cooked vegetable and fruit pieces are available for sale in the take-away outlet • Proportion of recommended oils and fats to total turnover of oils and fats	• Proportion of people consuming whole cow's milk (1995 NNS) • Average daily intake of fat (1995 NNS) • Average contribution of total fat as a proportion of energy intake (1995 NNS) •Average contribution of saturated fats as a proportion of energy intake (1995 NNS)
Choose foods low in salt	Considered in indicator "meat, fish, poultry and/or alternatives"	• Proportion of people who regularly add salt to food after it is cooked (1995 NNS)
Consume only moderate amounts of sugars and foods containing added sugars	• Total weight of all sugars sold (icing, castor, raw, brown and white) by quarter • Percent contribution of sugar sales to total food sales (dollar value) • Total weight of all confectionery sold by quarter • Percent contribution of confectionery sales to total food sales (dollar value)	• Apparent per capita consumption of sugars • Average daily sugar intake among adults (1995 NNS) • Proportion of total energy intake from sugars (1995 NNS)

1.1. Community store profile

As shown in Figure 1 two of the participating stores were located in Northern Queensland. Two participating stores were in the Northern Territory, one in the top end and the other in the centre. One of the other two stores was in Northern Western Australia and the other in North-Western New South Wales. Community 4 in the top end of the Northern Territory was the largest community with a population of approximately 800 Indigenous residents[25].

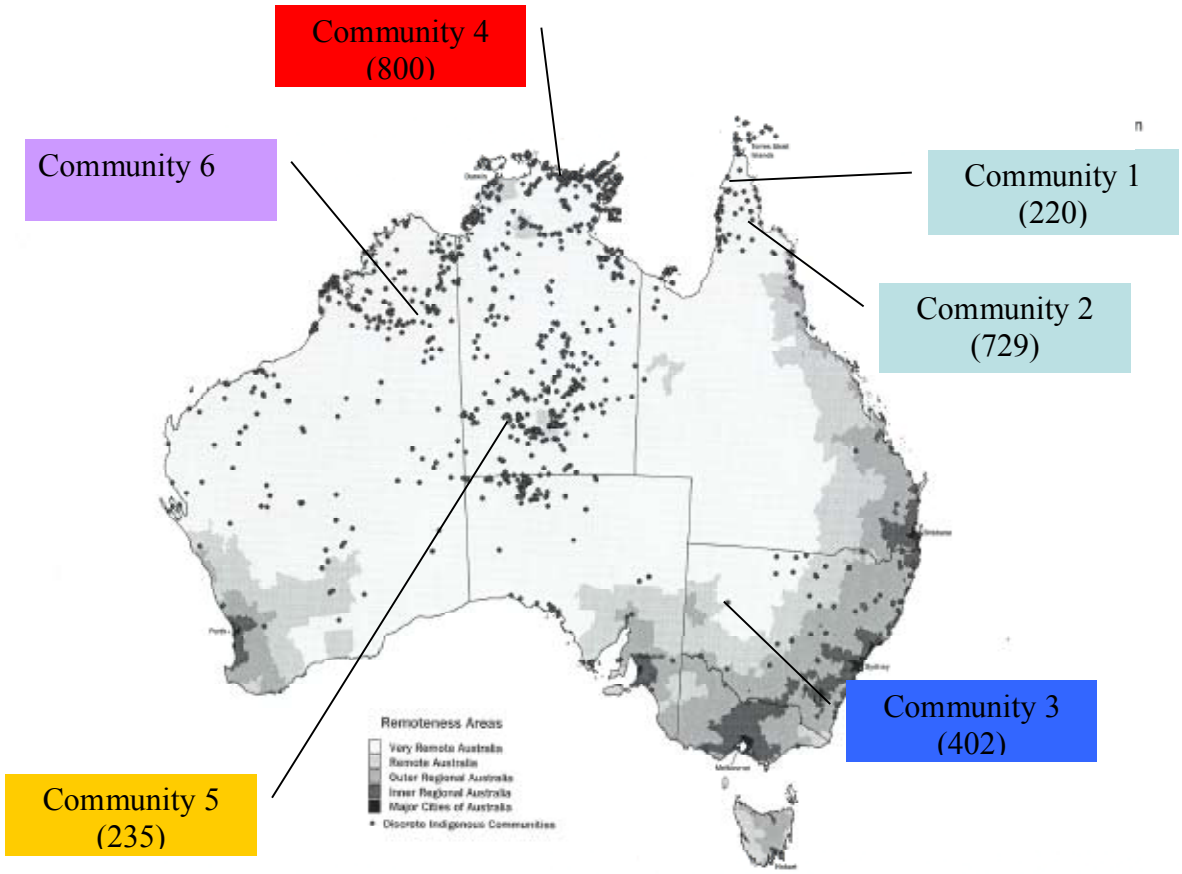

Figure 1 Map of Australia showing approximate location of participating community stores with community population size bracketed. Source ABS[26]

1.2. Method

Objective 1:

To develop a set of performance indicators based on the nutritional composition of foods sold through six community stores across remote Australia

The principles of the store-turnover method as detailed by Lee et al[5] were applied to assess the nutritional quality of the foods sold through each of the participating stores. In determining the set of indicators a number of analyses were performed to determine the key foods and food groups contributing to nutrient availability in the context of the Australian dietary guidelines. These analyses aimed to:

1 Determine the contribution of each of the main food groups to total food expenditure for each of the community stores

2 Determine the macronutrient profile of foods sold for each of the community stores and to compare macronutrient distributions to recommended macronutrient distribution ranges

3 Determine the contribution of each of the main food groups to total energy and macro nutrient availability (carbohydrate, protein, total fat, total sugars, total saturated fat and fibre)

4 Determine the limiting nutrients for each of the community stores based on actual and required community level nutrient densities

5 Determine major and moderate food sources for each of the macro- and micro-nutrients

6 Determine major food sources for each of the main food groups based on relative weight

Data collection

Point-of-sale food data were provided for each of the six community stores for the quarter - July, August and September 2006. Community 5 provided fortnightly data batches only. Three stores (community 3,4,6) provided store food data in both quarterly and fortnightly batches. All food items sold in the specified quarter period with accompanying unique identifier, unit weight, quantity sold, and dollar value, were compiled as an electronic product sales report by the store managers and saved as a text or excel file depending on the in-store scanning system. Three of the community stores used Grocery manager (Worldsmart Retech) and the other three stores used MYOB Retail manager. Dollar value was defined as the unit sales price. Once received by MSHR, electronic store data were directly imported into Microsoft Access.

Data Processing

Food Coding

Food items were matched with corresponding Composition of Food Australia (COFA) codes from the Australian Food and Nutrition database (AUSNUT 1999)[27] and NUTTAB 2006[28]. The AUSNUT sodium data file was downloaded from the Food Standards Australia New Zealand (FSANZ) website[27] and used with AUSNUT 1999. Edible portion percentages were derived from The Composition of Foods, (McCance and Widdowson)[29] and from NUTTAB 2006. Specific gravity values for the conversion of a volume measure to a weight measure were derived from AUSNUT 1999.

Each COFA code covers a range of food products that are similar in nutritional composition. The COFA codes do not account for all foods available through community stores, particularly composite foods. For the food items that could not be matched directly with a COFA code, a description of the food was sought on the internet or through product catalogues and a best match of the food with a corresponding COFA code was then made. The nutritional composition for nine food items was derived from other sources and included in the database as no best match could be made with an existing COFA code for these foods.

Food and beverage classification

Food items were categorised into main food groups, sub groups and further categorised into a "specific group". These food categories are presented in Appendix i, p40. Main- and sub-groups were defined according to the AUSNUT Food Grouping System[27]. Once key food indicators were determined for the purpose of monitoring tool, food items were further categorised into broader secondary main food groups and sub food groups called "main food groups new" and "sub food groups new". These are presented and defined in Appendix i, p40.

Food weights

For some food products it was possible to convert the information on the number of units sold into a mass or volume as this information was included with the food description. For the food categories where pack size information was not included as part of the item description, this information was obtained by either contacting the store manager and requesting the information, visiting the community store and sighting the product, searching the internet for product information, or visiting a supermarket and sighting product information. Weights for fresh fruit and vegetable produce were obtained from a Darwin supplier. These weights were checked against weights of the same product in a Darwin supermarket. Information on average meat packed weights was obtained from store managers.

Major and moderate food sources

Major food sources contributing to nutrient availability were defined as: foods contributing 10% or more of a specific nutrient[30]. Moderate food sources were defined as: food items contributing 4-<10% of a specific nutrient.

Data quality

Data were scrutinised during data entry, coding, and output processing for accuracy and quality. Fortnightly store data batches were checked against quarterly data batches for the three community stores where these data were available. Data entry and nutrition code assignment was performed by a single nutritionist. Data quality checks were made at a number of stages including the stage of data import, coding and output processing. Output data were checked with store managers, RIST committee members and/or nutritionists to identify anomalies.

Data analysis

Estimation of population

Population demographics as provided by the 2006 Australian Bureau of Statistics census data[31] were used to determine community level energy requirements and required nutrient densities. The number of pregnant and breastfeeding women for each community was estimated at 16 percent of the female population aged 14 to 50 years. This estimated percentage was derived from ABS 2006 birth data[32] (Table 9.2 Indigenous registered births, Australia p 76) and 2006 census data for women aged 13 to 54 years[33].

Estimation of nutritional adequacy

Nutrient availability was derived for 21 nutrients, including energy, carbohydrate, total sugars, protein, total fats, saturated fat, carbohydrates, fibre, vitamins and minerals. The Acceptable Macronutrient Distribution Ranges (AMDR)[34] were used to determine the macronutrient distribution of foods sold over the quarter for each of the community stores.

Nutrient Density

The amount of each nutrient provided per MJ through each of the community stores was calculated and presented as a percentage of the required nutrient density. The required nutrient density was derived from the Estimated Average Requirements and Estimated Energy Requirements calculated for each age and sex group for each of the participating communities (including pregnant and lactating women).

Estimated Energy Requirements for the different age-groups (1-3yrs; 4-8yrs; 9-13yrs; 14-18yrs; 19-30yrs; 31-50yrs; 51-70yrs; >70yrs) and sex groups were calculated based on the Estimated Energy Requirement Tables 1-3 displayed in the Nutrient Reference Values for Australia and New Zealand[34] (Table 15). In calculating the Estimated Energy Requirements for adults in the age categories extending 19->70 yrs, the mid-point height and weight of each adult age-group was used. For those <18 yrs, the mid-point of the Estimated Energy Requirement range across each of the age and sex categories as displayed in Tables 1-2 of the Nutrient Reference Values for Australia and New Zealand[34] was used to determine an Estimated Energy Requirement for each age-group. The level of energy expenditure was estimated to be 1.6 basal metabolic rate (BMR) for both sexes and age-groups.

Nutrient density values for each of the six communities were determined by applying the

Estimated Average Requirements for each age and sex category (including the estimated proportion of pregnant and lactating women) and determining an estimated average requirement per 1000 kJ based on the estimated energy requirement calculated for each age and sex category (Table 15). A community level recommended value per 1000 kJ for each of the nutrients was derived by summing the nutrient value per 1000 kJ for each sex and age category and dividing by the total population (Table 14). For potassium and sodium where EAR's are not available, the Upper Limit value was used for sodium and the Adequate Intake (AI) value was used for potassium.

The amount of each specific nutrient provided per 1000 kJ through each of the community stores was calculated and presented as a percentage of the required nutrient density based on community level estimations.

Nutrient density – wider Australia

For comparison purposes nutrient densities were calculated for wider Australia based on dietary intake data and population demographics extracted from Table 5: Mean Daily Vitamin and Mineral Intake and Apprendix 1: Population estimates and sample counts of the 1995 National Nutrition Survey (NNS) report[30].

Nutrient density – Remote NT 1980s

The nutrient density profiles reported in the 1980s for three northern coastal communities and three central Australian communities were derived from Lee's unpublished thesis, Table 2.8 Apparent nutrient intake measured by the store-turnover method[35].

Food expenditure

Available store data on the dollar value of food purchased was used to determine the contribution of main food groups to total food expenditure.

Statistical Analysis

Data were analysed using linear regression with categorical variables relating to the four individual stores that provided fortnightly point-of-sale data batches. As there were obvious differences (using test for heteroscedasticity) between the stores robust regression was carried out[36].

Objective 2:

To design an automated system linked to point of sale scanning software to report on the performance indicators

The reporting system was designed using Microsoft Access. A program was written to enable food sales data generated at the store level and saved as a text or excel file to be imported into a Microsoft Access stores database. On importing the store food sales data to a temporary table within the stores database, a program was written to step the data importer through four steps to prepare the food sales data for reporting. These steps remove non-food items from the data to be imported, identify and rectify PLU mismatches and assign food groupings and weights or

volumes for each of the new food items to be monitored.

Queries were designed to capture and process the required data to report on each of the selected indicators. A report was designed based on these queries (Appendix ii).

Objective 3:

To develop an operation manual for the reporting system

The operation manual provides instructions on the food sales data import into the Microsoft Acess store database and the data processing steps. It provides a guide on assigning food groupings to food items and lists average weights for a variety of fruit and vegetables.

Objective 4:

To test the monitoring tool in two communities

The monitoring tool was tested in two communities. One of these communities was community store 4. The other community store was an ALPA member store in North East Arnhem Land. The ALPA store did not participate in the RIST project but has had a long association with MSHR in relation to store based interventions and in the development of store monitoring and evaluation systems. The ALPA store services a large community of between 1500 to 2000 people. The store manager had managed the store for three months and had introduced over 100 lines into the store as well as deleting non-active lines from the store scanning system. The store manager in community 4 had been working in the store for nearly 12 months but had only recently been appointed store manager.

A visit to each of these communties for testing the tool was organised by the author through the relevant store managers with permission from the community councils. In testing the monitoring tool, the store managers generated a food sales report for the quarter July to September 2007. The scanning software associated with Community store 4 was MYOB Retail Manager and that for the ALPA community store was Worldsmart Retech Grocery Manager. The food sales report generated for Community store 4 was saved as an excel tab delimited file. In the ALPA community store the food sales report was saved as a text file.

The store food sales report was then imported into the Microsoft Access reporting system either using the author's laptop or the store computer if Microsoft Access was available. In community store 4 the import was performed by the store manager. In the ALPA community store this was performed by the ALPA nutrition manager. In both locations the store managers were asked to refer to the operating manual for instruction on the import process. The author made and recorded observations of this process. Once the import process was complete and the indicator report generated, the author asked a set of standardised questions to gain feedback on the import process, indicator report and use of the monitoring tool in general.

1.3. Results

Data quality

For the three community stores (community stores 3,4 and 6) where data were provided for the July to September period in a complete quarter batch and corresponding fortnightly batches, there were negligible differences in the total number of products counted between the quarter and fortnightly data sets as shown in

Table 2. This provides confidence that all foods sold in the July to September period were included in the product sales report generated by the store manager and provided to MSHR for analysis.

Table 2. "Turnover" and average unit cost by store

Store 2006	Data batch	Total no. products sold	"Turnover" = Average no. of units sold per product available	Average unit cost ($)	Community population size
1	Qrt	762	66	2.46	220
2	Qrt	1464	60	3.20	729
3	Fnt	2578	32	2.86	402
3	Qrt	2581	29	3.23	
4	Fnt	883	109	3.13	800
4	Qrt	883	109	3.13	
5	Fnt	535	115	3.29	235
6	Fnt	682	110	3.12	n/a
6	Qrt	682	110	3.13	

Table 2 demonstrates that community stores 2 and 3 sold a greater variety of food products for the quarter period compared to the other community stores and turned over less units per food product. The average food "unit cost" ranged from $2.80 for community store 1 to $3.29 for community store 5.

Objective 1:

To develop a set of performance indicators based on the nutritional composition of foods sold through six community stores across remote Australia

Step 1 Contribution of main food groups to total food expenditure

As shown in Table 3 the main food groups contributing to total food expenditure for each of the six community stores were "cereals and cereal products", "meat and meat products" and "beverages". The "milk and milk products" food group was a major contributor to total food expenditure for community stores 1, 3 and 4. The contribution of fruit and vegetables combined, to total food expenditure ranged from 6.5 percent for community store 6 to 12.4 percent for community store 2.

Table 3. Percent (%) contribution of main food group to total food expenditure (%), by store

Main food group	1	2	3	4	5	6
Fish & seafood	1.7	0.9	1.4	1.8	0.8	2.9
Infant products	0.8	1.5	0.9	0.4	0.8	0.9
Fats & oils	1.8	3.1	3.3	1.3	1.5	1.7
Fruit1	4.0	5.3	1.4	4.1	9.1	2.1
Vegetables	6.7	7.1	8.2	6.6	1.1	4.4
Sauces, pickles etc	5.0	4.9	6.7	2.6	6.7	5.5
Sugar & Confectionery	6.0	7.2	6.7	6.7	4.4	7.0
Milk & Milk Products	10.3	9.9	17.1	12.4	5.1	6.9
Beverages	23.0	21.00	15.9	21.3	22.1	19.0
Meat & Meat Products	20.1	20.8	18.5	22.6	23.5	21.9
Cereals & cereal products	20.6	18.3	19.9	20.2	25.6	27.7

[1] The contribution of fruit to total store turnover for community 5 may be an over-estimation as unspecified fruit and vegetable packs were entered into the database as "fruit" and assigned a nutrition code for fruit.

Step 2 Macronutrient profile

The percent contribution of individual macronutrients to total energy availability for each of the six community stores is shown in Table 4. Most of the energy available through each of the community stores was derived from total carbohydrate with relatively lower proportions of protein. Total sugars contributed disproportionately to energy availability. The contribution of fat to energy availability was highest for community store 3 and lowest for community stores 4 and 5. For each of the community stores the contribution of total saturated fat to total energy availability was greater than that of ≤10 percent as recommended in the Nutrient reference values of Australia and New Zealand[34].

The mean and standard deviation for each of the macronutrients as a percentage of total energy availability is also shown in Table 4. Mean values were derived from the four community stores where fortnightly data batches were provided.

Table 4. Percent (%) contribution of macronutrients to energy availability by store, July to September, 2006

Store	Protein	Fat	Carbohydrate	Total sugars	Total saturated fat
1	10.4	31.4	57.3	28.6	12.2
2	12.1	34.5	53.0	32.4	13.3
3	12.3	38.8	48.5	26.1	14.6
4	11.6	29.7	58.3	35.6	11.0
5	10.9	29.7	58.5	28.6	10.8
6	12.1	33.4	53.6	25.5	12.4
Mean	13.0 (2.28)	34.1 (5.1)	52.2 (7.16)	27.3 (4.85)	12.98 (2.27)
Acceptable macronutrient distribution	15 – 25	20-35	45-65		≤10

Step 3 Contribution of main food groups to macronutrient availability

Energy

Table 5. Percent (%) contribution of main food groups to total energy availability for 6 stores, July to September 2006

Main food group	1	2	3	4	5	6
Infant products	0.1	0.2	0.1	0.1	0.0	0.1
Fish & seafood	0.4	0.3	0.5	0.6	0.2	1.0
Fruit	2.5	1.9	0.7	0.9	3.2	0.7
Vegetables	2.2	2.9	3.9	3.9	0.8	3.9
Sauces, pickles etc	3.9	3.4	3.5	1.7	5.0	3.2
Fats & oils	9.9	12.3	13.9	7.3	9.1	8.5
Meat & Meat products	6.9	12.9	13.9	11.4	6.5	11.4
Beverages	12.9	12.3	9.4	12.2	9.9	9.4
Milk & Milk products	12.6	12.3	14.0	12.6	8.1	8.0
Sugar & confectionery	7.7	13.9	9.4	16.7	12.2	12.3
Cereals & cereal products	40.8	27.7	30.7	32.7	44.9	41.5

"Cereal and cereal products" contributed most to energy availability across all six stores as shown in Table 5. The "beverages" and "sugar and confectionery" food groups combined contributed approximately twenty percent or more to energy availability across all stores except for community 3. This is in contrast to fruit and vegetables where these food groups combined contributed between 4.0 percent to 4.8 percent to total energy availability.

Protein

Table 6. Percent (%) contribution of main food group to total protein availability for 6 stores, July to September 2006

Main food group	1	2	3	4	5	6
Infant products	0.1	0.1	0.1	0.1	0.1	0.1
Fats & oils	0.2	0.3	0.4	0.1	0.3	0.2
Beverages	1.6	2.2	1.3	2.1	1.6	1.8
Fruit	1.3	0.1	0.4	0.5	0.8	0.4
Fish & seafood	1.6	0.8	1.3	1.6	0.7	1.9
Sugar & confectionery	1.6	1.1	1.4	0.6	0.7	1.1
Sauces, pickles, etc	3.0	1.9	2.4	1.3	3.1	1.9
Vegetables	4.1	4.3	5.7	3.8	1.1	3.1
Milk & Milk products	18.8	19.5	21.2	19.6	14.6	13.2
Meat & Meat products	21.8	41.2	36.9	35.0	18.4	30.8
Cereals & cereal products	45.8	27.4	29.0	35.4	57.8	45.6

The "cereal and cereal products", "meat and meat products" and "milk and milk products" food groups were major contributors to protein availability across all six community stores as shown in Table 6.

Fat

Table 7. Percent (%) contribution of main food group to total fat availability for 6 stores, July to September 2006

Main food group	1	2	3	4	5	6
Infant products	0.1	0.2	0.1	0.1	0.0	0.1
Fruit	0.5	0.6	0.1	0.1	0.2	0.1
Fish & seafood	0.6	0.4	0.7	1.1	0.4	1.7
Beverages	0.6	1.1	0.6	1.2	1.0	1.3
Sugar & confectionery	3.3	2.8	2.9	1.3	2.2	3.3
Vegetables	0.4	0.7	1.0	5.1	0.4	5.6
Sauces, pickles, etc	3.3	4.8	3.9	2.5	8.3	4.8
Milk & Milk products	19.8	18.4	18.0	20.3	13.9	12.0
Cereals & cereal products	22.3	13.3	13.6	20.2	28.9	24.4
Meat & Meat products	14.1	21.9	23.5	23.2	14.1	21.1
Fats & oils	31.9	35.8	35.5	25.0	30.7	25.6

As shown in Table 7, across all six stores "fats and oils" as a food group contributed most to total fat availability. The "meat and meat products", "cereal and cereal products" and "milk and milk products" food groups were major contributors to total fat availability.

Total Saturated Fat

Table 8. Percent (%) contribution of main food group to total saturated fat availability for 6 stores, July-September 2006

Main food group	1	2	3	4	5	6
Fruit	0.2	0.3	0.1	0.0	0.0	0.0
Infant products	0.1	0.2	0.1	0.1	0.0	0.1
Beverages	0.3	0.4	0.4	0.2	0.2	0.1
Fish & seafood	0.5	0.3	0.5	0.8	0.3	1.5
Vegetables	0.2	0.4	0.6	3.4	0.4	3.9
Sugar & confectionery	4.8	3.9	4.5	2.0	3.2	4.3
Sauces, pickles, etc	6.6	4.7	3.2	2.5	9.0	4.4
Fats & oils	16.3	21.6	21.6	14.1	18.1	17.3
Meat & Meat products	13.0	22.6	23.6	21.8	13.9	21.9
Cereals & cereal products	25.2	14.4	14.2	19.5	30.2	25.3
Milk & Milk products	33.0	31.2	31.3	35.7	24.7	21.1

The "milk and milk products", "cereals and cereal products", "meat and meat products" and "fats and oils" food groups were major contributors to total saturated fat availability as shown in Table 8.

Fibre

Table 9. Percent (%) contribution of main food group to fibre availability for 6 stores, July to September 2006

Main food group	1	2	3	4	5	6
Fats & oils	0.0	0.0	0.0	0.0	0.0	0.0
Fish & seafood	0.1	0.1	0.1	0.1	0.0	0.3
Infant products	0.2	0.1	0.0	0.5	0.1	0.1
Milk & Milk products	0.5	0.2	0.4	0.7	0.3	0.2
Beverages	2.6	2.8	2.0	2.3	0.8	0.8
Sugar & confectionery	1.9	2.2	1.9	1.2	1.5	2.5
Meat & Meat products	2.0	4.5	7.4	3.1	1.8	3.6
Fruit	13.9	12.8	3.5	6.1	14.6	4.3
Sauces, pickles, etc	9.3	8.1	7.5	4.8	9.7	8.3
Vegetables	19.2	24.1	28.2	21.6	4.2	15.7
Cereals & cereal products	50.3	45.0	48.8	59.6	67.0	64.3

As shown in Table 9 “Cereal and cereal products” was the food group that contributed most to fibre availability across all six participating stores, followed by the fruit and vegetable food groups combined.

Sugars

Table 10. Percent (%) contribution of main food group to total sugar availability for 6 stores, July-September 2006

Main food group	1	2	3	4	5	6
Fish & seafood	0.0	0.0	0.0	0.0	0.0	0.0
Infant products	0.1	0.2	0.2	0.1	0.0	0.1
Meat & Meat products	0.2	0.2	0.4	0.2	0.2	0.2
Fats & oils	0.1	0.2	0.2	0.1	0.1	0.1
Sauces, pickles, etc	1.6	1.4	2.6	0.7	1.2	1.6
Vegetables	2.0	2.0	2.7	1.1	0.3	1.3
Fruit	7.0	4.3	2.2	2.1	9.4	2.5
Cereals & cereal products	6.1	4.8	9.6	4.4	6.9	6.6
Milk & Milk products	15.9	11.3	16.5	12.2	8.0	9.3
Beverages	44.3	35.9	34.6	32.6	32.7	34.3
Sugar & confectionery	22.7	39.9	30.9	46.6	41.1	44.0

In all six stores Table 10 shows that more than sixty percent of total sugar availability was derived from the “beverages” and “sugar and confectionery” food groups.

Step 4 Determining the limiting nutrients for each of the community stores based on actual and required community level nutrient densities

On examining each of the community store’s nutrient density profile against the community level required nutrient density profile as shown in Figure 2 to Figure 7 (Appendix i, p40), there were deficits in magnesium, calcium, folate, and potassium and an excess of sodium across all community stores. Zinc was shown to be a limiting nutrient for community stores 1 and 5.

The energy provided through each of the community stores was less than that required for each of the participating communities as based on the community level Estimated Energy Requirements[34]. The proportion of the required community level Estimated Energy Requirement provided by the store is presented in Figure 2 to Figure 7. Community store 4 (Figure 5) contributed the least (40%) to the community level Estimated Energy Requirement and community store 3 (Figure 4) contributed the most (97%). In communities other than community store 3 this suggests that community members are accessing a significant portion of their energy requirements from food sources other than the community store. In the case of community store 3 it is likely that due to the proximity of the store to a major travel route through "outback" NSW, a greater population than that of the community are accessing the store.

Determining limiting nutrients at a community level is dependent on the nutrient density profile of other food outlets and food sources. Unless community members are accessing a disproportionately high proportion of energy requirements from traditional food sources that are generally nutrient dense, the nutrient density profiles presented in this report are likely to be representative of the community level nutrient density profile.

In contrast to that previously reported by Lee et al[5], vitamin C and thiamine did not appear to be limiting nutrients across the six community stores (Table 11). Across all six community stores juice and fresh vegetables were major sources of vitamin C. This is shown in Table 17 (Appendix i, p40). The importance of "cereal and cereal products" in people's diets and the fortification of bread, flour and breakfast cereals is likely to have resulted in thiamine not being a limiting nutrient as reported previously.

As shown in Table 11 the nutrient density for all nutrients (excluding those not available for wider Australia) were less than that for wider Australia as derived from the 1995 National Nutrition Survey (NNS).

Table 11. Nutrient density profile for community stores 3,4,5,6 compared to wider Australia and NT communities in the 1980s

Nutrient per 1000kj		Mean (SD)	NNS 1995[37]	Central Australian (NT)[35]	Top End (NT) [35]
Fibre	g	1.58 (0.17)	n/a	1.02	0.98
Protein	g	7.98 (1.46)	9.6	7.85	5.59
Potassium	mg	204.3 (35.9)	345.5	n/a	n/a
Iron	mg	1.08 (0.09)	1.5	1.37	0.77
Calcium	mg	69.02 (4.78)	93.6	58.46	51.33
Phosphorus	mg	131.72 (19.97)	162.2	n/a	n/a
Magensium	mg	22.2 (1.52)	34.6	n/a	n/a
Zinc	mg	0.98 (0.25)	1.3	1.10	0.71
Thiamine	mg	0.16 (0.02)	0.18	0.09	0.08
Riboflavin	mg	0.15 (0.03)	0.23	0.13	0.09
Niacin Equivalents	mg	3.17 (0.66)	4.4	n/a	n/a
Total folate	µg	20.76 (1.94)	28.2	n/a	n/a
Vitamin C	mg	6.04 (0.10)	13.4	7.72	3.14
Sodium	mg	322.78 (67.7)	n/a	302.44	212.74
Vitamin A equivalents	Ret.eq	70.65 (12.07)	124.3	24.07	39.44
β-carotene	µg	135.56 (41.56)	n/a	28.67	74.35

Steps 5 & 6 Determining major and moderate food sources for each of the macro- and micro- nutrients and determining major food sources for each of the main food groups

Information on the main food sources of each nutrient reflects both the amount of food consumed and the level of nutrient found in the food[37]. Evident from Table 16 and Table 17 (as shown in Appendix i, p40) is that for each of the macro- and micro-nutrients there are key foods across the six community stores that contribute significantly to nutrient availability. Key foods contributing to nutrient availability and their relative contribution to the total weight or volume are presented in the following section in relation to the main food groups. The relative contribution of these key foods to the total weight or volume of the main food group is presented in Table 12.

Beverages

Non diet cordials and soft drinks contributed most in volume to the "beverages" food group as shown in Table 12. Across the six community stores non diet softdrinks contributed between 16 to 30 percent to total sugar availability and between 5 and 9 percent to total energy availability as shown in Table 16. Fruit juice was a major source of vitamin C. Tea was a major folate source in two community stores and a moderate folate source in the other four community stores.

Cereal and cereal products

Table 16 shows that for the six communities bread and/or flour were the major cereal products contributing to energy availability. Bread was a major energy source for community stores 3, 4, 5 and 6 and a moderate energy source in community stores 1 and 2. Bread and breakfast cereal (mostly weetbix) were moderate sources of fibre across each of the six stores. Bread was a major protein source for community stores 1,3,4,5 and 6.

Breakfast cereals and bread were major sources of folate availability in all community stores (Table 17). The main breakfast cereal contributing to folate was weetbix. As with folate availability, a large proportion of the iron available through the community stores was derived from fortified cereal products, mainly flour, bread and weetbix. Bread was also a major source of calcium. Bread, breakfast cereals and flour were major sources of thiamine, niacin and magnesium. Bread was also a major zinc source and was the major source of sodium in all communities except community store 1 where soy sauce was the prime sodium source.

Meat pies were a major protein source for community store 5 and a moderate protein source for community stores 1,2 and 6. Pies and sausage rolls were a major saturated fat source in community stores 1 and 5 and biscuits were a moderate saturated fat source across all six community stores. Meat pies were a major source of zinc in community 1 and 5.

In all community stores bread and flour contributed most to the total weight of the cereal and cereal products food group except for community 1 where rice substituted flour as a major cereal product (Table 12).

Fruit and vegetables

Vegetables (mostly fresh vegetables) were a major fibre source across all six stores. While the contribution of both fruit and vegetables to total energy availability was minimal, vegetables particularly, and fresh fruit, contributed significantly to fibre and micronutrient availability. Fresh vegetables and fruit were major sources of available vitamin A equivalents, beta-carotene, magnesium, vitamin C and total folate.

Table 12 shows that across all community stores fresh fruit contributed most to the total weight of fruit sold. This was the same for fresh vegetables except for community store 5 where canned and frozen vegetables contributed most to vegetable turnover.

Meat and meat products

Processed meat was a major protein source for community 1,2,3 and a moderate protein source in all other stores. Across all community stores processed meat (mainly as canned meat) was a major iron source and a major zinc source. Processed meat was a major contributor to saturated fat and total fat availability for stores 2 and 3, and a moderate source in all other community stores. Beef was a major protein source in community store 2 and a moderate protein source in community stores 3 and 4.

Processed meats and chicken were major contributors to the total weight of meat and meat products sold in all stores except community 3 (Table 12) . Relative to weight, eggs also were a major product in the meat and meat product food group across all stores, except community store 5.

Milk and milk products

As shown in Table 16 milk was a major protein source in all community stores. Milk was a major energy source for community 3 and a moderate energy source for all other stores.

Milk was a major saturated fat source across all six communities as shown in Table 16 and a major total fat source across all six communities except community 5.

Milk was a major source of calcium, magnesium, riboflavin, potassium, phosphorus, retinol equivalents and zinc. In most communities around one half of the calcium available through the store was provided by liquid and/or powdered milk.

In all stores milk (liquid and powdered) contributed most to the total weight of milk and milk products sold (Table 12).

Sugar and confectionery

Table sugar, per se, was a major contributor to energy availability for stores 2 and 4 and a moderate source of energy in all other stores. As shown in Table 16 the major food items contributing to energy availability across all six stores were table sugar (in community stores 1,2,5 and 6 this was mostly as raw sugar), softdrinks and cordial. Together these foods contributed around fifty percent to total sugar availability across the six stores. Across the six stores sugar alone contributed between 20 to 42 percent to total sugar availability and 4 to 15 percent to total energy availability.

It is evident from Table 12 that in relation to weight table sugar contributed most to the "sugar and confectionery" food group (46 to 85% across the community stores). In relation to weight sold, sugar, confectionery and icecream were all major "sugar and confectionery" products for community store 1.

Fats and oils

As shown in Table 16 margarine was a major contributor to total fat availability across all six stores. Oil was a major contributor to total fat availability for community stores 1 and 2 and a moderate total fat source in all other communities. Margarine was a major saturated fat source for community store 5, and a moderate saturated fat source for all other communities.

Table 12. Percent (%) contribution of sub food group to total weight of main food group (where ≥10%)

Dietary Guidelines for Australians	Percent (%) contribution of sub-food group to total weight of main food group where percent contribution is ≥ 10% for each community store					
	1	2	3	4	5	6
Eat plenty of vegetables, legumes and fruit						
Fruit						
Fresh	96	88	78	82	97	87
Canned			19	12		12
Vegetables						
Fresh	87	88	80	61	21	61
Frozen			11	20	18	20
Canned					50	
Eat plenty of cereals, preferably wholegrain						
Cereals & cereal products						
Bread	26	27	58	38	50	41
Flour	15	26	10	16	12	11
Pies/sausage rolls	14	11			12	11
Rice	22					
Prepared cereals				15		18
Include lean meat, fish, poultry &/or alternatives						
Meat & meat products						
Beef		36	10	15		
Chicken	23	12		17	48	27
Egg	30	16	13	16		10
Prepared meats			23	30	16	16
Processed meats	41	28	46	22	33	28
Include milks, yoghurts, cheeses and reduced fat varieties should be chosen where possible						
Milk & milk products						
Icecream/dessert (milk based)	26			22	21	14
Milk	70	89	87	73	68	78
Consume only moderate amounts of sugar and sugary foods						
Sugar & confectionery						
Confectionery	34	15	29		10	16
Icecream/dessert	10					
Preserves					25	
Sugar	46	73	60	85	65	72
Beverages						
Cordial/fruit drink	13	20	17	33	15	20
Juice	11	13			11	
Aerated added sugar drinks	64	63	55	53	34	53
Soft drink diet			10		36	15

Key food indicators were determined based on the results as reported for Objective 1, Steps 1 to 6. The profile and rationale for each of the indicators are presented in Table 18 to Table 34, Appendix i, p40. The indicators are presented in relation to eight of the topic areas of the Dietary Guidelines for all Australians. For each indicator topic there are two tables presented.

The first table presents the scientific bases and rationale for the indicators; linkage with other indicator topics; indicator definitions and alternative measurement methods. The second table presents information relating to the actual measurement and the measurement requirements.

Objective 2:

To design an automated system linked to point of sale scanning software to report on the performance indicators

The challenge in developing a monitoring tool compatible across all store scanning systems was in establishing the Bar code or Price Locked Unit (PLU) as the unique identifier. A PLU is a store assigned code and is generally assigned to food items packaged or prepared at the store level. Where barcodes are standardised, PLU's are not standardised and differ and overlap between stores. The monitoring tool has been designed to be used at an individual store level or at a regional or store group level where PLUs are standardised or where a process is applied to match mismatched PLU's with previously entered PLU's as they are entered into the system.

An example of the report associated with the monitoring tool is presented in Appendix ii, p90.

A community store can be considered as a system consisting of different interconnecting components. Previous work with an ALPA community store identified key store components where their operation influenced the nutritional quality of the store food supply. These were supply, infrastructure, product placement, marketing and promotion and workforce development and training. These system components have been included under each reported topic area as shown in the report in Appendix ii, p90 to assist with planning for improvement.

Objective 3:

To develop an operation manual for the reporting system

The operation manual provides instruction on the steps required for the food sales data import and the data processing procedures to generate a report. Use of the operation manual was tested in the two test sites and modified accordingly. The operation manual is available as a separate document.

Objective 4:

To test the monitoring tool in two communities

Community 4

The initial difficulty for the store manager in using the monitoring tool was in saving the food sales report to disc. While the store manager was familiar with the MYOB Retail Manager system, she had not previously saved a food sales report to disc. Once the food sales report was saved to disc the import process was straightforward.

The day the author had organised to test the monitoring tool with the store manager turned out to be a day when a number of staff were "off sick". Within the 30 minute period of saving the food sales report and importing the food sales data into the monitoring system, the store

manager received five telephone calls and was interrupted numerous times with queries from store staff. In this context it was difficult for the store manager to take the time to read through the manual in detail and progressively work unassisted through the importing process instructions. However once the store manager was clear on the instruction for each step, no further assistance was required from the author. The import was successful and a report was generated and printed. The report generated presented data for the 2006 and 2007 third quarter for each of the indicators.

The store manager did not rank the use of this monitoring tool as a priority. However she considered it to be a useful tool for assisting in setting performance targets and in providing feedback to the community intersectoral group and council which in this community have an active interest in the store in relation to nutrition and health. While the store manager was concerned that the use of this tool was an additional task to an already long list of things to do on a quarterly basis, she had no objections to a second person using the monitoring tool and doing the import with her assistance. The store manager however could think of no-one in the community who would take this on as an extra task. The store manager stated that the previous government public health nutritionist had worked well with the store and intersectoral community group and would have been well placed to use this tool in collaboration with the store manager. The store manager however was not aware of a government nutritionist service presently being provided to the community.

The upward and downward trends for each of the indicators between the 2006 third quarter and the 2007 third quarter as depicted in the indicator report were as the store manager expected based on the interventions that had occurred over the year to improve the nutritional quality of foods available through the store. In reference to the indicators that reported on turnover (weight or volume sold in the quarter), the store manager commented that an upward or downward trend could represent a "real" shift in sales of the targeted food or could indeed be an artefact due to a general increase in store sales observed over the year. Despite this perceived ambiguity, upward trends were observed for the recommended foods and downward trends were observed for the foods not recommended as part of the store intervention. To assist with the interpretation of the indicators reporting on turnover the store manager thought it would be useful to relate turnover to population size.

The store manager considered the report "easy to read" and thought the key community people and intersectoral committee members would be interested in viewing the report and would not have problems in understanding it. The store manager was keen to feedback the report to the council Chief Executive Officer (CEO).

ALPA community store

The store manager stated that he had approximately doubled the turnover of fruit and vegetables since his arrival and was keen for the indicator report to verify this. The ALPA nutrition manager was invited by the store manager to participate in the testing of the monitoring tool. The store manager generated an "item movement report" for the quarter July to September 2007 and saved it to the author's data disc as a text file. Obvious non-food item categories were purposefully excluded from the item movement report. As Microsoft Access was not available on the store computer, the data import was carried out on the author's laptop. This was performed by

the ALPA nutrition manager. While the system allowed the ALPA nutrition manager to work consecutively through each of the data processing steps, a fault in the system prevented the sales data from being imported. This was rectified and the import was successful.

The import process required approximately one hour to complete. This was because many new lines had been introduced into the store and had not previously been imported into the Microsoft Office store database. The 1380 food items to be imported into the reporting system were firstly checked for non-food items. Each of the new food items not previously imported into the system required a weight and an assigned food group.

Despite the time required to complete the import both the store manager and ALPA store manager were very positive about the monitoring tool. The store manager indicated that it would be difficult for a store manager to allocate the time required to use the monitoring tool. He viewed this as an important role of the ALPA nutrition manager. On viewing the report, the store manager stated that the report needed to contribute to ALPA's Key Performance Indicators particularly as nutrition and health were priority areas for ALPA. He also considered the report to be an important tool for the ALPA nutrition manager to feedback to the board of directors on progress towards nutrition goals. The report verified the doubling in fruit and vegetable turnover that the store manager expected.

1.4. Discussion

This report has detailed the development of a tool to monitor the nutritional quality of food available through remote community stores which has potential to provide feedback for planning and policy evaluation at the community, State and Territory, and National levels. Most importantly, a monitoring tool that can be applied at the community level supports the ideals of empowerment and participatory action evaluation[38]. This is significant for Indigenous Australians as governance of the food supply at the community level has been considered pertinent in achieving positive change in the nutritional quality of the food supply[11] and concomitant community level nutritional status[21;23]. The strength of this tool is that it does not require the input of external evaluators and can provide timely feedback to inform planning and strategy development and evaluation.

Objective 1
To develop a set of performance indicators based on the nutritional composition of foods sold through six community stores across remote Australia

The monitoring tool comprises a set of indicators that report on key foods and food groups that were shown to contribute significantly to nutrient availability and that reflected identified nutritional concerns. A monitoring system that is based on indicator foods rather than nutrients serves two purposes: firstly to focus store managers and other key stakeholder's attention on the foods that need modifying to improve nutrition and, secondly to direct the focus and limited resources on the key dietary problem areas in remote communities. The Dietary Guidelines for Australian Adults[1] and for Children and Adolescents[39] recommend or discourage particular foods and food groups. Past interventions to improve community level dietary quality have also been achieved through targeting specific foods and food groups[21;21;23]. For example, a community-based nutrition intervention conducted with the Minjilang community in Northern Australia promoted an increased consumption of fruit and vegetables, wholemeal bread, fruit juice, diet drinks and sandwiches and discouraged high fat take-away foods, sweet drinks and sugar per se. Lee & Bailey[23] through measuring the turnover and apparent consumption of these indicator foods and food groups demonstrated an intervention effect which reflected nutrient changes and corresponding changes in serum biochemical markers.

Subsequent community-based interventions have also targeted similar foods and food groups and reported on shifts in the sales of these foods in relation to intervention effect[15;21]. A recent unpublished study[40] in a remote community showed that modifying the current turnover of key selected foods and food groups available through the community food outlets, in accordance with the Australian Dietary Guidelines and recommended amounts as specified in the Dietary Guidelines for Australian Adults[1], resulted in a diet that met and/or exceeded the minimum required nutrient density for all nutrients except for potassium. Evidence from these previous studies noted above suggests that modifying the key indicator foods and food groups as proposed in this report to either increase or decrease their contribution to the community store food supply can impact significantly on the nutritional quality of the food supply and most importantly on community level nutritional status in general.

A monitoring tool such as the one presented in this report, that involves tracking selected indicator foods and food groups requires reliable and regular food sales data but does not require regular

detailed analyses of the nutritional composition of food available in different community food outlets and settings. Hence its appeal as a simple tool and its potential applicability at both the community and national levels.

The indicators proposed and detailed in this report have been developed on the basis that at present there are a limited number of key foods that contribute to overall dietary intake. It is important to note that as new issues emerge or as people's food choices diversify new indicators to those presented in this report will need to be developed, while older ones may cease to be relevant[4].

Baselines for each of the performance indicators, and outcome targets, were considered in developing the performance tool. Two levels of targets are needed in developing a performance indicator: performance outcome and intermediary targets[41]. A number of the indicators proposed in this report lend themselves to easily setting outcome targets, for example those pertaining to fruit and vegetables as for these foods there are national recommendations pertaining to intake from which to set long term outcome targets. For other indicators however there is no evidence base from which to set outcome targets, except to indicate an upward or downward trend in relation to the indicator measure. For these indicators, a process of consensus at the national level that draws on best "expert" advice and an accumulated evidence base of comparative store data, is required in determining long term and intermediary outcome indicators. In establishing intermediary targets, available resources such as existing capacity, budgets, personnel, infrastructure, time-frames and previous trends need to be considered[41]. These targets once developed will provide an important guide for store managers and other key stakeholders to set realistic store level intermediary targets so as to plan strategies for improvement.

Objective 2
To design an automated system linked to point of sale scanning software to report on the performance indicators

The monitoring tool presented in this report has been designed to provide feedback to inform timely planning and decision making concerning the nutritional quality of food available for purchase. Information routinely collected at the community level could inform the development of effective strategies to improve the nutritional quality of the food supply through involving stakeholders in an ongoing cyclical process of planning, action and reassessment. Further work is required to develop a framework for the implementation of the tool at the community level and to determine the resources and processes required to support and sustain its application.

The proposed set of indicators could easily be applied to other community food outlets such as the school canteen and take-away outlets to evaluate and monitor the effectiveness of nutrition and food-related interventions at the community level. A further potential use of the tool is in the evaluation of government initiatives such as the recent licencing of stores and the Outback Stores[42] initiatives and in providing information to inform strategy and policy development at the community, State/Territory and National levels that aim to achieve an affordable, nutritious and quality food supply for Aboriginal and Torres Strait Islander populations in remote Australia. Table 13 outlines potential uses of the monitoring tool.

As with other organisations, the store is a system made up of many different interconnecting

parts. In addition to monitoring trends in the turnover and sales of specific foods and food groups, the monitoring tool has potential in assisting to determine components of the store system contributing to observed up- or down-ward trends of key indicators. This is particularly important for planning. For example, the capacity to link an upward trend in fresh fruit turnover with workforce training or improved infrastructure would assist in planning for further improvement. Similarly, identifying inadequate infrastructure as contributing to the failure to improve turnover of fresh produce would assist in planning and decision-making in relation to resource allocation for nutrition improvement.

Table 13. Uses of the remote store monitoring system

Stakeholder	Uses
Commonwealth government	Up to date information to contribute to evaluation of NATSINSAP objectives and the Dietary Guidelines so as to inform policy decisions
State & Territory public health units	Up to date information to contribute to evaluation of State and Territory food and nutrition related policy objectives and to inform policy decisions and guide health promotion strategy
Community stores	Regular feedback to determine areas requiring improvement and to determine effectiveness of interventions to facilitate ongoing planning for improvement
Store associations	Regular feedback to determine areas requiring improvement and to determine effectiveness of interventions to facilitate ongoing planning for improvement
Community groups	Up to date information to raise awareness on the quality of foods in their community and to inform advocacy for an equitable and affordable food supply for Indigenous people living in remote Australia

Use of the tool does require a certain level of data processing in order to generate an indicator report. Until coding can be embedded in a food product barcode that automatically identifies the product weight and relates the food to an indicator food or food group, a certain level of data processing at the store level is unavoidable. The quality of the report however is only as good as the accuracy of data processing. Decisions regarding the foods to be monitored need to be made at two levels: firstly in assigning a weight or volume to each food item and secondly in assigning a main- and sub-food group for each food item. Detail on food groups has been included in the operation manual to guide this process. An advantage of using this tool at the community store level is in the ease of access to food product information. A weight or volume missing from the food description can easily be determined by locating the specific product in the store and sighting the product weight or volume. As a store manager generally is familiar with product information and a nutritionist with food categories it makes sense that a collaboration in using the tool exists between these two personnel.

Both store management and key community people have been shown to be critical to achieving and sustaining positive change in the nutritional quality of the food available through remote community stores[16]. Based on this evidence it is likely that a participatory and collaborative approach involving key stake holders is critical to the effective implementation of this monitoring tool. As previously noted more work is required in developing an implementation framework that effectively maximises often limited resources at a store and community level and effectively engages key stakeholders in an ongoing process of feedback, planning and action.

Quarterly rather than monthly or annual monitoring has been shown to provide more useful data on trends in the food supply that enable a reliable assessment of progress and timely decision-

making[43]. The advantage of the monitoring tool's reporting system is that it has been designed to report data based on the last five quarters thereby allowing both annual and quarterly trends to be observed.

Objective 3

To develop an operation manual for the reporting system

The purpose of the operation manual is to instruct users in the steps of data importing and processing. While the operation manual has been designed to deal with likely scenarios arising during the data import and processing procedures, like any operation manual it may not cover all aspects of technical difficulties. In the event of a technical problem it is important that users are able to access technical or procedural advice. A further development of this tool for consideration is a web based tool that enables communities and stores to compare progress to other stores and regions and where technical support can be provided through remote computer access.

Objective 4

To test the monitoring tool in two communities

This project has demonstrated the capacity of stores to provide point of sale data and to engage with external stakeholders and researchers. The positive and yet realistic feedback of the store managers in the two test sites provides preliminary evidence of store managers interest in the application of such a tool at the store level.

1.5. Recommendations

- **To develop a framework for the implementation of the RIST monitoring tool**
- **To establish performance targets for each of the targets**
- **To consider the development of a web-based monitoring tool**
- **To establish a structure to provide ongoing support and co-ordination in the implementation of the monitoring tool**

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Appendix i

Food groupings

Main Food Group	Food Sub Group	Specifics	Main Food Group (monitoring)	Food Sub Group (monitoring)
Beverages	cordial/fruit drink	cordial	Liquid drinks	Cordial (not diet)
Beverages	cordial/fruit drink	cordial diet	Liquid drinks	All other drinks
Beverages	cordial/fruit drink	drink base	Liquid drinks	All other drinks
Beverages	cordial/fruit drink	fruit drink	Liquid drinks	All other drinks
Beverages	cordial/fruit drink	ice confection	Liquid drinks	All other drinks
Beverages	cordial/fruit drink	nectar	Liquid drinks	All other drinks
Beverages	cordial/fruit drink	sports drink	Liquid drinks	Soft drinks (not diet)
Beverages	juice	apple	Liquid drinks	All other drinks
Beverages	juice	drink base	Liquid drinks	All other drinks
Beverages	juice	fruit blend	Liquid drinks	All other drinks
Beverages	juice	fruit flavour	Liquid drinks	All other drinks
Beverages	juice	fruit/Vegetable blend	Liquid drinks	All other drinks
Beverages	juice	mango	Liquid drinks	All other drinks
Beverages	juice	NFS	Liquid drinks	All other drinks
Beverages	juice	orange	Liquid drinks	All other drinks
Beverages	juice	other flavour	Liquid drinks	All other drinks
Beverages	juice	tomato	Liquid drinks	All other drinks
Beverages	juice	Vegetables blend	Liquid drinks	All other drinks
Beverages	soft drink	cola	Liquid drinks	Soft drinks (not diet)
Beverages	soft drink	flavoured mineral water	Liquid drinks	Soft drinks (not diet)
Beverages	soft drink	fruit flavour	Liquid drinks	Soft drinks (not diet)
Beverages	soft drink	lemonade	Liquid drinks	Soft drinks (not diet)
Beverages	soft drink	other flavour	Liquid drinks	Soft drinks (not diet)
Beverages	soft drink/diet	cola diet	Liquid drinks	All other drinks
Beverages	soft drink/diet	fruit flavour/diet	Liquid drinks	All other drinks
Beverages	soft drink/diet	lemonade diet	Liquid drinks	All other drinks
Beverages	soft drink/diet	other flavour/diet	Liquid drinks	All other drinks
Beverages	tea/coffee/powder	coffee	Not monitored	
Beverages	tea/coffee/powder	powder base	Not monitored	
Beverages	tea/coffee/powder	tea	Not monitored	
Beverages	water	mineral water	Liquid drinks	Water
Beverages	water	soda water	Liquid drinks	Water
Beverages	water	water	Liquid drinks	Water
Cereals and cereal products	bar health food type	breakfast bar	Not monitored	
Cereals and cereal products	bar health food type	muesli bar	Not monitored	
Cereals and cereal products	batter	donut	Not monitored	
Cereals and cereal products	batter	pancake mix	Not monitored	
Cereals and cereal products	batter	pikelet	Not monitored	
Cereals and cereal products	batter	waffles	Not monitored	
Cereals and cereal products	breakfast cereal	High Sugar	Not monitored	
Cereals and cereal products	breakfast cereal	Medium Sugar	Not monitored	
Cereals and cereal products	breakfast cereal	Med Sugar/wheat	Not monitored	
Cereals and cereal products	breakfast cereal	muesli	Not monitored	
Cereals and cereal products	breakfast cereal	oat bran	Not monitored	
Cereals and cereal products	breakfast cereal	oats	Not monitored	
Cereals and cereal products	biscuit	cone	Not monitored	

Main Food Group	Food Sub Group	Specifics	Main Food Group (monitoring)	Food Sub Group (monitoring)
Cereals and cereal products	biscuit	savoury	Not monitored	
Cereals and cereal products	biscuit	sweet choc	Not monitored	
Cereals and cereal products	biscuit	sweet cream	Not monitored	
Cereals and cereal products	biscuit	sweet fruit	Not monitored	
Cereals and cereal products	biscuit	sweet plain	Not monitored	
Cereals and cereal products	bread	breadcrumbs	Not monitored	
Cereals and cereal products	bread	crumpet	Not monitored	
Cereals and cereal products	bread	fruit bread	Bread	Other
Cereals and cereal products	bread	garlic bread	Not monitored	
Cereals and cereal products	bread	herb bread	Not monitored	
Cereals and cereal products	bread	mixed grain	Bread	Wholegrain
Cereals and cereal products	bread	muffin	Not monitored	
Cereals and cereal products	bread	pappadum	Not monitored	
Cereals and cereal products	bread	pizza base	Not monitored	
Cereals and cereal products	bread	rye	Bread	Wholegrain
Cereals and cereal products	bread	sweet bun	Not monitored	
Cereals and cereal products	bread	toast	Bread	Other
Cereals and cereal products	bread	white	Bread	Other
Cereals and cereal products	bread	white/calcium increased	Bread	Other
Cereals and cereal products	bread	white-highfibre	Bread	White High Fibre
Cereals and cereal products	bread	wholemeal	Bread	Wholegrain
Cereals and cereal products	cake	cake mix	Not monitored	
Cereals and cereal products	cake	muffin	Not monitored	
Cereals and cereal products	cake	muffin mix	Not monitored	
Cereals and cereal products	cake	premade cake	Not monitored	
Cereals and cereal products	cake	scone mix	Not monitored	
Cereals and cereal products	flour	white	Not monitored	
Cereals and cereal products	grain/starch	baking powder	Not monitored	
Cereals and cereal products	grain/starch	cornflour	Not monitored	
Cereals and cereal products	grain/starch	rice	Not monitored	
Cereals and cereal products	grain/starch	rice brown	Not monitored	
Cereals and cereal products	grain/starch	semolina	Not monitored	
Cereals and cereal products	grain/starch	vermicelli	Not monitored	
Cereals and cereal products	icecream/dessert	dessert	Not monitored	
Cereals and cereal products	noodle	instant noodles	Not monitored	
Cereals and cereal products	noodle	noodles	Not monitored	
Cereals and cereal products	pasta	canned pasta meal	Not monitored	
Cereals and cereal products	pasta	pasta	Not monitored	
Cereals and cereal products	pasta	pasta meal	Not monitored	
Cereals and cereal products	pasta	pasta salad	Not monitored	
Cereals and cereal products	pastry	pastry	Not monitored	
Cereals and cereal products	pastry	pastry mix	Not monitored	
Cereals and cereal products	pies and pasties	curry puff	Not monitored	
Cereals and cereal products	pies and pasties	dimsim	Not monitored	
Cereals and cereal products	pies and pasties	pastie	Not monitored	
Cereals and cereal products	pies and pasties	pie	Take-away not recommended food	Pie or sausage roll
Cereals and cereal products	pies and pasties	sausage roll	Take-away not recommended food	Pie or sausage roll
Cereals and cereal products	pies and pasties	spring roll	Not monitored	
Cereals and cereal products	prepared	baconburger	Not monitored	
Cereals and cereal products	prepared	burrito	Not monitored	
Cereals and cereal products	prepared	canned rice meal	Not monitored	

Main Food Group	Food Sub Group	Specifics	Main Food Group (monitoring)	Food Sub Group (monitoring)
Cereals and cereal products	prepared	cheeseburger	Not monitored	
Cereals and cereal products	prepared	chicken wrap	Not monitored	
Cereals and cereal products	prepared	chickenburger	Not monitored	
Cereals and cereal products	prepared	hamburger	Not monitored	
Cereals and cereal products	prepared	lamb roll	Not monitored	
Cereals and cereal products	prepared	pizza	Not monitored	
Cereals and cereal products	prepared	porkburger	Not monitored	
Cereals and cereal products	prepared	prepared meal	Not monitored	
Cereals and cereal products	prepared	rice mix	Not monitored	
Cereals and cereal products	prepared	sandwich	Not monitored	
Cereals and cereal products	prepared	snack pack	Not monitored	
Cereals and cereal products	prepared	taco	Not monitored	
Cereals and cereal products	savoury	pappadum	Not monitored	
Cereals and cereal products	savoury	stuffing mix	Not monitored	
Cereals and cereal products	savoury	taco	Not monitored	
Fats & oils	butter	butter	Oil/Margarine/Butter	Regular
Fats & oils	butter	butter spread	Oil/Margarine/Butter	Regular
Fats & oils	butter	butter, reduced fat	Oil/Margarine/Butter	Recommended
Fats & oils	butter	butter, unsalted	Oil/Margarine/Butter	Regular
Fats & oils	butter	garlic butter	Oil/Margarine/Butter	Regular
Fats & oils	cooking fat	cooking fat	Oil/Margarine/Butter	Regular
Fats & oils	cooking fat	copha	Oil/Margarine/Butter	Regular
Fats & oils	cooking fat	lard	Oil/Margarine/Butter	Regular
Fats & oils	cooking fat	supafry	Oil/Margarine/Butter	Regular
Fats & oils	cream	cream	Not monitored	
Fats & oils	cream	cream, reduced fat	Not monitored	
Fats & oils	cream	sour cream	Not monitored	
Fats & oils	cream	whip cream	Not monitored	
Fats & oils	dip	dip	Not monitored	
Fats & oils	margarine	fat spread, olive	Oil/Margarine/Butter	Recommended
Fats & oils	margarine	margarine	Oil/Margarine/Butter	Regular
Fats & oils	margarine	margarine, canola	Oil/Margarine/Butter	Recommended
Fats & oils	margarine	margarine, mono	Oil/Margarine/Butter	Recommended
Fats & oils	margarine	margarine, nuttelex	Oil/Margarine/Butter	Recommended
Fats & oils	margarine	margarine, poly	Oil/Margarine/Butter	Recommended
Fats & oils	margarine	margarine, proactiv	Oil/Margarine/Butter	Recommended
Fats & oils	margarine	margarine, reduced fat	Oil/Margarine/Butter	Recommended
Fats & oils	margarine	margarine, salt reduced	Oil/Margarine/Butter	Recommended
Fats & oils	oil	canola	Oil/Margarine/Butter	Recommended
Fats & oils	oil	olive	Oil/Margarine/Butter	Recommended
Fats & oils	oil	peanut	Oil/Margarine/Butter	Recommended
Fats & oils	oil	sesame	Oil/Margarine/Butter	Recommended
Fats & oils	oil	sunflower	Oil/Margarine/Butter	Recommended
Fats & oils	oil	Vegetable blend	Oil/Margarine/Butter	Regular
Fish & seafood	canned	anchovy	Fish & seafood	canned
Fish & seafood	canned	crab	Fish & seafood	canned
Fish & seafood	canned	herring	Fish & seafood	canned
Fish & seafood	canned	kippers	Fish & seafood	canned
Fish & seafood	canned	mackeral	Fish & seafood	canned
Fish & seafood	canned	mussel	Fish & seafood	canned
Fish & seafood	canned	oyster	Fish & seafood	canned

Main Food Group	Food Sub Group	Specifics	Main Food Group (monitoring)	Food Sub Group (monitoring)
Fish & seafood	canned	pilchard	Fish & seafood	canned
Fish & seafood	canned	salmon	Fish & seafood	canned
Fish & seafood	canned	sardine	Fish & seafood	canned
Fish & seafood	canned	tuna	Fish & seafood	canned
Fish & seafood	canned	tuna, lunch kit	Not monitored	
Fish & seafood	fresh	fillet	Fish & seafood	Fresh/ frozen fish and seafood
Fish & seafood	frozen	battered fish	Not monitored	
Fish & seafood	frozen	battered prawn	Not monitored	
Fish & seafood	frozen	calamari	Not monitored	
Fish & seafood	frozen	crumbed fish	Not monitored	
Fish & seafood	frozen	crumbed prawn	Not monitored	
Fish & seafood	frozen	fillet	Fish & seafood	Fresh/ frozen fish and seafood
Fish & seafood	frozen	fish cake	Not monitored	
Fish & seafood	frozen	fish finger	Not monitored	
Fish & seafood	frozen	marinara	Fish & seafood	Fresh/ frozen fish and seafood
Fish & seafood	frozen	prawn	Fish & seafood	Fresh/ frozen fish and seafood
Fish & seafood	frozen	squid	Fish & seafood	Fresh/ frozen fish and seafood
Fish & seafood	processed	spread	Not monitored	
Fruit	canned	apple	Fruit	Not fresh
Fruit	canned	apple/strawberry	Fruit	Not fresh
Fruit	canned	apricot	Fruit	Not fresh
Fruit	canned	berry	Fruit	Not fresh
Fruit	canned	cherry	Fruit	Not fresh
Fruit	canned	fruit mix	Fruit	Not fresh
Fruit	canned	fruit salad	Fruit	Not fresh
Fruit	canned	mandarin	Fruit	Not fresh
Fruit	canned	mango	Fruit	Not fresh
Fruit	canned	passionfruit	Fruit	Not fresh
Fruit	canned	peach	Fruit	Not fresh
Fruit	canned	peach/mango	Fruit	Not fresh
Fruit	canned	pear	Fruit	Not fresh
Fruit	canned	pineapple	Fruit	Not fresh
Fruit	canned	plum	Fruit	Not fresh
Fruit	dried	apple	Fruit	Not fresh
Fruit	dried	apricot	Fruit	Not fresh
Fruit	dried	banana	Fruit	Not fresh
Fruit	dried	date	Fruit	Not fresh
Fruit	dried	fig	Fruit	Not fresh
Fruit	dried	fruit and nut mix	Fruit	Not fresh
Fruit	dried	fruit mix	Fruit	Not fresh
Fruit	dried	peach	Fruit	Not fresh
Fruit	dried	prune	Fruit	Not fresh
Fruit	dried	raisin	Fruit	Not fresh
Fruit	dried	salty plum	Fruit	Not fresh
Fruit	dried	sultana	Fruit	Not fresh
Fruit	fresh	apple	Fruit	Fresh
Fruit	fresh	avocado	Fruit	Fresh
Fruit	fresh	fruit mix	Fruit	Fresh
Fruit	fresh	grape	Fruit	Fresh

Main Food Group	Food Sub Group	Specifics	Main Food Group (monitoring)	Food Sub Group (monitoring)
Fruit	fresh	kiwifruit	Fruit	Fresh
Fruit	fresh	mango	Fruit	Fresh
Fruit	fresh	orange	Fruit	Fresh
Fruit	fresh	peach	Fruit	Fresh
Fruit	fresh	rockmelon	Fruit	Fresh
Fruit	fresh	strawberry	Fruit	Fresh
Fruit	fresh	watermelon	Fruit	Fresh
Fruit	frozen	blackberry	Fruit	Not fresh
Fruit	frozen	raspberry	Fruit	Not fresh
Infant	breakfast cereal	cereal	Not monitored	
Infant	biscuit	baby rusks	Not monitored	
Infant	dessert	dessert	Not monitored	
Infant	dinner	dinner	Not monitored	
Infant	fruit	fruit	Not monitored	
Infant	juice	juice	Not monitored	
Infant	milk	formulae	Infant	Infant milk formulae
Meat & Meat Products	beef	BBQ pack	Meat	Fresh cuts (not lean)
Meat & Meat Products	beef	BBQ ribs	Meat	Fresh cuts (not lean)
Meat & Meat Products	beef	corned silverside	Meat	All others
Meat & Meat Products	beef	dried	Meat	All others
Meat & Meat Products	beef	mince	Meat	Fresh cuts (not lean)
Meat & Meat Products	beef	mince, lean	Meat	Fresh lean cuts
Meat & Meat Products	beef	rissoles	Meat	Fresh cuts (not lean)
Meat & Meat Products	beef	roast	Meat	Fresh cuts (not lean)
Meat & Meat Products	beef	Roast, lean	Meat	Fresh lean cuts
Meat & Meat Products	beef	shin	Meat	Fresh cuts (not lean)
Meat & Meat Products	beef	spare ribs	Meat	Fresh cuts (not lean)
Meat & Meat Products	beef	steak	Meat	Fresh cuts (not lean)
Meat & Meat Products	beef	Steak, fat trimmed	Meat	Fresh lean cuts
Meat & Meat Products	beef	steak/ kidney	Meat	Fresh lean cuts
Meat & Meat Products	beef	topside	Meat	Fresh lean cuts
Meat & Meat Products	chicken	chicken	Meat	Fresh cuts (not lean)
Meat & Meat Products	chicken	Chicken breasts (skinless)	Meat	Fresh lean cuts
Meat & Meat Products	chicken	chicken wing	Meat	Fresh cuts (not lean)
Meat & Meat Products	chicken	drumstick	Meat	Fresh cuts (not lean)
Meat & Meat Products	chicken	turkey	Meat	Fresh cuts (not lean)
Meat & Meat Products	egg	egg, fresh	Not monitored	
Meat & Meat Products	kangaroo	kangaroo	Meat	Fresh lean cuts
Meat & Meat Products	kangaroo	kangaroo sausages	Meat	Fresh cuts (not lean)
Meat & Meat Products	kangaroo	kangaroo tail	Meat	Fresh lean cuts
Meat & Meat Products	lamb	lamb	Meat	Fresh cuts (not lean)
Meat & Meat Products	lamb	lamb chops	Meat	Fresh cuts (not lean)
Meat & Meat Products	lamb	lamb cutlets	Meat	Fresh cuts (not lean)
Meat & Meat Products	lamb	lamb leg	Meat	Fresh cuts (not lean)
Meat & Meat Products	lamb	lamb loin	Meat	Fresh cuts (not lean)
Meat & Meat Products	lamb	lamb shanks	Meat	Fresh cuts (not lean)
Meat & Meat Products	lamb	lamb, trim	Meat	Fresh lean cuts
Meat & Meat Products	pork	pork	Meat	Fresh cuts (not lean)
Meat & Meat Products	pork	pork chops	Meat	Fresh cuts (not lean)
Meat & Meat Products	pork	pork ribs	Meat	Fresh cuts (not lean)
Meat & Meat Products	prepared	canned meal	Not monitored	
Meat & Meat Products	prepared	chicken kebab	Meat	All others

Main Food Group	Food Sub Group	Specifics	Main Food Group (monitoring)	Food Sub Group (monitoring)
Meat & Meat Products	prepared	chicken kiev	Meat	All others
Meat & Meat Products	prepared	chicken nugget	Meat	All others
Meat & Meat Products	prepared	chicken schnitzel	Meat	All others
Meat & Meat Products	prepared	chicken wing	Meat	All others
Meat & Meat Products	prepared	crumbed steak	Meat	All others
Meat & Meat Products	prepared	frozen meal	Not monitored	
Meat & Meat Products	prepared	hamburger patty	Meat	Fresh cuts (not lean)
Meat & Meat Products	prepared	prepared meal	Not monitored	
Meat & Meat Products	prepared	schnitzel	Meat	All others
Meat & Meat Products	processed	bacon	Meat	All others
Meat & Meat Products	processed	canned meat	Meat	Canned meat
Meat & Meat Products	processed	canned meat, reduced fat	Meat	Canned meat
Meat & Meat Products	processed	chicken, deli	Meat	All others
Meat & Meat Products	processed	frankfurter	Meat	All others
Meat & Meat Products	processed	ham	Meat	All others
Meat & Meat Products	processed	ham steaks	Meat	All others
Meat & Meat Products	processed	kabana	Meat	All others
Meat & Meat Products	processed	luncheon meat	Meat	All others
Meat & Meat Products	processed	pastrami, deli	Meat	All others
Meat & Meat Products	processed	roast, deli	Meat	All others
Meat & Meat Products	processed	salami	Meat	All others
Meat & Meat Products	processed	sausage	Meat	All others
Meat & Meat Products	processed	silverside, deli	Meat	All others
Meat & Meat Products	processed	spread	Not monitored	
Meat & Meat Products	processed	turkey, deli	Meat	All others
Meat & Meat Products	turkey	turkey	Meat	All others
Milk & Milk Products	cheese	blue vein	Cheese	Regular
Milk & Milk Products	cheese	brie	Cheese	Regular
Milk & Milk Products	cheese	camembert	Cheese	Regular
Milk & Milk Products	cheese	cheddar	Cheese	Regular
Milk & Milk Products	cheese	cheddar, reduced fat	Cheese	Reduced fat
Milk & Milk Products	cheese	cheese, processed	Cheese	Regular
Milk & Milk Products	cheese	cottage cheese	Cheese	Reduced fat
Milk & Milk Products	cheese	creamed cheese	Cheese	Regular
Milk & Milk Products	cheese	havarti	Cheese	Regular
Milk & Milk Products	cheese	jarlsberg	Cheese	Regular
Milk & Milk Products	cheese	mozzarella	Cheese	Regular
Milk & Milk Products	cheese	parmesan	Cheese	Regular
Milk & Milk Products	cheese	spread	Cheese	Regular
Milk & Milk Products	cheese	spread, reduced fat	Cheese	Reduced fat
Milk & Milk Products	icecream/dessert	dessert	Not monitored	
Milk & Milk Products	icecream/dessert	ice confection	Not monitored	
Milk & Milk Products	icecream/dessert	icecream	Not monitored	
Milk & Milk Products	icecream/dessert	icecream, reduced fat	Not monitored	
Milk & Milk Products	milk	condensed	Not monitored	
Milk & Milk Products	milk	evaporated	Not monitored	
Milk & Milk Products	milk	flavoured	Milk	Flavoured full cream
Milk & Milk Products	milk	flavoured, reduced fat	Milk	Flavoured reduced fat
Milk & Milk Products	milk	full cream	Milk	Full cream
Milk & Milk Products	milk	full cream, powder	Milk	Full cream
Milk & Milk Products	milk	milk, reduced fat	Milk	Reduced fat

Main Food Group	Food Sub Group	Specifics	Main Food Group (monitoring)	Food Sub Group (monitoring)
Milk & Milk Products	milk	milk, skim	Milk	Reduced fat
Milk & Milk Products	milk	soy	Not monitored	
Milk & Milk Products	yoghurt	frozen yoghurt	Not monitored	
Milk & Milk Products	yoghurt	frozen yoghurt, reduced fat	Not monitored	
Milk & Milk Products	yoghurt	yoghurt dessert	Not monitored	
Milk & Milk Products	yoghurt	yoghurt regular fat	Not monitored	
Milk & Milk Products	yoghurt	yoghurt, reduced fat	Not monitored	
Milk & Milk Products	yoghurt	yoghurt, rich	Not monitored	
Sauces, pickles etc	coconut	coconut	Not monitored	
Sauces, pickles etc	coconut	coconut cream	Not monitored	
Sauces, pickles etc	coconut	coconut cream lite	Not monitored	
Sauces, pickles etc	coconut	coconut milk	Not monitored	
Sauces, pickles etc	coconut	coconut milk powder	Not monitored	
Sauces, pickles etc	herbs & spices	baking powder	Not monitored	
Sauces, pickles etc	herbs & spices	chilli	Not monitored	
Sauces, pickles etc	herbs & spices	chives	Not monitored	
Sauces, pickles etc	herbs & spices	curry	Not monitored	
Sauces, pickles etc	herbs & spices	flavoured salt	Not monitored	
Sauces, pickles etc	herbs & spices	garlic	Not monitored	
Sauces, pickles etc	herbs & spices	herbs	Not monitored	
Sauces, pickles etc	herbs & spices	mustard	Not monitored	
Sauces, pickles etc	herbs & spices	seasoning	Not monitored	
Sauces, pickles etc	herbs & spices	spice	Not monitored	
Sauces, pickles etc	nuts	almond	Not monitored	
Sauces, pickles etc	nuts	cashew	Not monitored	
Sauces, pickles etc	nuts	fruit & nut	Not monitored	
Sauces, pickles etc	nuts	macadamia	Not monitored	
Sauces, pickles etc	nuts	mixed nuts	Not monitored	
Sauces, pickles etc	nuts	peanut	Not monitored	
Sauces, pickles etc	nuts	peanut butter	Not monitored	
Sauces, pickles etc	nuts	pistachio	Not monitored	
Sauces, pickles etc	nuts	seeds	Not monitored	
Sauces, pickles etc	nuts	walnut	Not monitored	
Sauces, pickles etc	pickles	chilli	Not monitored	
Sauces, pickles etc	pickles	olive	Not monitored	
Sauces, pickles etc	pickles	onion	Not monitored	
Sauces, pickles etc	pickles	pickles	Not monitored	
Sauces, pickles etc	preserves	spread	Not monitored	
Sauces, pickles etc	sauce	custard	Not monitored	
Sauces, pickles etc	sauce	dressing	Not monitored	
Sauces, pickles etc	sauce	dressing, reduced fat	Not monitored	
Sauces, pickles etc	sauce	dry mix	Not monitored	
Sauces, pickles etc	sauce	gravy	Not monitored	
Sauces, pickles etc	sauce	marinade	Not monitored	
Sauces, pickles etc	sauce	pasta dry mix	Not monitored	
Sauces, pickles etc	sauce	pasta sauce	Not monitored	
Sauces, pickles etc	sauce	sauce	Not monitored	
Sauces, pickles etc	sauce	soy	Not monitored	
Sauces, pickles etc	sauce	stock	Not monitored	
Sauces, pickles etc	sauce	vinegar	Not monitored	
Sauces, pickles etc	snack food	corn chips	Crisps	Crisps

Main Food Group	Food Sub Group	Specifics	Main Food Group (monitoring)	Food Sub Group (monitoring)
Sauces, pickles etc	snack food	crisps	Crisps	Crisps
Sauces, pickles etc	snack food	extruded snack	Crisps	Crisps
Sauces, pickles etc	snack food	popcorn	Not monitored	
Sauces, pickles etc	snack food	prawn cracker	Not monitored	
Sauces, pickles etc	snack food	pretzel	Not monitored	
Sauces, pickles etc	soup	soup canned	Not monitored	
Sauces, pickles etc	soup	soup dry mix	Not monitored	
Sauces, pickles etc	yeast	yeast	Not monitored	
Sugar & Confectionery	artificial sweetener	equal	Not monitored	
Sugar & Confectionery	artificial sweetener	sugarine	Not monitored	
Sugar & Confectionery	bar health food type	bar	Not monitored	
Sugar & Confectionery	bar health food type	candy	Confectionery (not diet)	Confectionery
Sugar & Confectionery	bar health food type	fruit leather	Not monitored	
Sugar & Confectionery	Confectionery	bar	Confectionery (not diet)	Confectionery
Sugar & Confectionery	Confectionery	cake tops	Not monitored	
Sugar & Confectionery	Confectionery	candy	Confectionery (not diet)	Confectionery
Sugar & Confectionery	Confectionery	chocolate	Confectionery (not diet)	Confectionery
Sugar & Confectionery	Confectionery	cough lolly	Not monitored	
Sugar & Confectionery	Confectionery	gum	Confectionery (not diet)	Confectionery
Sugar & Confectionery	Confectionery	gum/sugar free	Not monitored	
Sugar & Confectionery	Confectionery	novelty	Confectionery (not diet)	Confectionery
Sugar & Confectionery	Confectionery	sherbet	Confectionery (not diet)	Confectionery
Sugar & Confectionery	Confectionery	sugar free	Not monitored	
Sugar & Confectionery	dessert	topping	Not monitored	
Sugar & Confectionery	icecream/dessert	dessert	Not monitored	
Sugar & Confectionery	icecream/dessert	ice confection	Not monitored	
Sugar & Confectionery	preserves	ginger	Not monitored	
Sugar & Confectionery	preserves	honey	Not monitored	
Sugar & Confectionery	preserves	jam	Not monitored	
Sugar & Confectionery	preserves	jam diet	Not monitored	
Sugar & Confectionery	preserves	maple syrup	Not monitored	
Sugar & Confectionery	preserves	nutella	Not monitored	
Sugar & Confectionery	preserves	spread	Not monitored	
Sugar & Confectionery	preserves	syrup	Not monitored	
Sugar & Confectionery	sugar	brown	All sugars	Sugar
Sugar & Confectionery	sugar	castor	All sugars	Sugar
Sugar & Confectionery	sugar	icing	All sugars	Sugar
Sugar & Confectionery	sugar	raw	All sugars	Sugar
Sugar & Confectionery	sugar	white	All sugars	Sugar
Vegetables	canned	artichoke	Vegies	Not fresh
Vegetables	canned	asparagus	Vegies	Not fresh
Vegetables	canned	beetroot	Vegies	Not fresh
Vegetables	canned	capsicum	Vegies	Not fresh
Vegetables	canned	carrot	Vegies	Not fresh
Vegetables	canned	corn	Vegies	Not fresh
Vegetables	canned	creamed corn	Vegies	Not fresh
Vegetables	canned	green beans	Vegies	Not fresh
Vegetables	canned	legumes	Vegies	Not fresh
Vegetables	canned	mixed	Vegies	Not fresh

Main Food Group	Food Sub Group	Specifics	Main Food Group (monitoring)	Food Sub Group (monitoring)
Vegetables	canned	mushroom	Vegies	Not fresh
Vegetables	canned	peas	Vegies	Not fresh
Vegetables	canned	potato	Vegies	Not fresh
Vegetables	canned	refried beans	Vegies	Not fresh
Vegetables	canned	tomato	Vegies	Not fresh
Vegetables	canned	tomato paste	Vegies	Not fresh
Vegetables	canned	tomato puree	Vegies	Not fresh
Vegetables	dip	hommus	Not monitored	
Vegetables	dried	bean	Vegies	Not fresh
Vegetables	dried	legumes	Vegies	Not fresh
Vegetables	dried	parsley	Vegies	Not fresh
Vegetables	dried	peas	Vegies	Not fresh
Vegetables	dried	potato	Vegies	Not fresh
Vegetables	dried	soup mix	Vegies	Not fresh
Vegetables	dried	tomato	Vegies	Not fresh
Vegetables	fresh	bean sprout	Vegies	Fresh
Vegetables	fresh	broccoli	Vegies	Fresh
Vegetables	fresh	cabbage	Vegies	Fresh
Vegetables	fresh	carrot	Vegies	Fresh
Vegetables	fresh	cauliflower	Vegies	Fresh
Vegetables	fresh	celery	Vegies	Fresh
Vegetables	fresh	corn	Vegies	Fresh
Vegetables	fresh	green beans	Vegies	Fresh
Vegetables	fresh	green beans	Vegies	Not fresh
Vegetables	fresh	lettuce	Vegies	Fresh
Vegetables	fresh	mixed pre-pack	Vegies	Fresh
Vegetables	fresh	mushroom	Vegies	Fresh
Vegetables	fresh	onion	Vegies	Fresh
Vegetables	fresh	potato	Vegies	Fresh
Vegetables	fresh	snowpea	Vegies	Fresh
Vegetables	fresh	tomato	Vegies	Fresh
Vegetables	frozen	broccoli	Vegies	Not fresh
Vegetables	frozen	brussel sprout	Vegies	Not fresh
Vegetables	frozen	carrot	Vegies	Not fresh
Vegetables	frozen	cauliflower	Vegies	Not fresh
Vegetables	frozen	corn	Vegies	Not fresh
Vegetables	frozen	green beans	Vegies	Not fresh
Vegetables	frozen	hot chips	Hot potato chips	Hot potato chips
Vegetables	frozen	mixed	Vegies	Not fresh
Vegetables	frozen	onion	Vegies	Not fresh
Vegetables	frozen	peas	Vegies	Not fresh
Vegetables	frozen	potato	Vegies	Not fresh
Vegetables	frozen	potato gem	Vegies	Not fresh
Vegetables	frozen	spinach	Vegies	Not fresh
Vegetables	frozen	Vegetable patty	Vegies	Not fresh
Vegetables	prepared	coleslaw	Vegies	Fresh
Vegetables	prepared	potato salad	Vegies	Fresh
Vegetables	prepared	salad	Vegies	Fresh

Table 14. Required nutrient density by community

Required Nutrient Density (Nutrient/1000kj)	1	2	3	4	5	6
Potassium (mg)	335.67	332.65	331.69	327.9	326.06	
Folate (µg)	30.99	30.90	31.21	30.58	31.62	
Magnesium (mg)	26.79	26.91	26.56	26.39	26.89	
Calcium (mg)	88.46	87.66	91.27	88.63	90.87	
Sodium (mg)	225.65	224.36	227.62	225.88	26.89	
Zinc (mg)	0.81	0.81	0.77	0.77	0.78	
Thiamine (mg)	0.09	0.09	186.81	0.09	0.09	
Iron (mg)	0.69	0.71	0.72	0.7	0.74	
Vitamin A Equivalents (mg)	53.52	53.32	53.13	52.37	53.41	
Riboflavin (mg)	0.10	0.10	0.10	0.09	0.10	
Phosphorus (mg)	65.14	68.75	74.83	70.22	73.7	
Niacin Equivalents (mg)	1.11	1.11	1.11	1.10	1.12	
Vitamin C (mg)	3.35	3.30	3.37	3.27	3.31	
Protein (g)	3.99	3.97	3.88	3.84	3.93	
Vitamin B12 (µg)	0.13	0.13	0.13	0.13	0.13	
Vitamin B6 (mg)	0.11	0.11	0.11	0.11	0.11	
Iodine (µg)	10.45	10.30	10.41	10.11	10.39	

Table 15 Nutrient density and energy requirements by sex and age groups

	1 to 3, both sexes	4-8, both sexes	9-13, boys	14-18, boys	19-30, men	31-50, men	51-70, men	>70, men	9-13, girls	14-18, girls	19-30, women	31-50, women	51-70, women	>70, women	Pregnancy, 14 to 18	Pregnancy 19 to 30	Pregnancy 31 to 50	Lactation 14 to 18	Lactation 19 to 30	Lactation 31 to 50
Energy (Mj)	4.65	6.37	8.84	11.66	11.84	11.34	10.46	9.54	8.06	9.48	9.60	9.14	8.72	8.28	9.48	9.60	9.14	9.48	9.60	9.14
Nutrient Density																				
Thiamine (mg)	0.09	0.08	0.08	0.09	0.08	0.09	0.10	0.10	0.09	0.09	0.09	0.10	0.10	0.11	0.13	0.13	0.13	0.13	0.13	0.13
Riboflavin (mg)	0.09	0.08	0.09	0.09	0.09	0.10	0.11	0.14	0.10	0.10	0.09	0.10	0.10	0.13	0.13	0.13	0.13	0.14	0.14	0.14
Niacin (mg)	1.08	0.94	1.02	1.03	1.01	1.06	1.15	1.26	1.12	1.16	1.15	1.20	1.26	1.33	1.48	1.46	1.53	1.37	1.35	1.42
Folate (µg)	25.81	25.12	28.28	28.30	27.03	28.22	30.59	33.54	31.02	34.81	33.33	35.01	36.70	38.65	54.85	54.17	56.89	47.47	46.88	49.23
Vit. C(mg)	5.38	3.93	3.17	2.40	2.53	2.65	2.87	3.15	3.47	2.95	3.13	3.28	3.44	3.62	4.01	4.17	4.38	6.12	6.25	6.56
Iron (mg)	0.86	0.63	0.68	0.69	0.51	0.53	0.57	0.63	0.74	0.84	0.83	0.88	0.57	0.60	2.43	2.29	2.41	0.74	0.68	0.71
Zinc (mg)	0.54	0.47	0.57	0.94	1.01	1.06	1.15	1.26	0.62	0.63	0.68	0.71	0.75	0.79	0.90	0.94	0.99	0.95	1.04	1.09
Calcium (mg)	77.42	81.63	104.64	90.05	70.95	74.07	80.31	115.30	114.76	110.76	87.50	91.90	126.15	132.85	110.76	87.50	91.90	110.76	87.50	91.90
Magnesium (mg)	13.98	17.27	22.62	29.16	27.87	30.86	33.46	36.69	24.81	31.65	26.56	28.99	30.39	32.01	35.34	30.21	32.82	31.65	26.56	28.99
Vitamin A (µg)	45.16	43.17	50.34	54.03	52.79	55.11	59.75	65.51	52.11	51.16	52.08	54.71	57.34	60.39	55.91	57.29	60.18	82.28	83.33	87.53
Sodium (mg)	215.05	219.78	226.24	197.26	194.26	202.82	219.89	241.09	248.14	242.62	239.58	251.64	263.76	277.78	242.62	239.58	251.64	242.62	239.58	251.64
Protein (g)	2.58	2.51	3.51	4.20	4.39	4.59	4.97	6.81	2.98	3.69	3.85	4.05	4.24	5.56	4.96	5.10	5.36	5.38	5.63	5.91
Potassium (mg)	430.11	361.07	339.37	308.75	320.95	335.10	363.29	393.32	310.17	274.26	291.67	306.35	321.10	338.16	295.36	291.67	306.35	337.55	333.33	350.11
Phosphorus (mg)	81.72	63.58	119.34	90.48	48.99	51.15	55.45	60.80	130.89	111.29	60.42	63.46	66.51	70.05	111.29	60.42	63.46	111.29	60.42	63.46
Vitamin B12 (µg)	0.15	0.16	0.17	0.17	0.09	0.10	0.13	0.15	0.10	0.11	0.11	0.12	0.15	0.16	0.17	0.17	0.18	0.18	0.18	0.19
Vitamin B6 (mg)	0.09	0.08	0.09	0.09	0.09	0.10	0.13	0.15	0.10	0.11	0.12	0.12	0.15	0.16	0.17	0.17	0.18	0.18	0.18	0.19
Iodine (µg)	13.98	10.20	8.48	8.15	8.44	8.81	9.56	10.48	9.31	10.02	10.42	10.94	11.47	12.08	16.88	16.67	17.51	20.04	19.79	20.79

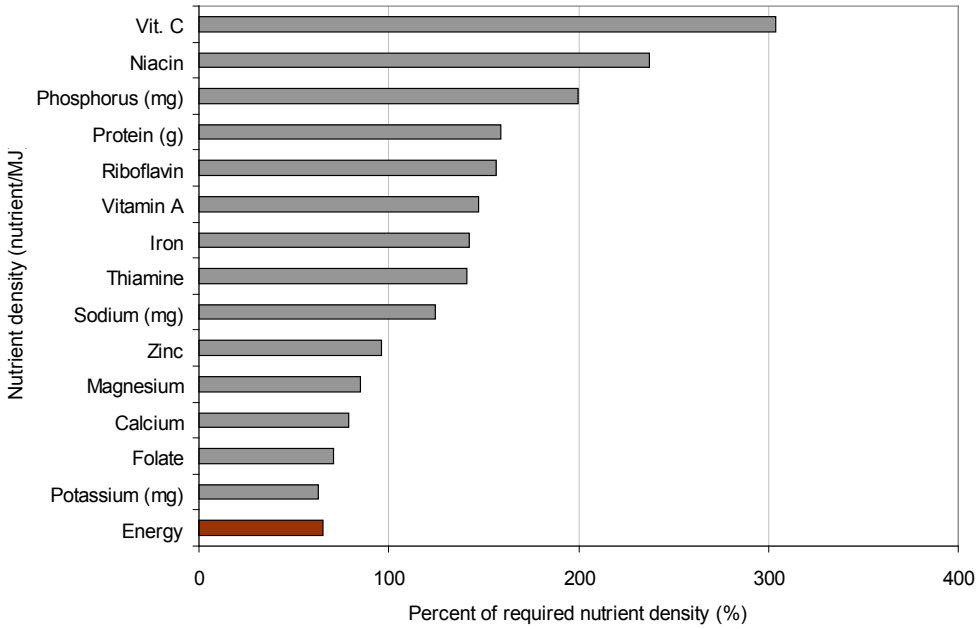


Figure 2. Nutrient density of sales data as a percent of community required nutrient density, Community 1 (July to September 2007)

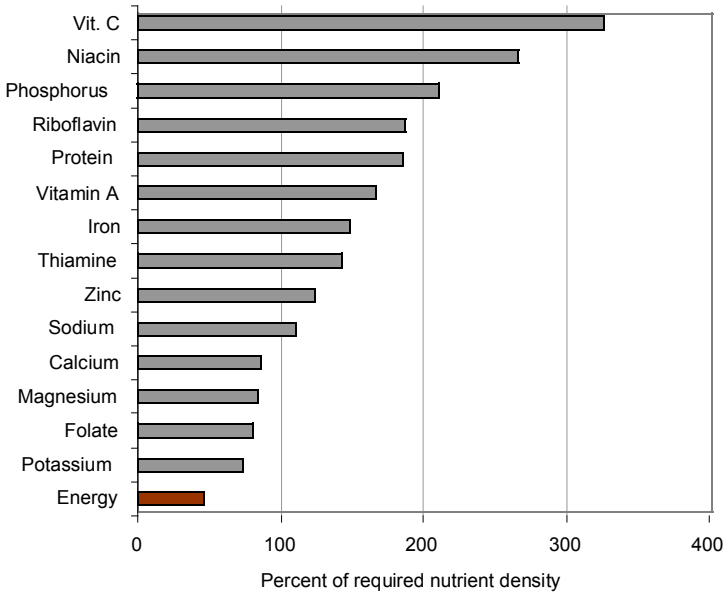


Figure 3. Nutrient density of sales data as a percent of community required nutrient density, Community 2 (July to September 2007)

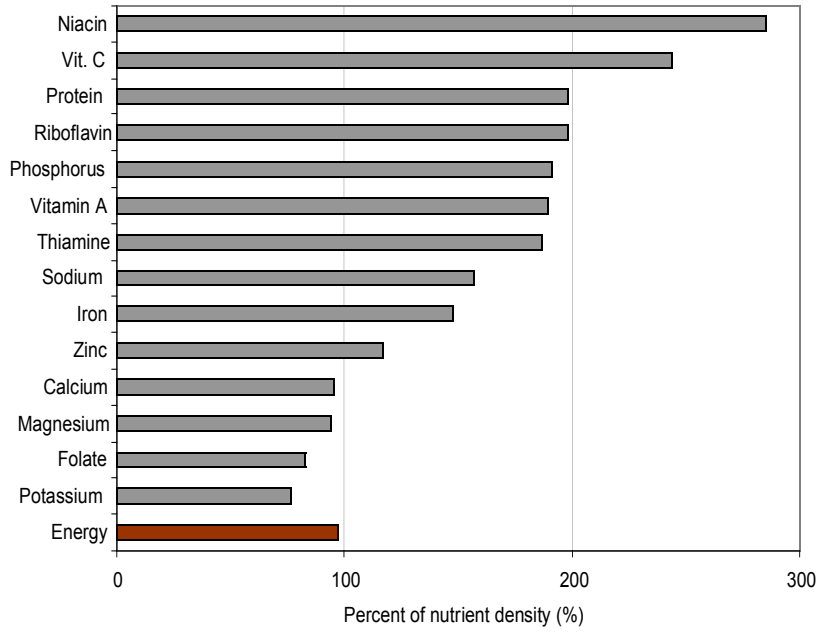


Figure 4. Nutrient density of sales data as a percent of community required nutrient density, Community 3 (July to September 2007)

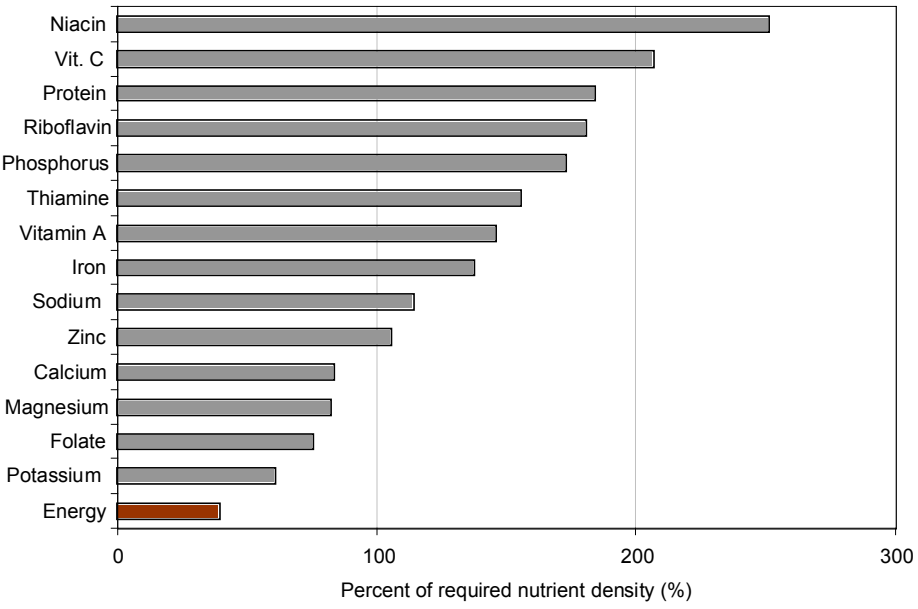


Figure 5. Nutrient density of sales data as a percent of community required nutrient density, Community 4 (July to September 2007)

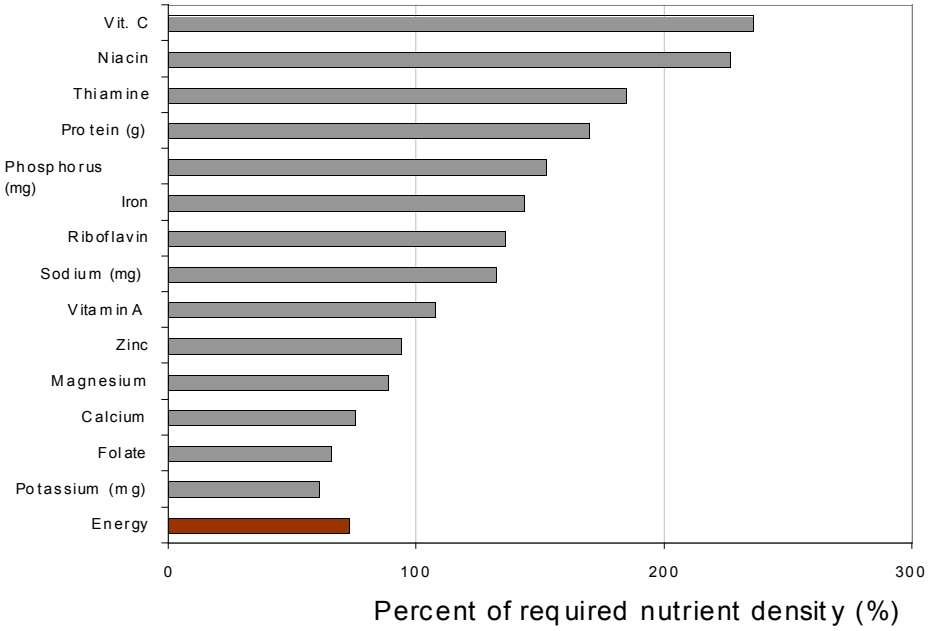


Figure 6. Nutrient density of sales data as a percent of community required nutrient density, Community 5 (July to September 2007)

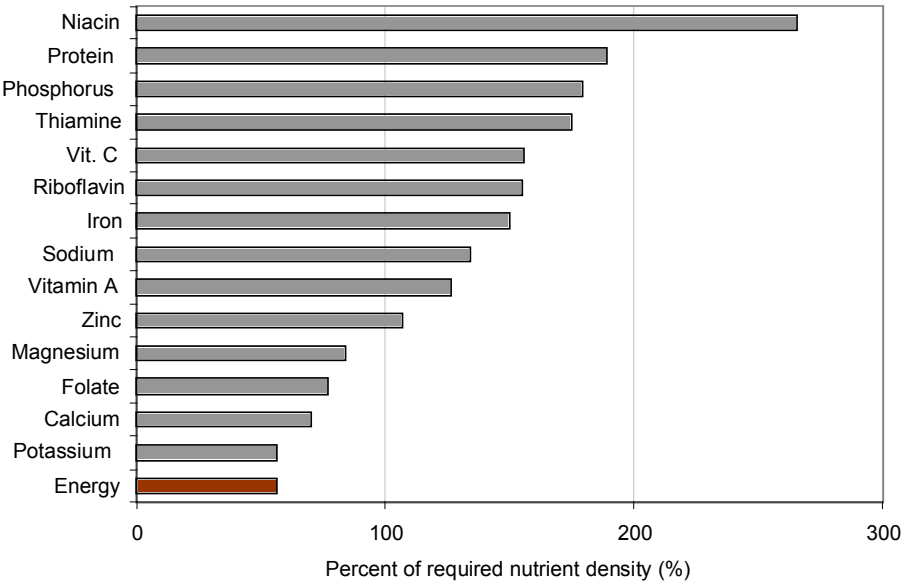


Figure 7. Nutrient density of sales data as a percent of community required nutrient density, Community 6 (July to September 2007)

Table 16. Food items contributing ≥4% to the macronutrients for all stores, by order of importance (major sources contributing ≥ 10% to nutrient availability are bolded)

Macronutrient	Community 1	Community 2	Community 3	Community 4	Community 5	Community 6
Energy	**Rice 10.6**, bread 8.5, softdrink 7.6, flour 7.2, milk 6.9 (liquid 3.6), oil 4.6, pies/pasties 4.9 (pie 2.8), margarine 4.2, icecream 4.5	**Sugar 10.3**, milk 9.7 (liquid 5.9; powder 3.2), flour 8.0, softdrink 6.3, bread 5.9, processed meat 5.0, cordial/ fruit drink 4.1, margarine 4.1	**Bread 15.2, milk 10.1** (liquid 5.2), margarine 8.2, processed meat 7.6, sugar 5.7 (white sugar), biscuit 4.4, softdrink 4.3, flour 3.6	**Sugar 14.5 (white sugar 10.2), bread 10.4**, milk 8.9 (powder 5.6), flour 6.4, softdrink 5.6, oil 5.4, cordial/ fruit drink 5.3, prepared cereals 4.7 (sandwiches 3.4), margarine 4.3	**Bread 20.3**, sugar 8.3 (raw 7.5), flour 7.3, margarine 6.5, milk 5.5 (powder 4.0), softdrink 4.7, pie 4.4	**Bread 15.4**, sugar 8.8 (raw sugar 4.5), flour 6.3, softdrink 5.0, pies/pasties 4.1 (pie 3.5), prepared cereals 6.4 (fried rice 5.5), milk 6.2 (powder 5), margarine 5.1, processed meat 4.3
Protein	**Milk 13.3 (liquid 6.9; powder 4.5), bread 11.1, processed meat 11.0 (canned meat 6.0),** pies/pasties 9.1 (pie 7.0), flour 8.3, rice 7.5, eggs 5.8, vegetables 4.1	**Beef 18.9, milk 16.2, processed meat 11.3** (canned meat 4.5), flour 7.8, bread 6.7, egg 5.2, pies/ pasties 4.3 (pie 3.9)	**Processed meat 17.2 (ham 4.5), bread 16.8, milk 16.1** (liquid 8.2), prepared meat 7.8, beef 5.6, egg 4.0	**Milk 15.7 (powder 10.6), bread 12.5**, processed meat 9.5 (canned meat 5.6), prepared meat 8.4, beef 7.0, flour 6.6, prepared cereals 6.5 (sandwich 4.2), egg 5.1, chicken 4.9	**Bread 26.2, pie 10.4, milk 10.4**, flour 8.1, processed meat 8.2 (canned meat 4.7), chicken 7.3, prepared cereals 4.4	**Bread 18.4, milk 10.9 (powder 9.6), processed meat 10.1** (canned meat 5.2), flour 6.3, pies/pasties 8.0 (pie7.4), chicken7.1, prepared cereals 5.9 (fried rice 4.6), prepared meat 4.8
Total Fat	**Oil 15.0, margarine 13.5, milk 10.7 (liquid 6.0),** pies/ pasties 8.3 (pie 4.2; sausage roll 3.9), processed meat 7.7, (canned meat 2.7), icecream/ dessert 6.5 (icecream 6.0), biscuit 5.2	**Oil 17.8, milk 14.1 (liquid 8.9; powder 4.3), margarine 12.0, processed meat 10.0** (sausage 4.7), beef 4.6	**Margarine 21.0, processed meat 13.2, milk 12.0** (powder 7.0), oil 9.1, prepared meat 5.7 (sausage 4.9), biscuit 4.7, icecream/ dessert 4.4 (icecream 2.3)	**Margarine 14.5, milk 14.0 (powder 9.1)**, oil 8.3, processed meat 7.6, prepared cereals 7.5 (sandwich 5.7), icecream/dessert 6.9 (icecream 3.3), hot chips 4.3	**Margarine 22.2**, milk 8.7, pies/pasties 8.1 (pie 7.1), processed meat 7.3, bread 7.1, snackfood 7.1 (crisps 4.9), oil 6.3, chicken 5.2, biscuits 5.0	**Margarine 15.3, milk 9.0 (powder 7.2)**, processed meat 8.8, prepared (cereals) 7.1 (fried rice 5.7), pies/ pasties 6.2 (pie 5.1), oil 5.5, hot chips 5.4, bread 4.5, chicken 4.4
Saturated fat	**Milk 18.1 (liquid 10.2; powder 5.7), pies/pasties 10.6 (pie 5.3; S/roll 5.0), I/cream 10.6**, processed meat 7.7 (canned meat 2.8), biscuit 7.6, margarine 6.2, oil 4.4, confectionery 4.3 (chocolate 4.1),	**Milk (liquid 15.2; powder 7.6), processed meat 11.1 (sausage 5.7)**, butter 6.7, margarine 5.8, oil 5.5, biscuit 5.4, beef 5.2, pies/pasties 4.2 (pie 3.1)	**Milk (liquid 12.2; powder 5.0), processed meat 14.5 (sausage 6.2),** margarine 9.7, biscuit 7.3, cheese 5.6, prepared meat 4.7, confectionery 4.3 (chocolate 3.8), icecream 4.0	**Milk powder 16.3**, processed meat 8.0 (canned meat 6.8), pies/pasties 8.0 (pie 3.0; sausage roll 4.8), margarine7.5, prepared cereal 6.9, icecream 5.8, prepared meat 5.7, biscuit 4.7	**Margarine 12, milk powder 12.0, pies/pasties 10.9 (pie 9.5)**, snackfood 8.5 (crisps 5.7), processed meat 7.8 (canned meat 3.4), biscuit 7.2, cheese 5.4, chicken 4.4	**Milk powder 12.8**, processed meat 9.8, pies/pasties 8.1 (pie 6.6), prepared cereal 7.4 (fried rice 6.1), margarine 6.9, butter 5.8, biscuit 4.8

Macronutrient	Community 1	Community 2	Community 3	Community 4	Community 5	Community 6
Carbohydrate	**Rice 16.3, softdrinks 13.5, flour 10.2**, **bread 10.7**, sugar 6.7, cordial/fruit drink 6.5 (cordial 5.4)	**Sugar 19.9, flour 12.3, aerated sweet drinks 12.1**, bread 8.1, cordial/fruit drink 7.6, milk 5.5, rice 5.1	**Bread 22.7, sugar 12.0**, aerated sweet drinks 8.9, cordial/fruit drink 7.4, milk 7.0, flour 6.0, biscuit 4.7	**Sugar 25.5, bread 13.1**, aerated sweet drinks 9.8, cordial/fruit drink 9.0, flour 8.9, milk 5.1, rice 4.7	**Bread 25.2, sugar 14.5, flour 10.1**, aerated sweet drinks 8.1, cordial/fruit drink 5.8 (cordial 4.4), fresh fruit 4.8, preserves 4.0	**Bread 21.0, sugar 16.9**, flour 9.5, aerated sweet drinks 9.4, prepared 6.1, cordial/fruit drink 5.8
Total sugar (refined sugar)	**Softdrink 27.3 (cola 12.6; fruit flavour 9.5), sugar 13.5 (raw 11.0), cordial/ fruit drink 13.1 (cordial 10.9)**, milk 7.8, icecream/ dessert 7.7 (icecream 7.3), confectionery 6.5, fresh fruit 6.5	**Sugar (raw 30.7; white 1.8), softdrink 19.9 (cola 12.5)**, **cordial/fruit drink 12.5 (cordial 9.5),** milk 9.1 (liquid 5.2), confectionery 4.1	**Sugar white 20.0, softdrink 16.7 (cola 6.5), cordial/ fruit drink 13.8 (cordial 12.1), milk 13 (liquid 5.7)**, confectionary 6.0	**Sugar 41.7 (raw 12.2; white 29.5), softdrink 16.1 (cola 9.7; fruit flavour 4.1), cordial/fruit drink 14.8 (cordial 8.6; fruit drinks 5.3)**, milk 8.4 (powder 4.8)	**Sugar 29.8 (raw), softdrink 16.6 (cola 6.3; fruit flavour 7.5), cordial/fruit drink 11.9 (cordial 9.1)**, fresh fruit 9.0, milk 6.3 (milk powder 4.3), preserves 8.2 (jam, syrup), juice 4.4	**Sugar 35.3 (raw 18.2; white 17.1), softdrink 19.8 (cola 9.0; fruit flavour 5.2), cordial/fruit drink 12.3 (cordial 7.8)**, milk 7.7 (powder 5.9), confectionery 4.9
Fibre	**Bread 16.7, fresh veg 14.1, fresh fruit 13.1, Flour 12.0**, snackfood 5.6 (crisps 4.6), b/fast cereal 4.9	**Fresh veg 18.1, flour 14.8, bread 11.9**, fresh fruit 8.9, b/fast cereal 8.4 (weetbix 6.2), snackfood 5.1 (crisps 4.5), processed meat 4.1 (sausage 2.9)	**Bread 27.8, fresh veg 18.7**, b/fast cereal 7.6 (weetbix 5.2), frozen veg 5.4, flour 5.3, processed meat 5.1	**Bread 24.0, flour 12.5**, b/fast cereal 8.6 (weetbix 6.5), fresh vegetables 8.1, frozen veg 7.6 (hot chips 4.7), prepared cereal 6.5 (sandwich 5.0), canned veg 4.8 (baked beans 2.6)	**Bread 35.1 (white 26.4; wholemeal 6.9), fresh fruit 13.9 (F&V packs), flour 9.9**, b/fast cereal 8.3 (weetbix 4.7), snackfood 8.1 (crisps 7.2), biscuit 4.1	**Bread 31.6**, flour 9.9, B/fast cereal 8.0 (weetbix 6.9), frozen veg 6.5 (hot chips 5.4), fresh veg 5.8, prepared cereal 5.2 (fried rice 4.0), crisps 5.0

Table 17. Food items contributing ≥4% to selected micronutrients for all stores, by order of importance (major sources contributing ≥10% to nutrient availability are bolded)

Micronutrient	Food items contributing ≥4% to available nutrients					
	Community 1	Community 2	Community 3	Community 4	Community 5	Community 6
Iron	**Bread 11.7, processed meat 10.1 (canned meat 6.4),** flour 9.5, b/fast cereal 8.3 (weetbix 5.6), pies/pasties 5.8 (pie 4.2), rice 5.2, eggs 4.7, fresh veg 6.1	**Beef 13.6, b/fast cereal 11.9 (weetbix 7.8), processed meat 10.4 (canned meat 5.2)**, flour 8.3, bread 7.2, fresh veg 6.6, tea/coffee/powder 4.5 (powder base 4.3), egg 4.5	**Bread 19.6, processed meat 13.1, b/fast cereal 11.4 (weetbix 7.4)**, fresh veg 8.0, tea/coffee/powder 4.6 (powder base 4.2), beef 4.0, prepared meat 4.0	**Bread 14.5, b/fast cereal 11.8 (weetbix 8.1)**, processed meat 9.4 (canned meat 6.8), flour 8.6, prepared cereal 6.5 (sandwich 4.4), prepared meat 4.8, egg 4.7	**Bread 26.7, b/fast cereal 11.9 (weetbix 8.0), flour 9.8**, processed meat 7.0 (canned meat 4.7) pies/pasties 6.3 (pie 5.9), prepared cereal 4.2	**Bread 21.1, b/fast cereal 12.3 (weetbix 10.2)**, processed meat 9.8 (canned meat 6.0), flour 8.3, prepared cereal 6.2 (fried rice 5.1), pies/pasties 5.2
Calcium	**Milk 41.4 (flav 4.5; liq 21.6; powder 14.2)**, bread 9.6, icecream/dessert 8.0 (icecream 7.4), cheese 6.2, prepared cereal 4.0	**Milk 54.5 (liq 32.5; powder 19.1)**, bread 6.3, cheese 6.3	**Milk 49.0 (flavoured 6.4; liquid 25.1; powdered 12.2; reduced fat 4.4), bread 13.7**, cheese 9.6 (cheddar 5.2)	**Milk 51.6 (flavoured 6.0; liquid 8.7; powdered 34.6), bread 11.2**, cheese 5.0, icecream/dessert 4.8 (icecream 3.3), prepared cereal 4.6	**Milk 35.0 (milk powder 27.2), bread 24.0**, cheese 8.4 (processed cheese 4.0), prepared cereal 4.7	**Milk 43.2 (powdered 35.4; liquid 5.1), bread 22.2**, cheese 4.9
Total folate	**Fresh veg 16.2, bread 11.3, b/fast cereal 11.0 (w/bix 8.3), milk 6.6, rice 6.6**, egg 6.4, flour 5.1, juice 4.5, fresh fruit 4.3, tea 4.1	**Fresh veg 15.6, b/fast cereal 14.6 (weetbix 11.0)**, tea 9.0, milk 8.3 (liq 5.2), bread 6.5, egg 5.9, beef 5.4, Juice 4.9, flour 4.8	**Fresh veg 20.0 (cabbage 5.4), bread 18.6, b/fast cereal 13.2 (weetbix 9.5)**, milk 8.2 (liquid 4.4), frozen veg 4.7, egg 4.6, tea 4.2	**B/fast cereal 14.8 (weetbix 11.3), bread 13.5, tea 10.8**, milk 8.0 (powdered 5.5), fresh veg 8.1, egg 5.9, frozen veg 4.4 (hot chips 2.8), flour 4.3, cordial/fruit drink 4.2, prepared cereal 4.0	**Bread 28.3, b/fast cereal 17.2 (weetbix 13.6)**, tea 8.7, flour 5.5, milk 5.6 (powder 4.4), fresh fruit 5.4, Juice 5.2 (orange 3.2)	**Bread 19.8, b/fast cereal 16.5 (weetbix 14.8), tea 13.1**, fresh veg 7.3, milk 5.8 (powdered 4.7), , frozen veg 4.6 (hot chips 4.0), flour 4.2
Zinc	**Milk 15.1 (powdered 9.5), processed meat 14.6 (canned meat 9.6)**, bread 8.2, beef 8.2 (beef cuts 7.8), prepared meat 7.4, prepared cereal 6.6 (sandwich 4.2)	**Beef 27.1 (mince 10.4; steak 11.1), processed meat 14.5 (canned meat 6.7), milk 13.7 (liq 8.7; powder 4.4)**, pies/pastie 4.4 (pie 4.0), fresh veg 4.0	**Processed meat 21.6 (ham 4.5; sausage 4.5), milk 15.9 (liquid 8.5), bread 11.3**, beef 9.1, fresh veg 5.6, cheese 4.7, prepared meat 4.4	**Processed meat 15.7 (canned meat 9.6), milk 12.0 (liquid 6.8), rice 10.1, pies/pastie 9.8 (pie 7.7)**, bread 6.9, fresh vegetables 4.2	**Bread 18.4, processed meat 13.3 (canned meat 8.4), pie 11.8, milk 10.1 (powder 7.6)**, prepared cereal 5.4, chicken 5.1, b/fast cereal 4.7, cheese 4.1	**Processed meat 15.7 (canned meat 9.1), bread 13.2, milk 10.4 (powdered 8.2),** prepared cereal 9.2 (fried rice 7.9), pies/pastie 8.8 (pie 8.2), beef 5.1, chicken 4.2
Thiamine	**Bread 29.5, b/fast cereal 13.2 (weetbix 9.8), milk 10.6 (powdered 7.1), flour 10.0**, prepared cereal 7.5 (sandwich 5.5)	**Bread 17.8, b/fast cereal 16.0 (weetbix 11.2), milk 12.6 (liq 8.0; powder 4.3), flour 12.0,** preserves 7.6 (spread), fresh veg 5.9	**Bread 35.4, b/fast cereal 12.1 (weetbix 8.2)**, milk 9.7 (liquid 5.6), preserves 7.2 (spread), fresh veg 6.0	**Bread 26.4, flour 12.4, b/fast cereal 11.2 (weetbix 7.7),** milk 8.5 (liquid 5.1), preserves 5.0 (spread), fresh veg 4.9, rice 4.5	**Bread 47.6, b/fast cereal 12.3 (weetbix 8.9), flour 10.0**, milk 5.3 (powder 4.2)	**Bread 40.1, b/fast cereal 14.4 (weetbix 12.2)**, flour 9.3, milk 7.0 (powder 5.7), prepared cereal 4.1
Riboflavin	**Milk 39.**3 (flavoured 4.6; liquid 6.7; powdered 26.1), b/fast cereal 9.1 (weetbix 6.5), egg 6.8, tea 4.9, icecream/ dessert 5.0 (icecream 3.6)	**Milk 39.2 (liq 23.5; powder 13.5)**, tea 4.3, b/fast cereal 9.3 (weetbix 6.3), preserves 6.9, egg 6.7, processed meat 5.0	**Milk 38.9 (flavoured 5.2; liquid 20.2;** powdered 9.5), b/fast cereal 9.1, preserves 8.2 (spread), processed meat 7.5, egg 5.2	**Milk 33.9 (liquid 17.7; powdered 11.3),** icecream/ dessert 8.8 (icecream 8.1), b/fast cereal 7.9 (weetbix 5.2), eggs 7.9, processed meat 5.0 (canned meat 2.9)	**Milk 32.7 (powder 25.1), b/ fast cereal 11.3 (weetbix 9.4)**, bread 6.8, pie 5.8, preserves 4.9 (spread – vegemite/ promite), tea 4.8, processed meat 4.6, fresh fruit 4.4	**Milk 32.0 (powder 26.1), b/fast cereal 11.7 (weetbix 10.0),** tea 6.9, bread 5.8, processed meat 5.3, egg 4.6, pies 4.1

Micronutrient	Food items contributing ≥4% to available nutrients					
	Community 1	Community 2	Community 3	Community 4	Community 5	Community 6
Niacin Equivalents	Rice 9.9, processed meat 9.1 (canned meat 4.4), pies/pasties 8.9 (pie 7.1), bread 8.6, milk 8.5 (liquid 4.5), flour 7.7, fresh vegetables 4.9, chicken 4.4	**Beef 18.6 (mince 6.4; steak 8.5), milk 10.6 (liq 6.6), processed meat 10.0**, flour 7.1, fresh veg 5.6, bread 5.2, b/fast cereal 4.7, pie 4.1	**Processed meat 16.5 (ham 4.9), bread 13.4, milk 10.6 (liquid 5.4)**, prepared meat 9.0, fresh veg 6.3, beef 5.3, b/fast cereal 4.8	**Bread 10.2, milk 10.4 (powder 6.3)**, prepared meat 8.9, processed meat 8.1 (canned meat 4.5), beef 7.8 (beef cuts 7.5) flour 6.6, chicken 5.8, b/fast cereal 4.4	**Bread 22.4, pies/pasties 12.1 (pie 11.6)**, chicken 8.9, flour 8.5, processed meat 7.3 (canned meat 4.0), milk 6.8 (powder 4.9), b/fast cereal 5.1 (weetbix 3.5), prepared cereal 4.4	**Bread 15.6**, chicken 9.1, processed meat 8.7 (canned meat 4.0), pie 8.0, prepared meat 7.0 (chick kebab 4.6), milk 6.7 (powdered 5.2), flour 6.2, prepared cereal 5.6 (fried rice 4.4), b/fast cereal 4.6
Magnesium	**Bread 11.4, rice 10.8, milk 12.5 (liquid 6.4; powdered 4.1)**, flour 7.3, fresh veg 6.7, tea/coffee/powder 4.4, fresh fruit 4.0	**Milk 17.7 (liquid 10.5; powdered 6.1)**, flour 8.0, fresh veg 8.0, bread 7.5, b/fast cereal 6.6 (weetbix 4.4), tea/ coffee/powder 6.0, beef 5.9	**b**, fresh veg 9.8, b/fast cereal 6.4 (weetbix 4.1), processed meat 6.3, tea/coffee/powder 5.1	**Milk 17.2 (powder 11.3), bread 14.7**, flour 6.8, b/fast cereal 6.4 weetbix 4.4), prepared cereal 6.1, tea/coffee/ powder 5.3 (tea 3.8), prepared cereal 4.9	**Bread 27.9**, milk 9.7 (powdered 7.4), b/fast cereal 9.5 (weetbix 4.3; oats 5.1), flour 7.2, fresh fruit 5.3	**Bread 22.4, milk 11.9 (powder 9.7)**, b/fast cereal 7.2 (weetbix 5.8), flour 6.6, tea/coffee/powder 5.5 (tea 4.6)
Vitamin C	**Juice 34.2,** fresh veg 26.7, fresh fruit 20.6, cordial/fruit drink 6.1	**Juice 32.6, fresh veg 28.4 (capsicum), fresh fruit 17.2 (mandarin)**, cordial/fruit drink 8.2	**Fresh veg 46.6 (cabbage)**, cordial/fruit drink 4.4, juice 18.7, frozen veg 10.5 (cauliflower; brussel sprouts), fresh fruit 5.2	**Juice 31.9, cordial/fruit drink 21.3, fresh veg 21.2, fresh fruit 10.1**, frozen veg 5.0	**Juice 52.8, fresh fruit 28.7**, crisps 7.3	**Juice 27.1, fresh veg 25.4 (cabbage; capsicum ; hot chips), fresh fruit 14.1 (fresh orange), cordial/fruit drink** 11.8, crisps 6.6, frozen veg 6.6
Sodium	**Sauce 18.6 (soy 13.7), bread 15.3, processed meat 14.5 (canned meat 7.3)**, herbs & spices 7.6 (baking powder 7.4), pies/pastie 5.9	**Processed meat 19.9 (canned meat 7.0; sausage 4.9), bread 12.1**, sauce 8.0, herbs & spices 7.1 (baking powder 4.8), flour 6.7, milk 6.1	**Processed meat 24.9 (ham 8.1; ham steak 4.0), bread 21.7**, sauce 9.9 (savoury sauce 4.1), prepared meat 5.5, margarine 5.0, milk 4.4	**Bread 20.62, processed meat 14.8 (canned meat 8.5), prepared cereal 10.1 (sandwich 7.7)**, prepared meat 6.2, milk 5.4, sauce 4.9, margarine 4.1	**Bread 34.2, processed meat 11.3 (canned meat 6.4)**, margarine 5.2, pie 5.0, prepared cereal 4.3, snackfood 4.2	**Bread 25.2, processed meat 14.1 (canned meat 6.8), prepared cereal 11.5 (fried rice 9.7)**, herbs & spices 5.7 (baking powder 4.1), sauce 4.5, pies/ pastie 4.1
Retinol equivalents	**Fresh veg 24.4, margarine 17.1, milk 14.7,** icecream 7.9, egg 5.8	**Fresh veg 26.1 (pumpkin; sweet Potato), milk 18.9, margarine 16.2**, butter 5.4, egg 5.4	**Margarine 25.9, fresh veg 19.7, milk 16.1**	**Margarine 17.8, milk 19.6, fresh veg 14.4 (carrot)**, prepared cereal 6.6 (sandwich 5.1), egg 5.8, frozen veg 5.1, icecream/dessert 4.1	**Margarine 39.6, milk 16.3**, extruded snack 6.7, cheese 4.7	**Margarine 23.6, fresh veg 19.3 (carrot), milk 16.4**, butter 5.7, frozen veg 5.1, egg 4.0
Potassium	**Milk 18.2**, **fresh veg 16.0**, fresh fruit 8.2, icecream 5.4, pies 4.9, juice 4.3, bread 5.2	**Milk 22.4, fresh veg 17.1**, beef 9.1 (steak 4.1), juice 4.4, fresh fruit 4.3	**Milk 22.3, fresh veg 21.3**, bread 8.1	**Milk 25.2**, bread 6.8, beef 4.0, fresh veg 8.4	**Milk 15.8, bread 14.0, fresh fruit 12.2**, crisps 6.9, pie 5.8, Juice 5.4, flour 4.1	**Milk 19.1, bread 11.4**, fresh veg 6.6, pies/pastie 5.1, crisps 4.4, hot chips 4.1, chicken 4.2, tea/ coffee/powder 4.0
Phosphorus	**Milk 18.0, baking powder 11.5,** flour 9.0, rice 7.2, bread 5.8, pies/pastie 4.6	**Milk 22.9, flour 13.9**, beef 8.6, processed meat 6.4, baking powder 5.8	**Milk 24.2, processed meat 13.7**, bread 9.9, flour 7.9, prepared meat 5.2	**Milk 25.3**, flour 8.3, bread 7.7, prepared cereal 5.2, processed meat 5.1, baking powder 4.4	**Milk 17.0, bread 16.9**, pie 6.1, flour 6.1, b /fast cereal 5.7, baking powder 5.3, chicken 4.7, processed meat 4.3	**Milk 17.2, bread 11.5, prepared cereal 10.3 (fried rice 9.3)**, baking powder 7.1, processed meat 5.8, flour 5.4, pies 4.2, chicken 4.3
Beta-Carotene	**Fresh veg 58.8,** frozen veg 6.7**,** fresh fruit 5.9	**Fresh veg 63.2**, juice 5.1	**Fresh veg 55.3**, juice 8.8, margarine 7.3, frozen veg 6.1	**Fresh veg 43.8**, juice 9.7, frozen veg 8.7, margarine 5.3, cordial/fruit drink 4.8,	**Extruded snack 25.0, margarine 15.2, fresh fruit 13.6**, juice 8.9, milk 5.0,	**Fresh veg 59.6**, margarine 7.1, frozen veg 4.3, milk 4.0

Table 18. Topic 1 indicator profile

Eat plenty of vegetables, legumes and fruits	
Issue	Increasing the consumption of fruit and vegetables is a national priority in improving the dietary intake of all Australians. The Australian Guide to Healthy Eating contains recommendations for fruit and vegetables including fresh, canned or frozen varieties with less emphasis on juices and dried fruit and dried vegetables[44].
Rationale and role	Refer to Dietary Guidelines for Australian Adults for scientific basis for Dietary Guidelines[1]. Fruit and vegetable intake among Indigenous Australians living in remote Australia is generally low. The National Aboriginal and Torres Strait Islander Health Survey 2004-05, revealed that in contrast to 12% of Indigenous people in non-remote areas, 20% of Indigenous Australians in remote areas reported no usual daily fruit intake. The disparity was even greater for vegetables with 15% of people in remote areas reporting no usual intake compared to 2% in non-remote areas[45]. A study conducted in a remote community in Northern Australia showed that on average community members consumed less than one half (41%) of the fruit and vegetable serves consumed by wider Australia (1995 NNS)[37] and approximately one third (32%) of the number of fruit and vegetable serves recommended per capita per day[40]. Data collected from the six participating stores in the RIST trial showed that fresh fruit and vegetables contributed substantially to the total store turnover of fruit and vegetables. Considering the minimal contribution of both fruit and vegetables to total energy availability, vegetables particularly, and fresh fruit, contributed significantly to fibre and micronutrient availability. Fresh vegetables and fruit were important sources of available vitamin A equivalents, β-carotene, magnesium and total folate. Juice, fresh vegetables and fruit were major sources of vitamin C. These indicators relating to fruit and vegetable turnover and availability are designed to measure the availability of fruit and vegetables in the community store and can be used: • To identify community stores where fruit and vegetable turnover is inadequate for the community population • To monitor trends in fruit and vegetable availability and turnover, in order to help plan store-based and community-wide food and nutrition strategies to improve fruit and vegetable turnover • To monitor and assess the affect of strategies and nutrition related interventions and policies aimed at improving the nutritional quality of the food supply available to Indigenous Australians in remote Australia • to help explore the affects of improved fruit and vegetable availability and turnover on health outcome
Linkage with other indicators	The fruit and vegetable indicator is a compound index based on a number of component measures. These are: • Quarterly turnover of total fruit • Quarterly turnover of total vegetables • Proportion of fresh fruit to total fruit turnover • Proportion of fresh vegetables to total vegetable turnover • Percent of total fruit sales (dollar value) to total food sales (dollar value) • Percent of total vegetable sales (dollar value) to total vegetable sales (dollar value)

Alternative methods and definitions	A number of measures have been developed to assess fruit and vegetable consumption for the Australian population. These are presented in Table 1. The measures presented in this report are based on store point-of-sale data. Not all stores have the means to use point-of-sale data for monitoring purposes. Wholesale or invoice data can also be used to monitor trends in the turnover and availability of fruit and vegetables. These indicators have been designed to monitor the availability and turnover of fruit and vegetables in the community store for the purpose of planning interventions and strategies to improve the store food supply. These indicators can also be applied to measure the turnover and availability of fruit and vegetables at the community level through including data on fruit and vegetable turnover from other food outlets and sources in the community. Application of these indicators to include all community food outlets and food sources would provide useful information on per capita fruit and vegetable consumption. The monitoring and evaluation of an intervention to influence fruit and vegetable turnover in a specific community setting, such as the school or child care centre would require setting-specific data collection.
Related indicator sets	Refer to Table 1 and Topic area 7 (Table 31)

Table 19. Topic 1 Indicator measure a.

Eat plenty of vegetables, legumes and fruits	
INDICATOR **Quarterly turnover of total fruit (kg)** **Quarterly turnover of total vegetable (kg)** **Proportion of fresh fruit to total fruit turnover (%)** **Proportion of fresh vegetables to total vegetable turnover (%)**	
Definition of indicator	The total weight of fruit (including all fruit – canned, dried, frozen and fresh) that is sold through the community store or food outlet over a specified time period. The total weight of vegetable (including all vegetable – canned, dried, frozen and fresh) that is sold through the community store or food outlet over a specified time period. The proportion of the total weight of fresh fruit (kg) to the total weight of all fruit sold (kg) through the community store over a specified period. The proportion of the total weight of fresh vegetables (kg) to the total weight of all vegetable sold (kg) through the community store over a specified period.
Underlying definitions and concepts	When based on point-of-sale data these measures require that all purchased fruit and vegetable are scanned and that the unit weight is accurately entered into a store database. It also requires that each fruit and vegetable unit has a unique identifying code (barcode or price locked unit – PLU). The use of wholesale data requires that all fruit and vegetable orders received by the store are collected for the specified period. “Fresh” fruit and “fresh” vegetables is defined as produce that is not frozen, canned, dried, pre-cooked, pickled or processed. Hot potato chips are not included in the vegetable food group. The computation of fresh produce to fresh and not fresh produce requires that each fruit and vegetable item available through the store is categorised accurately as fresh or not fresh.
Specification of data needed	The following data are required: Unit unique identifier Unit description Unit quantity sold or ordered over a specified time period Unit weight Food grouping – fresh or not fresh
Data sources, availability and quality	Point-of-sale store data Invoice data Electronic wholesale data
Computation	• Sum of (unit weight (g) multiplied by the unit quantity sold)/ 1000 • Percentage contribution of fresh produce weight to fresh and not fresh produce total weight
Units of measurement	Kg %
Scale of application	Local to National

Performance target	The short term target for remote community stores is to increase the total turnover of both fruit and vegetables and at least maintain or increase the current contribution of fresh produce to both fruit and vegetable turnover. The long term performance target for fruit and vegetable turnover can be calculated using the RIST fruit and vegetable calculator. This results in a tonnage based on the required number of fruit and vegetable serves at the community level. However at this stage most community stores are at a very low base for fruit and vegetable turnover and substantial shifts in infrastructure, store governance and management practices, marketing and promotion, and community social norms are required to achieve recommended intakes of fruit and vegetables. Intermediary targets need to be established at the store and community level on the availability of comparative data and be continually revised.
Interpretation	In general terms, an increase in these indicators may be taken as an increase in per capita consumption of fruit and vegetables. Care is nevertheless necessary in interpreting this measure. A significant population change may affect this measure. Furthermore, a change in turnover may be indicative of store growth in general. The data needed to construct the indicator may also suffer from inaccuracies which may not be apparent. For example, inaccuracies in scanning food items or assigning unit weights will affect the accuracy of the measure. It is important to note that wholesale data cannot be compared to point-of-sale data. Attempts to compare stores and/or regions need to consider population shifts and other between store structural differences.

Table 20. Topic 1 Indicator measure b.

Eat plenty of vegetables, legumes and fruits	
Percent of total fruit sales to total food sales (%) **Percent of total vegetable sales to total vegetable sales (%)**	
Definition of indicator	The percentage contribution of total store fruit sales (dollar value) to total store food sales (dollar value) over a specified time period. The percentage contribution of total store vegetable sales (dollar value) to total store food sales (dollar value) over a specified time period.
Underlying definitions and concepts	When based on point-of-sale data this measure requires that all purchased fruit and vegetable are scanned and that the unit dollar value is accurately entered into a store database. It also requires that each fruit and vegetable unit has a unique identifying code (barcode or price locked unit – PLU). The computation of total food sales is more complex than turnover. When using point-of-sale data it requires that all food units purchased are accurately scanned and that the correct unit dollar value is entered in the store database. This means that for fruit and vegetables sold by a per kilogram dollar value an accumulative dollar value based on an accumulative kilogram weight is needed. Variations to the per kilogram dollar value of a food item need to be continually updated in the computer system to ensure accuracy. The use of wholesale data requires that the dollar value for both fruit and vegetables and for all food orders received by the store are computed for the specified period.
Specification of data needed	The following data are required: Unit unique identifier Unit description Unit quantity sold or ordered over a specified time period Unit dollar value
Data sources, availability and quality	Point-of-sale store data Invoice data Electronic wholesale data
Computation	• Sum of (unit dollar value multiplied by the unit quantity/ or accumulative weight sold) (for point-of-sale data) • Sum of (unit dollar value multiplied by the unit quantity ordered) (for wholesale data)
Units of measurement	%
Scale of application	Local to National
Performance target	The target for remote community stores is to increase the percentage that fruit and vegetable sales are contributing to total store food sales. The long term performance target for fruit and vegetable sales as a percentage of total food sales can be estimated using the RIST fruit and vegetable calculator to determine total weight of fruit and vegetables required and an average store-based per kilo cost for fruit and vegetables. However at this stage the percentage contribution of fruit and vegetables to total store food sales is at a very low base. Substantial shifts in infrastructure, store governance and management practices, marketing and promotion, and social norms are required to achieve required targets. Intermediary targets need to be established at the store and community level once comparative data is available and continually revised.

Interpretation	In general terms, an increase in this indicator may be taken as an increase in per capita consumption of fruit and vegetables. Care is nevertheless necessary in interpreting this measure. Increases in the price of fruit and vegetables without concomitant price increases for other grocery and store food items will affect this measure and visa vis for reductions in fruit and vegetable prices. The data needed to construct the indicator may suffer from inaccuracies which may not be apparent. Inaccuracies in scanning or assigning unit dollar values will affect the accuracy of the measure. It is important to note that wholesale data cannot be compared to point-of-sale data. Attempts to compare stores and/or regions would need to consider population changes, price changes and other between store structural differences.

Table 21. Topic 2 Indicator profile

Eat plenty of cereals (including breads, rice, pasta and noodles), preferably wholegrain	
Issue	The Australian Guide to Healthy Eating recommends that breads, cereals, rice, pasta and noodles form the basis of a healthy diet, with the greatest proportion of food coming from this food group[1]. Wholegrain cereal choices, which generally are higher in dietary fibre, and cereals with a lower glycaemic index are recommended[1]. Foods that contain at least 51 percent by weight of a combination of whole grains can be termed wholegrain[1]. This therefore includes foods such as wholemeal breads and crispbreads, many high-fibre breakfast cereals, oatmeal, wholemeal pasta, brown rice and popcorn.
Rationale and role	Refer to Dietary Guidelines for Australian Adults for scientific basis for Dietary Guidelines1. Across five of the six stores, flour and bread contributed 41 to 68 percent to the turnover of cereal and cereal products (Table 12). In one community, rice was also a major cereal source. These foods in addition to weetbix were important sources of energy, protein, carbohydrate and fibre across the six participating community stores and moderate sources of iron, total folate, zinc, thiamine, niacin and magnesium. The Australian Guidelines for Healthy Eating recommend that Australians eat plenty of cereals, preferably wholegrain cereals. Although cereal and cereal products contributed the greatest proportion to total energy availability across the participating community stores, this was largely due to refined cereal products such as white bread, white rice and white flour. Considering the 1) importance of bread as a dietary staple; 2) it being a major contributor to nutrient availability; and 3) the acceptability of wholegrain or high-fibre breads and bread products to the consumer as opposed to wholemeal flour or brown rice, bread was selected as the key indicator to represent the cereal food group. Table 16 and Table 17 show that bread was a major food source for most macro- and micro-nutrients across the six community stores. At present, wholemeal and wholegrain breads and high-fibre modified breads are either not available or their availability is limited in many remote community stores. The target is to increase the proportion that wholegrain and wholemeal breads and high-fibre modified breads contribute to total bread weight and to increase the availability of other grains and cereal products as recommended in the Heart Foundation Buyer's Guide and RIST stocking guidelines. The indicators relating to wholegrain cereals and cereal products are designed to measure the availability of wholegrain and high fibre modified breads in the community store, and can be used: • To identify community stores where wholegrain and high-fibre modified breads are not available in the community store. • To monitor trends in the availability and turnover of wholegrain and high-fibre breads, in order to help plan store-based and community-wide food and nutrition strategies to improve turnover of wholegrain cereal products • To monitor and assess the affect of strategies and nutrition related interventions and policies aimed at improving the nutritional quality of the food supply available to Indigenous Australians in remote Australia • to help explore the affect of improved availability of wholegrain cereals and cereal products on health outcome

Linkage with other indicators	The cereals and cereal product indicator is a compound index, based on a number of component measures. These are: • Quarterly turnover of wholegrain and high-fibre bread products • Percent of wholegrain and high-fibre bread product sales as a proportion of total bread sales These indicators can be assessed in conjunction with the RIST stocking guidelines. The RIST stocking guidelines provide information on what particular cereal foods are recommended for purchase in a community store. As with the bread indicator proposed in this report, the availability of the recommended cereal foods as stated in the RIST stocking guidelines can also be monitored over time.
Alternative methods and definitions	A number of measures have been developed to assess cereal and cereal product consumption for the Australian population. These are presented in Table 1. The measures presented in this report are based on store point-of-sale data. Not all stores have the means to use point-of-sale data for monitoring purposes. Wholesale or invoice data can also be used to monitor trends in the turnover and availability of wholegrain cereal products. These indicators have been designed to monitor the availability and turnover of wholegrain cereals and cereal products in the community store for the purpose of planning interventions and strategies to improve the store food supply. These indicators can also be applied to measure the turnover and availability of wholegrain cereal products at the community level through including data on the sales and turnover of wholegrain and high-fibre breads available through the community food outlets. The availability of other recommended cereals and cereal products can be monitored through referring to the RIST Stocking Guidelines.
Related indicator sets	Refer to Table 1

Table 22. Topic 2 Indicator measure

Eat plenty of cereals (including breads, rice, pasta and noodles), preferably wholegrain	
• Quarterly turnover of wholegrain and high-fibre bread products (kg) **• Percent of wholegrain and high-fibre bread product weight as a proportion of total bread weight**	
Definition of indicator	The total weight of wholegrain and high-fibre bread products that is sold through the community store or food outlet over a specified time period. The percent contribution of wholegrain and high-fibre bread to the total weight of bread products sold through the community store or food outlet over a specified time period.
Underlying definitions and concepts	When based on point-of-sale data this measure requires that all purchased bread is scanned and that the unit weight is accurately entered into a store database. It also requires that each bread product has a unique identifying code (barcode or price locked unit – PLU). The use of wholesale data requires that all bread orders received by the store are collected for the specified period. The computation of the weight of wholegrain and high-fibre bread products to total bread weight requires that each bread item available through the store is categorised accurately as “wholegrain”, “white high fibre” or “other”. Crumpets, muffins, sweet buns, pizza base and breadcrumbs are not monitored as these products presently do not have a high turnover. Wholegrain bread products include mixed grain, seed, kibbled, rye and wholemeal bread products. To make a claim in relation to fibre, 1.5g of fibre/ serve must be available. High fibre is currently 3g/ serve. A serve is usually defined by industry as 2 slices of bread.
Specification of data needed	The following data are required: Unit unique identifier Unit description Unit quantity sold or ordered over a specified time period Unit weight Food grouping – “Wholegrain”, “white high fibre”, “other”
Data sources, availability and quality	Point-of-sale store data Invoice data Electronic wholesale data
Computation	• Sum of (unit weight multiplied by the unit quantity) sold / 1000 • Percentage of wholegrain and high-fibre bread product weight as a proportion of total bread weight
Units of measurement	kg %
Scale of application	Local to National

Performance target	The target is to increase the proportion that wholegrain and wholemeal breads and high-fibre modified breads contribute to total bread weight and to increase the availability of other grains and cereal products as recommended in the Heart Foundation Buyer's Guide. Making available a variety of wholegrain breads and replacing a proportion of available white bread products with a high-fibre product enables a target of 100% of all bread sold through the community as either wholegrain or high-fibre bread to be set. The achievement of this target will depend on the availability of wholegrain breads and high-fibre bread products from suppliers and consumer acceptance of these products. Intermediary targets need to be established at the store and community level based on comparative data and continually revised.
Interpretation	In general terms, an increase in this indicator may be taken as an increase in per capita consumption of wholegrain cereals and cereal products. Care is nevertheless necessary in interpreting this measure. This measure is dependent on population size and store growth in general. The data needed to construct the indicator may suffer from inaccuracies which may not be apparent. Inaccuracies in scanning, assigning unit weights and food groupings will affect the accuracy of the measure. It is important to note that wholesale data cannot be compared to point-of-sale data. Across stores and/or region comparisons of the indicator that measures the proportion of wholegrain and high-fibre bread to total bread weight is possible assuming data accuracy.

Table 23. Topic 3 Indicator profile

Include lean meat, fish, poultry and /or alternatives	
Issue	The Australian Guide to Healthy Eating recommends one to one-and-a half serves of meat, poultry or alternatives each day for Australians aged 16-90 yrs. Meat, fish, poultry and their alternatives (such as eggs, liver, kidney, legumes, nuts and seeds) contribute a number of important nutrients, some of which are marginal in the Australian diet[1] and were shown to be marginal across the six community stores (Figure 2 to Figure 7). The foods in this food group are very valuable sources of protein as well as major sources of a number of minerals and vitamins (micronutrients), such as iron, zinc, vitamin B_{12} and, in the case of fish, n-3 fats[1]. Low iron intakes are common in Australia. Low iron intakes – coupled with increased requirements among population subgroups such as women of childbearing age in pregnancy – make iron deficiency a significant public health concern[1]. Meats, fish and poultry are major contributors to dietary zinc while cereals and dairy foods also contrinute substantial amounts[46]. Zinc was shown to to be a limiting nutrient across two of the six participating community stores.
Rationale and role	Refer to Dietary Guidelines for Australian Adults for scientific basis for Dietary Guidelines and the Nutrient reference values for Australia and New Zealand[1;46]. Despite “meat and meat products” only contributing between six to fourteen percent to total energy availability across the six participating stores, “meat and meat products” mainly as canned meat, prepared meats (eg. frozen,canned and prepared meals) and chicken, were important sources of zinc, iron, niacin equivalents and phosphorus. In weight, processed meats mainly as canned meats contributed between 22 to 46 percent to the “meat and meat product” group across the six communities. Processed meat (mainly canned meat) was consistently an important contributor to total fat, saturated fat and sodium across the six community stores. The Australian Guidelines for Healthy Eating recommend that Australians include lean meat, fish, poultry and/or alternatives. The target is to reduce the turnover of canned meat while increasing the turnover of lean fresh meat cuts and fish (not fried) and to ensure the availability of skinless chicken cuts and canned and fresh fish. These indicators relating to the availability and turnover of lean meat cuts and fish can be used: • To identify community stores where lean meat cuts and fish (fresh/frozen and canned) are not available • To monitor trends in availability and turnover of lean meat cuts, and fish, in order to help plan store-based and community-wide food and nutrition strategies to improve the nutritional quality of the food supply • To monitor and assess the affect of strategies and nutrition related interventions and policies aimed at improving the nutritional quality of the food supply available to Indigenous Australians in remote Australia • to help explore the affect of an improved food supply on health outcome

Linkage with other indicators	The meat and meat product indicator is a compound index, based on a number of component measures. These are: • Total weight of canned meat sold in a specified period • Proportion of canned meat and lean meat cuts to total weight of meat and meat products • Availability of skinless chicken cuts, lean mince meat and lean meat cuts • Total weight of fish and/ or seafood (fresh/ frozen and canned) sold by quarter • Percent of fish and/ or seafood (fresh/ frozen and canned) to total meat and meat product weight • Availability of fish, seafood (fresh/ frozen) and canned fish This indicator also links with Topic 7 (Table 32).
Alternative methods and definitions	A number of measures have been developed to assess the consumption of lean meat, fish and poultry for the Australian population. These are presented in Table 1. The measures developed as part of a simple monitoring tool for remote community stores presented in this report are based on store point-of-sale data. Not all stores have the means to use point-of-sale data for monitoring purposes. Wholesale or invoice data can also be used to monitor trends in meat and meat product consumption. These indicators have been designed to monitor the availability and turnover of fresh lean meat cuts and fish and seafood (fresh/frozen and canned) in the community store for the purpose of planning interventions and strategies to improve the store food supply.
Related indicator sets	Refer to Table 1 and Topic 7 (Table 32)

Table 24. Topic 3 Indicator measure

Include lean meat, fish, poultry and /or alternatives	
• **Total weight of canned meat sold by quarter** • **Proportion of canned meat and lean meat cuts to total weight of meat and meat products** • **Availability of skinless chicken cuts, lean mince meat and lean meat cuts** • **Total weight of fish and seafood (fresh/ frozen and canned) sold by quarter** • **Percent of fish and seafood (fresh/ frozen and canned) as a proportion of total meat and meat product weight** • **Availability of fish, seafood (fresh/ frozen) and canned fish**	
Definition of indicator	The total weight of canned meat sold over a specified period. The proportion of canned meat and lean meat cuts to total weight of meat and meat products in a specified period. The total weight of fish (fresh/ frozen and canned) sold over a specified period. The percentage of fish and seafood (fresh/ frozen and canned) as a proportion of the total weight of meat and meat products.
Underlying definitions and concepts	When based on point-of-sale data these measures require that all purchased meat and meat products including fish and seafood are scanned and that the unit weight is accurately entered into a store database. It also requires that each meat and meat product and fish and seafood unit has a unique identifying code (barcode or price locked unit – PLU). The use of wholesale data requires that all meat and meat products and fish and seafood products received by the store are collected for the specified period. The computation of the proportion of canned meat and lean meat cuts to total weight of meat and meat products requires that each meat and meat product item available through the store is categorised accurately as “fresh lean cuts”, “fresh cuts (not lean)”, “canned meat”, “all others”. Canned meat includes SPAM, canned corned beef and camp pie. The computation of the total weight of fish (fresh/ frozen and canned) and the proportion of fish and seafood (fresh/ frozen and canned) to the total weight of meat and meat products requires that each fish and seafood item available through the store is categorised accurately as “fresh/ frozen fish and seafood” and “canned”. Battered or crumbed fish and seafood are not monitored. The assigning of a meat cut as “fresh lean cut” or “fresh cuts (not lean)” is a store level decision. A lean meat cut is generally defined as trimmed of skin (poultry) and fat and minimal external and internal fat. Consistency in assigning a meat cut as “fresh lean cut” or “fresh cuts (not lean)” from quarter to quarter is essential to ensure reliability of the indicator measure.
Specification of data needed	The following data are required: Unit unique identifier Unit description Unit quantity sold or ordered over a specified time period Unit weight
Data sources, availability and quality	Point-of-sale store data Invoice data Electronic wholesale data

Computation	• Sum of (unit weight of canned meat multiplied by the unit quantity sold)/ 1000 = total weight of “canned meat” (kg) • Sum of (unit weight of each “meat and meat product” multiplied by the unit quantity sold)/ 1000 = total weight of “meat and meat products” (kg) • Percentage of fresh lean meat cuts as a proportion of the total weight of “meat and meat products”. • Percentage of canned meat as a proportion of the total weight of “meat and meat products”. • Sum of (unit weight of fish and seafood (fresh/frozen and canned) multiplied by the unit quantity sold)/ 1000 = total weight of fish and seafood (fresh/ frozen and canned) (kg) • Percentage of fish and seafood (fresh/ frozen and canned) as a proportion of the total weight of “meat and meat products”.
Units of measurement	% kg
Scale of application	Local to National
Performance target	The target for remote community stores is to increase the percentage that “lean meat cuts” are contributing to the total weight of “meat and meat products” and to decrease the turnover of “canned meat” and its contribution to “total meat and meat product” weight. The long term performance target for the contribution of “lean meat cuts” to total “meat and meat products” is that all fresh meat cuts are lean. However at this stage the percentage contribution of “lean meat cuts” to the total weight of “meat and meat products” is at very low base. Substantial shifts in infrastructure, store governance and management practices, marketing and promotion and social norms are required to achieve required targets. Intermediary targets need to be established at the store and community level on the availability of comparative data and continually revised. The same applies for fish and seafood (fresh/frozen and canned).
Interpretation	Improvements in these indicators may be taken as a reduction in total fat and saturated fat consumption at the community level. Care is nevertheless necessary in interpreting this measure. The data needed to construct the indicators may suffer from inaccuracies which may not be apparent. Inaccuracies in scanning or assigning unit weights will affect the accuracy of the measure. The accuracy of the measures is also dependent on accurate assignment of food categories. It is important to note that wholesale data cannot be compared to point-of-sale data.

Table 25. Topic 4 Indicator profile

Include milks, yoghurts, cheeses and/or alternatives: reduced fat varieties should be chosen, where possible	
Issue	Milk foods are a valuable source of nutrients in the Australian diet, notably calcium, protein, vitamin A, riboflavin, vitamin B12 and zinc47. It is recommended that reduced-fat varieties or reduced-fat alternatives be chosen where possible47. Milk foods are a rich source of calcium. Calcium was found to be limiting nutrients across all participating community stores and zinc was a limiting nutrient in two of the community stores.
Rationale and role	Refer to Dietary Guidelines for Australian Adults for scientific basis for Dietary Guidelines[47]. Data collected from the six stores found that milk and milk products provided between 8 to 14 per cent of dietary energy, 13 to 21 per cent of protein, 21 to 28 per cent of vitamin A, 34 to 45 per cent of riboflavin, 13 to 22 per cent of zinc and 18 to 30 percent to potassium. "Milk and milk products" across the six community stores also provided 12 to 20 percent of total fat and 21 to 36 per cent of saturated fat. Across all six communities, milk (liquid and/or powdered) contributed 68 to 89 percent to the total weight of milk and milk products. Across four communities, ice cream was an important milk food, contributing between 14 to 26 per cent to the total weight of milk and milk products. Across all communities, milk (liquid and/ or powdered) was a major source of protein, total fat, saturated fat, calcium, zinc, riboflavin, magnesium, vitamin A, potassium and phosphorus. Cheese was a moderate source of calcium providing between 5 to 10 percent across the six community stores. These indicators have been developed based on the observation that milk (powdered and/or liquid) is the main "milk and milk product" source and major source for many of the macro- and micro-nutrients. These indicators relating to the turnover and availability of "milk and milk products" can be used: • To identify community stores where milk intake is inadequate for the community population • To monitor trends in the turnover of milk and availability of reduced fat milk products, in order to help plan store-based and community-wide food and nutrition strategies to improve calcium intake and to reduce the availability of saturated fat. • To monitor and assess the affect of strategies and nutrition related interventions and policies aimed at improving the nutritional quality of the food supply available to Indigenous Australians in remote Australia • to help explore the affect of an improved food supply on health outcome
Linkage with other indicators	The milk and milk product indicator is a compound index, based on a number of component measures. These are: • Total turnover of all milk (full cream; reduced fat milk, flavoured milk and reduced fat flavoured milk) by quarter • Proportion of reduced fat milk and reduced fat flavoured milk to total milk turnover • Proportion of reduced fat plain milk to total plain milk turnover • Proportion of reduced fat flavoured milk to total flavoured milk turnover • Total weight of reduced fat cheese and regular cheese by quarter (kg) • Proportion of reduced fat cheese to total turnover of cheese • Availability of reduced fat cheese; reduced fat powdered milk; reduced fat liquid milk and reduced fat flavoured milk

Alternative methods and definitions	A number of measures have been developed to assess milk and milk product consumption for the Australian population. These are presented in Table 1. The measures developed as part of a simple monitoring tool for remote community stores presented in this report are based on store point-of-sale data. Not all stores have the means to use point-of-sale data for monitoring purposes. Wholesale or invoice data can also be used to monitor trends in the turnover and availability of milk and milk products. These indicators have been designed to monitor the availability and turnover of milk and milk products in the community store for the purpose of planning interventions and strategies to improve the store food supply. These indicators can also be applied to measure the turnover and availability of milk and milk products at the community level through including data on milk and milk product turnover from other food outlets and sources in the community. Application of these indicators to include all community food outlets and sources would provide information on per capita consumption of milk and milk products. The monitoring and evaluation of an intervention to influence milk and milk product turnover in a specific community setting, such as the school or child care centre, would require setting-specific data collection.
Related indicator sets	Refer to Table 1

Table 26. Topic 4 Indicator measure

Include milks, yoghurts, cheeses and/or alternatives: reduced fat varieties should be chosen, where possible	
• Total turnover of all milk by quarter (kg) **• Proportion of reduced fat plain milk and reduced fat flavoured milk to total milk turnover** **• Proportion of reduced fat plain milk to total plain milk turnover** **• Proportion of reduced fat flavoured milk to total flavoured milk turnover** **• Total weight of reduced fat cheese and regular cheese by quarter** **• Proportion of reduced fat cheese to total turnover of cheese** **• Availability of reduced fat cheese; reduced fat powdered milk; reduced fat liquid milk and reduced fat flavoured milk**	
Definition of indicator	The total weight of milk (liquid / powdered) (kg) sold over a specified period. The proportion of reduced fat milk and reduced fat flavoured milk to the total weight of milk in a specified period The percentage of reduced fat plain milk as a proportion of the total weight of plain milk The percentage of reduced fat flavoured milk as a proportion of the total weight of flavoured milk The percentage of reduced fat cheese as a proportion of the total weight of cheese sold in a specified period To make a claim about reduced saturated fat or reduced total fat, there needs to be a 25% in fat content compared with a standard reference food ie. full cream milk. Full cream milk must contain a minimum of 3.2% milk fat. No more than 2.4% milk fat content is a 25% reduction and therefore meets the claim for “reduced fat”. This same standard applies for cheese. Regular cheese has a fat content of about 33%. A fat content of no more than 24% fat is generally labelled as reduced fat. Claims in labelling such as “lite” or “light” have to stipulate what nutrient the product is “light” in.
Underlying definitions and concepts	When based on point-of-sale data these measures require that all purchased milk and cheese products are scanned and that the unit weight is accurately entered into a store database. It also requires that each milk and cheese product has a unique identifying code (barcode or price locked unit – PLU). The use of wholesale data requires that all milk and cheese products received by the store are collected for the specified period. The computation of the proportion of reduced fat milk and cheese products to the total weight of milk and cheese products respectively requires that each milk and cheese product item available through the store is categorised accurately. The categories for plain milk are “full cream” and “reduced fat” and for flavoured milk, “flavoured full cream” and “flavoured reduced fat”. The categories for cheese are “regular” and “reduced fat”.
Specification of data needed	The following data are required: Unit unique identifier Unit description Unit quantity sold or ordered over a specified time period Unit weight
Data sources, availability and quality	Point-of-sale store data Invoice data Electronic wholesale data

Computation	• Sum of (unit weight of all milk (liquid/ powdered) multiplied by the unit quantity sold)/1000 = total weight of milk (kg) • Percentage of reduced fat plain milk and reduced fat flavoured milk as a proportion of the total weight of milk. • Sum of (unit weight of cheese multiplied by the unit quantity sold)/1000 = total weight of cheese (regular and reduced fat) (kg) • Percentage of reduced fat cheese as a proportion of the total weight of cheese.
Units of measurement	kg %
Scale of application	Local to National
Performance target	The target for remote community stores is to increase the turnover of milk and to increase the percentage that reduced fat milk products are contributing to the total weight of milk products (namely milk and cheese). The long term performance target for increasing the turnover of milk is dependent on the community population size and age distribution as is the target in reference to the proportion of reduced fat milk and cheese products to the total weight of milk and cheese products sold. Reduced fat dairy products are not recommended for some members of the population, particularly for children less than two years of age. A target of having all dairy products as reduced fat products is not recommended and could negatively impact on the nutritional status of some members of the population. Long term targers need to be set at a national level on the availability of comparative store data. Intermediary targets need to be established at the store and community level in consultation with a nutrition expert (nutritionist/ dietitian) and continually revised.
Interpretation	Improvements in these indicators may be taken as an increase in dietary availability of calcium, potassium and zinc and a reduction in total fat and saturated fat consumption at the community level. Care is nevertheless necessary in interpreting this measure. The data needed to construct the indicators may suffer from inaccuracies which may not be apparent. Inaccuracies in scanning or assigning unit weights will affect the accuracy of the measure. The accuracy of the measures is also dependent on accurate assignment of food categories. It is important to note that wholesale data cannot be compared to point-of-sale data.

Table 27. Topic 5 Indicator Profile

Drink plenty of water	
Issue	Water is an essential nutrient for life. Moderation is recommended in relation to consumption of soft drinks and cordials containing added sugars[47]. Fruit and vegetables juices can be a useful source of vitamin C, potassium and folate[47]. There is, however, no reason for obligatory consumption of fruit and vegetable juices if fruits and vegetables are consumed in line with recommended levels[47]. Across the six stores, beverages comprised 16 to 27 per cent of total food sales. All drinks were defined as beverages, except for milk drinks. Tea, coffee and drink powder bases were excluded from the beverage food group. Beverages provided 9 to 13 per cent of dietary energy available across the six community stores and contributed one-third to almost one-half of total sugar availability. Sugars provide a readily absorbed source of energy. The presence of high amounts of sugar can, however, dilute the nutrient density of the diet, and diets high in added sugar have been associated with development of obesity and dental caries[47]. The Dietary Guidelines for Australians recommend that Australians consume only moderate amounts of sugars and foods containing added sugars[47].
Rationale and role	Refer to Dietary Guidelines for Australian Adults for scientific basis for Dietary Guidelines[47]. Data collected from the six community stores found that total sugars contributed 26 to 36 per cent of dietary energy availability. This is higher than the Australian average of 24 percent[47]. Beverages were a major contributor to the availability of total sugars. The two main drinks contributing to beverages across the six community stores were soft drinks (sweetened) (34 to 64% to total beverage volume) and cordial/ fruit drinks (13 to 33 percent in volume). Juice and diet soft drinks contributed between 11 to 13 per cent and 10 to 36 per cent respectively to beverage volume in three of the six stores. Sweetened soft drinks alone across the six community stores contributed between 16 to 27 per cent to total sugars. Cordial was also an important source of refined sugar contributing between 8 to 11 per cent across the six community stores. Fruit and vegetable juices were a very important source of vitamin C across all six stores providing between 19 to 53 per cent of vitamin C availability. Similarly fruit drinks were an important source of vitamin C. Vitamin C was found to be in excess of recommended levels across all six community stores. Based on the dietary assessment of food available through the six community stores, soft drinks, cordial and water were selected as the key foods to monitor progress towards dietary goals and compliance with the Australian Dietary guidelines. These indicators relating to the turnover and availability of soft drinks, water and cordial can be used: • To identify community stores where sweetened soft drinks contribute disproportionately to beverages and where water and/or alternative unsweetened beverages are not available. • To monitor trends in the turnover of soft drinks, cordial and water to help plan store-based strategies and community-wide food and nutrition strategies to reduce sugar dietary intake. • To monitor and assess the affect of strategies and nutrition related interventions and policies aimed at improving the nutritional quality of the food supply available to Indigenous Australians in remote Australia • to help explore the affect of an improved food supply on health outcome
Linkage with other indicators	The beverage indicator comprises one measure: • Proportion of soft drinks (not diet), cordial (not diet) and water to total beverages (not including tea and coffee) This indicator is linked with Topic 6: consume only moderate amounts of sugar and foods containing added sugars

Alternative methods and definitions	A number of measures have been developed to assess water and sugar consumption for the Australian population. These are presented in Table 1. The measures developed as part of a simple monitoring tool for remote community stores presented in this report are based on store point-of-sale data. Not all stores have the means to use point-of-sale data for monitoring purposes. Wholesale or invoice data can also be used to monitor trends in the turnover and availability of soft drinks, cordial and water. These indicators have been designed to monitor the availability and turnover of soft drinks, water and cordial in the community store for the purpose of planning interventions and strategies to improve the store food supply. These indicators can also be applied to measure the turnover and availability of soft drinks, cordial and water at the community level through including data on the turnover of these beverages from other food outlets and sources in the community. Application of these indicators to include all community food outlets and sources would provide information on per capita consumption of the specified beverages. The monitoring and evaluation of an intervention to influence turnover of specific beverages in a specific community setting, such as the school or child care centre, would require setting specific data collection.
Related indicator sets	Refer to Table 1 and topic 6

Table 28. Topic 5 Indicator Measure

Drink plenty of water	
• Proportion of soft drinks (not diet), cordial (not diet) and water to total beverages (not including tea and coffee)	
Definition of indicator	The proportion of soft drinks (not diet), cordial (not diet), water and all "other "drinks (not including tea and coffee) to the total volume of beverages (not including tea and coffee) in a specified period. "Other" drinks includes diet drinks, fruit drinks and juice (sweetened and unsweetened). Sports drinks, flavoured sweetened mineral waters and tonic water are defined as soft drinks.
Underlying definitions and concepts	When based on point-of-sale data these measures require that all purchased beverages are scanned and that the unit weight is accurately entered into a store database. It also requires that each beverage product has a unique identifying code (barcode or price locked unit – PLU). The use of wholesale data requires that all beverage products (excluding tea and coffee) received by the store are collected for the specified period. The computation of the proportion of water, cordial, sweetened softdrinks and all other drinks (excluding tea and coffee) to the total volume of beverages requires that all beverage products available through the store are categorised accurately.
Specification of data needed	The following data are required: Unit unique identifier Unit description Unit quantity sold or ordered over a specified time period Unit weight
Data sources, availability and quality	Point-of-sale store data Invoice data Electronic wholesale data
Computation	• Unit weight (in mls) for each beverage product multiplied by the unit quantity sold in a specified period/1000 = total volume for each beverage product (l) • Sum of unit weight (in mls) for each beverage product multiplied by the unit quantity sold in a specified period/1000 = total beverage volume (l) • Percentage of specific beverage category (water, cordial, soft drinks (not diet) as a proportion of the total beverage volume.
Units of measurement	Litres %
Scale of application	Local to National

Performance target	The target for remote community stores is to increase the turnover and availability of water and reduce the turnover and availability of cordial and softdrinks (not diet). A long term performance target needs to be considered firstly in relation to the current proportions that water, cordial and soft drinks are contributing to total beverages, secondly to the capacity of the store to market and promote water and alternative beverages to cordial and soft drinks and thirdly to the capacity of the store to influence consumer preferences and social norms. Currently beverages provide an important and relatively cheap energy source. The simultaneous promotion of fruit and vegetables at an affordable price offers an alternative energy source to high sugar beverages. Long term targets need to be set at the national level based on the availability of comparative data. Intermediary targets need to be established at the store and community level and continually revised. Establishing intermediary and long-term targets also need to consider alternative water sources in the community. For example the positioning and maintenance of free water coolers in a community would counter the need to increase store water sales.
Interpretation	Improvements in this indicator may be taken as a decrease in dietary availability of refined sugar. Care is nevertheless necessary in interpreting this measure. This indicator also needs to be interpreted in conjunction with Topic 6 indicators. The data needed to construct the indicator may suffer from inaccuracies which may not be apparent. Inaccuracies in scanning or assigning unit weights/ volumes will affect the accuracy of the measure. The accuracy of the measures is also dependent on accurate assignment of food categories. It is important to note that wholesale data cannot be compared to point-of-sale data. Comparisons of this indicator between stores can be made assuming data accuracy.

Table 29. Topic 6 Indicator Profile

Consume only moderate amounts of sugars and foods containing added sugars	
Issue	The Dietary Guidelines for Australians emphasise care and moderation in the amounts of sugars consumed[47]. A review of the nutrition of Indigenous Australians has suggested that a reduction in sugar consumption in this group would be an important strategy to improve their health and nutritional status[48].
Rationale and role	Refer to Dietary Guidelines for Australian Adults for scientific basis for Dietary Guidelines[47]. Data collected from the six participating community stores showed that while 4 to 7 per cent of total foods sales was expended on sugar and confectionery, only 3 to 12 percent was expended on fruit and vegetables. Sugar and confectionery alone contributed one-quarter to almost one-half to total sugar availability across the six community stores. Indeed this was mainly from table sugar as across the six community stores table sugar alone contributed 46 to 85 per cent of the total weight of the sugar and confectionery food group. Across five stores, confectionery contributed 10 to 34 percent to the total weight of the sugar and confectionery food group. This information indicates that targeting table sugar alone to reduce its turnover would impact on dietary sugar consumption. These indicators relating to sugar and confectionery turnover are designed to measure the turnover of sugar and confectionery in the community store, and can be used: • To identify community stores where table sugar intake particularly and confectionery intake is excessive • To monitor trends in sugar and confectionery turnover, in order to help plan store-based strategies and community-wide food and nutrition strategies to reduce the consumption of table sugar particularly and confectionery • To monitor and assess the affect of strategies and nutrition related interventions and policies aimed at improving the nutritional quality of the food supply available to Indigenous Australians in remote Australia • to help explore the affect of reduced turnover of table sugar particularly and confectionery on health outcome
Linkage with other indicators	The sugar and confectionery indicator is a compound index, based on a number of component measures. These are: • Total weight of all sugars sold (icing, castor, raw, brown and white) by quarter (kg) • Percentage of sugar sales (dollar value) as a proportion of total food sales (dollar value) • Total weight of all confectionery (not diet or artificially sweetened) sold by quarter (kg) • Percentage of confectionery sales (dollar value) as a proportion of total food sales (dollar value)
Alternative methods and definitions	A number of measures have been developed to assess consumption of sugars and food containing added sugars for the Australian population. These are presented in Table 1. The measures developed as part of a simple monitoring tool for remote community stores presented in this report are based on store point-of-sale data. Not all stores have the means to use point-of-sale data for monitoring purposes. Wholesale or invoice data can also be used to monitor trends in the turnover of sugar and confectonery. These indicators have been designed to monitor the turnover of sugar and confectionery in the community store for the purpose of planning interventions and strategies to improve the store food supply. These indicators can also be applied to measure the turnover of sugar and confectionery at the community level through including data on sugar and confectionery turnover from other food outlets and sources in the community. The monitoring and evaluation of an intervention to influence table sugar and/or confectionery turnover in a specific community setting, such as the school or chid care centre, would require setting-specific data collection.
Related indicator sets	Refer to Table 1

Table 30. Topic 6 Indicator Measure

Consume only moderate amounts of sugars and foods containing added sugars	
• **Total weight of all sugars sold (icing, castor, raw, brown and white) by quarter (kg)** • **Percentage of sugar sales (dollar value) as a proportion of total food sales (dollar value)** • **Total weight of all confectionery sold by quarter (kg)** • **Percentage of confectionery sales (dollar value) as a proportion of total food sales (dollar value)**	
Definition of indicator	The total weight of all sugars sold in a specified period (kg). The percentage of sugar sales as a proportion of total food sales in a specified period The total weight of all confectionery sold in a specified period (kg). The percentage of confectionery sales as a proportion of total food sales in a specified period Sugar includes raw, white, caster, brown and icing. Confectionery excludes diet (sugar-free/ artificially sweetened) confectionery
Underlying definitions and concepts	When based on point-of-sale data these measures require that all purchased sugars and confectionery are scanned and that the unit weight and dollar value is accurately entered into a store database. It also requires that each beverage product has a unique identifying code (barcode or price locked unit – PLU). The use of wholesale data requires that all sugar and confectionery products received by the store are collected for the specified period. The computation of each of the indicators requires that all sugar and confectionery products available through the store are categorised accurately.
Specification of data needed	The following data are required: Unit unique identifier Unit description Unit quantity sold or ordered over a specified time period Unit weight Unit value
Data sources, availability and quality	Point-of-sale store data Invoice data Electronic wholesale data

Computation	• Unit weight (g) for each sugar product multiplied by the unit quantity sold in a specified period = total weight for each sugar product • Sum of unit weight (g) for each sugar product multiplied by the unit quantity sold in a specified period/1000 = total sugar weight (kg) • Unit weight (g) for each confectionery product multiplied by the unit quantity sold in a specified period = total weight for each confectionery product • Sum of unit weight (g) for each confectionery product multiplied by the unit quantity sold in a specified period/1000 = total confectionery weight (kg) • Unit dollar value ($) for each sugar product multiplied by the unit quantity sold in a specified period = total value for each sugar product • Sum of unit dollar value ($) for each sugar product multiplied by the unit quantity sold in a specified period = total sugar value • Unit dollar value ($) for each confectionery product multiplied by the unit quantity sold in a specified period = total value for each confectionery product • Sum of unit dollar value ($) for each confectionery product multiplied by the unit quantity sold in a specified period = total confectionery value • Total sugar value divided by total food sales ($) x 100% = percent of total food sales • Total confectionery value divided by total food sales ($) x 100% = percent of total food sales
Units of measurement	Kg %
Scale of application	Local to National
Performance target	The target for remote community stores is to decrease the turnover and availability of sugar and confectionery. A long term performance target needs to be considered in relation to the capacity of the store to firstly market and promote alternative healthier food choices to sugar and confectionery and to secondly influence consumer preferences and social norms. Currently sugar provides an important and cheap energy source. The simultaneous promotion of affordable fruit and vegetables offers an alternative energy source to sugar and confectionery. Intermediary targets need to be established at the store and community level and continually revised. As with other targets, national targets need to be set on the availability of comparative store data.
Interpretation	Improvements in this indicator may be taken as a decrease in dietary availability of refined sugar. The turnover of sugar and confectionery needs to be interpreted in conjunction with the indicator relating to percent sales. In determining reductions in sugar intake, this indicator needs to be interpreted in conjunction with Topic 5 indicators relating to water and sweetened beverages. Care is nevertheless necessary in interpreting this measure. The data needed to construct the indicators may suffer from inaccuracies which may not be apparent. Inaccuracies in scanning or assigning unit weights will affect the accuracy of the measure. The accuracy of the measures is also dependent on accurate assignment of food categories. It is important to note that wholesale data cannot be compared to point-of-sale data. It is important that the relevance of this indicator as a proxy for sugar consumption be reviewed periodically. As has occurred in wider Australia, notable shifts in sugar consumption have been shown to occur. In the 1930s, 60 per cent of sugar used in Australia was in the form of added sugar. Now the proportions are reversed where 73 percent of sugar is used in food processing[47].

Table 31. Topic 7 Indicator Profile

Limit saturated fat and moderate total fat intake	
Issue	Fats are the most concentrated form of energy for the body. They also aid in the absorption of the fat-soluble vitamins, A, D, E and K and other fat-soluble biologically-active components[46]. In relation to the potential influence of dietary fat on body weight and cardiovascular disease, the NHMRC recommends that fat provide no more than 35 percent of dietary energy and that saturated fat provide less than 10 percent of dietary energy.
Rationale and role	Refer to Dietary Guidelines for Australian Adults for scientific basis for Dietary Guidelines[47]. In the late 1980s from store data collected across six northern territory communities, Lee et al[5] reported that the store food supply was high in energy and sugars and moderately high in fat. Fatty meats were reported to contribute 40 and 60 per cent to total fat intake in Northern coastal and Central Australian communities respectively. Across the six community stores presented in this report, fat contributed between 30 to 39 per cent of total energy availability and the contribution of saturated fat to total energy was greater than recommended. The “fats and oils” food group contributed most to total energy, followed by “cereal and cereal products”, “meat and meat products” and “milk and milk products”. Where in the past fatty meats were a major contributor to total fat availability, this was not the case for the six participating community stores. Across the six stores margarine contributed between 12 to 22 per cent to total fat availability. Oil, milk and processed meats (mainly canned meat) were also major sources of fat across the six communities. Milk and processed meats contributed most to total saturated fat availability across the six stores. Pies and sausage rolls were moderate sources of total saturated fat in four of the six communities as was ice cream in one community (Table 16). Hot chips were a moderate source of total fat in stores 4 and 6, as were crisps in store 5. Based on these findings, indicators were developed to monitor the proportion of recommended fats and oils sold to regular fats and oils and the turnover of pies and sausage rolls. Crisps and hot potato chips were also included as key indicators of fat consumption. In non-remote Northern Territory almost half of food and non-alcoholic expenditure is on “meals out and fast foods”[49]. The increasing popularity of take-away food in remote Aboriginal communities with generally limited choices available has become a concern for nutritionists and other health professionals. Rowse et al reported from a study in a Central Australian community that young people expended the greatest proportion of food money at the take-away outlet compared to other age groups[50]. It was estimated that forty per cent of all food and drink purchases occurred at the community take-away outlets. However it was not reported what proportion of these purchases were for food alone. Food and drink sales data collected from all food outlets (including the store, take-aways and school canteen) in one community in Northern Australia[43] revealed that less healthy take-away food such as pies, chicken wings, hamburgers and hot chips contributed less than five per cent to total energy availability. Rather, four single food items, table sugar, flour, bread and milk provided approximately fifty per cent of the total energy. While take-away food may not be a major contributor to the total diet, as is the situation in non-remote NT, there is evidence that take-away/ convenience meals are becoming increasingly popular. Pies particularly, were found to be a moderate source of total fat and saturated fat across the six stores. It is important that fresh, quality and nutritious meals and other take-away choices are available in remote communities. In addition to providing food variety, healthy take-away options are required to limit total fat and saturated fat intake and to increase the intake of fruit and vegetables.

Rationale and role	The indicators relating to the turnover of pies and sausage rolls, hot chips and crisps, the availability of healthy take-away choices and the turnover of recommended oils and fats to regular oils and fats in the community store, can be used: • To identify community stores where healthy take-away choices are not available for the community population • To monitor trends in the turnover (sales) and availability of not recommended take-away foods and recommended take-away foods, in order to help plan store-based strategies to improve the availability of healthy food choices and community-wide food and nutrition strategies • To monitor and assess the affect of strategies and nutrition related interventions and policies aimed at improving the nutritional quality of the food supply available to Indigenous Australians in remote Australia • to help explore the affect of an improved food supply on health outcome
Linkage with other indicators	The fat indicator is a compound index, based on a number of component measures. These are: • Proportion of recommended oils and fats to total turnover of oils and fats • Total weight of pies and sausage rolls sold by quarter (kg) • Percentage of pies and sausage roll sales (dollar value) as a proportion of total food sales (dollar value) • Total weight of crisps sold by quarter (kg) • Total weight of hot potato chips sold by quarter (kg) • Number of days out of 5 days that sandwiches, salads, hot dishes, boiled eggs, corn and fruit pieces are available for sale in the take-away outlet These indicators relate to Topics 3 and 4 that serve to monitor the availability and turnover of lean meat cuts, fish/seafood and reduced fat milks and cheeses.
Alternative methods and definitions	A number of measures have been developed to assess total fat and saturated fat intake for the Australian population. These are presented in Table 1. The measures developed as part of a simple monitoring tool for remote community stores presented in this report are based on store point-of-sale data. Not all stores have the means to use point-of-sale data for monitoring purposes. Wholesale or invoice data can also be used to monitor trends in the turnover and availability of pies and sausage rolls and recommended fats and oils. These indicators have been designed to monitor the availability and turnover of recommended take-away foods and fats and oils in the community store for the purpose of planning interventions and strategies to improve the store food supply. These indicators can also be applied to measure the turnover and availability of recommended take-away foods and fats and oils at the community level through including data trunvoer on recommended take-away foods and fats and oils from other food outlets and sources in the community. The monitoring and evaluation of an intervention to influence the availability and turnover of recommended take-away foods, fats and oils in a specific community setting, such as the school or chid care centre, would require setting specific data collection.
Related indicator sets	Refer to Table 1 and Topics 3 and 4

Table 32. Topic 7 Indicator Meaure

Limit saturated fat and moderate total fat intake	
• **Proportion of recommended oils and fats to total turnover of oils and fats** • **Total weight of pies and sausage rolls sold by quarter (kg)** • **Percentage of pies and sausage roll sales (dollar value) as a proportion of total food sales (dollar value)** • **Total weight of crisps sold by quarter (kg)** • **Total weight of hot potato chips sold by quarter (kg)** • **Number of days out of 5 days that sandwiches, salads, hot dishes, boiled eggs, corn or other vegetable and fruit pieces are available for sale in the take-away outlet**	
Definition of indicator	The proportion that recommended oils and fats contribute to the total weight of oils and fats sold in a specified period. Recommended oils and fats are those that have “polyunsaturated” or “monounsaturated” on the food packaging. “No Cholesterol” or “cholesterol free” is misleading as all vegetable oils and fats are naturally free of cholesterol but no necessarily low in saturated fat eg. palm oils. The total weight of all pies and sausage rolls sold in a specified period (kg). The percentage of total pies and sausage roll sales (dollar value) as a proportion of total food sales (dollar value) in a specified period Number of days out of 5 days that sandwiches, salads, hot dishes, boiled eggs, corn or other vegetable, and fruit pieces are available for sale in the take-away outlet
Underlying definitions and concepts	When based on point-of-sale data these measures require that all purchased pies and sausage rolls, crisps, hot chips, margarines, butters and oils are scanned and that the unit weight and unit dollar value for pies and sausage rolls is accurately entered into a store database. It also requires that each beverage product has a unique identifying code (barcode or price locked unit – PLU). The use of wholesale data requires that all pie and sausage roll products, crisps, hot potato chips and butters, margarines and oils received by the store are collected for the specified period. The computation of each of the indicators requires that all pie and sausage roll products, crisps and hot chips and margarines, butters and oils available through the store are categorised accurately.
Specification of data needed	The following data are required: Unit unique identifier Unit description Unit quantity sold or ordered over a specified time period Unit weight Unit value
Data sources, availability and quality	Point-of-sale store data Invoice data Electronic wholesale data

Computation	• Unit weight (g) for each pie and sausage roll product multiplied by the unit quantity sold in a specified period = total weight for each pie and sausage roll product • Sum of the total weight (g) for each pie and sausage roll product sold in a specified period/1000 = total pie and sausage roll product weight (kg) • Unit dollar value ($) for each pie and sausage roll product multiplied by the unit quantity sold in a specified period = total value for each pie and sausage roll product • Sum of total value for each pie and sausage roll product sold in a specified period = total pie and sausage roll product value • Total pie and sausage roll product value divided by total food sales ($) x 100% = percentage of total pie and sausage roll sales as a proportion of total food sales • Unit weight (g) for each butter, margarine and oil product multiplied by the unit quantity sold in a specified period = total weight for each margarine, butter and oil product
	• Sum of total weight for each margarine, butter and oil product sold in a specified period/1000 = total weight of fats and oils (regular and recommended) (kg) • Unit weight (g) for each recommended butter, margarine and oil product multiplied by the unit quantity sold in a specified period = total weight for each recommended margarine, butter and oil product • Sum of total weight for each recommended margarine, butter and oil product sold in a specified period/1000 = total weight of fats and oils (recommended) (kg) • Total weight of fats and oils (recommended) divided by total weight of fats and oils (regular and recommended) = percentage of recommended fats and oils as a proportion of the total weight of fats and oils • Sum of the total weight (g) for crisp products sold multiplied by the unit quantity sold in a specified period/1000 = crisp product weight (kg) • Sum of the total weight (g) for each hot chip product sold multiplied by the unit quantity sold in a specified period/1000 = total hot chip product weight (kg) Measuring the number of days out of five that all recommended take-away choices are available requires a series of observations over a five day period in each quarter of interest. The week to be observed needs to be randomly selected to prevent reporting bias. A tick is placed in the relevant check box on the indicator report for the corresponding day observed if all recommended products are available on the day within a 24 hour period.
Units of measurement	Kg %
Scale of application	Local to National

Performance target	The target for remote community stores is to decrease the turnover and availability of pies and sausage rolls, crisps and hot chips and to increase the availability of recommended food and meal options available through the take-away. A further target is to increase the availability of recommended fats and oils and the proportion that recommended oils and fats contribute to the total turnover of fats and oils. A long term performance target needs to be considered in relation to the capacity of the store to firstly market and promote alternative take-away choices to pies and sausage rolls and to secondly influence consumer preferences and social norms. Currently pies and sausage rolls provide a cheap, tasty and convenient take-away food. There are many examples of profitable take-aways selling sandwiches, salads and hot meals. The preparation of recommended take-away options do require adequate and hygienic food preparation facilities and adequate staffing levels. Affordability and presentation are also key factors influencing purchasing decisions. Intermediary targets need to be established at the store and community level based on current infrastructure and resources and continually revised. National long term targets need to be set on the availability of comparative data. The target for the proportion of recommended fats and oils to the total turnover of fats and oils is 100 percent. The Heart Foundation Buyer's Guide can be used to inform Store manager's of recommended brands of fats and oils to make available for purchase. There are many examples of stores successfully replacing regular fats and oils with recommended fats and oils. The target is to reduce the availability and turnover of pies and sausage rolls. A lower fat pie product is available for occasional consumption . Refer to the Heart Foundation Buyer's Guide for brand options.
Interpretation	Improvements in these indicators may be taken as a decrease in dietary availability of total fats and total saturated fat. These indicators however need to be interpreted in conjunction with indicator topics 3 and 4 that relate to the meat and milk guidelines as these indicators also serve as proxy's for total fat and saturated fat intake. Care is nevertheless necessary in interpreting these measures. The data needed to construct the indicators may suffer from inaccuracies which may not be apparent. Inaccuracies in scanning or assigning unit weights will affect the accuracy of the measure. The quality of the measures is also dependent on accurate assignment of food categories and accurate observations regarding the availability of recommended take-away choices. It is important to note that wholesale data cannot be compared to point-of-sale data.

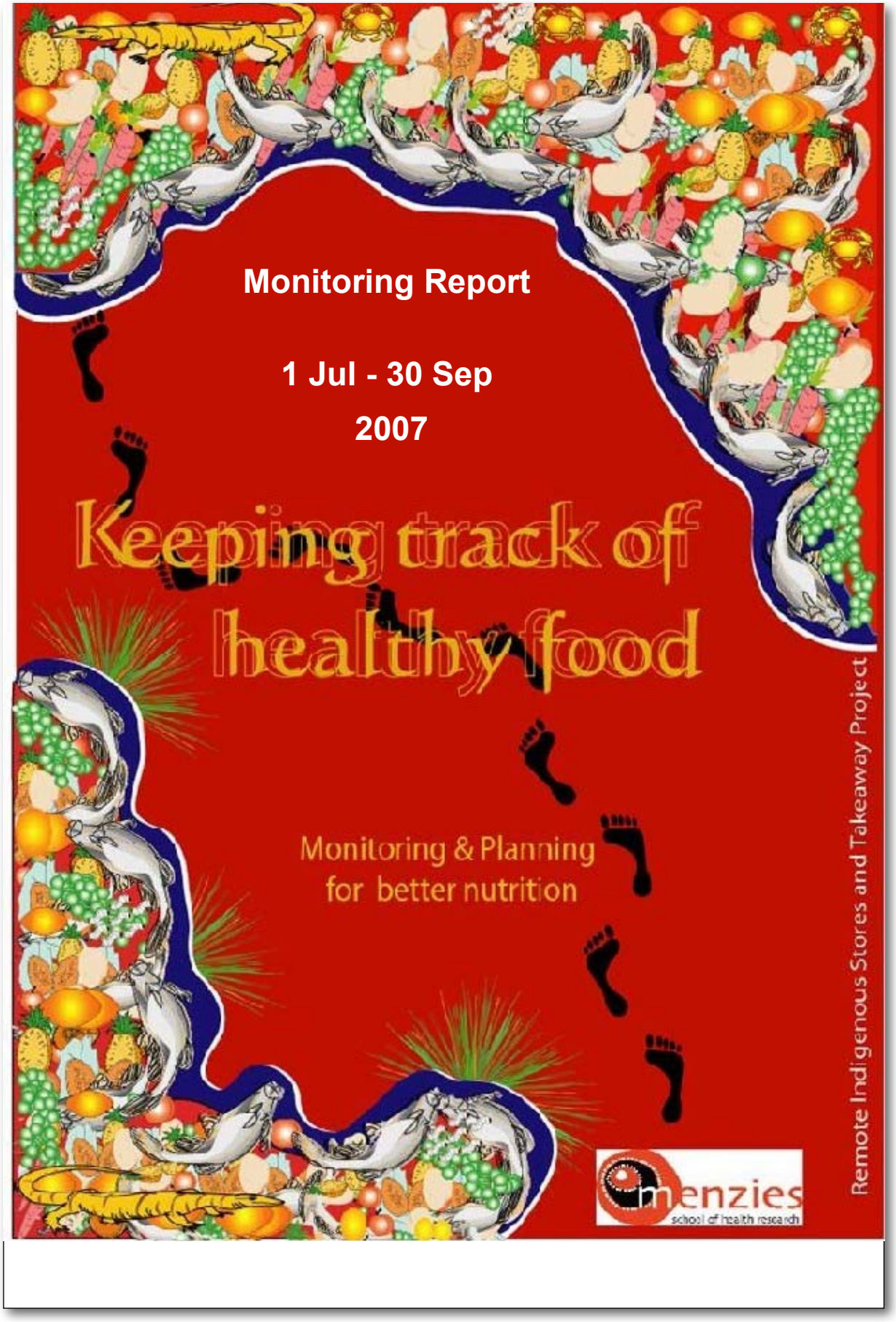
Table 33. Topic 8 Indicator Profile

Encourage and support breastfeeding	
Issue	Breastfeeding is the normal and most appropriate method for feeding infants and is closely related to immediate and long-term health outcomes[51]. Exclusive breastfeeding (this means the infant is only receiving breastmilk) to the age of six months gives the best nutritional start to infants[51]. Promotion of breastfeeding is an important public health strategy. Support and encouragement at all levels of the community (including stores) are essential to supporting women to breastfeed. Breastfeeding is included in the Dietary Guidelines for Australian Adults as it will contribute to the health of all Australians from birth[51]. Feeding of infants with infant milk formula is only recommended in the case where breastfeeding is not possible. While infant feeding formula does need to be made available for those cases where breastfeeding is not an option, the promotion and marketing of infant feeding formula by community stores is not recommended or acceptable The NT DHCS has developed guidelines for store managers on the appropriate display and marketing of infant feeding formula.
Rationale and role	Refer to Dietary Guidelines for Australian Adults for scientific basis for Dietary Guideline[51]. The proposed indicator relating to breastfeeding is designed to measure the turnover of infant feeding formula in the community store, and can be used: • To monitor trends in the turnover of infant feeding formula, in order to plan community-wide and store strategies to support, encourage and promote breastfeeding
Linkage with other indicators	The breastfeeding indicator is a compound index, based on two component measures. These are: • Quarterly turnover of infant feeding formula (kg) • Percentage of infant feeding formula as a proportion of total food sales
Alternative methods and definitions	A number of measures have been developed to assess the prevalence of breastfeeding for the Australian population. These are presented in Table 1. The measures developed as part of a simple monitoring tool for remote community stores presented in this report are based on store point-of-sale data. Not all stores have the means to use point-of-sale data for monitoring purposes. Wholesale or invoice data can also be used to monitor trends in the turnover and availability of infant feeding formula. The turnover of infant feeding formula is suggested as a proxy indicator to monitor the Australian breastfeeding guideline. It is based on the assumption that an increase in the turnover of infant feeding formula with no concomitant population shift or increase is indicative of a negative change in breastfeeding practice. This indicator has been designed to monitor the availability and turnover of infant feeding formula in the community store to support community strategies to promote, protect and support breastfeeding. Guidelines are available to store managers through the NT Department of Health and Community Services on recommended practices for the presentation of infant milk formula in community stores.
Related indicator sets	Refer to Table 1

Table 34. Topic 8 Indicator Measure

Encourage and support breastfeeding	
• Total weight (g) of infant feeding formulae sold in a specified period • Percentage of total infant feeding formulae sales as a proportion of total food sales (%)	
Definition of indicator	The total weight (kg) of infant feeding formula sold in a specified period Percentage of total infant feeding formula sales as a proportion of total store food sales over a specified time period.
Underlying definitions and concepts	When based on point-of-sale data this measure requires that all purchased infant feeding formulae products are scanned and that the unit weight and unit dollar value is accurately entered into a store database. It also requires that an accurate accumulative quantity is recorded for each product sold. Further it requires that each infant feeding formula product unit has a unique identifying code (barcode or price locked unit – PLU). The computation of total food sales is more complex. When using point-of-sale data it requires that all food units purchased are accurately scanned and that the correct unit dollar value is entered in the store database. The use of wholesale data requires that the weight, dollar value and quantity for infant feeding formular and for all food orders received by the store are computed for the specified period.
Specification of data needed	The following data are required: Unit unique identifier Unit description Unit weight Unit quantity sold or ordered over a specified time period Unit dollar value
Data sources, availability and quality	Point-of-sale store data Invoice data Electronic wholesale data
Computation	• Sum of (unit weight of infant formula multiplied by the unit quantity sold)/ 1000 sold over a specified time period (kg) • Sum of the total weight (g) of each infant formulae product sold multiplied by the unit quantity sold in a specified period/1000 = infant formulae total weight (kg) • Sum of (unit dollar value multiplied by the unit quantity sold) (for point-of-sale data) • Sum of (unit dollar value multiplied by the unit quantity ordered) (for wholesale data)
Units of measurement	%
Scale of application	Local to National
Performance target	The suggested role of the store in relation to the proposed breastfeeding indicator is to monitor trends in the turnover and sales of infant feeding formula. An increase in the turnover of infant feeding formula needs to be assessed inconjunction with the indicator that measures the percentage of infant feeding formula sales to total food sales. In the event of an increase in the turnover and percentage of the sales of infant feeding formula to total food sales, the health centre manager needs to be informed as this may be indicative of a decrease in the prevalence of breastfeeding in the community.
Interpretation	In general terms, an increase in this indicator may be taken as a decrease in breastfeeding prevalence. Care is nevertheless necessary in interpreting this measure. Increases in the price of infant feeding formula without concomitant price increases for other grocery and store food items will affect this measure and visa vis for reductions in infant feeding formula prices. The data needed to construct the indicator may suffer from inaccuracies which may not be apparent. Inaccuracies in scanning or assigning unit weights and unit dollar values will affect the accuracy of the measure. It is important to note that wholesale data cannot be compared to point-of-sale data. Attempts to compare stores and/or regions would need to consider population changes, price changes and other between store structural differences.

Appendix ii


Monitoring Report
1 Jul - 30 Sep
2007
Keeping track of healthy food
Monitoring & Planning for better nutrition
Remote Indigenous Stores and Takeaway Project
menzies
school of health research

Keeping track of store foods for better nutrition

Community stores play a critical role in improving the health of Indigenous Australians living in remote areas through ensuring the availability of a quality, nutritious and affordable food supply. The purpose of this report is to provide feedback to store managers, nutritionists, store workers and other key stakeholders on trends in the sales of key foods and food groups. This feedback can be used to inform improvements in the nutritional quality of the food available for sale. This information can also be used to evaluate the effectiveness of interventions, strategies and policies that aim to modify the nutritional quality of foods available for sale and/ or people's purchasing patterns.

This report provides feedback on the turnover of sales of key foods and food groups for the quarter periods monitored. These foods and food groups have been selected as they are key to improving the nutritional quality of the store food supply and relate to the Dietary Guidelines for all Australians.

For each of the key foods and food groups, figures are shown that provide information on the turnover and/or sales for each of the quarters monitored. The last five quarter periods that have been monitored are displayed. The pie graphs display the last quarter period only.

Immediately below each of the graphs is a statement on the desired direction for each of the indicators to achieve nutritional improvement. This direction may be up or down depending on the type of food or food group being monitored.

This report offers opportunities for planning whereby strategies can be considered for each of the areas that impacts on the nutritional quality of available foods: supply, infrastructure, workforce development and training, store layout and product placement, and marketing and promotion.

To monitor improvements in the availability of fresh lean meat cuts, reduced fat dairy products and healthy take-away food choices, there are sections in the report that require a member of the store management committee and/ or store employee to check the availability of these foods.

The performance targets are to increase the availability and turnover of recommended foods and food groups and decrease the turnover of less healthy foods. On the availability of comparative data in the future, realistic performance targets for each of the indicators will need to be defined at a national level.

In the case where no figure is displayed in the report, no sales for the product being monitored were reported for any of the quarter periods

RIST Resources

The planning sections of this report provide opportunities to utilise the RIST resources in planning strategies to improve the sales of recommended foods and reduce the sales of less healthy foods.

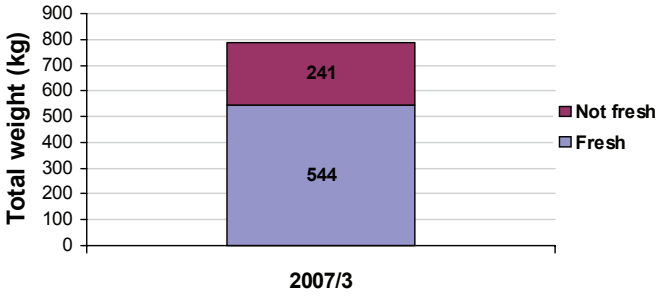
These resources include:

Food variety guidelines:	A checklist of minimum core foods to be stocked in the store.
Maximising the shelf-life of fruit and vegetables:	A poster covering key points to ensure perishable fruit and vegetables have sustained shelf-life.
Marketing ideas for a healthy store:	A manual that provides ideas for promoting the sales of healthy food items.
Fruit and vegetable quantity spreadsheet:	A computer software resource to set purchasing and sales targets for fruit and vegetables.
Healthy fast food:	A manual of guidelines and recipes for take-away outlets.
Store and takeaway checklist:	A tool used to assess an outlet's capacity to support a healthy food supply.

The Heart Foundation Buyer's Guide for Managers of Remote Indigenous Stores and Takeaways can be used to guide the stocking of healthier choices.

FRUIT

Total weight of all fruit in kg (fresh and not fresh - canned and dried) sold through store, by quarter



The total weight of fruit including both fresh and not fresh needs to increase over each quarter. The turnover of fruit required for the size of the community can be determined using the RIST calculator. Based on this, a target needs to be set for the year and once achieved the target reviewed.

Percent of fresh fruit as a proportion of total weight of fruit sold, by quarter

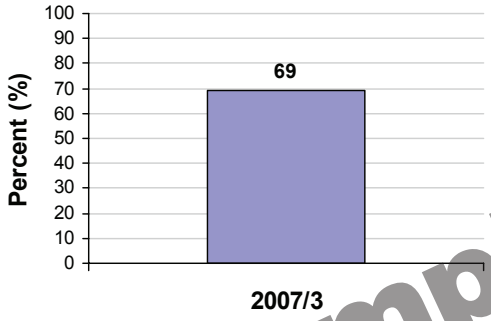


Figure 1

Percent of fruit sales ($ value) as a proportion of total food sales ($ value), by quarter

Figure 2

The proportion that fresh fruit is contributing to the total weight of fruit (fresh and not fresh) needs to be maintained at a high percentage or increased (Figure 1). A target needs to be set for the year and once achieved the target reviewed.

As the turnover of fruit increases the contribution of fruit to total food sales should also increase (Figure 2).

Strategies to increase fruit sales

Supply: _____

_____

Infrastructure: _____

_____

Workforce development and training: _____

_____

Store layout and product placement: _____

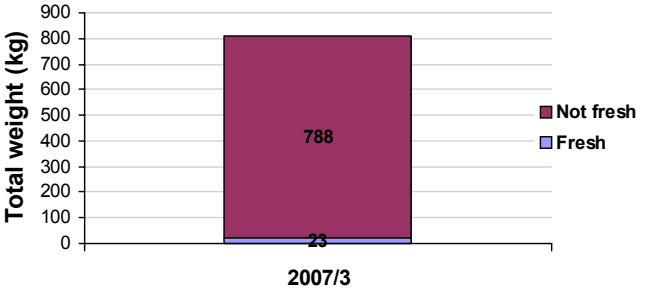
_____

Marketing and promotion: _____

_____

VEGETABLES

Total weight of all vegetables (fresh and not fresh - canned, dried and frozen) in kg sold through the store, by quarter



The total weight of vegetables including both fresh and not fresh needs to increase over each quarter. The turnover of vegetables required for the size of the community can be determined using the RIST calculator. Based on this a target needs to be set for the year and once achieved the target reviewed.

Percent of fresh vegetables as a proportion of total weight of vegetables sold, by quarter

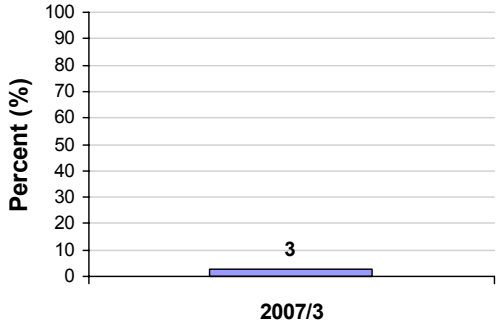


Figure 1

Percent of vegetable sales ($ value) as a proportion of total food sales ($ value), by quarter

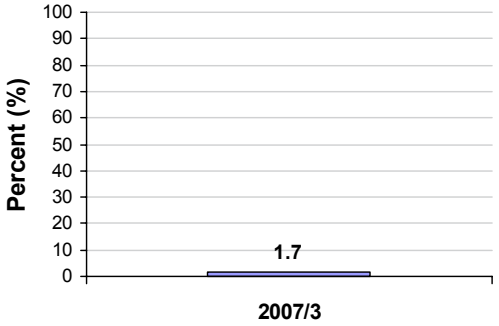


Figure 2

The proportion that fresh vegetables is contributing to the total weight of all vegetables (including canned, dried and frozen) needs to be maintained at a high percentage or increased. A target needs to be set for the year and once achieved the target reviewed. As the total turnover of vegetables increases, the percent of vegetable sales as a proportion of total food sales should also increase (Figure 2).

Strategies to increase vegetable sales

Supply: _____

_____

Infrastructure: _____

_____

Workforce development and training _____

_____

Store layout and product placement _____

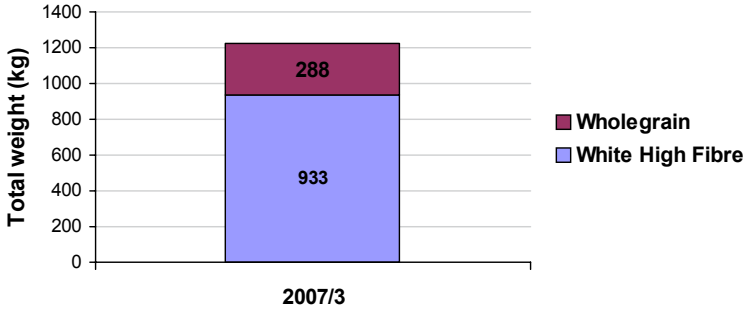
_____

Marketing and promotion: _____

_____

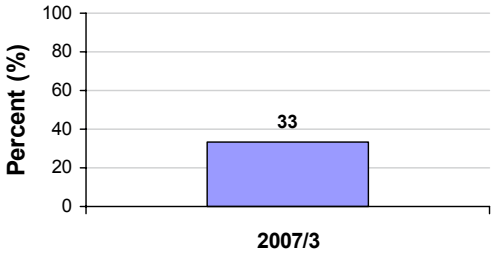
BREAD - HIGH FIBRE AND WHOLEGRAIN

Total weight (kg) of wholegrain bread (including wholemeal, rye and wholegrain) and high fibre bread sold, by quarter



The total weight of high fibre bread and wholegrain breads including wholemeal bread, rye bread and seed breads needs to increase over each quarter. A target needs to be set for the year and once achieved the target reviewed.

Percent of wholegrain bread and high fibre bread as a proportion of total weight of bread sold, by quarter



The proportion of wholegrain breads (including wholemeal, rye and seed breads) and high fibre breads to the total weight of bread sold needs to increase. The ideal is to have all bread sold as wholegrain or high fibre bread. A target needs to be set for the year and once achieved the target reviewed.

The Australian Guide to Healthy Eating recommends breads, cereals, rice, pasta and noodles form the basis of a healthy diet. Bread is an important grain and cereal source. There are a variety of different bread options available as there are for other grains and cereals. Refer to RIST Stocking Guidelines and the Heart Foundation Buyer's Guide for preferred options.

Suggestion: A target of 100% is possible by replacing white bread with a high-fibre bread and also making available for sale other wholegrain breads.

Strategies to increase wholegrain bread and high fibre bread sales

Supply: _____

_____

Infrastructure: _____

_____

Workforce development and training _____

_____

Store layout and product placement _____

_____

Marketing and promotion: _____

_____

RED MEAT, POULTRY and MEAT PRODUCTS

Total weight (kg) of canned meats sold in the store, by quarter

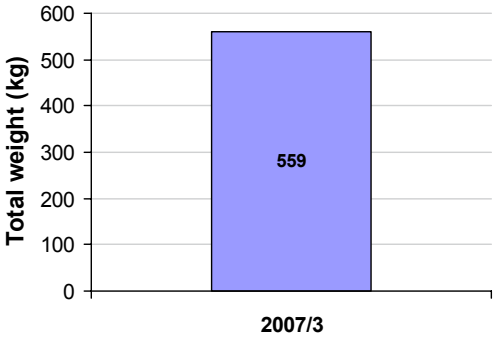


Figure 1

Proportion of different types of red meat and poultry products to total weight of red meat and poultry products, by quarter

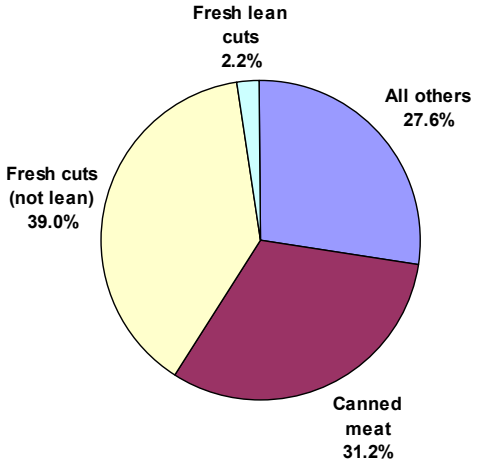


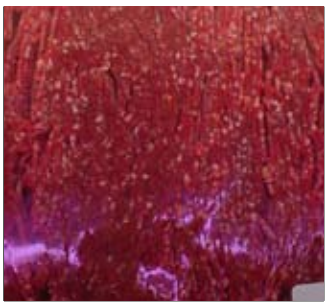
Figure 2

The total weight of canned meat (spam, hamper, corned beef cereal etc) sold needs to decrease over each of the quarters (Figure 1). The proportion that canned meat is contributing to the total weight of meat and meat products needs to decrease over each of the quarters and the proportion of lean meat cuts nees to increase. A target needs to be set for the year and once achieved the target reviewed.

Availability of:

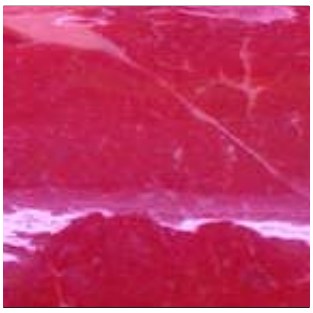
Skinless chicken cuts:	☐ Yes	☐ No
Lean Mince meat:	☐ Yes	☐ No
Meat cuts with minimum fat:	☐ Yes	☐ No

The target is for all of the above listed products to be available for sale each quarter.



Lean Mince mea

Skinless chicken cut



Meat cuts with minimum f

Strategies to increase sales of lean meat cuts and reduce canned meat sales

Supply: _____

Infrastructure: _____

Workforce development and training: _____

Store layout and product placement: _____

Marketing and promotion: _____

FISH and SEAFOOD

Fish and seafood (frozen or fresh - not battered / deep-fried) and canned fish

Total weight (kg) of fish and seafood (fresh/ frozen and canned) sold, by quarter

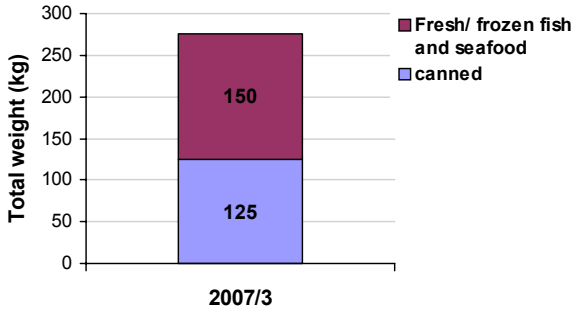


Figure 1

Percent of fish and seafood (fresh/ frozen and canned) as a proportion of the total weight of meat and meat products sold, by quarter

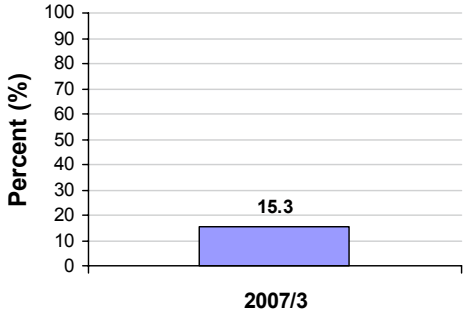


Figure 2

The total weight of fish and seafood, including fresh/ frozen and canned needs to increase over each of the quarters.
As the total weight of fish and seafood increases, the contribution of fish and seafood to the total weight of meat and meat products should also increase (Figure 2). At least 2 serves of fish per person is recommended per week. This target requires that fish and seafood contribute approximately 30% to the total weight of meat and meat products.

Availability of:

Fresh fish and seafood ☐ Yes ☐ No

Canned fish: ☐ Yes ☐ No

Strategies to increase fish and seafood (frozen or fresh) and canned fish sales

Supply: _____

_____

Infrastructure: _____

_____

Workforce development and training _____

_____

Store layout and product placement: _____

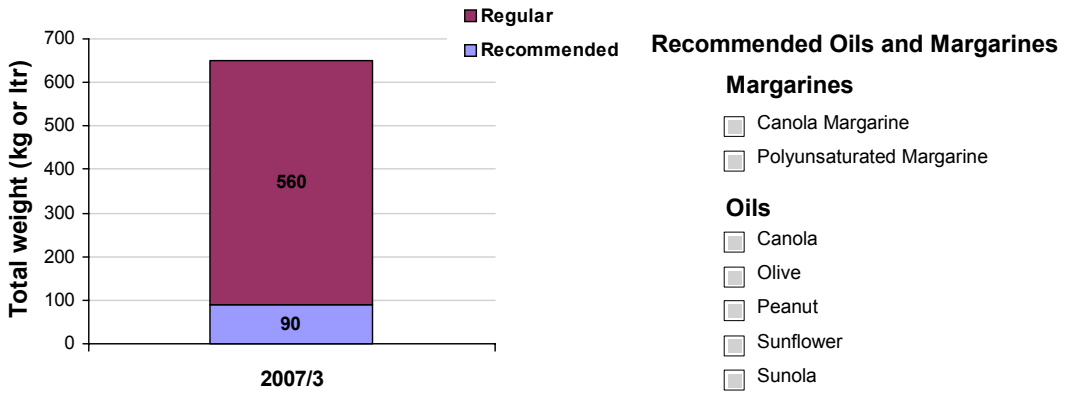
_____

Marketing and promotion: _____

_____

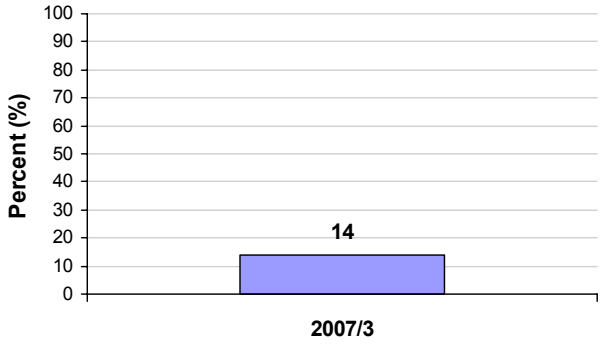
FATS and OILS (Oils, Margarines and Butters)

Total weight of all oils, margarines and butters sold by quarter, showing amounts contributed by recommended and regular fats and oils



The turnover of recommended oils, margarines and oils needs to increase over each of the quarters. Refer to the Heart Foundation Buyer's Guide for information on recommended brands.

Percent of recommended oils, margarines and butters as a proportion of total weight of oils, margarines and butters sold, by quarter



The percent that recommended oils, margarines and butters as a proportion of the total weight of oils and fats needs to increase over each of the quarters.

Strategies to increase recommended oil and margarine sale and reduce regular oils and margarine sales

Supply: _____

_____

Infrastructure: _____

_____

Workforce development and training: _____

_____

Store layout and product placement: _____

_____

Marketing and promotion: _____

_____

MILK and MILK PRODUCTS

MILK

Total weight of all milk sold by quarter, showing amounts contributed by reduced fat and regular (liquid and powdered milk combined) and reduced fat and regular flavoured milks

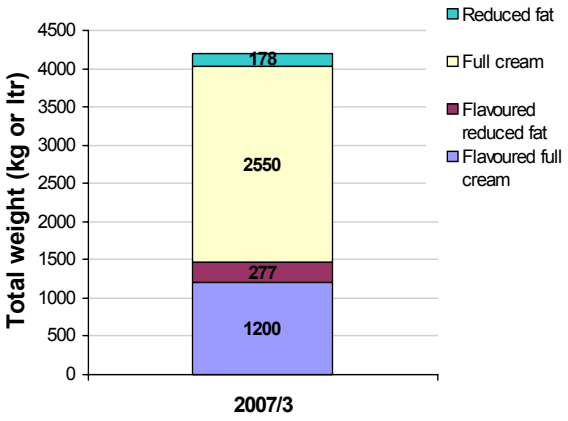


Figure 1

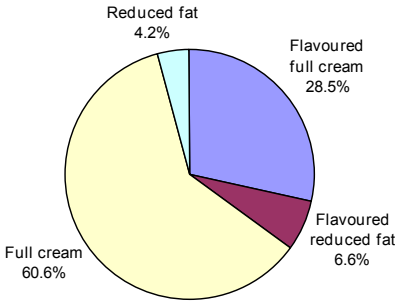
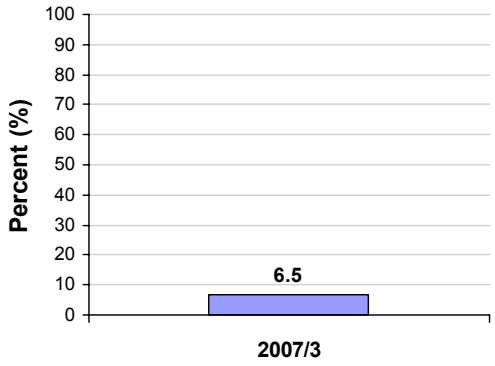


Figure 2

The total amount of milk (as shown in figure 1) needs to increase and the proportion of reduced fat plain milk (including liquid and/or powdered) to the total amount of milk (as shown in figure 2) needs to increase over the quarters. Reduced fat milk includes skim milk.

PLAIN MILK

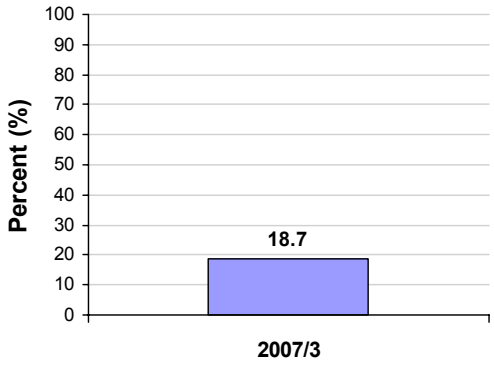
Percent reduced fat milk as a proportion of total weight of plain liquid and powdered milk combined, by quarter



The percent of reduced fat milk as a proportion of the total amount of plain milk sold needs to increase over each of the quarters.

FLAVOURED MILK

Percent reduced fat flavoured milk as a proportion of total weight of flavoured milk, by quarter



The percent of reduced fat flavoured milk as a proportion of the total amount of flavoured milk sold needs to increase over each of the quarters.

CHEESE

Total weight (kg) of reduced fat and regular cheese, by quarter

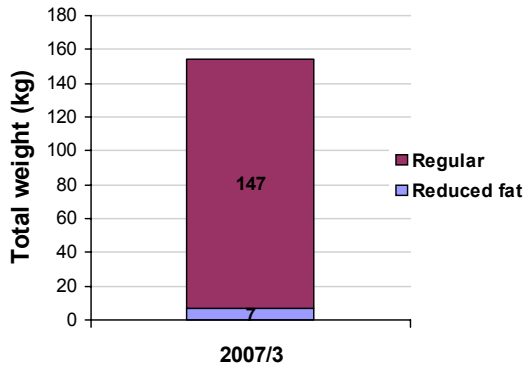


Figure 1

Percent reduced fat cheese as a proportion of total weight of all cheese sold, by quarter

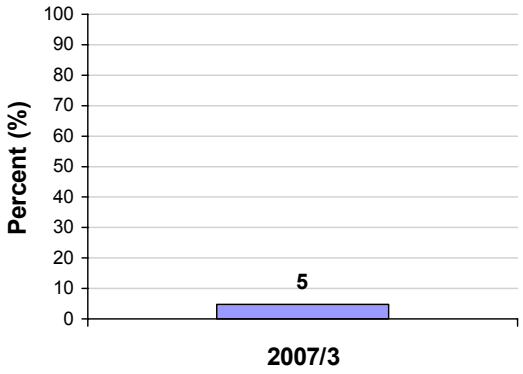


Figure 2

The total weight of reduced fat cheese sales needs to increase over each of the quarters. As the total weight of reduced fat cheese increases, the percentage contribution of reduced fat cheese to the total weight of cheese sold should also increase. The display of "regular" cheese only in figure 1 means no reduced fat cheese was sold in the quarters reported. In this case no figure 2 will be displayed.

Availability of:

Reduced fat Cheese	☐ Yes	☐ No
Reduced fat Powdered Milk:	☐ Yes	☐ No
Reduced fat Liquid Milk:	☐ Yes	☐ No
Reduced fat Flavoured Milk:	☐ Yes	☐ No

Refer to Heart Foundation Buyer's Guide for recommended brands

Strategies to increase reduced fat dairy product sales

Supply: _____

_____

Infrastructure: _____

_____

Workforce development and training: _____

_____

Store layout and product placement: _____

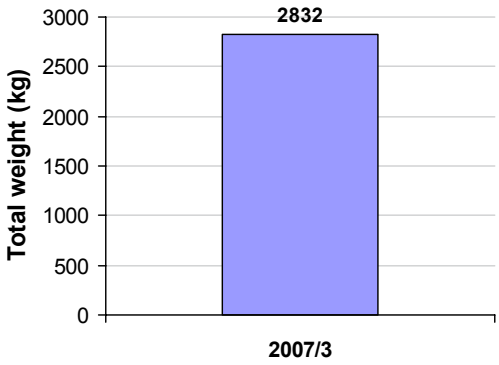
_____

Marketing and promotion: _____

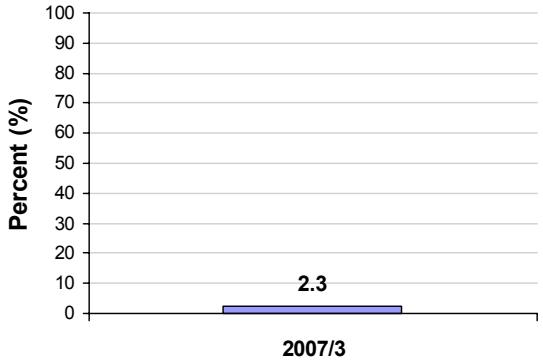
_____

SUGARS

Total weight (kg) of all sugars (raw,white,castor,icing) sold, by quarter



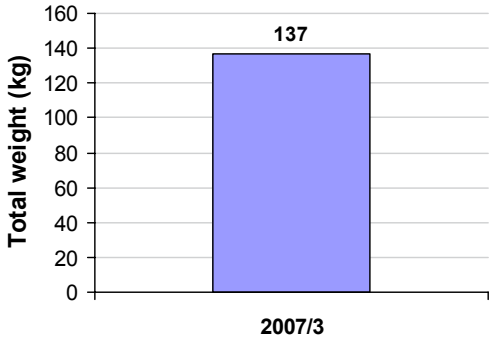
Percent of total sugar sold ($ value) as a proportion of total food sales ($ value), by quarter



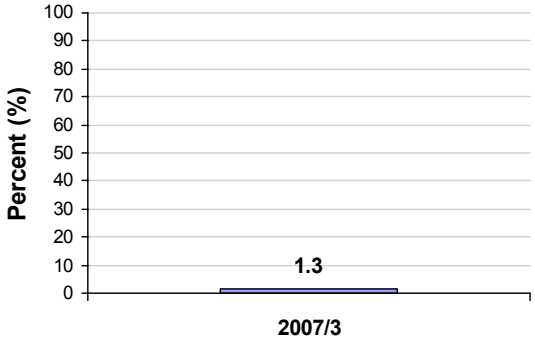
The total weight of sugar needs to decrease over each of the quarters. As the total weight of sugar decreases, the contribution of sugar to total food sales should also decrease.

CONFECTIONERY

Total weight (kg) of all confectionery (not including sugar free) sold, by quarter



Percent of confectionery sold ($ value) as a proportion of total food sales ($ value), by quarter



The total weight of confectionery which includes gum, lollies and chocolate, needs to decrease over each of the quarters. As the total weight of confectionery decreases, the contribution of confectionery to total food sales should also decrease.

Strategies to reduce sugar and confectionery sales

Supply: _____

_____

Infrastructure: _____

_____

Workforce development and training: _____

_____

Store layout and product placement: _____

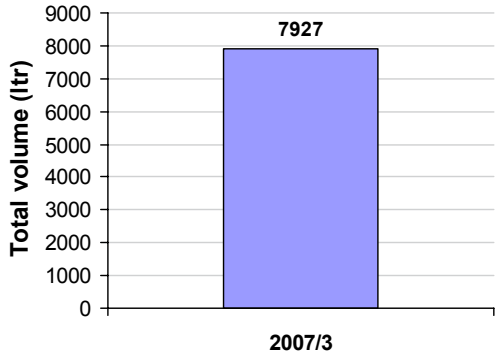
_____

Marketing and promotion: _____

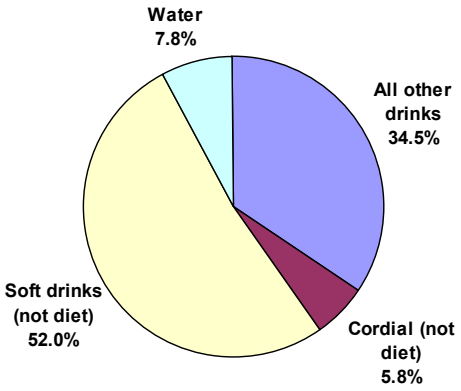
_____

DRINKS (not including milk, tea, coffee or powder based drinks)

Total volume (ltr) of soft drinks (not diet) sold, by quarter



Proportion of soft drinks (not diet), cordial (not diet), water and all other drinks (juice, fruit drinks and diet drinks) to total weight of drinks, by quarter. The category "Soft drinks" includes sports drinks and flavoured mineral waters.



The total turnover of soft drinks (not diet) needs to decrease. The proportion that soft drinks and cordial are contributing to the total volume of drinks needs to decrease over each of the quarters and the proportion of water to total drinks to increase. A target needs to be set for increasing water and decreasing both cordial and soft drinks for the year and once achieved the target reviewed.

Strategies to reduce sales of added sugar soft drinks

Supply: _____

_____

Infrastructure: _____

_____

Workforce development and training: _____

_____

Store layout and product placement: _____

_____

Marketing and promotion: _____

_____

HOT TAKE-AWAY FOOD (not recommended)

PIES AND SAUSAGE ROLLS

Total weight (kg) of pies and sausage rolls sold, by quarter

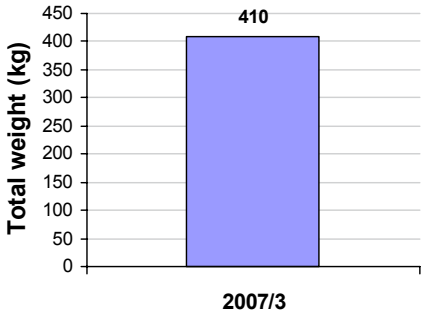


Figure 1

Percent of pies and sausage rolls sales ($ value) as a proportion of total food sales ($ value), by quarter

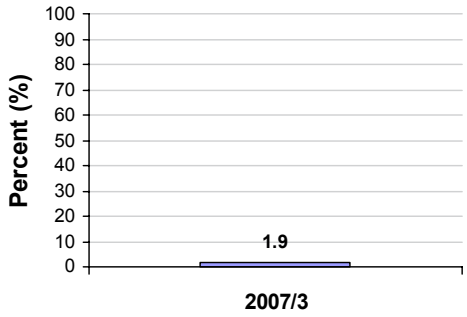
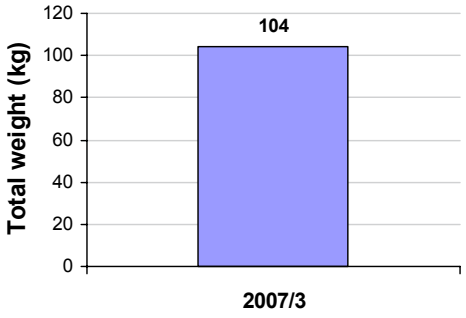


Figure 2

The total weight of pies and sausage rolls needs to decrease over each of the quarters. As the total weight of pies and sasuage rolls decreases, the contribition of pies and sausage rolls to total food sales should also decrease (Figure 2). Refer to the Heart Foundation Buyers Guide for healthier pie products.

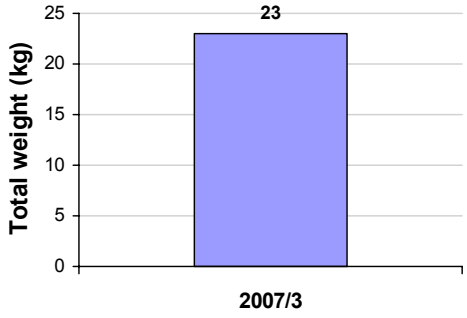
CRISPS (packet chips)

Total weight (kg) of crisps (packet chips) sold, by quarter



HOT POTATO CHIPS

Total weight of hot potato chips (take-away and frozen) sold, by quarter



The total weight of both crisps and hot potato chips needs to decrease over each of the quarters.

TAKE-AWAY FOOD (Recommended)

Availability of: (Tick the box if available on the day observed)

Sandwiches (with salad)	☐ Mon	☐ Tues	☐ Wed	☐ Thurs	☐ Fri
Salads	☐ Mon	☐ Tues	☐ Wed	☐ Thurs	☐ Fri
Hot dish (meat (or meat alternative) and vegetables - not fried)	☐ Mon	☐ Tues	☐ Wed	☐ Thurs	☐ Fri
Boiled eggs	☐ Mon	☐ Tues	☐ Wed	☐ Thurs	☐ Fri
Corn and/or other vegetable	☐ Mon	☐ Tues	☐ Wed	☐ Thurs	☐ Fri
Fruit	☐ Mon	☐ Tues	☐ Wed	☐ Thurs	☐ Fri

Number of days in the week where all the listed healthy food choices are available: **__ / 5 days**

The target is for all of the above listed products to be available on a daily basis.

Sandwiches and salad roll

Salad packs

Hot Dish with vegetables

Boiled Eggs

Boiled Corn Cob

Watermelon

Strategies to reduce sales of pies and sausage rolls and increase availability of healthy take-away food choices

Supply: _____

_____

Infrastructure: _____

_____

Workforce development and training: _____

_____

Store layout and product placement: _____

_____

Marketing and promotion: _____

_____