EATING WELL TODAY – FOR TOMORROW

NUTRITION NEED IN CHILDREN AGED 0-5 YEARS IN THE CITY OF YARRA

FINAL REPORT

JUNE 2003

NORTH YARRA COMMUNITY HEALTH

CITY OF YARRA

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EXECUTIVE SUMMARY

Current statistics, literature and policy support the promotion of healthy eating practices in young Australian children. A healthy diet can be the best investment a parent can make in their child's health. Eating Well Today – For Tomorrow (EWT-FT) was funded by the City of Yarra Community Grants to determine nutritional needs of children aged 0-5 years and to ascertain a need for nutrition services in the City of Yarra. The specific objectives were to 1) identify the health, nutrition and eating behaviours of children aged 0-5 years and 2) identify parent's access to nutrition information and determine perceived need for nutrition services in the City of Yarra.

The Department of Human Services, Royal Children's Hospital and Deakin University compiled three questionnaires that addressed a variety of health, nutrition and eating behaviour issues. Data was collected in 2001. The questionnaires were divided into 0-12 months, 1-2 years and 2-5 year aged groups. The response rate from a total of 350 surveys was 295 (84%), with a minimum of 100 surveys completed for each target group. Questionnaires were given to parents and carers to complete, with a facilitator present to answer queries. Data was collated into an Access database and processed using the Access program. Statistical interpretation was not conducted. Results have been collated in this report to identify gaps and service needs around health, nutrition and eating behaviours of children aged 0-5 years, in the City of Yarra.

Reducing childhood obesity is a public health priority and results from this survey indicate rates of overweight and obesity are increasing in the City of Yarra, in line with national statistics. The EWT-FT results highlight the large amount of time children from 0-5 years spend watching TV with almost all children surveyed watched TV for one to two or more hours a day. Results on the consumption of sweet drinks and high fatty sugary snacks further highlight the risk of future increasing obesity rates for children in the City of Yarra. Most infants are being introduced to baby juice or fruit juice by 12 months of age and the volume of sweet drinks consumed is alarming, with most children aged 0-5 years drinking 1-2 cups of sweet drinks on a daily basis. There is a need to identify and educate those parents/caregivers introducing sweet drinks on a regular basis about the risks associated with introducing sweet drinks on a regular basis to a child's diet. Prevention of childhood within the City of Yarra requires collaboration with paediatric dietitians and community organizations working with young children and their families.

Dietetic services also need to focus on encouraging mothers to continue breastfeeding, and on why mothers cease breastfeeding after 4-6 months in the City of Yarra, with one third of mothers stopped breastfeeding infants before they were 6 months old. However initial breastfeeding practices the City of Yarra were excellent, with over most new parents choosing to breastfeed when their babies were born. Results also indicated there is a need for dietitians to address the issue of parents/caregivers introducing cow's milk or an alternative before the recommended age of 12 months, with 31% of infants surveyed being introduced to cow's milk or an alternative (low fat, soy or flavoured milk) before 12 months.

There were mixed outcomes around eating behaviours for children 0-5 years in the City of Yarra. Positive results indicated that most parents and caregivers surveyed introduced solids at the recommended age of six months and introduced finger foods between 8-12 months. However there were many inappropriate eating behaviours such as infants falling asleep while being breast or bottle-fed; early introduction of solids, finger foods or cow's milk; and frequent use of snack foods high in fat, sugar or salt. Parents or caregivers also expressed various concerns around mealtime behaviours, particularly about fussy eating, indicating there may be a lack of consistent eating behaviour messages reaching parents and caregivers of children 0-5 years.

The overwhelming finding of the EWT-FT survey was that the majority of parents desire access to a dietitian for food and nutrition information. The majority of parents and caregivers in the City of Yarra currently access food and nutrition information from maternal and child health nurses, family and friends or other sources. The majority of parents would prefer a nutrition group talk at M&CHC centres or within an existing group e.g. playgroup that they access locally.

Presently City of Yarra parents/care givers of children 0-5 years have very limited access to a dietitian and no specialized paediatric dietetic services are offered. There is much scope for a paediatric dietitian to work within the City of Yarra to improve the nutritional health and well being of children 0-5 years by providing accurate nutrition information and education. A paediatric dietitian would also be a reliable resource for health professionals and organizations working with children, such as general practitioners, M&CHC centre nurses, migrant resource centres, playgroups, childcare centres and kindergartens. Although the majority of parents rated their child's health as excellent, data on weight, type/quantity of fluid, food consumption and eating behaviour indicates parents have self identified many health and nutrition issues about their children. The most common issues parents identified for children over 12 months were food refusal, poor appetite, followed by asthma and eczema.

All parents must be provided with an opportunity to access useful and relevant nutrition information, and be able to access healthy, affordable and culturally appropriate food. Parents must be empowered to promote healthy eating for their children to contribute to improving health and well being of children 0-5 years in the City of Yarra.

Recommendations.

1) Diet and nutrition issues needing to be addressed were increasing the length mother are breast feeding, fruit and vegetable intake and physical activity while reducing the consumption of sweet drinks, TV viewing and lastly addressing various inappropriate eating behaviours.

2) Research to identify the barriers that influence the capacity of parents and care givers to address the above identified diet and nutrition issues.

3) Possible strategies to address identified diet and nutrition issues include:

a) Utilise local health planning processes, such as the City of Yarra municipal health plan, to ensure healthy eating strategies for 0-5 year old children are incorporated as a priority in the City of Yarra.

b) Support professional development and training processes for health professionals around healthy eating priorities for children 0-5 years old in the City of Yarra, as identified by this assessment.

c) Training processes for health professionals around healthy eating priorities in the City of Yarra as identified by this assessment should be supported.

d) Enable access to a paediatric dietitian by parents and caregivers of children 0-5 years in the City of Yarra, for 1:1 consultations in the home and group talks at maternal and child health centres or other settings as identified in this assessment.

e) Work closely with planning, infrastructure and local organisations to address impact on food access and supply of healthy food in the City of Yarra

BACKGROUND

Eating Well Today – for Tomorrow is a needs assessment focusing on families with children aged 0-5 years, living in the City of Yarra. North Yarra Community Health conducted the needs assessment with guidance from the Department of Human Services, Public Health Unit, and Royal Children's Hospital and assistance from Deakin University. The study examined the health, nutrition and eating behaviours of children aged 0-5 years as well as perceived need for nutrition services for parents and carers.

At present there are no nutrition services targeting children and families in the City of Yarra. A day and a half a week of general nutrition service is currently available to the general community for the whole of Yarra. The alternative is that families can access nutrition information from maternal and child health nurses (M&CHN) and other health professional who may not have specialised knowledge in paediatric nutrition. Parents are exposed to a myriad of published data ranging from books, pamphlets, magazine articles and Internet information. Whilst there is much regulated information, parents are also exposed to many popular myths. Yarra houses a significant proportion of people from culturally and linguistically diverse background who generally, have poorer access to services and information. Parents need to be given appropriate and reliable access to good nutrition information and services, which are culturally appropriate and meet their needs.

Children are less in control of their own behaviour than adults, and have less control over their physical and social environments, lifestyles and their attitudes and knowledge. Their health is largely determined by the living conditions, knowledge and attitudes and lifestyles of the adults who care for them. The health of children is strongly associated with the socio-economic conditions of the family and mental status of parents and carers. The ethnicity of a child's parents is also significant determinant of health in Australia (Australian Institute of Health and Welfare, 2002). Poor socio-economic circumstances and living conditions and higher rates of pre-term and low birth weight babies all contribute to higher death rates of Aboriginal and Torres Strait Island children compared to other Australian children.

Eat Well Australia, 2000-2010 (EWA) identifies infants and children (1-16yrs) as a priority group for assessing diet and nutrition and also identifies maternal and child health as a priority area (SIGNAL, 2001). Eat Well Australia recognizes that food has a wider role than just the provision of nutrients and it is important that children explore the social aspects of food as well as learning practical food preparation skills. The role of the family in providing and teaching about food is also acknowledged as important, especially for young children who rely on parents or care-givers for all their food and social needs. The commonwealth government, through the NH&MRC, has developed food and nutrition guidelines for parents, educators and caregivers. These guidelines include the 1995 Dietary Guidelines for children and adolescents and the 1996 infant feeding guidelines for health workers, these were under review at the time this survey was implemented. There are now new NHMRC dietary guidelines implemented in 2003, however these are not referred to in this survey. The Victorian Food and nutrition Policy (1994) includes these dietary guidelines for children and adolescents as part of the "Healthy Eating Healthy Victoria' strategy.

Good eating habits learned early in life will affect a child's health as an adult. It is well established that good nutrition in childhood is important for healthy growth and development, establishing healthy eating patterns for adulthood and preventing development of nutrition related diseases in later life. The 1995 National Nutrition survey conducted by the Australian Bureau of Statistics included a study of children aged 2-18 years. Results indicated one third of children less than twelve years did not consume fruit or fruit products, and one fifth did not consume vegetables. The survey also indicated deficiencies in children's meat, fish, dairy and nuts intake, with specific nutrient deficiencies including calcium for both girls and boys and iron deficiency in girls (Marks &co, 2001). The 1995 Dietary Guidelines for children and adolescents identifies three nutrients as especially important for normal development of all children; energy, iron and calcium.

Current research demonstrates that poor nutrition in childhood is causally linked to both short term and long term health related problems (AIHW,2002). In the short term nutrient deficiencies have been found to impair behavioural development and growth. Poor nutrition has been linked to impaired immune status, higher caries rates and poorer cognitive function and learning abilities in children. Long term, poor nutrition is related to the development of chronic disease estimated to be associated with 60% of deaths in Australia (ABS,1997). In particular obesity is strongly correlated with type two diabetes, identified as one of the six National Health Priority Areas in Australia (SIGNAL, 2001).

Overweight and obesity are increasing in Australian children, with estimates form 1997, when the last data were collated, indicating approximately 25% of Australian children were overweight or obese. Obese children have a 25-50% chance of becoming obese adults, while obese adolescents have a 78% chance of becoming obese adults (NHMRC, 1997). Childhood obesity can cause high blood pressure and a range of other cardiovascular risk factors, which have been identified in children as young as 5 years of age. Being overweight in childhood can double the risk of heart disease in adulthood. Childhood obesity is associated with high-energy diets, low levels of physical activity and television watching habits.

The Eating Well Today – for Tomorrow survey will identify health, nutrition and eating behaviours of children 0-5 years as well as perceived parental need for nutrition services in the City of Yarra. This will enable a better understanding of the health, nutrition and eating behaviours of the target group and the results can be used to identify gaps and service needs for the future.

Objectives

The objectives of this assessment was to:

1. To identify the health, nutrition and eating behaviours of children aged 0-5 years, in the City of Yarra

2. To identify parent's access to nutrition information and determine perceived need for nutrition services in the City of Yarra

Target Group

The target group for this assessment was parents or carers of children aged 0-5 years.

North Yarra Community Health (NYCH) Catchment and Demographics.

The City of Yarra comprises 19.5 square kilometres of inner Melbourne immediately North-East of the central business district. It includes the suburbs of Abbotsford, Burnley, Clifton Hill, Collingwood, Fitzroy, North Carlton, North Fitzroy, Richmond and the southern portion of Alphington. The City of Yarra is in the top three of most population dense areas in Victoria, with a total population of 70,128 with an expected projected rise of 7.5% by 2021 (ABS 2002). Presently, Yarra has a young population, with nearly 40% of residents 20 to 34 years old. However, 9.9% of the population are aged over 65 years (ABS 2002).

- Housing data in Yarra indicates the high proportion of public housing.
- Yarra has high numbers of single parents (17.3 %)
- In 1996, 2,703 single parent families in Yarra had weekly incomes of less than $299 and an additional 22.5% had incomes between $300-$499.
- In 1996, 4909 couples in Yarra had children, of these 36.5% had incomes of $1000+, 20.6% incomes of less than $499, 7.6% incomes of less than $299.

STUDY DESIGN AND METHODOLOGY

Overview
This assessment was conducted in the City of Yarra. The Department of Human Services, Royal Children's Hospital and Deakin University compiled 3 questionnaires that addressed a variety of health, nutrition and eating behaviour issues (Appendix A).

Sample Size and Selection
Aimed for 300 surveys, a minimum of 100 for each target group.
Aimed for a broad selection of community groups, including maternal and child health centers, mothers groups, playgroups, toy libraries and high rise estates.

Sample Design
The questionnaires were divided into 0-12 months, 1-2 years and 2-5 year aged groups. The questionnaires were modified by North Yarra Community Health to meet the objectives of this assessment.

Survey Participants
Questionnaires were given to parents and carers to complete, with a facilitator present to answer questions or address problems. People who did not speak English completed the questionnaire face-to-face with the facilitator, with assistance from an interpreter.

Data Collection
The data was collected between March 2001 and November 2001. Data was collated into an Access database and processed using the Access program. Statistical interpretation was not conducted.

KEY FINDINGS

Summary of the key findings of Eat well Today- for Tomorrow survey.

DATA COLLECTION AREA	KEY FINDINGS
Anthropometrics of Children 0-5 Years	▪ Average birth weight was 3.38kg and average birth length was 50.2 cm ▪ Average birth weights and heights fell within 25-75%iles. ▪ Within the 2-5yr olds 30% were overweight and 34% were underweight.
Perceived Health and Nutrition Issues	▪ Parents most often rated their children's health as excellent. ▪ Most common issues identified by parents for children >12months were: food refusal, poor appetite, followed by asthma and eczema.
Breastfeeding Practices	▪ 99% of mothers who responded to this question breastfed their babies when born (n= 192). (there was a response rate of 83%, so of these 99% breastfed their babies when born) ▪ 54% of mothers stopped breastfeeding their child between 6-24 months. ▪ 34% of mothers stopped breastfeeding their baby < 6months.
Consumption of Cow's Milk and Cow's Milk Alternatives	▪ 73% of children were introduced to cow's milk at 12 months. ▪ 68% of children consumed 600ml or less of cow's milk per day.
Consumption of Sweet Drinks versus Water	▪ Water was introduced to 65% of infants 0-6months on a daily basis. ▪ Sweet drinks were introduced to 37% of infants between 3-6 months. ▪ Sweet drinks were introduced to many infants 9-12 months on a daily basis.
Food Consumption (fruit, vegetables and snacks)	▪ Most children aged 1-5 years are offered fruit 2/day or more. ▪ 12% of children aged 1-5 years are offered fruit <1/day. ▪ Most children aged 1-5 years are offered vegetables 1 to >2/day. ▪ 20 % of children aged 1-5 years were offered vegetables <1/day. ▪ Over 40% of parents of children aged 1-2 years offered high fat, salt or sugar snacks (muesli bar, chips, lollies/chocolate) < 1/week. ▪ Children aged 2-5 years are more likely to consume high fat, salt or sugar snacks on a daily basis than children aged 1-2 years. ▪ 15% of children 1-5 years consume high fat, salt or sugar snacks daily

DATA COLLECTION AREA	KEY FINDINGS
Use Of Vitamin and Mineral Supplements	▪ 15% of parents used vitamin & mineral supplements 0-5 years old. ▪ Parents were more likely to use supplements for children over 12months
Eating Behaviour	▪ 65% infants were introduced to solids between 4-6 months. ▪ 31% of infants were introduced to finger food between 7-12 months. ▪ 22% of infants were introduced to finger food between 4-6 months. ▪ 46% of infants had the same meals with the family between 7-18 months. ▪ 74% of children aged 2-5 years fed themselves always or most of the time. ▪ Most toddlers aged 12-17 months fed themselves sometimes (78%). ▪ Most children 0-5 years sit with the family for 1 or more meal a day
Physical Activity and Television Viewing	▪ Most parents took their children for a walk on a daily basis. ▪ Children aged 1-2yrs were more likely to be taken fore a walk daily (72%) than children aged 2-5yrs (55%). ▪ 12% of children 1-2 years watch no TV ▪ All children 2-5 years watch TV daily (from 1->2hrs) ▪ 36% of children 2-5 years watch TV for >2 hr/day
Access to Food and Nutrition Advice	▪ The majority of parents access food and nutrition information from maternal and child health nurses, family and friends and other sources ▪ 1/3 of parents access a dietitian (1:1) for food and nutrition information for their children (0-5 years of age). ▪ The majority of parents of children 0-5 years desire access to a dietitian either individually or in a group setting for food and nutrition advice. ▪ The majority of parents of children 0-5 years prefer a dietitian to come to their home to provide food and nutrition advice. ▪ The majority of parents prefer a nutrition group talk either at the M&CHC, in an existing group or locally.

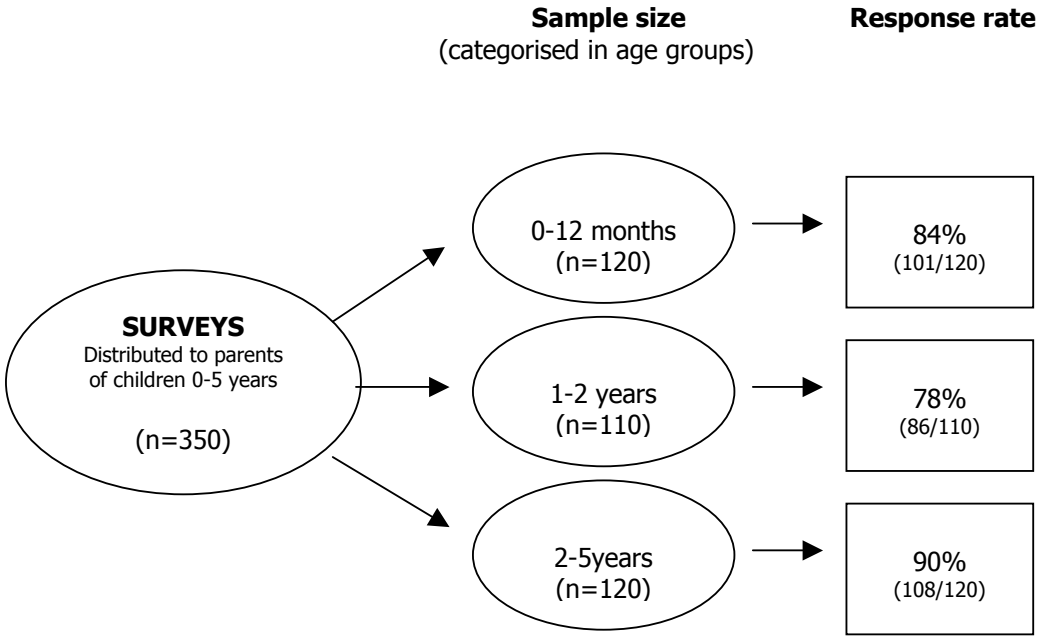
RESULTS

1. RESPONSE RATES

The surveys response rate reflect a reach of approximately 22% of the total child population between 0-5 years, based on figures from the 1996 Census data, ABS, that indicated 5.2% of the City of Yarra's population are children aged 0-4 years.

The total survey response rate was 84% (n=295). Figure 1 gives a breakdown of the response rate in the various age groups. Parents or caregivers of children in all age groups completed over 100 surveys. The highest response rate was from parents of children 2-5 years old (90%).

Figure 1: Sample response rate for various age groups.



2. DEMOGRAPHIC PROFILE OF PEOPLE INTERVIEWED

Gender.
There was generally an even distribution of male (52%) and female (48%) gender.

Country of Birth.
The majority of subjects were born in Australia (97%). Parent's country of birth was as follows:

- Australia (65% of mothers, 56% of fathers)
- Vietnam (13.5% mothers, 12.5% fathers)
- Great Britain (4.7% fathers)
- Turkey (3.4% mothers & 3.4% fathers)
- New Zealand (2.4% mothers and 3% fathers)
- China (3% mothers)

Language spoken at home
The main language spoken by most parents was English (72%), followed by Vietnamese (12.5%), Turkish (3%), Cantonese (2.4%) and Arabic (1.4%).

Catchment Area.
Most participants (85%) lived in Yarra followed by Boorondara (5%), Melbourne (3%) and Darebin (2%). The larger part of the participants resided in Richmond (25%), North Fitzroy (23%), Fitzroy (11%), Collingwood (10%), North Carlton (7.8%) and Abbotsford (7%).

Dwelling Type.
Results indicate the majority of subjects surveyed lived in a house (Table 1) and almost half of the subjects owned their own home or had a mortgage (Table 2).

Table 1: Dwelling Structure

Housing type	Survey sample	City of Yarra comparison
House	67%	63%
High Rise	16%	3%
Flat	11%	32%

Table 2: Tenure Type

Tenure	Survey sample	City of Yarra comparison
Own	46%	39%
Public	23%	15%
Rental	19%	46%

Employment.
Results indicate most parents were not working at the time of the survey (59%). Part time work and full time was most common for parents with children 1-2 years of age.

Table 3: Parental employment figures

Type of employment	Parent with child 0-12 months (n=101)	Parent with child 1-2 years (n=86)	Parent with child 2-5 years (n=108)
Not working	77%	42%	57%
Part time work	14%	38%	23%
Full time work	8%	20%	14%

Most children came from two parent families (86%) with 13.6% coming from single parent families.

3. PERCEIVED HEALTH AND NUTRITION ISSUES

The Eat Well Today for Tomorrow survey asked parents to rate their child's overall health. The majority of parents rate their child's health as excellent, but were less likely to do so as the child's age increased, as indicated in Table 4.

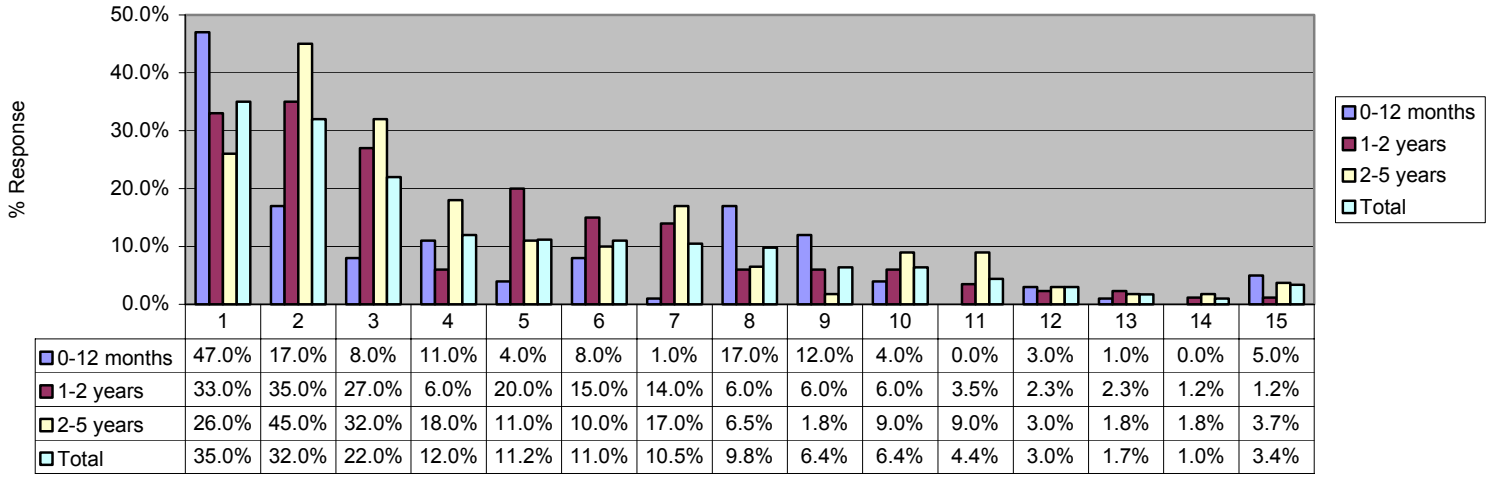
Table 4: Parents perceived health rating of their children

Health Rating	0-12 months	1-2 years	2-5 years
Excellent	84%	64%	55%
Good	16%	31%	38%
Poor	0%	1%	5%
Not specified	0%	4%	2%

Parents were then asked to identify whether their child had or had ever had a number of nominated health or eating problems. The results are outlined in Figure 2, below.

Parents of children aged 0-12 months were less likely to report food and nutrition issues than parents with children aged over 12 months. The most commonly quoted health and nutrition issues were food refusal and poor appetite, followed by asthma and eczema. These issues were more likely to be reported for children aged over 12 months.

Figure 2: Health/Nutrition Issues Perceived by Parents



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0-12 months	47.0%	17.0%	8.0%	11.0%	4.0%	8.0%	1.0%	17.0%	12.0%	4.0%	0.0%	3.0%	1.0%	0.0%	5.0%
1-2 years	33.0%	35.0%	27.0%	6.0%	20.0%	15.0%	14.0%	6.0%	6.0%	6.0%	3.5%	2.3%	2.3%	1.2%	1.2%
2-5 years	26.0%	45.0%	32.0%	18.0%	11.0%	10.0%	17.0%	6.5%	1.8%	9.0%	9.0%	3.0%	1.8%	1.8%	3.7%
Total	35.0%	32.0%	22.0%	12.0%	11.2%	11.0%	10.5%	9.8%	6.4%	6.4%	4.4%	3.0%	1.7%	1.0%	3.4%

Health/Nutrition Issue No.

LEGEND:

1-no health issue
2- Food Refusal
3- Poor eating/appetite
4- Asthma
5- Eczema
6-Poor weight gains
7-Constipation
8-Colic
9-Reflux
10-Allergies
11- Eating excess sugar/fat/salt
12-Iron deficiency/anaemia
13-Overweight
14- Dental caries
15-Other*

*Other include: bronchitis, diarrhoea, vomiting, G6PD deficiency, pale, blood in stool & bad when teething.

4. ANTHROPOMETRY OF CHILDREN AGED 0-5 YEARS

Body Mass Index (BMI) has been commonly used to classify adult weight status with a BMI between 20-25kg/m2 being rated as the ideal weight range for optimal morbidity and mortality. Information on BMI enables us to determine the prevalence of overweight and obesity and other chronic disease states.

Classification of children and adolescents according to BMI is not readily available due to a lack of standard definitions for measuring the younger age groups. It is difficult to measure children as BMI changes substantially with age, rising steeply in infancy, falling during the preschool years and then rising again during adolescence and early adulthood. For this reason child and adolescent BMI needs to be determined using age related reference curves.

A number of curves and BMI-for-age charts have been developed internationally. The Centre of Disease Control (CDC) in the United States of America has developed BMI-for-age-charts in 2000, which include a gender and age specific BMI range. The charts recommend that those children with a BMI less than the 5^{th} percentile as very underweight and between the 5-15^{th} percentile as underweight. The charts recommend that those children with a BMI greater than or equal to the 95^{th} percentile be classified at risk of obesity, and those children with a BMI between the 85^{th} and 95^{th} percentile be classified at risk of overweight.

The most important long-term consequence of childhood obesity is it persists into adulthood. There is now epidemiological evidence to support the theory that the association between obesity and disease begins early in life. The immediate to short term adverse health problems associated with childhood obesity include social isolation, body dissatisfaction, and possible eating disorders, heat intolerance, breathlessness, tiredness and flat feet. Short-term health problems that can arise in childhood obesity also include asthma, gastrointestinal, endocrine and cardiovascular problems. These adverse health outcomes may result in childhood diabetes, high cholesterol, menstrual abnormalities and high blood pressure- all usually associated with adulthood.

Data collected in this survey on heights and weights of children 0-5 years can highlight rates of overweight or obesity risks in this age group within the City of Yarra. These are important indicators of adverse health outcomes that may develop as early as in childhood or adolescence.

a. Percentile Rating for Birth Weight and Length

The total live births in Victoria in 2000 were 62,144, with 914 births recorded in Yarra. The average birth weight of all babies born in Australia is 3.360grams.

Eat Well Today- for Tomorrow reached 120 infants 0-12 months, which represents approximately x % of all infants in the City of Yarra. In the first year of life, babies grow very rapidly, with birth weight doubling by 6 months of age and trebling by 12 months of age. Length increases about 50% from birth to 12 months of age for infants.

Children's birth weight and length is analyzed using percentile charts. The percentile rating of children surveyed was determined and plotted in Figure 3, Appendix 2. Birth length and weight follows a bell shaped curve, with the majority of infants born in the 25-75 percentile range for birth length and weight. The average birth weight was 3383g and the average length was 50.2cm.

b. Percentile Rating for Height and Weight at Ages 0-5 Years

Percentile ratings are used to monitor growth rates in children, based on population studies.

Children should general stay within the same percentile rating for height and weight, whilst growing. Falling more than 2 percentiles in a short period of time is cause for concern.

The actual height and weight of children surveyed was obtained and the percentile rating determined. The results are reflected in Figure 4 (Height) and Figure 5 (weight), found in Appendix 2.

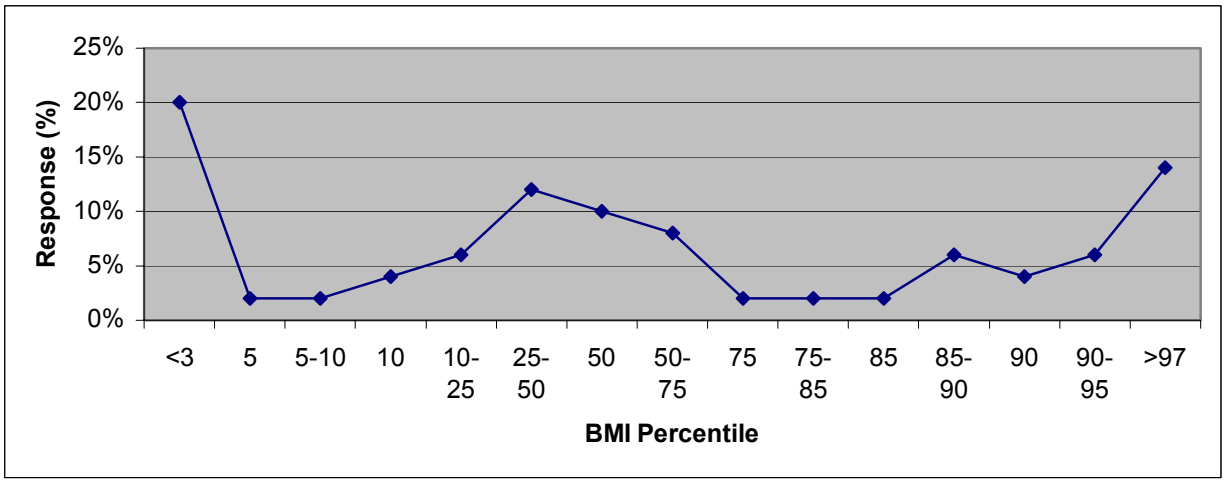
- Both height and weight continues to follow a bell shaped curved for children aged 0-5 years, as is expected when analyzing populations.

- There is a significant increase in the number of children with height and weight > 90^{th} percentile or below the 10^{th} percentile. The relationship between the height and weight was further examined by plotting the body mass index of children against percentile ratings – see next page.

c. Body Mass Index Percentile Rating of Children Aged 2-5 Years

BMI has only recently been used to classify children's weight status – expressed also on a percentile range, as discussed previously.

Figure 6: Body Mass Index of Children Aged 2 – 5 years (n=50).



50/108 surveys had the required information to calculate the BMI for children aged 2-5 years. Of these completed surveys:

- 36% of children were within the ideal weight range of 25th percentile-85th percentile for BMI. 34% (17/50) of children had a BMI below the 25th percentile, being classified as underweight
- A significant proportion (20%) being below the 3rd percentile (very underweight).
- 30% 15/50 of children had a BMI above the 85th percentile, thus being classified as overweight with a significant proportion (14%) being very overweight (over the 97th BMI percentile).

5. BREAST FEEDING PRACTICES

Key breastfeeding practices recommended in the current Dietary guidelines for children and adolescents (NHMRC 1995) and the Infant feeding guidelines (NHMRC 1996) include exclusive breastfeeding for the first 4-6 months of life, breastfeeding complemented with appropriate foods from 4-6 months and continued breastfeeding up to at least 12 months of age while receiving appropriate complementary feeds. The world Health Organization now promotes exclusive breastfeeding for the first 6 months followed by breastfeeding complemented with appropriate foods from 6 months. Benefits of breastfeeding include nutritional, immune protection as well as economical benefits. Health benefits include protection against gastrointestinal illnesses, lower rates of diabetes mellitus, asthma and food allergies (NHMRC, 1995, Stickney & Webb, 1995). Children who are breastfed also appear to be at reduced risk of childhood obesity than those who are bottle fed, reasons why are not yet clear.

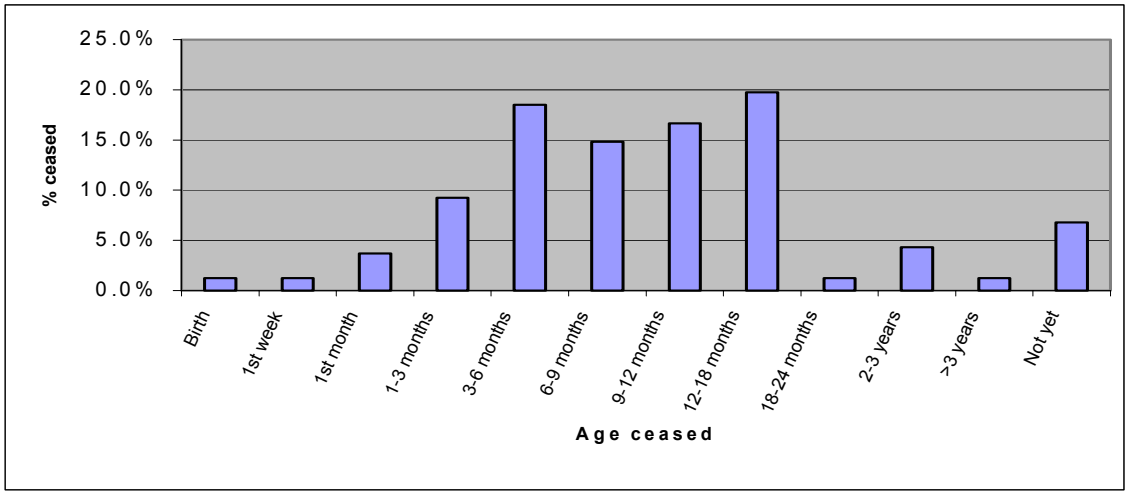
A. Number of Mothers Breastfeeding from Birth

83% of mothers answered the question of when they started breastfeeding. 99% of mothers responding to the question 'age commenced breastfeeding' reported breastfeeding from birth. This may not be reflective of the actual rate of feeding – some may not have answered the question because they had not breast fed at all.

B. Length of Breast Feeding Practice

When asked when mothers had ceased breastfeeding 45% of people interviewed did not respond. The highest no response rate (82%) was registered in the 0-12 month age group – which may reflect that mothers had not yet ceased breastfeeding. Figure 7 illustrates the age at which breastfeeding was ceased for all people interviewed.

Figure 7: Age at Which Breast Feeding Mothers Ceased Breast Feeding (n=192)



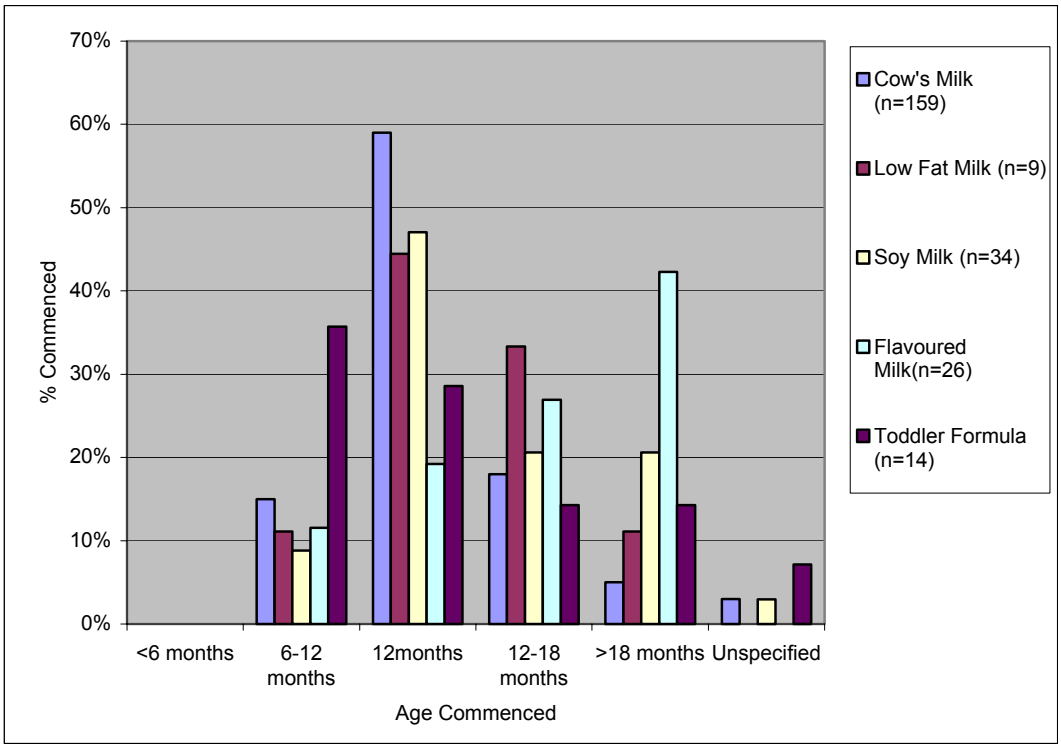
6. CONSUMPTION OF COW'S MILK AND COW'S MILK ALTERNATIVES

Cow's milk can be introduced as the main drink from 12 months of age. Cow's milk may be included from about seven months in small amounts as custard, yogurt or on cereal. Cow's milk is a poor source of iron and introducing cow's milk as sole source of milk prior to 12 months can deplete and an infant's iron stores and may lead to iron deficiency anemia (REF). Infants with iron deficiency anemia experience detrimental effects on both motor and cognitive development, although reversible with iron treatment.

A. Age of Commencing Cow's Milk

Results show that most infants (73%) commence cow's milk as a drink at the recommended age of 12 months. However 19% of infants commenced full cream milk, 11% low fat milk, 9% soy milk and 11% flavoured milk before 12 months of age. Results also indicated a small number of children (3%) commenced low fat milk before the recommended 5 years of age. While 35% of parents reported introducing toddler formula before 12 months.

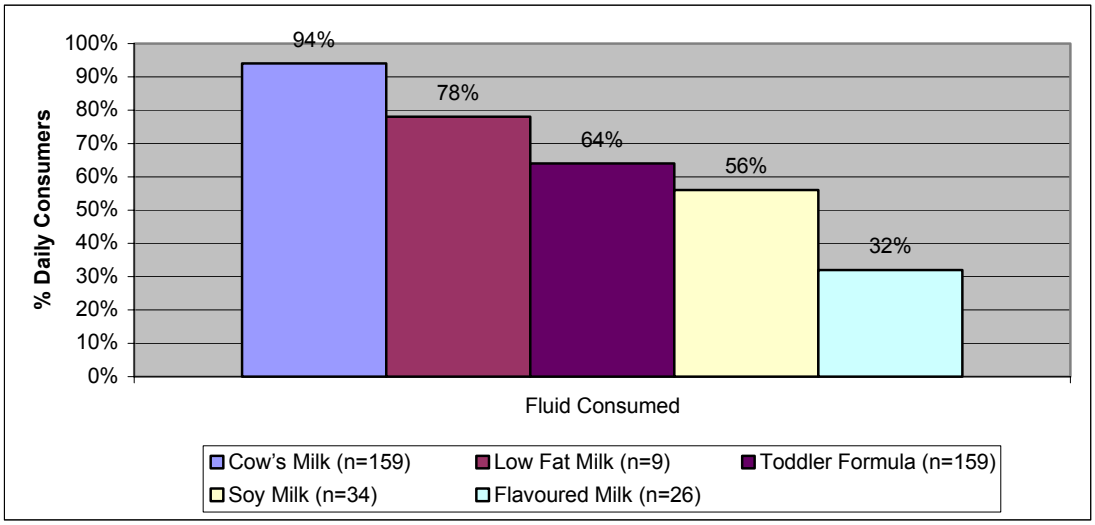
Figure 8: Age of Commencement of Cow's Milk and Cow's Milk Alternatives



B. Rate of Daily Consumption

Results indicate that most children (94%) over 12 months of age drink full cream cow's milk on a daily basis, with children drinking soy milk (56%) or low fat cow's milk (78%) as full cream cow's milk substitutes are likely to consume it on a daily basis. A significant proportion of children (32%) were reported to be drinking flavoured milk on a daily basis. Refer to Figure 9 below for details.

Figure 9: Rate of Daily Consumption of Cow's Milk and Cow's Milk Alternatives



C. Volume Consumed on a Daily Basis

Results show that most children over 12 months of age (79%) drink 600 ml of cow's milk, or less, with less than 20% of children over 12 months of age drink more than 600 ml cow's milk per day. Refer to Table 3 in the appendix for details on volume of cows milk consumed daily.

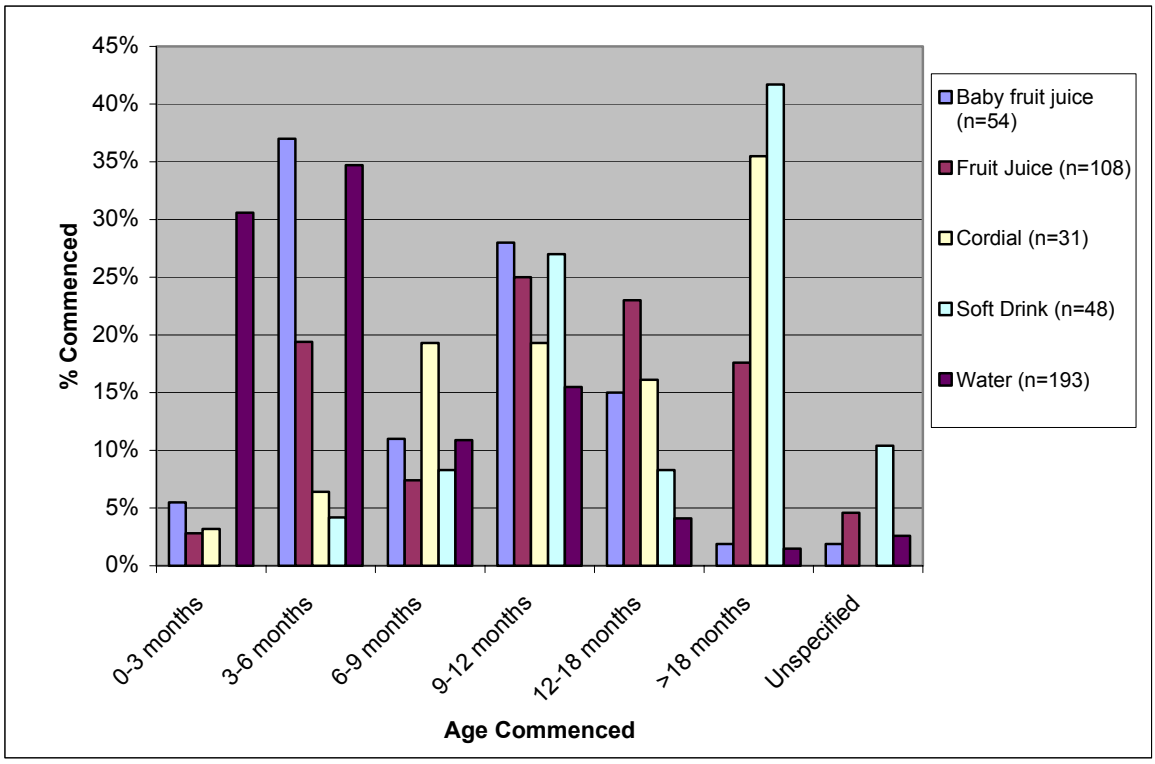
7. CONSUMPTION OF SWEET DRINKS VERSUS WATER

Sweet drinks are an unnecessary addition to the daily diet of infants. toddlers or children. If a child learns from an early age to drink sweet drinks when thirsty they are likely to continue this habit as an adult. Excessive consumption of sweet drinks has been associated with reduced appetite and increased risk of nutritional deficiencies due to reduced food intake, increase risk of dental cries and increased risk of childhood and adult obesity.

A. Age of Commencement

Results indicate that children 0- 5 years in the City of Yarra are most likely to be introduced to water from birth to 6 months of age. However fruit juice, baby fruit juice and cordial are also introduced to infants in the first 3 months of life. Most sweet drinks were found to be introduced at 9-12 months of age, with 37% of mothers introduced baby fruit juice at 3-6 months of age. Refer to Figure 10 below for details on the commencement of sweet drinks and water.

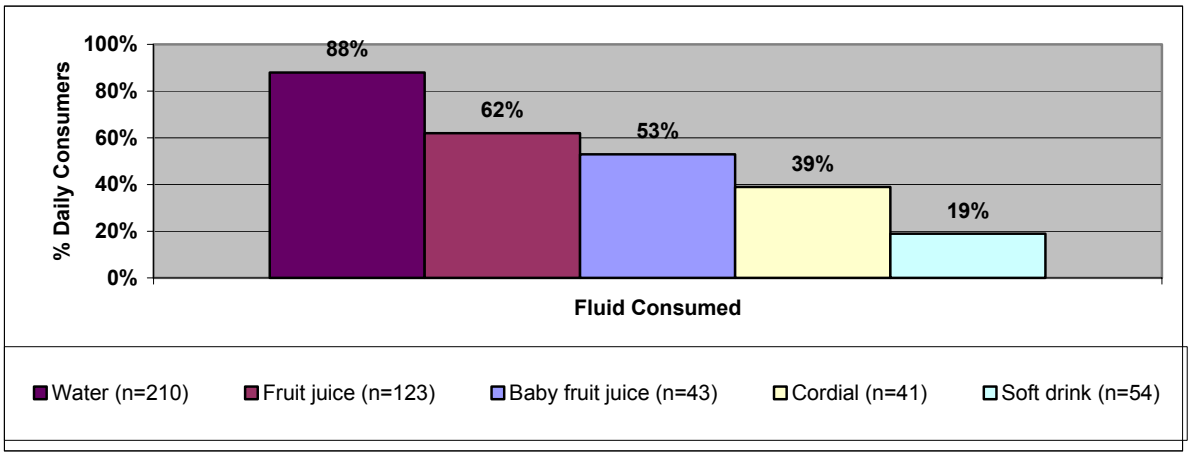
Figure 10: Age of Commencement of Sweet Drinks and Water for children 0-5 years.



B. Rate of Daily Consumption

Results indicate most children consume water on a daily basis. A large proportion of children consume baby fruit juice (62%) or fruit juice (62%) daily, while a significant proportion of children consume cordial (39%) or soft drink (19%) daily as indicated in Figure 11.

Figure 11: Rate of Daily Consumption of Sweet Drinks and Water by Children Aged 0-5 years



C. Volume Consumed on a Daily Basis

Results indicated that children drinking sweet drinks on a daily basis generally consumed between 1-2 cups/day of fruit juice, baby fruit juice, cordial or soft drink. While children drinking water daily, consume, on average, 3 cups of water per day. Refer to Figure 12 in the appendix.

D. Drinking Container Used for Sweet Drinks and Water

i) Sweet Drinks

Results indicated children aged 0-12 months are more likely to be offered sweet drinks from a bottle (45%) than a cup (39%), cup and straw (11%) or training cup (5%). Children aged over 12 months are more likely to be offered sweet drinks from a cup, training cup, cup with straw or pop top than a bottle, with a significant proportion of children aged 1-2 years (19%) and 2-5 years (15%) continued to be offered sweet drinks from a bottle. Refer to figure 13 in the appendix.

ii) Water

Results indicated children aged 0-12 months are more likely to be offered water from a bottle (52%) than a cup (5%), training cup (32%) or spoon (10%). Children aged over 12 months are more likely to be offered water from a cup, training cup, cup with straw or pop top than a bottle. A smaller proportion of children aged 1-2 years (12%) and 2-5 years (11%) continued to be offered water from a bottle, compared with juice from a bottle. Refer to figure 13 in the appendix

8. FOOD CONSUMPTION

Fruit and vegetables are good sources of carbohydrate, fibre, a wide variety of vitamins and minerals, antioxidants and phytochemicals. Diets high in fruit and vegetables may help to prevent conditions such as cardiovascular disease, hypertension, some cancers, non-insulin dependant diabetes and constipation. Diets high in fruit and vegetables also help to maintain a healthy weight and prevent overweight/obesity.

Offering fruit and vegetables daily is important so children get the opportunity to try them and establish good eating habits. However, offering children fruit and vegetables does not guarantee that children are eating fruit or vegetables. It can take 10 times for a child to try new foods and often parents may not attempt to offer a new food more than 2 to 3 times, before presuming they child does not like the food.

Eat Well Australia aims to increase the average consumption of fruit and vegetables to protect the population from lifestyle diseases. ABS National nutrition Survey, 1995, indicated 76% of children aged 2-3 years ate fruit and 75% ate vegetables in the past 24 hours. However this data does not indicate quantity consumed. The results indicated that the proportion of fruit eaten decreases with age and the proportion of vegetables eaten increase with age. Basically there is a big gap between the amount of fruit and vegetables children are eating and what they should be eating.

a. Frequency of Fruit and Vegetable Intake

Results of this survey indicated children 0-5 years are not offered or eating the required serves of fruit and vegetables on a daily basis, indicating parents need to encourage their children to consume the recommended serves of fruit and vegetables.

Most children aged 1-5 years are offered fruit 2/day or more, while 12% of children aged 1-5 years are offered fruit <1/day, refer to Figure 14. Most children aged 1-5 years are offered vegetables 1 to >2/day. However 20 % of children aged 1-5 years were offered vegetables <1/day, refer to Figure 15.

Figure 14: Frequency with Which Fruit is Offered to Children Aged 0-5 Years

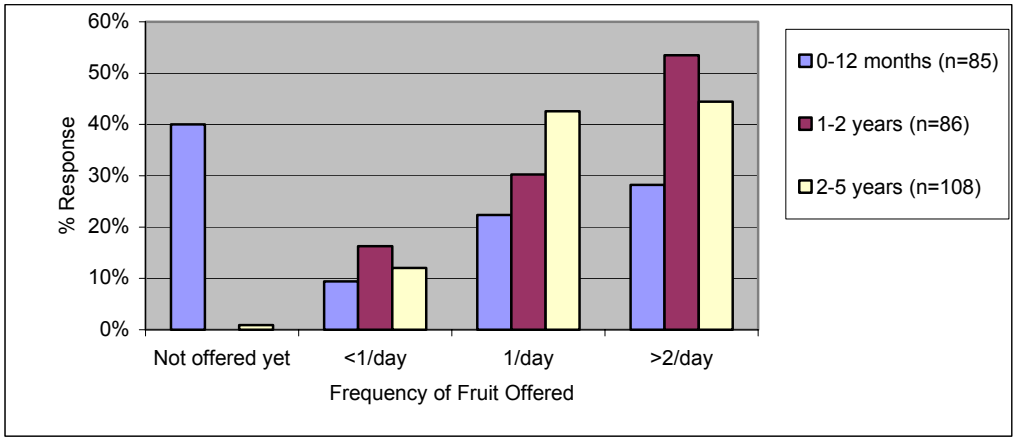
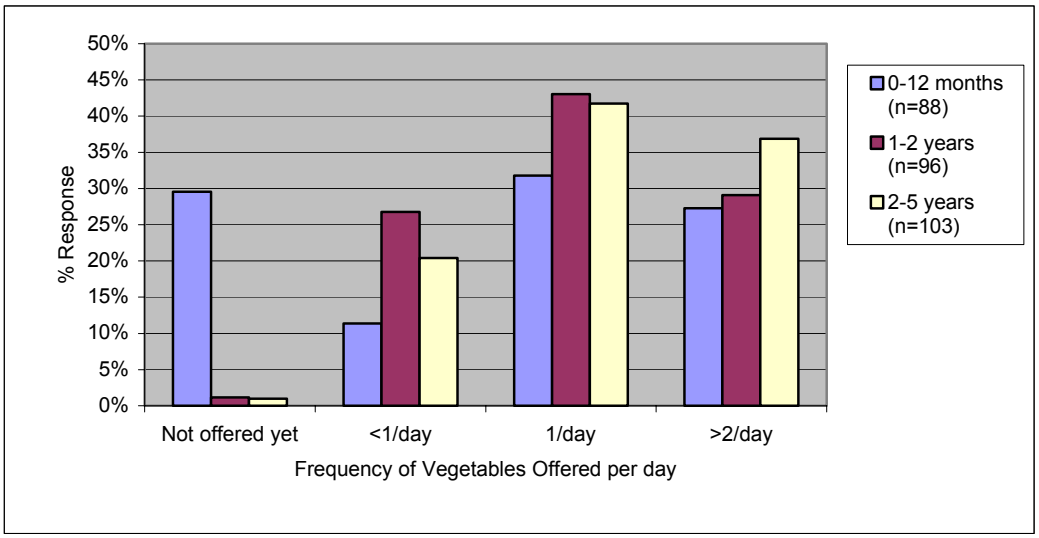


Figure 15: Frequency with Which Vegetables are Offered to Children Aged 0-5 Years



b. Variety of Fruit and Vegetables Consumed

Results indicate infants 0-12 months are most commonly offered 1 type of fruit or vegetable a day. While toddlers 1-2 years are offered 2-3 types of fruit daily by 70% of parents or caregivers. The 2-5 year old children were offered the least variety, with 25% only offered 1 type of fruit/day. However this older age group was also offered the most variety of 4 types of fruit a day (25%). Refer to Figure 16 in the appendix.

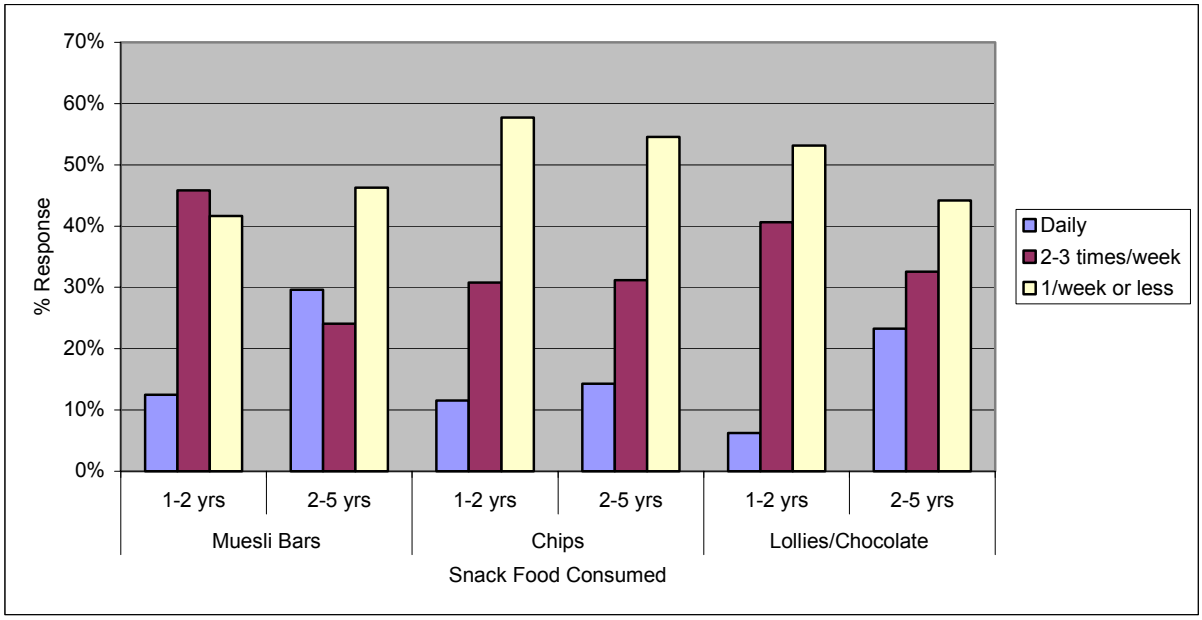
The variety of vegetables consumed indicates most children 1-5 years are offered 1 or 2 or more serves of vegetables a day. However 20% of children are offered less than 1 serve of vegetables a day. Refer to Figure 17 in the appendix.

C. SNACK FOOD CONSUMPTION

Children need mid meal snacks to ensure adequate energy and nutrient intake, hence the snacks need to be nutritious. All foods can be included in a healthy diet- it is up to parents to guide how often the whole family should be eating sweets and high fat snack foods. What children eat is more important than when children eat, but there should be an emphasis on healthy snacks such as fruit, yogurt, cheese and crackers, fruit buns, bread or vegetable sticks and dip.

Results from the EWT-FT survey indicate that over 40% of parents of children aged 1-2 years offered high fat, salt or sugar snacks (muesli bar, chips, lollies/chocolate) < 1/week. Children aged 2-5 years are more likely to consume high fat, salt or sugar snacks on a daily basis than children aged 1-2 years. Overall 15% of children 1-5 years consume high fat, salt or sugar snacks daily. Refer to Figure 15 below for further details.

Figure 18: Frequency of Consumption of High Fat, Salt or Sugar Snack Foods by Children Aged 1-5 Years



9. USE OF VITAMIN AND MINERAL SUPPLEMENTS

Research indicates there are benefits of supplementing certain vitamins and minerals to prevents or treat specific conditions, however the general use of vitamins and minerals supplements controversial. There is strong evidence that show the benefits of healthier eating habits in preventing certain diseases and improving health and well being. However it does not follow that taking supplements will also achieve these outcomes. The general use of vitamins and minerals supplements is only recommended in circumstances where dietary intake is inadequate. The only exceptions to this are specific circumstances e.g. Folate. Nevertheless vitamin and mineral supplements are widely consumed by adults. Results from EWT-FT indicate parents are more likely to use vitamins and mineral supplements for children aged over 12 months. General multivitamin supplements (Pentavite and Incremin) and Vitamin C were the most commonly quoted supplements used

10. EATING BEHAVIOUR

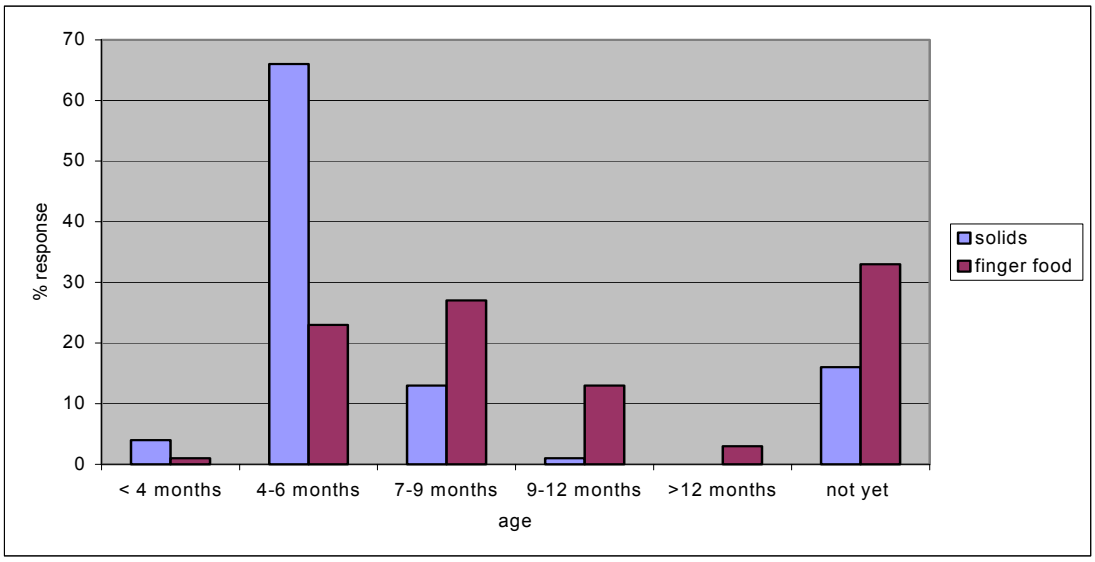
The introduction of solids in an infant's diet is dependent on nutritional, physiological and developmental factors. By 6 months an infant has usually matured physiologically with regards to kidney and gastrointestinal function. At 6 months of age an infant needs extra nutrients and energy for proper growth and development, hence the recommendations to introduce solids. Developmentally infants begin to have good neck control, reach and grab for objects and begin to show an interest in food. Introduction of solids to infants is a critical stage and poor practices can result in nutrient deficiency, for example iron deficiency. Iron plays an important role in neurological development in early life. After 12 months of age there are few things a toddler cannot have. However low fat foods are not recommended for children under 5 years of age.

10.1 Developmental Milestones

10.1.1 Introduction of Solids and Finger Food

Results indicate that 65% infants were introduced to solids between 4-6 months. Some of children were introduced to solids before 4 months (4%) or after 6 months (14%). Results also show that 28% of children were introduced to finger food at 7-9 months, although some infants are having finger foods early, with 22% of parents reported infants being introduced to finger food between 4-6 months. A small proportion of infants are also delayed in having finger foods, with 3% of parents still not having introduced finger food at 12 months of age. Refer to Figure 19 below for details.

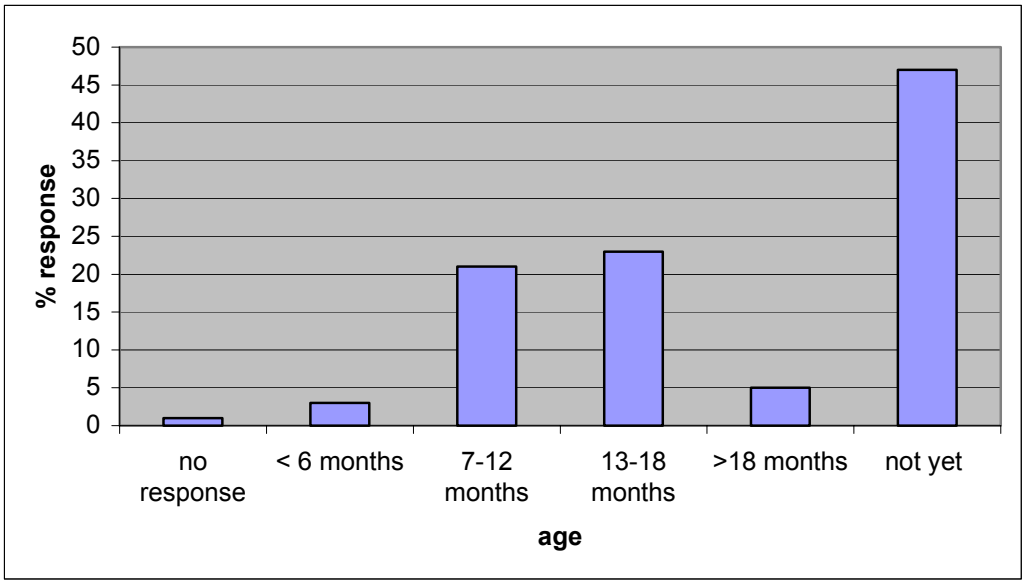
Figure 19: Age of Introduction of Solids and Finger Food



10.1.2 Introduction of Eating Same Meals as Rest of Family

EWT-FT results indicate most children starting eating the same meals as the rest of the family between the ages of 13-18 months (25%), followed by 7-12 months (21%). A small proportion started eating the same meals as the rest of the family over 18 months of age (5%) or at less than 6 months of age (3%).

Figure 20: Ages at Which Children Commenced Eating the Same Meals as the Rest of the Family



10.2 Mealtime Behaviour

Parents and caregivers are important role models for children. Beliefs and behaviours regarding food and physical activity have a significant impact on children. This highlights the importance of promoting healthy eating, eating behaviours and physical activity to adults, caregivers and families of children.

Children learn to eat by watching other people. Food habits of parents or caregivers influence the food habits developed by a child. It is important for parents or caregivers to ensure meal times are happy, relaxed and fun. Infants/toddlers love to explore foods by seeing, smelling, touching new foods as well as tasting them. Encouraging infants to self-feed from about 8-9 months helps them to explore, discover and gain confidence. Encourage drinking from a cup form 6 months.

Factors influencing the development of eating behaviour in early childhood include slowing growth rate, meal patterns, quantity of food required, impact of other developmental skills, food used as reward or punishment, independence and self feeding, like and dislikes and television.

10.2.1 Child Feeding Self

Results indicate 74% of children aged 2-5 years fed themselves always or most of the time, while 78% of toddlers aged 12-17 months fed themselves sometimes. However a small percentage (2-3%) of children aged 18 months to 5 years rarely fed themselves. Refer to Figure 21 in appendix.

10.2.2 Sleep During Bottle/Breast Feeding

A small proportion of children aged 0-5 years always fall asleep whilst breast or bottle feeding (5-6%) Refer to Figure 22: *Frequency of Children Sleeping whilst Breast or Bottle Feeding* in the appendix.

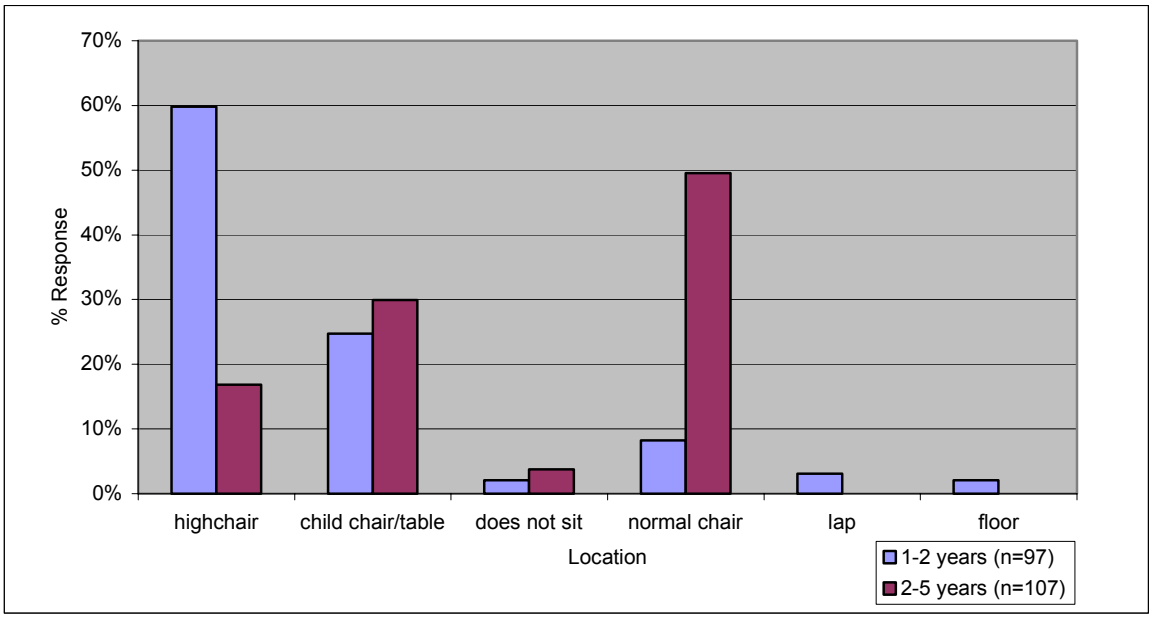
10.2.3 Sitting with Family at Meal Times

Results indicate that most children aged 0-12 months (54%), 1-2 years (76%) and 2-5 years (56%) will sit with family for 1 or more meals per day. Infants aged 0-12 months are more likely to never sit with family at a meal than toddlers aged 1-2 years (9%) or children 2-5 years (2%). Refer to *Figure 23: Frequency of Children aged 0-5 years that Sit with Family at Meal Times* in the appendix for details.

10.2.4 Where do Children Sit at Meal Times?

EWT-FT Results indicate most children are likely to actually sit at one place during meal times (96-98%). Toddlers aged 1-2 years were most likely to sit in a high chair (60%) or at a child chair and table (25%) Children aged 2-5 years were most likely to sit in a normal chair (50%) or at a child chair and table (30%). Refer to Figure 24 below for further details.

Figure 24: Where Children Sit at Meal Times.



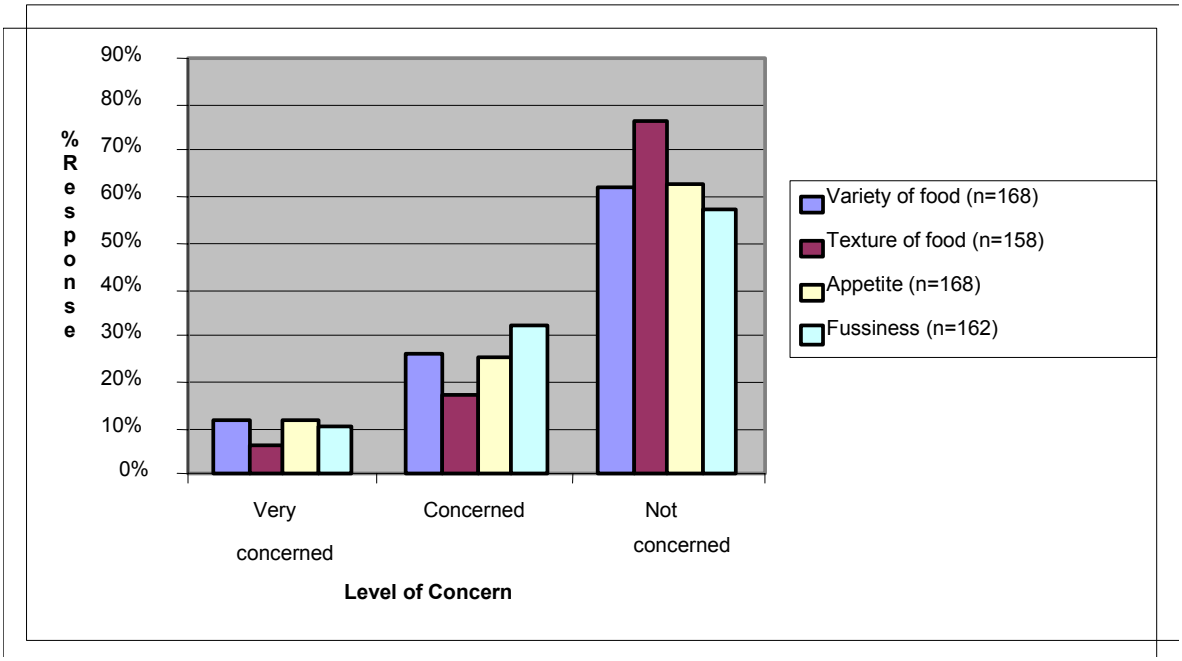
10.3 Parental Concern and Reaction to Eating Behaviour

Concern around what toddlers should eat, how much and how often are common for parents and caregivers of children 0-5 years old. It is normal for children's appetites to fluctuate and they may become picky or fussy eaters as they establish some independence from parents. Dealing with the many varying reactions children may have to food and reassuring parents this is a normal part of development can reduce mealtime stress and promote a relaxed mealtime environment.

10.3.1 Parental Concern with Various Eating Behaviours

Results on level of parental concern regarding various eating behaviours indicates most parents are not concerned about variety, texture, appetite or fussiness, although fussy eating was the most common parental concern (30%). Less than 10% of parents are very concerned about any of the eating behaviours asked about in this survey. Refer to Figure 29 below for details.

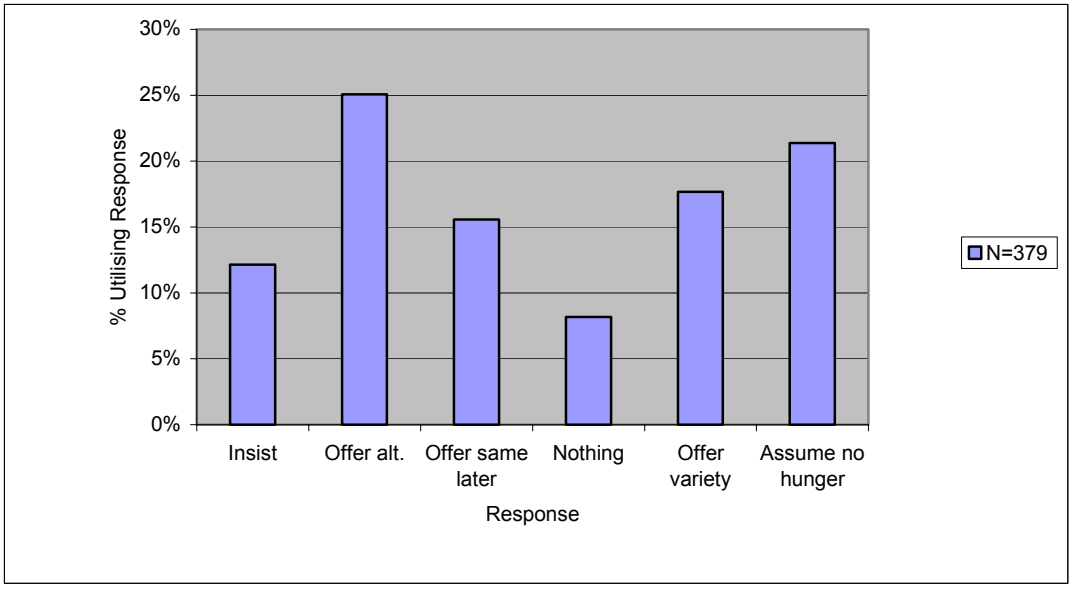
Figure 29: Parents' Level of Concern with Various Eating Behaviours



10.3.2 Parents' Reactions to Food Refusal

Results for parents reaction to food refusal indicate the most common response to food refusal is to offer an alternative (25%), followed by parents assuming a child is not hungry. Some parents offer variety in attempt to reduce food refusal (17%) while 15% of parents offer the same food later if it is initially refused. The survey did not look at how successful parents found these strategies.

Figure 30: Parents' Reactions to Food Refusal



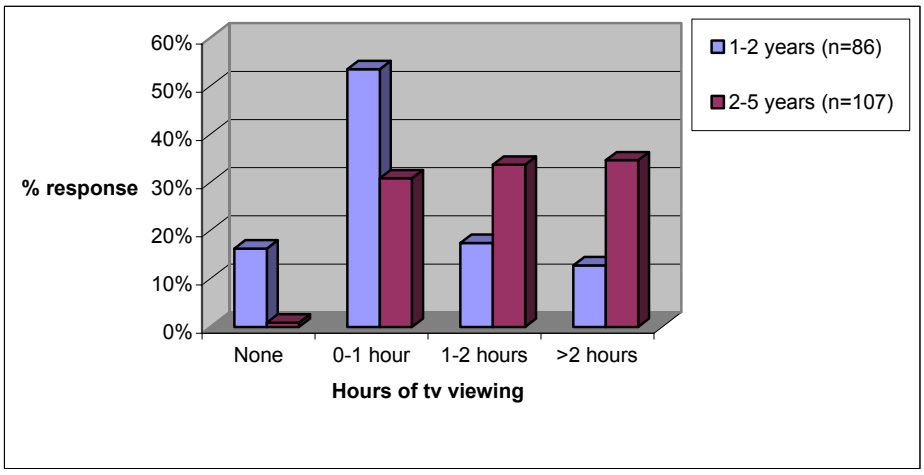
11. PHYSICAL ACTIVITY AND TELEVISION VIEWING

Children should be encouraged to be physically active from a young age. Physical activity helps children feel good and encourages a healthy appetite. Parents should be involved in regular, fun activities with their children to foster physical activity as part of daily life and into adulthood. Childhood obesity is associated with high-energy diets, low levels of physical activity and television watching habits.

A. Television Viewing by Children Aged 1-5 Years

Results from Eat Well Today for Tomorrow indicate all children 2-5 years old watched TV from 1 to more than 2 hours a day. Research indicates that children seem to consume large amounts of energy dense foods whilst watching television, however no data was collected on this for this survey. Almost 40% of children 2-5 years watch TV for more than 2 hr/day. There were a small proportion of children that watched no TV at all (12%).

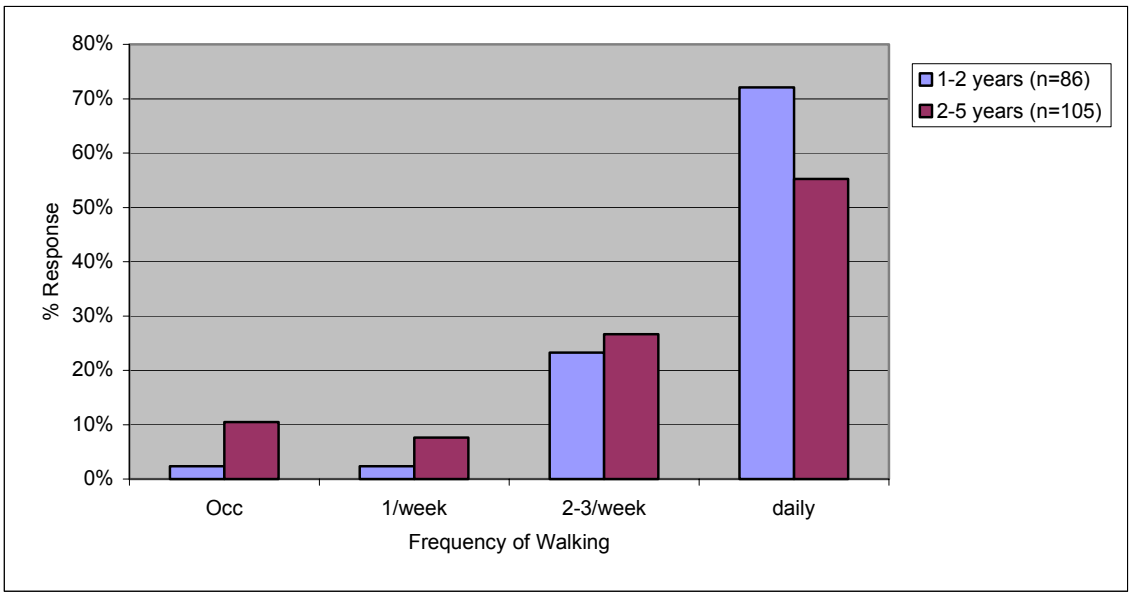
Figure 31: Hours of Television Viewing by Children Aged 1-5 Years



B. Parents Walking with Children Aged 1-5 Years

Over 50% of children 0-5 years go out walking daily. Whether the children walked or were pushed in a pram or for how long they were walking was not established. Even if the children are not walking themselves this still encourages physical activity, as parents are role models encouraging walking. Toddlers aged 1-2 years were more likely to be taken for a walk daily (72%) than children aged 2-5 years (55%), while 10% of children aged 2-5 years only went for a walk occasionally. Refer to figure 32 below for further details.

Figure 32: Frequency of Parents Walking with Children (aged 1-5 years)



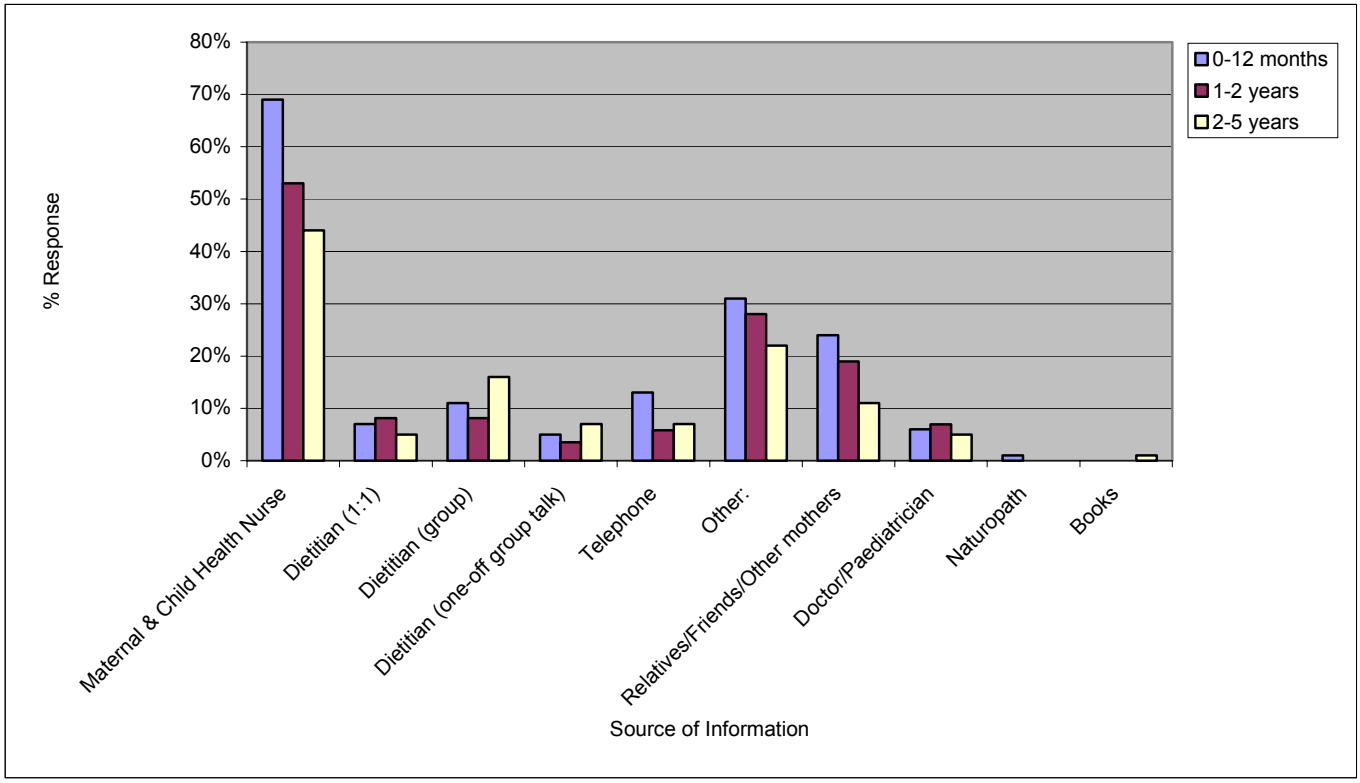
12. ACCESS TO FOOD AND NUTRITION ADVICE

There are many people who might consider themselves experts in feeding infants and toddlers (e.g. grandparents, friends, workmates or siblings who have had children). Whilst advice can be valuable, too much conflicting information can make feeding infants or toddlers more confusing than it need be. Having a credible source of information, such as dietitian or community health nurse, can be a great relief for parents or caregivers.

A. Where do Parents Usually Access Food and Nutrition Advice/Information?

The majority of parents access food and nutrition information from maternal and child health nurses, family and friends and other sources of parents access a dietitian (1:1) for food and nutrition information for their children (0-5 years of age). The majority of parents of children 0-5 years desire access to a dietitian either individually or in a group setting for food and nutrition advice.

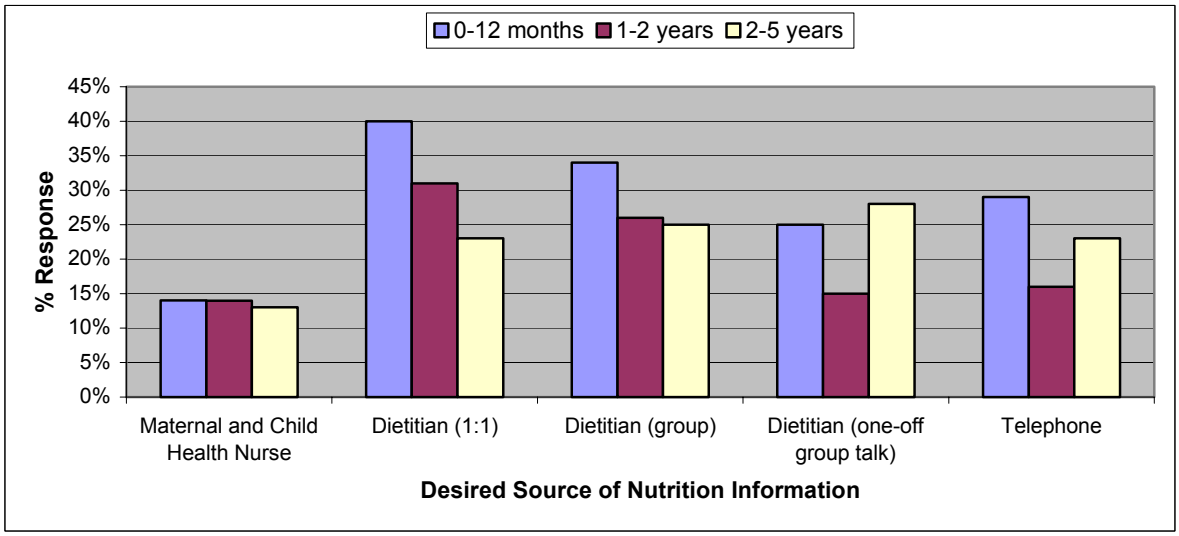
Figure 33: Source of Food and Nutrition Advice/Information for Parents of Children Aged 0-5 Years



B. Where Would Parents Like to Access Nutrition Advice/Information

Most parents or caregivers would like to access nutrition information from a dietitian in a one on one consultation. particularly parents on infants 0-12 months (40%) and 1-2 year old toddlers (30%). Parents would also like to access dietitians in a group setting and for one off talks. The phone was desired as a point of access to information from dietitians, particularly for parents with infants 0-12 months. The parents with 2-5 year olds appear more mobile wanting to access nutrition information in group talks.

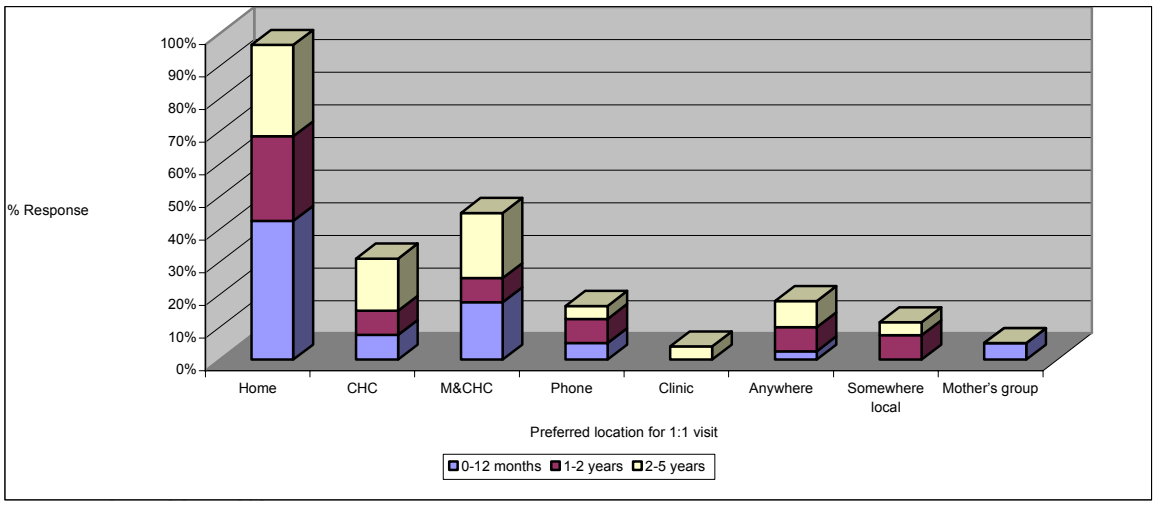
Figure 34: Desired Source of Food and Nutrition Advice/Information for Parents of Children 0-5 Years



C. Preferred Location for 1:1 Visit with Dietitian

Most parents of children 0-5 years prefer a dietitian to come to their home to provide food and nutrition advice, this being the preferred choice by parents from all age groups. Other popular locations in order of preference were M&CHC centers, community health centers and the phone. Less than 10% of parents wanted a dietitian to visit mothers groups.

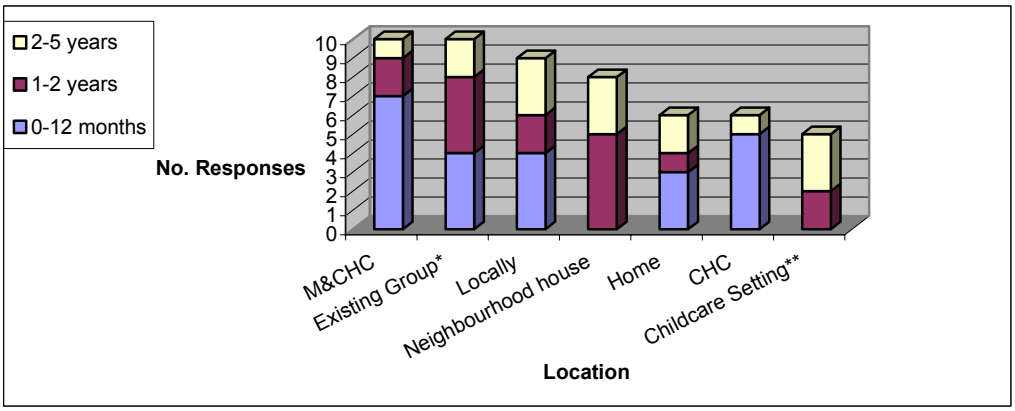
Figure 35: Preferred Location for 1:1 Visit with Dietitian for Parents of Children Aged 0-5 Years



D. Preferred Location for Group Sessions with Dietitian

The majority of parents prefer a nutrition group talk either at the M&CHC, in an existing group or locally. Preferred location for group sessions with a dietitian varied depending on the parent's child's age. M&CHC centers were most popular for parents with infants, who are visiting the center more regularly than the older age groups. While parents with 2-5 year olds preferred neighborhood houses, again reflecting a place more likely to be visited by parents with older children. Parents with 2-5 year olds also preferred childcare settings as a popular location for group session with a dietitian.

Figure 36: Preferred Location for Group Session with Dietitian for Parents of Children Aged 0-5 Years

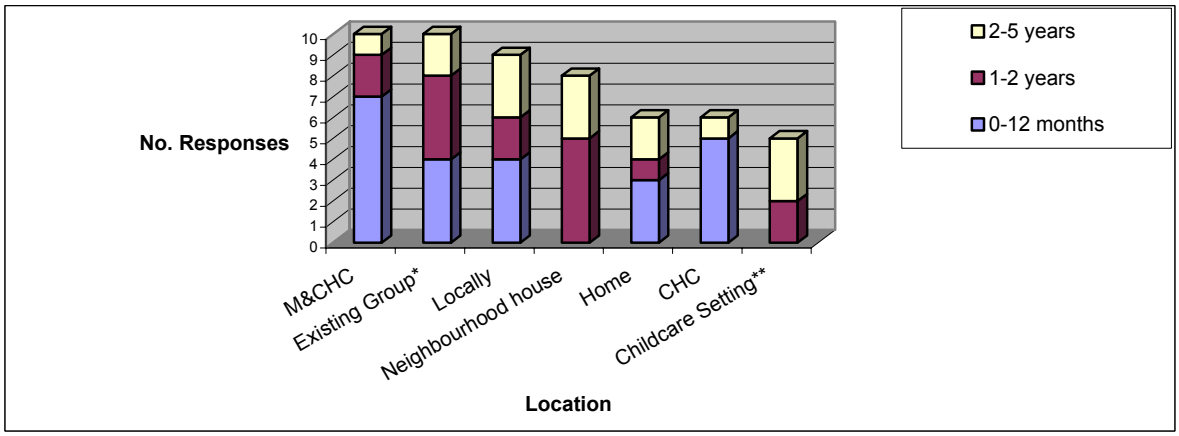


* Playgroup, Mother's group ** Kindergarten, crèche, The Cottage

E. Preferred Location for One-off Group Sessions with Dietitian

Results for preferred location for one of groups are similar to preferred location for group sessions as previously described. In summary parents of infants 0-12 months prefer M&CHC centres, parents of 1-5 year olds prefer neighborhood houses or an existing group such as a playgroup,

Figure 37: Preferred Location for One-Off Group Session with Dietitian for Parents



* Playgroup, Mother's group ** Crèche, Kindergarten

DISCUSSION

Eating Well Today – For Tomorrow (EW-TFT) identified a range of health, nutrition and eating behaviour issues in children 0-5 years in the City of Yarra. The results of the survey highlight the need for nutrition services for parents and caregivers of 0-5 year old children in the City of Yarra. Priority areas and strategies to address issues on parent's access to nutrition information are outlined in the recommendations section of this report.

Priority perceived diet and nutrition issues

The results indicate there is much scope for dietitians to assist parents, care givers and health professionals with priority food and nutrition issues within the City of Yarra. Perceived health and nutrition issues results from this survey indicate the majority of parents rate their child's health as excellent. However data on weight, type/quantity of fluid, food consumption and eating behaviour indicates parents have self identified many health and nutrition issues/concerns about their children. The most common issues parents identified for children over 12 months were food refusal, poor appetite, followed by asthma and eczema. Dietitians play an important role in providing accurate diet and nutrition information to parents, car givers and other health professionals working with children 0-5 years of age.

A positive result from this survey was the excellent breastfeeding practices the City of Yarra, with 99% of new parents choosing to breastfeed when their babies were born. This is above the national average of 82% of infants being breastfed when discharged from hospital (1995 National Health Survey). In the City of Yarra 66% of mothers breastfed their baby for at least 6 months of age, this is again higher than the national average of 42% of mothers whom breastfed infants for at least 6 months (National Health Survey, 1995). The percentage of mothers ceasing breastfeeding between 3-6 months in this survey was approximately the same percentage as the national health survey figures (20%). However as recommendations state breastfeeding is preferred method of feeding for the first 12 months of life there may be a need to explore why breastfeeding ceases earlier. Dietetic services may not need to focus on encouraging mothers to commence breastfeeding, but rather focus on reasons why mothers choose to cease or continue breastfeeding after 4-6 months in the City of Yarra.

Another positive finding from Eating Well Today – For Tomorrow is that the message on not giving an infant cows milk before 12 months is being followed by 73% of parents or care givers surveyed in the City of Yarra. However 31% of infants surveyed were introduced to cow's milk or an alternative (low fat, soy or flavoured milk) before 12 months. This indicates there is scope to look at who and why parents or caregivers are introducing cow's milk or an alternative before the recommended age of 12 months. This then enables appropriate sub population groups to be targeted for nutrition education around appropriate introduction of cows milk and other fluids for infants and children.

Eating Well Today – For Tomorrow results indicated particular nutritional concerns regarding the consumption of sweet drinks, with most infants being introduced to baby juice or fruit juice by 12 months of age. The volume of sweet drinks consumed is alarming with over 80% of children aged 0-5 years drinking sweet drinks on a daily basis, and consuming between 1-2 cups per day of juice, cordial or soft drink. This indicates similar patterns of sweet drink consumption reported by other surveys. The NSW Child Health survey (REF) found that 28% of children aged 2-4 years reported drinking at least 1 cup of soft drink, cordial or sports drink every day, with 13% indicating they consumed at least 2 cups a day. The results of this survey found that soft drinks and cordial were not as commonly consumed in the younger age group (0-2years) but more common in the older age group (2-5 years). Soft drink and cordial were consumed on a daily basis by 58% of children 2-5 years in this survey. This highlights a need to focus on identifying who is more likely to introduce sweet drinks on a regular basis and then target and educate those parents/caregivers about the risks associated with introducing sweet drinks on a regular basis to a child's diet.

There are mixed outcomes around eating behaviours for children 0-5 years in the City of Yarra. Positive results indicated that most parents and caregivers surveyed introduced solids at the recommended age of six months and introduced finger foods between 8-12 months. However there were inappropriate eating behaviours such as infants falling asleep while being breast or bottle fed, early introduction of solids, finger foods or cow's milk, and frequent use of snack foods high in fat, sugar or salt. Parents/caregivers also expressed various concerns around mealtime behaviours e.g. fussy eating, fluctuating appetites, and indicating a lack of consistent eating behaviour messages r4eaching parents and caregivers of children 0-5 years.

Another concerning finding from this survey was that children 0-5 years in the City of Yarra are not eating the required serves of fruit and vegetables on a daily basis. Basically there is a big gap between the amount of fruit and vegetables children are eating and what they should be eating. Parents need to be supported and reminded to encourage their children to consume the recommended serves of fruit and vegetables.

The survey highlights the large amount of time children from 0-5 years spend watching TV. All children surveyed watched TV for 2 or more hours a day. This is X time more than 5 years ago for that age group. Research indicates that children seem to consume large amounts of energy dense foods whilst watching television, however no data was collected on this for this survey. Future research would benefit from working with health professionals to look at the link between physical activity, television viewing and eating habits. This data can be used to show that it is not only energy dense foods but also lack of activity that maybe a cause of increasing rates of overweight and obesity in childhood.

Anthropometrics date of Children 0-5 Years in this survey indicates similar trends to state averages for birth weight and both weight and height follow a bell shaped curve for children 0-5 years. However there was a significant increase in the number of children with height and weight greater than the 90^{th} percentile. This highlights the increasing trend towards children being overweight or obese and this issue is a priority area that needs to be addressed by North Yarra Community Health dietitians in conjunction with community organizations in the City of Yarra. This survey also found a significant increase in the number of children with height and weight below the 10^{th} percentile, indicating the need to look further into the cause of this in the City of Yarra.

Parents access to a dietitian for nutrition information.

The overwhelming finding of the Eat Well Today- for Tomorrow survey was that the majority of parents desire access to a dietitian for food and nutrition information. The majority of parents and caregivers in the City of Yarra currently access food and nutrition information from maternal and child health nurses, family and friends or other sources. The majority of parents would prefer a nutrition group talk at M&CHC centres or within an existing group e.g. playgroup that they access locally.

Presently City of Yarra parents/care givers of children 0-5 years have very limited access to a dietitian and no specialized paediatric dietetic services are offered. There is much scope for a paediatric dietitian to work within the City of Yarra to improve the nutritional health and well being of children 0-5 years by providing accurate nutrition information and education. A paediatric dietitian would also be a reliable resource for health professionals and organizations working with children, such as general practitioners, M&CHC center nurses, migrant resource centers, playgroups, childcare centers and kindergartens.

Culturally appropriate information needs to be accessible within the city of Yarra, with % parents or care givers being from non-English speaking backgrounds. Of particular concern is the number of children 2-5 years who are underweight/overweight who come from NESB. All parents must be provided with an opportunity to access useful and relevant nutrition information, and be able to access healthy, affordable and culturally appropriate food. Parents must be empowered to promote healthy eating for their children to contribute to improving health and well being of children in the City of Yarra.

FUTURE DIRECTIONS

Some opportunities exist and others need to be implemented with additional resources to support families to provide healthy eating and eating behaviours for children 0-5 in the City of Yarra. This reports highlights key areas of concern around poor eating and drinking habits, behavioural implications as well as educational components to address to improve parents and care givers access to accurate food and nutrition information and appropriate health professionals for advice.

RECOMMENDATIONS.

1) Diet and nutrition issues needing to be addressed:

- increase the length mother are breast feeding
- increase fruit and vegetable intake
- reduce consumption of sweet drinks
- increase physical activity
- reduce TV viewing
- address various inappropriate eating behaviours

2) Research to identify the barriers that influence the capacity of parents and care givers to address the above identified diet and nutrition issues.

3) Possible strategies to address identified diet and nutrition issues:

a) Utilise local health planning processes, such as the City of Yarra municipal health plan, to ensure healthy eating strategies for 0-5 year old children are incorporated as a priority in the City of Yarra.

b) Support professional development and training processes for health professionals around healthy eating priorities for children 0-5 years old in the City of Yarra, as identified by this assessment.

c) Training processes for health professionals around healthy eating priorities in the City of Yarra as identified by this assessment should be supported.

d) Enable access to a paediatric dietitian by parents and caregivers of children 0-5 years in the City of Yarra, for 1:1 consultations in the home and group talks at maternal and child health centres or other settings as identified in this assessment.

e) Work closely with planning, infrastructure and local organisations to address impact on food access and supply of healthy food in the City of Yarra

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APPENDICIES

APPENDIX 1:

Sample Questionnaire

EATING WELL TODAY – FOR TOMORROW

Questionnaire for parents/carers of children aged 0 –12 months

This questionnaire is to be used to determine if there is a need for more nutrition services for parents/carers of young children who live, work or study in the City of Yarra. The information you provide us will be confidential and will be used for research purposes only. Your name and any other details which identify you are not required, so your responses will remain anonymous. Please ask for assistance if you have any problems answering questions or do not fully understand the question being asked.

Thank you for taking the time to fill out this questionnaire.

This project is funded by the City of Yarra Community Grants Funding.

PART 1: YOU AND YOUR CHILD

Today's Date:_____

1. Sex of Child ☐ Male
☐ Female

2. Date of Birth of Child _____

3.

	Child	Mother	Father
Country of Birth	_____	_____	_____

4. **Main language(s) spoken at home** _____

_____

_____

_____

5. Home Postcode ☐☐☐☐

6. Do you live in: ☐ Private Rental Housing ☐ Public Rental Housing
☐ Other _____

7. Type of housing ☐ high rise ☐ flat ☐ house ☐ other _____

8. Are you working: ☐ Full time ☐ Part time Occupation _____
☐ Not working at present Pension type _____

9. Would you describe your family as: ☐ single parent
☐ two parent
☐ other _____

PART 2: YOUR CHILD'S HEALTH AND EATING

10. Your child's health is: □ excellent □ good □ poor

Please provide further detail: _____

11. Does your child have/ever had any health/eating problems (tick as appropriate)?

□ poor eating/appetite
□ food refusal
□ iron deficiency anaemia
□ poor weight gains
□ allergies
□ overweight
□ colic
□ reflux
□ constipation
□ asthma
□ eczema
□ other_____

12. Do you give your child vitamin and mineral supplements?

□ **No**
□ **Yes; please specify_____**

13. Birth Weight _____
Birth Length _____

14. Height (today) _____
Weight (today) _____

15. How would you describe your child's height now, compared to children of the same age:

□ average □ below average □ above average

16. How would you describe your child's weight now, compared to children of the same age:

□ average □ below average □ above average

17. Has your child ever drunk?

	Age started (months)	How often (daily, weekly, monthly, never)	If daily how many mls per day	What drinking container is used eg glass, bottle, training cup	Age ceased
Breast milk			n/a	n/a	
Infant formula					
Cows milk (full cream)					
Cows milk (low fat)					
Soy milk					
Toddler formula					
"Baby fruit juice"					
Fruit Juice					
Cordial					
Soft Drink					
Water					
Other					

18. What age did you introduce solid foods? □ Not introduced

□ ……Months

19. What age did you introduce finger foods (eg pieces of cooked vegies, fruit, pasta)?

□ Not introduced

□ ……Months

20. When did your child start eating the same meals as the family?

□ Not yet done

□ ……Months

21. Have you introduced cows milk in foods eg yoghurt, custard, cheese etc?

□ Yes At what age did you introduce cows milk in foods? ……months
□ No

22. Does your child fall asleep when breast/bottle feeding?

□ Always □ Most of the time □ Sometimes □ Rarely □ Never

23. Does your child sit at or near the table when adult family members eat?

□ > 1/day □ 1/day □ 2-3 week □ 1 week □ never

24. How often do you offer the following foods? (Please tick & specify type of food).

	>2/day	1/day	2-3/week	1/week	Not yet offered
Fresh fruit (Please specify type)					
Tinned/baby (Please specify type)					
Vegetables (Please specify type)					
Red meat eg lamb, beef					
White meat eg chicken, pork					
Fish, fresh or tinned					
Legumes, tofu or nuts or eggs					

25. How do you describe the mealtime environment with your child? (Please tick).

	Always	Most of the time	Sometimes	Rarely	Never
Enjoyable					
Tolerable					
Stressful					
Time consuming					
Frustrating					
Messy					

26. Does your child go out in the sun (uncovered):

□ every day □ 2-3/week □ 1/week □ 1/month □ other _____

PART 3: GETTING HELP AND NUTRITIOUS FOOD

27. If you have a worry or a concern about your child's diet or eating patterns please tell us where you currently receive help and where you would like to receive help. (Please tick).

	I currently receive help in this way	I would like to receive help in this way	Please tell us **where** you would like this to occur eg in the home
One to one talk with a Dietitian			
One to one talk with a maternal and child health nurse			
One to one talk with another person Please specify:_____			
Group talk by dietitian to a group I am already attending eg. Playgroup			
One off group talk about nutrition			
Someone I can ring at the community centre to ask my individual questions			
Other			

28. What makes it difficult for you to buy and prepare nutritious food for the family? (Please tick)

- ☐ Too expensive
- ☐ No transport to shops with healthy foods
- ☐ Concern about my safety when shopping. Please explain_____
- ☐ Language difficulties
- ☐ Not enough time
- ☐ Not sure what is healthy
- ☐ Not sure where to buy healthy food
- ☐ Don't have ideas/skills to prepare healthy foods

29. Please tell us any ideas you have on what assistance you need to improve the eating patterns of your children and you family. _____

Thank you for completing this questionnaire

EATING WELL TODAY – FOR TOMORROW

Questionnaire for parents/carers of children aged 1 - 2 years

This questionnaire is to be used to determine if there is a need for more nutrition services for parents/carers of young children who live, work or study in the City of Yarra. The information you provide us will be confidential and will be used for research purposes only. Your name and any other details which identify you are not required, so your responses will remain anonymous. Please ask for assistance if you have any problems answering questions or do not fully understand the question being asked.

Thank you for taking the time to fill out this questionnaire.

This project is funded by the City of Yarra Community Grants Funding.

PART 1: YOU AND YOUR CHILD

Today's Date:_____

1. Sex of Child ☐ Male
☐ Female

2. Date of Birth of Child _____

3.

	Child	Mother	Father
Country of Birth	_____	_____	_____

5. **Main language(s) spoken at home** _____
_____
_____
_____

5. Home Postcode ☐☐☐☐

6. Do you live in: ☐ Private Rental Housing ☐ Public Rental Housing
☐ Other _____

7. Type of housing ☐ high rise ☐ flat ☐ house ☐ other _____

8. Are you working: ☐ Full time ☐ Part time Occupation _____
☐ Not working at present Pension type _____

9. Would you describe your family as: ☐ single parent
☐ two parent
☐ other _____

PART 2: YOUR CHILD'S HEALTH AND EATING

10. My child's health is: □ excellent □ good □ poor

Please provide further details:_____

11. Does your child have/ever had any health/eating problems (tick as appropriate):

□ poor eating/appetite
□ food refusal
□ iron deficiency anemia
□ poor weight gains
□ allergies
□ overweight
□ eating too much high sugar/high salt/high fat foods
□ colic
□ reflux
□ constipation
□ asthma
□ eczema
□ dental caries
□ other_____

12. Do you give your child vitamin and mineral supplements?

□ **No**
□ **Yes; please specify**_____

13. Birth Weight _____
Birth Length _____

14. Height (today) _____
Weight (today) _____

15. How would you describe your child's height now, as compared to children of the same age:

□ average □ below average □ above average

16. How would you describe your child's weight now, as compared to children of the same age:

□ average □ below average □ above average

17. Does your child ever drink?

	Age started (months)	How often (daily, weekly, monthly, occasionally. never)	If daily how many mls per day	What drinking container is used eg glass, bottle, training cup, pop-top, cup	Age ceased
Breast milk			n/a	n/a	
Infant formula					
Cows milk (full cream)					
Cows milk (low fat)					
Soy milk					
Flavoured milk					
Toddler formula					
"Baby fruit juice"					
Fruit Juice					
Cordial					
Soft Drink					
Water					
Other					

18. When did your child stop drinking from a bottle? □ Not yet

□ ……months

□ Never had bottle

19. What age did you introduce solid foods?

□ Less than 4 months □ 4-6 months □ 7-9 months □ 9-12 months
□ More than12 months

20. What age did you introduce finger foods (eg. pieces of cooked vegies, fruit, pasta)?

□ <4 months □ 4-6 months □ 7-9 months □ 9-12 months □ > 12 months

21. When did your child start eating the same meals as the rest of the family?

□ <6 months □ 7-12 months □ 13-18 months □ > 18 months

22. Does your child feed themselves ?

□ Always □ Most of the time □ Sometimes □ Rarely □ Never

23. Does your child fall asleep when breast/bottle feeding? (if applicable)

□ Always □ Most of the time □ Sometimes □ Rarely □ Never

24. Does your child sit at or near the table when adult family members eat?

□ > 1/day □ 1/day
□ 2-3 week
□ 1 week
□ never

25. Where does your child <u>usually</u> sit to eat meals?

□ Highchair □ Child chair/table □ Does not sit to eat meals □ Normal chair
□ Lap

26. How do you describe the mealtime environment with your child? (Please tick).

	Always	Most of the time	Sometimes	Rarely	Never
Enjoyable					
Pleasant					
Stressful					
Time consuming					
Frustrating					
Messy					

27. Do you have any concerns for your child about the following? (Please tick).

	Very concerned	Concerned	Not concerned
Variety of food eaten			
Texture of food eaten			
Appetite – large - small			
Fussiness re food			
Other (please list any other concerns you may have)			

28. How often do you offer the following foods? (Please tick & specify type of food).

	>2/day	1/day	2-3/week	1/week	Not yet offered
Fresh fruit (Please specify type)					
Tinned/baby fruit (Please specify type)					
Vegetables (Please specify type)					
Red meat eg lamb, beef					
White meat eg chicken, pork					
Fish, fresh or tinned					
Legumes, tofu or nuts or eggs					
Muesli bars/"roll ups"					
Chips – packet					
Lollies/chocolate					

29. What is your most common response when your child refuses to eat a meal? (You may tick more than one box)

□ Insist the child eats □ Offer alternatives □ Offer the same foods later
□ Do nothing □ Continue to encourage a wide variety of foods
□ Assume child is not hungry at present and will eat later

30. How much television does your child watch each day?
□ None □ 0-1 hour □ 1-2 hours □ >2 hours

31. How often do you go for a walk with your child (either in a stroller or walking)?
□ Never□ Occasionally □ 1/week □ 2-3/week □ Daily

32. Does your child go out in the sun (uncovered):

□ every day □ 2-3/week □ 1/week □ 1/month □ other _____

PART 3: GETTING HELP AND NUTRITIOUS FOOD

33. If you have a worry or a concern about your child's diet or eating patterns please tell us where you currently receive help and where you would like to receive help. (Please tick).

	I currently receive help in this way	I would like to receive help in this way	Please tell us **where** you would like this to occur eg in the home
One to one talk with a Dietitian			
One to one talk with a maternal and child health nurse			
One to one talk with another person Please specify: _____			
Group talk by dietitian to a group I am already attending eg. Playgroup			
One off group talk about nutrition			
Someone I can ring at the community centre to ask my individual questions			
Other			

34. What makes it difficult for you to buy and prepare nutritious food for the family?

- Too expensive
- No transport to shops with healthy foods
- Concern about my safety when shopping. Please explain_____
- Language difficulties
- Not enough time
- Not sure what is healthy
- Not sure where to buy healthy food
- Don't have ideas/skills to prepare healthy foods

35. Please tell us any ideas you have on what assistance you need to improve the eating patterns of your children and you family._____

Thank you for completing this questionnaire

EATING WELL TODAY – FOR TOMORROW

Questionnaire for parents/carers of children aged 2 - 4 years

This questionnaire is to be used to determine if there is a need for more nutrition services for parents/carers of young children who live, work or study in the City of Yarra. The information you provide us will be confidential and will be used for research purposes only. Your name and any other details which identify you are not required, so your responses will remain anonymous. Please ask for assistance if you have any problems answering questions or do not fully understand the question being asked.

Thank you for taking the time to fill out this questionnaire.

This project is funded by the City of Yarra Community Grants Funding.

PART 1: YOU AND YOUR CHILD

Today's Date:_____

1. Sex of Child ☐ Male
☐ Female

2. Date of Birth of Child _____

3.

	Child	Mother	Father
Country of Birth	_____	_____	_____

6. Main language(s) spoken at home _____
_____
_____

5. Home Postcode ☐☐☐☐

6. Do you live in: ☐ Private Rental Housing ☐ Public Rental Housing
☐ Other _____

7. Type of housing ☐ high rise ☐ flat ☐ house ☐ other _____

8. Are you working: ☐ Full time ☐ Part time Occupation _____
☐ Not working at present Pension type _____

9. Would you describe your family as: ☐ single parent
☐ two parent
☐ other _____

10. My child's health is: □ excellent □ good □ poor

Please provide further details:_____

11. Does your child have/ever had any health/eating problems (tick as appropriate):

□ poor eating/appetite
□ food refusal
□ iron deficiency anemia
□ poor weight gains
□ allergies
□ overweight
□ eating too much high sugar/high salt/high fat foods
□ colic
□ reflux
□ constipation
□ asthma
□ eczema
□ dental caries
□ other_____

12. Do you give your child vitamin and mineral supplements?

□ No
□ Yes, please specify_____

13. Birth Weight _____
Birth Length _____

14. Height (today) _____
Weight (today) _____

15. How would you describe your child's height now, as compared to children of the same age:

□ average □ below average □ above average

16. How would you describe your child's weight now, as compared to children of the same age:

□ average □ below average □ above average

17. Does your child ever drink?

	Age started (months)	How often (daily, weekly, monthly, occasionally. never)	If daily how many mls per day	What drinking container is used eg glass, bottle, training cup, pop-top, cup	Age ceased
Breast milk			n/a	n/a	
Infant formula					
Cows milk (full cream)					
Cows milk (low fat)					
Soy milk					
Flavoured milk					
Toddler formula					
"Baby fruit juice"					
Fruit Juice					
Cordial					
Soft Drink					
Water					
Other					

18. Does your child feed themselves ?

□ Always □ Most of the time □ Sometimes □Rarely □ Never

19. Does your child fall asleep when breast/bottle feeding? (If applicable).

□ Always □ Most of the time □ Sometimes □ Rarely □ Never

20. Does your child sit at or near the table when adult family members eat?

□ > 1/day □ 1/day □ 2-3 week □ 1 week □ never

21. Where does your child sit to eat meals?

□ Highchair □ Child chair/table □ Does not sit to eat meals □ Normal chair
□ lap

22. How do you describe the mealtime environment with your child? (Please tick).

	Always	Most of the time	Sometimes	Rarely	Never
Enjoyable					
Tolerable					
Stressful					
Time consuming					
Frustrating					
Messy					

22. How often do you offer the following foods? (Please tick & specify type of food).

	>2/day	1/day	2-3/week	1/week	Not yet offered
Fresh fruit (please specify type)					
Tinned/baby fruit (please specify type)					
Vegetables (please specify type)					
Red meat eg lamb, beef					
White meat eg chicken, pork					
Fish, fresh or tinned					
Legumes, tofu or nuts or eggs					
Muesli bars/"roll ups"					
Chips - packet					
Lollies/chocolate					

23. Do you have any concerns for your child about the following?(please tick)

	Very concerned	Concerned	Not concerned
Variety			
Texture			
Appetite			
Fussiness			
Other (please list any other concerns you may have)			

24. What is your most common response when your child refuses to eat a meal? (You may tick more than one box).

□ Insist the child eats □ Offer alternatives □ Offer the same foods later
□ Do nothing □ Continue to encourage a wide variety of foods
□ Assume child is not hungry at present and will eat later

25. How much television does your child watch each day?

□ None □ 0-1 hour □ 1-2 hours □ 2-3 hours □ >3 hours

26. How often do you go for a walk with your child – child walking?

□ Never □ Occasionally □ 1/week □ 2-3/week □ Daily

27. How confident is your child with the following?

	Very confident	Moderately	Not confident	Not able
Running				
Kicking a ball				
Throwing a ball				
Climbing (slide steps)				

28. Does your child go out in the sun (uncovered):

□ every day □ 2-3/week □ 1/week □ 1/month □ other _____

PART 3: GETTING HELP AND NUTRITIOUS FOOD

29. If you have a worry or a concern about your child's diet or eating patterns please tell us where you currently receive help and where you would like to receive help. (Please tick).

	I currently receive help in this way	I would like to receive help in this way	Please tell us **where** you would like this to occur eg in the home
One to one talk with a Dietitian			
One to one talk with a maternal and child health nurse			
One to one talk with another person Please specify:_____			
Group talk by dietitian to a group I am already attending eg. Playgroup			
One off group talk about nutrition			
Someone I can ring at the community centre to ask my individual questions			
Other			

30. What makes it difficult for you to buy and prepare nutritious food for the family?

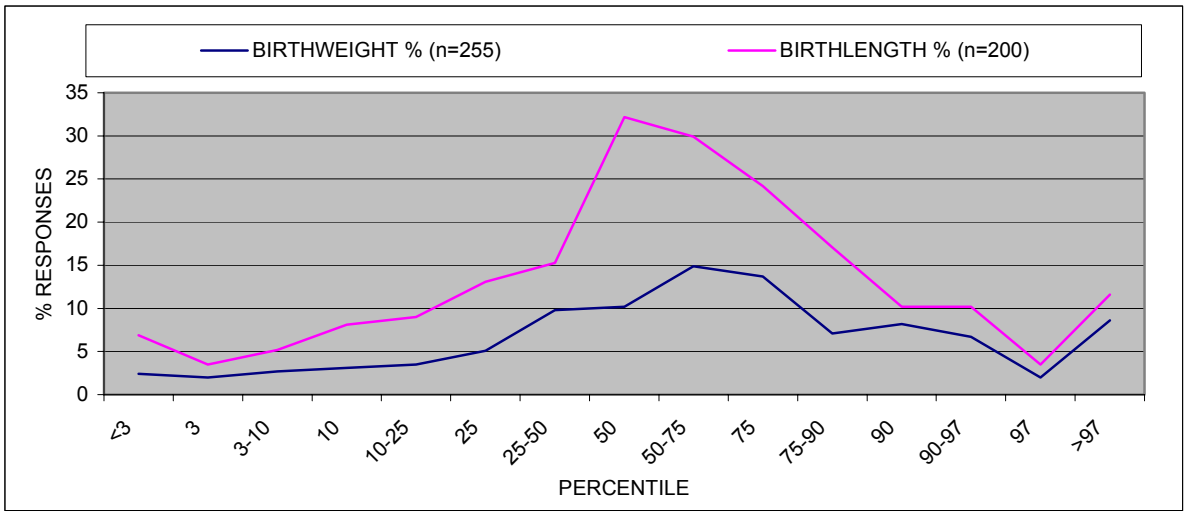
- Too expensive
- No transport to shops with healthy foods
- Concern about my safety when shopping. Please explain_____
- Language difficulties
- Not enough time
- Not sure what is healthy
- Not sure where to buy healthy food
- Don't have ideas/skills to prepare healthy foods

31. Please tell us any ideas you have on what assistance you need to improve the eating patterns of your children and you family._____

Thank you for completing this questionnaire

APPENDIX 2 :
ANTHROPOMETRY OF CHILDREN AGED 0-5 YEARS

Figure 3: Percentile Rating for Birth Weight and Length of Children in Yarra.



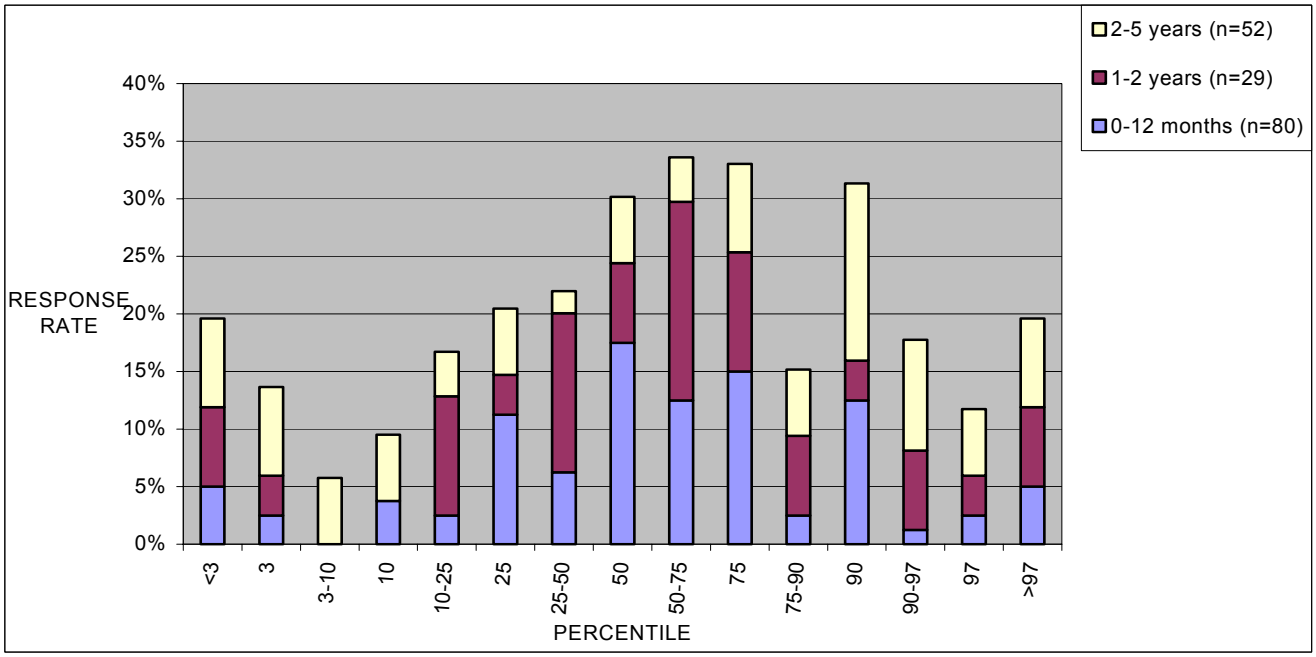
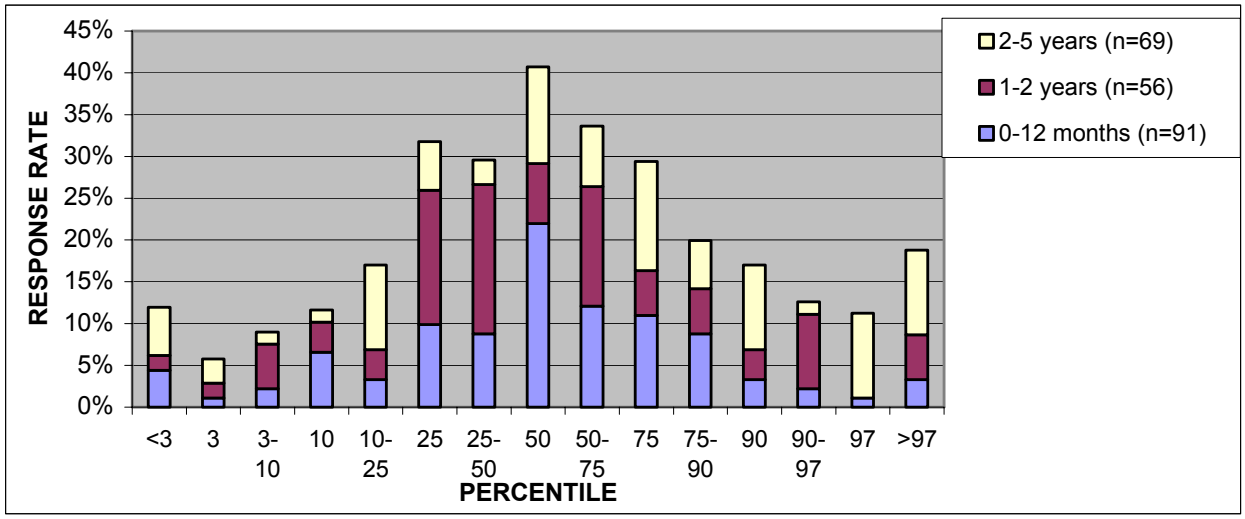


Figure 4: Percentile Height Rating of Children Aged 0-5 years

Figure 5: Percentile Weight Rating of Children Aged 0-5 Years.



Of the underweight children:

- 7/17 were male and 10/17 were female.
- 8/17 came from Australian born mothers with 9/17 had mothers who were born overseas including:
  - 4/17 from Vietnam,
  - 3/17 from Turkey,
  - 1/17 from China
  - 1/17 from Great Britain.

- 3/17 lived in private rental accommodation, 7/17 came from public rental accommodation and 7/17 came from owned/mortgaged homes.
- 3/17 came from single parent families and 14/17 from 2 parent families.

Of the children aged 2-5 years:

- Males (53%) were more likely to be overweight compared with females (47%)
- Children were more likely to have mothers born in Australia (9/15) than having mothers born outside of Australia (6/16) (4/15 from Vietname, 1/15 from Lebanon and 1/15 from China).
- 4/15 came from private rental accommodation, 4/15 from public rental accommodation and 7/15 from owned/mortgaged homes. 15/15 came from 2 parent families.

Of the children who had a mother born in Australia, 8/24 of children were underweight, 10/24 were within the ideal weight range, 9/24 were overweight.

Mothers born in Turkey had a range of 3/5 children being underweight and 2/5 being within the healthy weight range.

Mothers born in Vietnam had a range of 4/11 children who were underweight, 3/11 who within the ideal weight range and 4/11 that were overweight.

Children coming from single parent homes were more likely to be within the ideal weight range (6/9) with a small proportion being underweight (3/9).

APPENDIX 3:
CONSUMPTION OF COW'S MILK AND COW'S MILK ALTERNATIVES

Table 3: Volume of Cow's Milk and Cow's Milk Alternatives Consumed on a Daily Basis

Volume Consumed	Cow's Milk (n=159)	Low fat milk (n= 6)	Flavoured milk (n=14)
600 ml or less	68%	50%	43%
>600 ml	15%	33%	0%
Unspecified	17%	17%	57%

Table 4: Container Used for Consumption of Cow's Milk

Container Used	1-5 years
No response	54/194
Bottle	64
Training Cup	23
Pop top	9
Cup & straw	5
Cup/glass	71
In Food	3

APPENDIX 4:

CONSUMPTION OF SWEET DRINKS VERSUS WATER

Table 5: Volume of Sweet Drinks and Water Consumed on a Daily Basis

	Baby fruit juice (n=16)	Fruit juice (n=81)	Cordial (n=13)	Soft drink (n=11)	Water (n=158)
1 cup	75%	44%	54%	45%	37%
2 cups	19%	30%	38%	5%	45%
3 cups	6%	10%	8%	0	23%
4 cups		5%		1%	10%
5 cups +		5%			6%
Not specified		6%			16%
Average volume	**330 ml/day**	**450ml/day**	**385ml/day**	**150ml/day**	**590ml/day**

Figure 12: Container Used for Consumption of Sweet Drinks

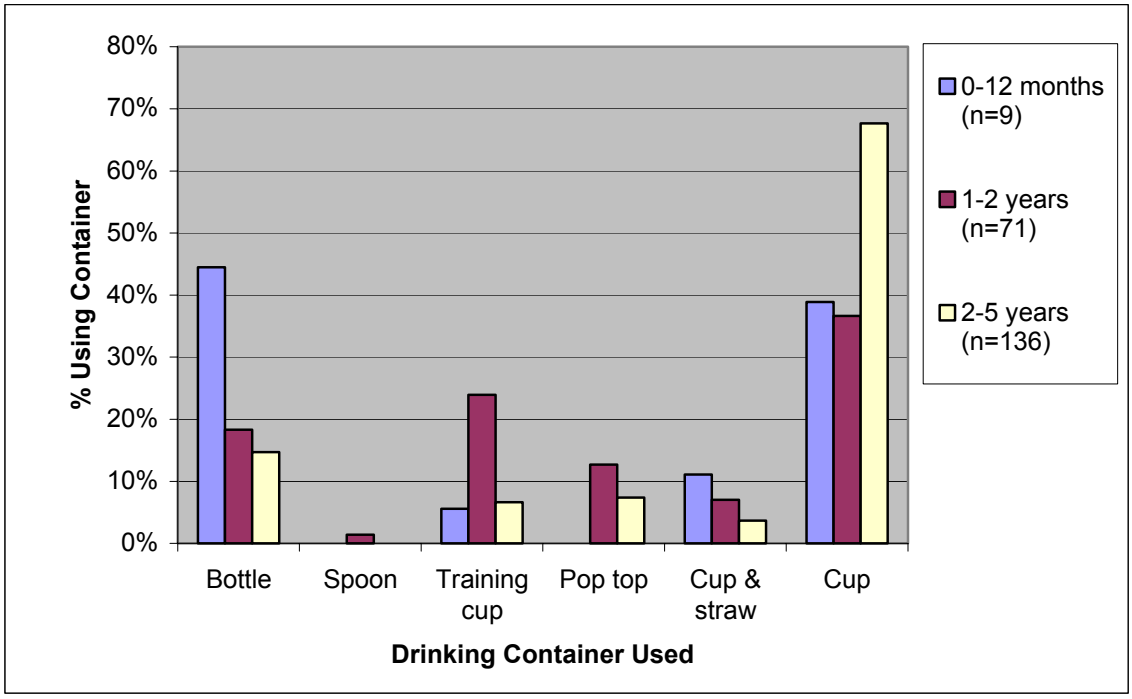
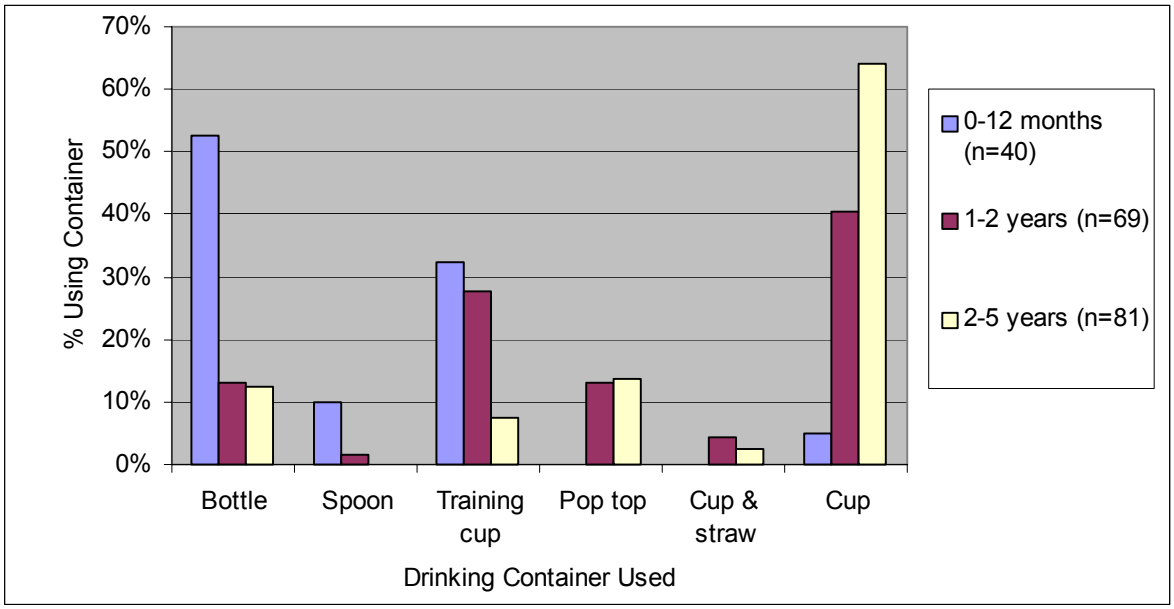


Figure 13: Container Used for Consumption of Water



APPENDIX 5:

FOOD CONSUMPTION.

Figure 16: No. of Different Types of Fruit Offered to Children Aged 0-5 Years

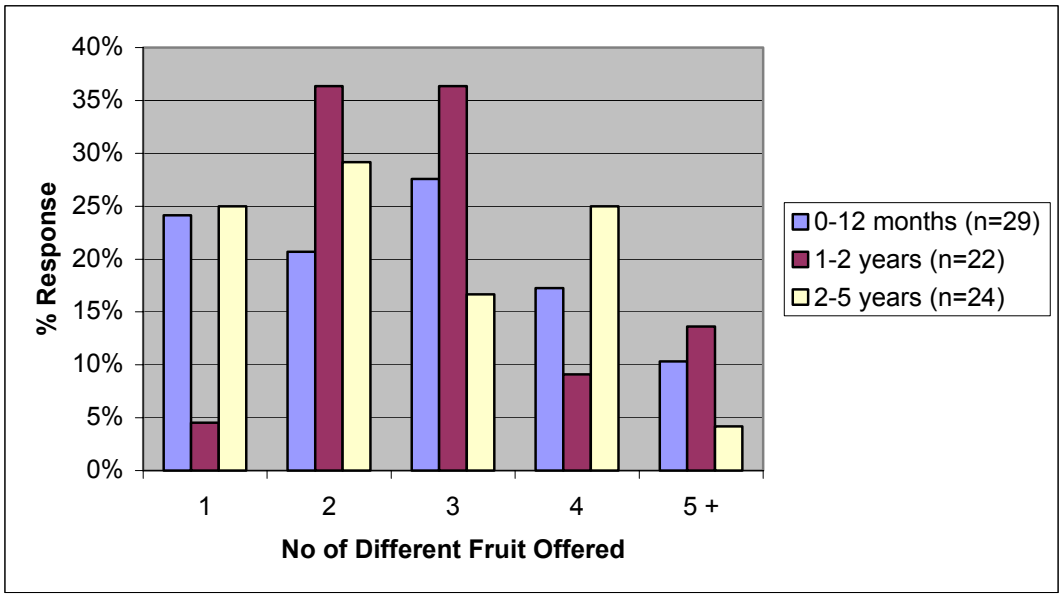
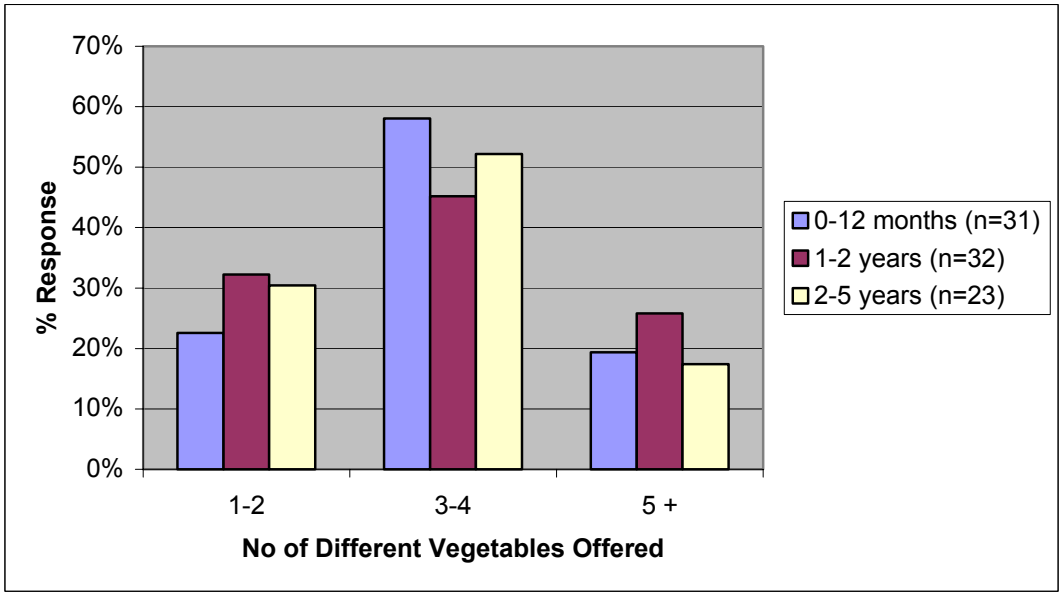


Figure 17: No. of Different Types of Vegetables Offered to Children Aged 0-5 Years



APPENDIX 6:

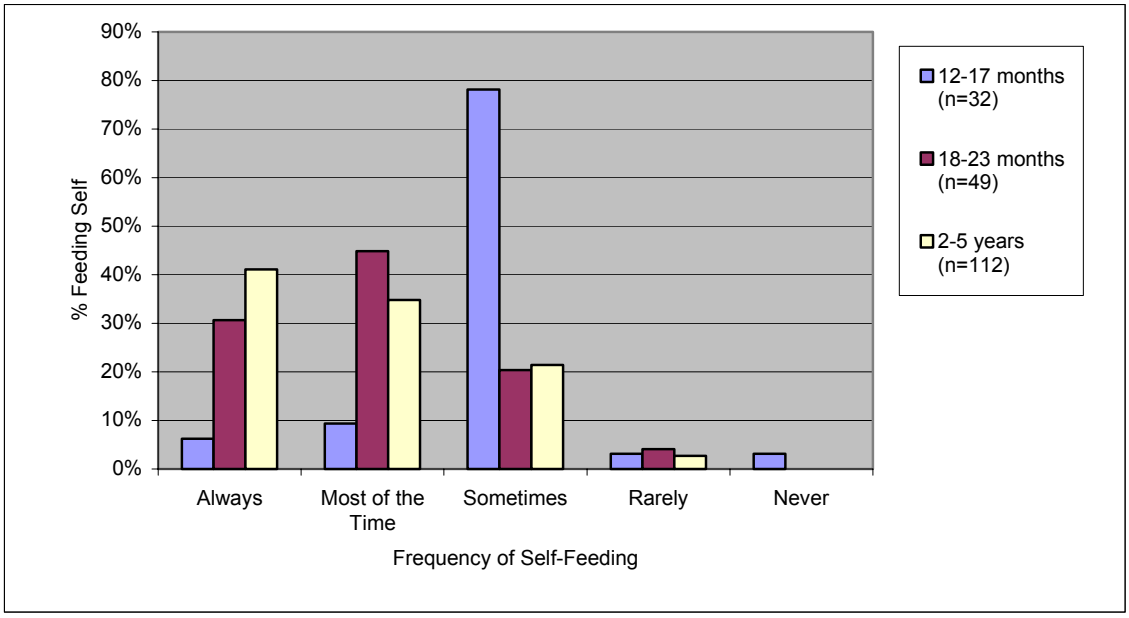
USE OF VITAMIN AND MINERAL SUPPLEMENTS

Table 2: Parents' Use of Vitamin and Mineral Supplements for Children

Using vitamins & minerals	0-12 months	1-2 years	2-5 years	All
Yes	2%	20%	22%	15%
No	97%	79%	75%	82%
No response	1%	1%	3%	3%

EATING BEHAVIOUR

Figure 21: Frequency of Child Feeding Self at Meal times.



APPENDIX 7:

EATING BEHAVIOUR

Figure 22: Frequency of Children Sleeping whilst Breast or Bottle Feeding

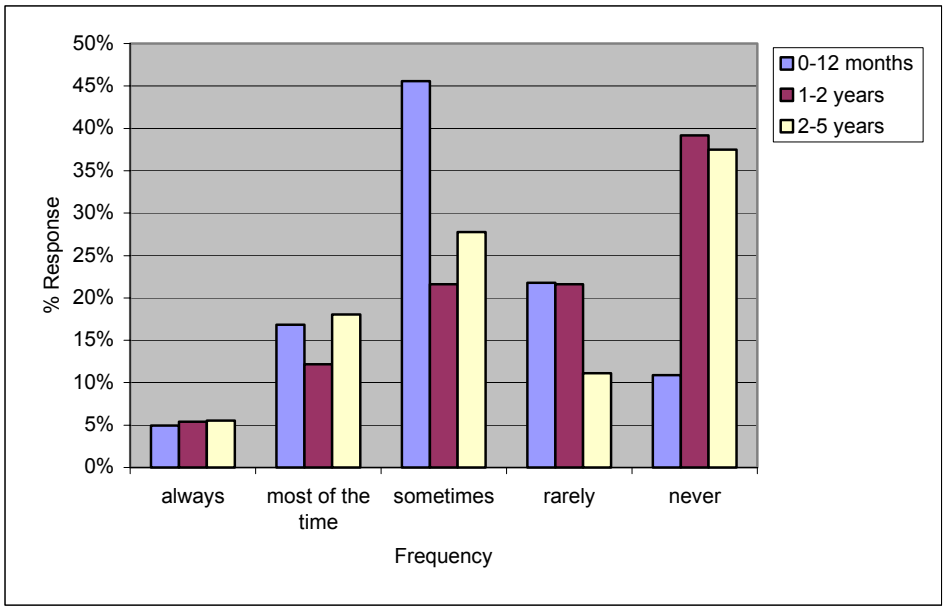
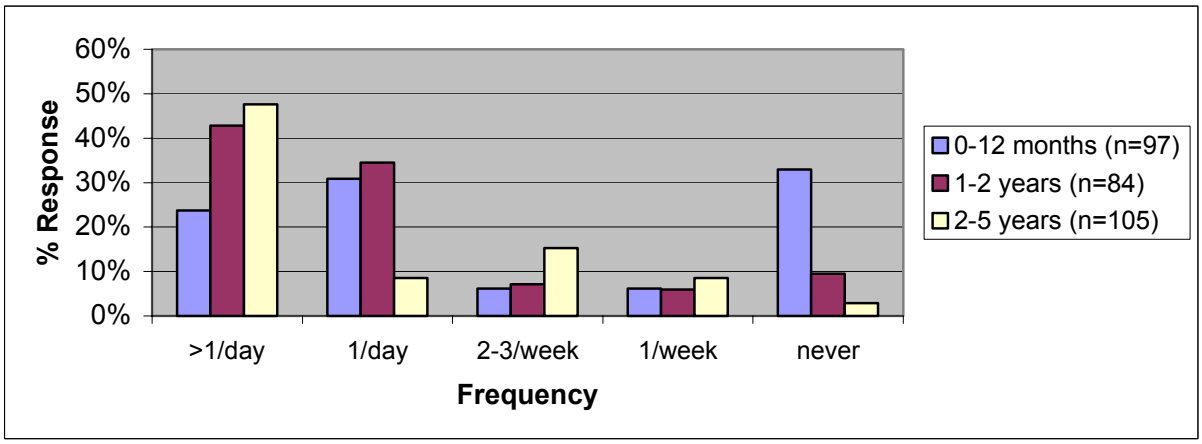


Figure 23: Frequency of Children aged 0-5 years that Sit with Family at Meal Times



10.4 Mealtime Environment

Figure 25: Frequency with Which Parents Find Mealtimes Stressful

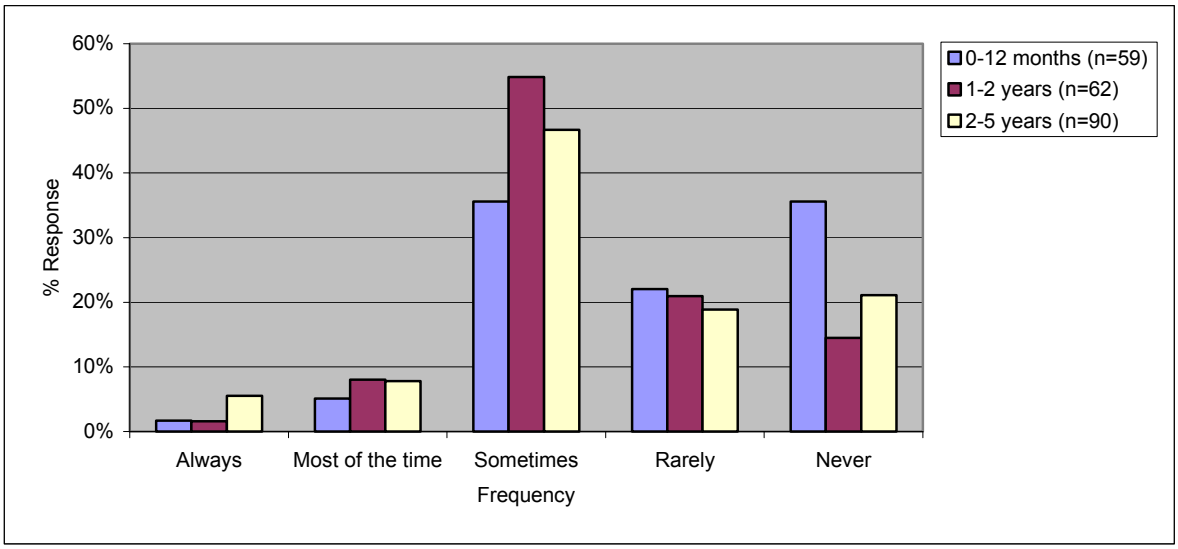


Figure 26: Frequency with Which Parents Find Mealtimes Frustrating

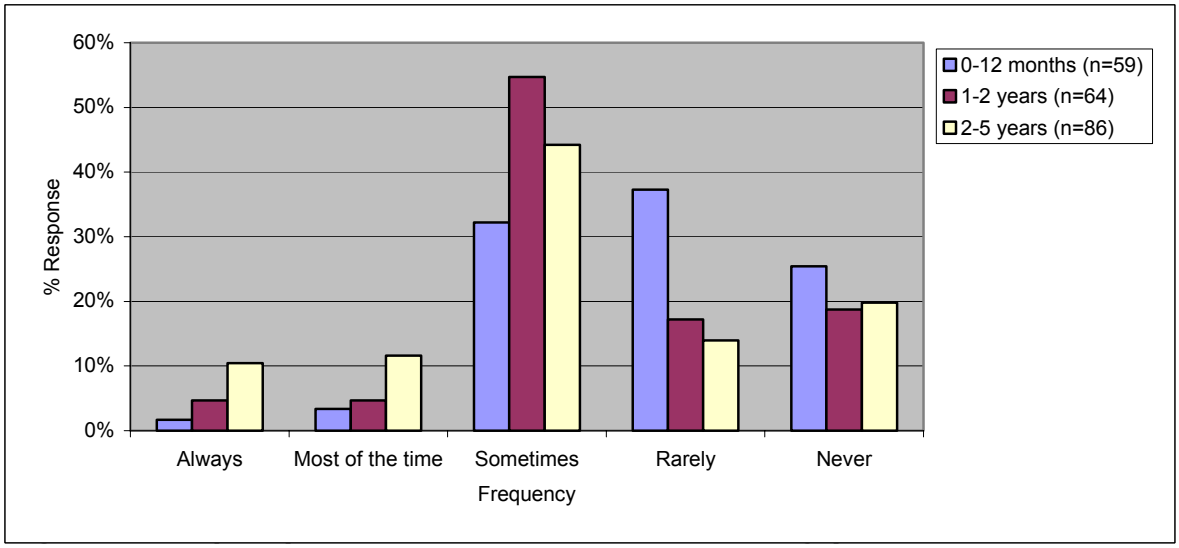


Figure 27: Frequency With Which Parents Find Meal Times Messy

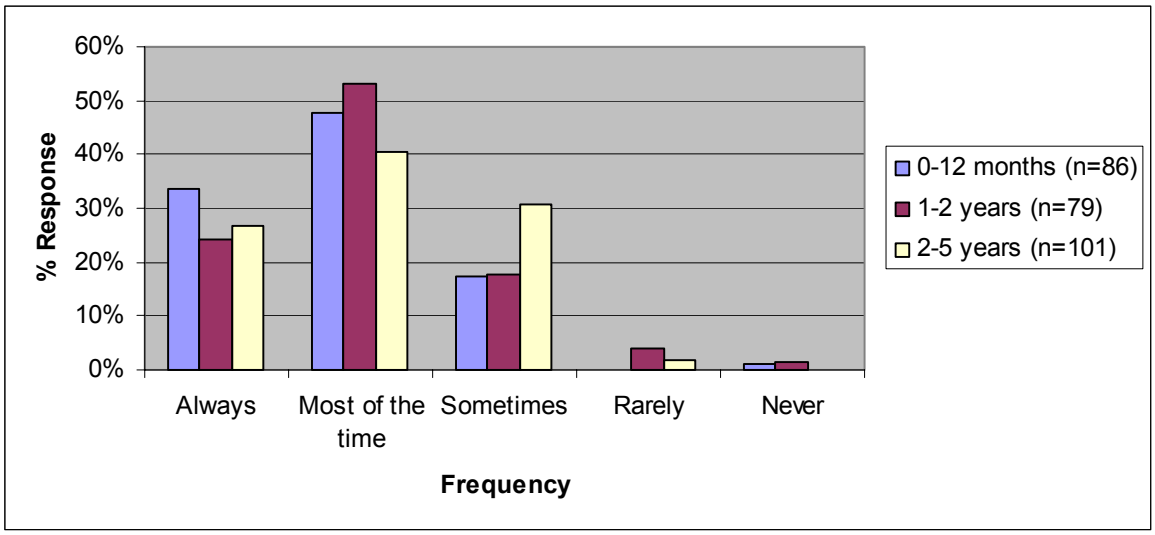


Figure 28: Frequency with Which Parents Find Mealtimes Time Consuming