Consumer Behaviour Fact Book

MARCH 2015

UNDERSTANDING CONSUMERS' USE AND ATTITUDES TOWARDS OTC MEDICINES, VITAMINS, MINERALS AND SUPPLEMENTS AND THE DOWN-SCHEDULING OF CERTAIN PRESCRIPTION MEDICINES.

An Enterprise Partnership Study with

MACQUARIE University

CENTRE FOR THE HEALTH ECONOMY

CONTENTS

TABLE OF FIGURES

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INTRODUCTION

In the current health care debate in Australia, the role of medicines shines as one of the most effective treatment strategies available for a wide range of conditions. Medicines are also one of the most efficient tools to improve Australians' health. While most assume prescription products are the only medicines used in treating Australians, the majority of Australians also use over-the-counter medicines to self-medicate at the onset of sickness, and vitamins and minerals to maintain or improve their overall health.

While there is considerable research on the compounds, treatment regimens and health outcomes, there is less research informing us of what we think about medicines and how we use them. For example, how often do typical Australians take medicines for a range of conditions from colds to pain to skin rashes? When we do take them, is it easy for most consumers to make choices? If we could not get the medicines we needed over-the-counter, would we visit the doctor to get them prescribed—at a considerable cost to the government and our own pockets?

To provide some basic facts to understand consumer attitudes and use of common medicines, the Australian Self-Medication Industry (ASMI) approached Macquarie University Centre for the Health Economy (MUCHE) for research into these attitudes. The resulting study considers several key research questions:

Research Questions

1. What are consumers' use of and attitudes toward over-the-counter (OTC) medicines?
2. How do consumers use vitamins, minerals and supplements (VMS)?
3. Prescription to OTC switch – what are the consumer insights?

This study reports on the methodology and findings associated with these three research questions.

Study Methodology

The study, undertaken in December 2013, surveyed in two parts the attitudes of 1146 Australians over the age of 18 regarding OTC, VMS and prescription (Rx) medicines. Respondents were also asked to report on children or other family members they supervised. The questionnaire was designed based on the findings of qualitative focus groups conducted to consider the three research questions identified above. The respondents generally matched the Australian population, but in the few cases where there were statistical differences, these were adjusted so that the numbers reported reflect the current Australian population.

The first section of the questionnaire asked about current OTC medicine usage, followed by questions about what respondents would do if they did not have access to these medicines without a prescription. If the respondent supervised children or other family members, they were also asked about their dependants' OTC medicine usage and what they would do if they did not have access. In the second section respondents were asked about their use of vitamins, minerals and supplements and their motivation for using these. The third section asked about usage of eleven common prescription medicines and about the doctors' visits to obtain these prescriptions.

Although the sample population was 1146 Australian consumers, the questions put to these consumers elicited responses about a number of different medicines they took. Accordingly, in some cases the sample size reflects consumers as the unit of analysis and in other cases reflects medicines used by the consumers as the unit of analysis. In addition, of these 1146 consumers, 807 also reported on their children and/or dependants. For both these reasons, sample sizes change in this report based on the specific data being analysed. The sample size for any given analysis is noted on the particular chart.

It should also be noted that for any analysis where the sample size is less than 100, it is difficult to make meaningful extrapolations to the general public. This is noted with an asterisk within the report where relevant.

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GENERAL STATISTICS

Gender

Out of 1146 people surveyed in this study, 51% of people were male and 49% female across Australia.
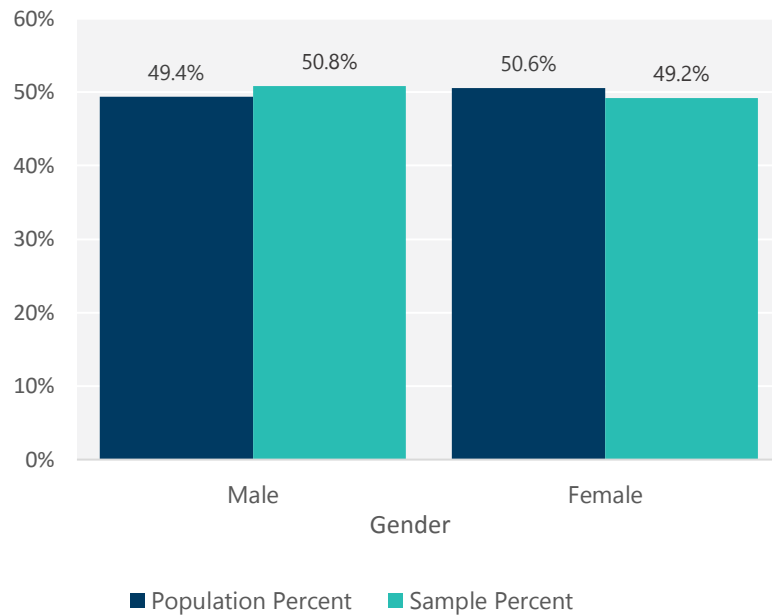
Figure 0.1: Gender distribution of sample | N:1146

What State do you live in?
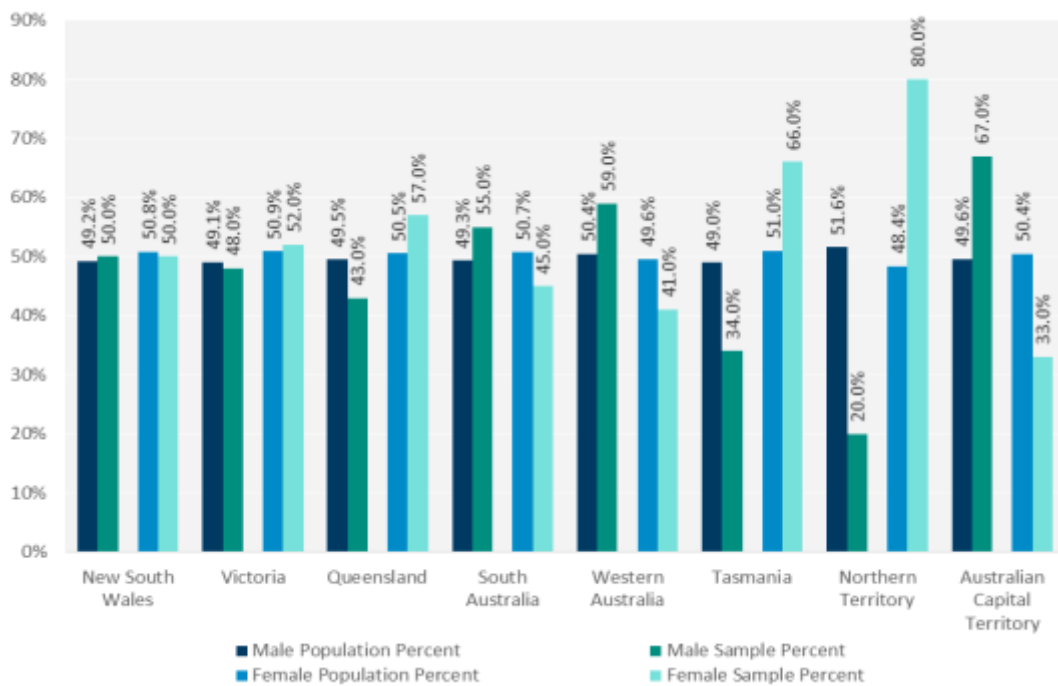
Figure 0.2: Gender distribution across States | N:1146

It should be noted that the sample sizes for Tasmania, Northern Territory, and ACT are too small to allow a representative comparison.

Age

In terms of age, respondents are distributed across different age groups. The highest proportion of respondents is aged 65 years or over at 20.7%. This is followed by respondents aged 45-54 years, at 17.7% as the second major age group.
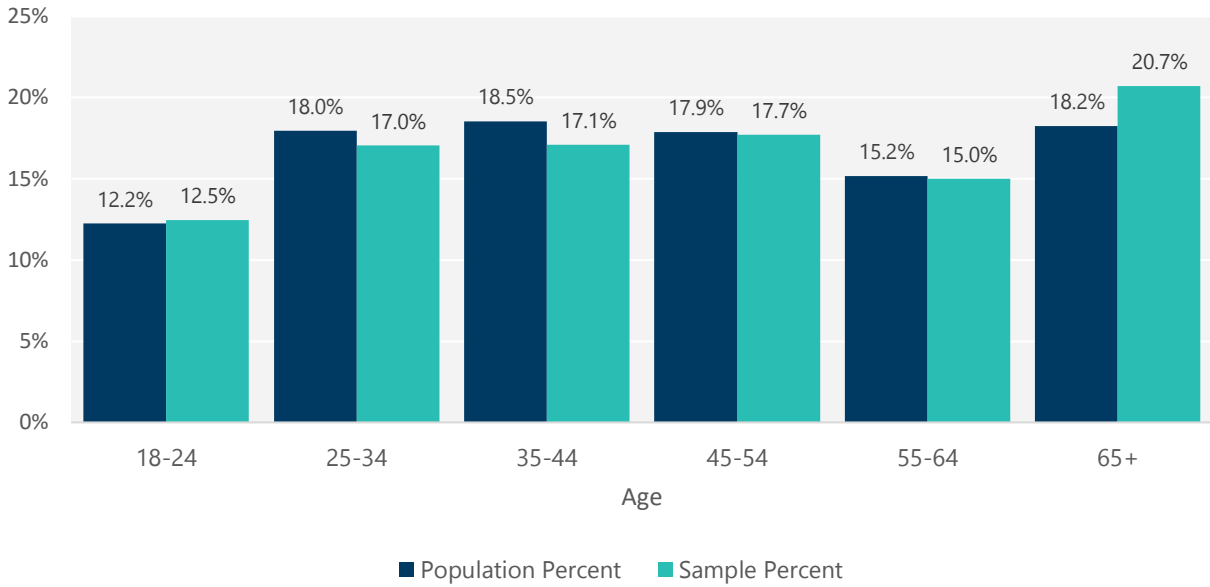
Figure 0.3: Age distribution of sample | N:1146

Number of dependants

Respondents were asked whether they were the principal supervisor of a child or other family member. While 32.5% of people surveyed did not supervise any children, the majority of respondents have one child to supervise at 48.6%, followed by two children and three or more at 13.4% and 5.5% respectively.
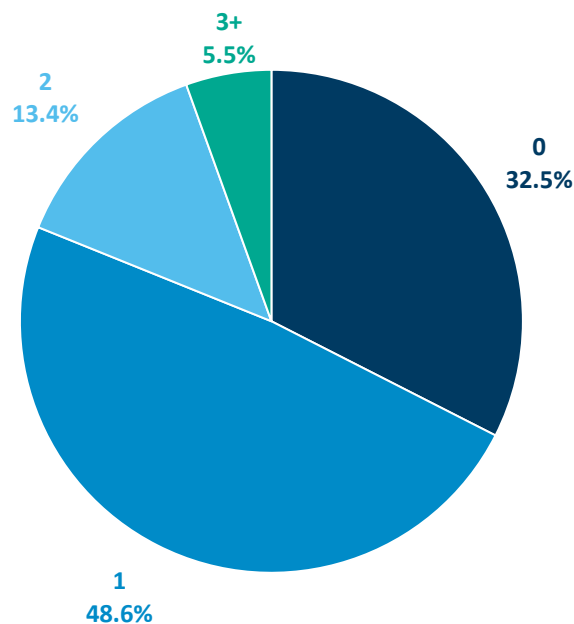
Figure 0.4: Number of children to supervise | N:1146

4

Birthplace

Where were you born?
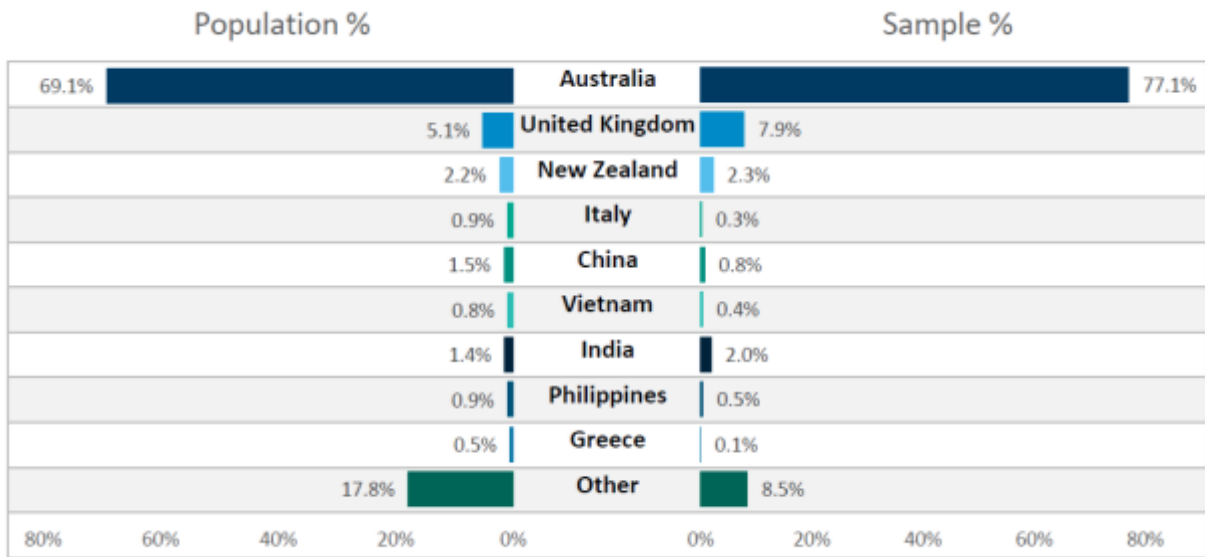
Figure 0.5: Country of birth | N:1146

The majority of respondents were born in Australia at 77%. This is followed by the United Kingdom at 8%. Around 7% of people surveyed were born in countries such as New Zealand, Italy, China, etc. The remaining 9% of respondents were born in other countries not listed here.

Years living in Australia

How many years have you lived in Australia?
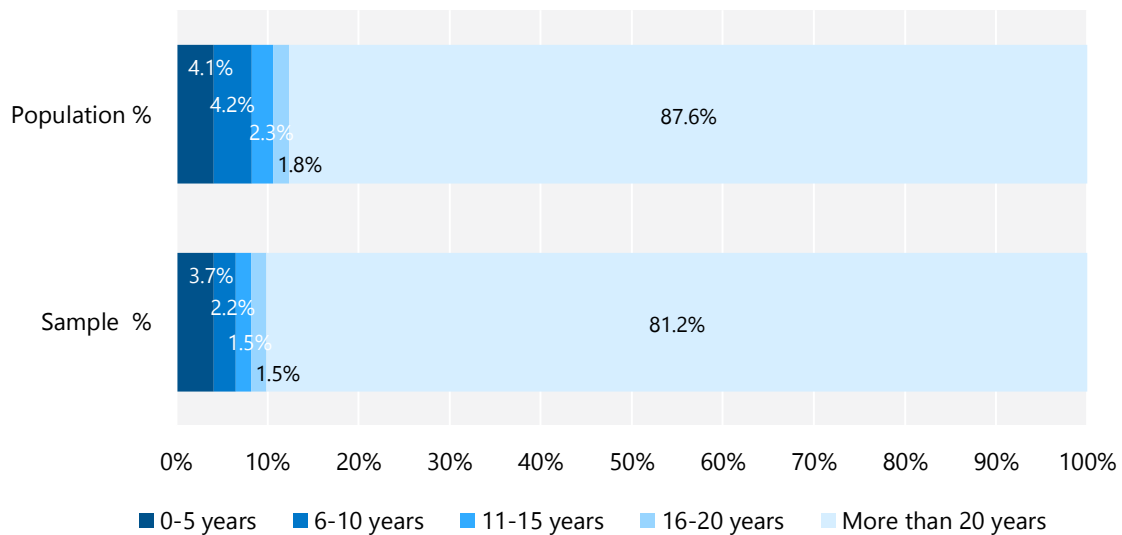
Figure 0.6: Years lived in Australia | N:1146

The majority of people surveyed has been living in Australia for the last 20 years (61.8%). The second major proportion of respondents has lived in Australia for five years or less at 15.9%.

Ethnicity

If asked your ethnicity, what would you say it is?

Australian, British-Australian, and European-Australian represent more than 85% of the people surveyed. Other ethnicities account for around 15% of the respondents.
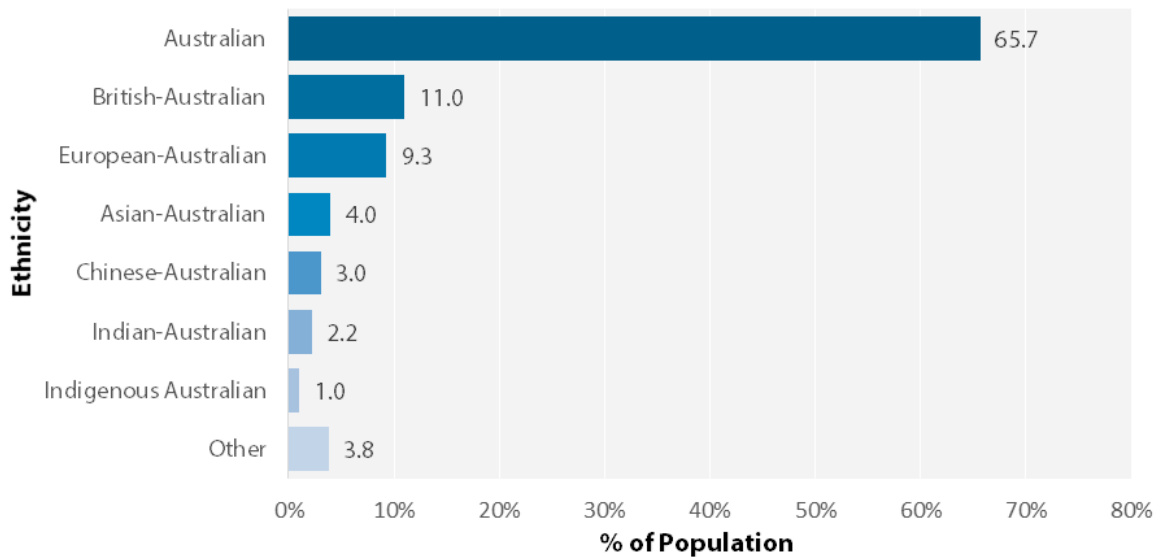
Figure 0.7: Ethnicity by proportion of population | N:1146

Highest level of education reached

What is your highest level of education?
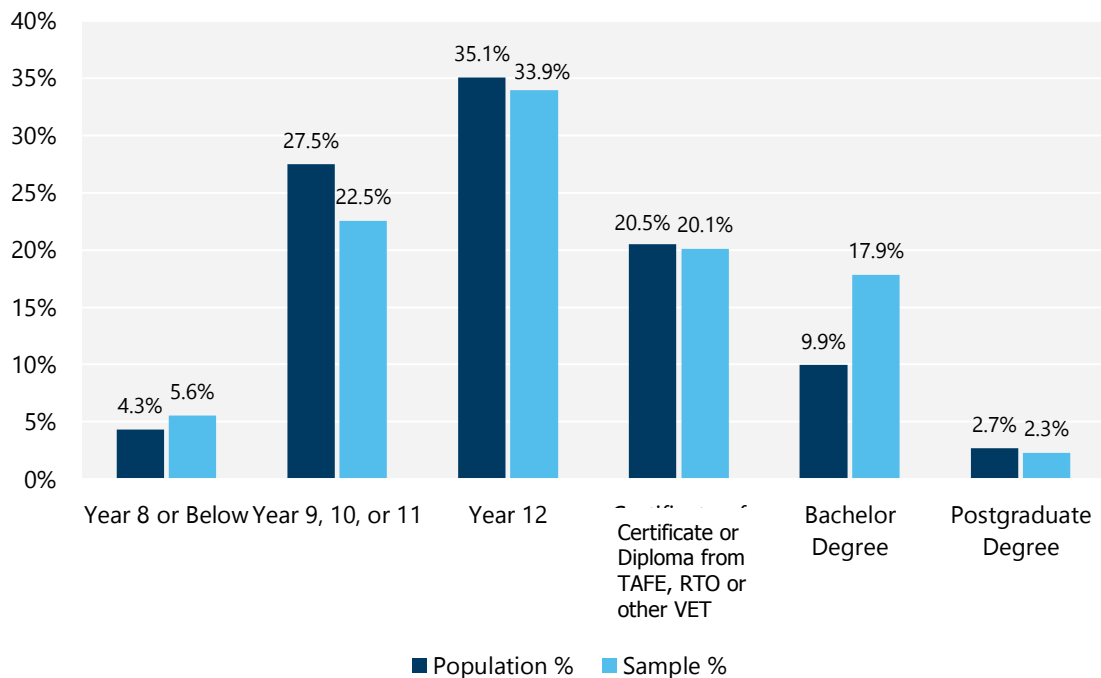
Figure 0.8: Population by level of education | N:1146

Around 20% of people surveyed have a certificate or diploma from TAFE, RTO or other VET. While 18% of respondents have a bachelor degree, approximately 23% have finished school in Years 9, 10 or 11.

Doctor waiting times

How many days do you normally have to wait to get to see your usual doctor?

The majority of respondents reported that they do not need to wait more than a day to see their doctor. 32.7% of respondents see their doctor the next day and 30.3% on the same day. A minority (6.5%) wait for three days to see their usual doctor.
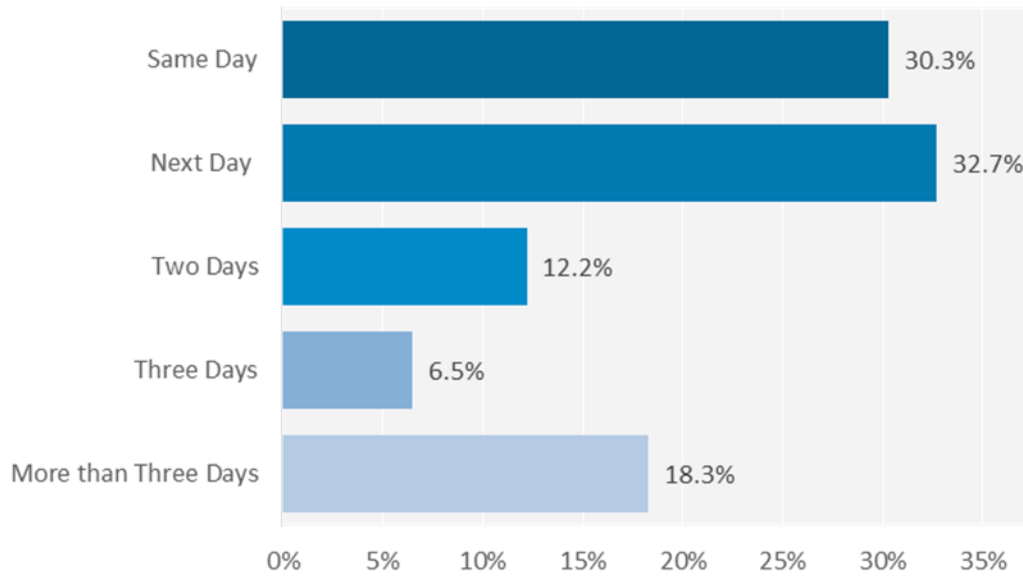
Figure 0.9: Waiting time to get doctor's appointment in days | N:1146

On average, how long do you normally have to wait in the waiting room before seeing your doctor?

Around 80% of respondents wait for no longer than 40 minutes to see their doctor. Just less than 2% of people need to wait for more than two hours to see their doctor. The remaining 18% of respondents need to wait between 40 minutes to two hours.
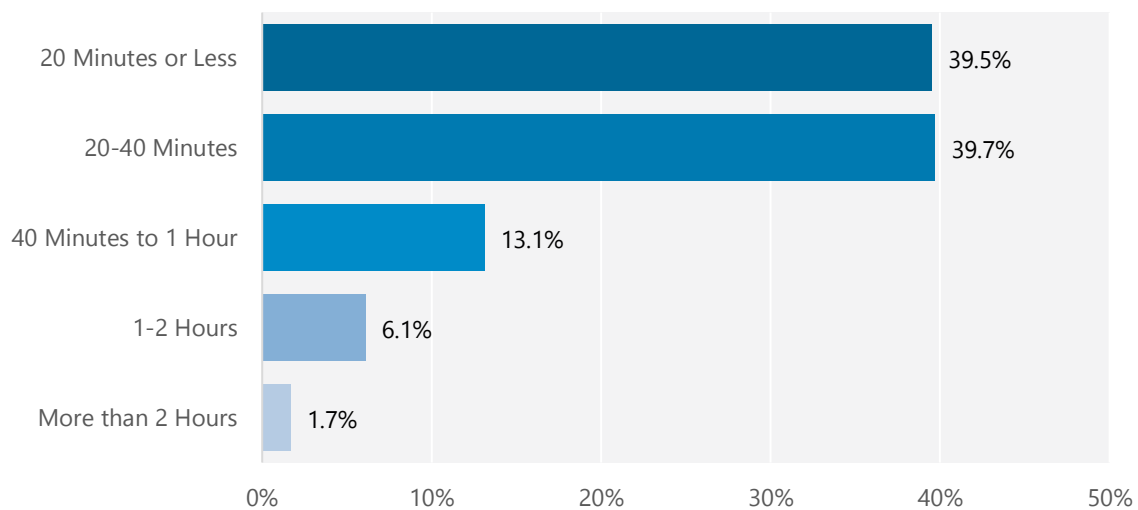
Figure 0.10: Doctor waiting room time | N:1146

Doctor out of pocket expense per visit

How much do you, personally, normally pay (out of pocket) to visit your usual doctor?
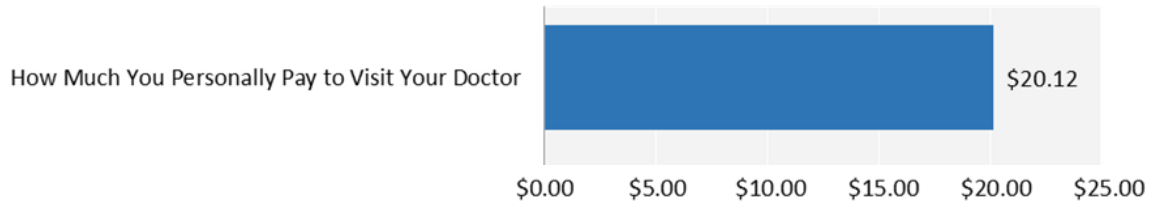
Figure 0.11: Doctor out of pocket costs ($) | N:1146

On average, respondents pay $20.12 out of their pocket to visit their usual doctor.

Do you have private health insurance?
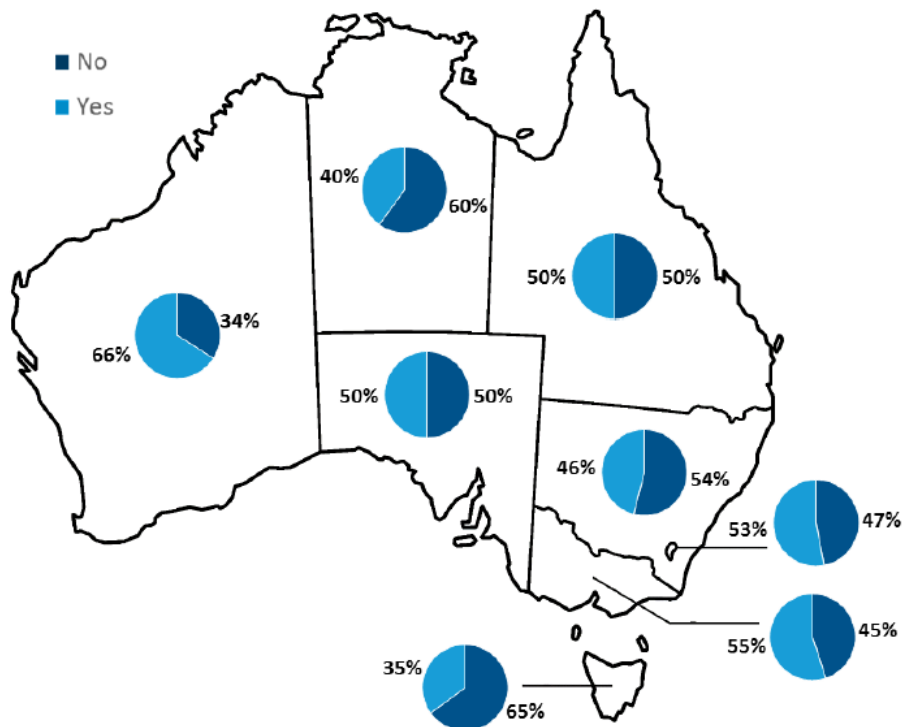
Figure 0.12: Proportion of population with private health insurance | N: 1146

Within the sample, West Australians have the highest level of private health insurance coverage in Australia with 66% of people living in that state covered by private health insurance. The sample from Tasmania has the lowest proportion of respondents with private health insurance at 35%. Victoria has the second highest rate of private health insurance at 55%, followed by Queensland and South Australia at 50%.

SECTION 1:

What are consumers' use of and attitudes toward OTC medicines?

1.1 Usage of OTC medicines by adults

Usage of OTC medicines in the last month
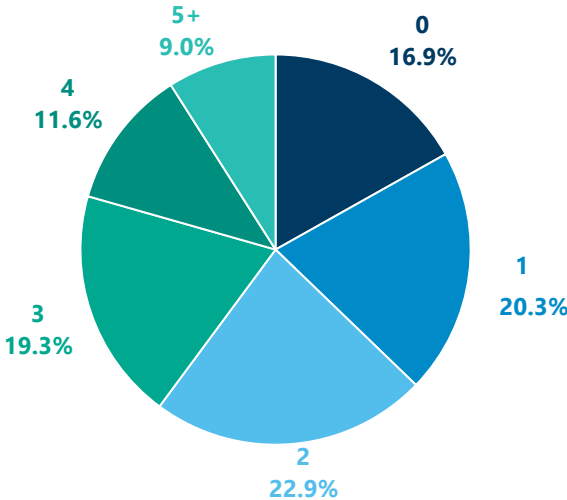
Figure 1.1: OTC usage by adults in the last month | N:1146

This graph shows the percentage of respondents who have used a number of OTC medicines in the last month, with only 16.9% reporting to have not used an OTC in the last month.

Usage of OTC medicines in the last year
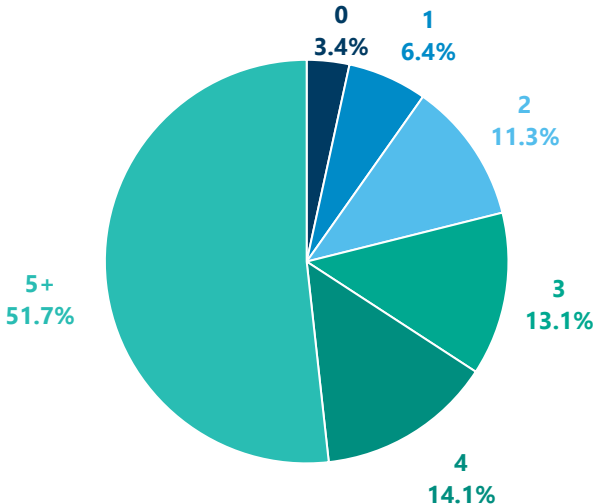
Figure 1.2: OTC usage by adults in the last year | N:1146

The majority of respondents used five or more OTC medicines in the last year. This suggests consumers are comfortable treating a variety of illnesses with OTC medicines on a regular basis.

Category penetration

When did you last take this type of medicine?

Pain relievers have the highest penetration, followed by cough and cold medication with only 4.5% and 6.9% of people respectively having never used them.
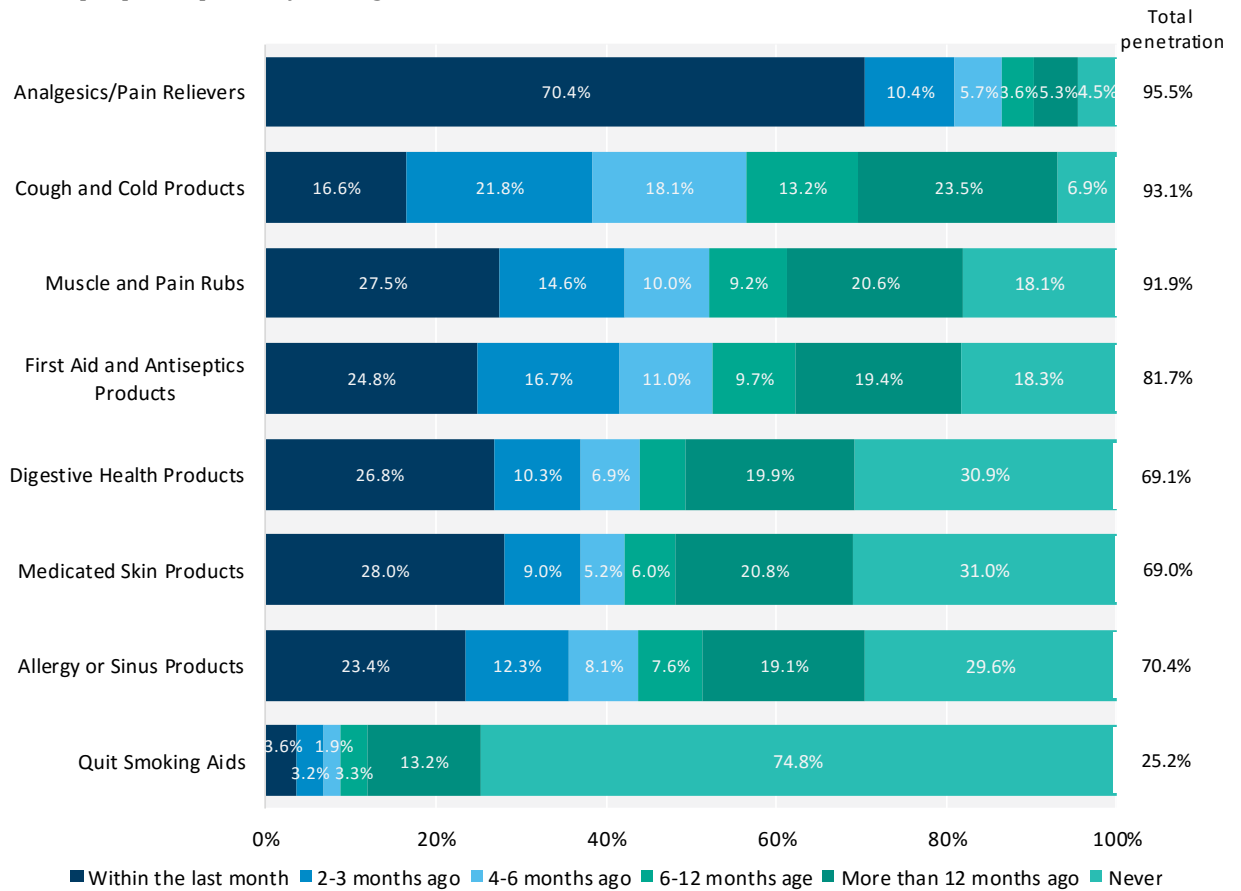
Figure 1.3: OTC category penetration | N:1146

Among the 1146 respondents, more than 70% have taken an analgesic/pain reliever medicine within the last month. This is followed by medicated skin products at 28% and muscle and pain rubs at 27.5% as the second and third major type of medicines taken by respondents within the last month.

10

Frequency of use by category

In the last 12 months, how many times did you take a particular type of medicine to treat that type of illness or condition?

Pain relievers, products for digestive health and allergy or sinus products have the highest frequency of use, with larger proportions of respondents in these groups reporting taking medicine four or more times within the last 12 months for these conditions than compared with other conditions.

Figure 1.4: Frequency of use by category
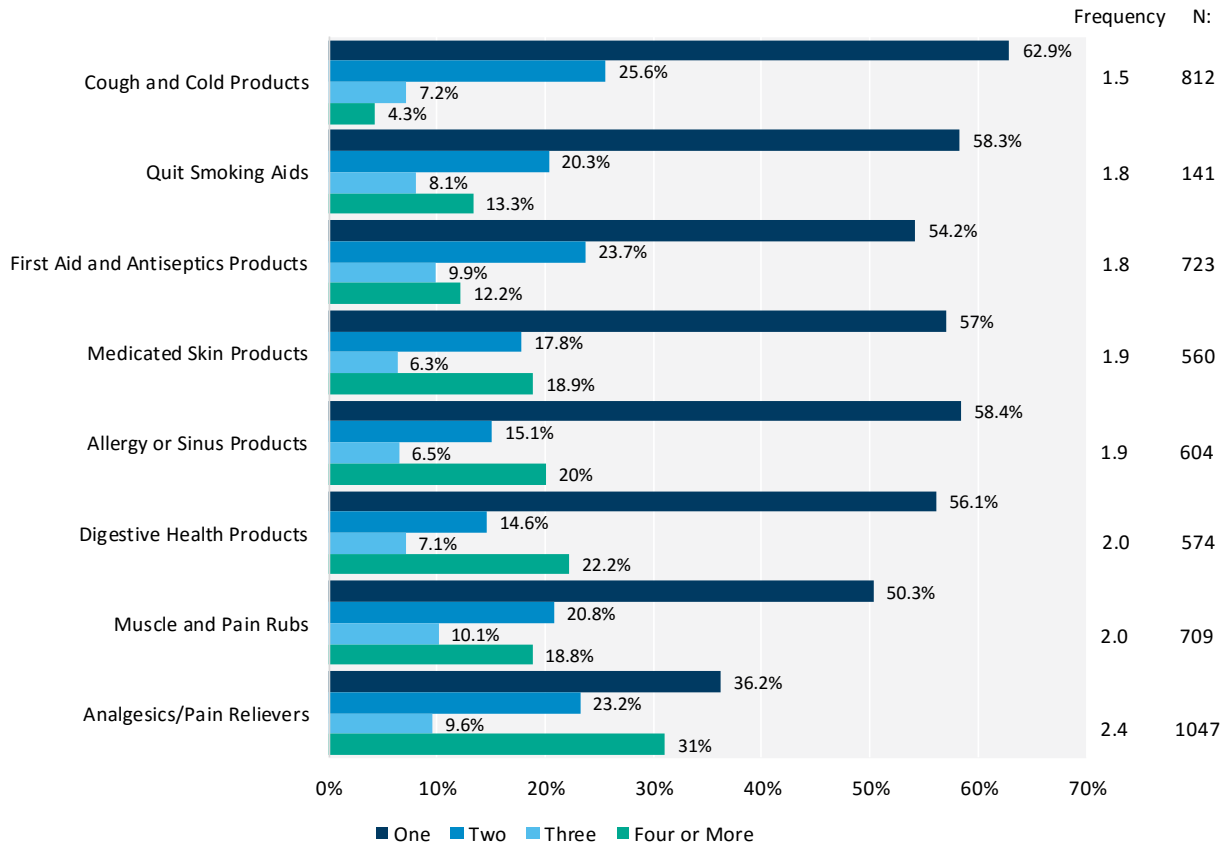
Figure 1.4: Frequency of use by category

Usage duration by category

For how long did you usually take these medicines?

Respondents reported using medicated skin products and quit smoking aids on a daily basis at 20.5%, and 19.9% respectively. While muscle and pain rubs are mainly used for two days (27.6%), cough and cold medicines are mainly taken for a period of three to five days (39.2%). An average use per 90 days is listed for each product (annualised average use is calculated as 4x average use per 90 days).

	Average use (Days)	N:
Analgesics/Pain Relievers	14.5	1047
Cough and Cold Products	5.1	812
Allergy or Sinus Products	15.5	604
Muscle and Pain Rubs	10.7	709
Digestive Health Products	18.9	574
Quit Smoking Aids	26.5	141
First Aid and Antiseptics Products	4.8	723
Medicated Skin Products	23.8	560
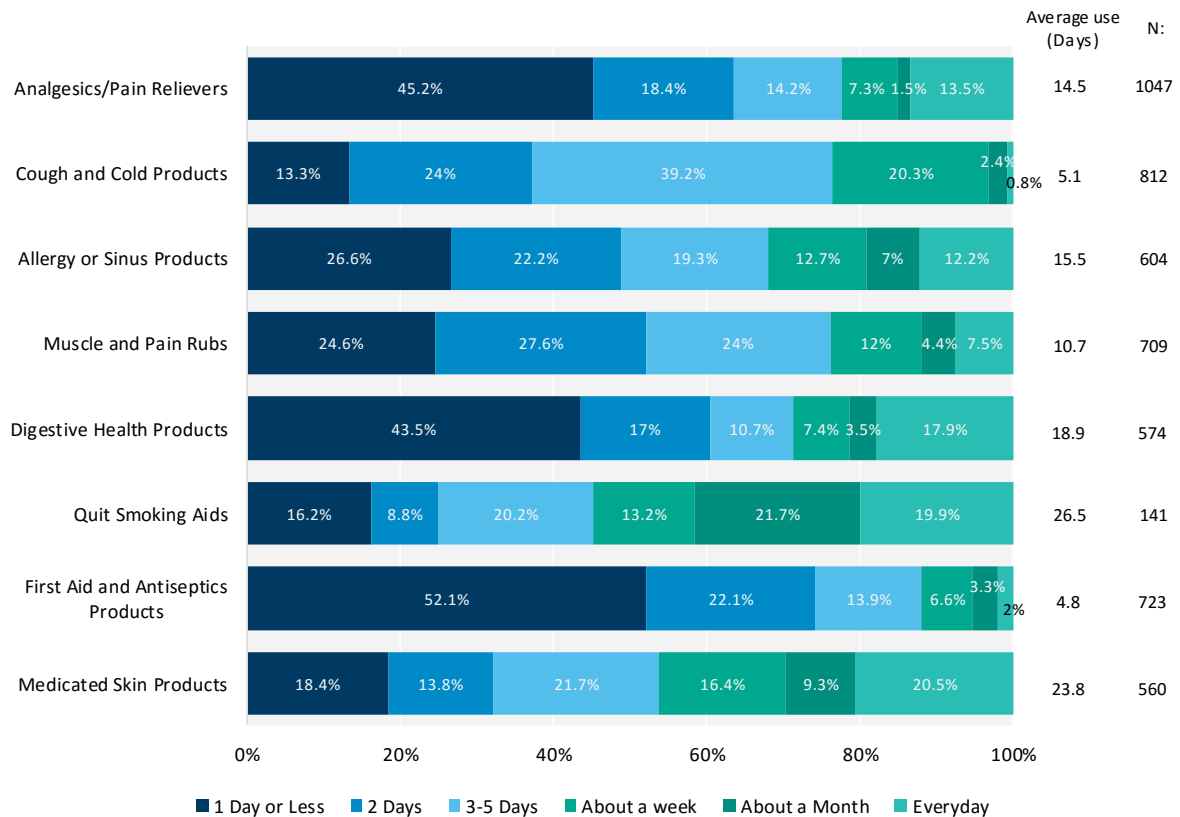
Figure 1.5: Category by duration of usage

Retail split of OTC purchases

Where did you buy the medicine you took?

Overall, 41% of medicines were self-selected either from pharmacy open shelves or front-of-counter. This is followed by purchase from behind-the-counter in the pharmacy at 36%. This split reflects legislative requirements in each state about placement of medicines within pharmacies, not product schedules. A smaller proportion of medicines (23%) is bought from a supermarket.
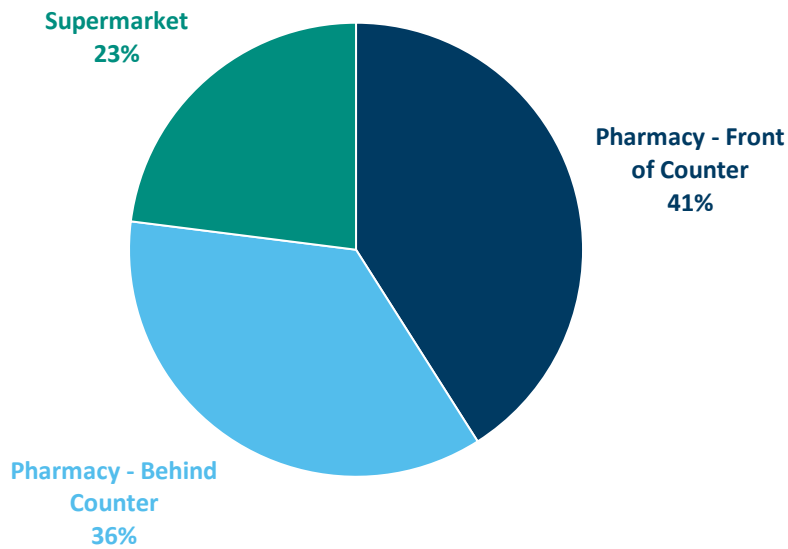
Figure 1.6: Retail split of OTC purchases | N: 1146

Retail split by category of OTC purchases

Category	From Pharmacy	From Supermarket	N:
Medicated Skin Products	91.9%	8.1%	560
Allergy or Sinus Products	91.7%	8.3%	604
Quit Smoking Aids	82%	18%	141
Cough and Cold Products	76.5%	23.5%	812
Muscle and Pain Rubs	76.3%	23.7%	709
Digestive Health Products	72.4%	27.6%	574
Analgesics/Pain Relievers	67.9%	32.1%	1047
First Aid and Antiseptics Products	67.4%	32.6%	723
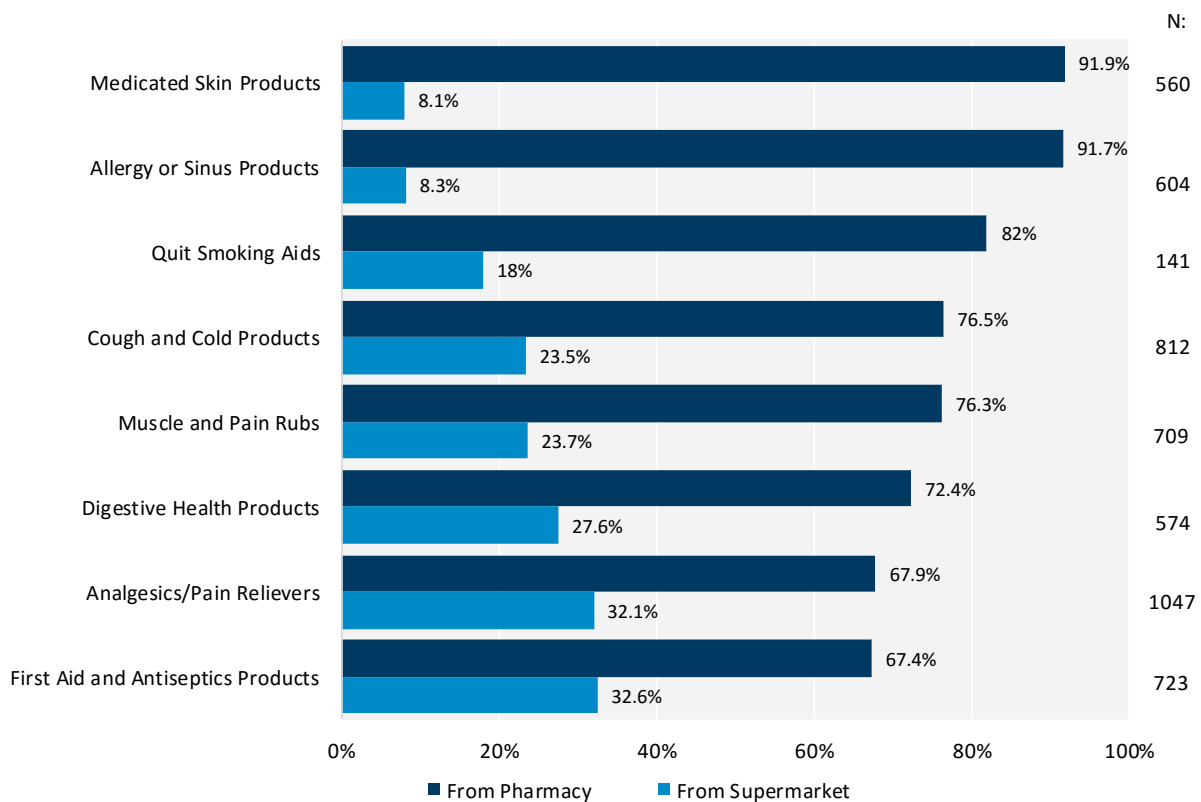
Figure 1.7: Retail channel by OTC categories

Alternative actions from restricting access to OTC medicines - overall

If you could not get the medicine you needed without a prescription, what would you do?
Respondents were asked what they would do if they could not get the medicine they needed without a doctor's prescription. For example, if pain relievers were suddenly up-scheduled to prescription only, what would they do? 51.1% of respondents reported that if they could not get the medicine they needed without a prescription, they would mainly visit their doctor. Alternatively they may also use a home remedy (21%), or decide to "tough it out" by doing nothing (19.3%). A minority (1.5%) said they would consider going to an emergency department. Respondents could choose multiple options for this response and frequently did so.
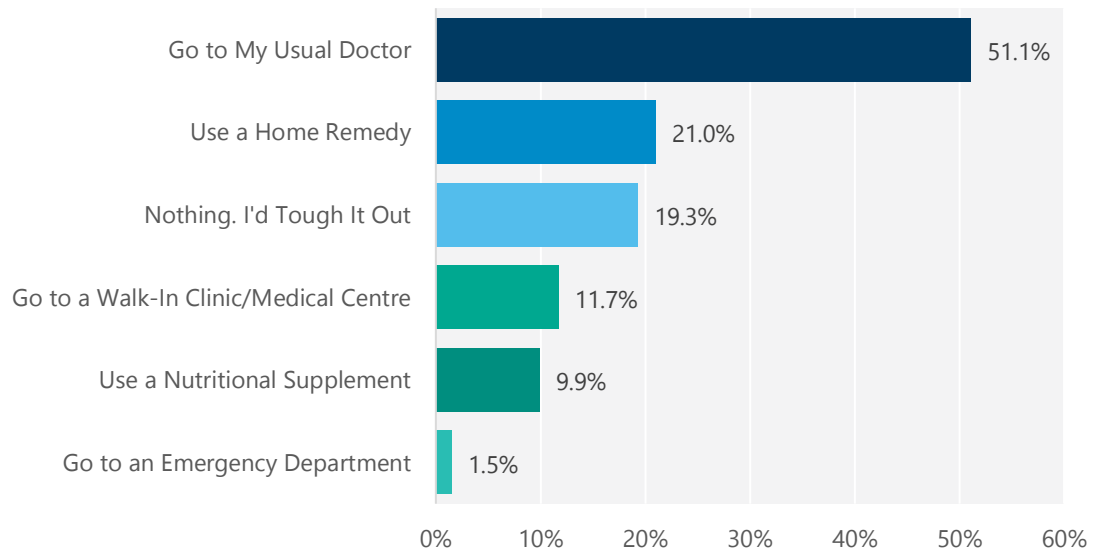
Figure 1.8: Alternative action if OTC unavailable - aggregate | N:1146

Alternative actions from restricting access to OTC medicines - by category

Medicated Skin Products
N: 560
- 62.5
- 20.2
- 10
- 10.8
- 9.4
- 0.9

Allergy or Sinus Products
N: 604
- 58.2
- 14.4
- 17.9
- 12.2
- 9.8
- 1.8

Quit Smoking Aids
N: 141
- 53.3
- 15.4
- 24.2
- 14.6
- 6.8
- 2

Cough and Cold Products
N: 812
- 52.1
- 21.3
- 16.7
- 8.7
- 13.8
- 0.8

Muscle and Pain Rubs
N: 709
- 48.5
- 17.5
- 24.3
- 11.1
- 9.2
- 0.8

Digestive Health Products
N: 574
- 45.7
- 23.8
- 21.9
- 10
- 11.4
- 1.5

Analgesics/Pain Relievers
N: 1047
- 44.3
- 27.6
- 17.6
- 14.5
- 6.8
- 3.1

First Aid and Antiseptics Products
N: 723
- 43.9
- 27.8
- 21.8
- 11.5
- 11.9
- 1.2

Legend:
- Go to My Usual Doctor
- Use a Home Remedy
- Nothing. I'd Tough It Out
- Go to a Walk-In Clinic/Medical Centre
- Use a Nutritional Supplement
- Go to an Emergency Department

Figure 1.9: Alternative action if OTC unavailable - by category

Days off work by category if OTC medicines were not available without prescription

If you didn't have any access to the medicine below, how many extra days would you be off from work for each illness?

The majority of respondents stated that they prefer to have zero days off from work for any illness. The majority of people also said that they would take one or more days off from work if there were no OTC cough/cold products available.
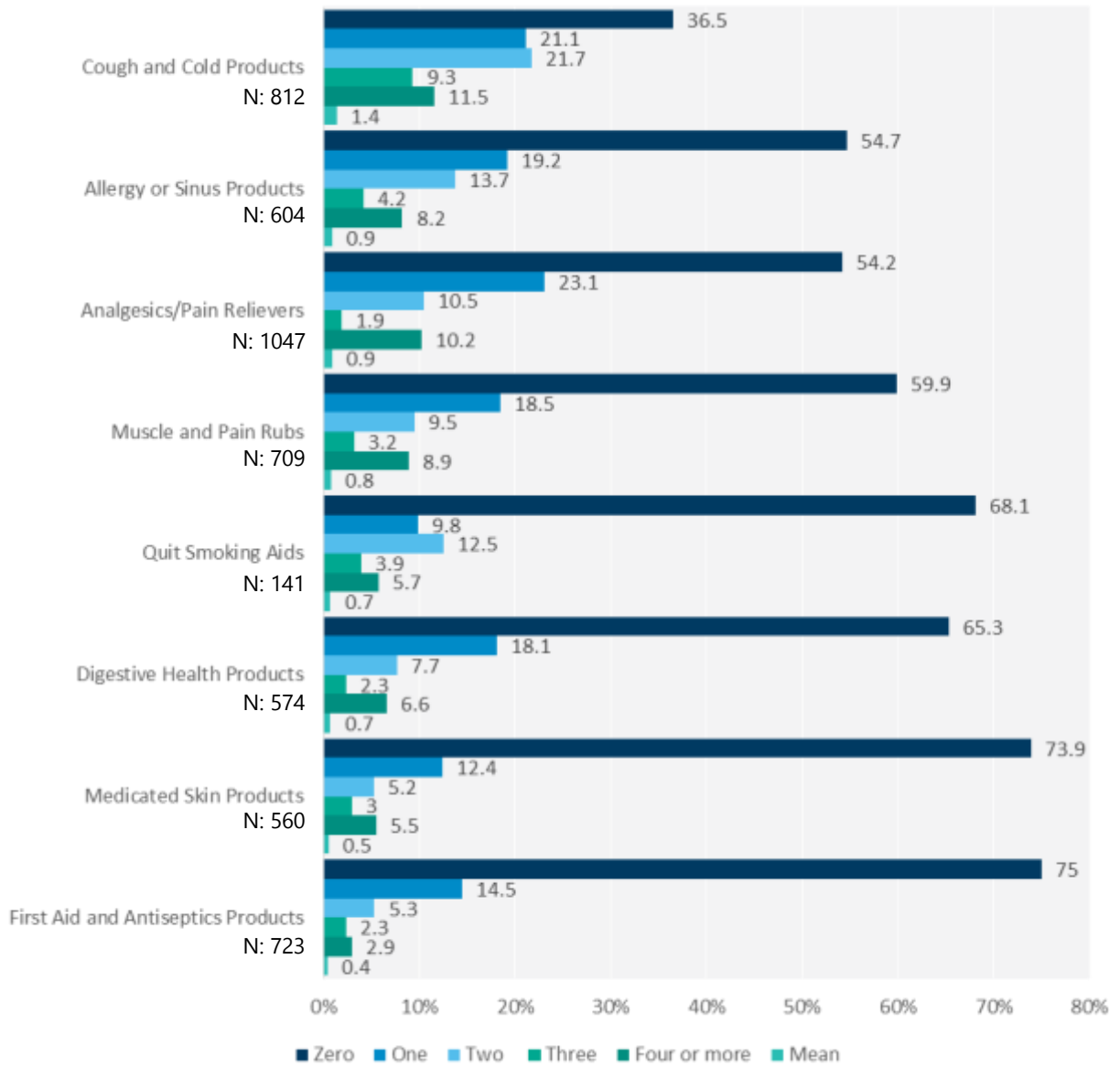
Figure 1.10: Days off work if OTC unavailable - by category

'Urgency of treatment' metric if OTC medicines were not available without prescription - adults

For the medicines below, could you have waited until your next doctor's appointment to get the prescription?
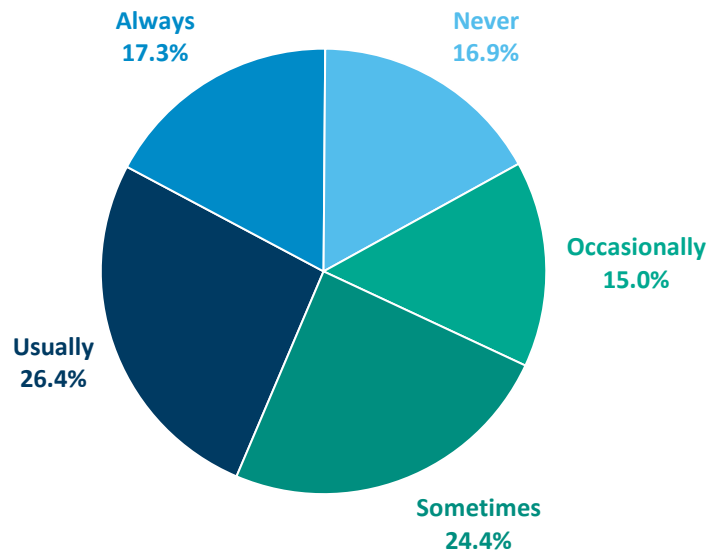
Figure 1.11: Ability to defer doctor visit if OTC unavailable - aggregate | N:1146

Approximately 16.9% of people surveyed said they can never wait for their next doctor's appointment to get the prescription, particularly if the relief they need is urgent such as an analgesic/pain reliever. In contrast, 17.3% of respondents reported that they can always wait for their next doctor's appointment especially if the medicine they need is first aid and antiseptics products. The results are mixed for quit smoking aids.
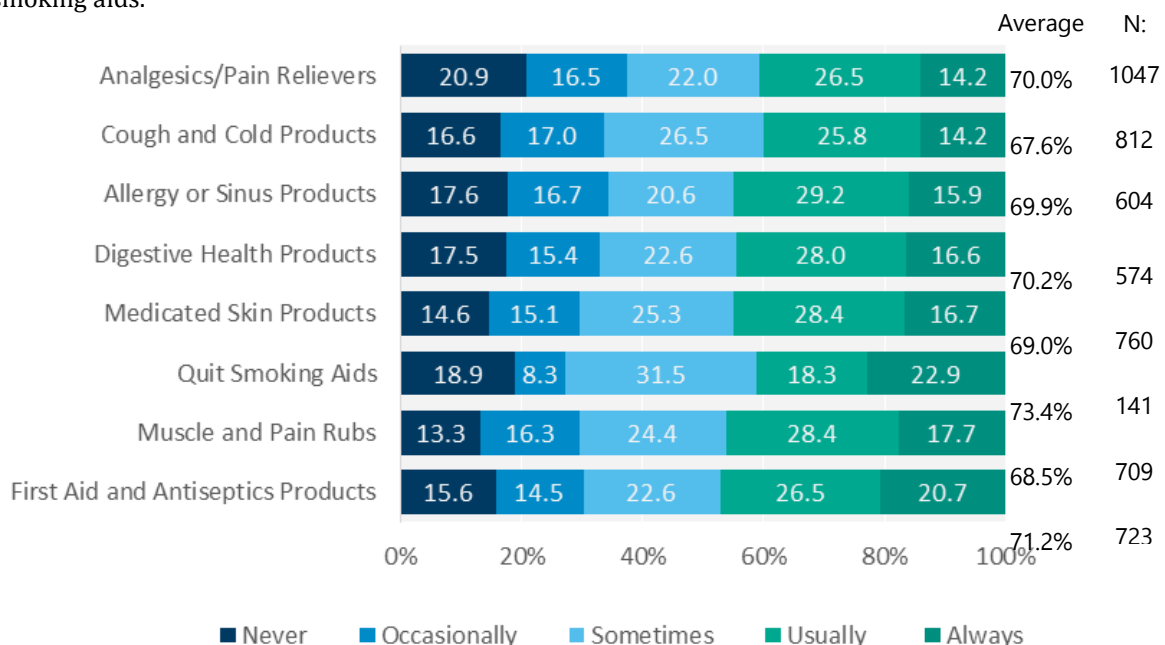
Figure 1.12: Ability to defer doctor visit if OTC unavailable - by category

The averages quoted to the right of the graph represent the position, from the left of the graph, of the mean "ability to defer" for their respective categories. They all lie between 67-72% and in all cases the average respondent reported that they could "usually" defer a visit to the doctor if the OTC medicine they wanted was unavailable.

1.2 Usage of OTC medicines by children/dependants

Of the total 1146 respondents only 807 reported on children or dependants.

Usage of OTC medicines in the last month
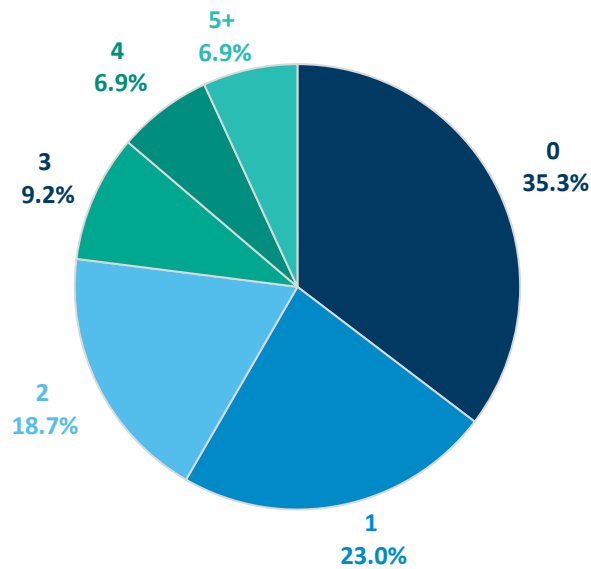
Figure 1.13: OTC usage by children/dependants in the last month | N:807

Of the children and dependants in the survey, 65% used an OTC medicine once or more in the last month.

Usage of OTC medicines in the last year
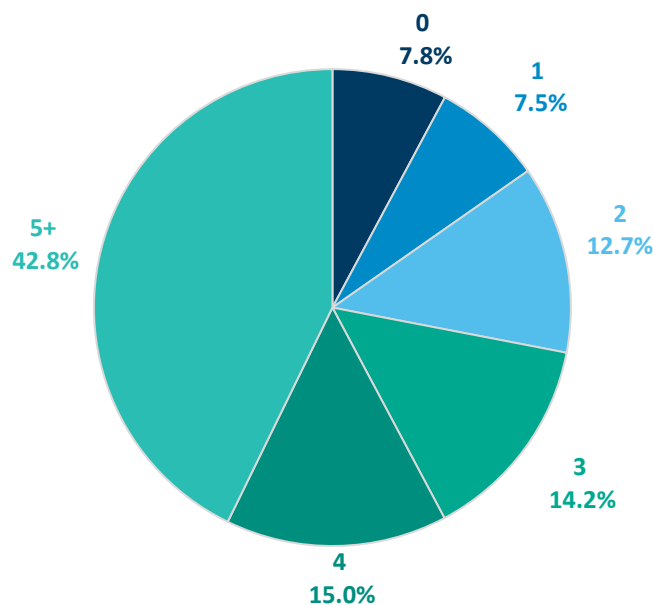
Figure 1.14: OTC usage by children/dependants in the last year | N:807

58% of children and dependants had used an OTC four or more times in the last twelve months, while only 7.8% had not used an OTC for their child/dependant in the last year. Children and dependants tended to use five or more OTC medicines, taking up 42.8% of all use.

Penetration of child population - tables by category

When did your children (child under 18) or family member last take this type of medicine?

Analgesics/pain relievers are the main medicine that has been taken by children/dependants (supervised by a primary person), within the last month. Similarly, cough and cold medicine has been the main medicine taken within the last two to twelve months. In contrast, the majority of respondents in this sample (80.3%) have never taken a quit smoking medicine. Given the age limitation on these products, this low penetration is not surprising.

Category	Within the last month	2-3 months ago	4-6 months ago	6-12 months ago	More than 12 months ago	Never	Total penetration
Analgesics/Pain Relievers	49.7%	17.5%	6.7%	5.6%	6.1%	14.4%	85.6%
Cough and Cold Products	15.8%	23.8%	19.0%	8.1%	13.0%	20.3%	79.7%
Muscle and Pain Rubs	18.1%	13.5%	6.2%	8.8%	8.3%	45.1%	54.9%
First Aid and Antiseptic Products	21.6%	18.6%	9.4%	7.1%	12.2%	31.1%	68.9%
Digestive Health Products	17.1%	8.3%	5.9%	5.7%	10.2%	52.8%	47.2%
Medicated Skin Products	19.1%	12.6%	6.6%	4.2%	11.7%	45.8%	54.2%
Allergy or Sinus Products	16.5%	16.0%	7.3%	6.8%	8.0%	45.4%	54.6%
Quit Smoking Aids	3.2%	4.6%	3.4%	2.6%	5.9%	80.3%	19.7%

Figure 1.15: Incidence of usage by children/dependants - by category | N:807

Average frequency of use – adults vs. children/dependants

On average over the last 12 months, how many times did your children/dependants take a particular type of medicine to treat that type of illness or condition?

Category	Children	Dependants	Adults
Cough and Cold Products	1.7	1.6	1.5
Quit Smoking Aids	1.7	1.4	1.8
First Aid and Antiseptics Products	1.9	1.7	1.8
Medicated Skin Products	1.9	1.9	1.9
Allergy or Sinus Products	1.8	1.8	1.9
Digestive Health Products	1.9	2.0	2.0
Muscle and Pain Rubs	2.0	2.0	2.0
Analgesics/ Pain Relievers	2.1	2.2	2.4
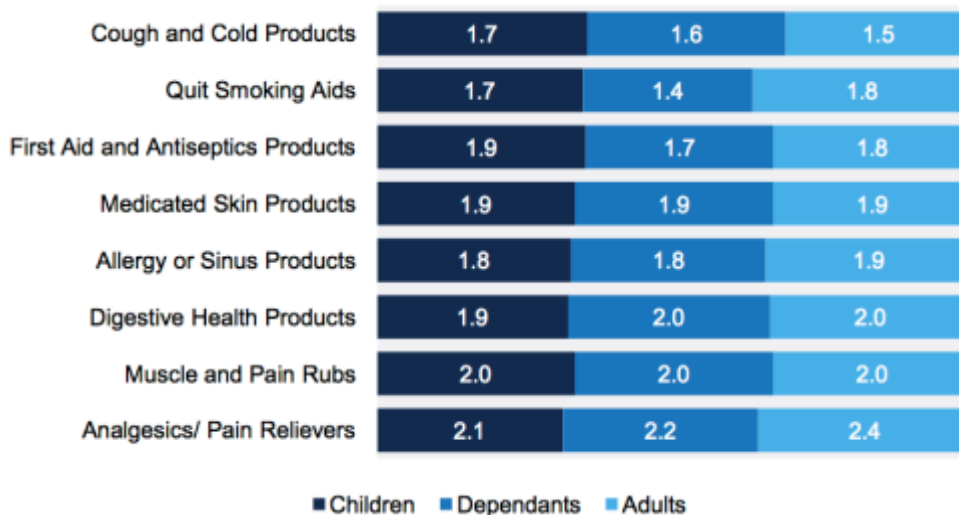
Figure 1.16: Average frequency of use by category – children/dependants vs. adults

Analgesic/pain relievers are slightly more prevalent among adults compared to their children and dependants. By contrast, although the difference is only small, the usage of cough and cold products and first aid and antiseptics products is higher among children.

Usage duration by category

For how long did your children/dependants usually take these medicines?

			Average use (Days)	N:
First Aid and Antiseptics Products	46.1% / 30.0% / 15.9% / 4.8% / 2.0% / 1.2%		3.7	463
Digestive Health Products	43.4% / 21.2% / 15.3% / 7.5% / 4.2% / 8.4%		10.8	289
Analgesics/Pain Relievers	41.6% / 28.9% / 16.3% / 5.4% / 1.8% / 6.1%		8.0	652
Quit Smoking Aids	36.0% / 21.2% / 15.4% / 11.4% / 7.1% / 8.9%		12.4	102
Muscle and Pain Rubs	31.4% / 29.7% / 21.4% / 9.8% / 2.8% / 4.9%		7.8	374
Allergy or Sinus Products	29.4% / 28.0% / 23.5% / 7.9% / 4.4% / 6.7%		9.7	374
Medicated Skin Products	23.9% / 19.2% / 21.4% / 16.2% / 7.2% / 12.0%		15.6	349
Cough and Cold Products	15.0% / 31.7% / 38.3% / 12.8% / 0.7% / 0.6%		4.0	536

■ 1 Day or Less ■ 2 Days ■ 3-5 Days ■ About a week ■ About a Month ■ Everyday

Figure 1.17: Usage duration by children/dependants - by category

Retail split by category

Where did you buy the medicine for your child/dependant?

From Supermarket 18%
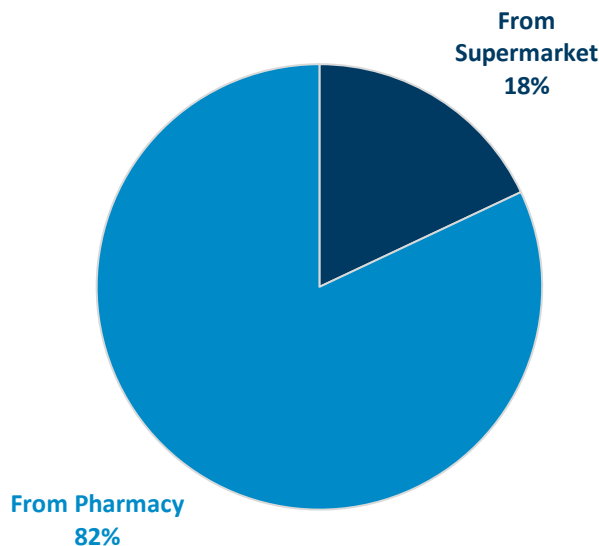
From Pharmacy 82%

Figure 1.18: Retail split of OTC purchase bought for children/dependants- aggregate | N:807

The majority of medicines taken by children were bought from a pharmacy (82%). In only 18% of cases the medicine taken by children (mainly first aid and antiseptics products) was bought from a supermarket. Allergy or sinus and medicated skin products are two main products bought from a pharmacy as opposed to a supermarket.

20

Channel split – OTC purchases for children/dependants

Category	From Pharmacy	From Supermarket
Allergy or Sinus Products	92.2%	7.8%
Medicated Skin Products	90.1%	9.9%
Quit Smoking Aids	88%	12%
Cough and Cold Products	82.1%	17.9%
Muscle and Pain Rubs	79.9%	20.1%
Digestive Health Products	79.5%	20.5%
Analgesics/Pain Relievers	75.5%	24.5%
First Aid and Antiseptics Products	66.9%	33.1%
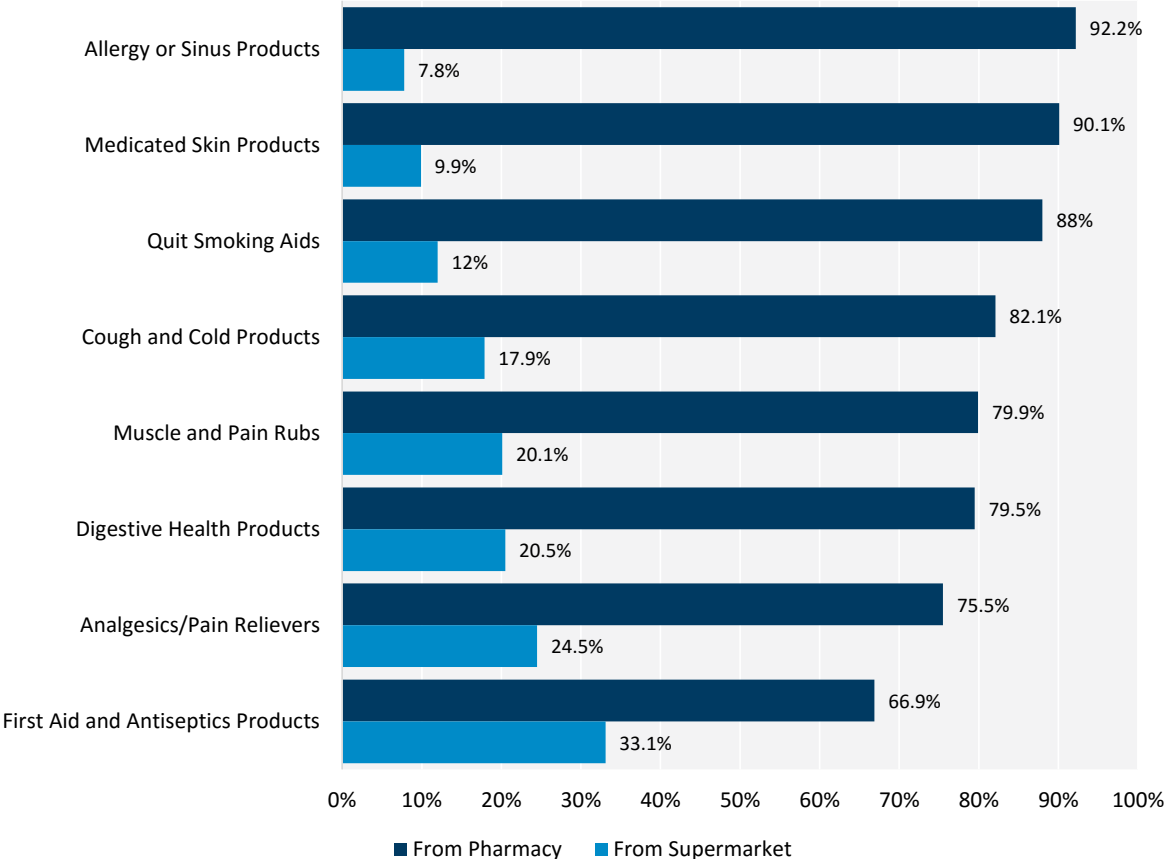
Figure 1.19: Retail split of OTC purchase bought for children/dependants - by category | N:807

Pharmacy appears to be the preferred retail channel for the majority of OTC purchases for children/dependants.

Alternative actions from restricting access to OTC medicines – Doctors' visits for children/dependants

If your child/dependant could not get the medicine they needed without a prescription, what would you do?

Go to My Usual Doctor

Medicated Skin Products	61.4%
Allergy or Sinus Products	56.8%
Analgesics/ Pain Relievers	56.7%
Digestive Health Products	52.9%
Cough and Cold Products	50.5%
Muscle and Pain Rubs	49.9%
First Aid and Antiseptics Products	46.6%
Quit Smoking Aids	43.6%

Use a Home Remedy

Medicated Skin Products	19.2%
Allergy or Sinus Products	15.2%
Analgesics/ Pain Relievers	17.8%
Digestive Health Products	22.5%
Cough and Cold Products	27%
Muscle and Pain Rubs	24.2%
First Aid and Antiseptics Products	27%
Quit Smoking Aids	18.9%

Nothing, I'd Tough It Out

Medicated Skin Products	9.6%
Allergy or Sinus Products	16.3%
Analgesics/ Pain Relievers	15.6%
Digestive Health Products	12.7%
Cough and Cold Products	16.2%
Muscle and Pain Rubs	18%
First Aid and Antiseptics Products	14.1%
Quit Smoking Aids	25.7%

Go to a Walk-In Clinic/ Medical Centre

Medicated Skin Products	11.7%
Allergy or Sinus Products	13.4%
Analgesics/ Pain Relievers	14.6%
Digestive Health Products	10.3%
Cough and Cold Products	14.7%
Muscle and Pain Rubs	11.2%
First Aid and Antiseptics Products	13.9%
Quit Smoking Aids	9.9%

Use a Nutritional Supplement

Medicated Skin Products	9.9%
Allergy or Sinus Products	11.2%
Analgesics/ Pain Relievers	9.1%
Digestive Health Products	15%
Cough and Cold Products	9.5%
Muscle and Pain Rubs	12%
First Aid and Antiseptics Products	11.1%
Quit Smoking Aids	17.9%

Go to an Emergency Department

Medicated Skin Products	1.8%
Allergy or Sinus Products	2.5%
Analgesics/ Pain Relievers	5%
Digestive Health Products	2.3%
Cough and Cold Products	2.3%
Muscle and Pain Rubs	1.8%
First Aid and Antiseptics Products	3.9%
Quit Smoking Aids	1.7%

Figure 1.20: Alternative action if OTC unavailable for children/dependants – by category | N:807

The majority of respondents reported that they would visit their doctor if their children (or dependant family member) could not get the medicine they needed without a prescription. This applies particularly for medicated skin products, allergy or sinus and analgesics/ pain relievers. For all different types of medicines, going to an emergency department is the least likely approach.

Estimated time off school if OTC medicines were not available without prescription
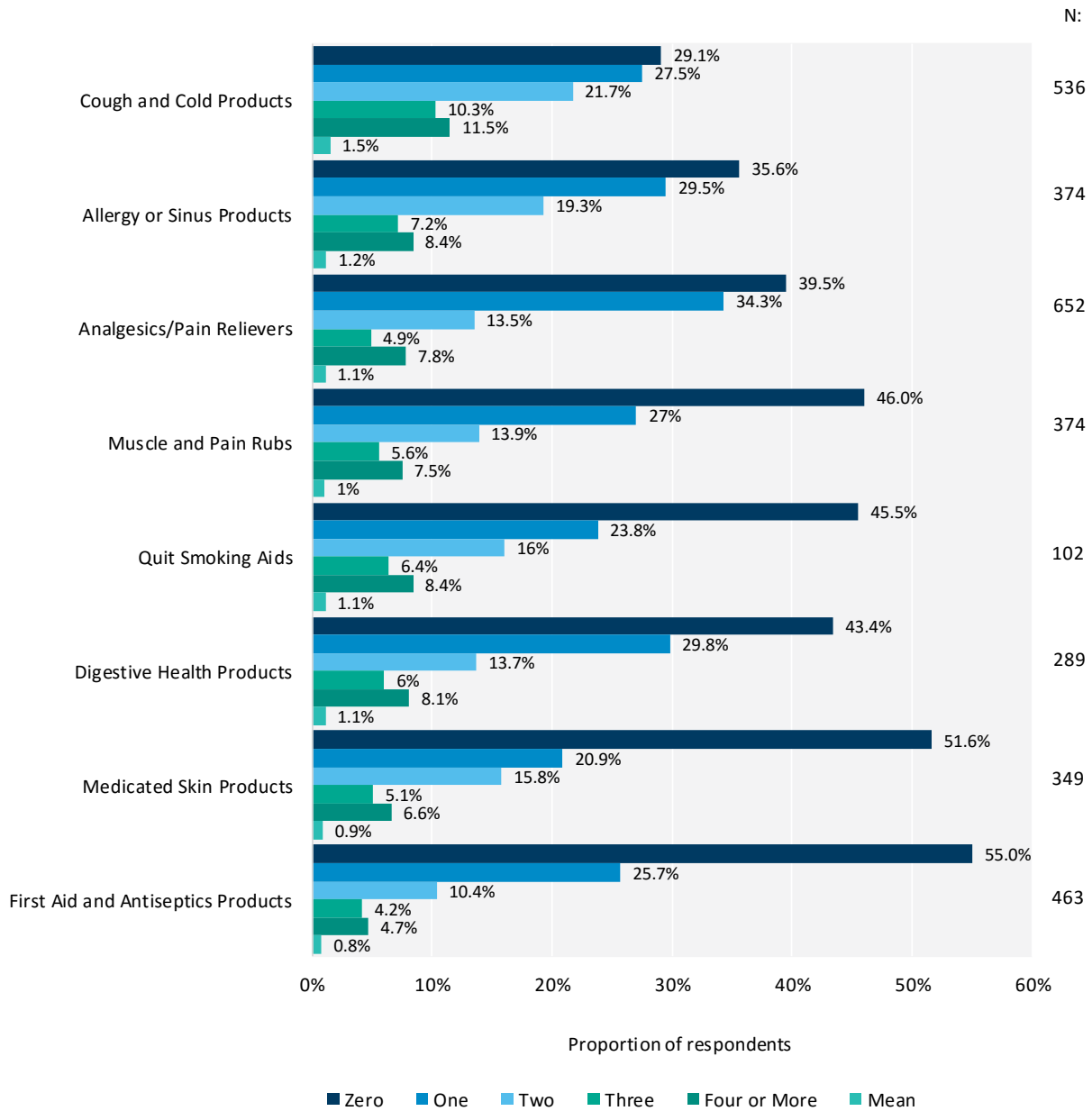
Figure 1.21: Days off school if OTC is unavailable –by category

If an OTC solution was unavailable, the most impacted condition is cough and cold, with 45% taking two or more days off school. While children are least likely to miss school due to the lack of access to first aid and antiseptic products (55%) and medicated skin products (51%), the main reason to be off from school for just one day would be in response to no OTC availability of analgesics/pain relievers at 34%, followed by digestive health at 30%.

Estimated time off work for parent/carer if OTC medicines were not available without prescription

N:

Cough and Cold Products
- 39.7%
- 26.6%
- 17.0%
- 7.5%
- 9.2%

536

Quit Smoking Aids
- 46.0%
- 21.8%
- 15.0%
- 7.8%
- 9.5%

102

Digestive Health Products
- 49.4%
- 25.0%
- 13.5%
- 5.5%
- 6.6%

289

Allergy or Sinus Products
- 49.6%
- 21.9%
- 18.9%
- 5.5%
- 4.0%

374

Analgesics/Pain Relievers
- 48.6%
- 27.5%
- 13.2%
- 4.4%
- 6.3%

652

Muscle and Pain Rubs
- 53.3%
- 23.1%
- 13.3%
- 3.1%
- 7.1%

374

Medicated Skin Products
- 59.3%
- 21.3%
- 11.6%
- 3.9%
- 3.9%

349

First Aid and Antiseptics Products
- 61.3%
- 22.3%
- 9.7%
- 3.0%
- 3.6%

463

Proportion of respondents

Legend: ■ Zero ■ One ■ Two ■ Three ■ Four or More

Figure 1.22: Days off work if child/dependant sick and OTC medicine unavailable - by category

The above chart identifies the corresponding time off work for the parent/carer when the child/dependant is suffering from a condition with no OTC option available.

No OTC available without prescription – adults vs. children/dependants

	Allergy or Sinus	Analgesics/ Pain Relievers	Cough and Cold	Digestive Health	First Aid and Antiseptics Products	Medicated Skin Products	Muscle and Pain Rubs	Quit Smoking Aids
N (Adults)	604	1047	812	574	723	560	709	141
N(Children/Dependants)	374	652	536	289	463	349	374	102

Figure 1.23: Alternative action if OTC unavailable – adults vs. children/dependants – by category

In comparison, respondents are less likely to tough it out when it comes to their children and family members; instead they are more likely to visit their doctor when their children need a treatment, particularly if there is no OTC available.

'Urgency of treatment' metric if OTC medicines were not available without prescription – children/dependants

Could your children have waited until their next doctor's appointment to get a prescription?
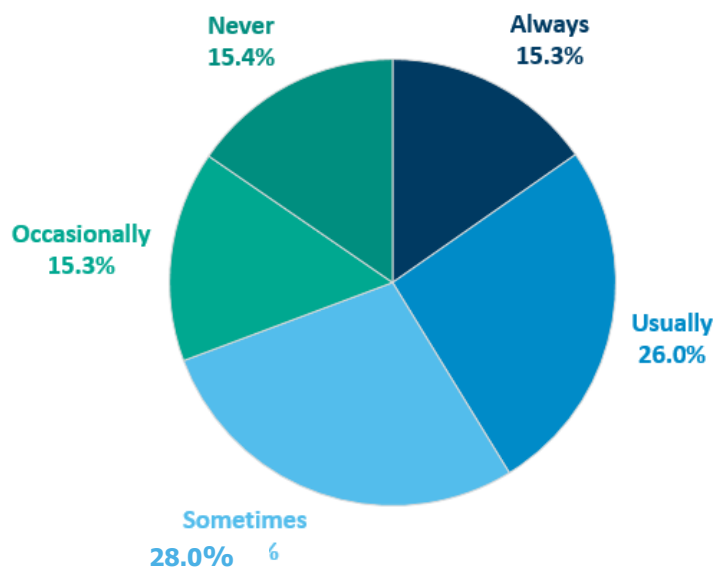
Figure 1.24: Ability to defer doctor visit if OTC unavailable – children/dependants | N:807

Similar to adult respondents, in around 85% of cases, children can to some degree wait until their next doctor's appointment.

1.3 Shopping Behaviour

Retail channel split as a proportion of population

Approximately what percentage of the time do you buy OTC medicines from a pharmacy or a supermarket?
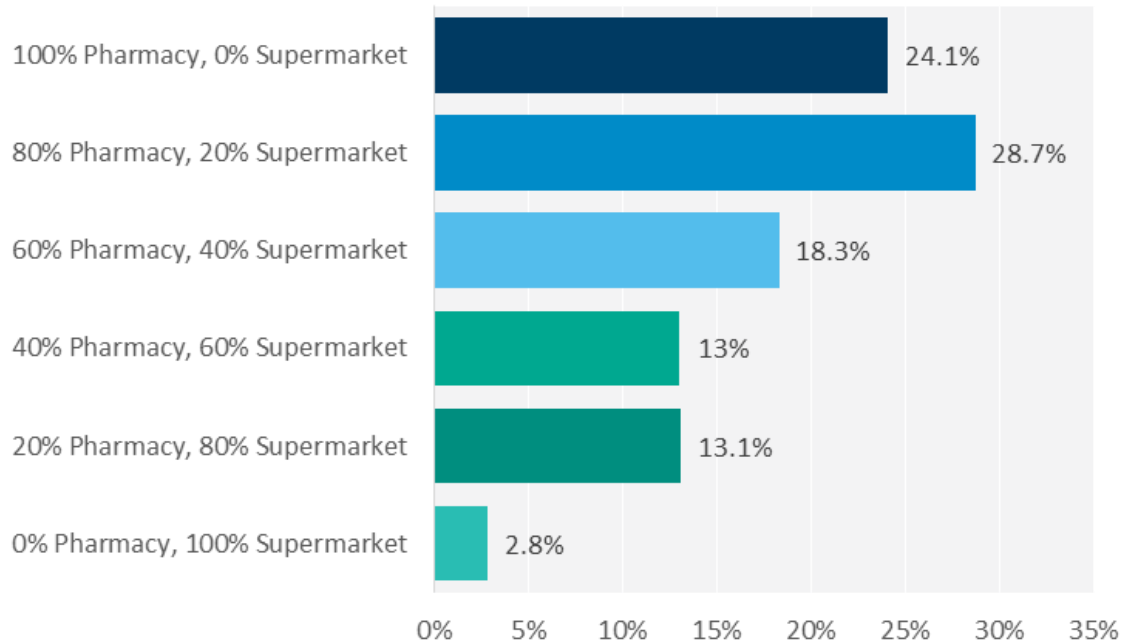
Figure 1.25: Retail channel split - pharmacy vs. supermarket - aggregate | N:1146

Pharmacy remains the main retail channel for OTC medicines. For 24% of people surveyed, pharmacy is the only channel of purchase (100% pharmacy, 0% supermarket). In contrast, only 2.8% of people buy OTC medicines exclusively from supermarkets.

Retail channel preferences by gender
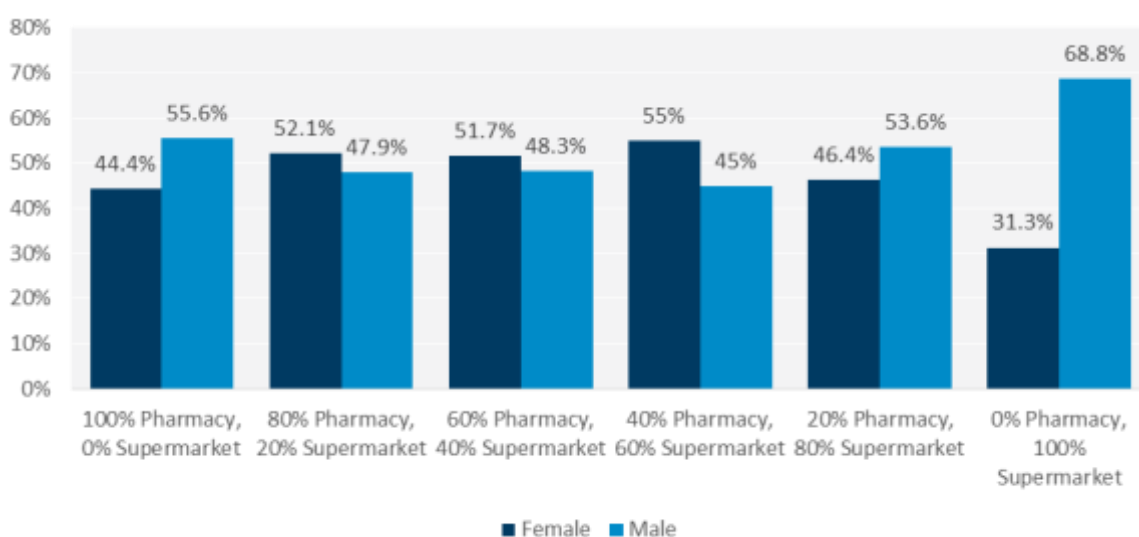
Figure 1.26: Retail channel split - pharmacy vs. supermarket - by gender | N:1146

On average, females are less likely to buy OTC medicines from supermarkets compared to males.

26

OTC purchases – immediate use vs. pantry stock

Approximately what percentage of the time do you buy OTC medicines because you need them immediately as opposed to because you are stocking the pantry?
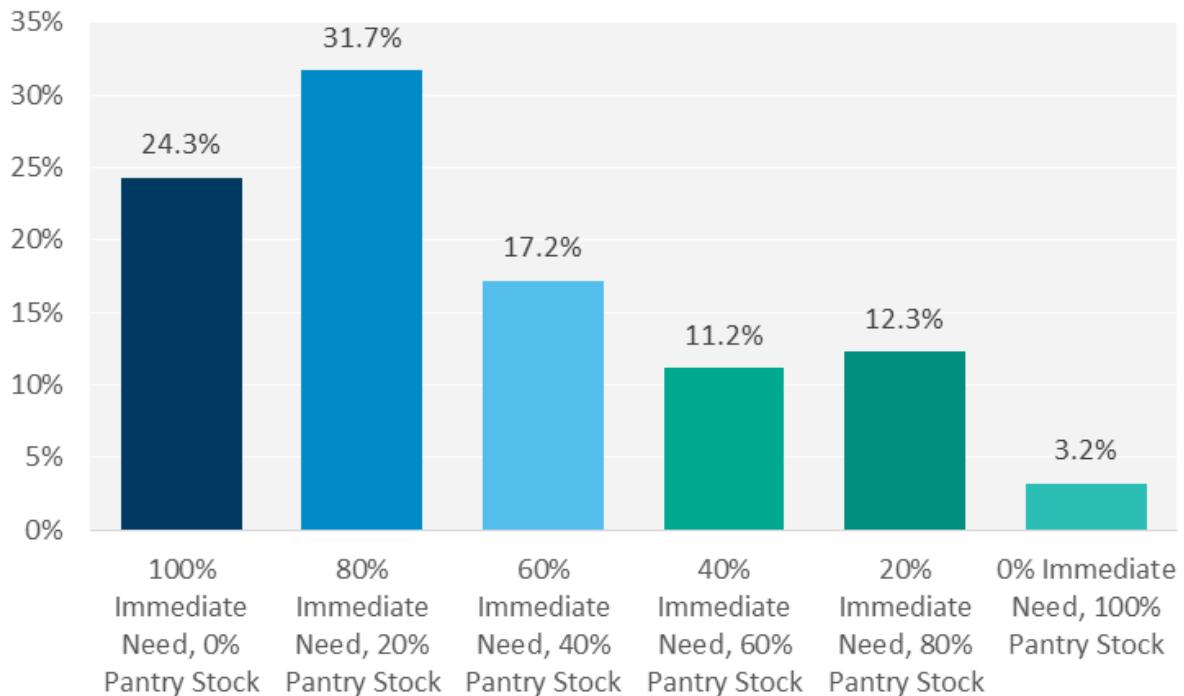
Figure 1.27: OTC purchases – immediate need vs. pantry stock | N:1146

Overall, immediate need is the main reason to buy OTC medicine.

1.4 Examining the attitudes of Australian OTC shoppers

Respondents were also asked their general attitudes toward OTC medicines. They were asked to either agree or disagree with 55 statements about OTC medicines. The response scale ranged from strongly agree to strongly disagree. These attitudes are listed below in order from the most agreed to statements to the least agreed to statements, with the aggregated response marked by a light blue line. The main influences in choosing an OTC medicine are packet directions on usage and dosage, family recommendations, pharmacy staff advice and accessibility.

Figure 1.28: Attitudes towards OTC medicines (1/5) | N: 1146

	Strongly Agree ← → Strongly Disagree	% Agree	% Disagree
Understanding OTC medicines is important to me		61.3	7.4
When I choose OTC medicines I am usually confident about my choice		60.7	11.0
Before I buy I spend time reading the OTC medicine's packet		59.5	18.9
I always want to know more about the OTC medicines I'm buying		59.3	7.8
If behind-the-counter (e.g., pharmacist only) medicines were advertised, I might know to ask about them		59.2	7.0
When I'm at the pharmacy looking for the right medicine, I like asking the shop assistant for recommendations		59.1	15.0
It is really annoying to purchase OTC medicines that are not suitable		55.8	10.1
I'm willing to take advice from knowledgeable pharmacy staff - but only on my terms		50.4	12.7
If after I bought an OTC medicine my choice proved to be poor, I would be really upset		50.0	16.4
I'd rather be given options for how to treat my illness than be told what to do		49.9	15.3
I wish I knew more about OTC medicines available behind-the-counter or from the pharmacy dispensary without a prescription		49.1	19.4
I like to spend time comparing products I see on the pharmacy's shelf		46.5	19.7

Legend: Strongly Agree · Agree · Somewhat Agree · Neither Agree or Disagree · Somewhat Disagree · Disagree · Strongly Disagree

Figure 1.29: Attitudes towards OTC medicines (2/5) | N:1146

	Strongly Agree						Strongly Disagree	% Agree	% Disagree

Statement								% Agree	% Disagree
I am loathe to go to the doctor when I can go to the pharmacy and get something almost as good								44.6	23.9
I'm the one who's sick so, if possible, I want to be the one to decide how to treat it								44.5	22.0
The choices for OTC medicines are overwhelming								43.8	23.9
I like buying generics								43.1	16.4
It really annoys me when I go to the doctor and s/he prescribes something I could have gotten without a prescription								43.0	23.0
For OTC medicines, I usually feel more comfortable talking about brand names, rather than the chemical name								41.2	19.8
If I need to go to a pharmacy for an OTC medicine, I prefer to grab it and get out of there								39.5	20.7
When I face a shelf of OTC medicines, I always feel at a loss to make my choice								36.2	34.0
It frustrates me that they often hide the best medicines behind-the-counter or in the pharmacy dispensary and don't tell anybody about their availability								35.2	20.2
I like looking up information on the internet to help me buy OTC medicines								33.5	31.8
I understand the pluses and minuses of OTC medicines well enough to evaluate different brands								32.3	25.3
If I take a prescribed medicine and have a bad reaction to it, I can just stop using it and mention it to the doctor the next time I see her/him								31.5	43.2

Legend: ■ Strongly Agree ■ Agree ■ Somewhat Agree ■ Neither Agree or Disagree ■ Somewhat Disagree ■ Disagree ■ Strongly Disagree

Figure 1.30: Attitudes towards OTC medicines (3/5) | N: 1146

Statement	Strongly Agree → Strongly Disagree	% Agree	% Disagree
It bothers me when people tell me I have to take this or that medicine		30.6	29.7
I'm really familiar with OTC medicines		29.6	31.3
Choosing OTC medicines is rather complicated		28.3	32.9
When one purchases OTC medicines, one is never certain of one's choices		26.3	30.6
When I need an OTC medicine, I always ask friends or family for recommendations		25.9	39.1
Whenever one buys OTC medicines, one never really knows whether they are the ones that should have been bought		25.9	32.4
I don't like shopping for OTC medicines		25.1	30.5
I have a lot of expertise about OTC medicines		24.2	37.1
Shopping for OTC medicines is frustrating		23.9	36.7
I know a lot about OTC medicines		23.9	37.0
I'm often not sure of the OTC medicines I buy		21.6	40.3
Brand name OTC medicines are better than generics		20.9	32.7

Legend: ■ Strongly Agree ■ Agree ■ Somewhat Agree ■ Neither Agree or Disagree ■ Somewhat Disagree ■ Disagree ■ Strongly Disagree

Figure 1.31: Attitudes towards OTC medicines (4/5) | N: 1146

Figure 1.32: Attitudes towards OTC medicines (5/5) | N: 1146

Statement	% Agree	% Disagree
For OTC medicines, when you pay more you usually get more	19.3	35.4
Using the full name of OTC medicines (e.g., paracetamol, ibuprofen, pseudoephedrine) is a bit scary	18.3	47.2
For OTC medicines, I'm a "cat" - I don't trust what I am told and I tend to tip toe around the store, too	16.2	47.9
If I'm on a prescription medicine and I sometimes need to go a little beyond the recommended dosage every once in a while to get relief, that's okay	15.7	59.2
OTC medicines are safe so you can take more than the maximum dosage	14.5	59.6
When you choose an OTC medicine, it is not a big deal if you make a mistake	14.4	53.0
Everybody kows that the prescription strength of medicine is twice what the OTC strength is, so you can always go above the OTC recommended dosage	13.9	54.8
If you have to take more than the maximum dosage to get through the day, that's ok	13.1	58.5
I'm just too demanding to buy OTC medicines	13.0	44.1
If I'm on a prescription antibiotic for 10 days and I feel better on the seventh day, it's okay to stop taking it	11.2	68.9

Legend: ■ Strongly Agree ■ Agree ■ Somewhat Agree ■ Neither Agree or Disagree ■ Somewhat Disagree ■ Disagree ■ Strongly Disagree

SECTION 2:

How do consumers use vitamins, minerals and supplements?

2.1 Penetration and usage of VMS products by adults

Usage of VMS in the last year

Figure 2.1: Number of VMS used | N:1146

70% of respondents have used VMS products in the last year, with 47% using 2 or more types.

VMS usage by gender
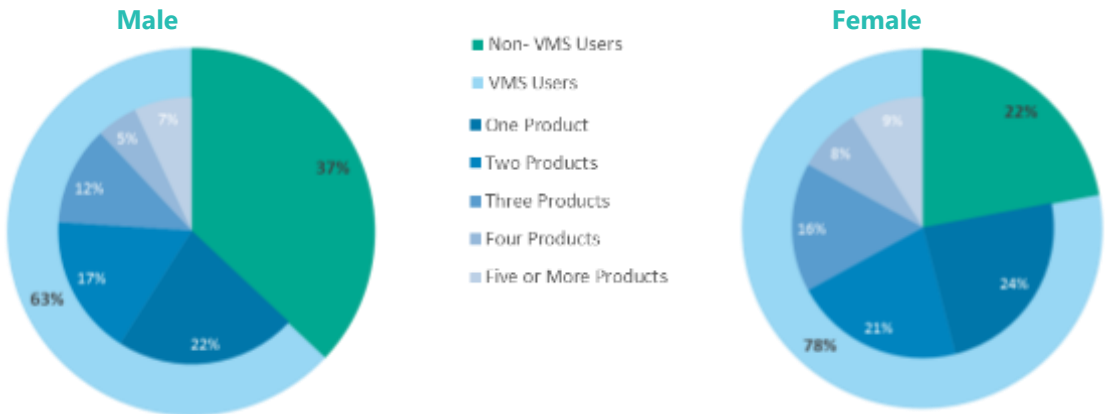
Figures 2.2/2.3: Penetration and number of VMS by gender | N:1146

Usage of VMS in the last year is higher amongst females at 78% versus males at 63%. Usage of multiple VMS products (2 or more) is also higher amongst females at 54% versus 41% for males.

VMS users split by age
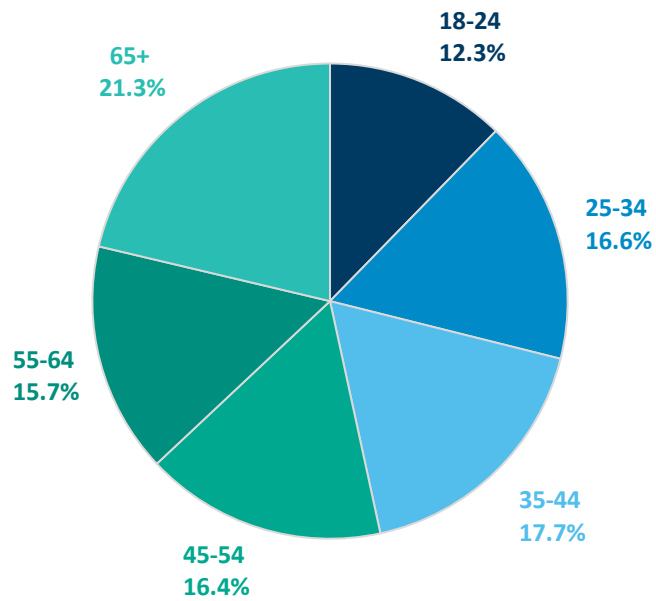
Figure 2.4: Penetration of VMS users by age | N:802

37.0% of respondent VMS users were aged 55 or over, compared with 33.4% of the Australian population being in this age group.

Usage of VMS by age group

The following charts depict the usage of VMS products within discrete age groups. Usage of VMS is fairly consistent across all age groups, the overall penetration range being 65 – 73%. Each figure in this set of charts is based on N:1146.

Ages 18-24
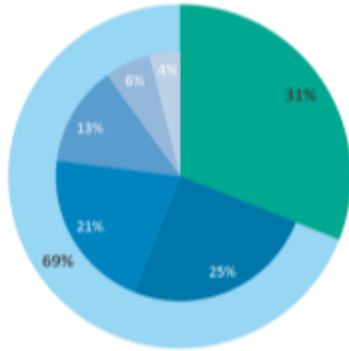
Figure 2.5: Usage of VMS by ages 18-24
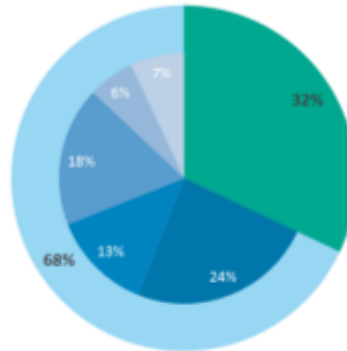
Ages 25-34

Figure 2.6: Usage of VMS by ages 25-3
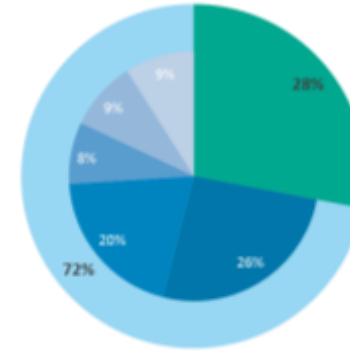
Ages 35-44

Figure 2.7: Usage of VMS by ages 35-44

■ Non- VMS Users
■ VMS Users
■ One Product
■ Two Products
■ Three Products
■ Four Products
■ Five or More Products
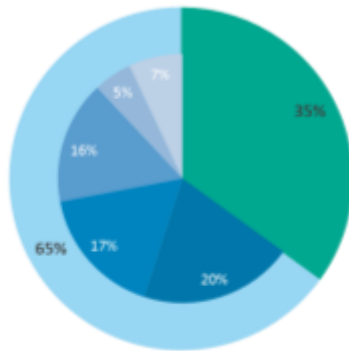
Ages 45-54

Figure 2.8: Usage of VMS by ages 45-54

Ages 55-64
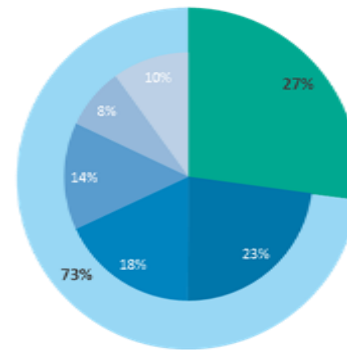
Figure 2.9: Usage of VMS by ages 55-64

Ages 65+
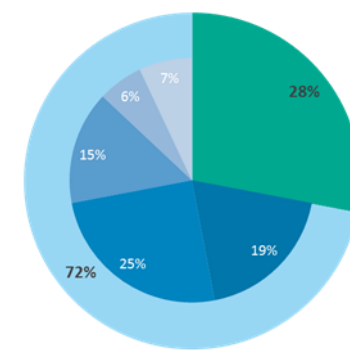
Figure 2.10: Usage of VMS by ages 65+

35

VMS usage by education level
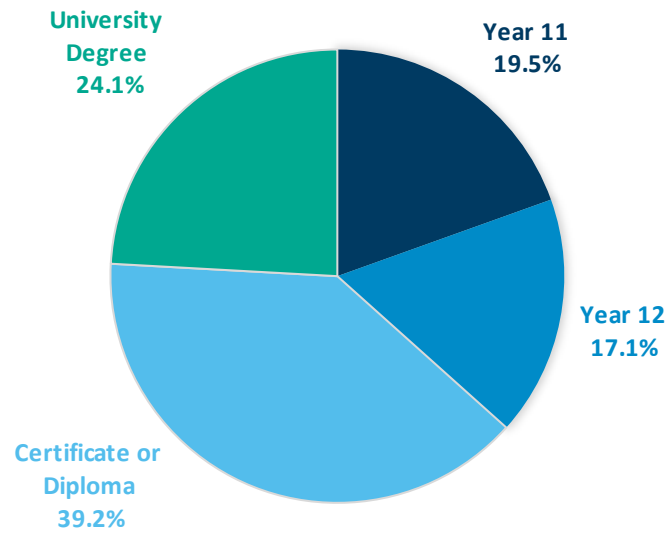
Figure 2.11: Penetration of VMS users by education | N:802

63.3% of respondent VMS users had a post-secondary education, compared with 33.1% of the Australian population being at this education level.

Penetration and number of VMS products used by education level

The following charts depict the usage level of VMS products within education levels. Usage of VMS is high among all groups (66 – 75%), with the highest usage amongst university graduates at 75%. Each figure in this set of charts is based on N:1146.

University Degree
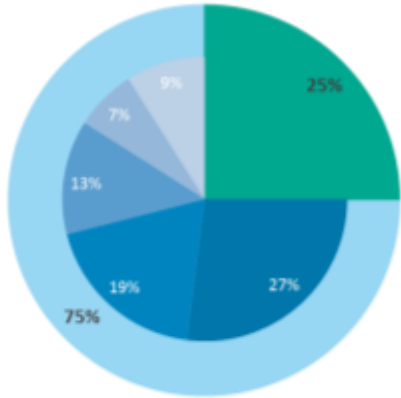
Figure 2.12: Usage of VMS - University Degree

Certificate or Diploma
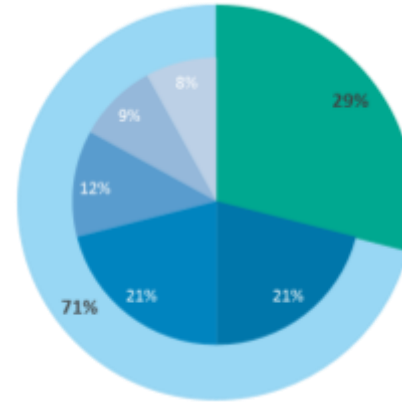
Figure 2.13: Usage of VMS - Certificate or Diploma

Legend:
- Non- VMS Users
- VMS Users
- One Product
- Two Products
- Three Products
- Four Products
- Five or More Products
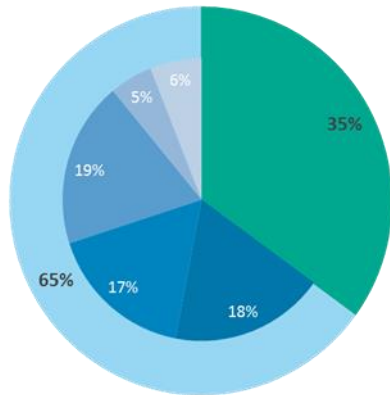
Year 12

Figure 2.14: Usage of VMS - Year 12

Year 11
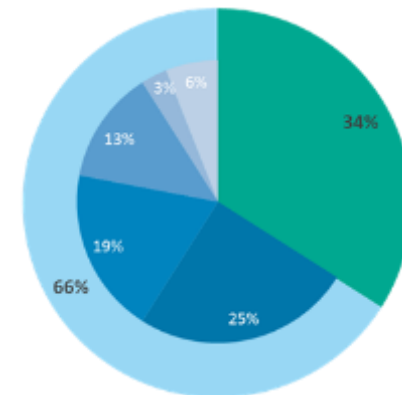
Figure 2.15: Usage of VMS – Year 11

Overall VMS usage by product category – among total respondents

Do you take any health or nutritional supplements?

Product	Percentage
Multivitamin	36.0%
Fish Oil/Krill Oil/Omega 3	33.6%
Calcium Supplements	18.5%
Glucosamine/Coenzyme Q10	14.1%
Vitamin B & C/Energy Combination	11.6%
Immunity Product	10.9%
Probiotics	10.2%
Stress/Sleep Product	7.2%
Specific Vitamin/Mineral to Address Deficiency	6.1%
Children's Supplements	3.3%
Natural Weight Loss	2.4%
Pregnancy/Breastfeeding/Folate	2.3%
Homeopathic Remedy	2.2%
Practitioner Mixture/Tonic	0.7%
Other	6.3%

Figure 2.16: VMS products used among total respondents | N:1146

Among total respondents, multivitamins and fish oil/krill oil/omega 3, are the major two types of VMS taken at 36.0% and 33.6% respectively. This is followed by calcium supplement and glucosamine at 18.5% and 14.1%.

Overall VMS usage by product category – among VMS users

What health or nutritional supplements do you take?

Product	Percentage
Multivitamin	51.4%
Fish Oil/Krill Oil/Omega 3	48.0%
Calcium Supplements	26.4%
Glucosamine/Coenzyme Q10	20.1%
Vitamin B & C/Energy Combination	16.6%
Immunity Product	15.6%
Probiotics	14.6%
Stress/Sleep Product	10.3%
Specific Vitamin/Mineral to Address Deficiency	8.8%
Children's Supplements	4.7%
Natural Weight Loss	3.4%
Pregnancy/Breastfeeding/Folate	3.3%
Homeopathic Remedy	3.2%
Practitioner Mixture/Tonic	1.0%
Other	9.0%

Figure 2.17: VMS products used among VMS users *| N:802*

Among VMS users, multivitamins and fish oil/krill oil/omega 3 are the major two types of VMS taken, at 51.4% and 48.0% respectively.

2.2 Frequency of VMS usage by product category

How often do you take these supplements?

Product	Every Day	Most Days	Half the Time	Occasionally	Rarely	N:
Multivitamin	41.4	23.0	18.4	9.8	7.5	433
Fish Oil/Krill Oil/Omega 3	53.8	20.0	10.0	8.6	7.4	389
Calcium Supplements	47.5	22.7	13.4	12.2	4.3	217
Glucosamine/Coenzyme Q10	64.2	16.0	9.3	4.5	5.9	164
Vitamin B & C/Energy Combination	20.5	19.1	25.4	19.6	15.3	140
Immunity Product	38.0	18.3	13.6	18.9	11.2	131
Probiotics	35.2	20.1	16.5	13.8	14.5	121
Stress/Sleep Product	24.0	13.4	13.1	32.6	16.9	88*
Specific Vitamin/Mineral to Address Deficiency	58.4	19.3	11.4	6.1	4.8	204
Children's Supplements	13.5	12.7	28.7	10.0	4.8	40*
Natural Weight Loss	24.2	30.9	25.0	8.4	11.5	29*
Pregnancy/Breastfeeding/Folate	49.7	30.6	8.2	7.9	3.6	31*
Homeopathic Remedy	39.8	13.9	16.8	15.5	14.0	24*
Practitioner Mixture/Tonic	18.0	20.9	27.6	16.9	16.6	9*
Other	69.2	17.5	7.1	5.0	1.3	

- Every Day (100% of the Time)
- Most Days (75% of the Time)
- Half the Time (50% of the Time)
- Occasionally (25% of the Time)
- Rarely (Less that 25% of the Time)

Figure 2.18: VMS frequency of usage by VMS product

The majority of users of glucosamine/coenzyme Q10 and specific vitamin/mineral supplements take those products on a daily basis at 64.2% and 58.4% respectively. While pregnancy/breastfeeding and natural weight loss medicine are taken most days, stress/sleep products and children's supplements are among the type of supplements that respondents reported taking only occasionally. * Please note however that in cases where the sample size is less than 100, it is difficult to make meaningful extrapolations to the general public.

Frequency of VMS usage by gender
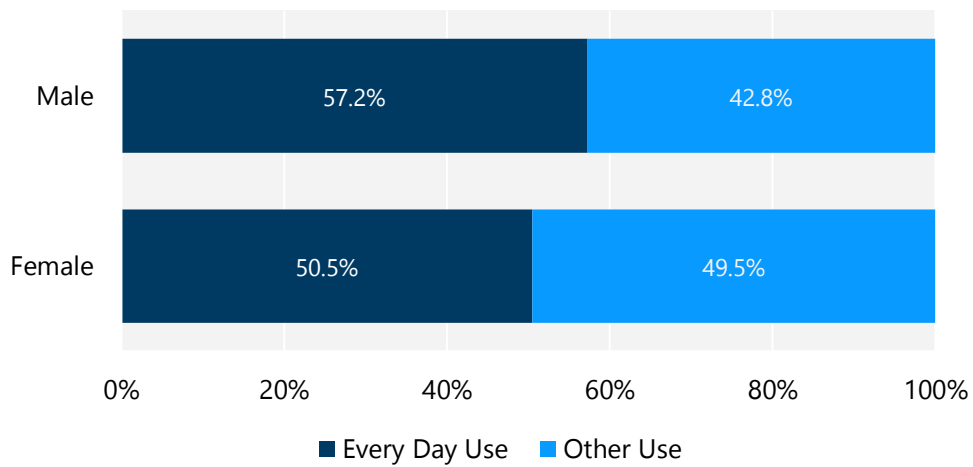
Figure 2.19: VMS frequency of usage by gender | N:802

At 57.2% of men versus 50.5% of women, men tend to be more likely than women to use VMS products on an every-day basis.

Frequency of VMS usage by education
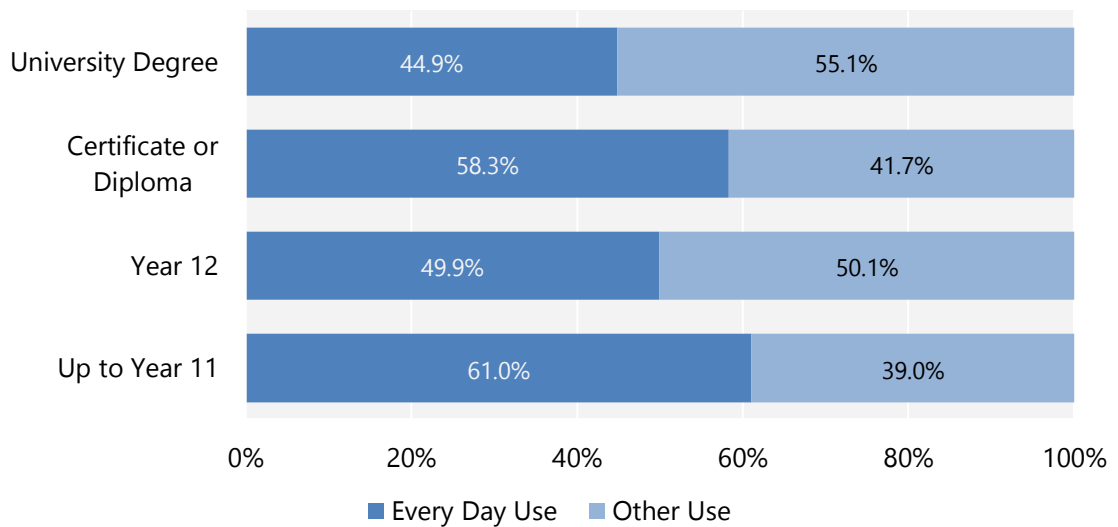
Figure 2.20: VMS frequency of usage by highest education level | N:802

While the data collected in this study shows no obvious trend in frequency of use by education, more complex ANOVA models by the author do show a positive effect of education on VMS use.

Frequency of VMS usage by age
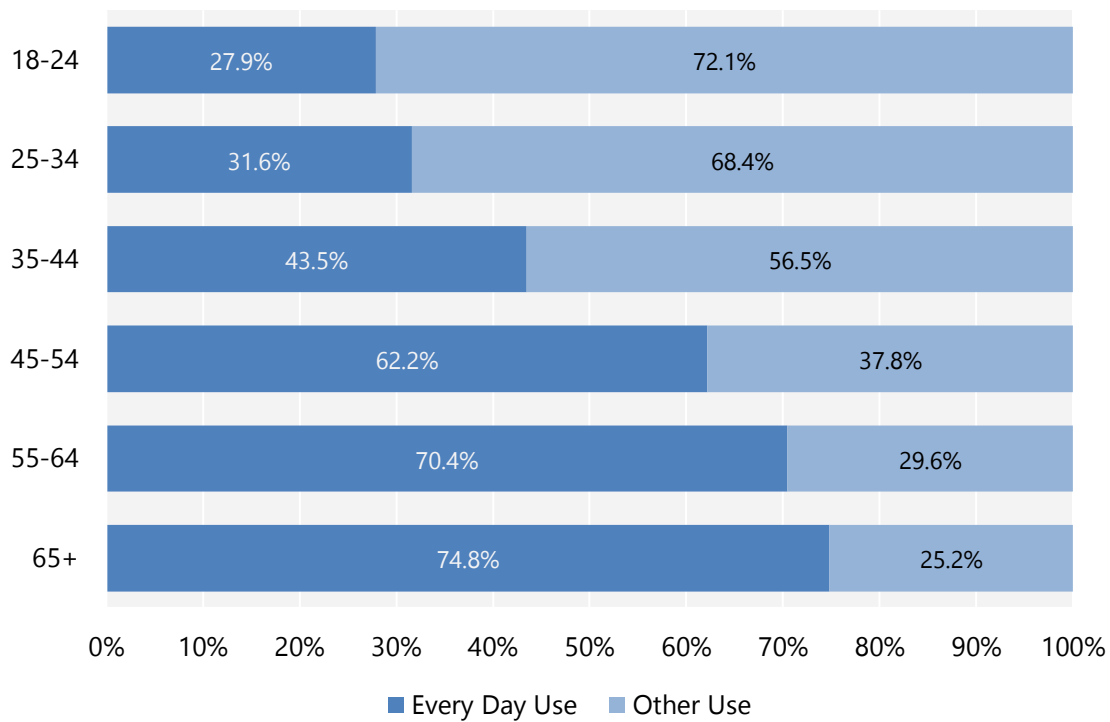
Figure 2.21: VMS frequency of usage by age | N:802

Every day use of VMS products is more common among people aged 65 and over. At 74.8% compared with 27.9%, this is almost three times the frequency of usage by people aged 18-24.

Note that in Figures 2.19, 2.20 and 2.21, "Other Use" includes most days, half the time, occasionally and rarely. Further detailed breakdown of usage is contained in the charts in Appendix A.

2.3 Reasons for VMS usage

People mainly take supplements for general health. People do however take specific supplements for specific reasons - for example stress/sleep products to help with stress and natural weight loss supplements for weight loss. *Note that the analysis in this figure is based on 2010 responses reported by 802 VMS users.

Across a variety of VMS products, the major motivation for use is general health. Respondents were allowed to select multiple reasons and they often selected more than one reason. Specific VMS products have a pattern of motivations for use that are specific to them. For example, respondents reported taking immunity products for both general health and to boost immunity.

For what reasons do you use vitamins, minerals and supplements?
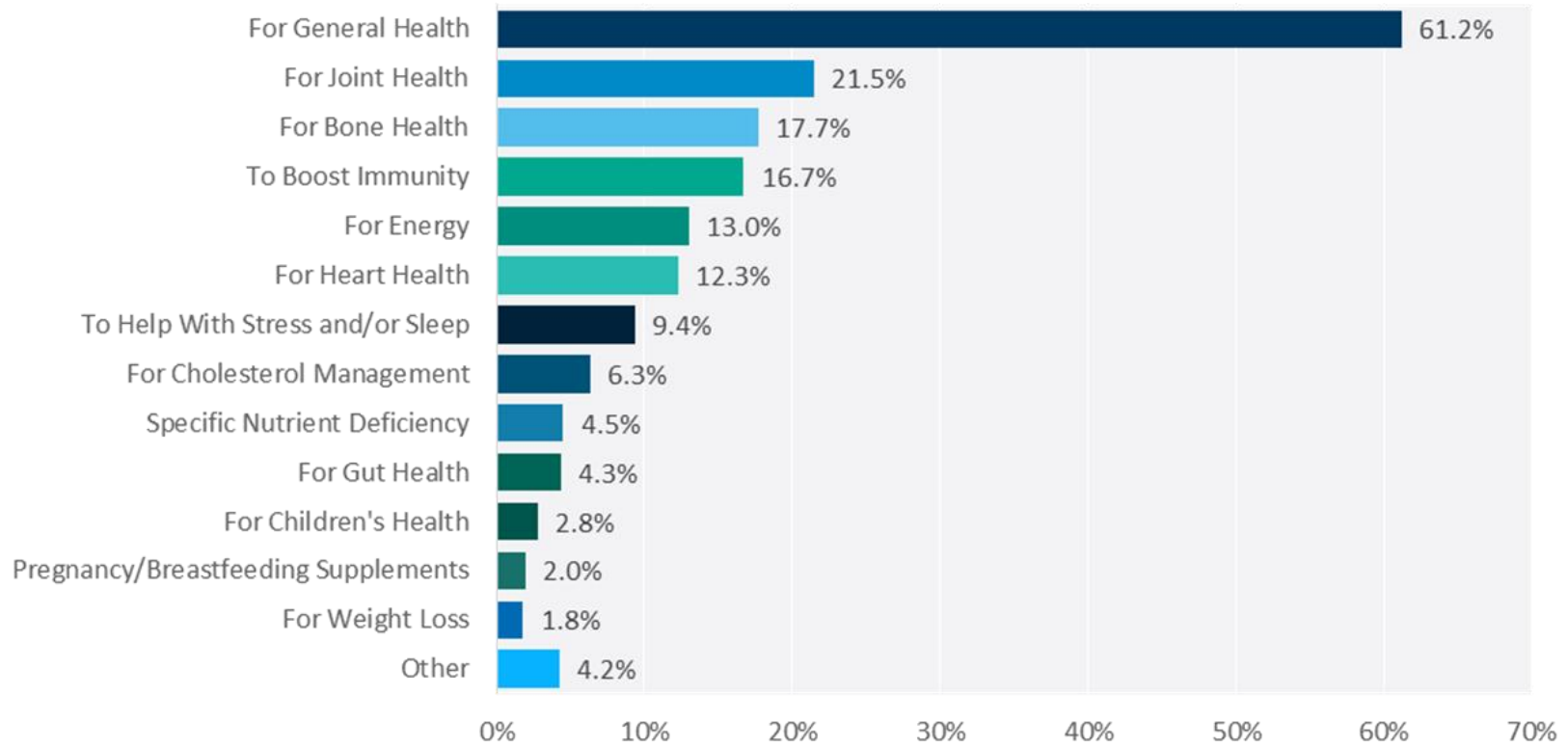
Figure 2.22: Reasons to take supplements – aggregate | N:2010

Reasons for VMS usage by product category

Category	For general health	For joint health	For bone health	To boost immunity	For energy	For heart health	To help with stress and/or sleep	For cholesterol management	Specific nutrient deficiency	For gut health	For children's health	Pregnancy/ breastfeeding supplements	For weight loss	Other Reason	N:
Multivitamin	90%	6%	7%	21%	22%	9%	8%	2%	1%	2%	2%	2%	1%	1%	433
Fish Oil/ Krill Oil/ Omega 3	71%	49%	16%	10%	8%	29%	3%	19%		2%	2%	1%	1%	2%	389
Calcium Supplements	31%	25%	71%	4%	5%	6%	1%	2%	3%		2%	2%	1%	5%	217
Glucosamine/ Coenzyme Q10	37%	70%	32%	5%	9%	21%	1%	6%		1%					164
Vitamin B&C/ Energy Combination	69%	5%	4%	23%	40%	7%	23%	1%	2%	1%	3%		2%	5%	140
Immunity Product	73%	4%	7%	56%	11%	9%	13%	3%	3%	3%	2%	1%		4%	131
Probiotics	64%	2%	3%	29%	6%	6%	4%	5%		47%	2%			4%	121
Stress/ Sleep Product	20%	7%	7%	6%	10%	9%	75%	3%	1%	3%	1%		1%	3%	88*
Specific Vitamin/ Mineral	51%	9%	17%	15%	10%	4%	5%	1%	33%	2%		2%		10%	204
Children's Supplements	49%			14%	11%		7%	3%	6%		50%			12%	40*
Natural Weight Loss	38%	13%		9%	14%	3%	7%	14%				6%	77%		29*
Pregnancy/ Breastfeeding	30%	4%	11%	4%	4%	4%	4%	4%	2%	2%	8%	70%		5%	31*
Homeopathic Remedy	70%			33%	17%	9%	19%	10%	7%	4%	10%		5%	9%	24*
Practitioner Mixture/ Tonic	52%	17%	27%	33%	5%	34%	5%	11%			10%				9*
Other	43%	14%	6%	10%	4%	3%	7%	9%	12%	2%		2%	1%	25%	74*

Figure 2.23: Reasons to take supplements – by product

* Please note however that in cases where the sample size is less than 100, it is difficult to make meaningful extrapolations to the general public.

43

2.4 VMS usage based on health risk

Do you take the various VMS products you indicated because you are at higher risk of those particular health concerns compared to people of your age and gender?
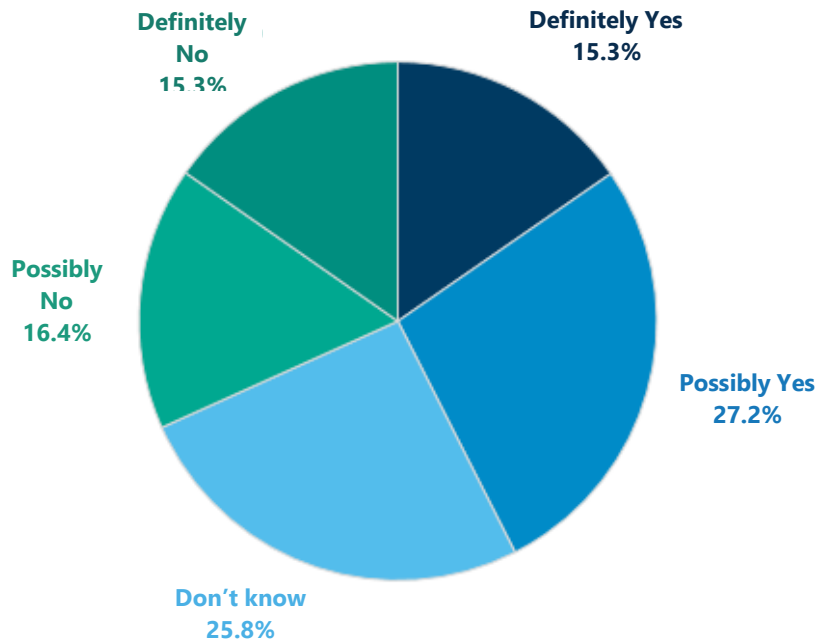
Figure 2.24: Usage link to perceived higher risk/vulnerability- aggregate | N:802

In general, respondents reported that they were taking VMS products because they were at higher health risks than others of the same age and gender. This seems consistent with the dominant reason of general health as a motivation for taking VMS products.
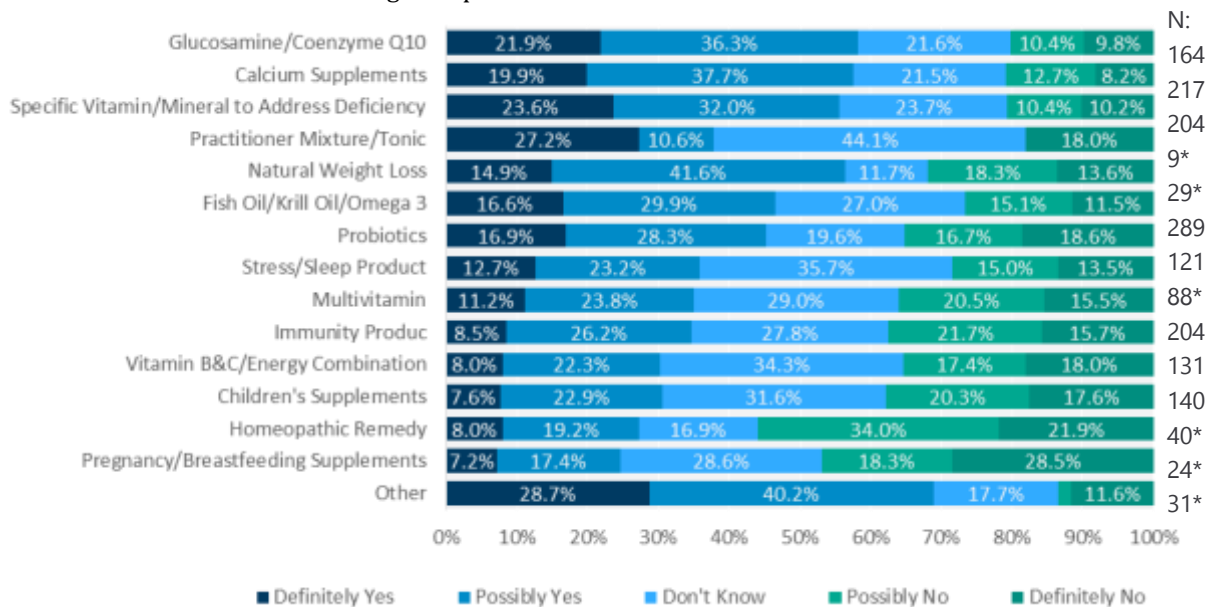
Figure 2.25: Usage link to perceived higher risk/vulnerability - by product | N:802

* Please note however that in cases where the sample size is less than 100, it is difficult to make meaningful extrapolations to the general public.

44

Glucosamine/coenzyme, calcium supplements and specific vitamins are the main products people take due to being at higher risk of the health concerns. Children's supplements, homeopathic remedy and pregnancy/breastfeeding/ folate are among the products people take for reasons other than specific health risks. The chart above provides a summary of the extent respondents reported taking each VMS product due to perceived higher risk or vulnerability.

2.5 Place of purchase of VMS products

Where do you buy your health and nutritional supplements?
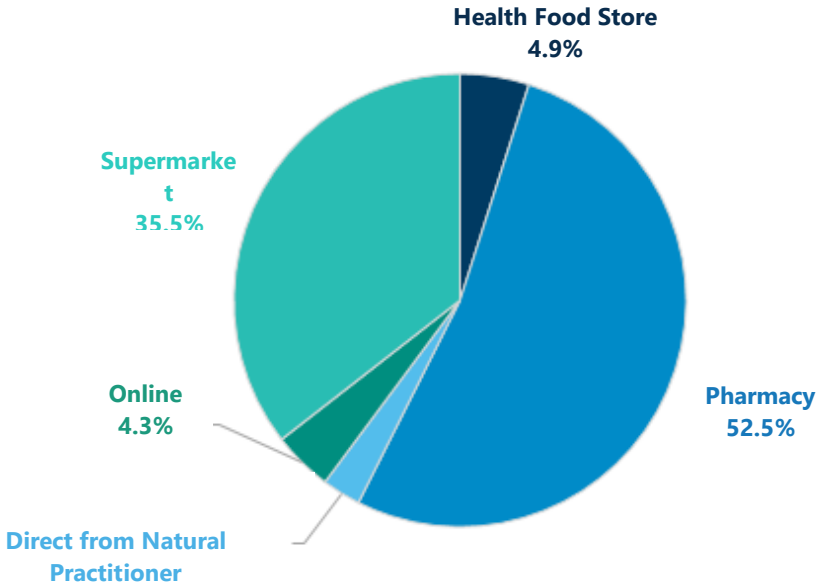
Figure 2.26: Retail channel split for VMS | N:802

Pharmacy and supermarket are the two main preferred channels of VMS purchase at 52% and 35% respectively. In contrast, VMS purchases from a practitioner of natural medicine accounts for just 2.8% of purchases.

2.6 Further information about VMS usage

In addition to the analysis in this section, further demographic splits of VMS usage for individual VMS categories are provided in Appendix A.

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SECTION 3:

Prescription to OTC Switch – Consumer Insights

3.1 Number of prescription medicines used
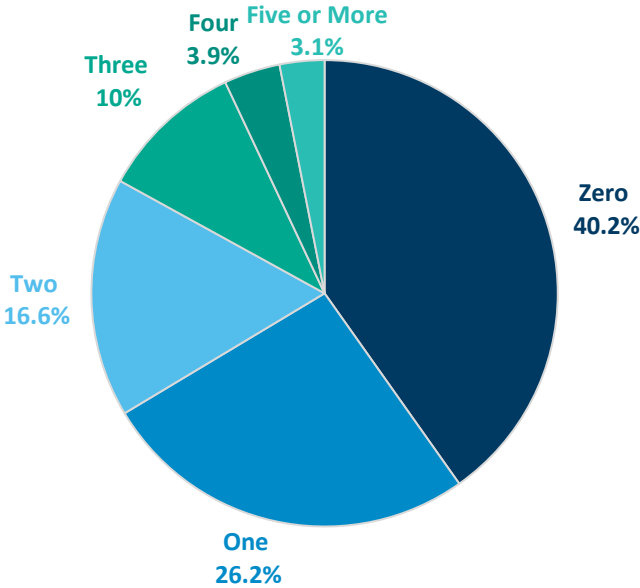
Figure 3.1: Number of prescription medicines used | N:1146

52.8% of respondents reported taking one to three prescription medicine types, while 40% take none at all.

3.2 Penetration of prescription categories

Do you currently take or have you recently taken (in the last 12 months) any of the following products by a doctor's prescription?
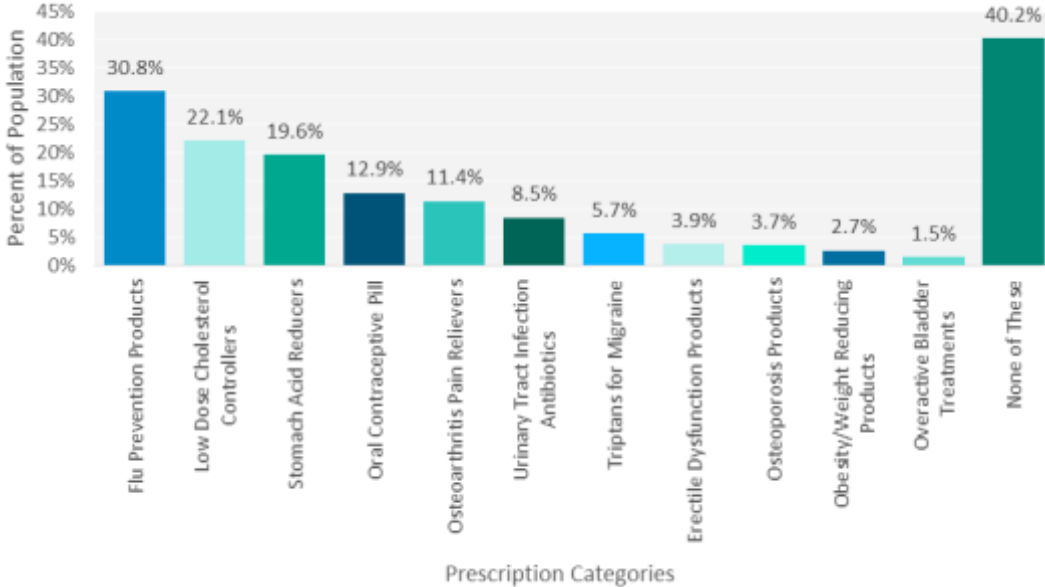
Figure 3.2: Penetration of key prescription-only medicine | N:1146

The penetration of possible switch candidate categories varies by category, with flu prevention, cholesterol controllers and stomach acid reducers at the higher end.

3.3 Pharmacist-only access preference by type of prescription medicine

If these medicines were available without a prescription, would you consider obtaining this medicine direct from your pharmacist instead of going to the doctor for a prescription?
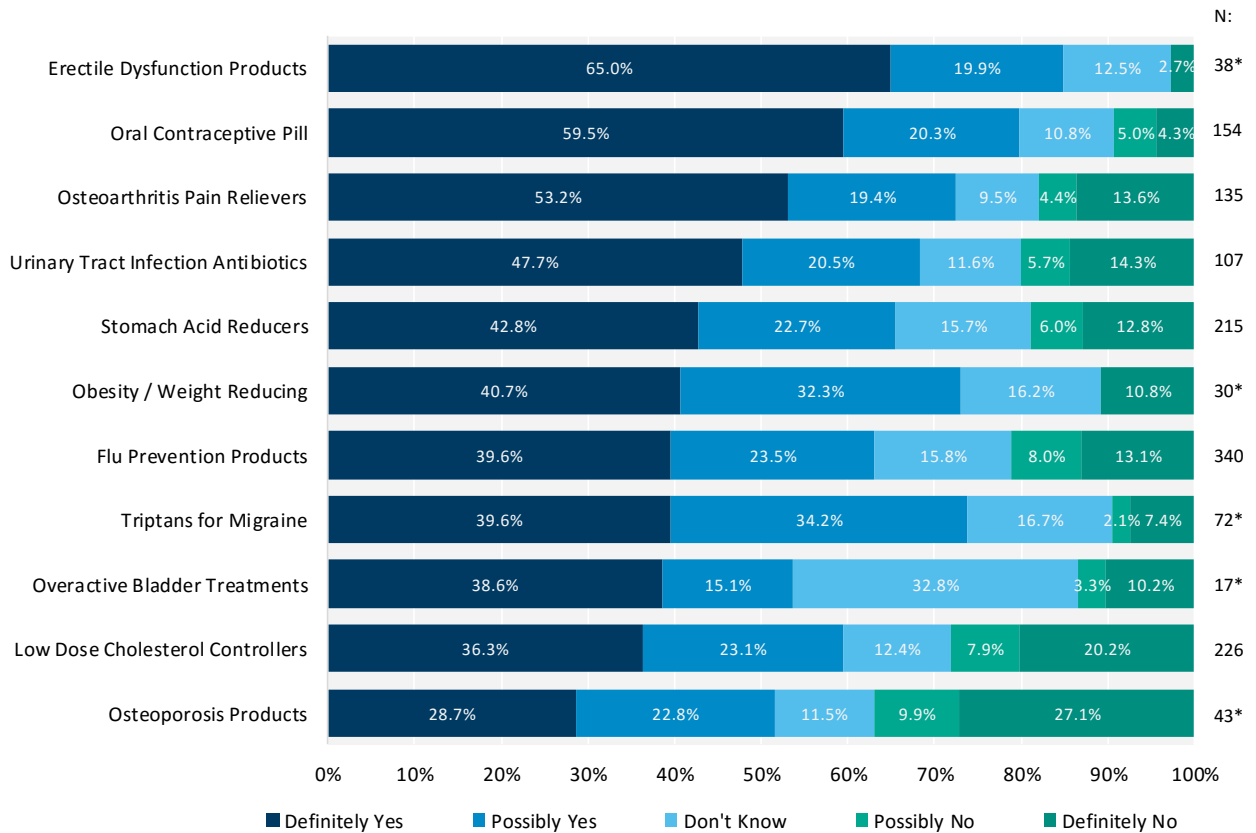
Figure 3.3: Access preference for key prescription-only medicine

Erectile dysfunction products and the oral contraceptive pill are two main products that people would consider buying directly from a pharmacist rather than going to a doctor for a prescription. In contrast, people are least likely to buy osteoporosis products and low dose cholesterol controllers/lipid lowering products from a pharmacist instead of going to a doctor for a prescription. *Please note however, that when the sample size is less than 100, it is difficult to make meaningful extrapolations to the general public.

3.4 Visits saved by prescription medicine if switched

If you could get these products without a prescription through your pharmacist, how many visits to the doctor would you save each year?
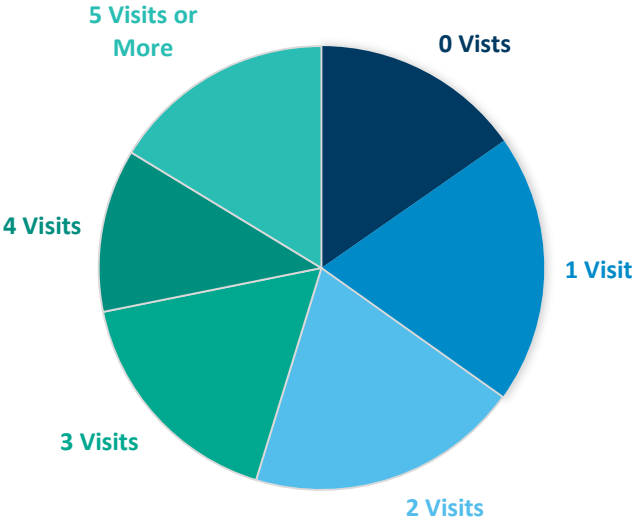
Figure 3.4: Doctor visits saved if available OTC | N:688

Getting one of these medicines without a prescription from a pharmacy saves at least one visit to the doctor per year for 85% of respondents.

3.5 Conclusion

This study provides important insights into the attitudes and behaviour of Australian consumers regarding OTC and complementary medicines. It reveals a high uptake of OTC medicines in Australia, indicating that consumers are comfortable treating a variety of illnesses with OTC medicines. It also shows the majority of Australians use complementary medicines and that they take supplements mainly for general health.

This study provides an important fact base in consumer healthcare to inform decision making and policy formulation in relation to OTC and complementary medicines.

APPENDIX A

A.1 Frequency of usage x Age x VMS product
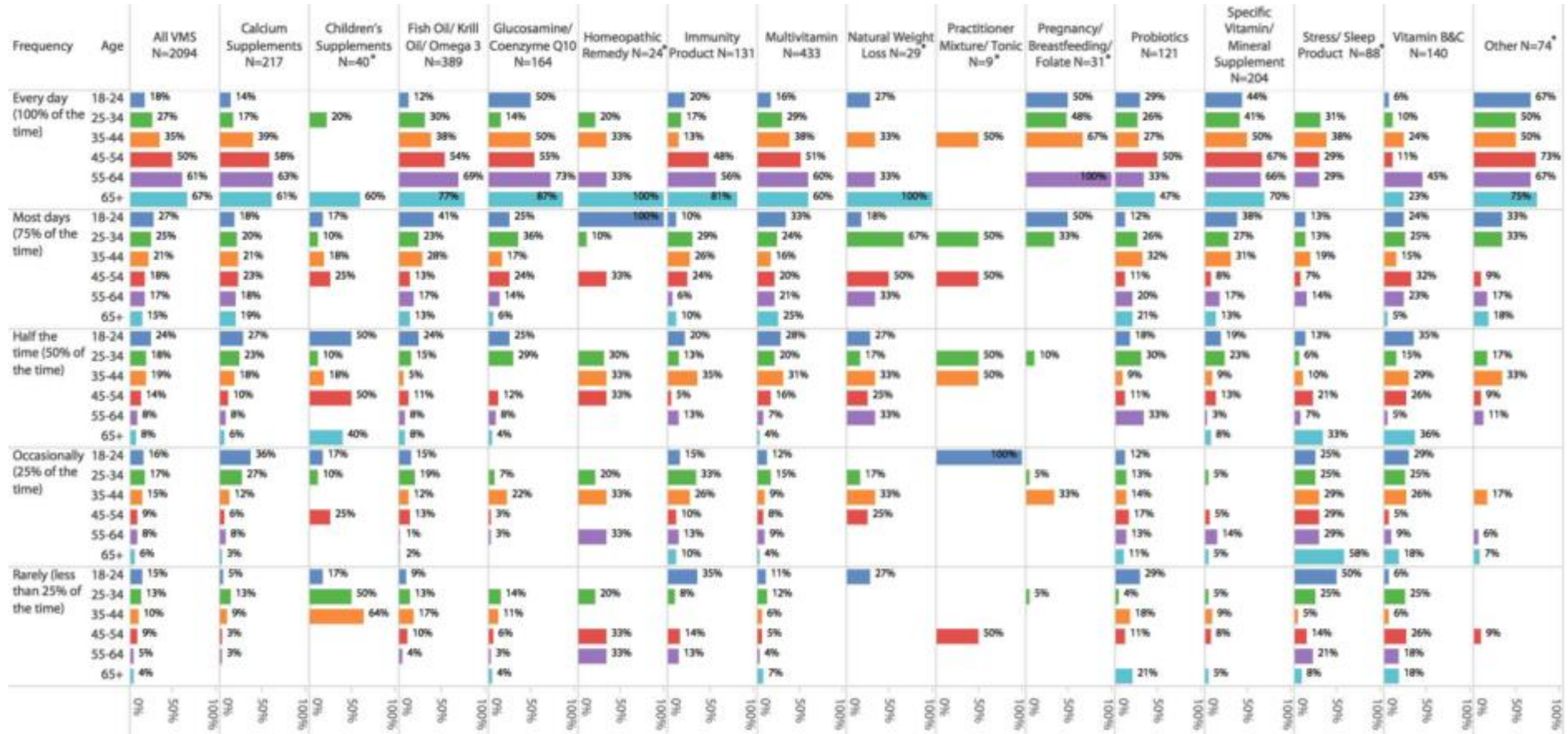
Figure A.1: Frequency of usage x Age x VMS product

For each VMS category, the age group, represented by different colours, is broken down by frequency of usage, and grouped by frequency, i.e. all the blue bars in a column, representing ages 18-24, will add up to 100%. * Please note that when sample size is less than 100 it is difficult to make extrapolations to the general public.

A.2 Age x Frequency of usage x VMS product

Age	Frequency	All VMS N=2094	Calcium Supplements N=217	Children's Supplements N=40*	Fish Oil/Krill Oil/Omega 3 N=389	Glucosamine/Coenzyme Q10 N=164	Homeopathic Remedy N=24*	Immunity Product N=131	Multivitamin N=433	Natural Weight Loss N=29*	Practitioner Mixture/Tonic N=9*	Pregnancy/Breastfeeding/Folate N=31*	Probiotics N=121	Specific Vitamin/Mineral Supplement N=204	Stress/Sleep Product N=88*	Vitamin B&C N=140	Other N=74*
18-24	Every day (100%)	18%	14%		12%	50%		20%	16%	27%		50%	29%	44%		6%	67%
	Most days (75%)	27%	18%	17%	41%	25%	100%	10%	33%	18%		50%	12%	38%	13%	24%	33%
	Half the time (50%)	24%	27%	50%	24%	25%		20%	28%	27%			18%	19%	13%	35%	
	Occasionally (25%)	16%	36%	17%	15%			15%	12%		100%		12%		25%	29%	
	Rarely (<25%)	15%	5%	17%	9%			35%	11%	27%			29%		50%	6%	
25-34	Every day (100%)	27%	17%	20%	30%	14%	20%	17%	29%			48%	26%	41%	31%	10%	50%
	Most days (75%)	25%	20%	10%	23%	36%	10%	29%	24%	67%	50%	33%	26%	27%	13%	25%	33%
	Half the time (50%)	18%	23%	10%	15%	29%	30%	13%	20%	17%	50%	10%	30%	23%	6%	15%	17%
	Occasionally (25%)	17%	27%	10%	19%	7%	20%	33%	15%	17%		5%	13%	5%	5%	25%	25%
	Rarely (<25%)	13%	13%	50%	13%	14%	20%	20%	8%	12%		5%	4%	5%	5%	25%	25%
35-44	Every day (100%)	35%	39%		38%	50%	33%	13%	38%	33%	50%	67%	27%	50%	38%	24%	50%
	Most days (75%)	21%	21%	18%	28%	17%		26%	16%				32%	31%	19%	15%	
	Half the time (50%)	19%	18%	18%	5%		33%	35%	31%	33%		50%	9%	9%	10%	29%	33%
	Occasionally (25%)	15%	12%		12%	22%	33%	26%	9%	33%	33%		14%	9%	29%	26%	17%
	Rarely (<25%)	10%	9%	64%	17%	11%			6%				18%	9%	5%	6%	
45-54	Every day (100%)	50%	58%		54%	55%		48%	51%				50%	67%	29%	11%	73%
	Most days (75%)	18%	23%	25%	13%	24%	33%	24%	20%	50%	50%		11%	8%	7%	32%	9%
	Half the time (50%)	14%	10%	50%	11%	12%	33%	5%	16%	25%			11%	13%	21%	26%	9%
	Occasionally (25%)	9%	6%	25%	13%	3%		10%	8%	25%			17%	5%	29%	5%	
	Rarely (<25%)	9%	3%		10%	6%	33%	14%	5%		50%		11%	8%	14%	26%	9%
55-64	Every day (100%)	61%	63%		69%	73%	33%	56%	60%	33%		100%	33%	66%	29%	45%	67%
	Most days (75%)	17%	18%		17%	14%		6%	21%	33%			20%	17%	14%	23%	17%
	Half the time (50%)	8%	8%		8%	8%		13%	7%	33%			33%	3%	7%	5%	11%
	Occasionally (25%)	8%	8%		1%	3%	33%	13%	9%				13%	14%	29%	9%	6%
	Rarely (<25%)	5%	3%		4%	3%	33%	13%	4%						21%	18%	
65+	Every day (100%)	67%	61%		60%	77%	87%	100%	81%	60%	100%		47%	70%		23%	75%
	Most days (75%)	15%	19%		13%	6%			10%	25%			21%	13%		5%	18%
	Half the time (50%)	8%	6%	40%	8%	4%			4%					8%	33%	36%	
	Occasionally (25%)	6%	3%		2%			10%		4%			11%	5%	58%	18%	7%
	Rarely (<25%)	4%				4%			7%				21%	5%	8%	18%	

Figure A.2: Age x Frequency of usage x VMS product

This is the same set of data as in Figure A.1, however it is grouped by age to provide another useful perspective. Clear trends are visible within age groups, for example calcium supplements tend to be used more as people get older, signalled by the increasing amount of every day users for this product in this age category.
* Please note that when sample size is less than 100 it is difficult to make extrapolations to the general public.

A.3 Frequency of usage x Gender x VMS product

Frequency	Gender	All VMS N=2094	Calcium Supplements N=217	Children's Supplements N=40*	Fish Oil/Krill Oil/Omega 3 N=389	Glucosamine/Coenzyme Q10 N=164	Homeopathic Remedy N=24*	Immunity Product N=131	Multivitamin N=433	Natural Weight Loss N=29*	Practitioner Mixture/Tonic N=9*	Pregnancy/Breastfeeding/Folate N=31*	Probiotics N=121	Specific Vitamin/Mineral Supplement N=204	Stress/Sleep Product N=88*	Vitamin B&C N=140	Other N=74*
Every day (100%)	Male	47%	44%	20%	53%	64%	53%	48%	41%	38%			43%	65%	35%	15%	59%
	Female	44%	50%	9%	54%	65%	20%	29%	41%	16%	25%	54%	30%	54%	16%	24%	71%
Most days (75%)	Male	18%	21%	13%	21%	13%	7%	15%	21%	38%		33%	16%	10%	6%	20%	18%
	Female	22%	23%	13%	19%	20%	20%	22%	24%	32%	50%	29%	23%	25%	18%	19%	17%
Half the time (50%)	Male	15%	21%	47%	10%	11%	20%	10%	19%	13%	33%	33%	12%	12%	10%	31%	9%
	Female	14%	9%	17%	10%	7%	20%	17%	18%	32%	25%	8%	20%	12%	14%	22%	8%
Occasionally (25%)	Male	12%	9%	7%	9%	6%	13%	21%	10%	13%	33%	33%	12%	10%	32%	16%	14%
	Female	11%	14%	13%	8%	3%	20%	16%	9%	5%		4%	15%	3%	33%	22%	2%
Rarely (<25%)	Male	8%	5%	13%	7%	6%	7%	6%	9%		33%		18%	3%	16%	18%	
	Female	9%	4%	48%	8%	6%	20%	16%	7%	16%		4%	12%	6%	18%	13%	2%

Figure A.3: Frequency of usage x Gender x VMS product

Each cell in the figure above contains two bars, blue for male and red for female, and represents the percentage of male and female who use the product in that column, at the frequency of its respective row.

This chart shows a comparison of frequency of VMS usage between male and female. A higher percentage of males use probiotics and specific VMS every day, whereas females tend to use calcium supplements and vitamins B and C on a daily basis more than males do.

 * Please note that when sample size is less than 100 it is difficult to make extrapolations to the general public.

A.4 Gender x Frequency of usage x VMS product

Gender	Frequency	All VMS N=2094	Calcium Supplements N=217	Children's Supplements N=40*	Fish Oil/Krill Oil/Omega 3 N=389	Glucosamine/Coenzyme Q10 N=164	Homeopathic Remedy N=24*	Immunity Product N=131	Multivitamin N=433	Natural Weight Loss N=29*	Practitioner Mixture/Tonic N=9*	Pregnancy/Breastfeeding/Folate N=31*	Probiotics N=121	Specific Vitamin/Mineral Supplement N=204	Stress/Sleep Product N=88*	Vitamin B&C N=140	Other N=74*
Male	Every day (100%)	47%	44%	20%	53%	64%	53%	48%	41%	38%			43%	65%	35%	15%	59%
	Most days (75%)	18%	21%	13%	21%	13%	7%	15%	21%	38%		33%	16%	10%	6%	20%	18%
	Half the time (50%)	15%	21%	47%	10%	11%	20%	10%	19%	13%	33%	33%	12%	12%	10%	31%	9%
	Occasionally (25%)	12%	9%	7%	9%	6%	13%	21%	10%	13%	33%	33%	12%	10%	32%	16%	14%
	Rarely (<25%)	8%	5%	13%	7%	6%	7%	6%	9%		33%		18%		16%	18%	
Female	Every day (100%)	44%	50%	9%	54%	65%	20%	29%	41%	16%	25%	54%	30%	54%	16%	24%	71%
	Most days (75%)	22%	23%	13%	19%	20%	20%	22%	24%	32%	50%	29%	23%	25%	18%	19%	17%
	Half the time (50%)	14%	9%	17%	10%	7%	20%	17%	18%	32%	25%	8%	20%	12%	14%	22%	8%
	Occasionally (25%)	11%	14%	13%	8%	3%	20%	16%	9%	5%		4%	15%	3%	33%	22%	2%
	Rarely (<25%)	9%	4%	48%	8%	6%	20%	16%	7%	16%		4%	12%	6%	18%	13%	2%

Figure A.4: Gender x Frequency of usage x VMS product

This chart uses the same data as Figure A.3, however groups the data according to gender rather than frequency. This chart makes clear the trend in frequency with each gender and shows that overall, the majority of both males and females take a VMS product most days, if not every day.

* Please note that when sample size is less than 100 it is difficult to make extrapolations to the general public.

54

A.5 Frequency of usage x Level of education x VMS product

Frequency	Highest Education Level	All VMS N=2094	Calcium Supplements N=217	Children's Supplements N=40*	Fish Oil/Krill Oil/Omega 3 N=389	Glucosamine/Coenzyme Q10 N=164	Homeopathic Remedy N=24*	Immunity Product N=131	Multivitamin N=433	Natural Weight Loss N=29*	Practitioner Mixture/Tonic N=9*	Pregnancy/Breastfeeding/Folate N=31*	Probiotics N=121	Specific Vitamin/Mineral Supplement N=204	Stress/Sleep Product N=88*	Vitamin B&C N=140	Other N=74*
Every day (100% of the time)	University Degree	36%	32%	4%	51%	47%	31%	37%	31%	20%	9%	59%	35%	45%	9%	13%	70%
	Certificate or Diploma	52%	52%	12%	61%	75%	51%	42%	45%	40%	43%	53%	49%	64%	30%	18%	71%
	Year 12	33%	43%		33%	46%		21%	44%	21%		47%	23%	38%	11%	20%	45%
	Up to Year 11	56%	61%	75%	59%	71%	48%	50%	47%				10%	75%	47%	38%	76%
Most days (75% of the time)	University Degree	24%	33%	14%	18%	33%	18%	21%	26%	10%	18%	26%	26%	27%	21%	26%	4%
	Certificate or Diploma	17%	22%	7%	18%	7%		15%	22%	30%		21%	11%	18%	10%	26%	14%
	Year 12	21%	14%	20%	24%	22%	100%	19%	23%	21%	100%	53%	21%	22%	9%	16%	32%
	Up to Year 11	20%	20%	25%	23%	15%		26%	21%	100%		50%	40%	9%	14%		24%
Half the time (50% of the time)	University Degree	16%	21%	15%	10%	8%	10%	9%	24%	30%	18%	9%	12%	18%	14%	18%	6%
	Certificate or Diploma	11%	7%	36%	7%	4%	19%	10%	15%	6%	57%		12%	9%	8%	16%	12%
	Year 12	23%	21%	56%	22%	28%		25%	17%	59%			28%	17%	28%	31%	13%
	Up to Year 11	13%	10%		7%	7%	29%	24%	19%			50%	22%	5%	9%	46%	
Occasionally (25% of the time)	University Degree	15%	11%	26%	14%	4%	26%	19%	12%	16%	28%	7%	18%	6%	31%	30%	13%
	Certificate or Diploma	10%	10%	4%	8%	6%	6%	21%	10%	11%		15%	9%	2%	35%	22%	4%
	Year 12	13%	23%		13%			22%	6%				15%	23%	31%	10%	10%
	Up to Year 11	7%	9%			5%	23%		8%				18%	7%	31%	15%	
Rarely (less than 25% of the time)	University Degree	10%	3%	41%	7%	8%	14%	14%	7%	23%	28%		9%	4%	25%	13%	7%
	Certificate or Diploma	10%	9%	42%	6%	8%	25%	12%	8%	13%		11%	19%	7%	17%	18%	
	Year 12	9%		24%	8%	4%		13%	9%				14%		20%	23%	
	Up to Year 11	4%			11%	2%			5%				10%	4%			

Figure A.5: Frequency of usage x Level of education x VMS product

This chart represents the relationship between VMS usage and the respondent's highest level of education, grouped by frequency of usage. Colour represents level of education. Although these tables show no one-way effect of education, more complex ANOVA models by the authors do show a positive effect of education on VMS usage.

* Please note that when sample size is less than 100 it is difficult to make extrapolations to the general public.

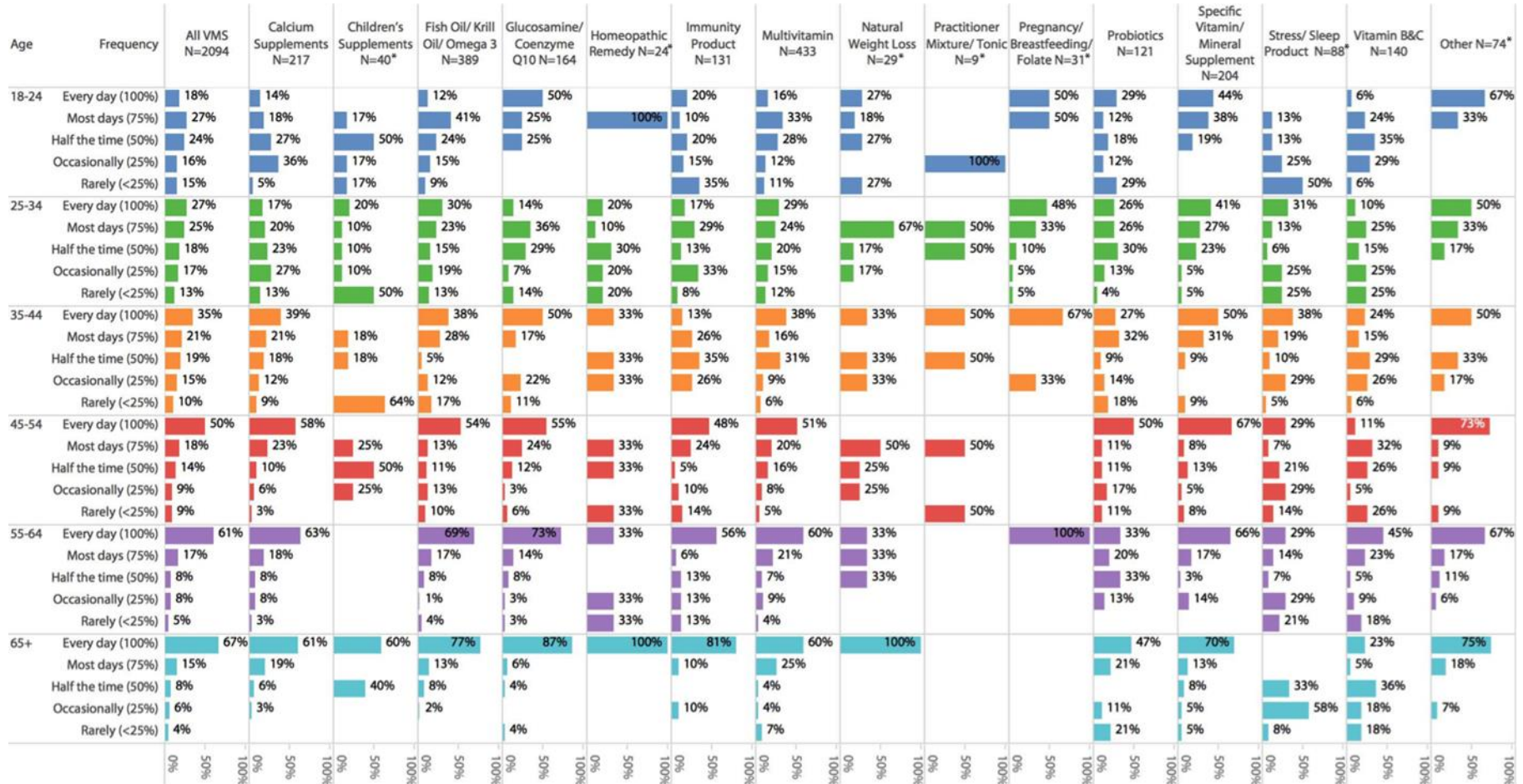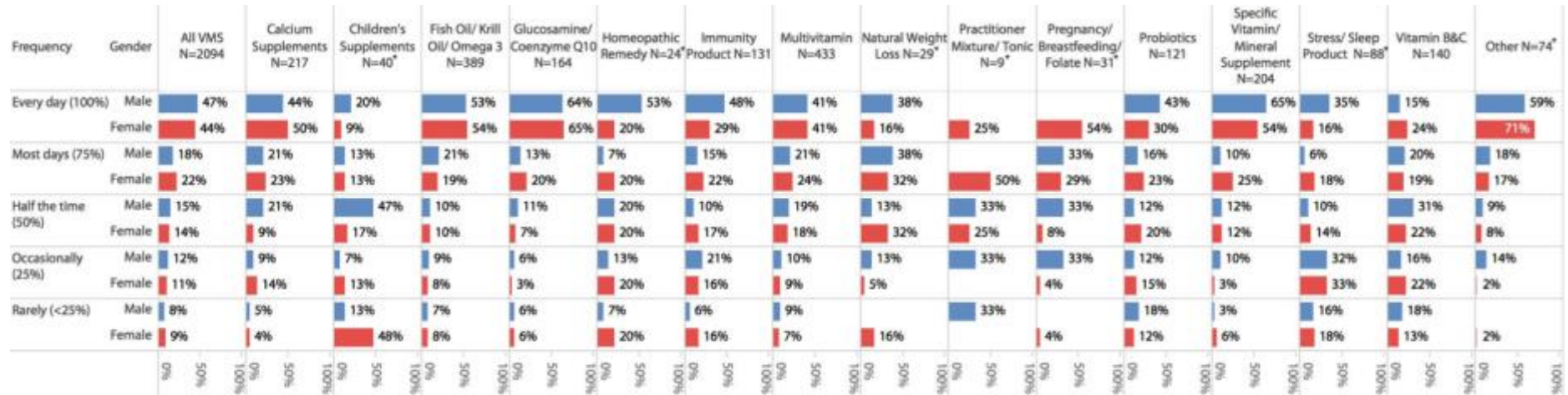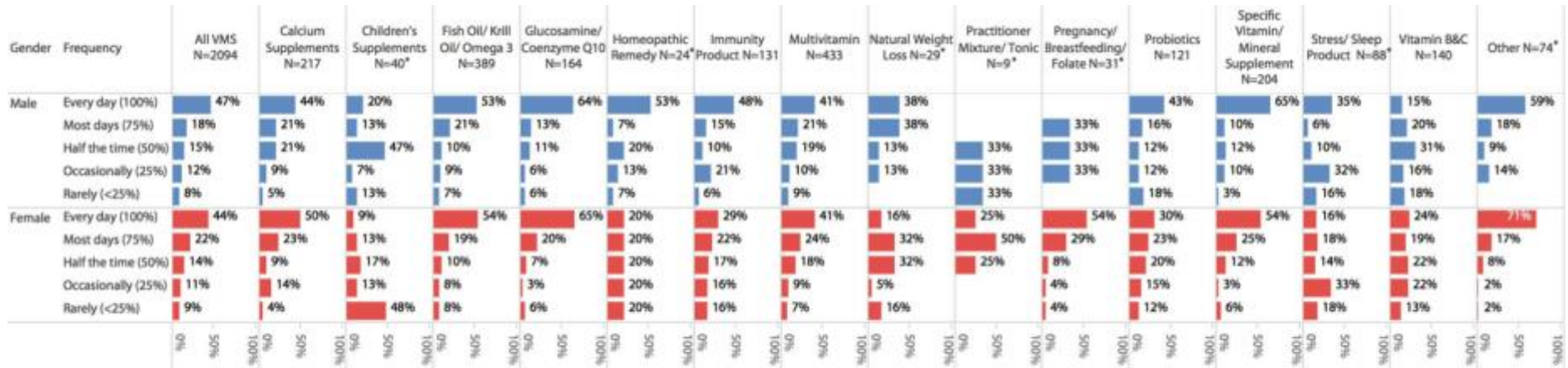# A.6 Level of education x frequency of usage x VMS product
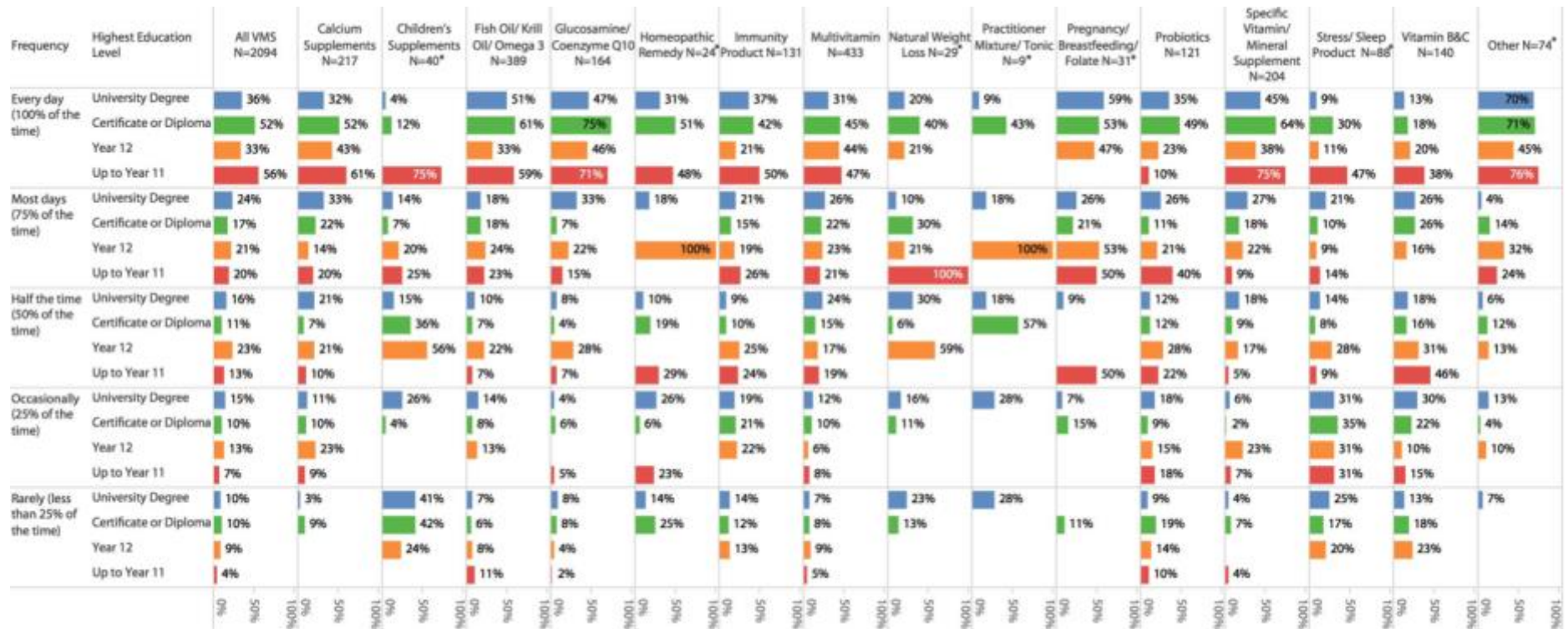
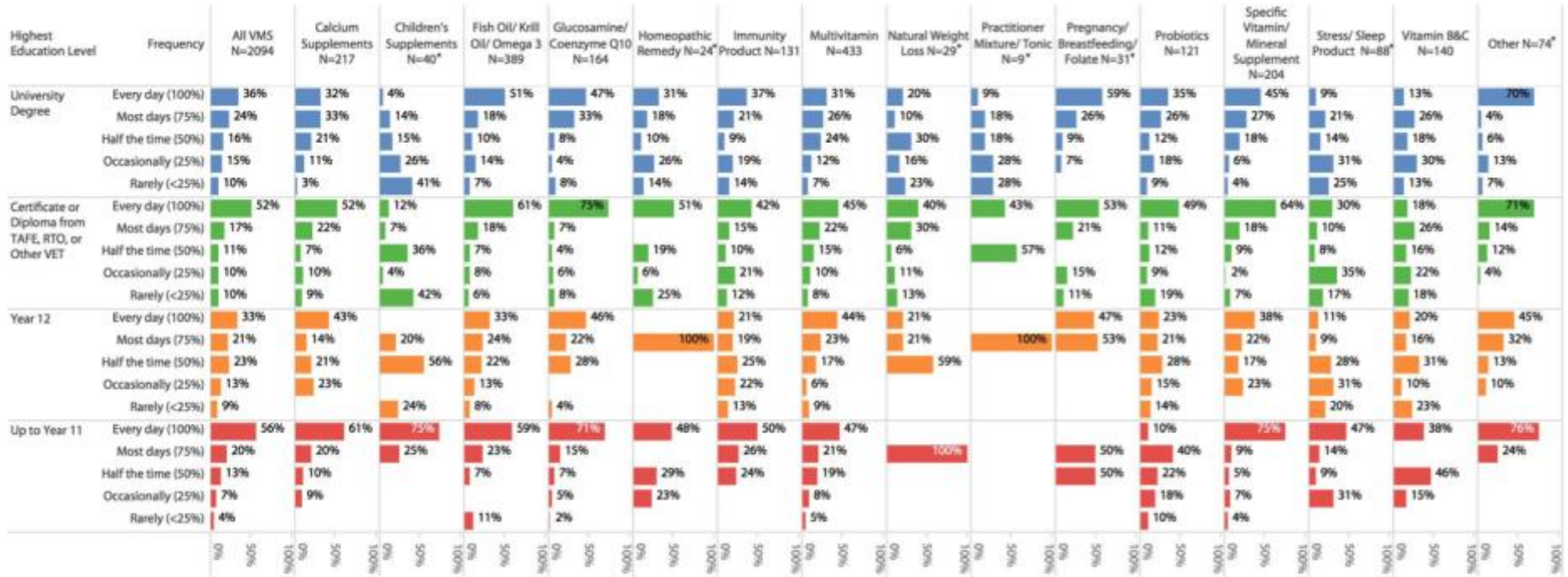| Highest Education Level	Frequency	All VMS N=2094	Calcium Supplements N=217	Children's Supplements N=40*	Fish Oil/Krill Oil/Omega 3 N=389	Glucosamine/Coenzyme Q10 N=164	Homeopathic Remedy N=24*	Immunity Product N=131	Multivitamin N=433	Natural Weight Loss N=29*	Practitioner Mixture/Tonic N=9*	Pregnancy/Breastfeeding/Folate N=31*	Probiotics N=121	Specific Vitamin/Mineral Supplement N=204	Stress/Sleep Product N=88*	Vitamin B&C N=140	Other N=74*
University Degree	Every day (100%)	36%	32%	4%	51%	47%	31%	37%	31%	20%	9%	59%	35%	45%	9%	13%	70%
	Most days (75%)	24%	33%	14%	18%	33%	18%	21%	26%	10%	18%	26%	26%	27%	21%	26%	4%
	Half the time (50%)	16%	21%	15%	10%	8%	10%	9%	24%	30%	18%	9%	12%	18%	14%	18%	6%
	Occasionally (25%)	15%	11%	26%	14%	4%	26%	19%	12%	16%	28%	7%	18%	6%	31%	30%	13%
	Rarely (<25%)	10%	3%	41%	7%	8%	14%	14%	7%	23%	28%		9%	4%	25%	13%	7%
Certificate or Diploma from TAFE, RTO, or Other VET	Every day (100%)	52%	52%	12%	61%	75%		51%	42%	45%	40%	53%	49%	64%	30%	18%	71%
	Most days (75%)	17%	22%	7%	18%	7%		15%	22%	30%		21%	11%	18%	10%	26%	14%
	Half the time (50%)	11%	7%	36%	7%	4%	19%	10%	15%	6%	57%		12%	9%	8%	16%	12%
	Occasionally (25%)	10%	10%	4%	8%	6%	6%	21%	10%	11%		15%	9%	2%	35%	22%	4%
	Rarely (<25%)	10%	9%	42%	6%	8%	25%	12%	8%	13%		11%	19%	7%	17%	18%	
Year 12	Every day (100%)	33%	43%		33%	46%		21%	44%	21%		47%	23%	38%	11%	20%	45%
	Most days (75%)	21%	14%	20%	24%	22%	100%	19%	23%	21%	100%	53%	21%	22%	9%	16%	32%
	Half the time (50%)	23%	21%	56%	22%	28%		25%	17%		59%		28%	17%	28%	31%	13%
	Occasionally (25%)	13%	23%		13%			22%	6%				15%	23%	31%	10%	10%
	Rarely (<25%)	9%		24%	8%	4%		13%	9%				14%	20%		23%	
Up to Year 11	Every day (100%)	56%	61%	75%	59%	71%		48%	50%	47%			10%	75%	47%	38%	76%
	Most days (75%)	20%	20%	25%	23%	15%			26%	21%	100%	50%	40%	9%	14%		24%
	Half the time (50%)	13%	10%		7%	7%	29%	24%	19%			50%	22%	5%	9%	46%	
	Occasionally (25%)	7%	9%		5%		23%		8%				18%	7%	31%	15%	
	Rarely (<25%)	4%			11%	2%			5%				10%	4%			

Figure A.6: Level of education x frequency of usage x VMS product

The data used in this chart is the same as Figure A.5, however represented so that frequency is grouped by education level. In this view of the data, a clear pattern can be seen across all education groups tending towards daily usage of most VMS products.

* Please note that when sample size is less than 100 it is difficult to make extrapolations to the general public.

STUDY AUTHOR