Health and Lifestyle Survey 2012 Adventist Schools Report

A report of the 2012 survey of health and lifestyle behaviours and attitudes of students attending Seventh-day Adventist High Schools in Australia and New Zealand



Australian and New Zealand Schools

Adventist Health (South Pacific)
March 2014





What's in the Report?

Synopsis

This report presents highlights of the 2012 Health & Lifestyle Survey conducted in Seventh-day Adventist High Schools in Australia and New Zealand. The questionnaire was very similar to the surveys conducted in 1989 and 2001. So where possible, comparative trends are presented for health behaviours and beliefs covering the 23 year period.

Note: Unless specified the report results are only of Adventist participants.

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High School Principals High School students

Survey Description

Background

- •This is the third health survey conducted by Adventist Health (South Pacific) during the last 23 years.
- •The 1989 and 2001 surveys were comprehensive snapshots of health behaviours and lifestyle beliefs of students attending Seventh-day Adventist High Schools in Australia and New Zealand.
- •The 2012 survey uses similar methods and questions and thus allows trend comparisons.

Objectives

- Determine the current prevalence of health behaviours and substance use of Seventh-day Adventists, aged 12-17 years, in Australia and New Zealand.
- Compare findings to the 1989 and 2001 surveys and other national health surveys.
- •Identify factors and attitudes associated with healthy behaviours and risky behaviours.

Design

- A cross-sectional quantitative survey to examine the prevalence of healthy and health-risk behaviours among students attending Adventist High Schools in Australia and New Zealand.
- Participation was voluntary and the survey was completely anonymous.
- •Standard instruction and information protocols ensured consistency in survey administration.

Sample

- •All 26 Adventist High Schools in Australia and New Zealand were invited to participate.
- Principals were asked to include at least one class of students from each school year.

Questions

- •The 20-page questionnaire included questions on health beliefs, eating, drinking, alcohol, tobacco and substance use, exercise, weight, childhood, lifestyle and religious activities.
- •The non-identified, self-administered paper questionnaire took 20-45 minutes to complete.

Questions

- All levels of church and school administration in Australia and New Zealand supported the study.
- Avondale College Human Research Ethics Committee gave ethics approval.
- High School Principals organized informed consent and the administration of the survey in class settings.
- •All completed survey forms were returned to the Adventist Health (SPD) office, checked and then electronically scanned by Educational Assessment Australia.
 - Analysis was conducted using SPSS software.

Participants

- Six high schools in Australia elected not to participate.
- Ninety nine of the 2,162 returned school questionnaires were considered invalid and thus excluded from analyses.
- Of the 2,063 valid student surveys, 837 (42%) were from non-Adventist students. **Unless otherwise** indicated the findings in this report are for Seventh-day Adventist students only.
- 54% of respondents were female.
- Ethnic representation: 53% Caucasian, 14% Pacific Islander, 11% Asian, 5% Aboriginal/TI, 4% Maori (Table 4.2).

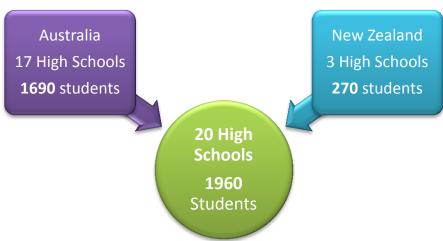


Table 4.1: Student Participation by High School % Gender and SDA Status, Valid Returns, 2012

| School | Students | Gen | Gender Adventist Status | | | tus |
|---------------|----------|--------|-------------------------|---------|------|---------|
| | # | Female | Male | Unknown | SDA | Non-SDA |
| Auckland | 73 | 74% | 26% | 11% | 66% | 23% |
| Avondale | 186 | 60% | 40% | 2% | 62% | 36% |
| Blue Hills | 85 | 58% | 42% | 8% | 60% | 32% |
| Brisbane | 190 | 47% | 53% | 3% | 76% | 22% |
| Carlisle | 1 | 100% | 0% | 0% | 100% | 0% |
| Carmel | 58 | 52% | 48% | 5% | 67% | 28% |
| Central Coast | 86 | 58% | 42% | 8% | 31% | 61% |
| Christchurch | 74 | 51% | 49% | 3% | 73% | 24% |
| Darling Downs | 47 | 47% | 53% | 2% | 66% | 32% |
| Gilson | 279 | 52% | 48% | 6% | 29% | 65% |
| Henderson | 18 | 61% | 39% | 11% | 39% | 50% |
| Heritage | 8 | 50% | 50% | 0% | 63% | 38% |
| Hills | 90 | 51% | 49% | 6% | 59% | 36% |
| Lilydale | 162 | 49% | 51% | 3% | 41% | 56% |
| Longburn | 123 | 57% | 43% | 3% | 49% | 48% |
| Mountain View | 104 | 57% | 43% | 10% | 70% | 20% |
| Noosa | 61 | 56% | 44% | 2% | 46% | 53% |
| Northpine | 200 | 55% | 45% | 10% | 40% | 51% |
| Prescott | 16 | 38% | 63% | 0% | 63% | 38% |
| Tweed Valley | 94 | 54% | 46% | 1% | 68% | 31% |
| Total | 1955 | 54% | 46% | 5% | 53% | 42% |

Table 4.2: Ethnicity % of Students, 2012

| Ethnicity | % |
|------------------|-----|
| Caucasian | 53% |
| Pacific Islander | 14% |
| Asian / Indian | 11% |
| Aboriginal / TI | 5% |
| Maori | 4% |
| Hispanic | 1% |
| Other | 12% |

Table 4.3: # of Schools and Students and % Adventist by Year of Survey

| | # | # | |
|------|---------|----------|-------|
| Year | Schools | Students | % SDA |
| 1989 | 20 | 1989 | 85% |
| 2001 | 25 | 2330 | 61% |
| 2012 | 20 | 1960 | 53% |

General and Emotional Health

- 90% of all students classified themselves in the categories of good to excellent health (Figures 5.1 and 5.2).
- Males tended to assess their health better than females.
- About 10% of students had only 6 hours or less of sleep per night (Figure 5.3).
- Two frequently used measures of health are Body Mass Index (using height and weight) and waist
 measurement. Figure 5.4 shows the proportion of students who did not respond or did not know these
 measures when completing the questionnaire.
- Females of all age groups appear to experience more stress than males (Table 5.1) although there is an almost equal proportion of happy females and males (Table 5.2).

Figure 5.1: Self-assessed Health Status % Females by Age, 2012

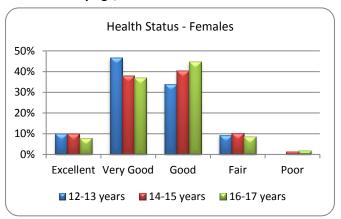


Figure 5.3: Hours of Sleep % Adventist Students by Age, 2012

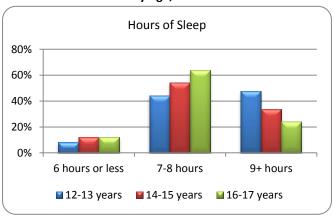


Table 5.1: Have you felt stressed? Frequency % by Gender and Age, 2012

| | | All of the | Most of | Some of | None of |
|--------|-------------|------------|----------|----------|----------|
| Gender | Age Group | time | the time | the time | the time |
| Female | 12-13 years | 9% | 30% | 45% | 15% |
| | 14-15 years | 13% | 41% | 40% | 5% |
| | 16-17 years | 13% | 41% | 41% | 6% |
| | | | | | |
| Male | 12-13 years | 6% | 23% | 47% | 24% |
| | 14-15 years | 5% | 30% | 50% | 16% |
| | 16-17 years | 5% | 38% | 44% | 13% |
| | | | | | |

Figure 5.2: Self-assessed Health Status % Males by Gender, 2012

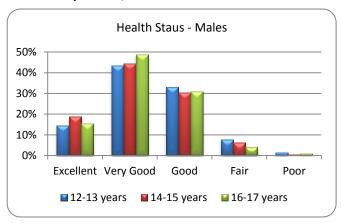


Figure 5.4: Don't Know Body Measurements % Adventist Students by Age, 2012

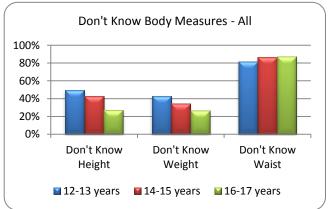


Table 5.2: Are you a happy person? Frequency % by Gender and Age, 2012

| Gender | Age Group | All of the time | Most of the time | Some of the time | None of the time |
|--------|-------------|-----------------|------------------|------------------|------------------|
| Female | 12-13 years | 25% | 61% | 11% | 3% |
| | 14-15 years | 21% | 56% | 22% | 2% |
| | 16-17 years | 15% | 69% | 14% | 2% |
| | | | | | |
| Male | 12-13 years | 21% | 66% | 11% | 1% |
| | 14-15 years | 22% | 65% | 12% | 1% |
| | 16-17 years | 15% | 73% | 12% | 1% |

Physical Activity

- Over 50% of students have a regular exercise program (Figure 6.1).
- Males of all ages are more active than females.
- More high school students (16-17 years) than other age groups sit nine or more hours a day on both week days and weekend days (Figure 6.2).

Figure 6.1: Regular Exercise Program % Adventist Students by Gender and Age, 2012

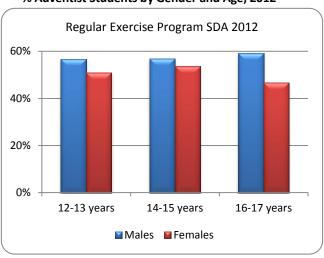


Figure 6.2: Hours Spent Sitting % Adventist Students by Age, 2012



Table 6.1: Times of Moderate or Vigorous Exercise in a Week % Students by Gender and Age, 2012

| | - | | | | |
|-------------------|------|------|-------|---------|-----------|
| Gender and Age | None | Once | Twice | 3 times | 4 + times |
| Female | | | | | |
| 12-13 years | 9% | 11% | 18% | 22% | 40% |
| 14-15 years | 6% | 10% | 28% | 19% | 32% |
| 16-17 years | 10% | 18% | 15% | 24% | 41% |
| Male | | | | | |
| 12-13 years | 6% | 8% | 15% | 22% | 49% |
| 14-15 years | 4% | 7% | 12% | 19% | 58% |
| 16-17 years | 4% | 12% | 8% | 24% | 53% |

Table 6.1: Average Exercise Minutes per Session % Students by Gender and Age, 2012

| / | | | | | | |
|-------------------|------|-----------------|------------------|------------------|----------|--|
| Gender and Age | None | ≤ 10 minutes | 11-30 minutes | 31-60 minutes | 1 hour + | |
| Female | | | | | | |
| 12-13 years | 3% | 6% | 36% | 42% | 13% | |
| 14-15 years | 2% | 4% | 24% | 44% | 11% | |
| 16-17 years | 4% | 3% | 34% | 43% | 8% | |
| Male | | | | | | |
| 12-13 years | 1% | 5% | 35% | 37% | 23% | |
| 14-15 years | 1% | 5% | 25% | 46% | 24% | |
| 16-17 years | 3% | 4% | 27% | 45% | 21% | |

Table 6.2: Times Active in Team Sports % Students by Gender and Age, 2012

| 70 0 ta a cirto by Cerraer arra 7 180, 2022 | | | | | |
|---|-------|--------------------|--|--|--|
| Gender and Age | Never | 1+ times per month | | | |
| Female | | | | | |
| 12-13 years | 14% | 60% | | | |
| 14-15 years | 19% | 56% | | | |
| 16-17 years | 18% | 51% | | | |
| Male | | | | | |
| 12-13 years | 18% | 62% | | | |
| 14-15 years | 20% | 63% | | | |
| 16-17 years | 18% | 62% | | | |

Weight and Body Mass Index

- Body Mass Index (BMI) is calculated by (Weight in kg/Height in m²). Normal range is 18.5-24.9, overweight range 25-29.9 and obese range 30+.
- The calculation of BMI for those younger than 18 years is likely to be unreliable because BMI was original y
 developed for adults.
- Of the students who reported self-assessed height and weight, more males were overweight and obese (Figures 7.1 and 7.2).
- The trend of overweight and obese females and males (except those males aged 16-17 years) has decreased significantly from 2001 to 2012 (Figures 7.3 and 7.4). Data was not available from the 1989 survey.

Figure 7.1: Body Mass Index, % Females by Age, 2012

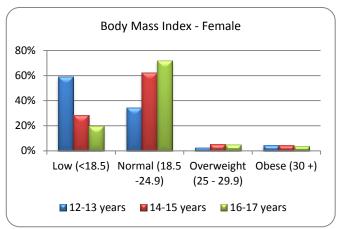


Figure 7.3: Trend of Overweight and Obesity % Females by Age and Survey Year

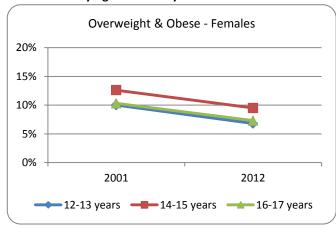


Figure 7.2: Body Mass Index, % Males by Age, 2012

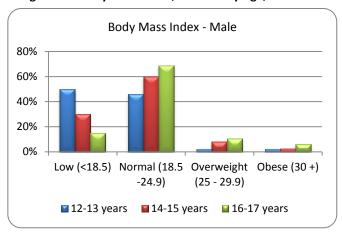
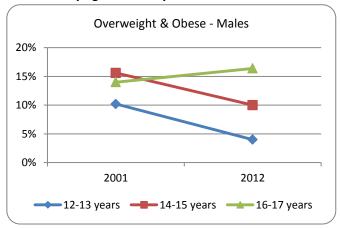


Figure 7.4: Trend of Overweight and Obesity % Males by Age and Survey Year



Perceived Harm of Substances

- In the three surveys conducted in 1989, 2001 and 2012 participants were asked to rate their belief of the harm of various substances in one of four categories (Very harmful, Somewhat harmful, Not very harmful and Not harmful).
- A higher percentage of all age groups rated increasing levels of alcohol as very harmful (Figure 8.1).
- A similar pattern was observed for caffeine drinks. But significantly more of each age group rated 4-5 cola drinks/day more harmful than 4-5 coffee drinks/day (Figure 8.2).
- The belief that marijuana is very harmful is higher among females (Figure 8.3).
- The trend of belief of harm over the years has increased for tobacco, alcohol and marijuana, although note the dip for marijuana in 2001 (Figure 8.4).

Figure 8.1: Belief - Alcohol Drinks are Very Harmful % Students by Age, 2012

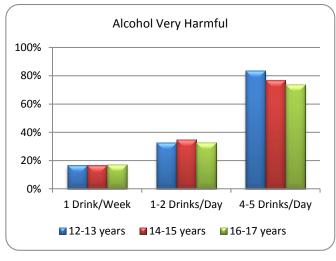


Figure 8.2: Belief - Caffeine Drinks are Very Harmful % Students by Age, 2012

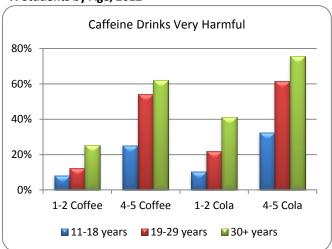


Figure 8.3: Belief - Marijuana is Very Harmful % Gender by Age, 2012

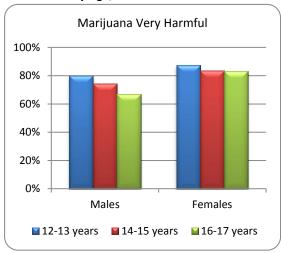
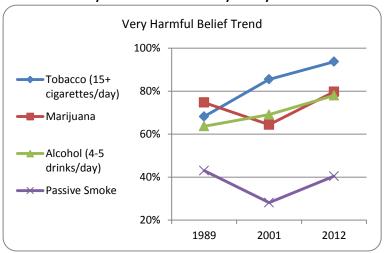


Figure 8.4: Trend of Belief - Tobacco, Marijuana and Alcohol are Very Harmful. % Students by Survey Year



- Analgesic and sleeping tablet use in past month, past year and lifetime was asked in each survey.
- Lifetime and past month use of sleeping tablets and anti-depressants is low (Figures 9.1 and 9.2).
- Lifetime analgesic use is similar to the general population use but the past month use is lower for Adventist students 51.6% compared to Australian secondary school students 69.1% (see page 21).
- Among the other reasons given for analgesic use (Table 9.1) is menstrual pain by females.
- Males have a much lower use of analgesics than females (Figures 9.3 and 9.4) but there is a decreasing trend of use for all age groups.

Figure 9.1: Medications Ever Used in Lifetime % Students by Age, 2012

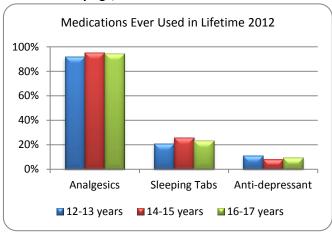


Figure 9.1: Medications Used in Past Month % Students by Age, 2012

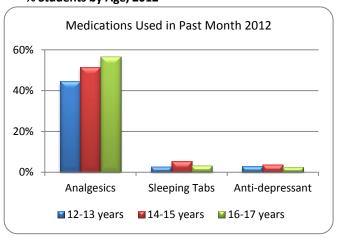


Table 9.1: Reason for Use of Analgesics, % Students by Gender and Age, 2012

| Gender | Age | Headache | Cold or Flu | Dental | Injury | Other | No reason |
|--------|-------------|----------|-------------|--------|--------|-------|-----------|
| Female | 12-13 years | 43% | 25% | 8% | 6% | 16% | 2% |
| | 14-15 years | 47% | 21% | 6% | 5% | 20% | 2% |
| | 16-17 years | 45% | 18% | 8% | 3% | 25% | 2% |
| | | | | | | | |
| Male | 12-13 years | 54% | 21% | 2% | 12% | 9% | 2% |
| | 14-15 years | 43% | 26% | 6% | 17% | 9% | 0% |
| | 16-17 years | 52% | 26% | 6% | 7% | 9% | 0% |

Figure 9.3: Trend of Analgesic Use in Past Month % Females by Age and Survey Year

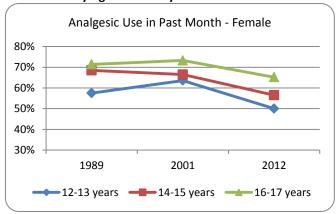
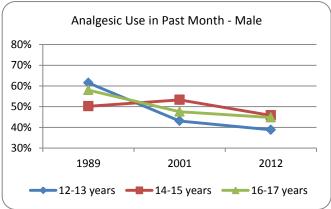


Figure 9.4: Trend of Analgesic Use in Past Month % Males by Age and Survey Year



- Smoking rates are very low among Adventists. Table 10.1 shows the numbers and percentages for each category of self-assessed smoking status.
- The Figures 10.1 shows that among all students **non-smoking** has increased significantly since 2001. Those "ever trying" a cigarette have correspondingly decreased (Figure 10.2).
- Likewise Figure 10.3 shows a marked decrease in those smoking three or more cigarettes in the past month.

Table 10.1: Smoking Status - Self-assessed, Number and % Adventist Students by Age, 2012

| Age | Non-smoker | Ex-smoker | Occasion smoker | Light smoker | Heavy smoker |
|-------------|------------|-----------|-----------------|--------------|--------------|
| 12-13 years | 287 | 3 | 0 | 1 | 0 |
| | 98.6% | 1.0% | 0.0% | 0.3% | 0.0% |
| 14-15 years | 397 | 7 | 10 | 4 | 1 |
| | 94.7% | 1.7% | 2.4% | 1.0% | 0.2% |
| 16-17 years | 257 | 8 | 13 | 1 | 1 |
| | 91.8% | 2.9% | 4.6% | 0.4% | 0.4% |

Figure 10.1: Trend of Never Smoked Cigarettes % Adventist Students by Age and Survey Year

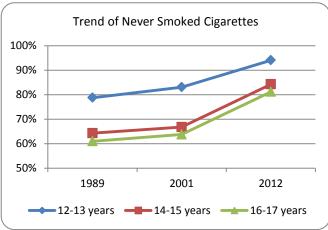


Figure 10.3: Trend of Smoked 3+ Cigarettes in Past Month % Adventist Students by Age and Survey Year

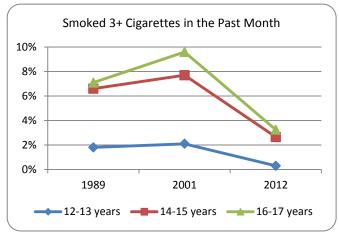


Figure 10.2: Trend of Ever Smoked Cigarettes % Adventist Students by Age and Survey Year

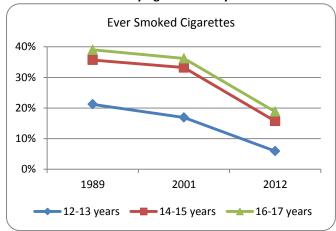


Table 10.2: Reason for Starting Smoking % of Persons Who First Encouraged Use

| First Suggested | % |
|-------------------|-----|
| Friend | 32% |
| Peer group | 16% |
| Myself | 15% |
| Family member | 12% |
| Non-family member | 8% |
| Brother or sister | 8% |
| Parent | 6% |
| Advertising | 3% |

- The trends of ever trying alcohol have increased significantly for all females and males since 2001 (Figures 11.1 and 11.2).
- 13% of males and 10% of females aged 16-17 years had used alcohol in the past month. In the 14-15 year age group females reported higher use than males (Figures 11.3 and 11.4).
- Friends and peer groups as well as personal choice most influence the uptake of drinking (Table 11.1).
- The most popular choice of beverage appears to be spirits, followed by beer and wine (Table 11.2).

Figure 11.1: Trend of Ever Used Alcohol % Females by Age and Survey Year

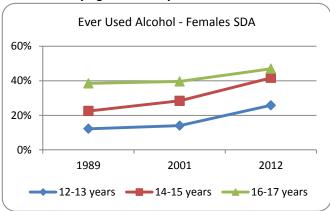


Figure 11.2: Trend of Ever Used Alcohol % Males by Age and Survey Year

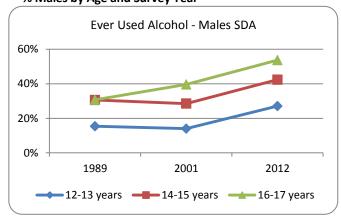


Figure 11.3: Alcohol Use in the Past Month % by Age and Gender, 2012



Figure 11.4: Alcohol Use in the Past Year % by Age and Gender, 2012

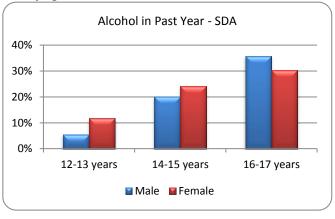


Table 11.1: Reason Started Alcohol % Who First Encouraged Use

| First Suggested | % |
|-------------------|-----|
| Friend | 23% |
| Self | 21% |
| Peer group | 14% |
| Family member | 12% |
| Parent | 12% |
| Brother or sister | 10% |
| Non-family member | 6% |
| Advertising | 2% |

Table 11.2: Usual Alcohol Drink (2 responses allowed)

| (2 responses allowed) | | | | | |
|-----------------------|----------|--------|--|--|--|
| Type of Alcohol | Female % | Male % | | | |
| Spirits | 37% | 40% | | | |
| Beer | 12% | 32% | | | |
| Wine | 13% | 9% | | | |
| Low beer | 5% | 7% | | | |
| Sodas | 10% | 4% | | | |
| Liqueurs | 7% | 4% | | | |
| Apple cider | 5% | 2% | | | |
| Wine cooler | 1% | 1% | | | |
| Champagne | 11% | 1% | | | |
| Port | 1% | 0% | | | |

Table 11.3: Places Alcohol Drank
In Past Month % of Drinkers

| n Past Wonth, % of Drinkers | | | |
|-----------------------------|-----|--|--|
| Place | % | | |
| Party | 23% | | |
| My home | 23% | | |
| Friend's home | 18% | | |
| Park | 8% | | |
| Beach | 7% | | |
| Car | 6% | | |
| Alone | 5% | | |
| Restaurant | 5% | | |
| Club/disco | 3% | | |
| Hotel | 3% | | |

- Rates of current and recent marijuana use are very low (Tables 12.1 and 12.2 and Figure 12.1). The number of students using marijuana 10 or more times is also shown in Table 12.2.
- A higher % of males of all age groups tend to use marijuana compared to females.
- The trend of marijuana use has significantly decreased since 2001 following a rise after 1989 for both females and males (Figures 12.2 and 12.3).

Table 12.1: Marijuana Use in Time Periods, % Students by Age, 2012

| Age | Past Week | Past Month | Past Year | Lifetime |
|-------------|-----------|------------|-----------|----------|
| 11-18 years | 0.5% | 1.6% | 4.9% | 7.8% |
| 19-29 years | 0.6% | 1.3% | 3.9% | 14.3% |
| 30+ years | 0.6% | 0.6% | 1.0% | 11.7% |

Figure 12.1: Marijuana Use in Various Time Periods % Adventist Students by Age, 2012

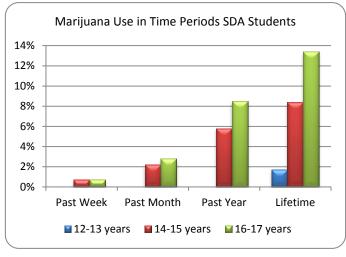


Table 12.2: Marijuana Used 10+ Times in Past Year, % Students by Age, 2012

| | Number | | |
|-------------|----------|---|------|
| Age | Students | | % |
| 12-13 years | C |) | 0.0% |
| 14-15 years | 5 | 5 | 1.2% |
| 16-17 years | 5 | 5 | 1.8% |

Figure 12.2: Trend of Ever Used Marijuana % Females by Age and Survey Year

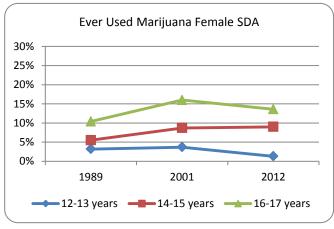
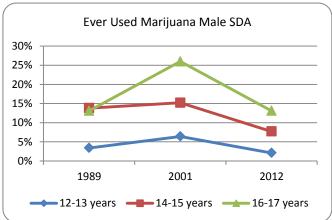


Figure 12.3: Trend of Ever Used Marijuana % Males by Age and Survey Year



Other Substances

- Use of most substances is very low but in comparison inhalant use is much higher (Table 13.1 and Figure 13.1). This is possibly an artefact but needs to be investigated further.
- The inhalant question in the 1989 and 2001 surveys was more general but the 2012 question was: "How many times, if ever, have you deliberately <u>sniffed (inhaled) from spray cans or deliberately sniffed things like glue, paint, petrol or thinners</u> in order to get high or for the way it makes you feel?"
- The Secondary Schools Survey 2011 (see page 21) had the same question but with a qualifier: "This does not include sniffing white-out, liquid paper, textas, markers or pens." They added this in their 1999 survey, prior to which the rates for sniffing were higher.
- Among 12-17 year olds inhalant use appears to be experimental or incidental (Table 13.2) but the trend for this group has significantly increased over time (Figure 13.2).

Table 13.1: Substances Ever Used in Past Month, % Adventist Students Using by Age, 2012

| Age | Inhalants | Steroids | Amphetamines | Cocaine | Heroin | Hallucinogens | Ecstasy |
|-------------|-----------|----------|--------------|---------|--------|---------------|---------|
| 12-13 years | 13.4% | 0.7% | 0.7% | 0.0% | 0.0% | 0.0% | 0.0% |
| 14-15 years | 15.0% | 0.0% | 0.2% | 0.0% | 0.2% | 0.2% | 0.0% |
| 16-17 years | 7.8% | 1.1% | 0.4% | 0.0% | 0.0% | 0.0% | 0.0% |

Figure 13.1: Substances Ever Used in Lifetime % Students Using by Age, 2012

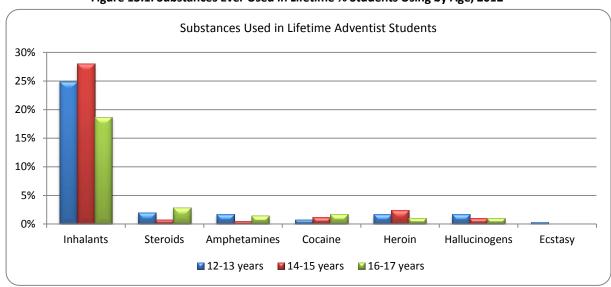


Figure 13.2: Trend of Inhalant Use in Lifetime % Adventist Students Using by Age and Survey Year

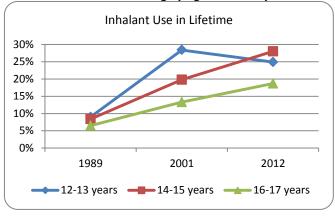


Table 13.2: Inhalant Use by Adventist Students % 12-17 Year Age Group by Time Period, 2012

| 7 == = | | | | | | |
|-------------|-------|-----------|-----------|----------|--|--|
| Time Period | Never | 1-2 times | 3-5 times | 6+ times | | |
| Past Week | 91.9% | 5.5% | 1.6% | 1.0% | | |
| Past Month | 88.0% | 7.4% | 2.5% | 2.1% | | |
| Past Year | 80.9% | 6.7% | 5.3% | 7.0% | | |
| Lifetime | 76.2% | 6.9% | 3.5% | 13.3% | | |

Eating and Foods

- Several key questions explored dietary practices and food frequency. One question asked "How would you
 describe your USUAL diet? (i.e. what you eat at least weekly or more often)." In 2012 participants marked
 one of four responses (Total vegetarian (Vegan), Lacto-ovo vegetarian, Pesco-vegetarian (includes fish but
 no red meat) and Non-vegetarian). (Figure 14.1 shows that most students classified themselves as nonvegetarian.
- In 1989 and 2001 this diet question had just 3 categories (pesco-vegetarian was not included). Hence, two
 diet models present vegetarian dietary trends over 23 years. Model 1 (Figure 14.3) combines all three
 vegetarian groups (vegan, lacto-ovo and pesco-veg). Except for the 14-15 year olds the trend is downward.
- Figure 14.4 (Model 2) excludes the pesco-vegetarians from the vegetarian group and adds them to the non-vegetarian group, thus the trend is downward for all age groups.
- In Tables 14.1 and 14.2 the trend for vegan diet only is shown. For the 16-17 year old females there appears to be an increasing trend toward a vegan diet.

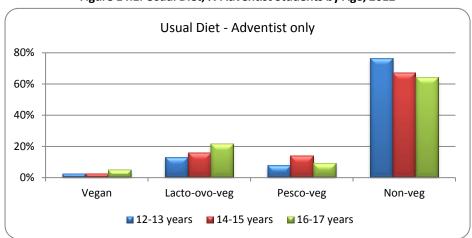


Figure 14.1: Usual Diet, % Adventist Students by Age, 2012

Figure 14.3: Trend of Vegetarian Diet (Model 1) % Adventist Students by Age, 2012

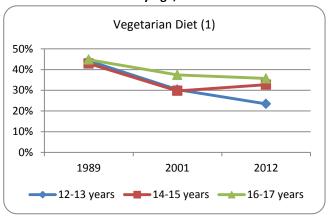


Table 14.1: Trend of Vegan Diet - Males % by Age and Survey Year

| , , | | | |
|------|-------------|-------------|-------------|
| Year | 12-13 years | 14-15 years | 16-17 years |
| 1989 | 2.7% | 2.2% | 2.0% |
| 2001 | 5.3% | 2.0% | 2.1% |
| 2012 | 2.8% | 3.2% | 2.5% |

Figure 14.4: Trend of Vegetarian Diet (Model 2) % Adventist Students by Age, 2012

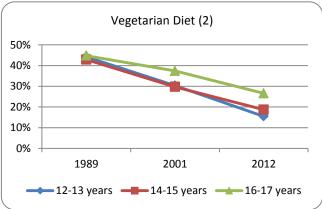


Table 14.2: Trend of Vegan Diet - Females % by Age and Survey Year

| Year | 12-13 years | 14-15 years | 16-17 years |
|------|-------------|-------------|-------------|
| 1989 | 2.6% | 2.5% | 1.2% |
| 2001 | 6.1% | 3.1% | 3.0% |
| 2012 | 2.0% | 2.3% | 6.7% |

Eating and Foods

- Trend for proportion of students eating fast food 2+ times/week is increasing (Figure 15.1).
- Trend for consumption of fruit has increased, vegetables dropped slightly and breads/cereals decreased by 20% for all groups (Figure 15.2).
- Trend for the eating of beef, chicken and fish is increasing among all age groups (Figure 15.3).

Figure 15.1: Trend of Eating Fast Food % Adventist Students by Age and Survey Year

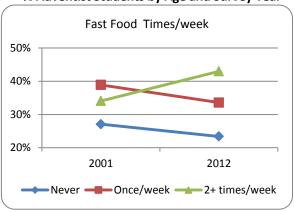
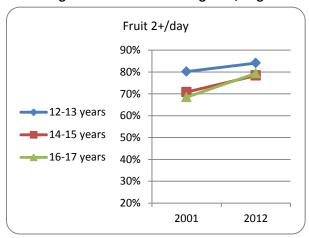
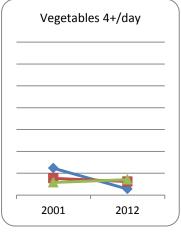


Table 15.1: Eating of Various Foods - % Students by Age, 2012

| Food (Frequency of consumption) | 12-13 years | 14-15 years | 16-18 years |
|------------------------------------|-------------|-------------|-------------|
| Vegetables (<1 serve/day) | 23% | 20% | 20% |
| Fruit (<1 serve/day) | 18% | 22% | 24% |
| Cereals (<1 serve/day) | 22% | 16% | 19% |
| Vegetarian foods (Never or rarely) | 29% | 25% | 22% |
| Nuts (Never or rarely) | 25% | 20% | 17% |
| Beans (Never or rarely) | 30% | 20% | 15% |
| Red meat (≥1 time/week) | 75% | 68% | 66% |
| Fish (≥1 time/week) | 69% | 71% | 68% |
| Chicken (≥1 time/week) | 81% | 75% | 77% |
| Pork (≥1 time/week) | 34% | 26% | 28% |

Figure 15.2: Trend of Eating Fruit, Vegetables and Breads/Cereals, % Students by Age and Survey Year





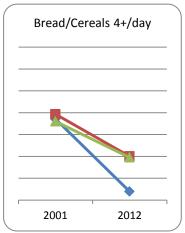


Figure 15.3: Trend of Eating Beef, Chicken and Fish

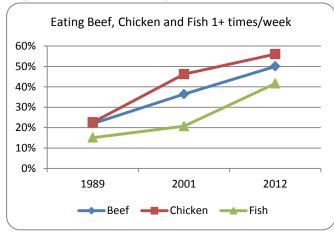
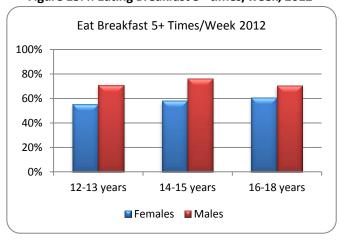


Figure 15.4: Eating Breakfast 5+ times/week, 2012



Drinking and Beverages

- More than 60% of students report drinking less than six glasses of water per day, 29% of 12-13 year olds report drinking one or less per day (Table 16.1).
- 90% of teenagers drink one or more glasses of fruit juice per day (Table 16.2).
- Consumption of soy milks is over 20% across the age groups (Table 16.2).
- The trend of tea drinking has increased and that for cola drinks appears to have decreased since 2001 (Figure 16, 2).

Table 16.1: Drinks of Water per Day % Students by Age, 2012

| Frequency | 12-13 years | 14-15 years | 16-18 years |
|---------------|-------------|-------------|-------------|
| ≤1 time/day | 29% | 22% | 14% |
| 2-3 times/day | 17% | 23% | 22% |
| 4-5 times/day | 20% | 25% | 29% |
| 6+ times/day | 34% | 30% | 36% |

Figure 16.1: Total Caffeine Drinks Consumed % Adventist Students by Age, 2012

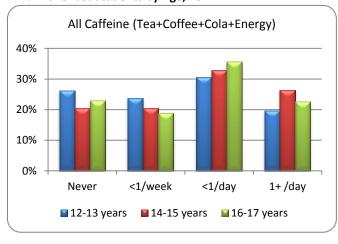


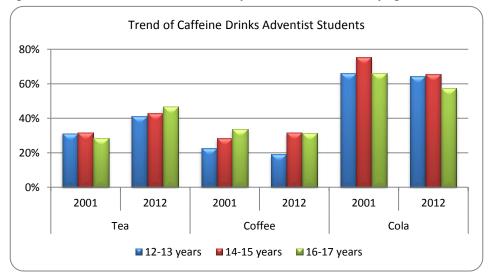
Table 16.2: Beverages Consumed 1+ times/day % Students by Age, 2012

| 12-13 years | 14-15 years | 16-18 years |
|-------------|--|---|
| 88% | 88% | 90% |
| 41% | 43% | 46% |
| 19% | 32% | 31% |
| 93% | 94% | 90% |
| 63% | 70% | 63% |
| 24% | 36% | 32% |
| 85% | 85% | 83% |
| | 88% 41% 19% 93% 63% 24% | 41% 43% 19% 32% 93% 94% 63% 70% 24% 36% |

Table 16.2: Type of Milk Usually Consumed % Students by Age, 2012

| Milk Type | 12-13 years | 14-15 years | 16-18 years |
|-------------------|-------------|-------------|-------------|
| Whole full cream | 44% | 42% | 38% |
| Reduced fat | 15% | 16% | 15% |
| Skim | 10% | 10% | 10% |
| Soy regular | 17% | 18% | 21% |
| Soy lite | 4% | 4% | 3% |
| Evaporated | 1% | 0% | 0% |
| Other (rice, oat) | 4% | 2% | 4% |
| Do not drink milk | 4% | 8% | 8% |

Figure 16.2: Trend of Caffeine Drinks 1+/day, % Adventist Students by Age 2001 and 2012



Lifestyle Activities

- More females than males have their own mobile phones and their own social network account such as Facebook or Twitter (Figures 17.1 and 17.2).
- About 50% of students watch 1+ hours of TV (Figure 17.3 and Figure 17.4).
- Females have a higher use of mobile phones and males a higher use of computer games (Figure 17.4 and 5).

Figure 17.1: Have Own Mobile Phone % Adventist Students by Age, 2012

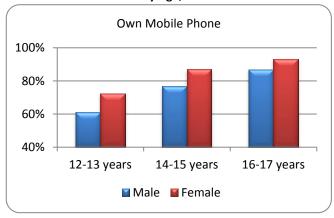


Figure 17.2: Have Own Social Network Account % Adventist Students by Age, 2012

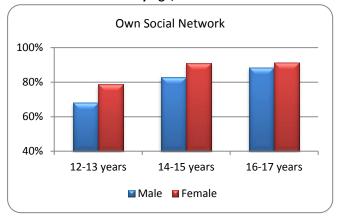


Figure 17.3: % Male Adventist Students Engaged in Activities 1+ hours/day by Age, 2012

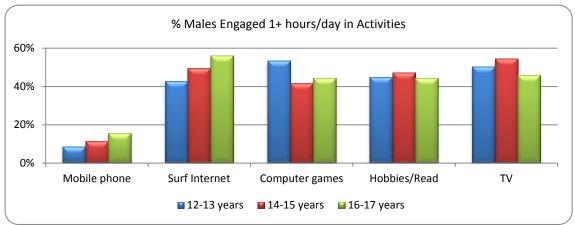
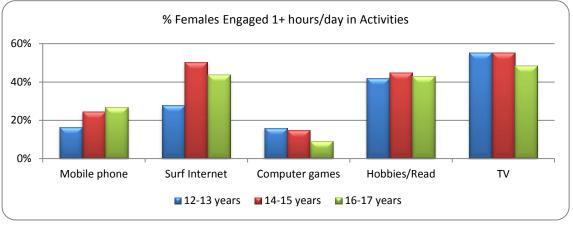


Figure 17.4: % Female Adventist Students Engaged in Activities 1+ hours/day by Age, 2012



Faith and Religion

Key Points

- Respondents were classified as Seventh-day Adventist if they had been baptised and for an unbaptised young person who was living with a Seventh-day Adventist parent.
- 19% of students were baptized by age 13. And in the 16-17 year olds 53% females and 36% males had been baptised (Table 18.1).
- Frequency of church attendance has decreased over time except for the 16-17 year olds (Figure 18.2).
- Trends for faith experiences are mostly positive (Figures 18.4 and 18.5).

Table 18.1: % of Age Group Baptised % Students by Gender, 2012 Survey

| Gender | 12-13 years | 14-15 years | 16-17 years |
|--------|-------------|-------------|-------------|
| Female | 19% | 32% | 53% |
| Male | 19% | 25% | 36% |

Times Attend Church SDA Only

80%
60%
40%
20%
Once a year or < 1 time/month 1-3 times/month 4+ times/month less

12-13 years 14-15 years 16-17 years

Figure 18.1: Times Attend Church % Students by Age, 2012

Figure 18.2: Trend of Church Attendance % Students by Age and Survey Year

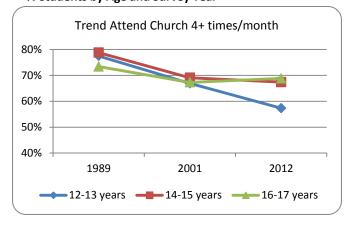


Figure 18.3: Trend of Weekly Family Worship % Students by Age and Survey Year

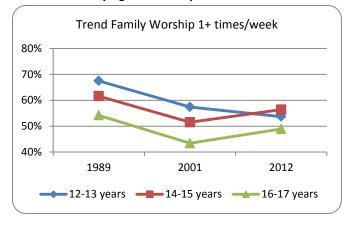


Figure 18.4: Trend of Enjoy Going to Church % Students by Age and Survey Year

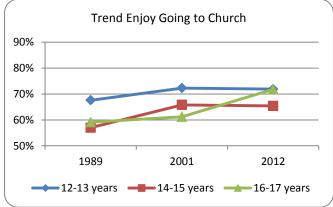
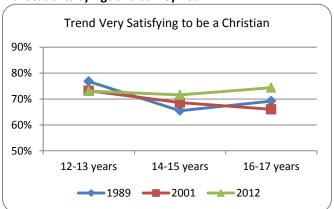


Figure 18.5: Trend of Satisfying to be Christian % Students by Age and Survey Year



Home and Family

- Less students now live in a rural environment compared to earlier childhood (Figures 19.1 and 19.2).
- More than 10% of students had some of their childhood in a non-Adventist home (Figure 19.1).
- 10% of students describe their own childhood family as strict and very rigid Figure 19.4)
- A number of childhood conditions experienced are of concern (parents drinking, parents separating/divorce, violence and abuse) (Table 19.1)

Figure 19.1: Place Where Lived as a Child % Students by Age, 2012

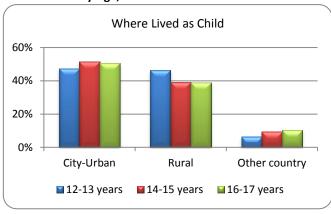


Figure 19.2: Place Where Now Live % Students by Age, 2012

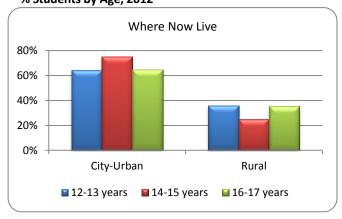


Figure 19.3: Parent SDA in Your Childhood % Students by Age, 2012

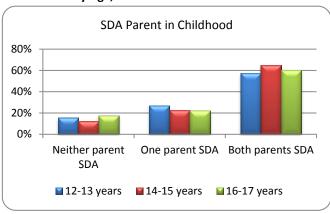


Figure 19.4: Family Description in Childhood % Students by Age, 2012

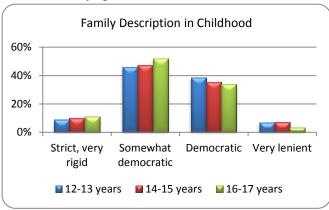


Table 19.1: Childhood Conditions Experienced, % Students by Age, 2012

| | • | • | |
|-----------------------------|-------------|-------------|-------------|
| Condition | 12-13 years | 14-15 years | 16-17 years |
| Parents smoked tobacco | 15% | 18% | 16% |
| Parents drank alcohol | 27% | 25% | 23% |
| Parents in trouble with law | 9% | 10% | 11% |
| Parents separated/divorced | 18% | 26% | 24% |
| Parent died | 4% | 4% | 4% |
| Parent absent from home | 18% | 20% | 20% |
| Family violence occurred | 17% | 21% | 18% |
| I was physically abused | 12% | 13% | 14% |
| I was sexually abused | 2% | 3% | 4% |
| I felt like misfit | 11% | 19% | 17% |
| Compulsive behaviour | 6% | 10% | 10% |

Attitudes and Beliefs

- In each survey (1989, 2001, 2012) there were belief statements to which participants indicated their level of agreement (Strongly disagree, Disagree, Undecided, Agree, Strongly agree).
- For statements of faith and religious practice more than 60% were in agreement (Table 20.1).
- All groups had high expectations for the church to help members with drug and alcohol problems.
- There is a decreasing trend in all groups that "the Bible forbids clearly forbids all use of alcoholic beverages" (Figure 20.1).
- Less young Adventists believe they will remain a church member for the rest of their lives (Figure 20.2).

Table 20.1: Agree or Strongly Agree with Statement, % Students by Age Group, 2012

| Tuble 2011. Agree of Strongly Agree With Statement, | Table 20.1. Agree of Strongly Agree with Statement, % Students by Age Group, 2012 | | | | | |
|--|---|-------------|-------------|--|--|--|
| Statement | 12-13 years | 14-15 years | 16-17 years | | | |
| Very satisfying to be a Christian | 73% | 72% | 74% | | | |
| Likely to remain a church member for rest of my life | 60% | 64% | 71% | | | |
| My religion/spirituality is very important in my life | 75% | 71% | 76% | | | |
| My life is filled with meaning and purpose | 68% | 65% | 66% | | | |
| I enjoy going to church | 72% | 65% | 72% | | | |
| Parents showed me love | 86% | 85% | 83% | | | |
| Parents understood me | 72% | 69% | 68% | | | |
| Family had lots of fun | 75% | 78% | 75% | | | |
| Parents didn't trust me | 16% | 15% | 19% | | | |
| Parents didn't like what I did | 5% | 5% | 6% | | | |
| Enjoyed being at home with family | 75% | 74% | 70% | | | |
| Father was very strict with me | 29% | 35% | 36% | | | |
| Bible forbids all alcohol | 46% | 44% | 46% | | | |
| Bible forbids excess alcohol (drunkenness) | 64% | 70% | 77% | | | |
| Preferable to eat a vegetarian diet | 37% | 41% | 45% | | | |
| Church should help members with drug problems | 71% | 79% | 81% | | | |
| I am concerned youth are drinking | 17% | 21% | 28% | | | |
| Alcohol in moderation prevents heart disease | 27% | 18% | 16% | | | |
| Church is doing enough to combat drugs | 23% | 18% | 18% | | | |
| Church is doing enough to combat alcohol problems | 25% | 20% | 19% | | | |
| Church should actively promote care of the environment | 57% | 56% | 61% | | | |

Figure 20.1: Trend of Belief - Bible Forbids all Alcohol % Students by Age and Survey Year

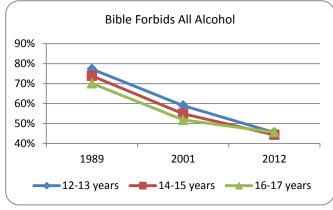
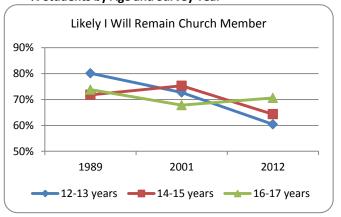


Figure 20.2: Trend of Belief - Likely I will remain SDA % Students by Age and Survey Year



Alcohol, Tobacco and Drug Comparisons

- A large survey of Australian secondary school students was conducted by the Cancer Council Victoria in 2011 (Australian secondary school students' use of tobacco, alcohol, and over-the-counter and illicit substances in 2011).
- Tables 21.1, 21.2 and 21.3 compare the Australian student rates to Adventist schools for smoking, alcohol use and other substance use. Tables 21.1 and 21.3 show rates separately for SDA students only and all students at Adventist schools.
- Except for inhalants, all substance use is much lower in Adventist schools compared to Australian schools.

Table 21.1: Smoking Status of Students 12-18 Years % by Gender, Adventist 2012 and Australia 2011

| Smoking | Adventist | Adventist | Australian |
|--------------|-----------|---------------------|------------|
| Status | SDA only | ALL Students | 2011 |
| | (%) | (%) | (%) |
| Occasional S | Smoker | | |
| Males | 2.0% | 2.7% | 4.3% |
| Females | 2.6% | 2.6% | 4.9% |
| Total | 2.3% | 2.7% | 4.6% |
| Ex-smoker | | | |
| Males | 2.6% | 2.2% | 2.8% |
| Females | 1.1% | 1.5% | 2.2% |
| Total | 1.8% | 1.8% | 2.5% |
| Non-smoke | r | | |
| Males | 94.4% | 93.5% | 89.4% |
| Females | 95.7% | 94.2% | 89.5% |
| Total | 95.1% | 93.9% | 89.5% |

Table 21.2: Past Month Use of Substances Students 12-18 Years, Adventist 2012 and Australia 2011

| Substance | Adventist | Adventists | Aust. 2011 | Aust. 2011. |
|---------------|------------|------------|------------|-------------|
| | ALL female | ALL male | ALL female | ALL male |
| | (%) | (%) | (%) | (%) |
| Marijuana | 2.5% | 3.6% | 5.7% | 7.9% |
| Steroids | 0.3% | 0.9% | 0.5% | 1.1% |
| Inhalants | 11.0% | 11.1% | 7.8% | 6.3% |
| Amphetamines | 0.7% | 0.5% | 0.8% | 1.4% |
| Cocaine | 0.0% | 0.6% | 0.4% | 0.8% |
| Heroin | 0.2% | 0.1% | 0.4% | 0.7% |
| Hallucinogens | 0.0% | 0.8% | 0.7% | 1.3% |
| Ecstasy | 0.0% | 0.2% | 0.6% | 1.2% |
| | | | | |
| Analgesics | 62.9% | 47.2% | 76.5% | 61.7% |
| Sleeping tabs | 4.8% | 3.2% | 4.3% | 4.1% |

Table 21.3: Alcohol Status of Students Adventist 2012 and Australia 2011

| Adventist Lott and Adstraila Lott | | | | | |
|-----------------------------------|-----------------------|---------------------------|-------------------|--|--|
| Use | Adventist SDA only | Adventist ALL Students | Australia 2011 | | |
| | (%) | (%) | (%) | | |
| Never use | d | | | | |
| Males | 59.3% | 53.8% | 24.8% | | |
| Females | 61.2% | 53.7% | 27.2% | | |
| Total | 60.3% | 53.8% | 26.0% | | |
| Past mont | :h | | | | |
| Males | 7.5% | 10.3% | 29.6% | | |
| Females | 8.3% | 11.8% | 28.7% | | |
| Total | 7.9% | 11.1% | 29.1% | | |
| Past year | | | | | |
| Males | 19.7% | 25.2% | 51.3% | | |
| Females | 22.6% | 29.4% | 50.1% | | |
| Total | 21.2% | 27.5% | 50.7% | | |

- Years 11 and 12 followed by Year 7 were more likely than other years to report no lessons on tobacco, alcohol and drugs in the year prior to the survey. For Year 7 this would be referenced to Year 6 (Table 22.2).
- There was no statistically significant relationship with reported substance use and lessons on substances.
- South Australia is not represented because of very small student numbers in each school year.

Table 22.1: One or more lessons in past year % students in each year reporting, 2012

| | Tobacco | Tobacco Alcohol | |
|---------|---------|-----------------|--------|
| Year | Lesson | Lesson | Lesson |
| Year 7 | 41.3% | 40.4% | 37.9% |
| Year 8 | 41.4% | 51.1% | 55.5% |
| Year 9 | 43.6% | 50.9% | 52.5% |
| Year 10 | 36.8% | 45.8% | 43.1% |
| Year 11 | 22.2% | 31.8% | 31.6% |
| Year 12 | 15.0% | 16.9% | 18.8% |

Table 22.2: No lessons in past year % students in each year reporting, 2012

| Year | Tobacco | Alcohol | Drugs |
|---------|---------|---------|-------|
| Year 7 | 38.1% | 36.6% | 42.2% |
| Year 8 | 26.5% | 21.7% | 23.9% |
| Year 9 | 27.6% | 18.8% | 25.6% |
| Year 10 | 36.8% | 29.2% | 30.5% |
| Year 11 | 56.3% | 41.4% | 46.8% |
| Year 12 | 67.9% | 56.6% | 62.3% |

Table 22.3: No Smoking Lesson in Prior Year, % Students by Year and Conference, 2012

| Conference | Years 7-8 | Years 9-10 | Years 11-12 | All Years |
|-------------------|-----------|------------|-------------|-----------|
| Greater Sydney | 28% | 17% | 71% | 25% |
| North NSW | 23% | 26% | 48% | 30% |
| New Zealand | 36% | 25% | 59% | 46% |
| South Queensland | 29% | 43% | 60% | 41% |
| Victoria | 46% | 40% | 65% | 47% |
| Western Australia | 33% | 4% | 60% | 22% |
| Total | 34% | 32% | 57% | 38% |

Table 22.3: No Alcohol Lesson in Prior Year, % Students by Year and Conference, 2012

| Conference | Years 7-8 | Years 9-10 | Years 11-12 | All Years |
|-------------------|-----------|------------|-------------|-----------|
| Greater Sydney | 24% | 13% | 57% | 20% |
| North NSW | 17% | 17% | 30% | 20% |
| New Zealand | 41% | 23% | 48% | 40% |
| South Queensland | 26% | 29% | 47% | 31% |
| Victoria | 40% | 33% | 46% | 39% |
| Western Australia | 28% | 4% | 20% | 15% |
| Total | 29% | 23% | 43% | 30% |

Table 22.4: No Drug Lesson in Prior Year, % Students by Year and Conference, 2012

| Conference | Years 7-8 | Years 9-10 | Years 11-12 | All Years |
|-------------------|-----------|------------|-------------|-----------|
| Greater Sydney | 27% | 13% | 71% | 22% |
| North NSW | 18% | 21% | 36% | 24% |
| New Zealand | 45% | 28% | 55% | 45% |
| South Queensland | 34% | 31% | 52% | 36% |
| Victoria | 46% | 40% | 58% | 46% |
| Western Australia | 28% | 9% | 40% | 20% |
| Total | 34% | 27% | 50% | 35% |

Risk Factor Associations

Key Points

- In this research significant associations were found between various factors (conditions, beliefs and behaviours) and risky health behaviours and conversely healthy behaviours.
- However, since this is a cross-sectional study, these relationships cannot be determined as cause and effect
 and need to be interpreted cautiously.
- The tables below illustrate the magnitude of some of these associations and correlations with other risk behaviours. The associations are not adjusted for age or other factors.

Factors associated with **Smoking**

- •Smokers compared to non-smokers are more likely to have negative factors from childhood; believe cigarettes are not very harmful; drink alcohol and have used marijuana.
- •Smokers tend to believe their religion is less important and attend church less often.

Table 23.1: Factors Associated with Smoking, % by Smokers Status, 2012

| Smoking | | Parent Drank | Cigarettes Not | | Use Marijuana | My Religion | Attend Church | Compulsive | |
|------------|---------------|--------------|----------------|---------------|---------------|-------------|---------------|------------|--|
| Status | Parent Smoked | Alcohol | Harmful | Drink Alcohol | 3+ times/year | Important | 4+ time/month | Behaviour | |
| Non-smoker | 15% | 23% | 4% | 10% | 1% | 76% | 66% | 8% | |
| Ex-smoker | 68% | 58% | 19% | 68% | 24% | 45% | 57% | 17% | |
| Smoker | 39% | 48% | 24% | 85% 📮 | 47% _ | 46% | 39% | 29% 📮 🖁 📕 | |

Factors associated with Alcohol Use

- Alcohol drinking is significantly associated with other lifestyle behaviours such as smoking, a non-vegetarian diet and parents alcohol use.
- •Drinkers have less agreement with "the Bible forbids all alcohol" and that "alcohol is harmful".

Table 23.1: Factors Associated with Drinking Alcohol, % by Alcohol Status, 2012

| Alcohol | Parent | Drank | Vegetarian Diet | | Family worship | | Bible forbids all | | I'll Drink in | | Alcohol is | | Smoker | |
|-------------|---------|-------|-----------------|---|------------------|---|-------------------|--|---------------|---|------------|--|----------|---|
| Status | Alcohol | | vegetarian Diet | | Tallilly Worship | | alcohol | | future | | Harmful | | Sillokei | |
| Non-drinker | 21% | | 21% | - | 37% | _ | 48% | | 11% | ~ | 45% | | 1% | |
| Drinker | 49% | | 11% | | 23% | Ĭ | 28% | | 63% | | 12% | | 21% | _ |

Factors associated with Marijuana Use

- Marijuana use is significantly associated with parents drinking and smoking behaviours, violence in childhood and own smoking and drinking behaviour.
- •Users have less agreement with the belief that "marijuana is very harmful".

Table 23.1: Factors Associated with Marijuana Use 3+ times in Past Year, % by Marijuana Use, 2012

| Marijuana | | Parent Drank | | Marijuana is | | | | | | My Religion | | Family Violence | | | |
|--------------|------------|--------------|---------|--------------|---------|--|-------|---------|--------|-------------|-----------|-----------------|--------------|---|--|
| Use | Parent Smo | oked | Alcohol | | Harmful | | Drink | Alcohol | Smoker | | Important | | in Childhood | | |
| Never Use | 15% | | 23% | M | 95% | | 10% | M | 1% | ~ | 75% | | 17% | ~ | |
| Use 3+ times | 42% | | 54% | | 56% | | 83% | | 57% | | 82% | | 58% | ▼ | |

At a Glance – Student Snapshot Highlights

Participants

- 20 Adventist high schools participated
- 1690 students were from Australia and 270 students were from New Zealand
- 53% were Adventist and most of the results reported pertain to Adventist students

Diet

- Trend for vegetarian diet is lower for all age groups
- More than 40% of students eat fast food 2+ times/week
- Over time more eating beef, chicken and fish

Alcohol

- Trend of "ever used" alcohol has increased for all ages since 2001
- 30% of females and 36% males aged 16-17 years used alcohol in past year

Drugs

- ✓ Prevalence of illicit drugs is very low
- Use of marijuana has decreased since 2001
- Inhalant use among 14 -15 and 16 -17 year olds has increased since 2001

Faith

- Among 16-17 year olds, 53% of females and 36% of males are baptised
- Positive trend of 16-17 year olds enjoying church and finding the Christian life satisfying
- 60% report attending church 4+ times/month

Physical Activity

- Over 50% of students have a regular exercise program
- Males of all ages are more active than females
- × 16-17 year olds sit more hours than others

Health and BMI

- Males assess their health status better than females
- Females report more stress than males
- Except for 16-17 year old males, prevalence of BMI has decreased since 2001

Tobacco

- ✓ Smoking rates are very low
- ✓ Among young people **non-smoking** has increased significantly since 2001
- 98.6% of 12-13 year olds report as having never smoked

Lifestyle

- Over 80% of females have their own mobile phone and own social network account
- Male students spend more time on internet and playing computer games than females

Beliefs

- Only 20% of students agree that the church is doing enough to combat drugs
- 71% of 16-17 year olds believe they would remain a church member for life
- Lower trend for "Bible forbids all alcohol"