Physical Activity in Tasmania
Results from the 2009 Tasmanian Population Health Survey

Introduction
The 2009 Tasmanian Population Health Survey (TPHS) was conducted as a telephone survey of over 6,000 Tasmanian adults aged 18 years and over during November-December 2009. The survey was carried out as an extension of the Victorian Population Health Survey which has been conducted annually since 1999.

This report examines the relation between physical activity and a number of other measures or risk factors at both state and regional levels. For further information about the TPHS please go to http://www.dhhs.tas.gov.au/pophealth/epidemiology

Statistical methods and interpretation
The Tasmanian Population Health Survey was undertaken using Computer Assisted Telephone Interviews (CATI) and used the ‘list assisted’ form of Random Digit Dialling (RDD) as the sample frame. The target population was defined as all non-institutionalised Tasmanian residents aged 18 years and over with access to a landline telephone.

The Human Research Ethics Committee (Tasmania) Network approved the survey method and questionnaire content. The survey process was managed by the Menzies Research Institute on behalf of the Department of Health and Human Services. The fieldwork data collection was outsourced to the Social Research Centre in Victoria.

The survey sample included a total of 6,300 respondents stratified into sub-samples of 2,100 in each of the three regions; North, North West and South. This sample allocation allowed for an oversampling of the North West region to obtain higher data reliability.

Interviewing was conducted between 5 November and 15 December 2009. No interviewing was undertaken in languages other than English. The average interview length was 20.7 minutes, and approximately 67% of all interviews were achieved within three call attempts.

Percentages and the corresponding confidence intervals in this document are weighted to the Tasmanian population, based on the stratified sampling design of the survey.

Trends and patterns in the data that are discussed are not necessarily statistically significant trends or patterns. Confidence intervals (CI) are provided to assist the reader in interpreting statistically significant results. Significant differences between estimates are deemed to exist where confidence intervals do not overlap.

In interpreting these data it should be noted that the survey may not be fully representative of the Tasmanian population as Tasmanians without access to a landline telephone, such as sole mobile phone users, were not included in the survey.
Physical Activity Questions

The National Physical Activity Guidelines (1999) recommend at least 30 minutes of moderate intensity physical activity on at least 5 days of the week for a total of 150 minutes per week. This level of physical activity is deemed sufficient to achieve health benefits.

Physical activity data derived from the TPHS are not comparable to physical activity data from the National Health Survey (NHS). The NHS only counts physical activity carried out as ‘exercise’, while the TPHS includes walking for transport and activities carried out in the course of employment or household chores:

- Time spent walking for recreation, exercise, transport or as part of work
- Time spent on vigorous household activities, excluding gardening
- Time spent on other vigorous activities

Responses to these questions allow for a classification of physical activity levels into:

1. Sedentary - absence of physical activities
2. Insufficient - less than 150 minutes per week
3. Sufficient - 150 minutes per week

Physical Activity Levels

Over two-thirds of adults aged 18 years and over engage in sufficient levels of physical activity, with the remainder being sedentary or reporting insufficient levels of physical activity.

<table>
<thead>
<tr>
<th>Activity</th>
<th>%</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walking</td>
<td>50.0</td>
<td>48.0%</td>
</tr>
<tr>
<td>Vigorous household activities</td>
<td>10.1</td>
<td>9.0%</td>
</tr>
<tr>
<td>Vigorous other activities</td>
<td>13.3</td>
<td>12.0%</td>
</tr>
</tbody>
</table>

Of those Tasmanian adults who undertake sufficient physical activity, half were able to meet this goal solely either through walking (50%), or vigorous household activity (10.1%) or vigorous other activities (13.3%). Most Tasmanians report of mix of activities.

Prevalence of activities that exclusively achieved a sufficient (150 minutes) level of physical activity

Tasmanian Population Health Survey 2009
Physical activity levels are affected by age, with older age groups reporting more sedentariness or insufficient levels of physical activity than younger people. On average, those aged 65 years and older are twice more likely to be inactive or insufficiently active.

Across regions, young people aged 18-24 years were more likely to report insufficient physical activity in the South (23%) than the North (14.1%) or the North West (20.6%), but these differences were not statistically significant. Similarly, proportions for insufficient activity were higher for residents aged 65 years in the North (46%) compared to the other two regions, but this was not statistically significant.

**Sedentary and insufficient physical activity by age and region, Tasmania 2009**

<table>
<thead>
<tr>
<th>Age</th>
<th>North %</th>
<th>95% CI</th>
<th>North West %</th>
<th>95% CI</th>
<th>South %</th>
<th>95% CI</th>
<th>Tasmania %</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-24</td>
<td>14.1%</td>
<td>7.3–20.9</td>
<td>*20.6%</td>
<td>10.3–30.8</td>
<td>23.0%</td>
<td>13.9–32.0</td>
<td>20.0%</td>
<td>15.1–26.0</td>
</tr>
<tr>
<td>25-34</td>
<td>18.9%</td>
<td>13.4–24.4</td>
<td>20.2%</td>
<td>13.9–26.4</td>
<td>21.9%</td>
<td>14.6–29.1</td>
<td>20.7%</td>
<td>16.8–25.2</td>
</tr>
<tr>
<td>35-44</td>
<td>25.9%</td>
<td>20.6–31.2</td>
<td>21.8%</td>
<td>17.1–26.6</td>
<td>22.5%</td>
<td>17.9–27.0</td>
<td>23.3%</td>
<td>20.5–26.3</td>
</tr>
<tr>
<td>45-54</td>
<td>23.8%</td>
<td>19.3–28.3</td>
<td>25.2%</td>
<td>20.5–30.0</td>
<td>24.8%</td>
<td>20.2–29.4</td>
<td>24.6%</td>
<td>21.9–27.6</td>
</tr>
<tr>
<td>55-64</td>
<td>30.5%</td>
<td>25.7–35.3</td>
<td>32.6%</td>
<td>27.8–37.4</td>
<td>*28.2%</td>
<td>23.4–33.1</td>
<td>29.9%</td>
<td>27.0–32.9</td>
</tr>
<tr>
<td>65+</td>
<td>46.0%</td>
<td>41.6–50.3</td>
<td>40.3%</td>
<td>36.0–44.5</td>
<td>*40.7%</td>
<td>36.2–45.1</td>
<td>42.1%</td>
<td>39.5–44.8</td>
</tr>
</tbody>
</table>

*High RSE - use with caution; Tasmanian Population Health Survey, 2009

Females reported more sedentary or insufficient physical activity than males in the North West and Northern regions. In the North West region this difference was the greatest, with 24.9% of males and 30.4% of females reporting sedentary or insufficient physical activity. However, these differences were not statistically significant.
Self-Assessed Health and Physical Activity

Being physically active means better health. Tasmanians reporting sufficient levels of physical activity have much better self-assessed health status than Tasmanians reporting insufficient levels of physical activity.

Of all Tasmanians who are sedentary or insufficiently active 31.8% report excellent/very good health, 41% report good health and 26.9% report fair or poor health. Of all active Tasmanians, 47.6% have excellent or very good health, with only 16.6% reporting poor or fair health. The differences in self-reported health for excellent/very good, good, and fair/poor health between active and inactive Tasmanians are statistically significant.

![Self-Assessed Health and Physical Activity Graph]

Psychological Distress and Physical Activity

Tasmanians reporting sufficient levels of physical activity are less likely to experience high levels of psychological distress than Tasmanians reporting insufficient levels of physical activity. The TPHS used the Kessler 10 (K10) to measure psychological distress.

About one in eight Tasmanians who are sedentary or insufficiently active report high or very high levels of psychological distress (12%) compared to one in ten Tasmanians (10.1%) reporting sufficient levels of physical activity. This difference is not statistically significant.

![Psychological Distress and Physical Activity Graph]
Body Mass Index (BMI) and Physical Activity

Self-reported height and weight were used to calculate BMI (kg/m²). BMI scores were then used to classify people as underweight, normal, overweight or obese. *Note that self-reported BMI usually results in under-estimates of overweight and obese BMI.*

Over half of all Tasmanians aged 18 years and over (51.9%) reported being overweight or obese, with almost one in five Tasmanians being in the obese category. The North West region has the highest obesity rate (22.2%) of all regions (statistically significant).

Within each BMI category in the Northern region, more than a quarter of all residents were sedentary or insufficiently active, with the greatest proportion (28.9%) being in the obese BMI category.
In the North West region, the prevalence of inactivity is the highest in the obese BMI category at 36.0%, compared to 20.7% in the normal BMI category.

![Physical activity levels by BMI status, North West region, 2009](image)

Almost one in three Tasmanians in the Southern region who are overweight or obese report being insufficiently active (30.4% and 31.2% respectively).

![Physical activity levels by BMI status, Southern region, 2009](image)
Smoking and Physical Activity

No correlation was found between smoking and physical activity. About one in five Tasmanians who are insufficiently or sufficiently active are current smokers, that is 19.1% and 20.0% respectively.

Alcohol Consumption and Physical Activity

More than two standard alcoholic drinks per day presents a higher risk of long term harm, and more than four standard drinks on a single occasion constitutes a risk of short term harm. (NHMRC, Alcohol Guidelines 2009)

Physically active Tasmanians, both males and females, are more likely to consume alcohol at risky levels. Of all Tasmanians who are sufficiently active 30.1% have a higher risk of short term harm compared to 19.8% of Tasmanians who are sedentary or insufficiently active.
Chronic Health Conditions and Physical Activity

Except for cancer and asthma, Tasmanians reporting to be sufficiently active were less likely to report a chronic health condition. Insufficient activity was linked to higher rates in diabetes, heart disease, arthritis and osteoarthritis.

![Graph showing prevalence of self-reported chronic health conditions by level of physical activity.]

Income and Physical Activity

Lower income groups are more likely to be physically inactive. More than one third of Tasmanians (36.1%) in the lowest income quintile report being sedentary or insufficiently active compared to only about one fifth (21%) of Tasmanians in the highest income quintile.

![Graph showing sedentary and insufficient physical activity by household income quintile.]

*Note: Chronic conditions are age standardised.*
The distribution of sedentary/inadequate physical activity levels by income are similar across the regions, showing a higher prevalence of sedentary and insufficient activity in the lower income groups, particularly the first and second quintiles.

The North West region shows a slightly lower proportion in the lowest income group (34.1%) and a higher proportion in the highest income quintile (23.8%) than other regions. However, differences across the regions are not statistically significant.

### Sedentary and insufficient physical activity by household income quintile and region, Tasmania 2009

<table>
<thead>
<tr>
<th>Region</th>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
<th>5th</th>
</tr>
</thead>
<tbody>
<tr>
<td>North</td>
<td>36.3%</td>
<td>32.9%</td>
<td>23.0%</td>
<td>24.5%</td>
<td>20.6%</td>
</tr>
<tr>
<td>North-West</td>
<td>34.1%</td>
<td>32.0%</td>
<td>24.6%</td>
<td>21.5%</td>
<td>23.8%</td>
</tr>
<tr>
<td>South</td>
<td>36.9%</td>
<td>31.3%</td>
<td>27.5%</td>
<td>21.7%</td>
<td>20.3%</td>
</tr>
</tbody>
</table>

Tasmanian Population Health Survey, 2009

### Community Involvement and Physical Activity

Greater community involvement is linked to more physical activity. Tasmanians who get more involved in local community events are more physically active, with 72% reporting sufficient physical activity compared to 63% of those who did not attend a local event.

### Attendance at a local community event during the past six months by level of physical activity, 18 years and over, Tasmania 2009

<table>
<thead>
<tr>
<th>Level of Physical Activity</th>
<th>Not Attended</th>
<th>Attended</th>
</tr>
</thead>
<tbody>
<tr>
<td>sedentary/insufficient</td>
<td>31.9%</td>
<td>72.0%</td>
</tr>
<tr>
<td>sufficient</td>
<td>63.0%</td>
<td>24.2%</td>
</tr>
</tbody>
</table>

Tasmanian Population Health Survey, 2009
Tasmanians who are a member of at least one community or sporting group are more likely to be physically active. Of all Tasmanians reporting to belong to at least one community or sporting group, 71.4% reported sufficient levels of physical activity compared to 63.6% of Tasmanians who are not members of a community or sporting group.

Membership of community or sporting group by level of physical activity, 18 years and over, Tasmania 2010

- 63.6% of group members reported sufficient physical activity.
- 30.6% of non-group members reported sufficient physical activity.
- 71.4% of group members reported sufficient physical activity.
- 25.2% of non-group members reported sufficient physical activity.

Tasmanian Population Health Survey, 2009