“We do a lot more as a family now, especially with the kids... I am not embarrassed to get into a swimming costume, I feel more comfortable.”

WENDY
CONTENTS

2 Background

6 Reach of the Get Healthy Service

20 Effectiveness of the Get Healthy Service coaching program

30 Future Directions

32 References

Suggested citation:

Acknowledgements:
The authors would like to acknowledge the NSW Ministry of Health (the service and evaluation funders); Medibank Health Solutions (the service provider from 2009-2013); and the GHS evaluation co-investigators for their significant contribution to the evaluation of the GHS to date.
In February 2009, the NSW Ministry of Health launched the NSW Get Healthy Information and Coaching Service® (GHS; www.gethealthynsw.com.au), as a key initiative under the Australian Better Health Initiative¹ and the National Partnership Agreement on Preventive Health².

The GHS is a free telephone-based service supporting NSW adults to make sustained improvements in healthy eating, physical activity and achieving or maintaining a healthy weight. Since its introduction, the Service has been expanded to be offered to a number of other jurisdictions across Australia.

The GHS targets those adults in the community most at need, due to their risk of chronic disease and seeks population level reach to maximise its public health impact.

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SECTION ONE: BACKGROUND

Priority groups include

- **Aboriginal people**
- **Culturally & linguistically diverse communities**
- **people from low socio-economic areas**
- **those living in remote, rural & regional areas of NSW**
- **and; people at risk of diabetes**

ELIZABETH’S Get Healthy Story

Having gone through breast cancer and losing her mother 3 months before, Elizabeth found she had become an emotional eater. Also suffering from different ailments like ulcers and nausea Elizabeth decided when she could no longer do up her trousers, it was time to change.

“Going through chemotherapy, my diet wasn’t very good and the treatment did some weird things to me.”

Leading a fairly inactive life and indulging in the wrong foods prior to the program, Elizabeth often experienced bad reflux and aches and pains throughout her body. Since joining the program she has lost 6 kilograms and leads a much healthier lifestyle with her husband.

Elizabeth enjoys cooking healthier meals and is trying to get her husband to eat more fish by cooking salmon at least once a week. She also encourages him to step outside and go for a walk. Since completing the program Elizabeth does not suffer from bad reflux anymore, her general aches and pains have improved and she is more mobile around the house.
During the first 5 years from 2009 to 2013 the GHS was provided by Medibank Health Solutions on behalf of the NSW Ministry of Health and from 2014 the service will be provided by Healthways Australia.

### 1.1 Get Healthy Service levels of service

The GHS includes two levels of service:\n
1. **6 month coaching program:** Includes 10 individually-tailored calls provided by university qualified health coaches based on behaviour change/self-regulation principles designed to assist with goal setting, maintaining motivation, overcoming barriers and making sustainable lifestyle changes. Coaching calls are provided on a tapered schedule, with a higher intensity of calls occurring in the first twelve weeks of the program to promote initiation of behaviour change, and less frequent calls during the latter fourteen weeks to promote maintenance and prevent relapse. Printed support materials are also provided. Participants can cease coaching at any time during the 6 month program and can also re-enrol in the program after completing the 6 months.

2. **Information-only:** Provides an evidence-based printed information package on healthy eating, physical activity, and achieving or maintaining a healthy weight, consistent with the Australian Guide to Healthy Eating and National Physical Activity Guidelines. In addition to the package, a one-off information and advice session on these topics is available to participants at the time of the call.

### 1.2 Get Healthy Service medical clearance

Callers enrolling in the coaching program undergo medical screening via a telephone survey, and callers with any issue of potential concern are referred to their General Practitioner (GP) to obtain medical clearance before coaching can commence. In May 2012, the medical screening process was revised to exclude breastfeeding and recent hospitalisation as an indicator for GP clearance, in order to facilitate a greater number of participants joining the coaching program without requiring GP clearance.

### 1.3 Get Healthy Service enrolment and recruitment

Adults aged 18 years and older can enrol in the GHS using a free call phone number or via the website. Potential participants are recruited to the Service via two primary methods:

1. **Self-referral:** Mass media and local promotions

2. **Secondary and other referral:** GP and other health care providers’ referral and direct marketing to targeted households that includes a letter of introduction to the Service.

### 1.4 Get Healthy Service modules and additional components

**GHS Aboriginal program:** In November 2012, an enhancement to the GHS for Aboriginal people commenced. All Aboriginal participants receive Aboriginal-specific resources and three extra coaching calls in the first half of the program. The program was developed following formative research and focus testing with GHS Aboriginal participants, Aboriginal adults and Aboriginal Health organisations.

**Type 2 Diabetes Prevention Module:** In July 2013, the GHS launched a type 2 Diabetes Prevention Module to address the high burden of disease from this chronic disease. All GHS coaching participants aged over 40 years and all Aboriginal participants are screened using the AUSDRISK tool and if their score is 12 or over they are allocated to this module. Participants in this module also receive three extra coaching calls focussed on individual risk for type 2 diabetes at the start of the program. This module is based on the Sydney Diabetes Prevention Program, an effective face-to-face program for type 2 diabetes prevention.

---

Since the introduction of the **Type 2 Diabetes Prevention Module** on 1 July 2013, there have been **937 adults** allocated to this module following screening using the **AUSDRISK tool**
“My husband eats a lot better, not a lot of junk, but if he indulges I can say no and not let it worry me which makes me feel better in myself.”

ELIZABETH
1.5 GHS evaluation framework

The evidence base from systematic reviews has confirmed that telephone-based interventions are effective in increasing physical activity, improving nutrition and reducing weight in the short to medium term (three–six months) across different populations, in a range of settings, and using different intervention modalities\textsuperscript{11, 12}. The GHS provides a rare example of the translation of this research into population wide dissemination\textsuperscript{12, 13}. Accordingly, the primary goals of the GHS evaluation framework are to assess the process of implementation, the reach and the impact of GHS\textsuperscript{14}. This involves collecting information regarding GHS promotional activities, its delivery and reach (process evaluation), and participant outcomes (impact evaluation) using a pre-test and post-test design (collecting self-report information at baseline, three months and six months) to assess change in health and behaviour-related outcomes\textsuperscript{3}.

**Figure 1:** Overview of significant events for the GHS

- **2009**
  - February: Service Launched

- **2010**
  - July: ACT joined the Service
  - July: TAS joined the Service

- **2012**
  - November: Launch of Aboriginal strategy
  - May: Change in medical clearance process

- **2013**
  - February: QLD joined the Service
  - July: Launch of Type 2 Diabetes Prevention module
  - December: New NSW Get Healthy Website goes live

- **2014**
  - January: SA joined the Service
Since 2009, the GHS has averaged approximately 9,500 calls per year.

Since its introduction on 23 February 2009 until 31 December 2013, the GHS has received in excess of 46,000 incoming calls, approximately 30,000 are from adults seeking information and support regarding healthy lifestyles, and of these calls nearly half of all callers then enrol in the coaching program.

From February 2009 to December 2013, approximately 25,000 (n=25,425) participants registered their interest in the GHS service. 93.0% (n=23,650) of participants consented for their information to be included for the purposes of evaluation, see below.

GHS Participants
February 2009 - December 2013
23,650*

Information Only participants
5,483 23.2%

Coaching participants
18,167 76.8%

* consenting participants only
GHS website usage

The total number of visits to the GHS website from February 2009 to December 2013 was 443,011; with 360,474 unique visitors to the site and an average of 77.8% of visitors being new visitors to the website. On average three GHS website pages were visited at each browsing session. The number of unique visitors to the website has steadily increased since the website was created in February 2009, with a 7.4 fold increase in visitors between 2009 and 2013 (Figure 2).

**Figure 2: Unique visitors to the GHS website (February 2009 – December 2013)**

<table>
<thead>
<tr>
<th>Time period</th>
<th>Website visitors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb - Dec ’09</td>
<td>14,885</td>
</tr>
<tr>
<td>Jan - Dec ’10</td>
<td>61,265</td>
</tr>
<tr>
<td>Jan - Dec ’11</td>
<td>71,427</td>
</tr>
<tr>
<td>Jan - Dec ’12</td>
<td>103,134</td>
</tr>
<tr>
<td>Jan - Dec ’13</td>
<td>109,763</td>
</tr>
</tbody>
</table>
2.2 Marketing and promotion of GHS

A number of marketing and promotional strategies have been used to encourage participation in the GHS, these have included:

1. **Mass media campaigns**: television (both GHS specific and advertisements with GHS branding at the conclusion of national campaigns), press, online and radio advertising and information distributed in letterboxes and subscription magazines. The GHS specific advertising during 2009-2013 included an educative style campaign providing information on what the GHS has to offer.

2. **Health professional partnerships**: direct referral and promotions through Local Health Districts; Medicare Locals; GP’s and other health professionals.

These include, partnership with Aboriginal Health and Medical Research Council for promotion and referrals from Aboriginal Community Controlled Health Services; partnership with Multicultural Health Communication Service to increase reach in culturally and linguistically diverse communities, and partnership with the Agency for Clinical Innovation to encourage referrals from the Aboriginal Knockout Health Challenge.

3. **Proactive marketing**: between August 2011 and June 2012 a proactive marketing strategy was used to promote the GHS to adults in targeted lower socio-economic areas. This involved the distribution of an introductory letter to households with a follow up phone call by the GHS inviting adults to join the service.

These combined marketing, promotion and partnership efforts have resulted in GHS participant numbers that have increased over time, except for in 2013 when there was a decline in numbers compared to the preceding three years, although there was a two fold increase in the proportion of health professional referrals (Table 1). The decline in 2013 was mainly due to mass media advertising only being utilised for half of the year.
### Table 1: Number of GHS participants by referral source (February 2009 – December 2013)

<table>
<thead>
<tr>
<th></th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>ALL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Mass media</td>
<td>1824</td>
<td>64.4</td>
<td>2269</td>
<td>54.9</td>
<td>3513</td>
<td>69.8</td>
</tr>
<tr>
<td>Health Professionals</td>
<td>290</td>
<td>10.2</td>
<td>372</td>
<td>9.0</td>
<td>238</td>
<td>4.7</td>
</tr>
<tr>
<td>General Practitioners</td>
<td>43</td>
<td>1.5</td>
<td>116</td>
<td>2.8</td>
<td>94</td>
<td>1.9</td>
</tr>
<tr>
<td>Workplace</td>
<td>3</td>
<td>0.1</td>
<td>218</td>
<td>5.3</td>
<td>223</td>
<td>4.4</td>
</tr>
<tr>
<td>Family and Friends</td>
<td>198</td>
<td>7.0</td>
<td>352</td>
<td>6.8</td>
<td>261</td>
<td>5.2</td>
</tr>
<tr>
<td>Proactive marketing</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>0.1</td>
<td>478</td>
<td>9.5</td>
</tr>
<tr>
<td>Other</td>
<td>474</td>
<td>16.7</td>
<td>803</td>
<td>19.4</td>
<td>226</td>
<td>4.5</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>2832</strong></td>
<td><strong>4133</strong></td>
<td><strong>5033</strong></td>
<td><strong>7704</strong></td>
<td><strong>3948</strong></td>
<td><strong>23650</strong></td>
</tr>
</tbody>
</table>

Mass media campaigns provide *universal reach* and “branding” awareness to support GHS utilisation. **Targeted promotions** and **partnerships** ensure that GHS continues to be used most by those from **vulnerable communities**.
Evaluations of the GHS marketing and promotional efforts have shown the following:

- There was a dose-response relationship between mass media advertising and the number of contacts to the GHS (and corresponding GHS participants)\textsuperscript{15} (Figure 3).
- Television was the most commonly cited type of media followed by mailed out information, for those participants who nominated mass media as their referral source (Figure 4).
- Television, print and mailed out information were more often cited as the source of referral by males, those aged 18 – 49 years, employed and those from the lowest socio-economic groups\textsuperscript{16}.
- For 2009 – 2013, during the months when mass media advertising was present, twice as many calls were received than when no advertising was present.
- Participants recruited via proactive marketing were significantly more likely to be males, aged 50 years or over, have a high school education and become information participants when compared to other referral source participants\textsuperscript{17}.
- Longer term impact of the mass media campaign suggests that participants who cited mass media as their referral source were significantly more likely to enrol in the coaching program\textsuperscript{18}.

**Figure 3: “New” calls to the GHS by year (February 2009 - December 2013)**

![Figure 3: “New” calls to the GHS by year (February 2009 - December 2013)](image)

Note: Service usage data was not available for 2013.
For the Aboriginal GHS participants:

- **30%** cited **television** as their “source of referral”
- **13.9%** referrals were from **Aboriginal Community Controlled Health Services**, and
- **13.8%** were from **GP’s** and other **health professionals**.

**Figure 4**: Type of mass media most commonly cited by GHS participants (February 2009 – December 2013)
GP’s and other health professionals have been an important referral source to the GHS. There have been increases in the proportion of referrals that have come from health professionals and GP’s since the Service commenced in 2009.

A study examining the profile of GHS participants based on their “source of referral” has shown some important differences in relation to the socio-demographic and risk factor profile of those who had completed the coaching program.

- Males were more likely to cite GP as their referral source than a referral from another health professional
- 46.5% of GP referrals had a high school education
- 54.7% of GP referrals were not in paid employment
- 61.9% of health professional referrals were from locations other than major cities
- 81.3% of health professional referrals were from the lowest three quintiles of advantage
- A greater proportion of coaching participants referred by GP’s were classified as obese (74.2%) and had a greatly increased waist circumference risk (84.6%).

For the period 2012 to 2013 there has been a

7.3% increase in health professional referrals

2.7% increase in GP referrals
### Table 2: Socio-demographic characteristics of Coaching and Information-only participants (February 2009 – December 2013)

<table>
<thead>
<tr>
<th></th>
<th>Coaching</th>
<th></th>
<th>Information</th>
<th></th>
<th>ALL</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>13316</td>
<td>73.3</td>
<td>3786</td>
<td>69.0</td>
<td>17102</td>
<td>72.3</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-49 years</td>
<td>8543</td>
<td>47.0</td>
<td>2734</td>
<td>49.9</td>
<td>12373</td>
<td>47.7</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High school education</td>
<td>7917</td>
<td>44.0</td>
<td>2545</td>
<td>47.8</td>
<td>10462</td>
<td>44.8</td>
</tr>
<tr>
<td><strong>Employment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paid Employment</td>
<td>11050</td>
<td>61.3</td>
<td>3495</td>
<td>65.4</td>
<td>14545</td>
<td>62.2</td>
</tr>
<tr>
<td><strong>Aboriginal status</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aboriginal</td>
<td>654</td>
<td>3.6</td>
<td>139</td>
<td>2.5</td>
<td>793</td>
<td>3.4</td>
</tr>
<tr>
<td><strong>Language</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other than English</td>
<td>1439</td>
<td>7.9</td>
<td>559</td>
<td>10.2</td>
<td>1998</td>
<td>8.4</td>
</tr>
<tr>
<td><strong>SEIFA</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3rd 4th &amp; 5th quintile (most disadvantaged)</td>
<td>12045</td>
<td>66.4</td>
<td>3658</td>
<td>66.8</td>
<td>15703</td>
<td>66.5</td>
</tr>
<tr>
<td><strong>Region</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Major City</td>
<td>10840</td>
<td>59.8</td>
<td>3267</td>
<td>60.3</td>
<td>14137</td>
<td>59.9</td>
</tr>
</tbody>
</table>

** Significant at p<0.001; NS not significant, ≠ consenting participants only
Importantly, the GHS is attracting participants in the lowest quintiles of advantage (as measured by Socio Economic Index for Areas: SEIFA\(^{(2)}\)), with a higher proportion of participants from the 3rd, 4th and 5th quintiles (most disadvantaged) than would be expected from the proportion of NSW adults in those quintiles (Figure 5). Similarly, there are a greater proportion of participants from regional locations, compared to major cities (as measured by Accessibility/Remoteness Index of Australia: ARIA\(^{(2)}\)) than would be expected from the proportion of NSW adults who reside in those locations (Figure 6).

The GHS is also attracting a significant number of females and those in paid employment.

The GHS is being used by those in the community who are most in need including those in the most disadvantaged quintiles those in regional and remote locations and those who have a high risk of chronic disease.

**Figure 5: SEIFA Index: Comparison between GHS participants and NSW Adults (20 years+)**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Quintile - most advantaged</td>
<td>20.4</td>
<td>15.4</td>
</tr>
<tr>
<td>2nd Quintile</td>
<td>21.0</td>
<td>18.5</td>
</tr>
<tr>
<td>3rd Quintile</td>
<td>19.4</td>
<td><strong>32.2</strong></td>
</tr>
<tr>
<td>4th Quintile</td>
<td>19.7</td>
<td><strong>22.4</strong></td>
</tr>
<tr>
<td>5th Quintile - most disadvantaged</td>
<td>19.5</td>
<td><strong>11.8</strong></td>
</tr>
</tbody>
</table>
**Figure 6: ARIA Classification: Comparison between GHS participants and NSW adults (20 years+)**

<table>
<thead>
<tr>
<th>ARIA Classification</th>
<th>NSW Population (2011)</th>
<th>GHS participants (2009-2013)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major Cities</td>
<td>73.4</td>
<td>59.8</td>
</tr>
<tr>
<td>Inner Regional</td>
<td>19.5</td>
<td>25.4</td>
</tr>
<tr>
<td>Outer Regional</td>
<td>6.6</td>
<td>13.6</td>
</tr>
<tr>
<td>Remote/Very Remote</td>
<td>0.6</td>
<td>1.2</td>
</tr>
</tbody>
</table>

Per cent
The socio-demographic profile of GHS participants over the time GHS has been operating has also changed, with increases in the proportion of:

- coaching participants (a 29.6% increase, from 67.9% in 2009 to 97.5% in 2013),
- males (an 8.2% increase, from 19.5% in 2009 to 27.7% in 2013), and
- Aboriginal participants (a 2.4% increase, from 2.3% in 2009 to 4.7% in 2013).

Other changes in the socio-demographic of participants are detailed in Table 3.

**Table 3:** Socio-demographic profile of all GHS participants over time (February 2009 – December 2013)

<table>
<thead>
<tr>
<th></th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>ALL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Males **</td>
<td>553</td>
<td>19.5</td>
<td>968</td>
<td>23.4</td>
<td>1479</td>
<td>29.4</td>
</tr>
<tr>
<td>18-49 years **</td>
<td>1555</td>
<td>54.9</td>
<td>2278</td>
<td>55.1</td>
<td>2528</td>
<td>50.2</td>
</tr>
<tr>
<td>High school education</td>
<td>1219</td>
<td>43.3</td>
<td>1582</td>
<td>39.3</td>
<td>2275</td>
<td>45.4</td>
</tr>
<tr>
<td>Paid employment**</td>
<td>1917</td>
<td>68.0</td>
<td>2852</td>
<td>70.8</td>
<td>3189</td>
<td>63.6</td>
</tr>
<tr>
<td>Aboriginal **</td>
<td>66</td>
<td>2.3</td>
<td>108</td>
<td>2.6</td>
<td>151</td>
<td>3.0</td>
</tr>
<tr>
<td>Language other than English **</td>
<td>224</td>
<td>7.9</td>
<td>374</td>
<td>9.0</td>
<td>328</td>
<td>6.5</td>
</tr>
<tr>
<td>3rd, 4th &amp; 5th quintile (most disadvantaged) **</td>
<td>1777</td>
<td>62.8</td>
<td>2519</td>
<td>61.1</td>
<td>3372</td>
<td>67.1</td>
</tr>
<tr>
<td>Major City</td>
<td>1751</td>
<td>61.9</td>
<td>2421</td>
<td>58.8</td>
<td>2956</td>
<td>58.8</td>
</tr>
<tr>
<td>Coaching participant **</td>
<td>1923</td>
<td>67.9</td>
<td>2478</td>
<td>60.0</td>
<td>3125</td>
<td>62.1</td>
</tr>
</tbody>
</table>

** Significance for trend using linear by linear chi-square tests at p<0.001
With the introduction of an amended medical screening process in May 2012 there has been a significant decrease of 11.3% in the proportion of participants that required medical clearance prior to commencing coaching.

Importantly, this change in medical clearance has also resulted in a greater proportion of:

- males
- those aged over 50 years
- those with a high school education
- Aboriginal participants
- those who speak a language other than English at home and
- those located in major cities participating in the coaching program.

Previously 36% of coaching participants required medical clearance

After the amended medical screening process in May 2012

25% of coaching participants now require medical clearance

36% Before

25% After
2.5 Risk factor profile of GHS coaching participants

The following list details the risk factor profile of the coaching participants who registered and commenced the coaching program between February 2009 and December 2013:

- 32.5% were overweight and 52.7% were obese according to their Body Mass Index (BMI) classification
- 15.2% had an increased risk and 75.9% had a greatly increased risk of chronic disease due to their waist circumference

• 52.5% consumed less than the recommended levels of two daily serves of fruit
• 88.1% consumed less than the recommended levels of five daily serves of vegetables
• 65.7% did not undertake the recommended levels of weekly physical activity.

The risk factor profile of those who start the coaching program has not changed considerably over the first five years of its operation, as described in Table 4.

Table 4: Risk factor profile of GHS coaching participants (February 2009 – December 2013)

<table>
<thead>
<tr>
<th></th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>ALL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Overweight</td>
<td>460</td>
<td>33.2</td>
<td>585</td>
<td>32.3</td>
<td>674</td>
<td>31.9</td>
</tr>
<tr>
<td>Obese</td>
<td>729</td>
<td>52.6</td>
<td>864</td>
<td>53.2</td>
<td>1168</td>
<td>55.3</td>
</tr>
<tr>
<td>Increased waist circumference risk*</td>
<td>141</td>
<td>14.6</td>
<td>183</td>
<td>14.2</td>
<td>231</td>
<td>14.4</td>
</tr>
<tr>
<td>Greatly increased waist circumference risk*</td>
<td>753</td>
<td>78.0</td>
<td>1063</td>
<td>78.1</td>
<td>1227</td>
<td>76.6</td>
</tr>
<tr>
<td>Less than 2 serves of daily fruit</td>
<td>691</td>
<td>49.3</td>
<td>930</td>
<td>50.4</td>
<td>1185</td>
<td>56.0</td>
</tr>
<tr>
<td>Less than 5 serves of daily vegetables</td>
<td>1179</td>
<td>84.1</td>
<td>1630</td>
<td>88.3</td>
<td>1946</td>
<td>91.9</td>
</tr>
<tr>
<td>Insufficient Physical activity*</td>
<td>679</td>
<td>50.1</td>
<td>1246</td>
<td>70.4</td>
<td>1382</td>
<td>67.4</td>
</tr>
</tbody>
</table>

* Waist circumference risk was computed differently for males and females. For males: increased risk ≥94cm and <102cm, greatly increased risk ≥102cm; for females: increased risk ≥80cm and <88cm, greatly increased risk ≥88cm.

# Insufficient physical activity is defined as not engaging in ≥5 sessions per week of walking, or ≥5 sessions per week of moderate activity, or 3–4 sessions per week of walking and ≥2 sessions per week of moderate activity, or ≥2 sessions per week of walking and 3–4 sessions per week of moderate activity.
“It was very good having that person, it gave you some motivation and justification because if I hadn’t done the right thing I was honest and told her, she didn’t judge.”
Section Three: Effectiveness of the Get Healthy Service Coaching Program

3.1 Outcomes of the 6 month coaching program

GHS participants who completed the 6 month coaching program made significant improvements (Table 5) to their:

- weight
- waist circumference
- Body Mass Index (BMI)
- physical activity
- healthy eating behaviours

Participants who completed the 6 month coaching program on average lost **3.8kg** and **5.1cm** off their waist circumference.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Baseline</th>
<th>6 months</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight (kg)</td>
<td>3922</td>
<td>85.8</td>
<td>82.0</td>
<td>-3.8</td>
</tr>
<tr>
<td>BMI (kg/m2)</td>
<td>3918</td>
<td>30.9</td>
<td>29.6</td>
<td>-1.4</td>
</tr>
<tr>
<td>Waist circumference (cm)</td>
<td>3247</td>
<td>101.6</td>
<td>96.6</td>
<td>-5.1</td>
</tr>
<tr>
<td>Fruit (daily serves)</td>
<td>3892</td>
<td>1.7</td>
<td>2.0</td>
<td>0.4</td>
</tr>
<tr>
<td>Vegetables (daily serves)</td>
<td>3912</td>
<td>2.7</td>
<td>4.0</td>
<td>1.2</td>
</tr>
<tr>
<td>Sweetened drinks (daily serves)</td>
<td>3741</td>
<td>0.4</td>
<td>0.1</td>
<td>-0.3</td>
</tr>
<tr>
<td>Takeaway meals (weekly serves)</td>
<td>3762</td>
<td>0.8</td>
<td>0.3</td>
<td>-0.5</td>
</tr>
<tr>
<td>Walking (no. 30min sessions per week)</td>
<td>3900</td>
<td>2.4</td>
<td>3.6</td>
<td>1.2</td>
</tr>
<tr>
<td>Moderate Physical activity (no. 30min sessions per week)</td>
<td>3796</td>
<td>1.0</td>
<td>1.7</td>
<td>0.7</td>
</tr>
<tr>
<td>Vigorous physical activity (no. of 20min sessions per week)</td>
<td>3744</td>
<td>0.4</td>
<td>0.8</td>
<td>0.4</td>
</tr>
</tbody>
</table>

** Significant at p<0.001; matched pair analysis; ¥ T-test undertaken for matched paired samples for significant mean difference; €Non parametric test undertaken for related samples for significant median difference.

Table 5: Anthropometric and behavioural risk factor changes from baseline to 6 months for GHS coaching participants (February 2009 – December 2013)
Importantly, improvements in weight, waist circumference, moderate physical activity, fruit and vegetable and take-away meal consumption remained significant after adjusting for socio-demographic characteristics.  

56% of participants who completed the 6 month coaching program lost between 2.5% - 10% of their original body weight.
“One of the things my health coach taught me was about calories, I am now very mindful of calories as well as 5 servings of fruit and vegetables... it has been a great learning experience.”

LAUREL
These results show that GHS is facilitating significant lifestyle improvements where it is needed most. GHS participants considerably improved their risk of chronic disease, with more than half (56.0%) losing 2.5-10% of their baseline body weight and a further 8% of participants losing more than 11% of their initial body weight. Further there have been changes in the proportion of participants who are classified as being obese (Figure 7).

Aboriginal participants who completed the 6 month coaching program on average lost 4kg and made significant improvements to healthy eating and physical activity levels.

Figure 7: Proportion of participants classified as obese and overweight at baseline and 6 months
There have also been significant improvements in the proportion of participants who are meeting recommended levels of physical activity and fruit and vegetable consumption.

**Figure 8:** Proportion of GHS participants meeting recommended amounts of fruit and vegetables and levels of physical activity from baseline to 6 months

- **Baseline**
  - Consumes recommended amount of **fruit**: 48%
  - Consumes recommended amount of **vegetables**: 12%
  - Undertakes recommended amount of **physical activity**: 34%

- **6 months**
  - Consumes recommended amount of **fruit**: 80%
  - Consumes recommended amount of **vegetables**: 39%
  - Undertakes recommended amount of **physical activity**: 62%
The improvements made by GHS participants who complete the coaching program have remained fairly constant over time (Table 6), with no significant differences between improvements on anthropometric and behavioural risk factors.

Table 6: Anthropometric and behavioural risk factor improvements for GHS participants who complete the coaching program by year (February 2009 – December 2013)

<table>
<thead>
<tr>
<th>Change</th>
<th>2009 (n=487)</th>
<th>2010 (n=539)</th>
<th>2011 (n=678)</th>
<th>2012 (n=1789)</th>
<th>2013 (n=429)</th>
<th>ALL (n=3922)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight (kg)</td>
<td>-3.3</td>
<td>-3.9</td>
<td>-4.2</td>
<td>-3.6</td>
<td>-4.2</td>
<td>-3.8</td>
</tr>
<tr>
<td>BMI (kg/m²)</td>
<td>-1.2</td>
<td>-1.4</td>
<td>-1.5</td>
<td>-1.3</td>
<td>-1.5</td>
<td>-1.4</td>
</tr>
<tr>
<td>Waist circumference (cm)</td>
<td>-4.6</td>
<td>-5.1</td>
<td>-5.1</td>
<td>-5.0</td>
<td>-5.8</td>
<td>-5.1</td>
</tr>
<tr>
<td>Fruit (daily serves)</td>
<td>0.2</td>
<td>0.3</td>
<td>0.4</td>
<td>0.5</td>
<td>0.3</td>
<td>0.4</td>
</tr>
<tr>
<td>Vegetables (daily serves)</td>
<td>0.8</td>
<td>1.1</td>
<td>1.2</td>
<td>1.3</td>
<td>1.5</td>
<td>1.2</td>
</tr>
<tr>
<td>Sweetened drinks (daily serves)</td>
<td>-0.4</td>
<td>-0.2</td>
<td>-0.3</td>
<td>-0.3</td>
<td>-0.3</td>
<td>-0.3</td>
</tr>
<tr>
<td>Takeaway meals (weekly serves)</td>
<td>-0.5</td>
<td>-0.4</td>
<td>-0.5</td>
<td>-0.4</td>
<td>-0.4</td>
<td>-0.5</td>
</tr>
<tr>
<td>Walking (no. 30min sessions per week)</td>
<td>0.6</td>
<td>1.3</td>
<td>1.2</td>
<td>1.2</td>
<td>1.3</td>
<td>1.2</td>
</tr>
<tr>
<td>Moderate Physical activity (no. 30min sessions per week)</td>
<td>0.0</td>
<td>0.7</td>
<td>0.9</td>
<td>0.8</td>
<td>0.4</td>
<td>0.7</td>
</tr>
<tr>
<td>Vigorous physical activity (no. of 20min sessions per week)</td>
<td>0.6</td>
<td>0.4</td>
<td>0.4</td>
<td>0.4</td>
<td>0.4</td>
<td>0.4</td>
</tr>
</tbody>
</table>
3.2 Outcomes of GHS coaching program for participants referred by GP’s and health professionals

A study undertaken for the evaluation of the GHS, focused on the differences between GP referral, other health professional referral and other sources (including mass media, family and friends and workplaces) and the health behaviour improvements coaching participants made after completing the 6 month coaching program. Regardless of the referral source, the improvements experienced by coaching participants were the same.

GPs and other health professionals have an important role in referring clients to the GHS:

- GP’s and other health professionals can target those in the community who are most at need of the assistance that GHS can offer, both in terms of a client’s socio-demographic profile but also their risk factor profile.
- Knowing that the results of those who were referred by health professionals are the same as those self-referred could also provide impetus for health professionals to refer to GHS as it places less importance on self-motivation and suggests that health professionals can ignite the motivation of clients to make significant lifestyle improvements to their chronic disease risk factors.
- The GHS is an effective service that can complement patient care provided by GPs and other health professionals.

Early indications for participants in the type 2 Diabetes Prevention Module are promising, with those who have completed 3 months of the coaching program losing on average 3.2kg.

Participants who were referred by their GP or other health professional made the same improvements to their risk factor profile as those who were self-referred to the coaching program.
3.3 Maintenance of behaviour change of coaching participants

A 12 month follow-up study (6 months after completing coaching and 12 months from baseline)\(^2\) showed that the anthropometric improvements made at the completion of the coaching program were maintained for a further 6 months (12 months from baseline).

Key results relating to maintenance of behaviour change were:

- Significant decreases in weight from baseline to 12 months and these were maintained from the completion of the coaching program
- Significant improvements in waist circumference from baseline to 12 months and these were also maintained from the completion of the coaching program
- Increased fruit and vegetable consumption from baseline to 12 months; this impact was maintained for fruit consumption from the end of the coaching program but the degree of improvement was not maintained for vegetable consumption
- Improvements in the proportion of participants undertaking recommended levels of physical activity from baseline to 12 months, however, these improvements were not maintained from the end of the coaching program
- After adjusting for baseline levels and socio-demographic variables, the coaching program had significant maintenance effects for all anthropometric measurements and for fruit consumption.

Figure 9 demonstrates the proportion of GHS coaching participants who are classified as a healthy weight and with ‘no risk’ waist circumference after completing the coaching program and at 6 months post follow up (12 months from baseline).

Participants who completed the 6 month coaching program maintained the improvements they made 6 months after the coaching program was completed.
3.4 Costing of GHS

A costing study undertaken of GHS in 2012 concluded that:

- Key outcomes (such as 5% or more weight loss) were more frequently achieved after 26 weeks of coaching rather than 12 weeks.

- The marginal cost of keeping people in the coaching program for the full 26 weeks is smaller than the associated increase in achieving these outcomes; the 26 week program is generally also more cost effective.

- The mean coaching costs ranged from $640 to $1,030 per person depending upon the assumptions used to develop the models (and their inclusions of fixed, variable and marketing costs).

- Models which excluded the costs of marketing had substantially lower costs as marketing costs were estimated to be $350 per person.
“It was very hard to start but once you do it’s too easy and now it’s become part of my everyday life.”

PARMINDER
The success of the Get Healthy Information and Coaching Service® in delivering significant health improvements means that further effort needs to go in to increasing participation and completion of the coaching program by the identified target groups.

This will occur through continued marketing and promotion, but also by working with GP’s and health professionals to increase their referrals to the GHS. Workplaces will also be an important site for promoting the service and referrals through the new Get Healthy at Work initiative that will commence in NSW from July 2014.

Future directions for 2014-15 include:

- Direct referral to the GHS following brief health checks in targeted workplaces across NSW through the Get Healthy at Work initiative
- Continuation of the new testimonial campaign which involves GHS participants sharing their personal experience and success with using the GHS
- Evaluating the Aboriginal module, including Social Networking analysis and an Appropriateness Study
- Implementing a new Gestational Weight Gain module for healthy weight gain during pregnancy
- Investigating the effectiveness of referral and promotion by pharmacies
- Finalising the Get Healthy Stay Healthy Trial to assess the efficacy of a mobile telephone-delivered intervention to enhance maintenance of behavioural changes attained following the completion of the 6 month coaching program
- Investigating the feasibility of implementing a 12 month follow-up for GHS participants
- Conducting further economic evaluation of GHS, including a systematic review and cost-benefit analysis

Early results from the ‘Get Healthy Stay Healthy Trial’ indicate that coaching participants who received text messaging for 6 months after completing the coaching program continued to lose weight.
PARMINDER’S Get Healthy Story

“It was very hard to start but once you do it’s too easy and now it’s become part of my everyday life.”

Food has always been a part of Parminder’s life and culture. Born and raised in India, Parminder admits that Indian food features weekly on the menu in his household, especially when his mother is in town. Parminder was struggling with his weight and after hearing the Get Healthy Service advertisement on the radio he immediately signed up.

With a wife and 2 year old daughter, Parminder never wanted his struggles with food to impact on his family. On a social level, he never wanted his family to feel like they were missing out as taking them to nice restaurants was important to him. Physically, Parminder never wanted to pass on his bad habits to his daughter and create struggles for her future.

“I’m a family man with a 2 year old and a partner and we love to eat out. At no stage did I want my health issues to affect my family” he says.

With the help of the program and his health coach, Parminder lost 17 1/2 kilograms by setting realistic goals every week. He admits he still indulges with Indian food but now understands the importance of a balanced diet and a healthy lifestyle. Rather than miss out, Parminder now cuts back on portion sizes and when he feels like he has indulged too much he often increases his fruit intake to flush out his system; a piece of advice from his health coach.

Since losing the weight, Parminder is amazed at how much energy he has “for the first time in my life I realised how active and energetic I was.”

Eating healthily, exercising regularly and enjoying life with newfound energy have now become part of Parminder’s everyday life. He exercises 4-5 times a week without the aid of a trainer and has even motivated his wife to start running. Together as a family they both understand the importance of setting a positive example for their 2 year old daughter and they spend more time outdoors in the park.
REFERENCES


