

## Appendices

Appendix A: MBS Item 717 (45-49 year old health check) item descriptor

Appendix B: A flowchart of patient recruitment and data collection

Appendix C: Pre-visit practice details form

Appendix D: Clinician survey

Appendix E: Clinician semi-structured interview schedule

Appendix F: Patient survey

Appendix G: Brief report from a sub-study on GP decision making on SNAP risk factors

Appendix H: Health check template for medical software

Appendix I: GP characteristics

<http://www9.health.gov.au/mbs/fullDisplay.cfm?type=item&q=717&qt=item>

## Medicare Benefits Schedule - Item 717

---

[View Associated Notes](#)

Category 1 - ATTENDANCES

**717**

### **45 YEAR OLD HEALTH CHECK**

Attendance by a medical practitioner (including a general practitioner but not including a specialist or consultant physician) **AT A PLACE OTHER THAN A HOSPITAL** to undertake a health check for a patient between the age of 45 and 49 (inclusive) at risk of developing a chronic disease.

Benefits are payable on **one** occasion only for each eligible patient.

**Fee:** \$102.20 **Benefit:** 100% = \$102.20

(See para [A.28](#) of explanatory notes to this Category)

[<Previous - Item 716 Next - Item 718>](#)

---

### **Associated Notes**

Category 1 - ATTENDANCES

[A.28](#)

**45 Year Old Health Check (Item 717)**

**A.28 45 YEAR OLD HEALTH CHECK (Item 717)**

The purpose of this item is to support general practitioners (GPs) to focus on the health needs of their patients around 45 years of age who are at risk of developing a chronic disease. The aim of the health check is to assist with detection and prevention of chronic disease and enable early intervention strategies to be put in place where appropriate.

### **Eligible Population**

A.28.1 The health check is targeted at people who are between 45 and 49 years of age (inclusive) who are at risk of developing a chronic disease.

## **Risk Factors**

A.28.2 A patient must be at risk of developing a chronic disease. A chronic disease or condition is one that has been or is likely to be present for at least six months, including but not limited to asthma, cancer, cardiovascular illness, diabetes mellitus, mental health conditions, arthritis and musculoskeletal conditions.

A.28.3 The decision about whether an individual is at risk of developing a chronic disease rests with the clinical judgement of the GP, but a specific risk factor must be identified. Factors that the GP may consider include, but are not limited to:

- lifestyle risk factors, such as smoking, physical inactivity, poor nutrition or alcohol misuse;
- biomedical risk factors, such as high cholesterol, high blood pressure, impaired glucose metabolism or excess weight; or
- family history of a chronic disease.

A.28.4 Where possible, practices are encouraged to identify whether a patient is at risk of developing a chronic disease through normal patient management and examination of patient records.

A.28.5 In circumstances where the GP is unsure whether the patient is at risk of developing a chronic disease, for example, because the patient is new to the practice, the GP may choose either to:

- determine whether the patient has a risk factor and, if so, undertake the health check in the same visit (billed under item 717); or
- determine whether the patient has a risk factor as part of a consultation (billed under the appropriate attendance item) and, if so, undertake the health check during a subsequent visit (billed under item 717).

If the patient does not have a risk factor, the appropriate attendance item would be billed.

## **Limits**

A.28.6 A Medicare rebate is payable for this item only once for any eligible patient. This item is not an annual health check.

A.28.7 If a GP is unsure whether a patient has already received this service, they may call Medicare Australia, with the patient present, on 132 011.

A.28.8 The item does not apply to admitted patients of a hospital.

## **Eligible practitioners**

A.28.9 This item can be claimed by a medical practitioner, including a general practitioner but not including a specialist or consultant physician. In these notes, the term "GP" is used as a generic reference to a medical practitioner able to claim this item.

A.28.10 The health check should generally be undertaken by the patient's 'usual doctor', that is, the GP who has provided the majority of services to the patient in the past 12 months, or is likely to provide the majority of services in the following 12 months.

## **Components of the health check**

A.28.11 The health check must include:

- information collection, including taking a patient history and undertaking examinations and investigations as required;
- making an overall assessment of the patient;
- interventions as indicated; and
- providing advice and information to the patient.

## ***Information Collection***

A.28.12 The health check must include taking a patient history (if one does not already exist) or updating an existing history. The examination should be tailored to the patient's individual needs and risk factors. Investigations should be undertaken or arranged as clinically indicated, in accordance with relevant guidelines (see below).

## ***Assessment of Patient***

A.28.13 The health check must include an overall assessment of the patient's health, based on the patient history, examinations and the results of any investigations. This could also include an assessment of the patient's readiness to make lifestyle changes.

## ***Interventions***

A.28.14 Where appropriate, arrangements need to be put in place for referrals and follow-up of any problems identified.

## ***Advice and information to the patient***

A.28.15 The patient must be provided with advice and information as part of the health check. This should include advice on strategies to achieve lifestyle and behaviour changes where appropriate, utilising, in particular, the Lifescripts resources.

## **Role of the GP**

A.28.16 The GP is responsible for the overall health check provided to the patient. The GP is expected to take a primary role in the following activities:

- Reviewing and analysing the information collected.
- Making an overall assessment of the patient.
- Undertaking and arranging investigations.
- Making referrals and identifying appropriate follow-up.
- Providing advice to the patient.

## **Role of the practice nurse and other health professionals**

A.28.17 Practice nurses, Aboriginal Health Workers and other health professionals may assist GPs in performing the health check, in accordance with accepted medical practice and under the supervision of the GP.

This may include activities associated with:

- identifying eligible patients through examination of patient records and patient information systems used within the practice;
- information collection (such as measuring height, weight and blood pressure);
- providing patients with information about recommended interventions at the direction of the GP (such as information about community resources and support services in the local area, referral options).

## **Guidelines**

A.28.18 In considering and addressing risk factors, GPs are encouraged to utilise relevant guidelines and resources, such as:

- the RACGP publications: "*SNAP - a population health guide to behavioural risk factors in general practice*"; "*Putting Prevention into Practice*" (the Green Book); and "*Guidelines for Preventive Activities in General Practice*" (the Red Book).
- the National Health and Medical Research Council's publication "*Overweight and Obesity in Adults: A Guide for General Practitioners*".
- the Department of Health and Ageing's *Lifescrpts* guidelines and evidence cards, assessment tools and prescription pads.

## Relationship with other items

A.28.19 This health check item cannot be claimed in conjunction with another GP attendance item on the same day, except where this is clinically required.

A.28.20 For patients with an existing chronic condition, the Chronic Disease Management (CDM) items (721-731) provide a suite of items for the management and review of chronic conditions. Where a patient has an existing chronic condition, it is up to the clinical judgement of the GP whether the patient should receive a health check under this item or be managed through other services.

A.28.21 Indigenous people are able to access a specific health check under the Aboriginal and Torres Strait Islander Adult Health Check item (710). GPs are encouraged to use item 710 where appropriate. Aboriginal and Torres Strait Islander people may also receive a health check under this item if they meet the patient eligibility requirements.

Related Items: [717](#)

---

## Legend

A - Addition/Deletion of (Assist.)

‡ - Amended Description

@ - Anaesthetic Values Amended

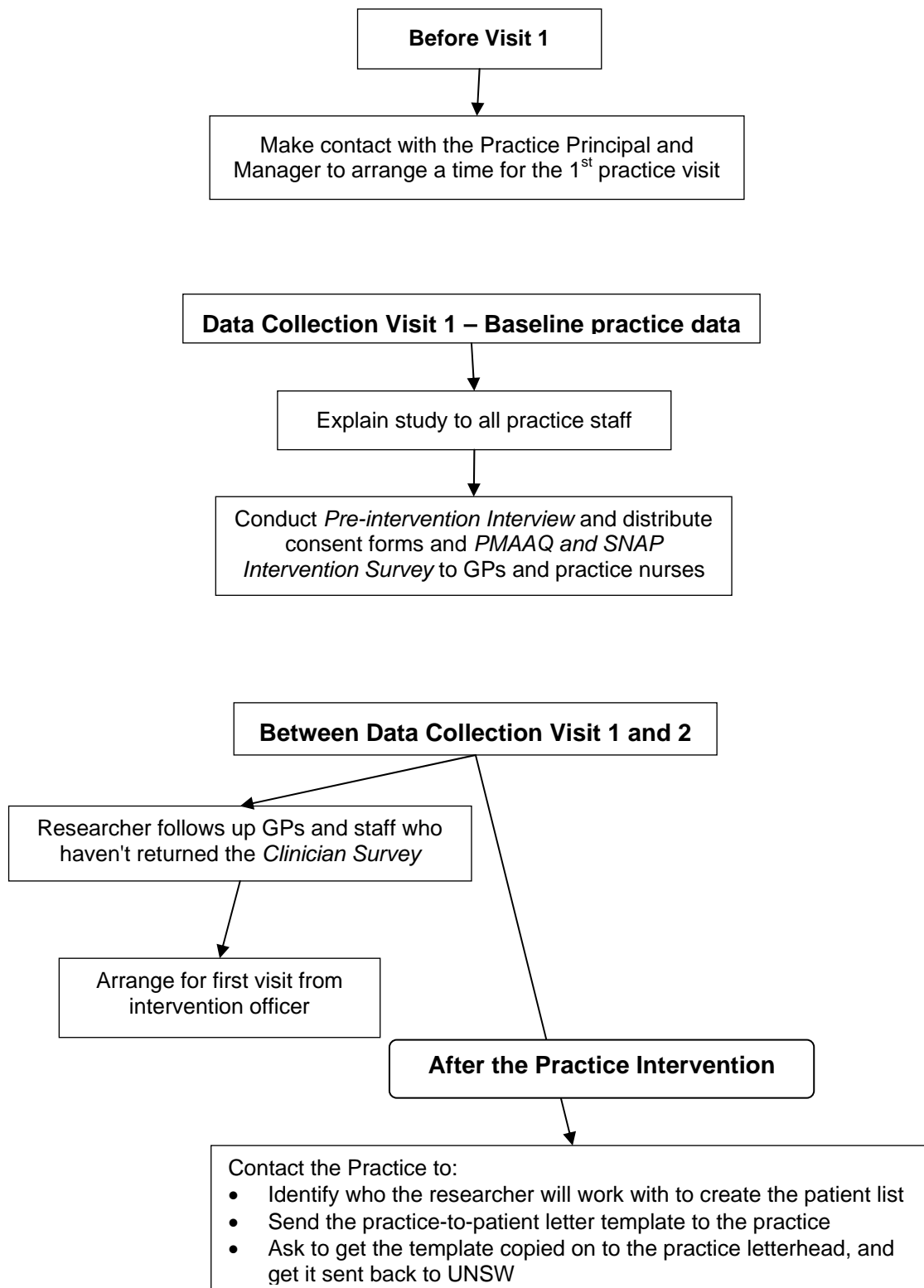
+ - Fee Amended

\* - Item Number Change

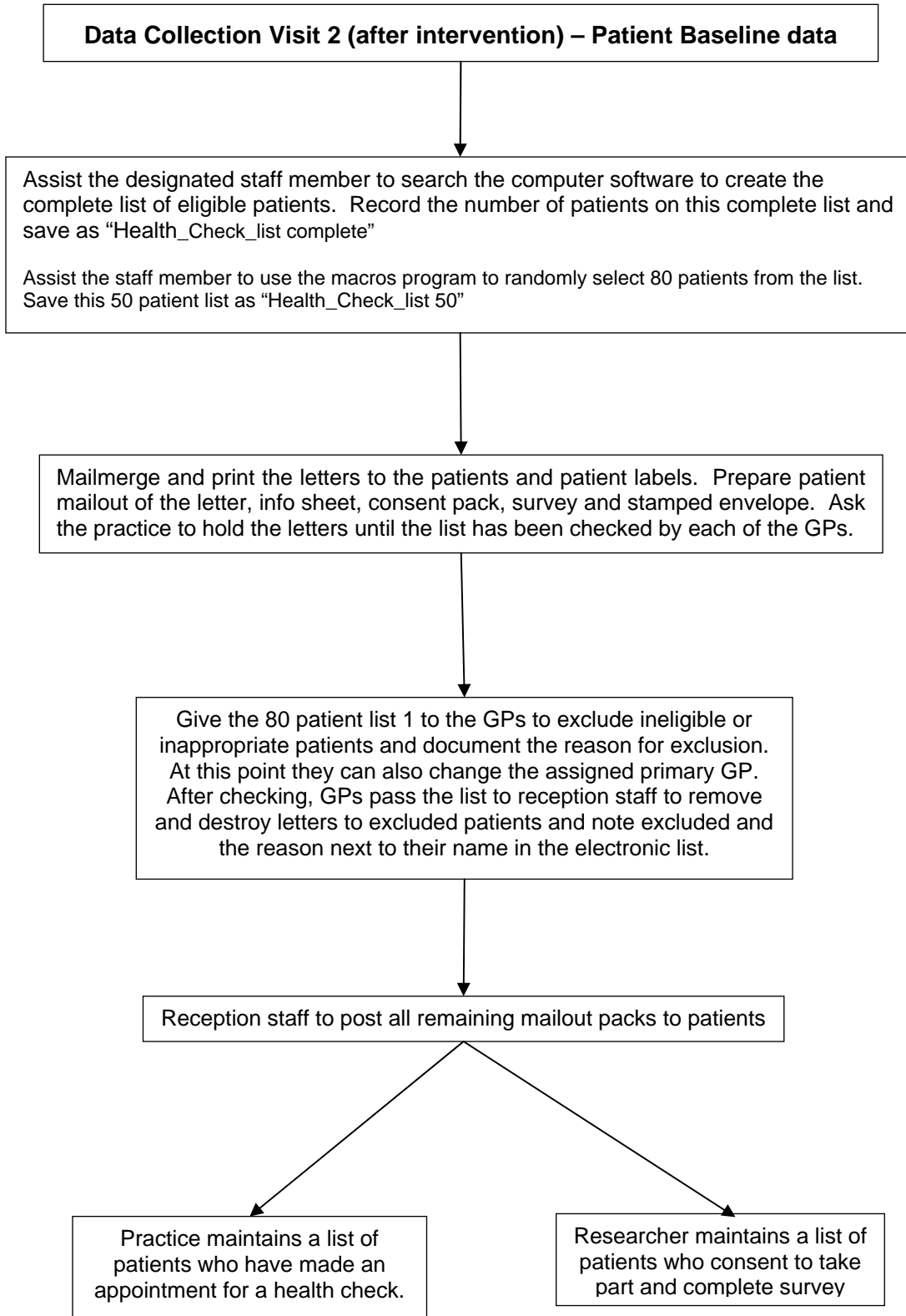
† - New Item

Δ - New Item (previous Ministerial Determination)

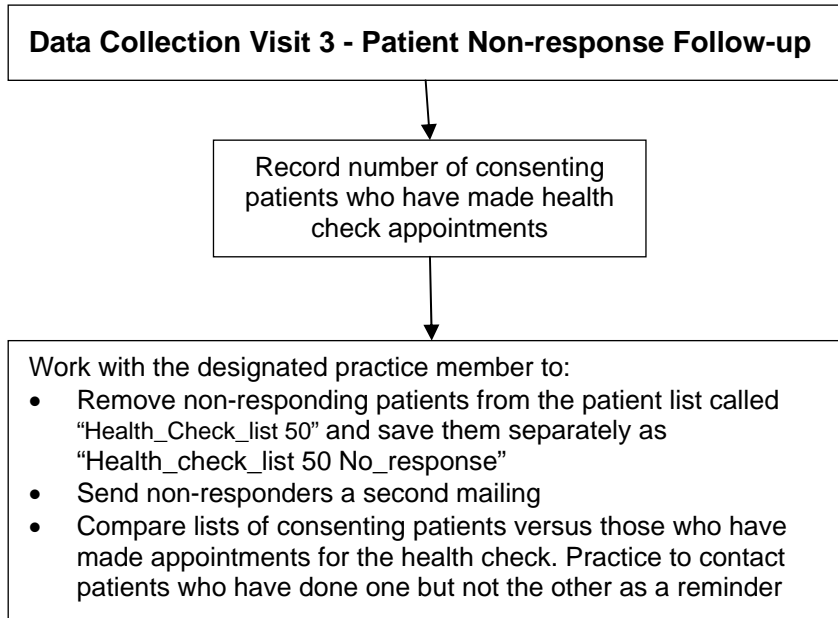
### Patient Recruitment and Baseline Data Collection



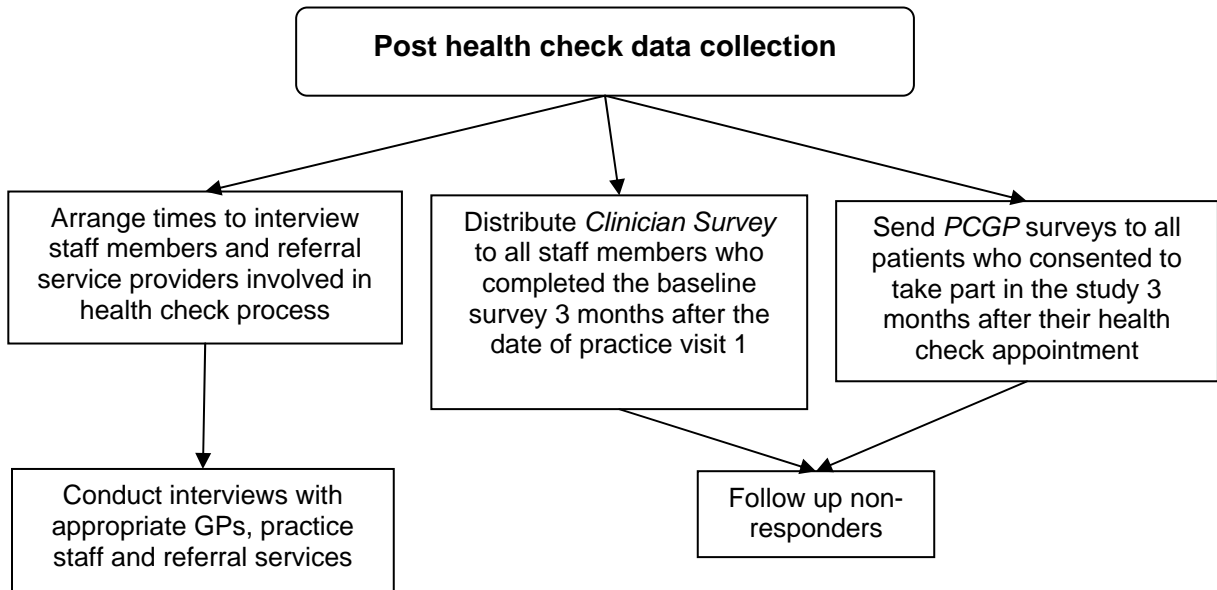
Appendix B







## 1 POST-HEALTH CHECK DATA COLLECTION FLOWCHART





## Lifestyle risk assessment in the 45 year old health check

### PRE-PRACTICE VISIT QUESTIONNAIRE (To be completed by Principal GP and/or Practice Manager)

1. Practice Name: \_\_\_\_\_

Practice Staff

If the practice has more staff than spaces provided, please attach an additional sheet with details

---

2. **General Practitioner(s):**

General Practitioner Name	M/F	Average hours worked per week	Taking part in this Health Check project?
			<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No

3. **Receptionist(s)**

Receptionist(s) Name	M/F	Average hours per week

4. **Nurse(s):**

4.1 Does the practice have a Practice Nurse(s)?..... Yes  No

4.2 **If yes**, does the nurse currently play a role in chronic disease management or prevention in the practice (ie assisting with care plans, or risk factor assessment, advice, or referral).....  Yes  No

Practice Nurse(s) Name	M/F	Average hours per week

5. Does the practice have a non-GP Practice Manager?.....  Yes  No

Practice Manager(s) Name	M/F	Average hours per week

6. Does the practice employ or rent rooms to any Allied Health Professionals or Specialists?  Yes  No

**If yes** please provide details.....

*Practice Systems*

---

7. Which days and hours is practice open: .....
8. Does the practice have an appointment system?..... Yes No  
*If yes*, booking interval:  <5 mins  5-10 mins  11-15 mins  >15 mins
9. Does the practice bulk-bill?.....Yes, for all consults Yes, for some consults No  
*If some consults*, which? (*ie health care card only, immunisations*)... ..
10. Which clinical software program is used in the practice? (*eg Medical Director, Spectrum*).....
11. Do GPs use a computer to record medical notes?..... Yes No Some
12. Does the practice have regular team meetings? .....Yes No  
*If yes* how often are these held .....
- Who attends these meetings?..  All staff  GPs only  GPs and nurses  Other.....
13. Are longer consultations scheduled for care planning, health assessments, case conferencing or chronic disease checks?..... Yes No
14. Does the practice currently use the following MBS Enhanced Primary Care Items (please circle):
- 14.1 Aged Care Assessment? ..... Yes No
- 14.2 Multidisciplinary Care Plans? .....Yes No
- 14.3 Team Care Arrangements?..... Yes No
- 14.4 GP Management Plans? .....Yes No
- 14.5 45 Year old Health Check?..... Yes No
15. Does the practice need education materials for patients aged 45-49 in languages other than English?..... Yes No  
*If yes*, which language(s).....

*Patient Register and Recall*

---

16. Does the practice use any patient registers?.....Yes No  
*If yes*, what type?  Age / sex  Specific disease/risk factor  Other .....
17. Does the practice have a system to recall patients for ongoing care? .....Yes No  
*If yes*, who manages this? Nurse GP Prac Manager Receptionist
18. If the practice has a recall system, is it computer-based?.....Yes No
19. If the practice has a recall system, which conditions is it used for?.....

**Thank you for completing the questionnaire. Please fax this to Cheryl Amoroso on 9385 1513.**







## Appendix D

10 During the past 60 days when a patient was identified with a lifestyle risk factor, how often did you ask them to return for a follow up visit to **check their progress** for management of

	Never 0%	Rarely 1-20%	Sometimes 21-40%	About half the time 41-60%	Often 61-80%	Usually 81-99%	Always 100%	Did not identify this risk factor
<u>Smoking</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<u>Poor nutrition</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<u>At-risk alcohol consumption</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<u>Physical inactivity</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

11 Please rate your **confidence** in undertaking the following activities with patients:

	Not at all confident	Minimally confident	Somewhat confident	Moderately confident	Very confident
<u>Assessing nicotine dependency</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<u>Smoking cessation recommendations</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<u>Assessing nutrition</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<u>Nutrition recommendations</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<u>Assessing for risk alcohol consumption</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<u>Safe alcohol consumption recommendations</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<u>Assessing physical activity levels</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<u>Physical activity recommendations</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<u>Motivational interviewing</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<u>Assessing a patient's readiness to change</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

12 Patients find it **acceptable** for me to raise the following lifestyle issues routinely as part of the consultation:

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
<u>Smoking</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<u>Nutrition</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<u>Alcohol Consumption</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<u>Physical Activity</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

13 How much of a **work priority** is addressing the following patient lifestyle risk factors for your practice?

	Not a priority	Low priority	Moderate priority	High priority	Very high priority
<u>Smoking cessation</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<u>Poor nutrition</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<u>At risk alcohol consumption</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<u>Physical inactivity</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

14 To what extent do you agree with each of the following statements:

## Appendix D

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
Smoking cessation counselling is an effective use of my time as a clinician	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
For most patients health education does little to promote their adherence to a healthy lifestyle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am less effective than professional counsellors in getting patients to quit smoking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Patients without symptoms will rarely change their behaviour on the basis of my advice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Most patients try to change their lifestyles if I advise them to do so	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

15 In your medical practice, how important are the following potential barriers to effective health promotion and disease prevention?

	Not important	Minimally important	Somewhat important	Moderately important	Very important
Lack of time	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lack of availability of health educators	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insufficient reimbursement for preventive services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lack of systems for tracking and prompting preventive care	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Personal lack of interest in providing preventive services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lack of patient interest in prevention	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Uncertainty about what preventive services to provide	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lack of proper patient education materials	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Communication difficulties with patients	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cultural differences between doctors and patients	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The patient came for a different purpose	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Education and training for risk factors

16 In the past 12 months have you had education or training in the management of these risk factors or strategies for helping patients change their behaviour?

Smoking	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Nutrition	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Alcohol	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Physical activity	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Motivational interviewing	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Assessing patients' readiness to change	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Patient education strategies	<input type="checkbox"/> Yes	<input type="checkbox"/> No



Appendix D

17 If YES to any items in questions 17, please describe the type of education/ training you have received

---

---

---

18 Would you like additional education or training in these areas:

- Assessing nicotine dependency  Yes, high priority  Yes, but not high priority  No
- Smoking cessation recommendations  Yes, high priority  Yes, but not high priority  No
- Assessing nutrition  Yes, high priority  Yes, but not high priority  No
- Nutrition recommendations  Yes, high priority  Yes, but not high priority  No
- Assessing for risk alcohol consumption  Yes, high priority  Yes, but not high priority  No
- Recommendations for safe alcohol consumption  Yes, high priority  Yes, but not high priority  No
- Assessing physical activity levels  Yes, high priority  Yes, but not high priority  No
- Physical activity recommendations  Yes, high priority  Yes, but not high priority  No
- Motivational interviewing  Yes, high priority  Yes, but not high priority  No
- Assessing a patient's readiness to change  Yes, high priority  Yes, but not high priority  No

19 If you would like training, in what format would you like to receive it? (tick all that apply)

- workshop  clinical supervision/ mentoring  self-study materials  
 case studies  small group discussions  Other: \_\_\_\_\_

20 Any other comments: \_\_\_\_\_

---

---

**Clinician details**

Gender:  Female  Male

Age:  25-34  35-44  45-54  55-64  65+

Working status:  Full-time  Part-time , If part-time, how many hours do you work per week \_\_\_\_\_

Clinician type:  General Practitioner  Practice nurse

How long have you worked in general practice? \_\_\_\_\_ How long have you worked in this practice? \_\_\_\_\_

**Thank you for your time.**

**Please post the completed survey with your signed consent form to UNSW in the provided envelope.**



THE UNIVERSITY OF  
NEW SOUTH WALES  
SYDNEY · 2052 · AUSTRALIA

### **Health check interview questions for clinicians**

1. Overall, what do you think of the 45-49 health check? What are some of the positive and negative things associated with undertaking the health check?
2. Do you think the health check has or will increase the amount of preventive care that you provide for patients?
3. How many appointments did the health check generally take to complete? How long were these appointments on average?
4. What proportion of patients on average did you ask to return to the practice for follow up of issues identified during the health check? Did patients return?
5. To what extent were lifestyle risk factors such as smoking, poor nutrition, risky alcohol consumption and physical inactivity prevalent for the patients you saw for the health check? What was your experience in addressing these issues with these patients? What made this easier or more difficult?
6. Of those patients who received a health check, did you refer any on to other providers or services? Approximately how many and under what circumstances did you refer patients? What made it easier or more difficult to refer?
7. In your experience do you think particular types of patients were more likely to attend for a health check following the recall letter?  
*Prompt: gender, number of risk factors, health status, employment, education etc*
8. Based on your experience, what support would most help you do the 45+ health check? Do you think it is the same for other GPs and practices? Where would you expect to get this support?  
*Prompt: training, patient education materials, directories, IT/IM systems*
9. Out of the support that was provided as part of the study to do the health check, which of these were most/least useful to you? Why? What other support that was needed?

Appendix E

10. How relevant is the 45-49 year old health check item to your practice population? Will you continue to use the health check item? Will you do this opportunistically or by recall?

11. Do you have any recommendations to improve the health check process or item?

12. Do you have any other comments?



THE UNIVERSITY OF  
NEW SOUTH WALES  
SYDNEY · 2052 · AUSTRALIA

# The 45 - 49 Year Old Health Check Survey

Please answer each question to the best of your ability; your answers will remain confidential.  
After completing the survey, please post it to the University in the provided envelope.

## 1. OVERALL HEALTH

### 1.1 I would say in general that my health is:

- Excellent       Unsure  
 Very Good  
 Good  
 Fair  
 Poor

### 1.2a Over the past 3 months, my health has:

- Improved       Stayed about the same  
 Declined       Unsure

### 1.2b If "improved" or "declined" what are the main reasons?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## 2. DIET

**2.1 How many portions of fruit do you usually eat each day?** *A portion of fruit equals about 1 medium size piece of fruit or 2 small pieces of fruit or ½ glass of fruit juice.* \_\_\_\_\_ portions

**2.2 How many portions of vegetables do you usually eat each day?** *A portion of vegetables equals about ½ cup cooked vegetables, 1 medium potato or 1 cup salad/vegetables* \_\_\_\_\_ portions

**2.3a In the past 3 months, have you increased your fruit or vegetable intake?**

- Yes       No       Unsure

**2.3b In the past 3 months, have you decreased your fat intake?**

- Yes       No       Unsure

## 3. WEIGHT

### 3.1 What is your weight?

\_\_\_ kg or \_\_\_ stone & \_\_\_ pounds

### 3.2 What is your height?

\_\_\_ cm or \_\_\_ feet & \_\_\_ inches

**3.3a In the past 3 months, has there been any change to your weight?**

- Yes, I lost weight       No Change  
 Yes, I gained weight       Unsure

**3.3b If your weight has changed, about how much did you lose or gain?** \_\_\_\_\_

## 4. PHYSICAL ACTIVITY

**4.1 How many times a week do you usually do at least 20 minutes of vigorous physical activity that makes you sweat or puff and pant?** *(For example jogging, heavy lifting, digging, aerobics or fast bicycling)?*

- More than 3 times per week       None  
 1-2 times per week

**4.2 How many times a week do you usually do 30 minutes of moderate physical activity or walking that increases your heart rate or makes you breathe harder than normal?** *(For example lawn mowing, carrying light loads, bicycling at a regular pace, or playing doubles tennis)*

- 5 or more times per week       None  
 3-4 times per week  
 1-2 times per week

**4.3 In the past 3 months, has there been any change in the amount of physical activity you do?**

- Yes, I did more activity       No change  
 Yes, I did less activity       Unsure

## 5. ALCOHOL

**5.1 How often do you usually drink alcohol?**

- Monthly or less       Never *(skip to Q6.1)*  
 2-4 times a month  
 2-3 times a week  
 4+ times a week

**5.2 How many standard drinks do you usually have on a typical day when you are drinking?**

*One standard drink is a measurement approximately equal to:*

1 Schooner of Light beer 425ml		1 Middle of Full- strength Beer 285 ml		1 glass Of wine 100ml		1 nip of Spirits 30ml		1 glass of Port Sherry 60ml
	OR		OR		OR		OR	

- 1-2       3-4       5-6  
 7-9       10 or more

**5. ALCOHOL**

**5.3a** How often, in one occasion, do you have 4 or more standard drinks (if you are a woman) or 6 or more standard drinks (if you are man)?

- Less than monthly       Never  
 Once a month  
 Weekly  
 Daily or almost daily

**5.4a** Over the past 3 months has there been any change in the amount of alcohol you drink?

- Yes, I drank more alcohol       No change  
 Yes, I drank less alcohol       Unsure

**6. TOBACCO**

**6.1** Do you smoke tobacco?

- Yes (*skip to Q6.3*)  
 No, but I used to smoke  
 No, I never smoked (*skip to Q7*)

**6.2** If you used to smoke, when did you quit?

\_\_\_/\_\_\_ (month/year, for example Aug/2006)

**6.3** If you currently smoke, how many cigarettes do you smoke a day? \_\_\_\_\_

**7. LIFESTYLE CHANGE**

**7** For each of the five listed lifestyle factors below tick the box under the heading that best describes you:

*If you do not drink alcohol skip question 7.4*

*If you do not smoke skip question 7.5*

	I am not thinking of doing this	I am thinking of doing this, but <b>not</b> in the next 2 weeks	I am thinking of doing this in the next 2 weeks	I am trying to do this <b>currently</b>	I have done this and <b>maintained</b> this for at least 2 weeks
7.1 Eat more fruits or vegetables	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.2 Eat less dietary fat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.3 Do more physical activity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.4 Drink less alcohol	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.5 Quit smoking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**8. YOUR GENERAL PRACTICE**

**8.1a** In the past 3 months have you visited your usual GP?

- Yes       No       Unsure

**8.1b** If "Yes", how many times? \_\_\_\_\_

**8.2** Did you go to your GP in the last few months for a "45-49 year old health check"?

- Yes       No       Unsure

**8.3** Would you recommend having a health check to other people your age?

- Yes       No       Unsure

**8.4** At your health check, did the GP or nurse discuss any of the following risk factors with you

- Smoking       Yes       No  
Diet       Yes       No  
Alcohol consumption       Yes       No  
Physical activity       Yes       No

- I did not attend for a health check

**8.5** In the past 3 months have any lifestyle changes that you have made (such as changing your diet, doing more exercise, quitting smoking, drinking less alcohol) been the result of attending your GP for a health check?

- I have not made any lifestyle changes  
 I did not receive a health check  
 None of the lifestyle changes I made were as a result of the health check  
 Some or all of the lifestyle changes I made were as a result of the health check

**8.6** How satisfied were you with the support you received in your general practice to help you change your lifestyle?

- Very satisfied       Did not receive support  
 Somewhat satisfied  
 Somewhat dissatisfied  
 Very dissatisfied

**8.7a** In the past 3 months has your GP referred you to any services, programs, or health professionals to assist with the following?

- Healthy eating and nutrition       Yes       No  
Physical activity       Yes       No  
Alcohol consumption       Yes       No  
Smoking cessation       Yes       No

**8. YOUR GENERAL PRACTICE cont.**

**8.7c** If your GP referred you to a specialist or program for diet, physical activity, smoking or alcohol and you did not attend, why did you not attend?

---



---

*Only answer questions 8.8a and 8.8b if you did not attend your GP for a health check*

**8.8a** What are the main reasons you did not attend your GP for a health check (tick all that apply)

- I did not know about the health check
- I am not interested in having a health check
- I did not think I needed a health check
- I did not have the time
- I was concerned about cost
- The doctor who invited me was not my usual GP
- Other (please explain) \_\_\_\_\_

---

**8.8b** Is there anything that could have made you more likely to attend the practice for a health check?

---



---



---

**9. ABOUT YOU**

**9.1** Do you primarily speak English at home?

- Yes       No

*If Yes Skip to Question 9.2*

**9.1a** Which language do you primarily speak at home?

---

**9.2** In which country were you born?

- Australia
- Other country \_\_\_\_\_

**9.2a** If you were born overseas, in what year did you arrive in Australia?

---

**9.3** Are you of Aboriginal or Torres Strait Islander descent?

- Yes       No

**9. ABOUT YOU**

**9.4** Which of the following best describes your accommodation?

- Owner occupied/mortgaged
- Rented from a private landlord
- Rented from the Department of Housing
- Other arrangements

**9.5** Which of the following best describes your employment status?

- Employed (full or part-time, including self-employed or on a training scheme)
- Unemployed and looking for work
- At school or in full-time education
- Unable to work due to long-term sickness or disability
- Looking after your home/family
- Retired from paid work
- Other (Specify) \_\_\_\_\_

**9.6** Which of these is your highest level of education?

- No formal certificate / Qualification
- Completed School Certificate / Intermediate / Year 10/4<sup>th</sup> Form
- Completed HSC / Leaving Year 12 / 6<sup>th</sup> Form
- TAFE Certificate or Diploma
- University, CAE, tertiary institute degree or higher
- Other (Specify) \_\_\_\_\_

**9.7** What is your current marital status? (Please fill in only one square)

- Single
- Separated / Divorced
- Married / De Facto
- Widowed

**Thank you very much for your participation in this study. Please post your survey responses in the provided envelope to complete your participation and be entered into the prize draw.**

## **SNAP Decisions**

### **A Qualitative Study of General Practitioners' Decision-Making in the Screening and Management of Chronic Disease Risk Factors: Smoking, Nutrition, Alcohol and Physical Activity (Decisions within the Health Check Consultation)**

Amanda Ampt, Cheryl Amoroso, Mark Harris, Suzanne McKenzie, Vanessa Rose, Jane Taggart

The research reported in this paper was funded by a Faculty Research Grant, Faculty of Medicine, University of New South Wales.

## **1 Introduction**

The economic and social burden of chronic disease in Australia is growing, with the Australian Institute of Health and Welfare reporting that 77% of the population had at least one long-term condition in 2004-2005. During 2000-2001 chronic diseases accounted for nearly 70% of the total health expenditure allocated to diseases (AIHW, 2006). Added to that, seven out of ten general practice encounters are for chronic conditions (Veale, 2003).

The Australian Institute of Health and Welfare published statistics in 2006 regarding the SNAP lifestyle risk behaviours which stated that more than 85% of adults are not consuming enough vegetables; one in two adults are not getting sufficient physical activity; almost 50% of adults are not consuming enough fruit; and around 21% of adults smoke tobacco. These findings are alarming, especially in the context of the current burden of chronic disease in the Australian community. Due to the prevalence of these risk factors, GPs will need to prioritise which patients they will focus their risk factor assessment and management.

The 45-49 year old Health Check Medicare Item 717 was introduced in Australia in November 2006, with the aim being "...to assist with the prevention of chronic disease and to enable early intervention strategies to be put in place where appropriate" (Australian Government, 2007). It is delivered as a once only consultation by a patient's usual general practitioner (GP) to a patient aged 45 to 49 years of age with at least one risk factor (lifestyle, biomedical or family history) for chronic disease.

The Australian Government stipulates that the 45-49 year old Health Check must include the following:

- Information collection – history, examinations and investigations as required;
- Overall assessment, which can include patients' readiness to make lifestyle changes;

- Interventions with referrals and follow-up as appropriate; and
- Provision of advice and information including strategies to achieve lifestyle risk factor behavioural changes.

Within this Health Check item, there is emphasis on detection and intervention for the SNAP lifestyle risk factors – smoking, nutrition, alcohol consumption and physical inactivity. A study in Spain found that external factors such as size of practice was important in determining frequency of preventive activities in general practice (Lopez de Munain 2001). However, there is currently little known about what influences Australian GPs' decisions regarding screening for and managing SNAP factors in presenting patients. Without knowing what factors impact on GPs' decision-making process, it is difficult to change current GP preventive health care behaviour. Compared with other areas of medical practice, existing behavioural risk factor guidelines are generally less prescriptive, and there is more room for GP judgment regarding interventions. Understanding GPs' decision-making process regarding SNAP risk factors is vital to provide appropriate and effective interventions and support to increase the screening for and management of SNAP risk factors, with the ultimate aim of decreasing the chronic disease burden.

This qualitative study aims to identify the key influencing factors, and asks the specific research questions:

- What are the factors that influence GPs' choosing to opportunistically screen for some, but not all SNAP risk factors in a health check?
- What are the factors that influence GPs' choosing to provide interventions for some, but not all SNAP risk factors present in a patient who is at risk for chronic disease?
- When multiple SNAP risk factors are present, what factors influence the decision regarding which risk factors to address and in what order?
- What is the acceptability and appropriateness of a framework based on factors influencing GPs decisions to support general practices to screen for and manage SNAP risk factors?

Knowledge of these key influences may increase the effectiveness of future chronic disease prevention and management interventions.

This study arose from a larger Health Check study funded by APHCRI, and also undertaken at the Centre for Primary Health Care and Equity: "45-49 year old chronic disease prevention health checks in general practice: utilisation, acceptability and effectiveness". Throughout this document reference will be made to this larger study as the APHCRI Health Check study.

## **2 Methods**

### **2.1 Participants**

Thirteen GPs and one practice nurse who had been involved in the APHCRI Health Check study were invited by letter to participate in this research, as well as eleven GPs who had previously expressed interest. Eight GPs and the practice nurse agreed to be interviewed.



Fourteen interviews which had previously been undertaken as part of the APHCRI Health Check study were also re-analysed under the specific lens of SNAP factor enquiry, with incorporation into the thematic coding framework

As participants self selected to be involved in a study regarding preventive care, we recognize that this sample is not without bias and may not represent the general GP population.

## **2.2 Setting**

The interviews were conducted in general practices across two divisions of general practice in Sydney.

## **2.3 Interviews**

We conducted individual interviews in two stages. The first interview consisted of a semi structured approach, aiming to gather general information about clinicians' assessments and interventions for SNAP factors within the 45-49 year old Health Check consultation, using reflections on specific consultations as a guide. This interview was piloted with a GP who was not involved in the study. Minor adjustments to the wording and sequencing of some interview questions were made following this pilot (refer to Appendix I).

After initial analysis, we developed a model on the identification of influences which affect the management of SNAP factors, and re-interviewed the clinicians. During the second interview, we outlined our initial model and asked for feedback regarding its relevance and appropriateness for general practice. We also sought further clarification regarding how clinicians intervened when patients had multiple lifestyle risk factors.

## **2.4 Analysis**

All interviews were audiotaped, professionally transcribed and checked for accuracy. Analysis was assisted by QSR NVivo 6 software, with initial open coding of the interview transcriptions. Identification of codes and emerging themes was undertaken by two researchers, AA and CA. Coding was further refined with the undertaking of constant comparison of data leading to thematic analysis. The Theory of Planned Behaviour was used as an overarching structural framework to support the final analysis, and to develop a model of factors influencing preventive care in the health check consultation. This model was presented to the research team, and with ensuing discussion resulted in minor adjustments. During the individual feedback sessions with clinicians, validity was checked and further details regarding individual SNAP factors were sought. These were then thematically coded for differences and similarities.

# **3 Ethics**

Ethics approval was granted by the University of New South Wales Human Research Ethics Committee. Participating clinicians were supplied with information sheets, and signed a consent form prior to any involvement. All information was de-identified.

# **4 Results and Discussion**

Thematic analysis of the interviews revealed factors that influenced the delivery of preventive care within the 45-49 year old health Check consultation. Added to that, a

variety of activities undertaken by the clinicians emerged, all of which were variable in their delivery depending on underlying influences, and on the individual SNAP factor which was addressed. We used the Theory of Planned Behaviour to add a structural framework to our results.

#### **4.1 The Clinician Behaviours**

The delivery of preventive care is composed of a combination of possible behaviours by clinicians. The initial open coding helped us to identify the behaviours undertaken by the clinicians in their management of overall SNAP lifestyle risk factors. Not all behaviours were undertaken by all clinicians, and clinicians discussed different degrees of executing these behaviours. Added to that, some behaviours were more evident for some SNAP factors than for others.

The following section presents a breakdown of those individual behaviours with influencing factors for each discussed, as well as the implications for individual SNAP aspects.

##### **4.1.1 Assessing risk factors**

Clinicians needed to assess their patients for lifestyle risk behaviour. This included asking directly about lifestyle, reviewing previous histories and patient notes, ordering tests and updating records with new information.

It was noted by some GPs that patients expected lifestyle risk factors to be assessed within a health check consultation. This gave some clinicians a sense of greater permission to start addressing SNAP factors, which in a more standard acute type of consultation might be viewed as none of their business by some patients or too time consuming. Whether lifestyle risk factors were discussed in any detail in non health check consultations was influenced by the overarching attitude of the clinicians' orientation to preventive care in general.

*I don't raise, I mean in a normal consult, I don't raise all of these risk factor issues with them so I can't really compare but during the health checks they were quite acceptable.*

Differences in assessment for individual SNAP factors were evident amongst some clinicians. While review of smoking status was mentioned in all interviews as fairly straightforward, evaluation of nutrition, alcohol and physical activity demonstrated more variation. Alcohol assessment caused concern for some GPs. One GP whose orientation to preventive care arose mainly from a cardiovascular risk factor perspective stated:

*Smoking comes up because it's a prime cardiovascular risk factor and we're talking cardiovascular risk here...So on the scheme of things alcohol tends to come after other issues like exercise and diet and all that sort of stuff.*

This GP went on to state that his awareness for alcohol screening had however increased as a result of the health check:

*So I guess that's my awareness in terms of how my practice will change is to maybe say alright, it's all very well screening people with cardiovascular risk factors but maybe I should be asking a few more of them how much they drink as well.*

The view was also expressed by some GPs that asking people about alcohol was not really effective, as:

*If you ask people if they drink alcohol they'll say "yes" and if you ask them how much, we all know that we never get completely straight answers.*

Other GPs expressed no barriers to asking people about their alcohol intake, particularly GPs who indicated that they had experience in addressing drug and alcohol issues.

Information regarding a patient's nutrition status and level of physical activity were often inferred by the clinicians either from the patient's general appearance, or from physiological markers such as blood results, weight and BMI.

*Rather than what they're eating, I ask about nutrition only if the weight is very high and if they (are) obviously well looking person, I don't bother.*

It would appear that an assessment of level of risk to the patient informs their intensity of assessment. For example, if the patient already exhibited signs of poor nutrition (such as obesity), more intensive screening around diet and physical activity would usually be undertaken.

Time was mentioned as a barrier to a more detailed assessment:

*I mean you really don't have all that much time to look at those issues specifically, and also people cheat.*

GPs' perception of their professional role was also raised, with one admitting to not asking about specific dietary intake as:

*I'm not going there at all. I'm not really, in general terms, a dietician.*

The value of specific guidelines for nutrition was also dismissed by this GP who doubted the effectiveness of general recommendations:

*...if they haven't got a weight related thing, if they're not hypertensive, ischaemic, diabetic, why (screen for dietary recommended amounts)... I don't believe recommendations*

In those practices that did do a full nutrition assessment or specifically asked about physical activity, certain influencing factors were often apparent. These included practice capacity issues with the presence of a practice nurse who did full assessments, or an expression by the GP of personal interest. Specific mention was also made of assessment resources such as Lifescripts or the use of a computer-based template supplied by the Divisions of General practice for use with the health check item.

*The only thing I wouldn't have picked up is nutrition and physical activity – but now it does as it forces it to be assessed through the template*

#### **4.1.2 Motivating the Patient**

GPs varied in their behaviour around motivating the patient to change risk behaviour. This was often discussed in the wider context of how much preventive care they were involved in generally, whether they felt effective in this role, and whether it was an

expected role of GPs. For some GPs, they had a strong belief motivation was a part of their role.

The great majority had attended instruction in motivational interviewing as part of the APHCRI Health Check Study, and the use of some motivational techniques was discussed by a few GPs, with a belief that their skills in this area had increased:

*...now you can address some of the risk factors and assess somebody's willingness to make changes in their lifestyle and with the particular point they're up to so you know whether or not you're wasting your time by going ranting and raving...*

Others felt that motivational interviewing sounded good in theory, but the reality of practice demands made it difficult to execute:

*...when you went to the workshop you thought "oh, I'm going to do all this, I'm going to do all this, I'm going to check all these patients" but when it comes to doing it, it's a different story...Because of time, because of people don't want it, because of many reasons"*

Some GPs expressed frustration and disappointment when they could not successfully motivate their patients, implying that they perceived their professional role to include motivation. At the opposite end of the spectrum, others felt that once the patient had been educated regarding lifestyle risk factors, the responsibility then lay fully with the patient.

*I think I've discharged my duty once I've informed that they own such an issue and invited them to deal with it further with me at their pleasure.*

Motivation was often expressed in terms of the patient's level of motivation, rather than whether the GP could change that level:

*We are not here as saints to – I mean we need to move on with our time and there are some ten other patients for one unmotivated patient who we can help so if in the end the patient's not motivated I think motivational interviewing is not going to make a huge difference*

There was some difference between the SNAP factors, with quite a few GPs expressing frustration in trying to motivate smokers to quit. Success with smoking behavioural change was generally regarded as abstinence, expressed in terms of quitting. This was different from the other lifestyle factors. GPs located success for other factors on a spectrum from incremental change to radical lifestyle alteration. Alcohol approximated smoking when the problem was heavy drinking with addiction. One GP found trying to motivate smokers so frustrating he no longer attempted to do it, while others agreed with this frustration and believed they just did not have the skills to do it:

*... I think it's very, very difficult to motivate patients give up smoking  
...sometimes I think it's a waste of time from my part and I may be wrong but that's the way I look at it.*

*I feel I'm not prepared to deal with some of the others like smoking. I don't think I'm the best person to deal with smoking and I sent them to the Quitline.*

*...but I'm not a very good counsellor with smoking. I think it frustrates me probably the most.*

When GPs recognized that success for weight loss could include small losses, they did not voice as much frustration with motivating patients:

*I cannot expect him to be 25 BMI. It's never going to be possible ... if he changes just a few things and he maintains his weight or it doesn't increase more that would be my success or if he manages to lose even 5kg and keeps a rapport with me ... I think we've done him something ...*

Frustration was higher in trying to motivate patients to lose weight when perceived success was harder to achieve:

*...losing 50 kilos in weight...those are the people who benefit.*

Some GPs also voiced the opinion that a patient's education level influenced their motivation. When asked "How much of a role do you see as a GP has as a motivator for the patients that come in?", one GP responded with:

*Oh (sigh). It is hard to say because if you – it depends on the education level of the person and how much they want to change. That's all, exactly depend on those two.*

#### **4.1.3 Giving advice and educating the patient**

This aspect of behaviour is crucial to interventions for lifestyle risk management. It was definitely viewed as a professional responsibility by most GPs

*I would say if someone is practising good medicine (they) would do it anyway because that's part of the job of the GP.*

Different options were available for clinicians to educate their patients. They all referred to "giving advice" at some point in their interview, sometimes expressed in didactic terms, such as:

*I was saying "you've got a weight problem and obviously the cholesterol is raised, you need to perhaps lose some weight ... eat healthily, eat more vegetables and to exercise regularly, all you need to do is just start walking and do it regularly". So basically I gave her information.*

*I have been just encouraging walking I think, walking is the most sustainable and easy to do although it gets a bit boring I suppose*

Other clinicians took advice-giving further by identifying how the patients could make adjustments to risk factors and gave more specific suggestions, in some instances really trying to personalize the advice for the patient's benefit:

*Everybody is different. You've just got to find the right formula that clicks one person in the right direction rather than another."*

*So then we discussed about not buying the coca cola and cordials but to buy the fruits. So we discussed about alternatives.*

Whether patients were given written information seemed to depend on the clinicians' preference, with none reporting that the decision to give handouts depended on what the patient would prefer. Lifescripts were used by some GPs, but they were mentioned less for tailored advice than for assessment. Some GPs felt that the addition of printed material helped to reinforce the message:

*I mean I rarely send people out the door without something written down on a piece of paper because experience tells me that if you don't reinforce the information you're giving people, by the time they've got to the front door they've forgotten it. So that's where the lifestyle scripts are good because they do give people a piece of paper. What they do with it when they get home I have no idea but sometimes something that you actually write down yourself actually has more impact than something you just whip out of a file and throw at the patient.*

Use of written information appeared more common for nutritional advice, followed by physical activity with less discussion of material for alcohol and smoking cessation. Some GPs felt they lacked skills in the area of nutrition, and wished they had better knowledge of nutrition. This may have influenced their choice at giving pre-printed information to their patients:

*Well I feel comfortable with the smoking 'cause the issues are clear cut. Nutrition, I'm a bit weak, I mean I know a fair bit about it but the area is evolving, it's a prickly area.*

When GPs recognized cultural influences on dietary habits, they tried to incorporate cultural aspects into their advice. Similar to assessment for diet and physical activity, the amount of advice to patients seemed to depend on whether the patient already had an identifiable weight problem.

#### **4.1.4 Arranging follow-up appointments**

The majority of GPs scheduled the Health Check Item with at least one other visit, believing that not all items could be covered in one visit. One GP felt that the main purpose of the item was specifically for screening, and intervention if appropriate would be dealt with at another time. There was recognition that ongoing behavioural change usually required more support than a one-off visit:

*It often takes two or three times to discuss with them to quit smoking or discuss the sort of change in lifestyle factors.*

Smoking and alcohol were mentioned as the SNAP factors that would be followed up, while nutrition and physical activity were only followed up if the patient was already overweight or hypertensive. Individual GPs mentioned one SNAP factor more than others, but that was usually in response to what their patients' needed or what the GPs were personally interested in, for example:

*I really like trying to have people losing weight. In fact I get them back and have longer consultations with them for the weight and the diet issue.*

The patient's level of motivation was often cited as an influencing factor in pursuing follow up appointments. Although there was recognition that provision of follow-up

support was the ideal, how actively follow-up appointments were actually made appeared to depend upon the GPs orientation to preventive care in general. This had to be balanced with the reality of practice demands and the time involved available for practising preventive care:

*...I did try to practice preventative medicine when you see obese and if they've got diabetes or heart disease, of course I – but I must say it's not structured with the timeframe allowed 'cause this is about 20 minutes or more and that's a bit hard sometimes to spare 20 minutes.*

*I think so, I really think so because if I'm with a patient for an hour I could but I can't because I've got a lot of other patients that want to see me and I can't spend, I do sometimes spend an hour with a patient, I spend even more with a patient but it's not common. It's very difficult and it's not the money, it's the time, the logistics to see all these patients... How many long consultations can you give. There are other patients with other issues, medically related. I put the more important in the day, they're sick, they need to get better.*

Follow-up was also provided opportunistically when patients came in for other reasons, with GPs often commenting they would check to see how things were going:

*...it is important for him to contemplate and to assimilate the information that I was giving him... He has come back subsequently on one or two occasions which has allowed me to ask him what he's doing.*

Cost was also cited as a perceived barrier for patients to return to the surgery, with many GPs believing that patients were reluctant to pay for preventive care.

Different attitudes were also evident in practices that had an appointment system as follow-ups could more easily be arranged.

Overall, smoking and alcohol were followed up more actively, nutrition and physical activity only if a condition was already manifest.

#### **4.1.5 Referring to other personnel and agencies**

GPs exhibited various attitudes towards referring patients to other services and personnel. Many influencing factors were evident, some as basic as a belief that most things should be managed by the GP with a perception of their role as taking responsibility for the patient's care:

*My philosophy's in-house as far as possible on any medical condition. I'm not a high referral source...*

The decision to refer was a behaviour that demonstrated pronounced differences amongst the individual SNAP factors, with smoking prompting the most enthusiasm for referral. As outlined previously, smoking was the most frustrating factor to deal with for many GPs; perhaps this frustration and the ensuing need for outside intervention prompts a higher referral rate.

Perceived patient resistance to cost was often cited as a barrier to referral, with many GPs believing their patients would not take up referrals if they had to pay. Added to this is access to services. With the majority of 45-49 year olds in employment, accessing

referrals through working hours is difficult, and many services are not available out of hours.

*Cost, also the other issue is time. If someone is working then won't have the time to go during the week and many of these practitioners are not available on weekends obviously.*

Quitline, the most common referral agency, did not have these barriers.

Patient motivation was also mentioned, with the implication that patients had to be motivated in the first place:

*...because if I'm going to refer them and if they are not quite motivated and then it's going to fail"*

However one GP recognised that support services can actually help to motivate patients:

*It was fairly obvious that they need to tackle their problem in a number of different ways and having talked to the exercise physiologist there... they at least get people motivated.*

Referrals to dieticians for nutritional advice appeared to depend on the patient's level of risk, as well as whether the GP felt the support offered would be effective:

*Okay if the patient has high cholesterol or hypertensive and perhaps is overweight we'll discuss their diet and that sort of things and I would ask them if they would like to see a dietician.*

It was very rare for referral to dietician to be offered if the patient had no long term condition. Some GPs felt that dieticians would actually do little more than offer the same sort of advice already offered by the GP, and as such were of little value.

Many GPs voiced their lack of knowledge regarding exercise physiologists. One GP stated that she referred to physiotherapists because she had worked with them in hospitals, but had no idea what an exercise physiologist did. Without this knowledge, she was reluctant to refer as she could not vouch for their effectiveness. Referrals to gyms and exercise classes were considered by GPs, but concern was expressed about the cost to the patient.

Referral to Alcoholics Anonymous was rarely mentioned. This may be because few GPs claimed their patients were drinking at levels which required this level of intervention.

## **4.2 Managing multiple SNAP factors**

Clinicians were presented with a hypothetical situation of a patient with multiple risk factors, and asked to reflect on how they would proceed with intervention. There was a variety of responses. Some GPs mentioned that they would try and motivate patients to address alcohol problems first, especially if they were drinking at levels high enough to de-stabilize their lives in relation to work and relationships – in other words, if the level of risk was high.



One GP mentioned that if the patient was educated, they would try and address all the SNAP factors in one go. Others were much more focused on assisting the patient in addressing what the patient wanted to do, or had a greater chance of success:

*I'd try to sort out what the patient had in mind, maybe he or she wants to do the lot all together as a package, we'd have to come to some agreement as to how the patient wants to address it. But it needs to be patient orientated where possible.*

This view that the intervention should be patient-led was the most common. If the patient was unsure how to proceed, and appeared motivated to address all factors, smoking was often considered first, again due to the level of risk. For other GPs, they felt it might be more advantageous to start with diet and/or physical activity, as changes in these areas would result in the patient feeling better more quickly.

In summary, most GPs felt that the factor that is affecting the patient the most should be addressed first (level of risk), but the intervention needs to be tailored to the circumstances of the patient with patient wishes uppermost:

*It depends on the patient, yes. It depends on the patient's medical condition and also depends on the patient willingness as well*

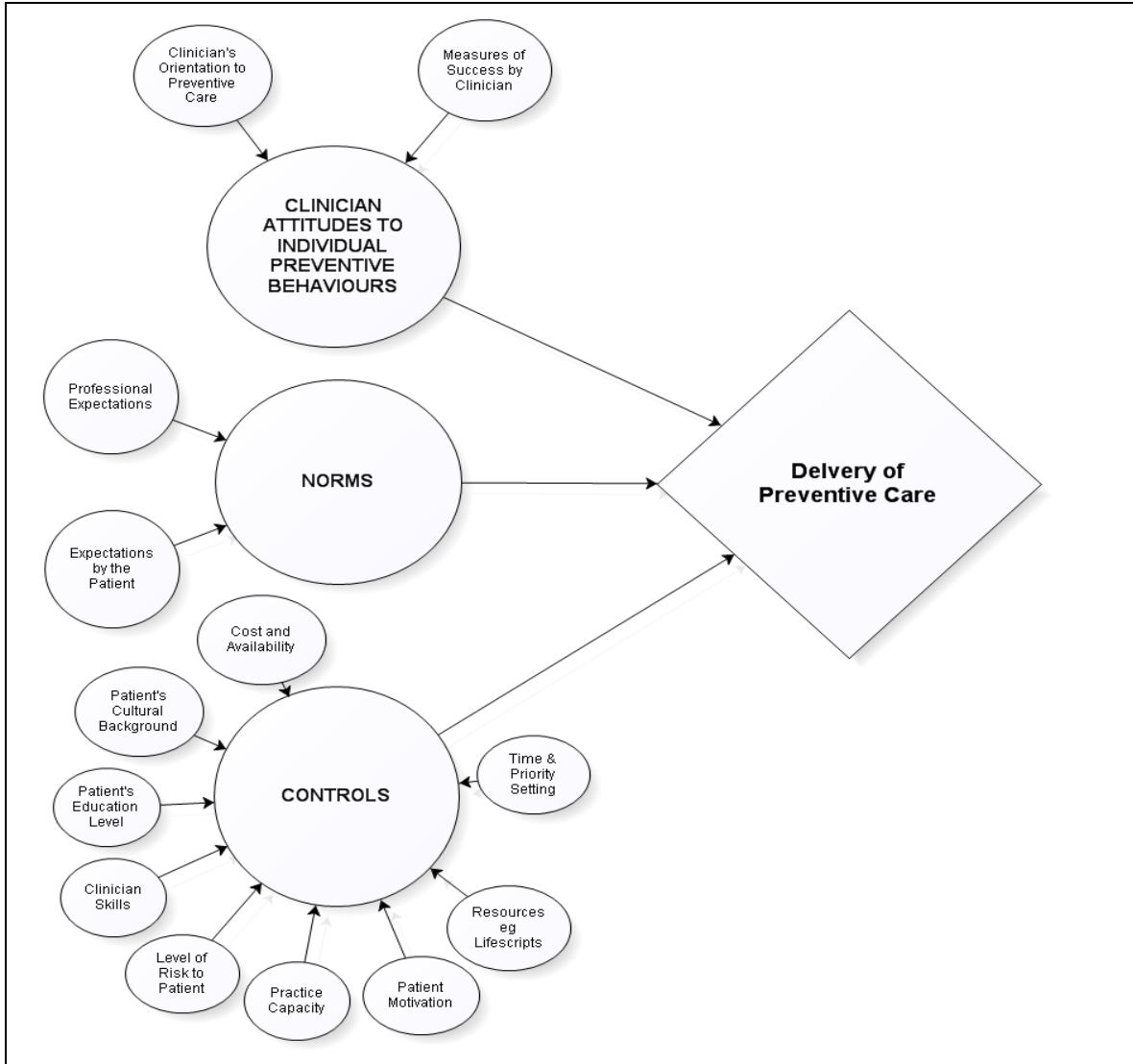
One clinician mentioned that if all SNAP factors were present, a psychological assessment should be made first.

### **4.3 The Theory of Planned Behaviour and Delivery of Preventive Care**

We built on the Theory of Planned Behaviour by Fishbein and Ajzen (1975), Ajzen (1985) that describes how the performance of a behaviour is influenced by attitudes, by expectations (norms) and by hindering or facilitating features (controls).

The factors we identified through our thematic coding as influencing the delivery of overall preventive care, both within and separately to the Health Check consultation, articulated well into this model. Attitudes included the level of clinicians' belief that a certain behaviour would produce a desired outcome, and incorporated the clinicians' feelings about their own effectiveness in promoting behavioural change. Attitudes were strongly influenced by the clinicians' general orientation to the importance of preventive care as well as how they measured a successful outcome. Norms included what the professional community would expect, as well as perceptions of patient expectations of clinician behaviour within the Health Check consultation. With regard to controls, clinicians were most forthcoming in regard to the barriers that made delivery of preventive care more difficult and mentioned such factors as time and patient motivation as key elements.

## Model – The Theory Of Planned Behaviour as Applied to Preventive Care Delivery in General Practice



## 5 Conclusion

In asking GPs to address SNAP lifestyle factors through the 45-49 year old Health Check consultation, it is important to start to understand how GPs view their role in this preventive care, and how they address the individual SNAP factors. This study has focused questions around these influences and behaviours, with the aim of better enabling GPs to provide such care.

Given the complexity of factors influencing GPs' preventive behavior, it is not surprising that a variety of approaches were evident. Variety was demonstrated between different GPs, between individual SNAP factors, and between different patients. However within this variety, commonalities did exist. Smoking for example appeared to produce the most frustration. Another commonality was in the trend for patients to be only partially screened for nutrition and physical activity, with assessment frequently inferred from physiological markers such as weight, cholesterol levels and BMI.

This study provides some insights that will be important in the development and implementation of preventive activities in general practice. The attitudes of general practitioners and their patients towards preventive care strongly influence both screening and intervention behaviour within the context of the health check consultation. Another strong influence is the belief in the likelihood of success of any interventions provided, including the potential success of referrals. Attitudes were also strongly influenced by the general orientation of their practice to the importance of preventive care. However there are also many constraints (controls) which have the power to reduce the amount of preventive care provided, with lack of time and patient motivation perceived to be important barriers.

GPs therefore may not respond to financial incentives such as the new 717 Medicare item for 45-49 year old health checks in a uniform way. Their attitudes, norms and a variety of control factors (as shown in Figure 1) strongly influenced their uptake of this item and how they used it to assess and intervene with their patients. Strategies such as provider education, community awareness raising, support and capacity building based on the factors influencing GP preventive behaviour may potentially be able to improve both the uptake of health checks and ensure a more consistent approach.

## References

- Ajzen, I. (1985). From intentions to actions: A theory of planned behavior  
Action-control: From Cognition to Behavior. J. Kuhl and J. Beckmann. Heidelberg, Germany, Springer: 11-39.
- Australian Government (2007). 45 year old health check - Fact Sheet. Department of Health and Ageing.
- Australian Institute of Health and Welfare (2006). Chronic diseases and associated risk factors in Australia. Canberra, AIHW.
- Fishbein, M. and I. Ajzen (1975). Belief, Attitude, Intention and behavior: An Introduction to Theory and Research., Reading, MA: Addison-Wesley.
- Lopez-de-Munain J. Torcal J. Lopez V. Garay J (2001). Prevention in routine general practice: activity patterns and potential promoting factors. *Preventive Medicine*. 32(1):13-22.
- Veale, B. M. (2003). "Meeting the challenge of chronic illness in general practice." *eMJA* 179(5): 247-249.

## 45 - 49 year old Health Check (MBS Item 717)

<b>Full Patient Details:</b> <<Patient Demographics:Full Details>>	<b>GP Details:</b> <<Doctor:Full Details>>	<b>Patient agreement for Health Check to Proceed</b> My GP has explained the purpose of this assessment and I/my carer give permission to discuss my medical history/diagnosis with other service providers as appropriate. All information will be confidential.  ..... <<Miscellaneous:Date>> <b>Patient signature</b> <span style="float: right;"><b>Date</b></span> (Consent may be verbal)
---	---	--

	Assessment	Advice & Planned Actions	Resources
<b>History</b>			
<b>Smoking</b>	<<Clinical Details:Smoking>> <<Clinical Details:Smoking Quitting Stage>>	Lifescrpts smoking prescription: YES NO	<b>Quitline: 131 848</b>
<b>Diet/Nutrition</b>	Number of portions of fruit and vegetables eaten per day and the types of fat eaten.	Lifescrpts nutrition prescription: YES NO	<b>HeartLine: 1300 36 27 87</b>
<b>Alcohol</b>	<<Clinical Details:Alcohol>>	Lifescrpts alcohol prescription: YES NO	<b>DirectLine: 1800 888 236</b> - a 24 hour telephone counselling, information and referral services for drug and alcohol related issues
<b>Physical Activity</b>		Lifescrpts physical activity prescription: YES NO	<b>HeartLine: 1300 36 27 87</b> <b>Go For Your Life Info Line: - 1300 73 98 99</b>
<b>Depression</b>			<b>Beyond Blue: 1300 789 978</b>
<b>Osteoporosis</b>			
<b>Examination</b>			
<b>Body weight/BMI</b>	If left blank, recorded measurements	Lifescrpts weight management prescription: YES NO	

	are in Progress Notes below		
<b>Blood pressure</b>	If left blank, recorded measurements are in Progress Notes below		
<b>Skin cancer</b>			
<b>Tests</b>			
<b>Lipids</b>			
<b>Diabetes</b>			
<b>Cervical cancer</b>			
<b>Prostate</b>			
<b>Other as appropriate</b> (e.g. colorectal cancer, breast cancer)			

**Medical History:**

<b>Family History:</b> <<Clinical Details:Family History>>	<b>Social history:</b> <<Clinical Details:Social History>>
---	---

**Current Progress Notes:**<<Summary:Progress Note (Current)>>

**General Recommendations (if appropriate):**

Table of GP characteristics

GP code used in report	Gender	Practice size	Practice location socioeconomic status*	Bulk billing **	SNAP Work priority***	Freq. of referral for SNAP***	Perceived effectiveness behaviour change***
A	M	4+	highest	no	Mod	Low	Mod
B	M	2-3	high	yes	High	Mod	Mod
C	F	4+	high	yes	Mod	High	Mod
D	F	solo	lowest	yes	High	Mod	Low
E	F	2-3	middle	yes	High	Mod	High
F	M	solo	highest	no	Low	Low	High
G	M	4+	high	yes	High	Mod	Low
H	F	2-3	high	yes	High	Low	High
I	M	4+	highest	no	High	Mod	Mod
J	F	solo	high	no	Mod	Mod	Mod
K	F	solo	high	no	Mod	Mod	Mod
L	F	solo	middle	yes	Mod	Mod	High
M	F	4+	highest	no	n/a	n/a	n/a
N	M	4+	highest	no	n/a	n/a	n/a

\* = quintile of disadvantage based on 2001 SEIFA quintiles

\*\* = generally bulk bills all Medicare card holders

\*\*\* = results from post-intervention survey