

**Development of the standard national questions and  
population health estimates to support the  
implementation of the national performance indicators  
for Divisions of General Practice**

Centre for General Practice Integration Studies,  
Part of the UNSW Research Centre for Primary Health Care and Equity  
November 2005 and amended July 2006

This work was carried out as part of a funding agreement with the Australian Government  
Department of Health and Ageing

## Acknowledgements

This work was assisted and supported by a number of people from the Australian Government Department of Health and Ageing, universities and general practice.

Dr. John Aloizos, Dr. Denise Ruth, Professor Nicholas Glasgow, Dr. Jane Gunn, Professor Libby Kalucy and Dr. Beverley Sibthorpe acted as an expert reference group for the project.

Kylie Burton and Louise Jensen provided liaison with the Australian Government Department of Health and Ageing.

Professor Phillip Boyce provided advice on developing population estimates for primary mental health care, and is undertaking further work on this.

Staff and GP members from participating Divisions and staff from residential aged care facilities associated with those Divisions piloted the draft standard national questions.

John Glover and colleagues at the Public Health Information Development Unit provided the population estimates for Divisions and states/territories.

Gawaine Powell Davies, Jane Taggart, Maria de Domenico, Dr. Mahnaz Fanaian, Professor Mark Harris and Sarah Ford worked on this project at the Centre for General Practice Integration Studies, part of the Research Centre for Primary Health Care and Equity at the University of NSW.

Dr Beverley Sibthorpe from the Australian Primary Health Care Research Institute helped maintain continuity with the development of the performance indicators and generously stepped in to help coordinate the project when the need arose.

Professor Ian Ring provided valuable advice about the basis for population estimates for diabetes.

Gawaine Powell Davies  
Director, CGPIS,  
University of NSW Research Centre for Primary Health Care and Equity

## Contents

Acronyms .....	4
Introduction.....	5
Standard national questions .....	6
Overview of development.....	6
Questions.....	7
Notes on the questions .....	14
Using the questions to collect data.....	15
Population estimates .....	16
Mental health.....	16
Diabetes.....	16
References.....	17
Appendices.....	18
1. Divisions consulted on questions.....	19
2. Sample feedback sheet.....	20
3. Method for estimating populations with Type 1 and Type 2 Diabetes.....	22
4. Data to assist in Diabetes reporting.....	24
5. Estimates of the population who could benefit from a GP 3 step mental health plan ...	33
6. Population estimates for States/Territories and Divisions of those who could benefit from a 3 step mental health plan .....	36
7. Report from Professor Philip Burgess - National Performance Indicators for Divisions of General Practice, Estimates of the denominator for Level 3 indicator (Mental Health)	42
8. Construction of a concordance from SLAs to DGPs .....	49

## Acronyms

ABS	Australian Bureau of Statistics
DoHA	Australian Government Department of Health and Ageing
AIHW	Australian Institute of Health and Welfare
APHCRI	Australian Primary Health Care Research Institute
CGPIS	Centre for General Practice Integration Studies
DGP	Division of General Practice
ERP	Estimated resident population
NQPS	National Quality and Performance System
PHIDU	Public Health Information Development Unit
RACF	Residential aged care facility
SBO	State Based Organisation (of Divisions of General Practice)
SLA	Statistical local area
UNSW	University of New South Wales

## Introduction

The Government Response to the Review of Divisions of General Practice (DoHA 2004) set strategic directions for the Divisions' network, and foreshadowed new accountability systems to support the development of the Network in these directions. The Australian Primary Health Care Research Institute (APHCRI) was then commissioned to develop a framework for performance reporting. A discussion paper was published (Sibthorpe 2004) which then became the basis for a National Quality and Performance System (NQPS) with two main components: a system of accreditation for Divisions, and a system of performance reporting, using standard national performance indicators for core areas of work.

The initial set of performance indicators were developed in 2004-5 by a team led by APHCRI. These indicators were extensively reviewed within the Divisions' Network before being finalised.

The Australian Government Department of Health and Ageing (DoHA) then commissioned the Centre for General Practice Integration Studies (CGPIS) to develop standard national questions that Divisions could use to collect the information needed to report against these indicators. These were intended to save Divisions from having to develop their own questions, and to ensure that information was broadly comparable across Divisions. DoHA also requested population estimates for Divisions and states/territories for two of the areas covered by the indicators: diabetes, and mental health, together with methods for updating these estimates.

This report presents the results of this work.

The work was conducted in consultation with the people who developed the performance indicators, with the exception of Professor Jeff Richards, who sadly died earlier in the year. His place was taken by Dr. Jane Gunn from the University of Melbourne.

## Standard national questions

As noted above, the aim of having standard national questions was to save Divisions from having to develop their own questions, and to ensure that information could be compared across the Divisions' Network.

### **Overview of development**

Ethics approval was obtained from the University of NSW Ethics Committee. A reference group was set up involving domain experts from universities, staff from the relevant sections of DoHA, and Dr. Beverley Sibthorpe from APHCRI, who had led the development of the indicators. The UNSW team developed an initial set of questions and a format for seeking feedback on those questions. These were reviewed by the reference group and the questions modified before being sent out for review.

Thirteen Divisions agreed to review the draft questions. They were chosen from lists suggested by the State Based Organisations (SBOs), and were selected to include large and small Divisions from urban and rural locations and each state or territory. A list of these Divisions is included in the appendix.

Divisions were sent four sets of questions: some that the Division itself would normally answer, and questions that would normally be answered by GPs, by practices and by residential aged care facilities (RACFs). Divisions were asked to review all the questions, and to enrol two GPs and one RACF to review their respective questions. A sample question and feedback sheet is included in the appendix.

It was not possible to develop a question for indicator N\_MNH 4.1

*Division's collection from practice register/recall/reminder systems of the numbers of patients who have participated in a 3-step mental health plan in each response category who feel they understand their condition and feel able to participate in its management*

without having a standard set of questions which practices could use to determine whether patients felt that they understood their condition and felt able to participate in its management. This item was therefore not sent out with the others, and a team was set up under Dr. Jane Gunn to develop these questions. A further item on immunisation was included later and sent out after the other questions.

Feedback from the Divisions was reviewed by the team at CGPIS. Revised questions were reviewed with Dr. Beverley Sibthorpe and then sent to the domain experts for their final scrutiny.

A detailed summary of the original questions, the comments received from reviewers and the revised questions is not included in this report, but is available from the Centre for GP Integration Studies.

## Questions

The standard national questions are shown in the table below, together with the performance indicators to which they relate and notes on how to interpret and use the questions. These notes incorporate aspects of the feedback from Divisions which could not be fully addressed in the wording of the questions.

Table 1: Standard national questions, with performance indicators and notes

<p>N_INT (SBO) 1.1 Building capacity</p>	<p>Number and proportion of Divisions within the state or territory satisfied with their collaborations with relevant hospitals to facilitate local service planning, timely and appropriate exchange of patient health information and sharing of clinical care for patients, families and communities, involving consumers and other service providers where relevant.</p>
<p>Standard national question</p>	<p>Overall, how <b>satisfied</b> is your Division with your <b>collaborations with relevant hospitals</b> to facilitate:</p> <p><b>Local service planning?</b>  <input type="checkbox"/> Satisfied    <input type="checkbox"/> Partly satisfied    <input type="checkbox"/> Not satisfied</p> <p>Timely and appropriate <b>exchange of patient health information?</b>  <input type="checkbox"/> Satisfied    <input type="checkbox"/> Partly satisfied    <input type="checkbox"/> Not satisfied</p> <p><b>Sharing of clinical care</b> for patients, families and communities?  <input type="checkbox"/> Satisfied    <input type="checkbox"/> Partly satisfied    <input type="checkbox"/> Not satisfied</p>
<p>Notes</p>	<ul style="list-style-type: none"> <li>- 'Satisfaction' can refer to both the processes and outcomes of collaboration.</li> <li>- The question is seeking the Division's overall assessment of the current state of collaboration. This may involve balancing some conflicting judgements about different programs or areas of work.</li> <li>- The Division may need to pool information from a number of staff and Board members to answer this question.</li> </ul>
<p>N_LAL (SBO) 1.3 Building capacity</p>	<p>Number and proportion of Divisions in the state or territory satisfied with their SBO's services and activities.</p>
<p>Standard national question</p>	<p>Overall, how <b>satisfied</b> is your Division with your <b>SBO's contribution</b> to:</p> <p>The <b>effective implementation</b> of relevant <b>national government initiatives</b> and programs through Divisions in your state or territory?  <input type="checkbox"/> Satisfied    <input type="checkbox"/> Partly satisfied    <input type="checkbox"/> Not satisfied</p> <p>The <b>effective implementation</b> of relevant <b>state/territory government initiatives</b> and programs through Divisions in your state or territory?</p>

	<input type="checkbox"/> Satisfied <input type="checkbox"/> Partly satisfied <input type="checkbox"/> Not satisfied <b>Structural and other efficiencies among the Divisions</b> in your state or territory? <input type="checkbox"/> Satisfied <input type="checkbox"/> Partly satisfied <input type="checkbox"/> Not satisfied
Notes	The Division may need to pool information from a number of staff and Board members to answer this question.
N_DIA 2.1 Diabetes	Number and proportion of general practices using a register/recall/reminder system to identify patients with diabetes for review and appropriate action.
Standard national question	<p>Does your practice have a register/recall/reminder system which any GPs use to identify <b>patients with diabetes</b>?</p> <input type="checkbox"/> Yes <input type="checkbox"/> No
	<p>If yes, is the system used systematically to recall participating GPs' patients with diabetes for review and appropriate action according to guidelines?</p> <input type="checkbox"/> Yes <input type="checkbox"/> No
Notes	<p>- A register/recall/reminder system can be electronic or paper, but must be searchable. That is, it must be possible to use it to search for patients who have had various diagnoses or elements of care who may therefore need to be recalled for review and further treatment.</p> <p>- 'Systematically' means that the register is used to try to provide care according to guidelines to all patients with diabetes.</p> <p>- The focus of this question is on practice systems. Even if they are used at present by only a limited number of GPs, they are in place for other GPs to adopt over time.</p> <p>- 'Care according to guidelines' refers to the elements of care set out in the relevant NHMRC guidelines and incorporated in the diabetes Service Incentive Payment (SIP).</p>
N_DIA 4.1 Diabetes	<p><i>Number and proportion of patients with diabetes whose most recent HbA1c in the past 12 months was:</i></p> <ul style="list-style-type: none"> <li>• 7.0% or less;</li> <li>• more than 7% but less than 10.0%;</li> <li>• 10.0% or more;</li> <li>• not measured/not recorded.</li> </ul>
N_DIA 4.2 Diabetes	<p>Number and proportion of patients with diabetes whose most recent total cholesterol in the past 12 months was:</p> <ul style="list-style-type: none"> <li>• less than 4.0 mmol/L;</li> <li>• equal to or greater than 4.0 mmol/L;</li> <li>• not measured/not recorded.</li> </ul>
Standard national	How many GPs used the practice register/recall/reminder system <b>for patients with diabetes</b> in the past 12 months?



question	<p>How many patients are recorded on the practice register/recall/reminder system as having Diabetes?</p> <p>For these patients use the attached tables to show</p> <p>a) <b>HBA1c</b> recorded in the past 12 months (Table 1) and  b) <b>Cholesterol</b> recorded in the past 12 months (Table 2)</p> <p>In each table please show the results:</p> <ul style="list-style-type: none"> <li>• for all patients</li> <li>• for patients of Aboriginal or Torres Strait Islander origin</li> <li>• by age group</li> </ul>
Notes	<ul style="list-style-type: none"> <li>- Issues of privacy and confidentiality need to be considered when providing this data at practice level.</li> <li>- A register/recall/reminder system can be electronic or paper, but must be searchable. That is, it must be possible to use it to search for patients who have had various diagnoses or elements of care who may therefore need to be recalled for review and further treatment.</li> <li>- Extracting these data from current medical software is complex. While this has been done successfully in some places, it requires experience.</li> <li>- The question can be adapted to enquire about HbA1c or cholesterol alone by deleting option (a) or option (b).</li> <li>- The tables for recording the results are at the end of these questions.</li> </ul>
N_MNH 2.2 Mental Health	<p>Number and proportion of general practices reporting using a register/recall/reminder system to identify patients who have participated in a 3-Step Mental health Plan formulated by their GP, for review and appropriate action.</p>
Standard national question	<p>Does your practice have a register/recall/reminder system which any GPs use to identify patients who have <b>participated in a 3 Step Mental Health Plan</b>, for review and appropriate action?</p> <p><input type="checkbox"/> Yes    <input type="checkbox"/> No</p>
Notes	<ul style="list-style-type: none"> <li>- A register/recall/reminder system can be electronic or paper, but must be searchable. That is, it must be possible to use it to search for patients who have had various diagnoses or elements of care and who may therefore need to be recalled for further treatment.</li> <li>- The focus of this question is on practice systems. Even if they are used at present by only a limited number of GPs, they are in place for other GPs to adopt over time.</li> </ul>
N_MH 4.1 Mental Health	<p>Division's collection from practice register/recall/reminder systems of the numbers of patients who have participated in a 3-step mental health plan in each response category who feel they understand their condition and feel able to participate in its management</p>
Standard national	<p>Still under development</p>

question	
N_RES 2.1 Aged Care	Number and proportion of general practices whose GPs visit RACFs using register/recall/reminder systems to identify RACF patients for review and appropriate action.
Standard national question	<p>Does the practice have any GPs who visit RACF(s)?  <input type="checkbox"/> Yes    <input type="checkbox"/> No</p> <p><b>If yes:</b>,  - does the practice have a register/recall/reminder system which any GPs use to identify RACF patients for review and appropriate action?  <input type="checkbox"/> Yes    <input type="checkbox"/> No</p> <p>- do any GPs use the RACF register/recall/reminder system to identify patients for review and appropriate action?  <input type="checkbox"/> Yes    <input type="checkbox"/> No</p>
Notes	<ul style="list-style-type: none"> <li>- A register/recall/reminder system can be electronic or paper, but must be searchable. That is, it must be possible to use it to search for patients who have had various diagnoses or elements of care and who may therefore need to be recalled for further treatment.</li> <li>- The focus of this question is on practice systems. Even if they are used at present by only a limited number of GPs, they are in place for other GPs to adopt over time.</li> <li>- GPs with a practice may use the practice register/recall/reminder system and also be prompted by an RACF using its own system</li> </ul>
N_RES 2.2 Aged Care	Number of general practices providing written patient information appropriate for their patient population about the nature and extent of their availability for RACF visits.
Standard national question	<p>Does your practice provide written patient information appropriate to your practice population that explains the availability of GPs to consult at the RACF and how to access those visits?  <input type="checkbox"/> Yes    <input type="checkbox"/> No</p> <p><b>If yes</b>, is it designed to reach particular patient groups?  <input type="checkbox"/> Yes    <input type="checkbox"/> No</p>
Notes	'Appropriate' refers to the information being relevant and targeted to meet the practice population groups e.g. providing information in relevant languages.
N_ASM 2.1 Asthma	Number and proportion of general practices using a practice register/recall/reminder/system to identify patients with asthma for review and appropriate action.
Standard	Does your practice have a register/recall/reminder system which any

national question	GPs use to identify <b>patients with asthma</b> for review and appropriate action? <input type="checkbox"/> Yes <input type="checkbox"/> No
Notes	- A register/recall/reminder system can be electronic or paper, but must be searchable. That is, it must be possible to use it to search for patients who have had various diagnoses or elements of care and who may therefore need to be recalled for further treatment. - The focus of this question is on practice systems. Even if they are used at present by only a limited number of GPs, they are in place for other GPs to adopt over time.
N_ASM 2.2 Asthma	Number and proportion of practices with access to spirometry.
Standard national question	Can your practice access spirometry services for your patients? <input type="checkbox"/> Yes <input type="checkbox"/> No  If yes,  Does the practice have a calibrated operational spirometer? <input type="checkbox"/> Yes <input type="checkbox"/> No
Notes	
N_IMM 2.3 Immunisation	Number and proportion of general practices transferring childhood immunisation data to ACIR electronically.
Standard national question	Does your practice provide childhood immunisations? <input type="checkbox"/> Yes <input type="checkbox"/> No  If yes, does your practice transfer your childhood immunisation data to ACIR (or VIVAS in Queensland or ACT Health)? <input type="checkbox"/> Yes <input type="checkbox"/> No  If yes, what method does your practice use to transfer the data:  Electronic <input type="checkbox"/> Paper based <input type="checkbox"/> Both <input type="checkbox"/>
Notes	
N_INT 2.1 GP/hosp Integration	Number and proportion of GPs satisfied with the agreed system for the timely and appropriate exchange of patient information for discharge notifications.
Standard national question	Overall, how satisfied are you with the appropriateness and timeliness of patient information included in discharge notifications?

	<input type="checkbox"/> Satisfied <input type="checkbox"/> Partly satisfied <input type="checkbox"/> Not satisfied
Notes	<p>The question asks for an overall judgement. If there are different arrangements for different hospitals, an overall response should be given.</p> <ul style="list-style-type: none"> <li>- 'Appropriateness' includes the range and content of the information that is transferred.</li> <li>- Divisions may choose to provide an opportunity for GPs to say why the system is or is not satisfactory.</li> </ul>
N_INT 2.2 Integration	Number and proportion of GPs satisfied with arrangements for sharing clinical care between general practice and hospitals.
Standard national question	<p>Overall, how satisfied are you with arrangements for sharing clinical care between general practice and hospitals for:</p> <p><b>Emergency Department patients?</b></p> <input type="checkbox"/> Satisfied <input type="checkbox"/> Partly satisfied <input type="checkbox"/> Not satisfied <input type="checkbox"/> Not applicable <p><b>Medical patients?</b></p> <input type="checkbox"/> Satisfied <input type="checkbox"/> Partly satisfied <input type="checkbox"/> Not satisfied <input type="checkbox"/> Not applicable <p><b>Surgical patients?</b></p> <input type="checkbox"/> Satisfied <input type="checkbox"/> Partly satisfied <input type="checkbox"/> Not satisfied <input type="checkbox"/> Not applicable <p><b>Obstetric patients?</b></p> <input type="checkbox"/> Satisfied <input type="checkbox"/> Partly satisfied <input type="checkbox"/> Not satisfied <input type="checkbox"/> Not applicable <p><b>Other (to be specified by the Division)</b></p> <input type="checkbox"/> Satisfied <input type="checkbox"/> Partly satisfied <input type="checkbox"/> Not satisfied <input type="checkbox"/> Not applicable
Notes	<ul style="list-style-type: none"> <li>- 'Sharing clinical care' may refer to coordinating contemporaneous care (as in shared care arrangements) or sequential care (as in hospital and post-discharge care). The arrangements may be formal or informal, and organised at the Division or the practitioner level. The essence of the current question is: how well do current arrangements work, whatever they may be?</li> <li>- Arrangements may vary, for example between hospitals or between specialists. The question asks for an overall judgement on how well current arrangements work, which may involve balancing across more and less satisfactory experiences.</li> <li>- Divisions may choose to add an extra item that reflects current Division priorities.</li> <li>- Divisions may choose to provide an opportunity for GPs to say why current arrangements are or are not satisfactory.</li> </ul>

N_RES 4.1 Aged Care	Number and proportion of RACFs satisfied with general practice involvement in their RACF.
Standard national question	<p>Did <b>new</b> residents (less than three months) have difficulty obtaining GP services?</p> <p><input type="checkbox"/> Never   <input type="checkbox"/> Sometimes   <input type="checkbox"/> Often   <input type="checkbox"/> Always</p> <p>Did <b>existing</b> residents have difficulty obtaining GP services?</p> <p><input type="checkbox"/> Never   <input type="checkbox"/> Sometimes   <input type="checkbox"/> Often   <input type="checkbox"/> Always</p> <p>How satisfied were you with the quality of <b>GP involvement in quality improvement activities</b>?</p> <p><input type="checkbox"/> Unsatisfied   <input type="checkbox"/> Satisfied   <input type="checkbox"/> Very satisfied</p> <p>How satisfied were you with the <b>contact between your facility and your local Division of General Practice</b>?</p> <p><input type="checkbox"/> Unsatisfied   <input type="checkbox"/> Satisfied   <input type="checkbox"/> Very satisfied</p>
Notes	This is a standard question which has already been used in a national survey.

<b>Table 1 – DIA 4.1</b>					
<b>Most recent HbA1c in the past 12 months among patients with diabetes on practice register/recall/reminder systems, all, Aboriginal/ Torres Strait Islander origin and age.</b>					
	<b>7.0% or less</b>	<b>&gt; 7 &lt; 10.0%</b>	<b>10.0% or more</b>	<b>Not measured /not recorded</b>	<b>Total number of patients</b>
<b>All (numbers)</b>					
All					
<b>Aboriginal/Torres Strait Islander origin (numbers)</b>					
ATSI					
Non-ATSI					
Origin missing					
<b>Age (numbers)</b>					
<35					
35 – 44					
45 – 54					
55 – 64					
65 – 74					
75+					
<b>Explanatory text</b>					

<b>Table 2 – Diab 4.2</b>				
<b>Most recent Cholesterol in the past 12 months among patients with diabetes on practice register/recall/reminder systems, all, Aboriginal/ Torres Strait Islander origin and age.</b>				
	<b>&lt;4.0 mmol/L</b>	<b>= to or &gt;4.0 mmol/L</b>	<b>Not measured</b>	<b>Total number of patients</b>
<b>All (numbers)</b>				
All				
<b>Aboriginal/Torres Strait Islander origin (numbers)</b>				
ATSI				
Non-ATSI				
Origin missing				
<b>Age (numbers)</b>				
<35				
35 – 44				
45 – 54				
55 – 64				
65 – 74				
75+				
<b>Explanatory text</b>				

### ***Notes on the questions***

Where definitions have been provided for some of the terms in the questions (eg ‘searchable’) these are not intended as canonical, but are intended as a guide to those who are uncertain as to how the terms apply to their situation or how to use the question.

Several of the questions ask for summary or ‘overall’ responses in complex areas where a number of different factors may be operating. This can be frustrating for those who want to give a more specific response, but it allows information to be aggregated across respondents and Divisions who may face different circumstances. Some people may also be dissatisfied with providing ‘subjective’ responses, but these will often be the best reflection the respondents’ opinions.

Several of the questions ask for information that may be held by different people in a Division, practice or RACF – for example several people in the Division may have had experience of the SBO’s work in supporting Divisions, and it may be a GP, a practice nurse or a practice manager who may be in the best position to answer questions about practice recall/reminder systems. A brief consultation or reflection within the organisation may be needed to identify who is best place to provide the answer or to pool the information.

Several of the questions are concerned about practice level systems – for example register/recall/reminder systems and how they are used. The focus here is on the practice rather than the GP. Even if they are used at present by only a limited number of GPs, they are in place for other GPs to adopt over time. This information has a bearing on how a Division might support the practice: if there is no system, the task may be to help set one up. If there is a system but not all GPs use it, the task may be to support transfer of knowledge within the practice.

## ***Using the questions to collect data***

Each Division will have its own preferred ways of collecting information, and may know how each practice prefers to be approached. Most of the questions could be administered by mail, fax or email, or could be part of face to face interviews (for example as part of practice visits). Simpler items may be most economically collected by survey, while more complex information (especially relating to details of patient care) might need direct personal contact, which might occur as part of a Division program.

Divisions can use the standard national questions in different ways. They might:

- incorporate the questions in a regular survey of GPs or practices;
- collect information as part of regular practice visits - especially in Divisions that have practice support programs;
- link information to relevant Division programs – for example the information on aged care might be collected as part of the Division’s aged care program and reviewed by its Aged Care Panel;
- structure Division records so that they will contain some of the information require for performance reporting.

In some cases Divisions may choose to collect extra information. For example, where questions ask for an assessment of a service (SBO support for the Division, discharge communication, GP input into RACFs) it may be useful to invite respondents to comment on their answer. This information would be used by the Division for its own purposes.

The questions may be used together – for example as part of a regular survey of GPs – or separately as part of separate programs or opportunities (provided that all GPs, practices or RACFs are included and it takes place within the appropriate reporting period). Including questions in regular activities – for example an existing annual survey – will help minimise the burden on the Division.

Feedback on the questions suggested that GPs and others may see collecting and providing this information as an intrusive process with little relevance or benefit for them. There was also a concern about the burden this may place on practices and Divisions.

One way of making the exercise more meaningful is to emphasise the link between data collection and Division programs, particularly where performance reporting fits closely with the Division’s strategic priorities and core activities. Thus data on RACF satisfaction with GP services might be reviewed by the Aged Care Panel and used to set priorities for future action, and level 4 diabetes data may, in some Divisions, link neatly into a Division diabetes program. Information about how GPs find current arrangements for discharge referrals may contribute to a process of reviewing and improving current arrangements with local hospitals. Respondents may then be more likely to see some benefit for themselves or their colleagues in providing the information.

Divisions can also make the data collection more meaningful by providing prompt feedback to their members about the results and how they are going to use them: for example that concerns about discharge communication will be taken up with a hospital, or that extra support will be provided to support practice information systems.

Divisions may also wish to use the information they collect to advocate for general practice and its achievements, at local, state or and national level.

## Population estimates

An estimate was requested for each Division area and for each state/territory of the *population with diabetes*, and of the *population who could benefit from a GP 3 step mental health plan*. These population estimates provide the denominators for two of the performance indicators:

*N\_DIA 3.1: number of service incentive payments (SIPS) made to by GPs practising in the Division's area, compared to the estimated population in the Division's area with diabetes.*

*N\_MNH 3.1: number of 3-step mental health plans completed by GPs practising in the Division's area, compared to the estimated population in the Division's area who could benefit from a 3-step mental health plan.*

Both sets of estimates are derived by applying prevalence rates established from relevant national surveys or studies to Division and state population profiles developed by the Public Health Information Development Unit (PHIDU). The method for developing and updating these profiles is described in the appendix.

As well as contributing to Division reporting, these population estimates may also be useful for planning and needs assessment, together with other population estimates included in the Division profiles developed by PHIDU.

## Mental health

There were difficulties in determining the criterion for *a person who could benefit from a 3 step mental health plan*. The use of this plan is not linked to any specific psychiatric or psychological criteria, and any suggested criterion needed to reflect the variety in demand for mental health care in general practice.

This issue was discussed with Professor Phillip Burgess, who was involved in the analysis of the National Survey of Mental Health and Wellbeing. He reviewed data from the survey to develop a criterion that reflected the need for structured GP mental health care. At the same time, John Glover from PHIDU prepared the more detailed Division and state/territory population profiles that were needed for these estimates. The tables of estimates for Divisions and states/territories are presented in the appendix, together with further details of how the estimates were derived.

## Diabetes

Age and sex specific estimates of the prevalence of type 1 and type 2 diabetes were taken from the AusDiab study and applied to populations calculated for each Division area and state or territory. For Divisions these were also adjusted for the higher rates expected in the Aboriginal portion of the population. The tables of estimates for Divisions and states/territories are presented in the appendix, together with further details of how the estimates were derived.



## References

AIHW (2004). *Australia's Health 2004*. Canberra, Australian Institute of Health and Welfare.

AIHW (2002). *Diabetes: Australian facts 2002*. Canberra, Australian Institute of Health and Welfare.

DoHA (2004). *Divisions of General Practice: future directions*. Canberra, Department of Health and Ageing.

Dunstan D., Zimmet P. et al *The rising prevalence of diabetes and Impaired Glucose Tolerance* (2002) *Diabetes Care*, Vol 25, No. 5 May 2002.

Sibthorpe B (2004). *A proposed conceptual framework for performance assessment in primary health care: a tool for policy and practice*. Canberra, Australian Primary Health Care Research Institute.

# Appendices

## **APPENDIX 1**

### ***1. Divisions consulted on questions***

ACT Division of General Practice  
Adelaide Western Division of General Practice  
Brisbane South Division of General Practice  
Canning Division of General Practice  
Dandenong Division of General Practice  
Dubbo Plains Division of General Practice  
Eyre Peninsula Division of General Practice  
Goulburn Valley Division of General Practice  
GP North Division of General Practice  
Murrumbidgee Division of General Practice  
Northern Territory Division of General Practice  
Sutherland Division of General Practice  
Top End Division of General Practice

**2. Sample feedback sheet**

Please read the performance indicator and the question that is supposed to collect information for it, and then use the section below to give your feedback

Division .....

Ref Code	Performance Indicator
<b>Aged Care N_RES 4.1</b>	Number and proportion of RACFs satisfied with general practice involvement in their RACF.
<b>Proposed question</b>	
<p><i>For each item, please tick one box only</i></p> <p>Did <b>new</b> residents (less than three months) have difficulty obtaining GP services?                      .  <input type="checkbox"/> Never    <input type="checkbox"/> Sometimes    <input type="checkbox"/> Often    <input type="checkbox"/> Always</p> <p>Did <b>existing</b> residents have difficulty obtaining GP services?                      .  <input type="checkbox"/> Never    <input type="checkbox"/> Sometimes    <input type="checkbox"/> Often    <input type="checkbox"/> Always</p> <p>How satisfied were you with the quality of <b>GP involvement in quality improvement activities</b>?  <input type="checkbox"/> Unsatisfied    <input type="checkbox"/> Satisfied    <input type="checkbox"/> Very satisfied</p> <p>How satisfied were you with the <b>contact between your facility and your local Division of General Practice</b>?  <input type="checkbox"/> Unsatisfied    <input type="checkbox"/> Satisfied    <input type="checkbox"/> Very satisfied</p>	
<p><b>Does this question elicit the specific information needed to report on the performance indicator?</b></p> <p><input type="checkbox"/> Yes    <input type="checkbox"/> No</p>	<b>Comments</b>
<p><b>Circle the relevant number in the following</b>  <b>The question is:</b></p> <p>Not at all ambiguous                      1      2      3      4      5                      Very ambiguous</p>	<b>Comments</b>
<p>Very clear                      1      2      3      4      5                      Very unclear</p>	
<p>Very easy to understand                      1      2      3      4      5                      Very difficult to understand</p>	

<p>How <b>accessible</b> is the information needed to answer this question?</p> <p>Very accessible <span style="float: right;">Not at all accessible</span></p> <p style="text-align: center;">1      2      3      4      5</p>	<p><b>Comments</b></p>
<p>How easy is the question to administer</p> <p>Very easy <span style="float: right;">Very difficult</span></p> <p style="text-align: center;">1      2      3      4      5</p>	<p><b>Comments</b></p>
<p>How could the question best be administered? (can tick more than one)</p> <p><input type="checkbox"/> Phone  <input type="checkbox"/> Fax  <input type="checkbox"/> Email  <input type="checkbox"/> Face to face  <input type="checkbox"/> Mail</p>	<p><b>Comments</b></p>
<p><b>Is there an alternative way to get the information to answer this question that would be easier?</b></p> <p><input type="checkbox"/> Yes   <input type="checkbox"/> No    If yes, please specify</p>	<p><b>Comments</b></p>
<p><b>Please provide any suggested rewording of the question</b></p>	
<p><b>Other comments</b></p>	

- Practices, GPs and residential aged care facilities: please return your feedback to your Division.
- Divisions: please collect all responses and return them to the University of NSW. c/o Maria De Domenico, Centre for GP Integration Studies, School of Public health & Community Medicine, University NSW, Sydney 2052. Fax (02) 9385 1513, email [m.dedomenico@unsw.edu.au](mailto:m.dedomenico@unsw.edu.au) Tel (02) 9385 1547

### **3. Method for estimating populations with Type 1 and Type 2 Diabetes**

#### **Population Data**

The Public Health Information Development Unit obtained population data for Division areas and for states and territories from the Australian Bureau of Statistics (ABS), using their Estimated Resident Populations (ERPs) as at 30 June 2003. They converted these data from Statistical Local Areas (SLAs) to Division boundaries, using a concordance based on data at the 2001 Census. Ages groups were re-categorised to fit the groupings used in the AusDiab data. For further details of the calculation of population data see the appendix. Note that Division 403 (Central Bayside) underwent a merger just before these figures were calculated, and there is therefore a gap between Divisions 402 and 404.

The ERPs are updated annually by the ABS, and PHIDU will have the capacity to convert future data from SLAs to Division boundaries.

#### **Diabetes Prevalence**

Diabetes prevalence was estimated for diabetes types 1 and 2 for people, aged 25 and above, using data from the AusDiab study (Dunstan et al 2002). The reasons for these choices were as follows.

- **Diabetes types 1 and 2:** these are the types of diabetes included in AusDiab, which is the best estimate of diabetes prevalence in Australia.
- **Aged 25 and above.** There are very few patients with type 2 diabetes under 25, and estimates of their number are not reliable.
- **Using data from the AusDiab study.** The consensus of experts consulted for this report was that in spite of its low response rate, the AusDiab study provides the best available estimate of the population with diabetes. It is a national rather than a single state survey, and the participants, chosen randomly within selected collector districts in each state and territory, have an age/sex profile that matched that of the Australian population as a whole. Self reported diabetes was confirmed by bio-medical assessment. The prevalence of obesity, hypercholesterolaemia and hypertension are broadly consistent with other Australian figures. The main disadvantage of AusDiab is the relatively low response rate. However Professor Ring advised that further analyses indicated that the results were broadly applicable to the Australian population. The National Health Survey was also considered but rejected because diabetes was identified entirely by self report, with no bio-medical confirmation of the condition.

Table 3.1 shows the prevalence rates from AusDiab. They represent the rate of both diagnosed and undiagnosed diabetes types 1 and 2 in adults 25+ in the community.

Table 3.1: Prevalence rates for diabetes types 1 and 2, people aged 25+ by age and sex.

<b>AGE</b>	<b>MALE</b>	<b>FEMALE</b>
<b>25-34</b>	0.1	0.4
<b>35-44</b>	2.6	2.3
<b>45-54</b>	6.8	5.5
<b>55-64</b>	16.1	9.9
<b>65-74</b>	21.6	16.1
<b>75+</b>	22.4	24.5

Source: AusDiab 2002

The estimated population with diabetes types 1 and 2 was calculated for each Division by applying the prevalence rates to the population profiles provided by PHIDU, using the formula:

$$\text{population} \times \text{prevalence rate} / 100 = \text{Diabetes Estimated Population}$$

A similar formula was used to calculate the estimated population with diabetes types 1 and 2 in each state and territory. Future calculations will use the AusDiab prevalence rates until better data are available.

#### **Adjustment for Indigenous Population**

Estimates of percentage of Division populations who were Indigenous were derived from data published in Australia's Health 2004. This percentage was multiplied by the estimated population with diabetes based on Ausdiab and subtracted from it to determine the diabetes prevalence for the non Indigenous population: = Estimated diabetes prevalence – (% Indigenous pop x estimated diabetes prevalence)

The prevalence of diabetes among Aboriginal people was then estimated according to the following formula:

$$\% \text{ Indigenous pop}/100 \times 3.67 \times \text{AusDiab estimated Diabetes prevalence}$$

where 3.67:1 is the ratio of the age standardised prevalence of self reported diabetes among Indigenous people compared to non Indigenous people in 2001 (Australia's Health 2004 p 199).

The prevalence estimates for the Indigenous and non-Indigenous were then combined to provide an overall estimate of the population with diabetes.

#### 4. Data to assist in Diabetes reporting

Table 4.1 - Divisions: Estimated Population Aged 25+ with Type 1 or Type 2 Diabetes by Age Group

GP Div	M 25-34 Diab	M 35-44 Diab	M 45-54 Diab	M 55-64 Diab	M 65-74 Diab	M 75+ Diab	Total M 25+ Diab	F 25-34 Diab	F 35-44 Diab	F 45-54 Diab	F 55-64 Diab	F 65-74 Diab	F 75+ Diab	Total F 25+ Diab	Total all 25+ Diab
201	39	808	1,590	2,735	2,358	1,856	9,385	153	657	1,276	1,600	1,791	3,042	8,519	17,904
202	22	393	738	1,378	1,112	973	4,616	83	283	553	807	838	1,672	4,237	8,852
203	19	389	773	1,407	1,256	1,090	4,934	73	315	629	875	1,023	1,826	4,740	9,674
204	11	294	627	1,151	1,101	840	4,025	45	250	500	665	842	1,344	3,646	7,670
205	12	319	727	1,291	1,186	1,087	4,621	49	273	574	776	1,009	1,751	4,432	9,053
206	48	1,229	2,695	4,714	3,443	2,342	14,470	192	1,063	2,189	2,775	2,730	3,986	12,934	27,404
208	20	427	938	1,792	1,332	1,196	5,704	84	388	819	1,140	1,105	2,348	5,883	11,587
209	18	454	986	1,892	1,733	1,562	6,645	72	402	814	1,138	1,396	2,735	6,557	13,202
210	14	379	728	1,200	878	503	3,702	59	317	589	685	698	793	3,140	6,843
211	16	438	1,008	1,732	1,437	937	5,567	66	370	822	989	1,142	1,506	4,894	10,462
212	27	789	1,989	3,645	2,830	2,410	11,690	108	742	1,719	2,229	2,269	4,427	11,495	23,184
213	17	474	1,034	2,013	1,628	1,488	6,655	69	414	848	1,258	1,327	2,574	6,490	13,145
214	16	413	1,036	1,849	1,402	1,149	5,866	62	368	859	1,101	1,178	1,958	5,526	11,391
215	17	446	1,103	1,732	1,051	652	5,001	69	419	920	1,000	840	1,084	4,332	9,333
216	19	516	1,239	2,296	2,225	1,688	7,982	73	461	984	1,409	1,798	2,604	7,329	15,311
217	29	801	2,039	3,889	3,559	3,027	13,344	114	723	1,671	2,400	2,917	4,945	12,771	26,114
218	12	366	987	2,057	1,997	1,450	6,869	45	327	780	1,235	1,487	2,152	6,025	12,895
219	17	540	1,339	2,577	2,643	2,487	9,602	73	508	1,116	1,685	2,269	3,991	9,641	19,243
220	4	150	411	933	1,086	799	3,384	18	141	340	614	809	1,080	3,002	6,386
221	9	327	888	1,847	1,742	1,253	6,067	38	289	698	1,102	1,255	1,793	5,174	11,241
222	27	677	1,642	2,779	1,868	1,311	8,304	109	621	1,411	1,720	1,482	2,121	7,463	15,767
223	4	161	469	1,040	1,142	946	3,762	19	157	385	678	898	1,364	3,501	7,264
224	6	227	664	1,237	1,248	1,012	4,394	26	215	532	753	955	1,436	3,918	8,312
225	8	286	854	1,492	1,406	1,210	5,257	35	273	692	894	1,103	1,808	4,804	10,061
226	4	140	391	797	988	888	3,208	16	136	323	518	783	1,166	2,942	6,150
227	4	109	297	612	558	398	1,978	14	100	240	377	426	680	1,838	3,815
228	7	192	501	918	837	643	3,099	26	166	391	538	665	1,073	2,859	5,958
229	11	319	827	1,608	1,441	1,043	5,248	41	278	634	946	1,108	1,736	4,743	9,991
230	6	185	468	927	867	586	3,039	25	166	372	554	636	952	2,706	5,744



GP Div	M 25-34 Diab	M 35-44 Diab	M 45-54 Diab	M 55-64 Diab	M 65-74 Diab	M 75+ Diab	Total M 25+ Diab	F 25-34 Diab	F 35-44 Diab	F 45-54 Diab	F 55-64 Diab	F 65-74 Diab	F 75+ Diab	Total F 25+ Diab	Total all 25+ Diab
231	4	104	258	531	493	299	1,689	14	88	191	293	346	470	1,401	3,091
232	4	123	293	547	545	386	1,899	16	103	220	308	396	595	1,638	3,537
233	1	36	85	163	131	69	486	5	28	53	78	82	80	326	812
235	2	88	221	480	462	325	1,579	10	82	185	318	353	493	1,441	3,020
236	4	104	287	557	508	372	1,831	14	96	234	343	397	634	1,718	3,550
237	14	341	842	1,342	811	488	3,837	56	311	695	760	628	906	3,356	7,193
238	4	143	406	688	504	414	2,159	18	138	344	450	435	725	2,110	4,269
240	8	207	463	773	484	307	2,243	31	185	378	443	365	509	1,911	4,154
241	1	43	123	230	227	172	797	5	38	90	132	185	299	749	1,546
301	23	363	666	1,166	1,015	804	4,038	92	286	533	705	789	1,278	3,683	7,721
302	18	470	1,124	1,961	1,562	1,291	6,426	71	437	974	1,217	1,284	2,122	6,106	12,533
303	14	365	925	1,695	1,438	1,343	5,780	55	354	833	1,102	1,231	2,598	6,173	11,953
304	22	394	768	1,423	1,203	1,078	4,888	90	319	621	861	954	1,972	4,817	9,706
305	16	422	885	1,363	1,057	736	4,478	63	379	698	795	866	1,197	3,999	8,477
306	23	546	1,205	2,004	1,547	1,079	6,405	92	483	979	1,144	1,234	1,761	5,695	12,099
307	22	570	1,148	2,097	2,019	1,464	7,319	89	511	958	1,300	1,652	2,283	6,793	14,112
308	19	477	995	1,806	1,777	1,287	6,361	78	430	824	1,137	1,451	1,994	5,914	12,275
310	17	465	1,103	2,340	2,206	1,655	7,786	69	430	989	1,581	1,785	2,865	7,718	15,505
311	13	330	802	1,744	1,675	1,236	5,800	51	299	712	1,149	1,335	1,978	5,524	11,325
312	10	272	623	1,087	1,008	1,030	4,029	41	244	516	691	896	1,776	4,164	8,193
313	11	338	828	1,560	1,290	1,311	5,338	45	315	708	976	1,132	2,330	5,506	10,844
314	14	401	971	1,629	1,082	754	4,851	56	370	835	988	896	1,385	4,530	9,381
315	23	639	1,377	2,193	1,681	1,131	7,045	96	564	1,090	1,294	1,350	1,770	6,163	13,208
316	17	503	1,233	2,420	2,307	1,956	8,437	72	471	1,027	1,600	1,912	3,104	8,186	16,623
317	15	417	1,068	1,928	1,854	1,590	6,871	60	387	886	1,240	1,537	2,554	6,664	13,535
318	11	338	830	1,385	936	620	4,119	45	318	681	777	712	1,014	3,547	7,666
319	5	188	542	1,086	1,040	827	3,687	22	173	436	661	778	1,273	3,343	7,031
320	14	437	1,053	1,821	1,219	845	5,389	59	400	878	1,083	931	1,361	4,711	10,100
322	3	116	326	698	743	565	2,451	14	104	262	439	547	821	2,188	4,638
323	6	198	528	968	837	636	3,173	27	185	427	580	650	1,023	2,891	6,065
324	7	225	589	1,102	1,032	848	3,803	27	203	466	670	810	1,432	3,608	7,411
325	7	218	560	1,014	897	702	3,398	31	206	458	631	710	1,199	3,235	6,633
326	6	177	481	868	812	654	2,998	25	171	404	535	649	1,115	2,901	5,899

GP Div	M 25-34 Diab	M 35-44 Diab	M 45-54 Diab	M 55-64 Diab	M 65-74 Diab	M 75+ Diab	Total M 25+ Diab	F 25-34 Diab	F 35-44 Diab	F 45-54 Diab	F 55-64 Diab	F 65-74 Diab	F 75+ Diab	Total F 25+ Diab	Total all 25+ Diab
327	7	192	487	925	824	676	3,110	26	169	390	538	645	1,024	2,792	5,902
328	4	130	375	802	781	574	2,666	15	122	304	471	581	835	2,327	4,993
329	7	183	468	852	739	557	2,805	26	170	385	513	594	915	2,603	5,408
330	4	143	395	805	856	692	2,896	17	123	304	484	633	1,159	2,719	5,615
331	4	116	319	639	659	521	2,257	14	104	236	383	494	770	2,001	4,259
332	5	167	414	754	735	552	2,628	22	146	317	436	546	883	2,350	4,978
401	25	637	1,508	2,658	2,071	1,767	8,667	103	582	1,231	1,597	1,617	2,921	8,050	16,717
402	22	522	1,210	2,231	1,724	1,402	7,111	87	482	1,057	1,379	1,447	2,438	6,889	14,000
404	20	523	1,296	2,281	1,288	712	6,121	83	490	1,084	1,277	918	1,122	4,974	11,095
405	47	1,111	2,599	4,658	3,306	2,712	14,433	187	994	2,176	2,824	2,719	4,920	13,821	28,254
406	31	791	1,911	3,949	3,426	2,717	12,825	124	738	1,662	2,485	2,598	3,937	11,543	24,369
407	10	331	832	1,720	1,548	1,132	5,574	44	314	697	1,072	1,197	1,657	4,981	10,555
408	12	355	836	1,517	1,169	745	4,635	48	319	653	870	818	1,152	3,860	8,495
409	10	276	669	1,284	1,071	822	4,131	40	253	567	778	876	1,401	3,915	8,047
410	5	155	371	602	456	252	1,843	20	124	254	302	273	315	1,289	3,132
411	8	248	594	1,036	756	480	3,123	33	212	447	558	528	697	2,475	5,598
412	13	292	667	1,109	798	549	3,428	48	259	515	636	577	873	2,908	6,336
413	10	269	596	967	646	426	2,913	41	239	462	523	455	653	2,373	5,287
414	11	327	826	1,700	1,433	969	5,265	43	286	632	947	969	1,363	4,240	9,505
416	9	224	531	979	828	555	3,126	31	180	372	520	546	756	2,405	5,531
417	7	217	548	997	864	540	3,174	28	182	397	553	544	673	2,377	5,551
418	17	556	1,482	3,097	2,954	2,164	10,271	71	541	1,264	1,960	2,214	3,020	9,071	19,341
419	8	251	615	1,116	873	604	3,468	35	224	479	618	656	979	2,992	6,459
420	9	289	787	1,895	1,815	1,282	6,077	37	277	657	1,132	1,299	1,759	5,161	11,238
501	16	431	984	1,820	1,814	1,924	6,988	59	368	825	1,178	1,583	3,232	7,246	14,234
502	13	384	841	1,389	1,271	832	4,729	52	334	671	891	1,025	1,269	4,242	8,971
503	15	399	955	1,827	1,517	1,152	5,865	58	356	820	1,164	1,243	1,901	5,543	11,408
504	13	331	823	1,615	1,440	1,412	5,634	50	294	720	1,049	1,232	2,715	6,059	11,693
505	22	630	1,722	3,216	2,749	2,554	10,892	84	586	1,479	2,025	2,269	4,245	10,688	21,581
506	2	75	193	356	299	219	1,143	8	66	151	206	210	347	988	2,132
507	1	43	118	308	340	255	1,066	4	37	94	184	242	339	900	1,966
508	2	83	239	474	443	355	1,597	9	75	179	283	322	554	1,422	3,018
509	2	68	177	328	288	236	1,100	8	57	133	186	216	361	961	2,060

GP Div	M 25-34 Diab	M 35-44 Diab	M 45-54 Diab	M 55-64 Diab	M 65-74 Diab	M 75+ Diab	Total M 25+ Diab	F 25-34 Diab	F 35-44 Diab	F 45-54 Diab	F 55-64 Diab	F 65-74 Diab	F 75+ Diab	Total F 25+ Diab	Total all 25+ Diab
510	4	127	323	545	461	355	1,815	16	107	237	322	365	602	1,648	3,463
511	4	115	263	513	456	321	1,671	14	92	201	300	333	515	1,455	3,126
512	2	58	130	235	178	102	705	7	44	88	123	114	147	523	1,227
513	2	62	146	335	298	209	1,051	7	50	113	185	211	331	897	1,949
514	4	127	347	623	422	298	1,821	16	117	292	368	319	452	1,564	3,385
601	23	655	1,532	2,725	2,116	1,502	8,554	94	574	1,247	1,588	1,628	2,444	7,575	16,129
602	9	232	618	1,129	891	790	3,670	36	214	521	692	733	1,574	3,769	7,439
603	26	722	1,788	3,026	2,226	1,521	9,309	105	668	1,513	1,828	1,831	2,422	8,368	17,677
604	22	545	1,367	2,437	1,802	1,403	7,576	87	486	1,142	1,450	1,480	2,497	7,143	14,719
605	16	456	1,187	2,072	1,683	1,272	6,686	64	429	1,022	1,244	1,355	2,140	6,254	12,940
606	8	221	461	871	804	508	2,871	30	197	372	537	614	702	2,453	5,325
607	8	266	680	1,373	1,407	956	4,690	33	244	539	850	1,037	1,235	3,939	8,629
609	4	144	379	723	645	442	2,338	17	124	294	407	458	634	1,934	4,272
610	4	80	149	215	122	69	639	12	62	98	97	67	71	408	1,047
611	5	138	271	402	245	140	1,201	18	97	177	189	160	206	847	2,048
612	4	127	300	538	469	285	1,723	16	103	222	293	308	346	1,288	3,011
613	4	136	335	558	429	326	1,787	18	122	265	320	329	466	1,519	3,306
614	4	108	210	242	75	43	682	14	72	122	84	43	41	377	1,060
615	3	96	256	506	438	247	1,547	11	81	188	273	284	355	1,193	2,739
701	14	427	1,155	2,153	1,844	1,388	6,982	58	404	964	1,324	1,431	2,301	6,482	13,463
702	8	247	667	1,286	1,109	838	4,155	34	228	538	786	875	1,378	3,840	7,995
703	6	201	519	1,035	930	641	3,332	26	183	418	626	703	1,054	3,010	6,342
801	14	351	742	1,127	562	250	3,047	53	274	533	533	311	285	1,990	5,037
802	4	104	209	301	148	77	842	16	84	156	147	102	99	605	1,447
	1,438	38,798	93,022	171,084	144,298	111,423	560,061	5,753	34,689	76,147	103,332	113,235	180,344	513,500	1,073,561

**Table 4.2 - States and Territories: Estimated Population Aged 25+ with Type 1 or Type 2 Diabetes by Age Group**

	MALE							FEMALE							TOTAL
	25-34	35-44	45-54	55-64	65-74	75+	TOTAL MALE	25-34	35-44	45-54	55-64	65-74	75+	TOTAL FEMALE	
<b>NSW</b>	485	13,027	30,910	57,171	49,618	39,046	<b>190,257</b>	1,945	11,474	25,116	34,500	39,215	63,633	<b>175,883</b>	366,140
<b>VIC</b>	361	9,621	22,608	41,196	35,957	28,356	<b>138,099</b>	1,465	8,710	18,758	25,443	28,914	46,774	<b>130,064</b>	268,163
<b>QLD</b>	275	7,380	17,898	33,831	27,068	19,867	<b>106,319</b>	1,104	6,698	14,618	20,049	20,282	30,684	<b>93,435</b>	199,754
<b>SA</b>	102	2,935	7,268	13,597	11,985	10,227	<b>46,114</b>	392	2,587	6,007	8,469	9,690	17,014	<b>44,159</b>	90,273
<b>WA</b>	142	3,919	9,519	16,799	13,341	9,501	<b>53,221</b>	556	3,470	7,713	9,843	10,323	15,133	<b>47,038</b>	100,259
<b>TAS</b>	28	875	2,341	4,474	3,883	2,867	<b>14,468</b>	118	815	1,920	2,737	3,009	4,732	<b>13,331</b>	27,799
<b>NT</b>	18	452	944	1,418	704	324	<b>3,860</b>	69	356	686	677	409	382	<b>2,579</b>	6,439
<b>ACT</b>	26	623	1,517	2,577	1,729	1,230	<b>7,702</b>	102	574	1,317	1,604	1,387	1,990	<b>6,974</b>	14,676
<b>OTHER</b>	51	1,251	3,051	5,176	3,470	2,464	<b>15,463</b>	205	1,153	2,644	3,218	2,780	3,982	<b>13,982</b>	29,445
<b>TOTAL</b>	<b>1488</b>	<b>40,083</b>	<b>96,056</b>	<b>176,239</b>	<b>147,755</b>	<b>113,882</b>	<b>575,503</b>	<b>5,956</b>	<b>35,837</b>	<b>78,779</b>	<b>106,540</b>	<b>116,009</b>	<b>184,324</b>	<b>527,445</b>	<b>1,102,948</b>

**Table 4.3 - Divisions: Estimated Population Aged 25+ with Type 1 or Type 2 Diabetes, Adjusted for Indigenous Population**

<b>GP Div No.</b>	<b>Division</b>	<b>Total all 25+ Diab Ausdiab</b>	<b>% Pop Indigenous</b>	<b>Non Indig Diab</b>	<b>Indig Diab</b>	<b>Total</b>
201	Central Sydney DGP	17,904	1.0	17,733	626	18,359
202	Eastern Sydney	8,852	0.5	8,808	162	8,970
203	South Eastern Sydney DGP	9,674	1.4	9,539	497	10,036
204	Canterbury DGP	7,670	0.5	7,632	141	7,773
205	Bankstown Health Services DGP	9,053	0.9	8,972	299	9,270
206	Western Sydney DGP	27,404	1.5	26,993	1,507	28,500
208	Northern Sydney DGP	11,587	0.2	11,564	85	11,649
209	St George DGP	13,202	0.5	13,136	242	13,378
210	Liverpool Division of General Practice	6,843	1.4	6,747	351	7,098
211	Fairfield DGP	10,462	0.7	10,388	269	10,657
212	Hornsby Ku-Ring-Gai Ryde DGP	23,184	0.2	23,138	170	23,308
213	Manly Warringah DGP	13,145	0.3	13,106	145	13,250
214	Sutherland DGP	11,391	0.6	11,323	251	11,573
215	Macarthur DGP	9,333	2.3	9,119	787	9,906
216	Illawarra DGP	15,311	1.7	15,051	954	16,005
217	Hunter Urban DGP	26,114	2.1	25,566	2,011	27,577
218	Hunter Rural DGP	12,895	3.0	12,508	1,418	13,926
219	NSW Central Coast DGP	19,243	1.8	18,897	1,270	20,167
220	Shoalhaven DGP	6,386	4.1	6,125	960	7,085
221	Southe East NSW DGP	11,241	2.5	10,960	1,030	11,991
222	ACT DGP	15,767	1.3	15,563	752	16,314
223	Hastings Macleay DGP	7,264	4.3	6,951	1,145	8,097
224	Mid North Coast DGP	8,312	4.0	7,980	1,219	9,199
225	Northern Rivers DGP	10,061	3.6	9,699	1,328	11,027
226	Tweed Valley DGP	6,150	2.8	5,978	631	6,609
227	New England DGP	3,815	5.5	3,605	769	4,375
228	Riverina DGP	5,958	3.1	5,773	677	6,451
229	NSW Central West DGP	9,991	4.1	9,581	1,502	11,083
230	Dubbo and Plains DGP	5,744	10.3	5,153	2,169	7,322
231	Barwon DGP	3,091	11.2	2,744	1,269	4,014
232	Murrumbidgee DGP	3,537	4.0	3,395	519	3,914
233	NSW Outback DGP	812	24.8	611	738	1,349
235	Southern Highlands DGP	3,020	1.3	2,980	144	3,124
236	North West Slopes DGP	3,550	6.5	3,319	846	4,165
237	Nepean DGP	7,193	2.1	7,042	554	7,596
238	Blue Mountains DGP	4,269	1.3	4,214	203	4,417
240	Hawkesbury DGP	4,154	1.8	4,079	274	4,353
241	Barrier DGP	1,546	8.6	1,413	488	1,901
301	Melbourne DGP	7,721	0.5	7,682	142	7,824

<b>GP Div No.</b>	<b>Division</b>	<b>Total all 25+ Diab Ausdiab</b>	<b>% Pop Indigenous</b>	<b>Non Indig Diab</b>	<b>Indig Diab</b>	<b>Total</b>
302	North East Valley DGP	12,533	0.5	12,470	230	12,700
303	Inner Eastern Melbourne DGP Ltd	11,953	0.1	11,941	44	11,985
304	SouthCity GP Services	9,706	0.2	9,686	71	9,758
305	Westgate DGP	8,477	0.5	8,435	155	8,590
306	Western Melbourne DGP	12,099	0.4	12,051	177	12,228
307	North West Melbourne DGP	14,112	0.4	14,056	207	14,263
308	Northern DGP	12,275	0.7	12,189	315	12,504
310	Whitehorse DGP	15,505	0.2	15,474	114	15,587
311	Greater South Eastern DGP	11,325	0.2	11,302	83	11,385
312	Monash DGP	8,193	0.2	8,176	60	8,237
313	Central Bayside DGP	10,844	0.2	10,822	80	10,902
314	Knox DGP	9,381	0.3	9,353	103	9,456
315	Dandenong DGP	13,208	0.5	13,142	242	13,384
316	Mornington Peninsula DGP	16,623	0.5	16,540	305	16,844
317	Geelong DGP	13,535	0.7	13,440	347	13,788
318	Central Highlands DGP	7,666	0.6	7,620	169	7,789
319	North East Victorian DGP	7,031	0.7	6,981	180	7,162
320	Eastern Ranges DGP	10,100	0.5	10,050	185	10,235
322	South Gippsland DGP	4,638	0.5	4,615	85	4,700
323	Central West Gippsland DGP	6,065	1.1	5,998	245	6,243
324	Otway DGP	7,411	0.8	7,351	217	7,569
325	Ballarat and District DGP	6,633	0.9	6,574	219	6,792
326	Bendigo DGP	5,899	1.0	5,840	216	6,056
327	Goulburn Valley DGP	5,902	2.1	5,778	454	6,232
328	East Gippsland DGP	4,993	1.9	4,898	348	5,246
329	NSW/Vic border DGP	5,408	1.4	5,332	278	5,610
330	Western Victoria DGP	5,615	0.8	5,570	165	5,735
331	Murray Plains DGP	4,259	1.7	4,186	265	4,452
332	Mallee DGP	4,978	3.5	4,803	639	5,442
401	Brisbane Inner South DGP	16,717	1.6	16,449	981	17,430
402	Brisbane Southside DGP	14,000	1.7	13,762	873	14,635
404	Logan Area DGP	11,095	2.3	10,840	936	11,775
405	Brisbane North DGP	28,254	1.3	27,887	1,347	29,234
406	Gold Coast DGP	24,369	1.1	24,101	983	25,084
407	Redcliffe Bribie Caboolture DGP	10,555	2.2	10,323	851	11,174
408	Ipswich & West Moreton DGP	8,495	3.1	8,232	966	9,197
409	GP Connections (Toowoomba & District Division of General Practice)	8,047	2.8	7,822	826	8,648
410	Central Queensland Rural DGP	3,132	4.5	2,991	517	3,508
411	Mackay DGP	5,598	3.7	5,391	759	6,150
412	Townsville DGP	6,336	5.8	5,969	1,347	7,316
413	Cairns DGP	5,287	9.7	4,774	1,880	6,654

<b>GP Div No.</b>	<b>Division</b>	<b>Total all 25+ Diab Ausdiab</b>	<b>% Pop Indigenous</b>	<b>Non Indig Diab</b>	<b>Indig Diab</b>	<b>Total</b>
414	Southern Queensland Rural DGP	9,505	4.9	9,039	1,708	10,747
416	Northern Queensland Rural DGP	5,531	13.9	4,762	2,819	7,580
417	Far North Queensland Rural DGP	5,551	22.2	4,318	4,518	8,837
418	Sunshine Coast DGP	19,341	1.3	19,090	922	20,012
419	Capricornia DGP	6,459	4.6	6,162	1,089	7,252
420	Wide Bay DGP	11,238	2.9	10,912	1,195	12,107
501	Adelaide Western DGP	14,234	1.5	14,021	783	14,804
502	Adelaide Northern Division of General Practice	8,971	1.9	8,801	625	9,426
503	Adelaide North East DGP	11,408	1.1	11,282	460	11,743
504	Adelaide Central & Eastern DGP	11,693	0.5	11,634	214	11,849
505	Adelaide Southern DGP	21,581	0.7	21,429	554	21,983
506	Barossa DGP	2,132	0.9	2,112	70	2,183
507	Yorke Peninsula DGP	1,966	2.3	1,921	166	2,087
508	Mid North Rural South Australia DGP	3,018	1.7	2,967	188	3,155
509	Riverland DGP	2,060	2.5	2,009	189	2,198
510	South East South Australia DGP	3,463	1.2	3,421	152	3,574
511	Eyre Peninsula DGP	3,126	4.9	2,973	562	3,534
512	Flinders and Far North DGP	1,227	14.6	1,048	657	1,705
513	Murray Mallee DGP	1,949	3.8	1,875	272	2,146
514	Adelaide Hills DGP	3,385	0.5	3,368	62	3,430
601	Perth and Hills DGP Inc.	16,129	2.0	15,806	1,183	16,989
602	Perth Central Coastal DGP	7,439	0.5	7,402	136	7,538
603	Osborne DGP	17,677	1.2	17,465	778	18,243
604	Canning DGP Ltd	14,719	2.3	14,380	1,241	15,622
605	Fremantle Regional DGP	12,940	1.1	12,798	522	13,320
606	Rockingham/Kwinana DGP Ltd	5,325	2.0	5,218	390	5,609
607	Peel & South West DGP	8,629	1.7	8,482	538	9,020
609	Great Southern WA DGP	4,272	3.8	4,109	595	4,704
610	Kimberley DGP	1,047	46.5	560	1,786	2,346
611	Eastern Goldfields Medical DGP	2,048	10.5	1,833	788	2,621
612	Mid West DGP	3,011	10.7	2,689	1,181	3,870
613	Greater Bunbury DGP	3,306	2.5	3,224	303	3,527
614	Pilbara DGP	1,060	15.9	891	618	1,509
615	Central Wheatbelt DGP	2,739	4.6	2,613	462	3,075
701	Southern Tasmania DGP	13,463	3.7	12,965	1,827	14,792
702	Northern Tasmanian DGP	7,995	2.7	7,779	792	8,571
703	North West Tasmania DGP	6,342	5.3	6,006	1,232	7,238
801	Top End DGP	5,037	24.8	3,788	4,580	8,368

<b>GP Div No.</b>	<b>Division</b>	<b>Total all 25+ Diab Ausdiab</b>	<b>% Pop Indigenous</b>	<b>Non Indig Diab</b>	<b>Indig Diab</b>	<b>Total</b>
<b>802</b>	Central Australia DGP	1,447	42.8	828	2,270	<b>3,098</b>
		1,073,564	2.4	<b>1,050,261</b>	<b>85,435</b>	<b>1,135,703</b>



### **5. Estimates of the population who could benefit from a GP 3 step mental health plan**

#### **Introduction**

The mental health indicator MNH\_3.1 from the National Performance Indicators for Divisions of General Practice reads:

*Number of 3-Step Mental Health Plans completed by GPs practising in the Division's area, compared to the estimated population in the Division's area who could benefit from participating in a 3-Step Mental Health Plan.*

As part of its work in support of the National Performance Indicators, the Centre for General Practice Integration Studies at the University of NSW was asked to develop estimates by Division and by state/territory of the denominator: 'the population in the Division's area who could benefit from participating in a 3-Step Mental Health Plan'.

#### **Method**

A small working group met by teleconference to advise on this particular task, including Dr Beverley Sibthorpe (ANU), Associate Professors Jane Gunn and Jane Pirkis (University of Melbourne), Louise Jensen from the Department of Health and Ageing and Professor Mark Harris from the University of NSW..

It was initially established that there was no existing criterion for a 'person who could benefit from participating in a 3 step Mental Health Plan' which could be used as the basis for these estimates. It was then suggested that Professor Philip Burgess from the University of Queensland might be able to derive a criterion from elements in the National Survey of Mental Health and Wellbeing (1997), which he had previously analysed. This could then be used to develop population prevalence estimates which could be applied to the estimated populations of Division areas and states/territories. These were restricted to people aged 18 and above.

Professor Burgess developed a criterion in consultation with the working group which was agreed to be a reasonable reflection of being likely to benefit from a 3 step Mental Health Plan. This was Case Type 1:

*Any CIDI<sup>1</sup> Diagnosis of Anxiety Disorders (including phobic, panic and generalised anxiety disorders) Affective Disorders (including bipolar disorders, depression and mixed anxiety and depression disorders) and Substance Abuse Disorders (including alcohol use and drug use disorders), Neurasthenia as well as positive cases on the psychosis screener.*

He then estimated the proportion of the population meeting this criterion by age, sex, rurality of place of residence and marital status and applied these proportions to Division and state/national population estimates. These were provided by Mr John Glover from the Public Health Information Development Unit in Adelaide, based on SLA data from the ABS, allocated to Divisions using a concordance developed by

---

<sup>1</sup> Composite International Diagnostic Interview (see <http://www.crufad.unsw.edu.au/cidi/cidi.htm>)

PHIDU. A copy is attached (Appendix 8), and is also to be found on the PHIDU web site. The resulting population profiles are included as Appendix 6.

To estimate the proportion of those who met the criterion for Case Type 1 who were also in some way in contact with general practice (and therefore might have sought or been offered structured mental health care in the course of a consultation) Professor Burgess calculated a second Case Type. This includes those who met CIDI criteria for Case Type 1 (and so might benefit from a 3 step Mental Health Plan) and who also reported consulting a General Practitioner, for any reason, in the past 12 months.

A third group was also calculated: those fitting Case Type 2 together with those who did not meet the criteria for Case Type 1 (and so were not identified as being able to benefit from a 3 step mental health plan on this criterion) but who still reported at least one consultation with a general practitioner related to mental problems in the past 12 months. This provides a broader estimate of the population to whom general practice mental health care might be relevant.

### Summary of results

This section highlights the main results of Professor Burgess' work. Population estimates for Divisions and states/territories are found in Appendix 6, and Professor Burgess' report, with more detailed information, is found at Appendix 7.

The estimates for each of the case types for the Australian population aged 18 and above are shown in table 5.1.

Table 5.1: Estimated proportion of the Australian population aged 18 and above by Case Type.

Case Type	Criterion	Est %
Case Type 1	Any CIDI Diagnosis of Anxiety Disorders (including phobic, panic and generalised anxiety disorders) Affective Disorders (including bipolar disorders, depression and mixed anxiety and depression disorders) and Substance Abuse Disorders (including alcohol use and drug use disorders), Neurasthenia as well as positive cases on the psychosis screener.	18.3%
Case Type 2	Individuals who met CIDI criteria for Case Type 1 AND also consulted a General Practitioner, for any reason, in the past 12 months; and	15.3%
Case Type 3	Individuals who met Case Type 2 criteria OR did not meet CIDI criteria for Case Type 1 BUT had at least one consultation related to mental problems in the past 12 months.	18.3%

Thus the estimates indicate that:

- 18.3% of the adult population (18+) of Australia could benefit from a GP 3 step mental health plan.

- 83.8%<sup>2</sup> of these had consulted a GP in the past 12 months;
- a further 3.6% of the population reported consulting a GP for a mental health issue in the previous 12 months, even though they did not meet the criterion for benefiting from a 3 step mental health plan.

### **Discussion**

The Case Types developed here provide a broad indication of the proportions of the population who could benefit from a 3 step mental health plan and their contact with general practice. However the results should be read with caution.

The National Survey of Mental Health and Wellbeing was conducted in 1997. Since then there may have been changes in the mental health of the population, in general practice and in patterns of consultation.

Case Type 1 is a broad category which may include some individuals who were able to manage their mental health on their own, and others whose condition was serious enough to warrant direct referral to a specialist. There is also no certainty that all those requiring mental health care in general practice would have benefited from the specific pattern of care provided through the 3 step Mental Health Plan.

In Case Type 2 there is no indication of whether any of the person's visits to the GP coincided with the time that their condition fitted Case Type 1. Thus the opportunity for accessing GP mental health care may have been indirect (they could attend if they wished) rather than direct (attending the GP at the time of meeting Case Type 1).

In Case Type 3 there is no indication of the mental health issue for which the GP was consulted. It may have been a visit to collect information, or it may have concerned the mental health of another person. It is also possible that the person would have met the criteria for Case Type 1 at the time of consulting the GP, but not when the survey was carried out, and so is not included in the count for this Case Type.

Overall, the three Case Types provide a broad picture of the need for mental health care and the scope for structured care of the kind provided through the 3 step Mental Health Plan. The high level of apparent need emphasises the importance of general practice care, which is the most widely available source of primary care. The fact that most of those who may be in need are already in touch with general practice suggests that there is scope for at least initiating mental health care in this setting, and continuing to develop opportunities for structured care for those who need it.

Case Type 1 appears to provide a basis for estimating the denominator for indicator MNH\_4.1. It has prima facie relevance to primary mental health care, is incorporated a population survey and so can be updated from new population figures or revised prevalence estimates. In the absence of another plausible candidate it would appear reasonable to use population estimates based on this Case Type for Division reports.

Gawaine Powell Davies  
Centre for GP Integration Studies, UNSW.

---

<sup>2</sup> This and the next percentage are weighted population estimates rather than simple percentages of the sample. This means that the percentages may appear not to tally with those in Table 5.1.

## APPENDIX 6

### **6. Population estimates for States/Territories and Divisions of those who could benefit from a 3 step mental health plan**

The following population estimates are based on the population prevalence rates of people meeting Case Type 1<sup>3</sup>, calculated by applying prevalence rates from the National Survey of Mental Health and Wellbeing (1997) to population profiles based on SLA data from the ABS, allocated to Divisions using a concordance developed by PHIDU and weighted for age, sex, rurality of place of residence and marital status.

Table 6.1: Estimated percentage of population who could benefit from a 3 step Mental Health Plan by State or territory

State/Territory	Estimated percentage of population
NSW	18.13
VIC	18.25
QLD	18.48
SA	17.86
WA	18.58
TAS	18.14
NT	21.69
ACT	19.02

---

<sup>3</sup> Any CIDI Diagnosis of Anxiety Disorders (including phobic, panic and generalised anxiety disorders) Affective Disorders (including bipolar disorders, depression and mixed anxiety and depression disorders) and Substance Abuse Disorders (including alcohol use and drug use disorders), Neurasthenia as well as positive cases on the psychosis screener.

Table 6.2: Estimated percentage of population who could benefit from a 3 step Mental Health Plan by Division of General Practice

STATE	GPDIV_ID	GPDIV	POP18+ (N)	CASETYPE3 (N)	CASETYPE3 (%)
1	201	Central Sydney Division of General Practice	230,901	45,816.35	19.84
1	202	Eastern Sydney Division of General Practice Ltd	112,344	22,805.86	20.30
1	203	South Eastern Sydney Division of General Practice Inc	126,292	24,747.26	19.60
1	204	Canterbury Division of General Practice	96,183	17,966.75	18.68
1	205	Bankstown General Practice Division Inc	109,647	20,081.66	18.31
1	206	Western Sydney General Practice Support	227,190	43,797.49	19.28
1	208	The Northern Sydney Division of General Practice Inc	142,883	27,266.85	19.08
1	209	St George District Division of General Practice Inc	152,400	27,924.66	18.32
1	210	Liverpool Division of General Practice Ltd	104,943	19,931.96	18.99
1	211	Fairfield Division of General Practice Ltd	144,807	27,620.24	19.07
1	212	Hornsby Ku-Ring-Gai Ryde Division of General Practice	181,294	32,664.36	18.02
1	213	Manly Warringah Division of General Practice Ltd	151,662	27,556.11	18.17
1	214	Sutherland Division of General Practice Inc	144,302	26,274.92	18.21
1	215	Macarthur Division of General Practice Ltd	141,928	26,920.46	18.97
1	216	Illawarra Division of General Practice Ltd	178,214	32,423.41	18.19
1	217	Hunter Urban Division of General Practice Ltd	287,638	52,350.08	18.20
1	218	Hunter Rural Division of General Practice Ltd	126,850	22,137.21	17.45
1	219	Central Coast Division of General Practice Inc	195,533	34,474.84	17.63
1	220	Shoalhaven Division of General Practice Inc	55,892	9,259.79	16.57
1	221	South East NSW Division of General Practice Ltd	106,848	18,307.03	17.13
8	222	ACT Division of General Practice Inc	221,281	42,736.31	19.31
1	223	Hastings Macleay Division of General Practice Ltd	62,131	10,534.84	16.96
1	224	Mid North Coast (NSW) Division of General Practice Ltd	79,458	14,076.79	17.72

1	225	Northern Rivers Division of General Practice (NSW) Ltd	101,575	18,137.83	17.86
1	226	Tweed Valley Division of General Practice	52,469	9,149.40	17.44
1	227	New England Division of General Practice Ltd	39,970	6,957.43	17.41
1	228	Riverina Division of General Practice & Primary Health Ltd	66,063	11,623.59	17.59
1	229	NSW Central West Division of General Practice Ltd	107,532	18,991.88	17.66
1	230	Dubbo/Plains Division of General Practice Ltd	62,400	10,918.52	17.50
1	231	Barwon Division of General Practice Inc	34,508	5,777.70	16.74
1	232	Murrumbidgee Division of General Practice Ltd	39,472	6,712.20	17.00
1	233	NSW Outback Division of General Practice Ltd	10,128	1,789.12	17.66
1	235	Southern Highlands Division of General Practice Inc	29,000	4,940.46	17.04
1	236	North West Slopes (NSW) Division of General Practice Ltd	37,852	6,807.20	17.98
1	237	Nepean Division of General Practice Inc	114,640	21,820.15	19.03
1	238	Blue Mountains Division of General Practice Inc	49,904	9,305.77	18.65
1	240	Hawkesbury Division of General Practice Ltd	61,021	11,477.91	18.81
1	241	Barrier Division of General Practice Ltd	15,432	2,868.30	18.59
2	301	Melbourne Division of General Practice Ltd	122,449	25,770.34	21.05
2	302	North-East Valley Division of General Practice Pty Ltd	163,900	30,762.53	18.77
2	303	Inner Eastern Melbourne Division of General Practice Ltd	138,273	25,440.06	18.40
2	304	Southcity GP Services	131,377	26,691.11	20.32
2	305	Westgate Division of Family Medicine Ltd	113,614	21,474.98	18.90
2	306	Western Melbourne Division of General Practice Ltd	168,468	32,334.88	19.19
2	307	North West Melbourne Division of General Practice Ltd	183,747	34,525.47	18.79
2	308	Northern Division of General Practice, Melbourne	159,754	29,951.82	18.75
2	310	Whitehorse Division of General Practice Inc	178,552	32,370.28	18.13
2	311	Greater South Eastern Division of General Practice	132,120	24,060.05	18.21
2	312	Monash Division of General Practice (Moorabbin) Inc	96,249	17,736.65	18.43

2	313	Central Bayside Division of General Practice	119,473	21,598.52	18.08
2	314	Knox Division of General Practice	129,587	24,116.45	18.61
2	315	Dandenong & District Division of General Practice Inc	181,404	34,196.76	18.85
2	316	Mornington Peninsula Division of General Practice	174,824	31,544.34	18.04
2	317	General Practitioners Association of Geelong Ltd	144,839	25,982.47	17.94
2	318	Central Highlands Division of General Practice	94,425	17,567.13	18.60
2	319	North East Victorian Division of General Practice Pty Ltd	65,803	10,959.42	16.65
2	320	Eastern Ranges GP Association	133,109	24,406.99	18.34
2	322	South Gippsland Division of General Practice	40,041	6,453.36	16.12
2	323	Central-West Gippsland Division of General Practice Inc	68,263	12,646.05	18.53
2	324	Otway Division of General Practice	76,769	13,137.73	17.11
2	325	Ballarat & District Division of General Practice Inc	74,470	13,861.47	18.61
2	326	The Bendigo and District Division Of General Practice	63,404	11,869.96	18.72
2	327	Goulburn Valley Division of General Practice Ltd	63,925	11,220.64	17.55
2	328	East Gippsland Division of General Practice	46,497	7,945.77	17.09
2	329	The Border GP Division Pty Ltd	61,728	11,540.79	18.70
2	330	West Vic Division of General Practice Inc	53,101	8,616.16	16.23
2	331	Murray-Plains Division of General Practice	41,022	6,678.80	16.28
2	332	Mallee Division of General Practice	54,254	9,440.25	17.40
3	401	South East Alliance of General Practice (Brisbane)	207,184	39,217.37	18.93
3	402	Brisbane South Division of General Practice	180,407	34,021.32	18.86
3	404	Logan Area Division of General Practice Ltd	166,343	32,048.34	19.27
3	405	Brisbane North Division of General Practice Assn Inc	218,894	44,002.40	20.10
3	406	Gold Coast Division of General Practice Ltd	259,409	48,284.09	18.61
3	407	The Redcliffe Bribie Caboolture Division of General Practice Assn Inc	111,658	20,026.98	17.94
3	408	Ipswich and West Moreton Division of General Practice	107,553	19,836.78	18.44
3	409	Toowoomba and District Division of General Practice	92,389	16,899.77	18.29

		Ltd			
3	410	Central Queensland Rural Division of General Practice Assn Inc	40,751	7,078.27	17.37
3	411	Mackay Division of General Practice Ltd	68,972	12,795.32	18.55
3	412	Townsville Division of General Practice Ltd	88,085	16,864.92	19.15
3	413	The Cairns Division of General Practice Ltd	73,058	14,983.18	20.51
3	414	Southern Queensland Rural Division of General Practice Assn Inc	104,419	17,556.79	16.81
3	416	North & West Queensland Primary Health Care	67,435	11,785.78	17.48
3	417	Far North Queensland Rural Division of General Practice Assn Inc	62,384	10,951.27	17.55
3	418	Sunshine Coast Division of General Practice Assn Ltd	182,625	32,487.21	17.79
3	419	Capricornia Division of General Practice Ltd	78,949	14,948.53	18.93
3	420	Wide Bay Division of General Practice	104,673	18,499.58	17.67
4	501	Adelaide Western Division of General Practice Ltd	156,283	29,003.98	18.56
4	502	Adelaide Northern Division of General Practice Ltd	119,258	22,638.21	18.98
4	503	Adelaide North East Division of General Practice Inc	140,909	26,133.58	18.55
4	504	Adelaide Central and Eastern Division of General Practice Ltd	126,601	23,458.29	18.53
4	505	Adelaide Southern Division of General Practice Inc	235,998	42,586.26	18.05
4	506	The Barossa Division of General Practice Inc	23,353	3,841.24	16.45
4	507	Yorke Peninsula Division of General Practice Inc	16,267	2,451.92	15.07
4	508	Mid North Division of Rural Medicine	30,481	5,102.74	16.74
4	509	Riverland Division of General Practice Inc	23,340	3,825.29	16.39
4	510	Limestone Coast Division of General Practice Inc	40,308	7,049.80	17.49
4	511	Eyre Peninsula Division of General Practice	35,488	6,427.70	18.11
4	512	Flinders and Far North Division of General Practice Inc	15,838	2,941.28	18.57
4	513	Murray Mallee Division of General Practice Inc	20,013	3,485.27	17.41
4	514	Adelaide Hills Division of General Practice Inc	40,546	7,256.66	17.90
5	601	Perth & Hills Division of General Practice	203,642	38,292.54	18.80



5	602	Perth Central Coastal Division of General Practice Ltd	82,933	15,468.71	18.65
5	603	Osborne Division of General Practice Ltd	219,285	41,217.64	18.80
5	604	Canning Division of General Practice Ltd	188,668	35,881.07	19.02
5	605	Fremantle Regional GP Network	156,054	28,987.00	18.57
5	606	Rockingham Kwinana Division of General Practice Ltd	61,341	11,726.16	19.12
5	607	Peel/South West Division of General Practice Ltd	78,952	14,042.20	17.79
5	609	Great Southern Division of General Practice Ltd	45,298	7,824.56	17.27
5	610	Kimberley Division of General Practice	16,063	3,278.56	20.41
5	611	Eastern Goldfields Medical Division of General Practice Ltd	31,160	5,985.75	19.21
5	612	Mid West Division of General Practice Inc	36,234	6,585.03	18.17
5	613	Greater Bunbury Division of General Practice Inc	38,942	7,413.06	19.04
5	614	Pilbara Division of General Practice	20,702	4,074.48	19.68
5	615	Central Wheatbelt Division of General Practice	29,603	4,909.32	16.58
6	701	Southern Tasmanian Division of General Practice	153,092	27,892.75	18.22
6	702	GP North Division of General Practice	88,569	15,958.03	18.02
6	703	North West Tasmania Division of General Practice Inc	69,175	12,159.76	17.58
7	801	Top End Division of General Practice	85,577	17,436.94	20.38
7	802	Central Australian Division of Primary Health Care	25,535	5,216.59	20.43

### **7. Report from Professor Philip Burgess - National Performance Indicators for Divisions of General Practice, Estimates of the denominator for Level 3 indicator (Mental Health)**

#### **Background**

The Australian Primary Health Care Research Institute (APHCRI) and the Centre for General Practice Integration Studies at the University of New South Wales requested assistance in the development of estimates of the denominator for the Level 3 indicator in the Mental Health domain of the National Performance Indicators for Divisions of General Practice:

“N\_MNH 3.1 Number of 3-Step Mental Health Plans completed by GPs practicing in the Division’s area, compared to the estimated population in the Division’s area who could benefit from participating in a 3-Step Mental Health Plan”.

After discussions with various stakeholders, it was agreed to develop an initial set of estimates using the methodology originally employed in the Mental Health Needs and Expenditure Project.<sup>4</sup> That project involved the estimation of the prevalence of mental health ‘cases’ among the adult population for each of Australia’s 76 Area Mental Health Services (AMHS). Levels of population-based need within each Area were modelled, using data from the National Survey of Mental Health and Wellbeing (NSMHWB), in combination with some key socio-demographic characteristics of each Area. The NSMHWB was an Australia-wide household survey conducted in 1997 that estimated 12-month population-based rates of psychiatric disorders, service use for mental health problems and perceived needs for care.

The NSMHWB also collected a range of socio-demographic details from each individual, including age, sex, marital status, and section of State/Territory. Using these variables, it was possible to identify 120 strata, and calculate rates of psychiatric disorders, perceived needs for care and service use for mental health problems within each stratum. By taking this population category data from the NSMHWB, and weighting each Area according to its population structure, it was possible to model the needs of each Area. Three types of direct measures of need were developed: (i) ‘Caseness’, based on the prevalence rates of particular disorders; (ii) Perceived needs for care as expressed by the individual; and (iii) Service use for mental health problems.

#### **Adapting the method for Divisions of General Practice**

Several steps were involved in the development of estimates for Divisions of General Practice:

---

<sup>4</sup> Burgess P, Pirkis J, Buckingham B, Burns J and Eagar K. (2002). Mental Health Needs and Expenditure in Australia. Commonwealth Department of Health and Ageing: Canberra

Burgess P, Pirkis J, Buckingham B, Burns J, Eagar K and Eckstein G (2004). Adult mental health needs and expenditure in Australia. *Social Psychiatry and Psychiatric Epidemiology*, 39, 427-434.

First, the Public Health Information Development Unit at The University of Adelaide provided population structure estimates for each of 119 Divisions of General Practice. The population structure estimates involved:

1. Sex (male; female);
2. Age (18-19; 20-24; 25-29; 30-34; 35-39; 40-44; 45-49; 50-54; 55-59; 60-64; 65-69; 70-74 and 75+);
3. Section of State/Territory (metropolitan; rural; remote);
4. Marital status (married; not married).

Together, these four stratification factors yielded 156 strata for each of the Divisions of General Practice.

Second, discussions with key stakeholders suggested that the initial case type estimates be based on the following materials available within the NSMHWB:

1. Diagnosis – 12 month prevalence estimates for a range of disorders per the Survey;
2. Consultation rates by individuals with General Practitioners; and
3. Consultation rates by individuals with General Practitioners specifically for a mental health problem.

The Divisions of General Practice Familiarisation Training GP and Practice Manual<sup>5</sup> for the Better Outcomes in Mental Health Care initiative lists ICD-10 Primary Health Care disorders that can be treated under the initiative. These include Anxiety Disorders, Affective Disorders and Substance Abuse Disorders that were estimated in the 1997 Survey. Other disorders such as Acute and Chronic Psychoses were only ‘screened’ in the 1997 Survey; there are other disorders listed that were not within the scope of the 1997 Survey (e.g., eating disorders, sexual disorders, sleep problems, bereavement disorders). Of the four disorders excluded from the initiative (i.e., dementia, delirium, tobacco use disorders and mental retardation), only ‘dementia’ as estimated by scores on the Mini Mental State Examination could be identified.

With respect to General Practice consultation rates, individuals were asked:

1. How many times did you consult a General Practitioner within the past 12 months?  
Please include any visits that were for check-ups or script repeats?
2. How many of those consultations were related to mental problems such as stress, anxiety, depression or dependence on drugs or alcohol?

### **Development of Case Types**

The 1997 NSMHWB comprised information for 10,641 individuals. Of these, 137 screened positive for Cognitive Impairment on the MMSE. Since measures of Cognitive Impairment can be considered a proxy for various organic conditions such as dementia that are outside the scope of the initiative, these individuals were excluded from further consideration in the modelling of prevalence. Thus, the sample comprises 10,504 individuals.

---

<sup>5</sup> The Australian Divisions of General Practice Ltd (2005). Familiarisation Training GP and Practice Manual, Third Edition, Better Outcomes in Mental Health Care initiative.

Three potential case types were developed:

1. Any CIDI Diagnosis of Anxiety Disorders (including phobic, panic and generalised anxiety disorders) Affective Disorders (including bipolar disorders, depression and mixed anxiety and depression disorders) and Substance Abuse Disorders (including alcohol use and drug use disorders), Neurasthenia as well as positive cases on the psychosis screener.
2. Individuals who met CIDI criteria for Case Type 1 AND also consulted a General Practitioner, for any reason, in the past 12 months; and
3. Individuals who met Case Type 2 criteria OR individuals who did not meet CIDI criteria for Case Type 1 BUT had at least one consultation related to mental problems in the past 12 months.

Of the 10,504 individuals in the NSMHWB, 2,018 met CIDI criteria for Case Type 1. This represents a sample estimate of 19.2 % and a weighted population estimate of 18.3%.

The following table shows the relationship between Case Type 1 and any consultation with General Practitioners in the past 12 months. It can be seen that 85.3% of individuals meeting Case Type 1 criteria also consulted a General Practitioner. Thus, 1,721 individuals met Case Type 2 criteria. This represents a sample estimate of 16.4% and a weighted population estimate of 15.3%.

**Any CIDI dx \* Any GP Consultation Crosstabulation**

Count		Any GP Consultation		Total
		Absent	Present	
Any CIDI dx	Absent	1647	6839	8486
	Present	297	1721	2018
Total		1944	8560	10504

The following table shows the relationship between Case Type 1 and any consultation with General Practitioners as well as any consultation with a GP for a 'mental problem' in the past 12 months. There are any additional 330 individuals who do not meet CIDI diagnosis criteria for Case Type 1 but report consulting a General Practitioner for a 'mental problem' in the past 12 months. These 330 cases were added to the 1,721 cases meeting Case Type 2 criteria to form Case Type 3. Thus, 2,051 individuals met Case Type 3 criteria. This represents a sample estimate of 19.5 % and a weighted population estimate of 18.3%.

### Any GP Consultation \* GP for a mental health problem \* Any CIDI dx Crosstabulation

Count

Any CIDI dx			GP for a mental health problem		Total
			Absent	Present	
Absent	Any GP Consultation	Absent	1647	0	1647
		Present	6509	330	6839
	Total		8156	330	8486
Present	Any GP Consultation	Absent	297	0	297
		Present	1074	647	1721
	Total		1371	647	2018

### Reliability of the need estimates

The Australian Bureau of Statistics Technical Papers provided with the Confidentialised Unit Record File for the National Survey of Mental Health and Wellbeing describe a statistical process for the calculation of the reliability of the prevalence estimates.

The standard measure of the reliability of an estimate is the statistic, Relative Standard Error (RSE) expressed as a percentage. The synthetic modelling of the need measures provided prevalence estimates and RSEs as shown in the table below.

The ABS advised that RSEs greater than 50% are considered unreliable for most purposes, RSEs in the range 25% - 50% should be treated with caution. All three Case Types were estimated within reliable ranges.

Need measure	Prevalence Estimate	Relative Standard Error
Case Type 1	18.3%	16.4%
Case Type 2	15.3%	20.7%
Case Type 3	18.3%	14.9%

### Descriptive statistics of the Case Types for Divisions of General Practice

The three Case Types were modelled for each of the 119 Divisions of General Practice. The following tables present descriptive statistics and decile cut points for each of the Case Types:

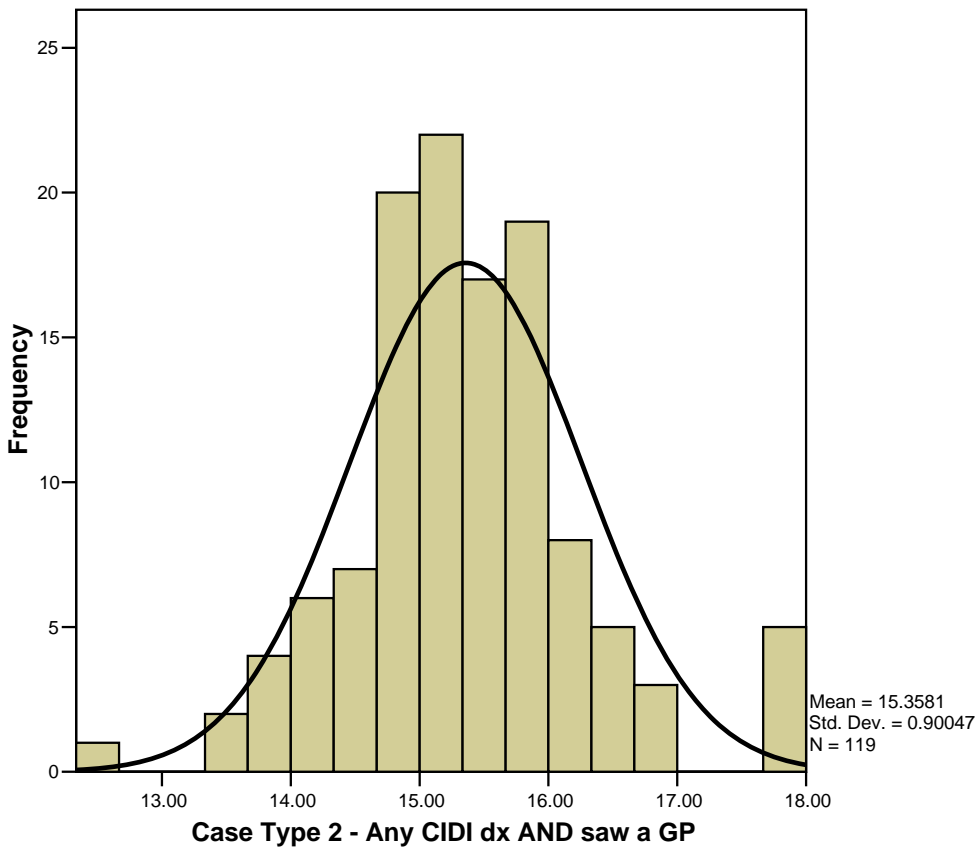
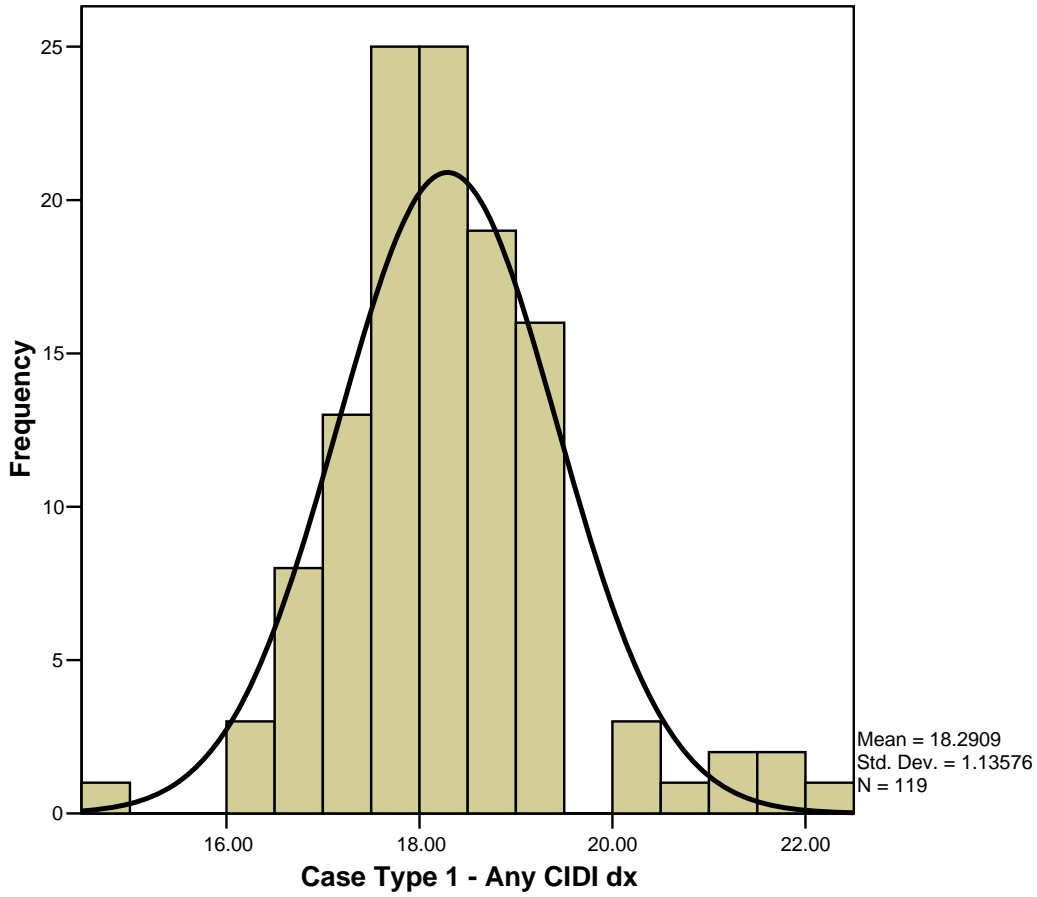
**Descriptive Statistics**

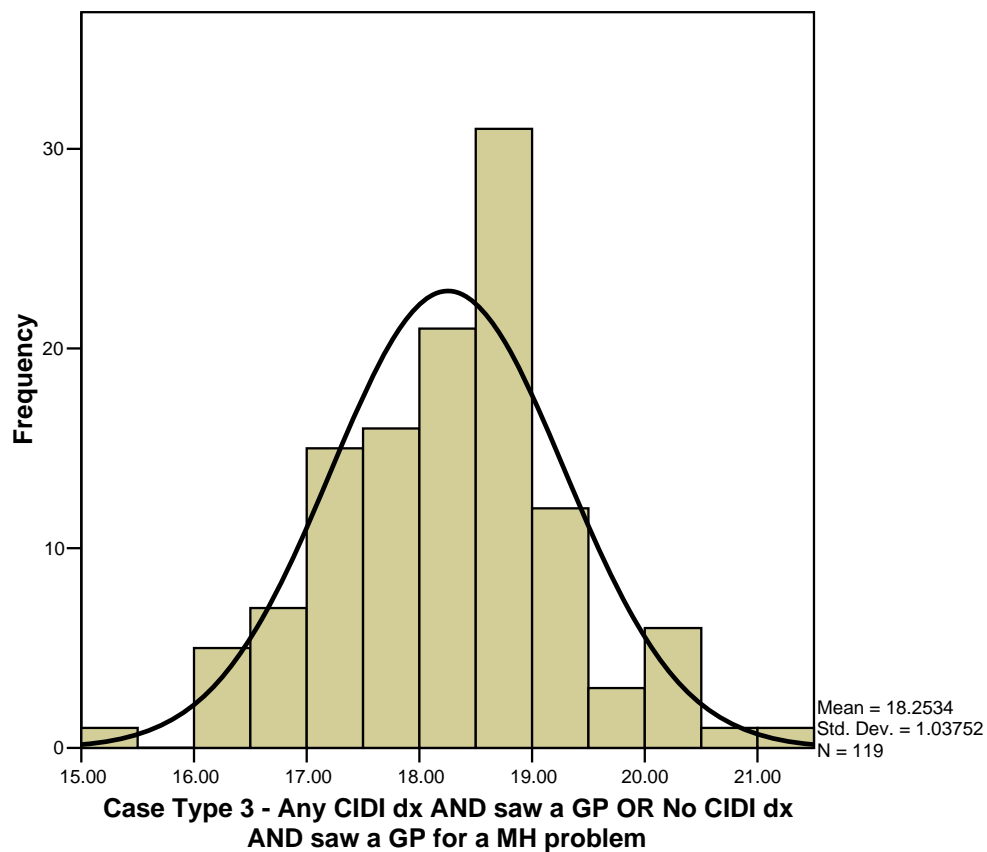
	N	Minimum	Maximum	Mean	Std. Deviation
Case Type 1 - Any CIDI dx	119	14.96	22.16	18.2909	1.13576
Case Type 2 - Any CIDI dx AND saw a GP	119	12.53	17.87	15.3581	.90047
Case Type 3 - Any CIDI dx AND saw a GP OR No CIDI dx AND saw a GP for a MH problem	119	15.07	21.05	18.2534	1.03752
Valid N (listwise)	119				

**Statistics**

		Case Type 1 - Any CIDI dx	Case Type 2 - Any CIDI dx AND saw a GP	Case Type 3 - Any CIDI dx AND saw a GP OR No CIDI dx AND saw a GP for a MH problem
N	Valid	119	119	119
	Missing	0	0	0
Percentiles	10	16.9668	14.2699	16.8138
	20	17.4629	14.8109	17.4376
	30	17.7469	14.9173	17.6737
	40	17.9312	15.0654	18.0452
	50	18.1267	15.2976	18.3148
	60	18.4220	15.5515	18.5749
	70	18.7722	15.7469	18.7691
	80	19.0194	15.9938	18.9931
	90	19.3939	16.3977	19.3132

The following histograms show the frequency distributions of the Case Types.





The skewness and kurtosis statistics for each of the distributions of Case Types was examined. These statistics for Case Type 1, and to a lesser extent for Case Type 2,s, indicated some departure from normality.

Finally, the proportion of Case Types for each of the 8 States and Territories is shown in the following table. The Territories have the greatest proportions across all three Case Types.

State / Territory	Case Type 1	Case Type 2	Case Type 3
NSW	18.13	15.34	18.39
VIC	18.25	15.41	18.47
QLD	18.48	15.58	18.61
SA	17.86	15.11	18.17
WA	18.58	15.64	18.67
TAS	18.14	15.23	18.02
NT	21.69	17.69	20.39
ACT	19.02	16.07	19.31



## 8. Construction of a concordance from SLAs to DGPs

*This Appendix was provided by John Glover from the Public Health Information Development Unit*

### Background

This paper describes the methodology used by Prometheus Information in developing a concordance suitable for apportioning SLA data to DGP, for data based on 2001 SLAs of usual residence.

Developing such a concordance poses some challenges since DGP boundaries are defined by reference to postcodes. In some parts of Australia postcodes and SLAs can be aligned reasonably well but in other parts (such as north Queensland) postcodes cover large areas and are often broken into disjoint areas with poorly defined boundaries.

The concordance is to be used primarily to estimate rates and percentages at the DGP level. Age adjusted mortality and hospitalization rates and prevalence estimates (ie population percentages) for chronic illnesses and risk factors are the main applications for the concordance.

In the calculation of rates and percentages the concordance is applied to both the numerator and the denominator in the calculation. This makes the resulting rates tolerant to imprecision in the concordance.

It should be noted that this concordance should be used only for the context for which it was developed. It is applicable to data based on 2001 SLAs of usual residence.

### Data sources

A statistically valid data source was required for this task. The data source needs to match the Australian population in 2001 by place of usual residence since the data to which it is to be applied is based on place of usual residence.

A data file was obtained from the ABS to provide the basis for the concordances to be developed.

The file included the fields shown in the following table.

Field	Description/Comment
CD	Collection District Census 2001
POA	Postal Area that includes CD
SLA	SLA in ASGC 2001 includes CD
Census count – place of enumeration	Census count enumerated at this CD
Census count – place of usual residence	Census count where this CD was the usual place of residence
ERP June 30 2001	ABS estimated resident population

The total of the ERP field was total estimated resident population for Australia in 2001.

The CD, POA, SLA and ERP fields were used in the SLA to DGP concordance.

The Census count figures were obtained to make possible the construction of concordances for Census data for other uses and for comparison with the ERP based concordance. They were not used in the development of the SLA to DGP concordance discussed here.

The concordance used to define DGPs in terms of postcodes was obtained from the DoHA website. The concordance was checked for internal consistency.

### **Construction of the SLA to DGP concordance**

The postcode to DGP concordance from the DOHA website was applied to the CD data obtained from ABS. The POA field was used to split each CD across the DGPs in accordance with proportions of the POA in each division. In doing this we are treating POAs as if they are the same as the postcodes by which DGPs are defined, but there is no other basis on which to proceed.

The result was a new file with one record for each CD-DGP combination resulting from the concordance apportionment of the populations in the CDs. The totals of the population fields were unchanged by this process.

The first version of the concordance was created by aggregating the records across CDs and POAs leaving records based on SLA and DGP. These records contained the number of people from each SLA who have notionally been allocated to each DGP.

A percentage based concordance was then created by dividing the population on each record by the corresponding SLA population.

There were considerable differences in some cases in the percentages estimated using the three population measures – Census 2001 by place of enumeration, Census 2001 by place of usual residence and ERP at June 30 2001.

The ERP field was used for the final concordance since it will be applied mainly to data where the geography is on an ERP basis (eg deaths and hospital episodes).

The concordance developed is robust in the sense that the DGP estimates it produces when applied to SLA based populations are closely tied to the underlying SLA figures since they are weighted sums of those figures. Clearly SLAs that are entirely within a DGP are entirely allocated (ie with a weight of 1) to that DGP. SLAs that cross DGP boundaries are apportioned across two or more DGPs in a manner that preserves the population counts. In general the figures from the SLAs entirely within a DGP outweigh the figures from the apportioned SLAs which means that errors in the proportional allocations will in most cases have a only a marginal affect on DGP figures. Moreover, any errors in the proportions of SLAs to DGPs will tend to cancel one another out further reducing any errors at the DGP level.

An example of the process for step 1 is shown at attachment 1.

### **Future Possibilities**

The concordance can be adjusted to meet any new configuration of Division boundaries based on the 2001 Collection Districts. While this concordance will differ for SLAs on the borders of DGPs, the results of its application to specific data can be expected to be similar to the concordance developed using the method described above provided the concordance is applied to both numerators and denominators.

Dr George Preston  
Prometheus Information  
February 2006

**Example of steps and output in the development of the concordance using 1 SLA –  
Balranald (A)**

Input data from ABS

<u>CD</u>	<u>POA</u>	<u>SLA</u>	<u>SLA Name</u>	<u>POE pop</u>	<u>UR pop</u>	<u>ERP pop</u>
1010101	2715	10300	(10300) Balranald(A)	804	806	858
1010102	2715	10300	(10300) Balranald(A)	478	431	460
1010103	2711	10300	(10300) Balranald(A)	139	109	116
1010104	2737	10300	(10300) Balranald(A)	154	146	154
1010105	2715	10300	(10300) Balranald(A)	89	58	62
1010106	2715	10300	(10300) Balranald(A)	114	107	113
1010107	2737	10300	(10300) Balranald(A)	234	237	253
1010108	2737	10300	(10300) Balranald(A)	511	480	511
1010109	2715	10300	(10300) Balranald(A)	142	128	136
1010110	2715	10300	(10300) Balranald(A)	105	103	110

Input data - concordance file

Postcode to Divisions of General Practice concordance file from DoHA website

<u>Postcode</u>	<u>%</u>	<u>DGP code</u>	<u>DGP name</u>
2715	100	332	332 Mallee Division of General Practice
2737	100	332	332 Mallee Division of General Practice
2711	100	232	232 Murrumbidgee Division of General Practice Ltd

Output file with DGPs added by using above concordance

<u>CD</u>	<u>POA</u>	<u>SLA</u>	<u>SLA Name</u>	<u>POE pop</u>	<u>UR pop</u>	<u>ERP pop</u>	<u>DGP</u>
1010101	2715	10300	(10300) Balranald(A)	804	806	858	332
1010102	2715	10300	(10300) Balranald(A)	478	431	460	332
1010103	2711	10300	(10300) Balranald(A)	139	109	116	232
1010104	2737	10300	(10300) Balranald(A)	154	146	154	332
1010105	2715	10300	(10300) Balranald(A)	89	58	62	332
1010106	2715	10300	(10300) Balranald(A)	114	107	113	332
1010107	2737	10300	(10300) Balranald(A)	234	237	253	332
1010108	2737	10300	(10300) Balranald(A)	511	480	511	332
1010109	2715	10300	(10300) Balranald(A)	142	128	136	332
1010110	2715	10300	(10300) Balranald(A)	105	103	110	332

Output file with CDs & POAs removed - pops aggregated to SLA level

<u>SLA</u>	<u>SLA Name</u>	<u>POE pop</u>	<u>UR pop</u>	<u>ERP pop</u>	<u>DGP</u>
10300	(10300) Balranald(A)	139	109	116	232
10300	(10300) Balranald(A)	2631	2496	2657	332

Output file with percentage of SLA to allocate to DGP

<u>SLA</u>	<u>SLA Name</u>	<u>POE pop</u>	<u>UR pop</u>	<u>ERP pop</u>	<u>DGP</u>	<u>% SLA in DGP</u>
10300	(10300) Balranald(A)	139	109	116	232	4.1832
10300	(10300) Balranald(A)	2631	2496	2657	332	95.8168

#### Abbreviations

ABS: Australian Bureau of Statistics

CD: Collection district (ABS)

SLA: Statistical local area (ABS)

DGP: Divisions of General Practice

POA: Postal area (ABS)

Pop: Population

POE: Place of enumeration (the place where the person was when the census was taken)

UR: Usual residence (the place of usual residence - derived from the census)

ERP: Estimated resident population