

2 Review of current paper-based, administrative and CATI data collections

Currently in Australia there is a paucity of data collections incorporating detailed records that can assist in determining the use of evidence-based medicine in the general practice environment. This chapter presents an overview of various paper-based, administrative and computer-assisted telephone interview (CATI) data sources involved in the collection of primary health care information. Electronic data sources are covered in Chapter 3.

A systematic review of existing data collections was conducted to identify sources containing data that might be helpful in understanding the use of evidence-based practices and improving the quality of care. This approach entailed assessing the collection's ability to describe the use of best practice and good quality health care. Many of the collections' contact persons or custodians were able to assist by providing updates of their collection's data items, current size and additional information not available in published form or on relevant websites.

Included in this section are national surveys such as the GP-centred Bettering the Evaluation and Care of Health (BEACH) survey and the population-based National Health Survey, along with administrative sources such as the Medical Benefits Scheme (MBS) and Pharmaceutical Benefits Scheme (PBS). Various other paper-based collections, state-based and research-centred sources are also described.

For each collection, there is a brief description followed by a tabulated list of the collection's scope and coverage, and relevant data items. Where possible, this metadata has been sourced directly from the data collection to ensure its accurate representation. The methodology and any particular advantages or limitations associated with each collection are presented to illustrate its role in the collection of data about general practice.

Brief overviews of several other data collections are provided at the end of the chapter. Although these collections do not provide the same level of information about general practice services as those described in more detail (for example, because they relate to a small geographic area or a particular health issue), they do provide some valuable information.

To help comparisons to be made between the collections covered in this chapter and the next, Table A3.1 (in Appendix 3) presents a summary of each data collection's information, purpose, advantages and limitations. Table A3.2 provides a summary of the type, size and period of coverage of each collection, and provides relevant contact details.

GP-patient encounter collections

Bettering the Evaluation And Care of Health (BEACH)

BEACH is a continuous paper-based survey of general practice activity in Australia. It is conducted by the Australian General Practice Statistics and Classification Centre (AGPSCC)—a collaborating centre of the AIHW and the University of Sydney. BEACH commenced in April 1998 and has collected information on more than 1,000,000 encounters since then.

Purpose

BEACH data presents the GP's management of patients, providing information on the prescriptions, referrals and investigations conducted by the GP for each patient, considered in the context of the problem being managed. The continuous nature of the survey has resulted in a growing database of information on GP–patient encounters.

Method

BEACH data are collected from a random sample of GPs using a paper-based survey form, and each participating GP is required to provide details for 100 consecutive GP–patient encounters. The selection of participants is taken from a random sample of GPs who have claimed at least 375 general practice Medicare items in the previous 3 months. The BEACH program has tried to involve around 1,000 GPs each year. In 2006–07, more than 900 GPs (representing 31.1% of those who were contacted and were currently practising in Australia) provided details on 101,700 encounters.

Information on specific topics not covered by the consultation-based data is collected through SAND (Supplementary Analysis of Nominated Data) sub-studies. Each sub-study comprises a series of additional questions answered by around 100 GPs (resulting in a sample of 3,000–4,000 'patients' for each sub-study).

Advantages

- Continuous, detailed information on health care encounters.
- Large database suited to time-series analysis.
- Random sample of GPs that is constantly changing.
- Direct link from the actions taken by the GP (for example, prescribing, ordering tests) to the problem being managed.
- Includes all patient encounters, regardless of Medicare coverage.
- Medication data include all prescriptions—prescribed, supplied and advised for over-the-counter purchase—regardless of PBS eligibility.
- Includes non-pharmacological treatments such as clinical counselling and procedures.

Limitations

- No facility for longitudinal analysis of individual patient records.
- GPs who do not register 375 Medicare items in 3 months are excluded from the survey.
- In the 2006–07 collection, and all previous years excluding 2004–05, there was an under-representation of younger GPs (aged <35 years).
- Low response rates to the survey (31.3% on average).

Data collection	BEACH
Collection owner	AGPSCC
Information source	GP-reported information about clinical encounters with patients

Data items	Encounter data
	date and type of consultation
	Medicare/DVA item number
	specified other payment
	Patient data
	date of birth
	sex
	postcode
	HCC/DVA concession card
	non-English speaking background (NESB)
	Indigenous status
	patient reasons for encounter (up to three)
	Content of encounter
problems managed and their status (new or continuing).	
treatment and/or medications prescribed, GP supplied or advised for OTC purchase	
other treatments including counselling, education, and whether provided by practice nurse	
new referrals to specialists, allied health or hospital	
investigations (pathology tests, imaging, other)	
GP characteristics	
age and sex	
years in practice	
number of GP sessions worked per week	
number of GPs in the practice	
major practice postcode	
country of graduation	
training and FRACGP status	
after-hours availability	
computer use	
hours worked in direct patient care and hours on call per week.	
Scope and coverage	Random sample of 1,000 GPs who claimed at least 375 general practice Medicare items in the previous 3 months
Frequency	Operating since 1998–99, BEACH is an ongoing annual survey with around 20 GPs providing data each week
Size	1,000 GPs per year, 100,000 GP–patient encounters per year 1,000,000+ encounters in total since 1998 from approximately 10,000 GPs
Availability	Standard reports may be purchased, annual summary reports are available online at no cost
Data access cost	Charges are payable according to the nature of the request
Selected publications	Britt et al. 2008. General practice activity in Australia 2007–08. Cat. no. GEP 22. Canberra: AIHW.
Further information	< www.fmrc.org.au/beach.htm >

Population health survey collections

Australian Longitudinal Study on Women’s Health (ALSWH)

The ALSWH is a paper-based, longitudinal population survey that commenced in 1996 and is examining the health of over 40,000 Australian women over a 20-year period. It is conducted by the University of Newcastle and University of Queensland.

Purpose

The survey looks at the lifestyles, health and other factors affecting the physical and emotional health of women in Australia and assesses their use of health services, including GP, specialist and complementary medicine services, as well as medication use. The information collected can be used to assist in establishing the social, psychological, physical and environmental factors that determine good health and those that cause ill-health, in adult females. As well as providing an opportunity for Australian women to have a say about health and health services available, it provides a national research resource on women's health issues.

ALSWH participants are invited to consent to having their survey responses linked with records on the Medicare Australia databases. The Medicare data include information such as the number of GP visits and service costs, but do not contain any clinical or diagnostic information. The opportunity to link these data sets will enable researchers using the data to draw more accurate conclusions than they might if the individual data were used in isolation. This has the potential to make a significant contribution to the understanding of factors influencing health and wellbeing and the use of medications, and to provide assistance in the ongoing evaluation of women's health services.

Method

In April 1996, three age groups of women (18–23 years, 45–50 years and 70–75 years) selected from the Medicare database were sent an invitation to participate in a 20-year study of health and health service use. Over 40,000 women responded and agreed to participate in the project. The three age groups were selected so that women could be followed through the life stages critical to their health and wellbeing. Each age cohort is surveyed once every 3 years using a paper-based postal form. Sampling was random within each age group, except that women from rural and remote areas were sampled at twice the rate of women in urban areas.

Advantages

- Linkage of self-reported data (for consenting individuals) with PBS and MBS data.
- Provides information about use of over-the-counter (OTC) medications.
- Over-sampling in rural and remote areas enables comparisons.
- The longitudinal study design provides the chance to clarify cause-and-effect relationships and assess the effects of changes in policy and practice.
- Response rates of more than 70% were achieved for each cohort's most recent survey.

Limitations

- Response bias—over-representation of tertiary-educated women and under-representation of women from non-English speaking countries.
- Volunteer bias—women who consented to MBS/PBS data linkage in all three age cohorts tended to be better educated and better able to manage financially.
- For linked data, the reduced sample size means that data related to less common conditions, services or medications is not adequate for in-depth analysis.
- Survey of the health needs and practices of women only.
- Recall bias—questionnaire responses are self-reported.

Data collection	ALSWH
Collection owner	Data are held in trust by University of Newcastle and University of Queensland
Information source	Longitudinal population-based postal surveys
Data items	<p>Demographics country of birth; marital status; education; employment status; income; Indigenous status</p> <p>Health service use GP visits in last 12 months diagnoses symptoms and seeking help number and purpose of medications GP (or other) advice on lifestyle change serious illnesses vaccinations specialist and allied health items GP patterns of use female GP health service access GP satisfaction GP cost blood pressure check and cholesterol check</p> <p>Physical and emotional health wellbeing, major diagnoses, symptoms</p> <p>Health behaviours and risk factors diet, exercise, smoking, alcohol, other drugs</p> <p>Time use paid and unpaid work, family roles and leisure</p> <p>Sociodemographic factors location, education, employment, family composition</p> <p>Life stages and key events e.g. childbirth, divorce, widowhood</p>
Scope and coverage	Women (Australian citizens or permanent residents) selected from the Medicare database and invited to participate Over-sampling in rural/remote areas
Frequency	Ongoing since 1996. Each cohort is surveyed in turn at 3-yearly intervals
Size	Ongoing collection involving around 40,000 women surveyed once every 3 years
Availability	Data may be made available to collaborating researchers where there is a formal request to make use of the material. Permission to use the data must be obtained from the Publications Substudies and Analyses Committee of ALSWH. Data are provided specifically for the analysis described in the request
Data access cost	\$100 for each request
Selected publications	Lee C (ed.) 2001. Women's health Australia: what do we know? what do we need to know? Progress on the Australian Longitudinal Study of Women's Health 1995–2000. Brisbane: Australian Academic Press. Various research publications are available and are listed on the ALSWH website
Further information	< www.alswh.org.au >

Australian Diabetes, Obesity and Lifestyle Study (AusDiab)

The AusDiab is a population-based cross-sectional survey of national diabetes, obesity, hypertension and kidney disease prevalence, along with associated risk factors, in people aged 25 years and over. It is operated by the International Diabetes Institute in Melbourne. The baseline survey was conducted between May 1999 and December 2000 and a follow-up survey of those who completed the baseline survey was conducted in 2004–05, providing information on incidence rates of diabetes over the 5-year period.

Purpose

AusDiab was established to examine the natural history of diabetes, pre-diabetes (where glucose metabolism is impaired, but not to the level to cause diabetes), heart disease and kidney disease. It was designed to be representative of the general Australian population aged over 25 years. The follow-up survey conducted in 2004–05 presented data on the number of new cases of diabetes, cardiovascular disease and kidney disease over the preceding 5 years, and may assist in the understanding of the factors that increase the risk of these conditions.

Plans are underway for a 10-year follow-up of the AusDiab participants in 2009–10, which provides an ideal opportunity to gauge the changing impact that diabetes, heart disease and kidney disease have on the Australian population. This follow-up will involve the researchers re-visiting all participants—and recruiting another cohort—to again benchmark the nation's health and map the impact these diseases have on the wider community. It will also allow comparisons to be made with the baseline results on the prevalence of diabetes and related conditions, such as obesity and kidney disease.

Method

More than 28,000 households within randomly selected clusters of census collection districts were invited to participate in the survey, of which around 11,480 agreed. Of the 20,000 plus eligible people from these participating households who completed a household interview, more than 11,000 attended the biomedical examination. Of these original participants, 6,500 returned for the follow-up survey 5 years later in 2004–05.

The study consisted of questionnaires and physical tests (oral glucose tolerance test (OGTT), standard anthropometric tests, blood pressure measurements). A team of researchers went to the randomly selected urban and rural testing sites around Australia to individually test each of the 11,000 or more individuals who participated in the baseline study in 1999–00 and those who participated in 2004–05. In addition, self-reported health information was obtained from more than 2,000 of those participants in 1999–00 who could not attend the survey site.

Advantages

- Large national diabetes prevalence study.
- Incorporates biomedical measurements in the study.
- Useful for limited longitudinal analysis on diabetes and related conditions.
- Provides data on the prevalence and possible causes of diabetes.
- Establishes possible risk factors leading to diabetes.
- Excellent response rate (99.6%) to initial household questionnaire component in 1999–2000.

- Good response rates to the follow-up survey in 2004–05 (around 82%, with 62% attending for physical tests compared with 55% in 1999–2000).

Limitations

- Younger age respondents under-represented, middle and older age groups over-represented at the biomedical examination.
- Purpose-designed to collect diabetes-related data.
- Recall bias—questionnaire responses are self-reported.

Data collection	AusDiab
Collection owner	AusDiab team at the International Diabetes Institute
Information source	Household interview, followed by a biomedical examination
Data items	demographics (sex, age, Indigenous status, education, employment, country of birth) has the respondent ever been tested for diabetes or high sugar levels? when last tested diabetes status has there been a doctor's or nurse's diagnosis of diabetes? has there been a doctor's or nurse's diagnosis of high sugar levels? respondent's age at diagnosis type of diabetes treatment currently taken how often HbA1C (glycated haemoglobin) tested in last 12 months? other chronic health conditions (angina, heart attack, stroke, hypertension) when blood pressure was last tested has respondent ever had cholesterol/triglycerides checked? when cholesterol last checked medication for high BP or high cholesterol/triglycerides has respondent discussed diet or eating habits with GP or other health professional? has respondent discussed exercise, alcohol or quitting smoking with GP or other health professional does person have a regular GP? how often did he or she visit a GP (i) in the last 12 months (ii) in the last 2 weeks
Scope and coverage	Stratified sample of 28,000+ households resulted in 20,000+ Australians aged 25 years or over eligible to participate and 11,000+ physical examination participants
Frequency	Original survey conducted in 1999–2000, followed up in 2004–2005
Size	1999–00 20,000 completed interviews 11,247 attended biomedical examinations 2004–05 6,500 (of the 11,247 from 1999–00) attended biomedical examinations
Availability	Researchers can apply for access to the accumulated data and biological materials and for participation in ongoing and new data collection activities
Data access cost	There are two fees: 1. Cost recovery for the planning, extraction and provision of the data 2. Contribution to the ongoing storage, maintenance and other infrastructure costs of the AusDiab study

Selected publications	Dunstan et al. 2002. The Australian Diabetes, Obesity and Lifestyle Study (AusDiab) methods and response rates. <i>Diabetes Research and Clinical Practice</i> 57:119–29. In excess of 50 published papers have used AusDiab data
Further information	< www.diabetes.com.au >

National Aboriginal and Torres Strait Islander Health Survey (NATSIHS)

The NATSIHS is conducted every 6 years by the Australian Bureau of Statistics (ABS). The most recent survey was conducted between August 2004 and July 2005.

Purpose

Information was collected in the survey about the health status of Indigenous Australians, their use of health services and health-related aspects of their lifestyle. Information, relevant to the nature of this project, was collected about long-term medical conditions of participants, recent injury events, consultations with health professionals, other actions people had recently taken in regard to their health (such as medication or days away from work), and lifestyle factors affecting their health, such as smoking, alcohol consumption, diet, physical activity and immunisation.

Method

Information in the 2004–05 NATSIHS was mainly obtained through personal interviews with an adult member of a randomly selected household in scope of the survey. There were a total of 10,439 completed questionnaires from 5,234 households, which equates to about one adult and one child per dwelling completing a questionnaire.

After the data are processed and validated, each person's record is weighted for the purpose of obtaining national estimates for the Indigenous population, from a randomly selected sample.

Advantages

- Visits to the GP may be cross classified with other items (such as selected long-term conditions) to determine what proportion of people see a GP regularly for their condition and the type of medication used for the condition.
- Provides data about Indigenous people in remote and non-remote areas of Australia.
- Good response rate over 80% (supported by legislation).
- Good time series from 1995 provides a picture of national trends in Indigenous health.

Limitations

- The reason for the consultation was not recorded.
- Recall bias—consultation information is self-reported by respondents.
- Some doctor consultations may be misreported.
- High likelihood of under-reporting for particular items (such as weight).

Data collection	NATSIHS
Collection owner	Australian Bureau of Statistics
Information source	Computer-assisted face-to-face interview with a selected member of the household
Data items	<p>where the respondent would usually go if they have a health problem</p> <p>whether they usually go to the same GP/medical service</p> <p>whether they were required to pay any money (co-payment) for their last visit</p> <p>whether the respondent consulted a GP in the 2 weeks before interview</p> <p>number of consultations with a GP in that period</p> <p>whether they consulted a specialist in the 2 weeks before interview</p> <p>number of consultations with a specialist in that period</p> <p>period since last consultation, with GP or specialist (if neither had been consulted in the previous 2 weeks)</p> <p>reasons for not seeking care when needed</p> <p>whether respondent been told by a GP they have a selected condition (e.g. asthma)</p> <p>whether used pharmaceutical medication for a particular condition (e.g. asthma, heart and circulatory conditions, diabetes, arthritis and osteoporosis)</p>
Scope and coverage	<p>Included in the survey were:</p> <p>usual residents of private dwellings in both remote and non-remote areas of Australia</p> <p>Indigenous persons in scope were those identified by an adult within each sampled private dwelling as a usual resident of that dwelling</p> <p>only Indigenous households were considered in scope of the survey</p> <p>Indigenous household = household where at least one person of Aboriginal and/or Torres Strait Islander origin was usually resident (including children)</p>
Frequency	6-yearly
Size	Over 10,000 completed questionnaires in 2004–05
Availability	<p>Publications are available on the ABS website without charge</p> <p>A Confidentialised Unit Record File (CURF) can be purchased</p> <p>Ad hoc requests for data analysis are fee-for-service according to time spent</p>
Data access cost	\$800 (CURF)
Selected publications	ABS 2006. National Aboriginal and Torres Strait Islander health survey, Australia, 2004–05. ABS cat. no. 4715.0. Canberra: ABS.
Further information	< www.abs.gov.au >

National Health Survey

The national health survey is conducted every 3 years by the ABS. The most recent survey was conducted between August 2004 and July 2005.

Purpose

The 2004–05 national health survey is the fourth in a series of regular population surveys designed to obtain national benchmark information on a range of health-related issues and to enable the monitoring of trends in health over time.

Information was collected about the health status of the population, their use of health services and health-related aspects of their lifestyle. Information relevant to the nature of this project

included respondents' long-term medical conditions, recent injury events, consultations with health professionals, other actions people had recently taken in regard to their health (such as days away from work, medication), and lifestyle factors that may affect their health such as smoking, alcohol consumption, diet, exercise and immunisation.

Method

Information was obtained in the 2004–05 survey by ABS interviewers, mainly through personal interviews with an adult member of a randomly selected household in the scope of the survey. There were a total of 25,906 completed questionnaires from 19,501 fully responding households. More than 6,000 children from these dwellings completed questionnaires, adding to the total of completed questionnaires.

After the data are processed and validated, each person's record is weighted for the purpose of obtaining national estimates relating to the whole population in scope of the survey, from a randomly selected sample. The aim of the survey is to provide statistics that represent the population or component groups of the population; the survey does not aim to provide data for analysis at the individual level.

The reference period in the survey for questions about health-related actions was for a 2-week period. The results should therefore be considered as a 'point in time' picture of the health of the population and of population sub-groups. It is possible to produce reasonable estimates of the number of actions taken in a year by multiplying the estimate for 2 weeks by 26. It is not possible, however, to produce estimates of the number of persons who took those actions, using the same method. This needs to be considered when comparing results from this survey to data from other sources relating to different reference periods.

Advantages

- GP visits may be cross classified with other items (such as selected long-term conditions) to determine what proportion of people see a GP regularly for their condition, and the type of medication used for the condition.
- Large random sample of households in Australia.
- High response rate of around 90% (supported by legislation).
- Good time series from 1989–90 provides a picture of national health trends.

Limitations

- Recall bias—consultation information is self-reported by respondents.
- Some doctor consultations may have been mis-reported.
- High likelihood of under-reporting for particular items (such as weight).
- Information about the medical condition or other reasons (such as test, check-up) for taking a health-related action was not generally obtained in the 2004–05 survey; (limited linkage between actions taken and medical condition was recorded for persons reporting some conditions).
- The ABS recommends caution when attempting to extrapolate results of this survey to time periods other than those on which the estimates are based.

Data collection	National health survey
Collection owner	Australian Bureau of Statistics
Information source	Computer-assisted face-to-face interview with a selected member of the household
Data items	<p>whether respondent consulted a GP in the 2 weeks before interview</p> <p>number of consultations with a GP in that period</p> <p>whether respondent consulted a specialist in the 2 weeks before interview</p> <p>number of consultations with a specialist in that period</p> <p>period since last consultation, with GP or specialist (if neither had been consulted in the previous 2 weeks)</p> <p>whether been told by a GP they have a selected condition (e.g. asthma)</p> <p>whether used pharmaceutical medication for a particular condition (e.g. asthma, heart and circulatory conditions, diabetes, arthritis and osteoporosis)</p>
Scope and coverage	<p>Included in the survey were:</p> <p>members of selected households in urban and rural areas of Australia, excluding very remote areas, who were usual residents of the household or overseas visitors staying or intending to stay in Australia for 12 months or more</p> <p>Excluded from the survey were:</p> <p>diplomatic personnel of overseas governments and non-Australian members of their households</p> <p>non-Australian service personnel stationed in Australia and their dependants</p> <p>short-term overseas visitors whose usual place of residence was outside Australia</p>
Frequency	3-yearly
Size	More than 25,000 completed questionnaires in 2004–05 from 19,501 households
Availability	<p>Summary and topic-based publications are available on the ABS website without charge</p> <p>A basic or expanded Confidentialised Unit Record File (CURF) can be purchased</p> <p>Ad hoc requests for data analysis are charged for according to time spent</p>
Data access cost	\$800 (CURF)
Selected publications	ABS 2006. 2004–05 National health survey: summary of results, Australia. ABS cat. no. 4364.0. Canberra: ABS.
Further information	< www.abs.gov.au >

Victorian Population Health Survey (VPHS)

The VPHS has been conducted by the Victorian Government Department of Human Services (DHS) as an annual state-based survey since 2001. The most recent survey occurred in the second half of 2006.

Purpose

The survey is conducted to provide an ongoing source of information about the health of Victorians. It offers good quality population health indicators that can assist in policy development and strategic planning across the DHS and the wider community, ensuring public health programs are relevant and responsive to current and emerging health issues.

Method

CATI is undertaken on a state-wide sample of adults aged 18 years and over, randomly selected from households (selected using random digit dialling) in the eight departmental health regions, resulting in approximately 7,500 interviews. The survey was conducted by the Social Research Centre, based in Melbourne, over a period of nearly 3 months. Weighting was applied to the data to reflect the probability of selection of the respondent within the household, and the age/sex/geographic

distribution of the population. The participation rate, defined as the proportion of households where contact was made and an interview was ultimately completed, was 62%.

Advantages

- Large random sample.
- Good regional time series over a 5-year period.
- Over-sampling in non-metropolitan regions.
- Good response rate (69%).

Limitations

- Some population groups are excluded as a result of the use of telephones to conduct the survey.
- Recall bias—responses are self-reported.
- Indigenous representation is less than 1%.

Data collection	VPHS
Collection owner	Victorian Government Department of Human Services
Information source	Computer-assisted telephone interview with a selected member of the household
Data items	demographics respondent's use of and level of satisfaction with community health centre over the previous 12 months whether respondent has been told by a GP they have a selected condition (e.g. asthma and/or other NHPAs) blood pressure screening cholesterol screening diabetes/high blood sugar level screening bowel cancer screening nutrition and physical activity—self-reported risk behaviours
Scope and coverage	Random selection of adults who resided in private dwellings in Victoria All residential households with landline telephone connections were considered in-scope for the survey
Frequency	Annual
Size	Approximately 7,500 completed interviews in 2006
Availability	The full report from the 2006 survey is available on the department's website, as are survey reports from previous years
Data access cost	Reports are free to download from the VPHS website
Related publications	Victorian Department of Human Services 2006. Victorian Population Health Survey 2006: selected findings. Melbourne: Department of Human Services.
Further information	< www.health.vic.gov.au >

Western Australian Health and Wellbeing Surveillance System (WA HWSS)

The WA HWSS is a continuous state-based population health survey system run by the Western Australian Department of Health. Data collection began in 2002 and more than 27,000 interviews have been conducted since then.

Purpose

In February 2002, the WA HWSS was launched as an important vehicle for supplying the information required to monitor population health status and to enable the early detection and response to changes in health outcomes in Western Australia. The HWSS monitors the health and wellbeing of West Australians using validated, reliable indicators and is able to track lifestyle trends over time. It has the capacity to recognise and report on beneficial health behaviours and risk factor behaviours. To this end, the survey provides good-quality information for informing policy and service provision and is able to evaluate the long-term effects of such programs.

Method

The HWSS is conducted as a CATI monthly survey. A stratified random selection process is used to filter households from the electronic White Pages, to whom an approach letter is sent to inform them of their selection in the survey and provide them with information regarding the survey. The selected respondent from each of these households is the person who has had the most recent birthday. Estimates resulting from the survey are tested for their reliability by re-contacting consenting respondents and running through parts of the survey with them and analysing responses. Rural and remote areas of WA are over-sampled to provide adequate data and the survey results are weighted to compensate for this.

Advantages

- Large sample size.
- Good time series.
- Excellent response rates (approx 80%).
- Continuous sampling enables recognition of seasonal trends.

Limitations

- Indigenous sample is not sufficiently large to make separate estimates about the Indigenous population.
- Includes English speakers only and those who are well enough to respond.
- Recall bias—responses are self-reported.

Data collection	WA HWSS
Collection owner	Western Australia Department of Health
Information source	Computer-assisted telephone interview with a selected member of the household
Data items	doctor's diagnosis of NHPA conditions has respondent ever had blood pressure or cholesterol checked? doctor's diagnosis of high blood pressure or high cholesterol whether medications taken for high blood pressure or high cholesterol risk factors use of health services in the past 12 months (primary health, hospital, allied health, mental health, dental) has respondent seen a doctor in last 4 weeks for psychological distress feelings? has respondent had flu or pneumonia vaccination in last 12 months (over 65s only)? demographics

Scope and coverage	People of all ages drawn from a stratified random sample of households selected from the White Pages Rural and remote households over-sampled to enable comparisons People in institutions, the homeless and those households without telephones are excluded
Frequency	Continuous (monthly) since March 2002
Size	550 surveyed each month More than 27,000 interviews since commencement
Availability	Summary reports and bulletins are available on the WA Health Department website De-identified data are available for research purposes
Data access cost	Free
Selected publications	Wood et al. 2008. Health and wellbeing of adults in Western Australia 2007, overview of results. Perth: Department of Health Western Australia.
Further information	< www.health.wa.gov.au >

Administrative collections

Medicare Benefits Scheme (MBS)

MBS data relate to consultations with GPs and other health professionals for which the cost is met in part or wholly by Medicare Australia.

Purpose

The MBS is a national administrative collection that deals with the payment of subsidies for services rendered by GPs and some other health professionals (such as specialists or optometrists). MBS data cover only those services eligible for Medicare benefits, as listed in the Medicare Benefits Schedule. When evaluating the collection insofar as it might reflect best practice, it is assumed that the Medicare data items relating to the various health assessments indicate that the components of each item have been performed according to the procedure as outlined in the Schedule. This can also be the case when considering items such as the Enhanced Primary Care (EPC) Chronic Disease Management (CDM) items, including the GP Management Plan (GPMP), the Team Care Arrangements (TCA). The 'cycle of care' and mental health care plan items may also be similarly judged.

Method

MBS data include a Medicare item number, the amount of Medicare benefit applied, date of service and processing, provider number, recipient of the service and an indication of whether or not the item was provided in a hospital. Any GP consultation that is paid for in full, or partly, through the MBS is recorded by Medicare. No information is collected on non-fee-for-service components in general practice and there is no diagnostic information or details about the doctor-patient encounter.

Advantages

- De-identified MBS and PBS data can be linked, subject to appropriate approvals being granted and the commitment by government agencies to adhere to the privacy guidelines.
- Internal linkage of individual records can enable examination of patterns of care over time.
- Information on records of referrals and investigations such as pathology and imaging can provide insight into the clinical problem presented at the consultation.
- A national source obtained directly from GPs accessing Medicare.

Limitations

- No information about the content of the consultation or the underlying medical condition.
- Limited to eligible MBS items.
- Information not included in the MBS data collection:
 - services rendered under an entitlement conferred by legislation other than the *Health Insurance Act 1973*; for example, services covered by third party or workers' compensation, DVA card holders or defence personnel
 - services rendered for insurance or employment purposes
 - health screening services
 - services rendered under grant provisions such as the Health Program Grant arrangements.

Data collection	MBS
Collection owner	DoHA
Information source	Fee-for-service patient consultations with GPs, for which Medicare benefits were paid
Data items	<p>Provider information</p> <p>name and address</p> <p>speciality by qualification</p> <p>registered major speciality</p> <p>derived speciality based on type of claims</p> <p>Patient information</p> <p>sex and date of birth</p> <p>Medicare item number</p> <p>benefit paid</p> <p>period of service and processing and dates of request/referral—monthly/quarterly/yearly</p> <p>indication of whether or not the service was provided in hospital</p>
Scope and coverage	<p>Any consultation with a GP that is paid for in full or part through the MBS</p> <p>Consultations not included:</p> <p>services rendered free-of-charge in recognised hospitals</p> <p>services rendered under an entitlement conferred by legislation other than the <i>Health Insurance Act 1973</i>, e.g. services covered by third party or workers' compensation, or services rendered to repatriation beneficiaries or defence personnel</p> <p>services rendered for insurance or employment purposes</p> <p>health screening services</p> <p>services rendered under grant provisions such as the Health Program Grant arrangements</p>
Frequency	Continuous
Size	More than 107 million Medicare claimable GP (including practice nurse items) services were recorded in 2006–07
Availability	<p>Item transaction data are available each quarter on the DoHA website, around 1–2 months after the end of the quarter. Data from 1984 on is available on the website</p> <p>De-identified person level data are available (subject to certain conditions) to government agencies</p>
Data access cost	Free
Selected publications	Quarterly summaries of Medicare activity are available on the DoHA website at < www.health.gov.au/internet/main/publishing.nsf/Content/Medicare+Statistics-1 >
Further information	< www.medicareaustralia.gov.au/ >

Pharmaceutical Benefits Scheme (PBS)

Pharmaceutical Benefits Scheme (PBS) data relate to the value (benefit) or volume of PBS prescriptions that have been processed by Medicare Australia. They refer only to paid services processed from claims presented by approved pharmacies.

Purpose

The PBS is an administrative collection that deals with the supply of pharmaceutical medicines subsidised by the Australian Government.

Method

PBS data are collected through pharmacy electronic records when the prescription is filled. The data relate to the value (benefit) or volume of PBS prescriptions that have been processed by Medicare Australia. The data refer only to paid services processed from claims presented by approved pharmacies and include information on prescriptions for which the Australian Government has made a contribution. Around 80% of prescriptions dispensed are subsidised by the PBS.

The patient categories of general or concessional refer to a patient's eligibility status at the time of supply of the benefit. General patients hold a Medicare card; concessional patients hold a Medicare card and one of either a Pension Concession Card, Commonwealth Seniors Health Card, or a Health Care Card. There are two safety net thresholds: one for general patients and the other for concessional patients. When patients and/or their families reach the safety net threshold, PBS medicines are cheaper for the remainder of the calendar year for those in the general category and free for those in the concessional category.

Advantages

- Linkage of de-identified PBS and MBS data is possible, subject to appropriate approvals being granted, as noted earlier in this chapter under the MBS data collection.
- Internal linkage enables examination of patterns of medication supply over time.

Limitations

- The collection is only about claims data for PBS subsidised drugs.
- Prescription items that cost less than the threshold, or for which there is no government subsidy, are excluded.
- As the threshold changes, medicines move from being subsidised to costing less than the threshold and not included in the data.
- Data related to prescription items for non-concessional patients that are under the threshold contribution for subsidy, or for which there is no subsidy, are excluded from the collection.

Data collection	PBS
Collection owner	DoHA
Information source	Administrative collection
Data items	medicine: type of drug, item code, generic name, brand of item, strength and quantity cost original or repeat prescription date of prescription

Data items (cont'd)	<p>date of supply</p> <p>payment category (e.g. concession, safety net, doctor's bag)</p> <p>number of repeats</p> <p>authority items</p> <p>state (supply—based on approval ID)</p> <p>total number of scripts</p> <p>total number of patients</p>
Scope and coverage	<p>Includes information on prescriptions for which the Australian Government has made a contribution</p> <p>Excludes data related to prescription items for non-concessional patients that are under the threshold contribution for subsidy, or for which there is no subsidy</p>
Frequency	Continuous
Size	In excess of 2 billion prescriptions recorded between 1992 and 2007 are available from the Medicare website
Availability	<p>Monthly data are available on the Medicare Australia website and are usually available less than one month after processing</p> <p>Requests for additional statistical information can be sent to the Legal Privacy and Information Services Branch. Information requests are considered taking into account the provisions of the <i>National Health Act 1953</i> which strictly limits the disclosure of PBS information and Medicare Australia's policy relating to the release of information for the benefit of the health of Australians</p>
Data access cost	Free
Selected publications	Various summary reports are available online at < www.health.gov.au/internet/main/publishing.nsf/Content/health-pbs-general-stats.htm-copy3 >
Further information	< www.medicareaustralia.gov.au >

Practice Incentives Program (PIP) and Service Incentive Payments (SIPs)

The PIP replaced the Better Practice Program on 1 July 1998 following a series of recommendations made by the General Practice Strategy Review Group, which was formed to report to the Commonwealth Government on GP services. SIPs are made quarterly to remunerate individual GPs for the service provided.

Purpose

PIP provides a number of incentives that aim to encourage general practices to improve the quality of care provided to patients. It recognises general practices that provide comprehensive, quality care, and which are either accredited or working towards accreditation against the Royal Australian College of General Practitioners' (RACGP) *Standards for General Practices*. The PIP is part of a blended payment approach for general practice. Payments made through the program are in addition to other income earned by the general practitioners and the practice, such as patient payments and Medicare rebates.

Method

The function of PIP is to compensate for the limitations of fee-for-service arrangements. Under these arrangements, practices that provide numerous quick consultations receive higher rewards than those that take the time to look after the ongoing health care needs of their patients. The incentive payments focus on aspects of general practice that contribute to quality care, including the use of Information Management/Technology (IM/IT), provision of after-hours care, student teaching and better prescribing practices. In addition, rural and remote practices receive a rural loading. PIP payments are mainly dependent on practice size—in terms of patients seen—rather than on the number of consultations performed.

Advantages

- Data on GPs and practices that have provided PIP/SIP services.
- A national source obtained directly from GPs.

Limitations

- No record of the consultation.
- Assume all GPs have participated to the same level of service to receive the PIP.

Data collection	PIP
Collection owner	Administered by Medicare Australia on behalf of the DoHA
Information source	Administrative collection
Data items	<p>Incentive payments are provided for a number of items:</p> <p>information management and technology (use of electronic prescribing and records, register/recall system and capacity to send and receive data electronically, including appropriate backup and security measures in place)</p> <p>access to after-hours (24 hours) care for patients</p> <p>rural practices support</p> <p>to encourage rural general practitioners (GPs) to provide procedural services</p> <p>to support practices to employ practice nurses</p> <p>to encourage practices to teach medical students</p> <p>participation in educational activities</p> <p>to improve prescribing behaviour; (participation in the National Prescribing Service quality use of medicines program)</p> <p>to encourage cervical screening (SIP)</p> <p>to assist with best-practice management of asthma and diabetes (cycle of care—SIP)</p>
Scope and coverage	All practices that are accredited, or are working towards accreditation
Frequency	Data are presented on a quarterly basis in line with payments to participating practices
Size	More than 4800 practices are participating in the PIP as at November 2007
Availability	Spreadsheets and customised reports may be generated from the Medicare website and are available for quarterly or annual data within 1–2 months after the end of the quarter
Data access cost	Free
Selected publications	Not applicable
Further information	< www.medicareaustralia.gov.au/provider/incentives/pip/index.jsp >

Repatriation Pharmaceutical Benefits Scheme (RPBS)

The Repatriation Pharmaceutical Benefits Scheme (RPBS) is administered by the Department of Veterans' Affairs (DVA).

Purpose

The RPBS is an administrative collection that deals with the supply of pharmaceutical medicines and dressings for the treatment of entitled veterans and war widows. All the drugs included in the PBS Schedule, plus a range of pharmaceutical items to cover veterans' needs, are contained within the RPBS. There are approximately 350,000 people eligible to receive pharmaceutical benefits through the RPBS. The average age of those eligible is around 74 years, with 15% under the age of 60 years and 66% aged 75 years or over.

Method

RPBS data are collected through pharmacy electronic records when the prescription is filled. The data relate to the value (benefit) or volume of RPBS prescriptions that have been processed by Medicare Australia. They refer only to paid services processed from claims presented by approved pharmacies and include information on prescriptions for which the Australian Government has made a contribution.

RPBS items may only be prescribed to patients with a current entitlement card such as:

- Repatriation Health Card (gold) and Repatriation Pharmaceutical Benefits Card (orange) holders can obtain pharmaceuticals under the RPBS for all of their medical conditions.
- Repatriation Health Card (white) holders can obtain pharmaceuticals for specific disabilities accepted by the DVA.

Advantages

- Linkage of de-identified PBS (including RPBS) and MBS data, subject to appropriate approvals being granted, as noted earlier in this chapter under the MBS data collection.

Limitations

- Only collects data for claims on RPBS subsidised drugs by those persons eligible.
- Data mostly about persons over 60 years of age.

Data collection	RPBS
Collection owner	DoHA
Information source	Administrative collection
Data items	medicine: type of drug, item code, generic name, brand of item, strength and quantity cost original or repeat prescription date of prescription date of supply payment category (e.g. concession, safety net, doctor's bag) number of repeats authority items state (supply—based on approval ID) total number of scripts total number of patients
Scope and coverage	Eligible veterans, war widows/widowers, and their dependants
Frequency	Continuous
Size	In excess of 179 million prescriptions recorded between 1992 and 2007 are available from the Medicare website
Availability	Monthly data are available on the Medicare Australia website and is usually available less than one month later Data available from the Medicare Australia website dates back to 1992, and is classified according to the anatomical system it is applicable for or by patient category
Data access cost	Free
Selected publications	Not applicable
Further information	< www.medicareaustralia.gov.au >

Service Activity Reporting (SAR)

SAR is conducted jointly by the National Aboriginal Community Controlled Health Organisation (NACCHO) and the Office for Aboriginal and Torres Strait Islander Health (OATSIH).

Purpose

SAR collects data on service activity, staffing profiles and the number of clients of Australian Government-funded Aboriginal and Torres Strait Islander primary health care services. It is the most comprehensive collection of data about these services currently available. SAR provides valuable information to inform government policy and health service planning.

Method

Annual survey questionnaires are distributed to all Australian Government-funded Aboriginal and Torres Strait Islander primary health care services. The data collected in the SAR relate to health-oriented activities, staffing, episodes of care and contacts with clients. No diagnostic information or details about doctor–patient encounters are collected.

Advantages

- Two types of data are collected that reflect health care provision: episodes of health care and client contacts.
- Provides information about preventive health care activities

Limitations

- No information about the content of the consultation or the underlying medical condition.
- Data covers contacts and episodes with the health service in general, including nurses, social workers and other health care staff, not necessarily contact with a GP.
- Episodes of care, contacts, and client figures are often estimates and there has been no ‘audit’ to check the accuracy of these figures.
- Includes Aboriginal and Torres Strait Islander health organisations only, which receive at least some Australian Government funds to facilitate access to primary health care.

Data collection	SAR
Collection owner	A joint data collection project of NACCHO and OATSIH
Information source	Annual reporting questionnaire
Data items	proportion of health services providing screening services and maintaining adequate medical records. data collected on health-related community and support services proportion of health services providing clinical health care and tackling substance use issues provision of social and emotional wellbeing programs by the health services computer use by the health service number of episodes of care and client contacts provided by different types of staff (including doctors, nurses and Aboriginal and Torres Strait Islander health workers) practice size (in terms of FTEs by type of staff and Indigenous status) whether service is accredited whether service provides after-hours care

Scope and coverage	The SAR only collects information from Aboriginal and Torres Strait Islander primary health care services that receive Australian Government funding
Frequency	Annual
Size	Involves around 140 health services each year
Availability	The key findings of the SAR data collection are available on the DoHA website
Data access cost	Key results reports are free to download
Selected publications	DoHA & NACCHO 2008. Service activity reporting: 2004–05 key results. Canberra: DoHA. < www.health.gov.au/internet/main/publishing.nsf/Content/health-oatsih-pubs-sar.htm >
Further information	< www.health.gov.au >

Other surveys and research collections

Health Information Technology (HIT)

HIT is considered an important strategy in reducing medical errors and improving quality of care. In 2005, McInnes et al. conducted a national survey of GPs in Australia to describe how they use computers for clinical purposes.

Purpose

A survey of GPs was conducted over a three month period in 2005 to provide a picture of their use of computers in their practices and to what extent they use the functions available in medical software. The majority (90%) of respondents reported that they used a clinical software package. Results were also obtained for the use of the software for electronic prescribing (98%) and to check for drug–drug interactions (88%). However, a smaller proportion of GPs used the software for chronic condition patient lists (58%) and fewer still used the electronic decision-support function (20%) on a regular basis.

Method

A stratified sample provided by the DoHA, of 3000 GPs consisting of 70% urban/regional and 30% rural/remote was sent a paper-based survey form. There was an over-sampling of rural and remote GPs to allow statistical comparisons between urban and rural areas. To be eligible to be selected, the GPs had to have had at least 375 Medicare claims in the quarter ending June 2005.

Advantages

- Highlights particular areas of information technology not used regularly by GPs; for example, to generate patient recall lists, use of the decision-support function.
- Good representation of rural/remote GPs.

Limitations

- Low response rate (39.5%).
- Recall bias—responses are self-reported by GPs.

Data collection	HIT survey
Collection owner	Authors of the study
Information source	National paper survey by McInnes et al.

Data items	<p>use of computers</p> <p>use of computerised clinical functions such as:</p> <ul style="list-style-type: none"> – prescribing, and reason for prescribing – medication checking, drug-drug interactions – generating health summaries – running recall systems – writing progress notes – ordering laboratory tests
Scope and coverage	A postal survey of a cross-sectional national stratified sample of 3000 GPs from the Medicare database
Frequency	One-off survey conducted over 3 months in 2005
Size	Nearly 1200 GPs
Availability	Publication on the results of the study published in the Medical Journal of Australia (MJA)
Data access cost	Free
Selected publications	McInnes DK, Saltman DC & Kidd MR 2006. General practitioners' use of computers for prescribing and electronic health records: results from a national survey. Medical Journal of Australia 185:88–91.
Further information	McInnes et al. 2006.

National Prescribing Service (NPS)

The National Prescribing Service (NPS) is the quality use of medicines service agency for Australia's National Medicines Policy, funded by the DoHA. It is a member-based organisation and includes GPs, specialists, consumers, nurses, pharmacists, government and pharmaceutical industry representatives, academics and educators.

Purpose

The purpose of the NPS is to achieve improvements in health and wellbeing through the better use of medicines and to help develop and implement the body of knowledge on the quality use of medicines (QUM). It also has a role to provide unbiased educational activities for health professionals and consumers to encourage the sensible use of medicines. To fulfil these goals, the NPS uses self-audits, case studies and surveys of participating GPs and consumers. The GP survey asks GPs about their knowledge of evidence-based prescribing practices and use of different types of information sources. Information has also been gathered around GPs' views on generic and complementary medicines.

Method

National, paper-based mail surveys of GPs and pharmacists are undertaken every 2 years to track changes in attitude to topics of interest among these target groups. GP surveys commenced in March 1999 and now collect data from, on average, around 800–900 GPs.

National telephone surveys of consumers using CATI technology for data collection are undertaken every 1–2 years to track any changes among this target group. Results are post-weighted for age and gender using relevant ABS census data. Surveys commenced in August 1999, collecting data from around 1200 consumers.

Advantages

GP paper-based surveys

- Provide data surrounding the QUM and the GPs knowledge about QUM.

Limitations

GP paper-based surveys

- Low response rate (around 40%).
- Under-representation of male GPs compared with national data.
- Under-representation of GPs in the less than 35 age category.
- Over-representation of GPs over the age of 45.

Pharmacist paper-based surveys

- Low response rate (34%, of pharmacists employed in a pharmacy or health-related field, in 2006).
- Under-representation of community pharmacists.
- Over-representation of young pharmacists (29 years and under).
- Is particularly focussed on NPS activities and the pharmacist's knowledge of them.

Data collection	NPS
Collection owner	National Prescribing Service
Information source	Focus groups and surveys of GPs, pharmacists and consumers
Data items	GP survey GP knowledge of evidence on some prescribing options—quality use of prescription medicines information sources used by GPs GP perceptions regarding the best options for keeping up to date with advances and changes in the use of medicines computerised prescribing and GPs' views on generic medicines GP awareness and participation in NPS divisional activities the value of NPS to GPs GP perceptions about the trustworthiness and completeness of NPS prescribing and feedback information Pharmacist survey perceptions regarding the NPS use of information technology communication with patients Consumer survey self-rated health status management of health and wellbeing consumers' use and management of prescription and non-prescription medicines consumer attitudes to medicine use and alternatives to medicines use consumer awareness and use of information sources provided by and promoted by NPS consumer attitudes towards sources of information about medicines
Scope and coverage	The national GP survey is mailed out to around 2000 GPs across Australia. Of these, approximately 40% were returned for the 2006 survey GP sample drawn randomly from the AMPCo Direct Medical Masterfile database. AMPCo Direct is a subsidiary of the Australian Medical Publishing Company, which is a subsidiary of the Australian Medical Association (AMA) The sample is stratified by state and RRMA and not dependant on NPS participation

Scope and coverage (cont'd)	The consumer surveys obtained national randomised samples of the Australian population aged 15 years and over, stratified by age, gender and region. Phone numbers were obtained from the electronic White Pages
Frequency	GP surveys 2-yearly; consumer surveys irregular (1–2 yearly)
Size	GP survey involves responses from around 2000 GPs Consumer survey involves around 800 persons Pharmacist survey involved responses from around 650 pharmacists employed in a pharmacy or health-related field
Availability	Not determined
Data access cost	Free
Selected publications	Summary results of the surveys are available online at < www.nps.org.au/research_and_evaluation/publications/reports >
Further information	< www.nps.org.au/ >

Threats to Australian Patient Safety (TAPS)

The TAPS study was conducted prospectively over a 12 month period from October 2003 to estimate the incidence of errors reported by GPs in NSW.

Purpose

The study was performed to estimate the rate of reporting of errors (anonymously) by GPs in NSW.

Method

The DoHA provided a random stratified sample of 320 GPs from a population of 4,666 GPs in NSW. A secure website and reporting process was used to deliver and hold the questionnaire and to ensure anonymity. Errors could be reported anonymously by GPs over a 12 month period from October 2003.

Errors considered in the context of this study included events that might have affected, or had the capacity to affect, the quality of care of patients. Reported errors could be administrative or clerical in nature, with or without discernible effects, but were occurrences that the GP would want to avoid in the future.

Advantages

- Provides data about the incidences of reported error in general practice.
- State-based data from practices in urban (49%), regional (26%) and rural/remote (25%) areas.
- Participants were considered representative of the source population of NSW GPs in respect to Medicare items claimed and the age and sex of the participants.

Limitations

- Low response rate of 26%.
- Small sample size (320 GPs).
- Single state-based sample.
- GPs are likely to under-report adverse drug events and so possibly other patient safety threats may also be under-reported.
- It is possible the GP may not be aware of an error occurring.

Data collection	TAPS study
Collection owner	Authors of the study
Information source	Secure online questionnaire to GPs
Data items	RRMA area of practice patient demographics (age, sex, NESB status, Indigenous status) error report – event – result – contributing factors – place of occurrence – outcomes/harm done – what could have prevented the error
Scope and coverage	A sample of 320 names from a total of 4,666 full-time GPs in NSW were provided by the GP branch of DoHA
Frequency	One-off study conducted over 12 months in 2003–2004
Size	Involved 84 GPs More than 166,000 patients 418 errors reported
Availability	Publication on the results of the study published in the Medical Journal of Australia (MJA)
Data access cost	Free
Selected publications	Makeham et al. 2006. The Threats to Australian Patient Safety (TAPS) study: incidence of reported errors in general practice. <i>Medical Journal of Australia</i> 185(2): 95–98.
Further information	Makeham et al. 2006.

Other collections

There are a number of other surveys and studies that have collected primary care data, some of which were conducted for a particular research purpose by academic organisations. Although these surveys and studies—some of which are still current—do not provide sufficient information relevant to this report to incorporate them under the earlier detailed analyses, they are worthy of a brief synopsis presenting their purpose and method of collection, followed by contact details for further investigation. The following surveys and studies, although not necessarily an exhaustive list for this topic, are presented as they cover various aspects relevant to best-practice primary health care data collection, but their data collections generally lack adequate information to warrant more comprehensive analysis for the purpose of this report.

State and territory surveys

In addition to the VPHS, the other jurisdictions perform their own population-based CATI surveys. Topics covered in these surveys relevant to the subject of primary health care include:

- GP diagnosis of certain conditions (for example, have you ever been told by a doctor that you have arthritis?)
- the frequency of use a health service over a particular time period (2 weeks, 4 weeks, 12 months)
- avoidance of seeing a doctor because of medicine cost that may need to be incurred
- instances where a medicine was not collected, or its usage stopped or cut down because of the cost

- instances where difficulty was experienced in obtaining health care, and the types of difficulty.

Contacts:

New South Wales—Margo Eyson-Annan, meyes@doh.health.nsw.gov.au, <www.health.nsw.gov.au>

Queensland—Catherine Harper, Catherine_Harper@health.qld.gov.au, <www.health.qld.gov.au>

Victoria—Loretta Vaughan, loretta.vaughan@dhs.vic.gov.au, <www.health.vic.gov.au>

South Australia—Anne Taylor, Anne.Taylor@health.sa.gov.au, <www.health.sa.gov.au>

Western Australia—Alison Daly, Alison.M.Daly@health.wa.gov.au, <www.health.wa.gov.au>

Tasmania—Rosie Hippel, rosie.hippel@dhhs.tas.gov.au, <www.dhhs.tas.gov.au >

Australian Capital Territory—Cathy Baker, Cathy.Baker@act.gov.au, <www.health.act.gov.au>

Northern Territory—Steve Guthridge, Steve.Guthridge@nt.gov.au, <www.nt.gov.au/health>

Aged Care GP Panels Initiative

The aim of the Panels Initiative is to improve access to primary medical care for residents of aged care homes, and to enable GPs to work with aged care homes to assist with quality improvement strategies in the care of all residents. It was conducted in 2004 and 2006. In 2006, surveys were sent to 2,061 aged care facilities from a total national number of 3,054. 1,413 responses were received.

The surveys measured many different aspects of GP involvement in residential aged care, including:

- GP access
- GP involvement in quality improvement
- communication between aged care homes and divisions of general practice.

The surveys and fact sheets associated with the initiative are available on the Department's website.

Contact: DoHA.

Email: agedcaregppanels@health.gov.au

Web: <www.health.gov.au>

Asthma management and outcomes in Australia: a nation-wide telephone interview survey

The aim of this study was to assess the burden of asthma and describe current asthma management in Australia. A CATI survey was conducted in 2003–04 among randomly selected participants, fully funded by GlaxoSmithKline (GSK).

- 46,855 telephone numbers dialled
- 14, 271 responses to the screening questionnaire
- Among 1,734 respondents with current asthma, 1,205 completed the detailed questionnaire.
- The survey questionnaire included two sections: the first was to identify the presence of asthma; the second was to gather information about the effects and treatment of asthma was gathered from respondents with asthma. Questions were asked about:
 - use of medications
 - peak flow meters
 - seeing a specialist

- having written instructions from their doctor on how to manage worsening asthma
- type and frequency of disease exacerbations.

Contact: Professor Guy Marks, Woolcock Institute of Medical Research, g.marks@unsw.edu.au

Publication: Marks GB, Abramson MJ, Jenkins CR, Kenny P, Mellis CM, Ruffin RE et al. 2007. Asthma management and outcomes in Australia: a nation-wide telephone interview survey. *Respirology* 12(2): 212–19.

Australia's Community Pharmacy Survey: National Pharmacy Database Project, 2002–2003

The project aimed to construct a reliable, national baseline set of data on current community pharmacy services in Australia. A random sample of Australia's registered pharmacies stratified into jurisdictions and location categories was chosen. The survey was posted to 1,391 pharmacies, of which 1,131 (81%) responded. There was an online facility to enable completion of the survey by participants if they preferred. Data items were categorised into five sets of services:

- prescription-related
- primary care (including over the counter medicines)
- prevention (including screening, health information, sterile needles)
- specialty (including institutional and aged care facilities, methadone maintenance)
- other (including complementary medicines) .

Contact: Mr. Con Berbatis, School of Pharmacy, Curtin University

Email: berbatis@git.com.au

Web: beta.guild.org.au/research

Evaluation of Asthma 3+ Visit Plan: National GP Survey

Conducted once in 2004 by the Centre for Primary Health Care and Equity (CPHCE)—a research group associated with the School of Public Health and Community Medicine at the University of New South Wales—to establish the degree of uptake of the Plan within general practice assessing:

- GP factors that influence uptake and use of the Asthma 3+ Visit Plan
- GP barriers to implementation of the Asthma 3+ Visit Plan
- GP experience of implementation of the Asthma 3+ Visit Plan with patients, and establish factors that impeded or supported implementation.
- A number of different elements were combined to provide a picture of the uptake of the plan including:
 - a divisional survey
 - a GP survey
 - analysis of Medicare data
 - consumer interviews and focus group discussion
 - an evaluation of Aboriginal and Torres Strait Islander uptake of the plan
 - GP focus groups.

Contact: DoHA—Email: monica.johns@health.gov.au or

CPHCE—Email: n.zwar@unsw.edu.au

Web: notes.med.unsw.edu.au/cphceweb.nsf >

General Practice Victoria (GPV)

GPV is a not-for-profit, non-government organisation receiving funding, as the state-based organisation for Victorian general practice divisions, from the DoHA. GPV has collated data from Medicare Australia, the Primary Health Care Research and Information Service (PHCRIS) and other organisations and presents it in a state-based format for Victorian divisions of general practice. It includes data covering PIP-registered practices and the uptake of diabetes, asthma, mental health and cervical screening PIPs and SIPs, along with the uptake of practice nurse PIP plus MBS items for Enhanced Primary Care Chronic Disease Management (GPMPs and TCAs).

Contact: email: gpv@gpv.org.au

web: www.gpdv.com.au/>

Medical Labour Force Survey

The annual paper-based Medical Labour Force Survey commenced in 1993 and is managed by the individual state and territories through the Medical Registration Board in each jurisdiction. It collects information from GPs at the time that they renew their registration with the Board, covering demographics, employment characteristics, their work locations and work activity. Response rates in excess of 71% have been recorded for the 3 years from 2003 to 2005.

Internet data tables and publications are available on the AIHW website. Data are provided on medical practitioners working in both the private and public sectors. There is also some information on registered medical practitioners who are not undertaking clinical work, or who are not employed.

Contact: AIHW

email: labourforce@aihw.gov.au

web: www.aihw.gov.au>

New South Wales Colorectal Cancer Care Survey

The primary aim of the New South Wales (NSW) Colorectal Cancer Care Survey was to measure the care given to colorectal cancer patients in NSW and to determine whether care was managed according to best-practice guidelines and the effect of this on tumour recurrence. The project was conducted at the Cancer Council NSW and the Discipline of Surgery at the University of Newcastle. Doctors taking part in the survey could benchmark the management of their own patients in comparison with other doctors in NSW.

The sample was selected from all newly diagnosed colorectal cancer cases reported to the NSW Central Cancer Registry over a 12-month period from February 2000. A questionnaire regarding details of the diagnosis and surgical treatment was sent to surgeons treating these patients. Questionnaires seeking details on chemotherapy or radiotherapy were sent to oncologists to whom patients may be referred.

Information regarding follow-up practices, patient outcomes and further treatment were obtained 24 months after each patient's initial diagnosis.

Contact: Katie Armstrong

email: katief@nswcc.org.au

web: www.cancercouncil.com.au

OATSIH Services Collection, Analysis and Reporting (OSCAR)—Healthy for Life (HFL) program

The purpose of OSCAR is to capture and report on data on Aboriginal Health services participating in the HFL program. The aim of the HFL program is to improve the health of Aboriginal and Torres Strait Islander mothers, babies and children; improve the quality of life for people with a chronic condition; and over time, reduce the incidence of adult chronic disease. Participating services are required to submit data reporting against qualitative and quantitative indicators via the web-based OSCAR system.

The collection commenced in July 2007 and data are reported either annually or 6-monthly. Information collected covers community health service activities, child and maternal health data (including child health checks MBS item), chronic disease management (including adult health checks and other associated MBS items) and HbA1c characteristics for people with diabetes. Data completeness and availability of age- and sex-specific information varies substantially across participating services.

Data from the collection are not available for public use.

Contact: AIHW

email: tulip.penney@aihw.gov.au

web: www.health.gov.au/healthyforlife

Royal Flying Doctors Service (RFDS)

The Royal Flying Doctor Service of Australia is a not-for-profit charitable operation that provides medical emergency and primary health care services to people who live, work and travel in regional and remote Australia. The RFDS conducts regular primary health care clinics at locations such as Indigenous communities, remote stations, mines and oilfields, national parks and island resorts. These clinics include GP and specialist services and are not covered by Medicare. The RFDS receives funding from the Commonwealth Government to provide services to rural and remote communities. The RFDS compiles data for their annual report about the number of clinics conducted, patients attended to, telephone/ videophone consultations performed and patients transported to hospital.

email: enquiries@rfdso.com

web: <http://www.flyingdoctor.net>

Divisions of General Practice

Information systems—particularly computerised systems—can assist in the management of many chronic illnesses (such as diabetes). These systems include:

- Disease registers, which allow for the identification of patients with particular diseases, or at risk of them, the recording of treatment plans, test results, and so on, and the tracking of clinical outcomes.
- Recall and reminder systems, which provide the facility for systematic recall and review of the patients on a regular basis, according to clinical management guidelines.

The process for electronic register, recall/reminder systems for diabetes involves:

- recording clinical data for patients
- searching for patients with diabetes
- setting up diabetes review recalls
- searching for recalls due
- sending reminder letters
- maintaining recall.

These disease registers are a component of the better management of chronic disease which is one of the National Performance Indicators developed in 2005 by the DoHA. Diabetes, mental health and asthma are the focus of the chronic diseases for which the data are collected as part of the strategy. The indicators are being used to provide feedback to the divisions to assist them in improving support to general practices in their management of patients and to form a strong base for broader primary care and general practice information.

There are a number of general practice divisions that have established, and are currently managing, disease registers for their divisional practices. These systems are used to remind doctors when particular patients on the register are due for appropriate health checks and clinical tests. Some general practice divisional activities are listed below.

- In the **Macarthur Division of General Practice**, by registering patients with Diabetes on the division's diabetes program, GPs are sent a diabetes recall report every month. The report is sent from the division to every GP who has five or more patients registered on the database. The report lists all of the GP's diabetes patients who have not been reviewed in the previous 6 months. Often patients had been reviewed but the data had not been sent to the division and so the report acts as a reminder for GPs to forward the data on—especially if the GP is participating in the Division Diabetes Audit. The program uses the Cardiab database and offers GPs and patients:
 - a patient register
 - patient recall reports and letters
 - audit reports
 - RACGP QA&CPD clinical audit activity
 - diabetes education.
- A software tool developed by **Canning Division of General Practice** aggregates and manages diabetes data at a practice level. The 'Diabetes Data Aggregation Tool' improves practice systems by identifying those patients who have diabetes and assisting with the following:
 - establishment and maintenance of recall reminder systems for patients with diabetes
 - assist practices with forward planning for consultation reviews

- assist practices with downloads of diabetes pathology results using HL7 messaging format for direct upload to medical software (including; Medical Director; Medtech32; Best Practice; Medical Spectrum Classic and more to follow)
- support practices in implementing best-practice strategies such as Diabetes PIP/SIP and Medicare CDM Items (GPMP and TCA).
- The **Southern Highlands Division of General Practice** electronic data collection has been operating in the regional area since 1995. Approximately 59 GPs are involved in the collection, which requires manual extraction from clinical records or electronic records. Data are collected covering practice details and chronic disease management, but nothing is collected on the doctor–patient consultation. Data are available free to participants and can be provided to other interested groups on request.
- **GPpartners**, a division of general practice in Brisbane North, manages a shared electronic health record system that can be used by GPs, hospitals and allied health providers. Known as the Health Record Exchange (HRX), the system uses a central repository to hold the health summary information, which is aligned with NeHTA standards for electronic health records. GPs connected to the HRX receive an automatic notification in to their clinical systems when their patients’ records are accessed by other members of their care team. The notifications will automatically arrive with other investigation results. At April 2008, there were 166 GPs connected and more than 1,000 patients had given consent to the sharing of their health records.