



Selecting and Accessing Population Data - An Information Resource

PRIMARY CARE PARTNERSHIPS

February 2001

Primary Care Partnerships:
Selecting and Accessing
Population Data
—An Information Resource

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Acknowledgements

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This document was written by Denise Ruth, Nabil Sulaiman and Claire Harris of the Department of Community Health, Melbourne Health, in consultation with the Community Health Unit, Aged Community and Mental Health Division, Victorian Government Department of Human Services.

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Foreword

The Primary Care Partnership Strategy aims to ensure that primary care services achieve high quality outcomes for consumers and deliver improved health and well-being for the community. It will achieve this in four main ways:

- Primary care services will take a stronger role in addressing the broad determinants of health and well-being. They will provide increased health promotion, illness prevention and disease management programs.
- A partnership approach will underpin the strategy. Consumers, carers and the broader community will be involved in the planning and evaluation of primary care services. Through Community Health Plans, partnerships of service providers and community members will identify priority health issues in their community and agree on service responses.
- Implementation of the strategy will recognise the diversity of the Victorian population and communities will be encouraged to identify their particular needs and to develop innovative solutions that meet local needs and conditions.
- The Government will resource this strategy to improve the planning and delivery of primary care services and ensure improved health and well-being outcomes can be achieved for the Victorian community.

To support the ability of Primary Care Partnerships and local communities to develop Community Health Plans, the Department commissioned a Public Health Research Project on the use of population data for planning. *Selecting and Accessing Population Data: An Information Resource* has been developed to assist Primary Care Partnerships in accessing data to identify priority health issues in the community. It should be read as a companion document to *Integrated Service Planning: Interim Guidelines*, which sets out interim policy guidelines for Integrated Service Planning by Primary Care Partnerships.

The *Information Resource* presents a matrix to navigate the numerous data sources related to population health and well-being. It will assist Primary Care Partnerships in using data to develop an understanding of their communities' needs and planning better targeted and coordinated services to improve client outcomes.



BRIAN JOYCE
Acting Director
Aged Community and Mental Health

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This *Information Resource* was based on the work of Denise Ruth, Nabil Sulaiman, Rosalind Hurworth and Claire Harris in the Public Health Research Project, Department of Community Health, Melbourne Health. The project was funded by the Department of Human Services (DHS), Victoria.

The original proposal was developed by the Department of Community Health, North West Melbourne Division of General Practice and the University of Melbourne Department of General Practice and Public Health, in consultation with the Hume Moreland Primary Care Partnership. The Primary Care Partnership consists of a diverse range of local, regional and state health and community organisations in the local government areas (LGAs) of Hume and Moreland.

The researchers explored local service providers' perceived needs for data in local service planning, reviewed existing data, and then developed and piloted a process for the use of population data, in partnership with the Department of Human Services and the Hume Moreland Primary Care Partnership.

We thank all members of the Project Steering Group, Reference Group and Health Data Working Group for their contributions and support throughout the project. Members were: Michael Ackland, Margaret Abbey, Tony Blackwell, Nigel Brand, Zahid Ansari, Don Campbell, Ian Coverdale, Paul Dietze, Jon Evans, Frank Filardo, Vic Gordon, Tricia Greenway, Terry Gliddon, Philip Hegarty, Felicity Ison, Kim Johnstone, Harald Klein, Daryl Lang, Viv Lazzarini, Jeremy Maddox, Karen MacIntyre, Antoinette Mertins, Kerry Montero, Serap Ozdemir, Suzy Pinchen, Carolyn Purdue, Peter Ryan, Denise Shearer, Terri Smith, Ros Stevens, Mark Sullivan, Holly Piontek Walker, Doris Young and Hua Zhang. Sue Foley ably gave administrative support.

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We have verified the information in this *Information Resource* as at December 2000, to the best of our ability. We would appreciate you informing us of any errors or omissions, by email to Denise.Ruth@mh.org.au and holly.piontek-walker@dhs.vic.gov.au.

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Purpose of the Information Resource

This *Information Resource* provides practical information that will assist people working in primary care to select and access population data to assess the health and well-being needs of their local community. Primary Care Partnerships should read this document in conjunction with *Integrated Service Planning: Interim Guidelines* (due early 2001).

The *Information Resource* does not assume a particular model of planning, and can be applied to different types of planning questions and processes, such as Community Health Plans, Municipal Public Health Plans and Division of General Practice strategic plans. It is beyond the scope of the Information Resource to discuss details of how to analyse and interpret data or apply it within the planning process.

The *Information Resource* is divided into three sections.

Section one briefly describes community health and well-being needs assessment in the context of the development of Community Health Plans by Primary Care Partnerships in Victoria. It identifies the issues related to selecting and accessing data for Integrated Service Planning, describes how the *Information Resource* was developed, and presents a seven-step process for using population data in community health needs assessment.

The next section presents a matrix to assist community planners to select indicators and data sources related to population-based needs assessment. Contact details are provided to facilitate access to the data sources. The matrix allows the user to customise these lists, add to them, and use them in a variety of ways to suit their individual planning questions.

The final section presents an example of the selection of data to address community needs related to a specific health condition, asthma.

An electronic version of the planning matrix will be developed in the Department of Human Services (DHS) Community Health Planning Resource at <http://www.dhs.vic.gov.au/phkb>. The matrix and this *Information Resource* can be updated, based on comments, improvements and the addition of new indicators, data sources and case studies. We would therefore appreciate you sending any feedback to Denise.Ruth@mh.org.au and holly.piontek-walker@dhs.vic.gov.au.

Background

Community Health Plans

The Department of Human Services (DHS) is working to enhance health and well-being outcomes in Victoria by supporting collaborative planning between primary care providers and their local communities. During 2000–2001, voluntary alliances of providers, known as Primary Care Partnerships (PCPs), are working with their local communities, usually across two or three local government areas, to develop Community Health Plans.

Community Health Plans will identify the priority health and well-being needs of the local area; and describe how the providers in the Primary Care Partnership will work with each other, relevant key organisations and the community to respond to these needs. The plans will include three key elements:

- **Partnerships** will define how the partners will work together to implement the Community Health Plan.
- **Service Coordination** will describe how local systems and infrastructure, such as information management, needs identification and referral will enable better coordination of services.
- **Integrated Service Planning** will identify the population-based health and well-being needs of the community and propose strategies to address these needs, such as integrated, multi-sectoral health promotion and disease management programs and services.

The plans will be submitted to Department of Human Services regional offices and be the basis for ongoing funding of Primary Care Partnership activities. They will also help inform the Department's resource allocation and service funding decisions.

Integrated Service Planning

Integrated Service Planning by Primary Care Partnerships will be part of a cycle of planning, implementation and evaluation informed by data analysis, community consultation and other relevant plans. The goal of the Integrated Service Plan is to link service delivery to population health and well-being needs within a social

model of health. For more details see *Integrated Service Planning: Interim Guidelines*.

The Integrated Service Planning process will involve three key components:

1. Identify community health and well-being needs.
2. Develop collaborative strategies to address those needs.
3. Plan to review and evaluate the outcomes of the strategies.

This *Information Resource* will assist Primary Care Partnerships develop the first of these components.

Information for Community Health Needs Assessment

Assessing community health and well-being needs involves gathering and analysing data to identify needs, and prioritising needs for the purpose of developing services and programs for the defined population. Setting priorities and planning services involves consideration of identified needs, evidence of the effectiveness of interventions, Government policy, and the values and preferences of planners, service providers and consumers in the local community context.

Several sources of information can be used for identifying community health and well-being needs. These are population and service data; relevant policy and planning documents; and consumer, carer and community input. This *Information Resource* deals specifically with population data. For further information about other sources of information for community planning see *Integrated Service Planning: Interim Guidelines*.

Population and Service Data

Data about a community's characteristics, health and well-being status and services are necessary for assessing the health and well-being needs of its population. Data can be gathered from existing sources, or new data can be collected. Analysing existing data is usually quicker and less costly than collecting new data. However, existing data on relevant variables are usually less precise as they

may not have been collected in a form to suit the specific purpose of the needs assessment.

The Department of Human Services is developing a 'core data set' of minimum information which will be uniformly collected for each Primary Care Partnership catchment to enable comparisons to be made across the state. A first version of the core data set will be provided to Partnerships for use in planning early in 2001. Following the release of *Integrated Service Planning: Interim Guidelines* consultation with the field will be undertaken to further develop and improve the data set.

Information from the core data set will not be the only information considered in Integrated Service Planning. Planners will need to supplement the information from other sources.

Data are currently available from four main sources: population census, vital statistics and registers, sample surveys, and administrative data.

Population Census

The Australian Bureau of Statistics (ABS) Population Census is the key source of detailed small area data and provides five-yearly benchmarks on the demographic and socio-economic status of key population groups. Census data provide detailed information regarding population characteristics including age, education level, occupation, qualifications, country of birth, language skills and housing conditions. The Census methodology limits the capacity to explore complex concepts, for example, questions regarding disability have been tested but not included as they were found to provide unreliable results. Census data are based on the place of enumeration, that is, people are counted where they are actually located on Census night rather than where they live. A question was included in the 1996 Census about place of usual residence, so some data are also available relating to usual residence. When using Census data, it is important to check whether the data are based on place of enumeration or usual residence, as there may be significant differences.

Vital Statistics and Registers

Vital statistics are registered for births, deaths, marriages, adoption and changes in civil status. In addition, there are several specific registries that continuously collect data, for example perinatal, cancer, and notifiable diseases.

Sample Surveys

The ABS undertakes a range of periodic surveys including the Disability, Ageing and Carers Survey, the Health and Nutrition Survey, the Labour Force Survey and the Time Use Survey. Most surveys focus on a particular area of interest, although the ABS is currently developing a General Social Survey, which will explore the connections between areas such as health, employment, stress and social relationships. ABS survey data are generally not available below State level, although the ABS produces synthetic estimates using statistical modelling techniques at small area levels for some surveys. Other organisations regularly produce surveys such as the Australian Institute of Health and Welfare on priority health and welfare issues, Department of Human Services on patient satisfaction with hospital care, and the Anti-Cancer Council of Victoria on smoking rates.

Administrative Data

Government departments and service providers collect information about services and service users as part of their administrative procedures. Administrative data may provide more up to date information than Census data that are collected only every five years. However, the data may not be directly comparable to Census data, for example definitions may differ, so care should be taken in making direct comparisons. Data are generally released at postcode level, so will need to be converted to statistical local area or local government area level if being used with data at these levels.

Further research is required to develop tools to collect, aggregate and provide information on service availability and utilisation. In consultation with the primary care sector, the Department of Human Services is developing systems, as part of the service coordination element of Community Health Plans, to facilitate access to service information.

Data Issues

This *Information Resource* focuses on population health and well-being and service data from existing sources. Background research, in the Public Health Research Project, identified the following issues and strategies related to using these data for local planning (Ruth *et al*, 2000). Details of this work are available at <http://www.dhs.vic.gov.au/phkb>.

Barriers to Effective Use of Data in Planning

Issues raised by providers and planners in connection with use of data are:

- Access—lack of awareness, gaps in data, contacting the right person, insufficient communication between data providers and users, resource constraints, lack of central access.
- Quality—inconsistent definitions and collection, currency/timeliness.
- Applicability—unfriendly format, problems with aggregated versus small area data, non-matching data sets, and lack of contextual information.
- Local service providers' roles and skills for population-based health planning.

Service providers and planners noted a lack of adequate data for:

- Local government area (LGA) and neighbourhood levels
- Aboriginality, ethnicity, disability
- Carers, early school leavers, and transient populations
- Indicators of wellbeing, and nutritional status
- Mental health including anxiety, depression and psychosis
- Why local people go to their doctor, and disease incidence in the community.

The qualitative research and a review of local planning documents revealed that needs assessment currently is not comprehensive or systematic, and that priority setting currently is largely informed by national health priority

areas rather than local needs assessment.

Service providers and planners said they need a framework for the systematic use of data in needs assessment, specific types of data, access to data in a variety of formats, skills training, consultancy support, and partnerships to help plan more effectively.

Strategies to Address Barriers

The Department of Human Services is addressing many of the identified issues through initiatives such as developing the framework for Integrated Service Planning, improving access to data through a Community Health Planning Resource (located at <http://www.dhs.vic.gov.au/phkb>), as well as publishing this *Information Resource*.

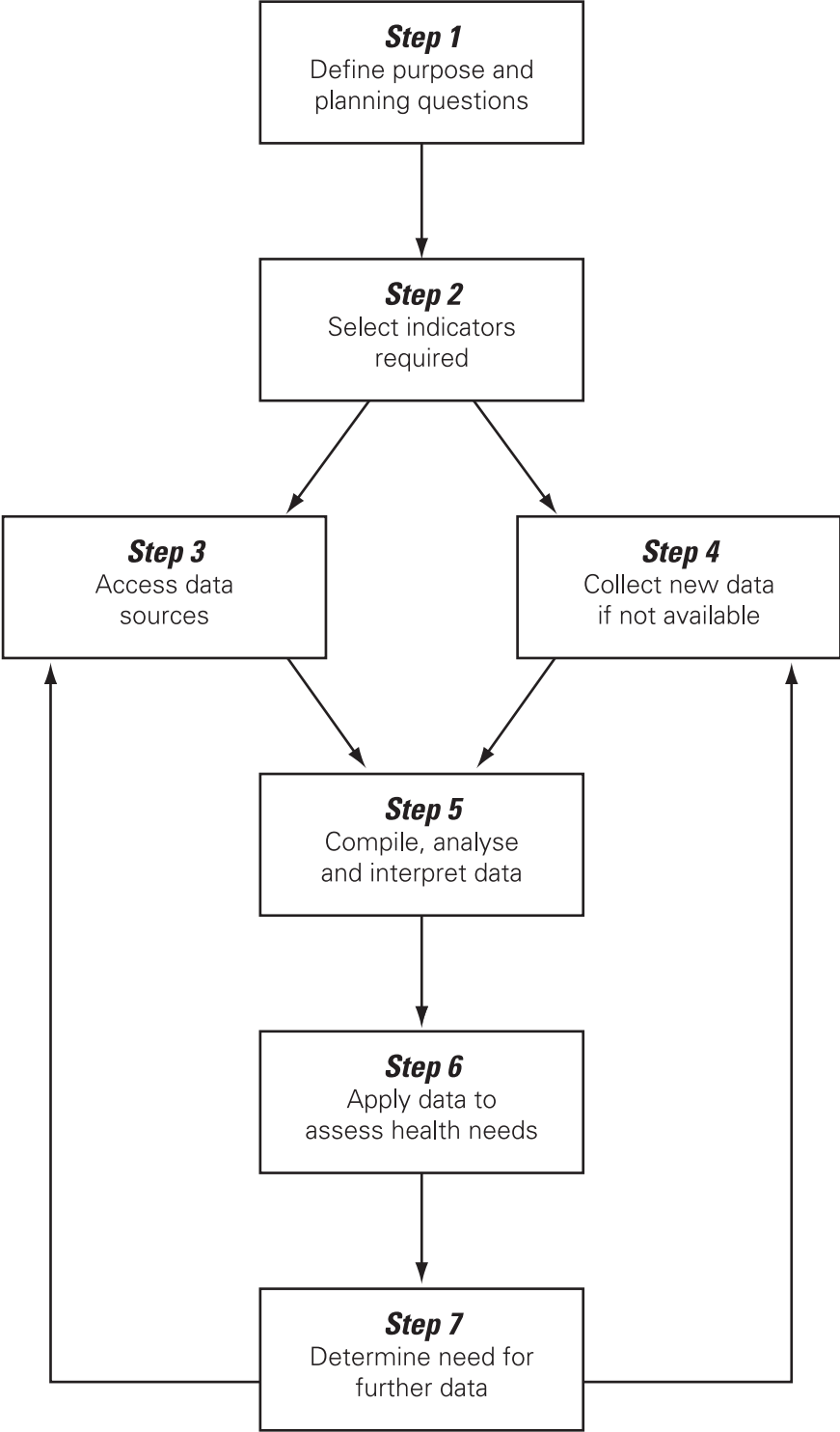
The *Information Resource* was produced to address some of the data issues identified through the qualitative research. Development of the *Information Resource* involved a partnership approach for bringing together data producers and planners from the Department of Human Services (Public Health Division; Aged, Community and Mental Health Division; Policy Development and Planning Division; and the Northern and Western Regional Offices), with members of the Hume Moreland Primary Care Partnership.

Process for the Use of Data in Community Needs Assessment

The purpose of a community needs assessment is to help planners, service providers and consumers identify health and well-being needs and choose priorities for developing services and programs for the local population. The methods used to conduct the needs assessment will determine what types of data are used and what can be concluded from the findings. Most needs assessments will use a combination of existing data, and new quantitative and qualitative data collected from the population and target groups for the planning purpose.

It is important to carefully plan a comprehensive and systematic approach, before commencing the needs assessment. This can be done through the seven-step process for the use of population data in community needs assessment (figure 1), developed by the Public Health Research Project.

Figure 1 Seven-step Process for the Use of Population Data in Community Needs Assessment



The seven-step process can be used to design a successful needs assessment by considering the planning questions, data indicators, types of data sources and analysis in a logical coherent sequence.

Step 1. The planning questions will depend on whether the purpose of the needs assessment is for a comprehensive, population-based needs profile; or a group who share common socio-demographic characteristics, problems, or access and equity issues. *For example, 'What is the overall level of needs for family support services among low-income families with young children?' (adapted from Reviere et al, 1996).*

Step 2. Select the indicators that are relevant to the planning questions. *For example, the number of low income families with young children, number and service capacity of agencies delivering different types of family support services, and percentage of low income families with unmet needs for different types of services.*

Step 3. Some data will be available from existing data sources. *For example, the Census is a suitable source of data on the number and proportion of low-income families with young children.*

Step 4. Gaps in data on some indicators may be addressed by collecting data using suitable quantitative and/or qualitative methods. Methods include surveys, intensive interviews, focus groups, etc. It is beneficial to use standardised survey instruments so that local data can be collated with others to develop new population-based data sets, and compared with other data. The way that information is gathered from consumers may be determined by consumers and carers themselves.

For example, data could be collected on service capacity from a survey of social service facilities, and on unmet needs from a survey interview of a sample of low-income families.

Step 5 involves compiling, analysing and interpreting the data to identify the health and well-being needs of the

target population. *For example, calculate ratios of low-income families with young children per number of service facilities, and calculate ratio of low-income families with young children per measures of service capacity of family support service facilities.*

In **step 6**, identified health and well-being needs will inform the priority setting and planning of services and interventions, as well as provide baseline data for monitoring. If the planning exercise is one of comprehensive, population-based needs assessment it will generate further planning questions to define in greater detail the areas of need and the potential to intervene. If the needs assessment is for a target population or a specific health issue, the information will help to plan and target specific services and programs. Setting priorities and planning services involves consideration of identified needs, evidence of the effectiveness of interventions, and the values and preferences of planners, service providers and consumers in the local community context.

In **step 7**, planners, service providers and consumers need to compare the data they have obtained with the information they initially required. If further data are still needed, a search for additional sources may be useful (back to step 3) or data collection will be required (back to step 4).

The next section presents a **matrix of indicators and data sources** as a tool to select indicators and access existing population data to address a wide range of planning questions.

Selecting and Accessing Data

This section presents a matrix of indicators and data sources (Table 1) and a list of data sources and contacts (Table 2), and describes how to use them. The matrix is offered as a tool to assist community-based planners, service providers and consumers to navigate their way through the numerous indicators related to population health and well-being, and the data sources where this information can be located.

Matrix for Selecting Indicators and Data Sources

The matrix provides a list of important indicators that can inform planning, and provides a list of data sources that correspond with them. An electronic version of the matrix will be located at <http://www.dhs.vic.gov.au/phkb>. It will be updated as new data indicators and sources are identified or produced.

Indicators

The left-hand column of the matrix in Table 1 is a list of indicators for demographic and social characteristics, health and well-being status, features of the physical environment, and health services. This presents the planner with a range of parameters to select from in answering their planning questions. The list was adapted from Sainsbury (1998) and added to through consultations with data users and producers during the Public Health Research Project.

When choosing indicators for the matrix, the following criteria were developed and used:

- Is the indicator **relevant** to the community health needs assessment?
- Does the indicator provide **useable** information for planning?
- Can the indicator be related to **changes in health and well-being outcomes**?
- Can the indicator be **clearly defined**?
- Is the indicator **valid**, that is, does it measure what is intended?

- Is the indicator **reliable**, that is, can it be reproduced?
- Is the indicator easily **understandable** by the users?

Some indicators have been included although there is no source of data currently available. This highlights a gap in information and a need to find ways to fill these gaps by collecting new data, either by local planners or through a regional or state-wide approach.

In some instances, the indicator listed is in fact a group of indicators; which makes it difficult to list the data sources for this information. There are two main reasons for this. It may be impossible or impractical to list all the related indicators, for example for incidence and prevalence of specific conditions. Sometimes indicators themselves are not well defined, and further research and data collection will be required before they are available at a population level, for example measures of positive health.

Data Sources

The right-hand column of the matrix in Table 1 lists the data sources available for the corresponding indicators. The numbers in the matrix correspond to the numbers in Table 2 Data Sources and Contacts.

Uses of the Matrix

Use of the matrix can enhance the needs assessment and planning process by:

- Identifying useful indicators that had not been considered previously.
- Linking indicators to their data sources, evaluating the quality of the data and providing information about how to access it.
- Highlighting gaps in the information available—encouraging planners to collect data using standardised surveys to contribute to population-based data sets and to feedback to policy makers and researchers the need for indicator development and data collection in priority areas.

Table 1 Matrix for Selecting Indicators and Data Sources

Demographic and social characteristics	Tick relevant indicators	Data sources (number refers to source listed in Table 2)
Population size and projections		HW(23a), ERP(1a), Com Prof(2a), CDATE(23b), Pop Proj(1b)
Sex		HW(23a), ERP(1a), Com Prof(2a), CDATE(23b), Pop Proj(1b),
Age		HW(23a), ERP(1a), Com Prof(2a), CDATE(23b), Pop Proj(1b)
Indigenous status		HW(23a), CDATE(23b)
Ethnicity/Language		HW(23a), Com Prof(2a), CDATE(23b), Demog(1c), Settlement(2B)
Socio-economic status		HW(23a), SEIFA(3b), Com Prof(3a), CDATE(23b), Western(23c), SALM(5b)
Income		HW(23a), CDATE(23b)
Education		HW(23a), ERP(1a), Com Prof(2a), CDATE(23b), School(6a, 6b)
Employment		HW(23a), Centrelink(4a), CDATE(23a), SALM(5b)
Occupation		HW(23a)
Social security payments, for example: pensions, child care		HW(23a), Centrelink(4a, 4b) HIC(4c)
Accommodation		ABS(3c), SAAP(8a)
Household structure		Demog(1c)
Migration		Settlement(2B), Demog(1c)
Accessibility/Remoteness Index of Australia		ARIA(8b)
Birth Rate		Perinatal(13a), Demog(1c)
Crime		Police(7a), Justice(7b)
Child abuse		CP(20d)
Domestic violence		CP(20d)
School retention rates		DEET(6a)
Child care		HW(23a)
Economic		(5a-g)

Table 1 Matrix for Selecting Indicators and Data Sources (continued)

Health and well-being status	Tick relevant indicators	Data sources (number refers to source listed in Table 2)
Mortality		
Life expectancy at birth		Partnership(22a), BoD(10a, c)
Age/sex-specific mortality		HW(23a), Death(12a)
Cause-specific mortality/Leading causes of death		HW(23a), Cancer(14b), Death(12a), BoD(10c)
Perinatal and infant mortality		Perinatal(13a), Births(13b), MCH(20c)
Suicide rate		HW(23a), Unnatural(12b)
Morbidity		
Incidence and prevalence of specific conditions		BoD(10b, c), NHS(19h), BEACH(18b), NSMHW(16c), HIC(18a), CSDA-MDS(9c), VAED(11a), VA(11j), Drugs(15a-f), Adolescent(19f)
Disease-specific indicators		Disease specific(22b), AIHW(22c)
Perinatal and infant morbidity		Perinatal(13a)
Injuries		VISS(11h)
Dental health		Dental(17a-c)
Notifiable infectious diseases		NID(11l)
Mental health		RAPID(16a), NSMH16(c)
Prevalence of disability		HW(23a), HACC(21a), Disability(9a-d), Centrelink(4a), PDSS(16b)
Mortality/morbidity combined		
Disability-adjusted life years		BoD(10b, 10c)
Disability-adjusted life expectancy		BoD(10c)
Overall health status		
Measures of 'positive health'/quality of life		No standard data available.
Risk factors/preventive activities		
Burden of disease attributable to risk factors		BoD(10c)
Youth risk and protective factors		Adolescent(19f)
Smoking rates		Quit(19d), ADIS(15a), Adolescent(19f)
Alcohol use		Turning point(15c-e), Adolescent(19f)
Road traffic accidents associated with alcohol use		VicRoads(11g), Police(7a), VISS(11h)
Incidence of drink driving		Police(7a)
Drug use		Turning point(15a-d, 15f), Amb(11f), Adolescent(19f)
Participation in physical activity		Phys(19g), Adolescent(19f)
Dietary patterns		NNS(19i), Health2000(19e)
Immunisation rates		HW(23a), HIC(19b), MCH(20c)
Screening rates, for example: cervical cancer, mammography		HW(23a), HIC(19a)
Use of sun protection		Sunsmart(19c)

Table 1 Matrix for Selecting Indicators and Data Sources (continued)

Physical environment features	Tick relevant indicators	Data sources (number refers to source listed in Table 2)
Pollen count		Pollen(8c)
Air quality		EPA(8d), Local Municipal Council
Noise levels		EPA(8d), Local Municipal Council
River quality		EPA(8d), Local Municipal Council
Domestic water purity		EPA(8d), Local Municipal Council
Availability of open spaces		Local Municipal Council
Street cleanliness		Local Municipal Council
Road safety		VicRoads(11g), VISS(11h)
Employment conditions		HW(23a), Centrelink(4a), CDATE(23b), SALM(5b)
Impact of industry and agriculture		SALM(5b)
Health and community services	Tick relevant indicators	Data sources (number refers to source listed in Table 2)
Medical services		
Ratio of general practitioners to population		HW(23a), HIC(18a)
Medical claims, consultation rates, fees charged: general practitioner, specialist, diagnostic		HW(23a), HIC(18a), BEACH(18b), VA(11j)
Hospital services		VAED(11a), VEMD(11b), PAC(11e), VA(11j)
Surgical waiting lists		ESIS(11c)
Outpatient waiting lists		VACS(11d)
Attendances at emergency departments		VEMD(11b)
Admission rates		HW(23a), VAED(11a), VA(11j)

Table 1 Matrix for Selecting Indicators and Data Sources (continued)

Health and community services	Tick relevant indicators	Data sources (number refers to source listed in Table 2)
Community-based primary health services		
Primary health programs: including Community Health and Women's Health		Datamart(20a)
Maternal and child health		MCH (20c)
School nursing		Datamart(20b)
Dental		Dental(17a-c)
Drug treatment		Drugs(15b-d, f), ADIS(15a)
Mental health Disability: client demographics and disabilities; service referrals, type, time, cost, etc		RAPID(16a), PDSS(16b), NSMHW(16c) DISCIS(9b), CSDA-MDS(9c)
Aged care: home and community care, assessments, carers, accommodation		HACC(21a), DACS(9d), ACAS(21b), CSDA-MDS(9c)
Community services		
Schools		6(c)
Public transport, shopping facilities, leisure and sporting facilities, community organisations, religious organisations		No standard data sources are available. Investigate local sources, for example Municipal Council, or collect local data.
Consumers and carers		
Levels of formal/informal care in the community		No standard data sources are available. Investigate local sources, for example Municipal Council, or collect local data.
Knowledge/awareness of services, perceived unmet need, perceived benefits		No standard data sources are available. Investigate local sources, for example Municipal Council, or collect local data.
Complaints: on access, administration, cost, communication, rights and treatment by health care providers, including alternative therapists		HSC(22d)

The matrix can also be customised to incorporate locally collected data into the planning exercise. Most providers collect data of some sort, often only to be seen in an annual report and never used in a meaningful way. Extra rows can be added to the matrix to include information relevant to the user, for example: diagnoses of community nursing patients; accommodation needs of mental health clients; demographics of participants at health promotion activities; etc. This enables and encourages staff at local agencies to use their own data, and integrate and interpret it within the context of population statistics. If standardised data collection tools were used for this purpose, population statistics could be compiled by collating local data sets.

By the inclusion of various notations alongside the relevant indicators, the matrix can be utilised to:

- Act as a communication tool for several people working together, or for teaching purposes.
 - Highlight indicators that are required in answering the planning question, but for which there is missing or inadequate data.
-
- Add some structure or formality to the needs assessment by encouraging the planner to address each indicator and decide whether to use it (for example: ✓ x). This is illustrated in the sample matrix for asthma in table 3. If the indicators have been selected prior to consulting the *Information Resource*, and the matrix used only to identify the data sources for the chosen indicators, the planners may miss valuable information from additional indicators that they were unaware of.
 - Construct priorities (for example: 1, 2, A, B) to facilitate the data search strategy, so that finances and staffing resources can be allocated to accessing data on the indicators considered most important.
 - Set up a template so that the needs assessment can be repeated in the same way at a later date (for example: a pro forma that includes the indicators you want to use when reviewing the health needs of migrants in your LGA).

Using the Matrix to Select and Access Population Data

The matrix can be applied to the first three steps of the seven-step process for data use, presented in the previous section, by:

1. Defining the purpose and planning questions.
2. Selecting the indicators listed in the matrix, which are relevant to the planning questions.
3. Selecting the relevant data sources from the list. Cross-refer to Table 2 Data Sources and Contacts for the full name and contact details to access the selected data sets.

Step 1: Define Purpose of Needs Assessment

The purpose of the needs assessment and planning questions should be set out clearly before using the matrix. Involving key stakeholders, including service providers, consumers, and the community, in planning the needs assessment from the outset will help clarify values and an understanding of the local context.

Needs assessment does not have to be for a geographically defined population. It is also possible to do needs assessment on a group who share common socio-demographic characteristics (for example older people, people from a particular ethnic group, homeless people) or common problem (for example asthma, diabetes, heart disease, HIV-positive status). Needs assessment can also be done with an environmental focus, for example injury prevention, or a focus on access and equity for a target group, for example people with a disability.

Planning questions for a comprehensive, population-based community health needs assessment may include:

1. What is the size of the population now and in the future?
2. What are the prevailing health and well-being problems and how do they manifest in the local population?

3. What is the pattern of social and demographic characteristics that determine health and well-being?
4. What are the potential target populations for special attention, based on need? Target populations may be identified through:
 - Being at high risk of a disease (for example cardiovascular disease for biological reasons or exposure to risk factors)
 - Experiencing difficulties at an important life cycle stage (for example first time mother, frail elderly)
 - Being at a health disadvantage due to social or economic circumstances (for example low income, unemployed, refugee, homeless, Aboriginal or Torres Strait Islander, recently arrived migrant).
5. What are the determinants of health and well-being and health equity (for example social networks, safe environment)?
6. What are the potential priority action areas for health promotion activities?

Subsequent needs assessments may be conducted to address specific issues that have been identified by a previous needs assessment, population health and well-being profile or community consultation. This could refer to:

- A health promotion or disease management program for a specific disease, for example: What are the needs of the local community for asthma care?
- A life cycle approach, for example: What are the health and well-being needs of adolescents?
- Equity for a disadvantaged group, for example: What are the needs of Koori people in this area?
- A combination of these, for example: What are the needs of migrant families with disabled children?

Once you have decided on the purpose and planning questions of your needs assessment, you can refer to the matrix to identify the information required (Step 2) and sources of existing data (Step 3).

Step 2: Select the Indicators Required

The indicators selected in the matrix will depend on whether the purpose of the needs assessment is a comprehensive, population-based needs profile, or a question about a specific issue or target group.

However, there are some common data elements that are useful to analyse for most planning questions. In particular, the following characteristics and indicators are fundamental to any comprehensive needs assessment. These are listed in the matrix, and provide a picture of the community; its health and well-being status; the demographic, social and physical environmental determinants of health and well-being; and service delivery, that is essential to planning.

Demographic and Social Characteristics

Health inequalities have been consistently documented between advantaged and disadvantaged groups in many countries, including Australia (Furler et al, 1998). Major indicators of disadvantage associated with inequalities in health status are: socio-economic status, employment status, single parent families, youth populations, indigenous status, migrant groups (especially refugees), rural and remote populations.

Also, there may be problems with access to health and other social services because of locality (for example rurality), waiting time (for example dental services), cost (for example private psychiatrists), language (for example linguistically diverse communities), times or ways that services are organised (for example young people having to make appointments) (Harris et al, 2000).

Equity is concerned with reducing differences in health that result from these factors, and which are potentially avoidable and seen as unfair, due to limiting people's choices.

Population Size and Projections

The first question to be answered in any needs analysis is

the size of the population in question. There are three main sources of information about this: Australian Bureau of Statistics (ABS) Census data, ABS Estimated Resident Population (ERP) figures, and Population Projections either from the ABS or Department of Infrastructure.

The ABS Census provides five yearly population counts based on place of enumeration, that is, the location where people spent Census night. As a question is also asked in the Census about usual residence, counts can also be provided for place of usual residence.

The Census usual residence figures are updated by the ABS on an annual basis using births, deaths and migrations data to produce the ERP figures. The ERP provide a breakdown of population at statistical local area level by age (five year groups) and sex. The ERP should form the basis of any population based rate calculations, and be consistent with the reference period; for example, use the 1997 ERP when calculating a rate for an area in 1997.

Population projections provide estimates of future population growth, based on analysis of key economic, social and demographic trends. The ABS regularly publishes population projections at national and state level, however the ABS only develops projections at small area level via consultancies. The Department of Infrastructure Population Projections, which were released in February 2000, provide projections by age and sex for all Victorian local government areas (LGAs) and statistical local areas (SLAs) to the year 2021. To facilitate consistency, it is recommended that the Department of Infrastructure population projections be used for small area forward planning (1b in Table 2).

Sex

Gender is an important determinant of health and well-being, along with socioeconomic status and ethnicity. Women and men often have different life experiences, needs, issues and priorities. This includes, but is not limited to, issues that are unique to women or men, are more common in women or men, have different risk factors for women and men, or are experienced differently by women and men (Astbury et al, 1998). Women and

men will also have different experiences with regards to broader determinants of health, such as social connectedness and socio-economic status. Data should always be collected and analysed by gender as a minimum base for planning. This should mean not only a breakdown of the population by sex, but also analysis of other indicators by gender.

Age

Age structure of the population is another fundamental determinant of health and well-being needs. The proportion of infants, children, adolescents, working age people, middle aged people and elderly will determine the mix of community health services and interventions needed. Future projections of demographic profiles may determine the anticipated needs of services such as childcare, immunization, and residential care. For example, the City of Moreland population is aging with increasing number of people aged 80+ years and a reduction in the younger age groups. This is in contrast with the City of Hume with a high proportion of younger group aged <17 years.

Indicators can be stratified by age related to life cycles, which have health and well-being issues associated with them, for example youth, first time mothers, and elderly people.

Indigenous status

On most major indicators, the health of the Aboriginal population is significantly below the average for all Australians. This includes considerably shorter life expectancy than the average, reduced health status across all age groups, and considerably more chronic illness. The difference in health status results from a complex range of factors, some of long standing, and some a product of contemporary conditions (Department of Human Services, 1997).

Availability of information on the health of the Koori community in Victoria is still limited, due to issues such as self-identification, recording of Aboriginality, departmental/agency relationships with the Koori community, and knowledge / attitudes / behaviours of staff who are responsible for recording Aboriginality.

Therefore, data needs to be analysed with caution, as there is often variability in the recording of Aboriginality (Department of Human Services, 1995).

Ethnicity and Language

Ethnicity is a core determinant of health and well-being and health care needs. Indicators in this area should cover new arrivals, proficiency in English, and language other than English spoken at home. The national goals and targets for Australia's health in the year 2000 and beyond (Nutbeam et al, 1993) recognised people from non-English speaking backgrounds as a priority population, for health issues where data existed demonstrating a risk of ill health. With the variety in social, cultural, linguistic, religious and economic backgrounds, there are wide ranging needs, expectations, understanding and confidence in the Australian health and welfare system.

Socio-economic Status

Socio-economic status of the population at different localities is measured by various factors such as income, education and occupation, as well as ownership and type of housing, which are strong determinants of health and well-being status. The availability of the Socio-Economic Indexes for Areas (SEIFA) score, which is a summary index, could replace a number of such indicators. This index of relative socio-economic disadvantage is a combination of income, education, occupation, family structure, race (the proportion of indigenous people), ethnicity (proficiency in use of the English language) and housing. As an index it can be used to allocate resources and/or as an overview of the social characteristics of the population living at an area. It is calculated at the smallest geographical area from Census data, which is the census collection district.

Health and Well-being Status

As well as selecting indicators of disease incidence, prevalence, mortality and morbidity, and their associated risk factors, it is important to include indicators of wellness, quality of life and health enhancement factors, where available.

The matrix includes several indicators under health and well-being status that are sensitive to social disparity.

They are low birth weight, smoking rate, immunisation, uptake of cervical and breast screening, days of activity limitation, teenage pregnancy, suicide rates, and overall perceived health status.

Burden of disease information was developed for the Global Burden of Disease Study and has been adapted to suit the Australian context. Burden of disease combines mortality and morbidity measures into a single indicator, the Disability-Adjusted Life Year (DALY), to gain a more comprehensive picture of ill health in the community (Department of Human Services, 1999).

Considerable work is being done nationally to produce standardised indicators for minimum data sets on specific conditions, including for the national health priority areas of diabetes, cardiovascular disease and asthma.

Physical Environment

The environment may promote or damage people's health through air quality, water quality, housing conditions, the availability of open spaces, secure and non-hazardous employment, and safe play areas for children (Berkman and Kawachi, 2000). Hazards associated with local industry and agriculture also can impact on health and well-being.

Environmental health issues and determinants can be included in local community needs assessments, and addressed by Municipal Public Health Plans or other strategies.

Step 3: Access Population Data Sources

Population data vary greatly in type and quality. Some information is collected at national level with high coverage rates, accuracy and reliability, and extensive quality control measures. Other data sources are incomplete and of questionable quality—but may be all that is available on a particular topic. These issues need to be taken into account when selecting data sources.

As described earlier, Department of Human Services is developing a core set of data as a common starting point for population-based planning by Primary Care Partnerships. This *Information Resource* can be used as a

tool to locate supplementary data for additional planning needs of Partnerships.

Each Primary Care Partnership was sent a Department of Human Services version of HealthWIZ version 5 in mid-September 2000. Whenever possible, the matrix highlights where selected indicators can be accessed from HealthWIZ. HealthWIZ contains metadata, such as notes on data sets. This material can be used to understand how the data were collected and processed which is a vital part of interpreting the data appropriately. For further information on HealthWIZ contact Chris Roberts at chris@prometheus.com.au, George Preston at george@prometheus.com.au, or healthwiz@prometheus.com.au.

CDATA 96 is software for mapping produced by the ABS. It includes eight major datasets: basic community profile, time series profile, SEIFA, ERP, expanded community profile, usual residence profile, indigenous persons profile, and working population profile. ABS publications can be obtained from Aus Info on (03) 9670 4224, or ABS 1300 135 070 or 1300 366 323, web site: www.abs.gov.au.

Victorian State publications can be obtained from Information Victoria 1300 366 356, web site: www.information.vic.gov.au.

Tips on the Use of Data

Start with the big picture. Before focussing too closely on a specific issue make sure you have in your mind the general picture, say for Victoria as whole or for the broad class of health and well-being issues you are considering.

Check any figures you obtain against what you would expect. If you don't know what to expect then you may need to do some homework on the issue you are looking at by reading some Department of Human Services publications, AIHW publications, Social Health Atlas, etc.

If you are unsure about how to interpret some data, seek help. People at the Department of Human Services will generally be able to assist. Contact your regional office.

Remember that all data contain noise, such as data errors and miscoding. More importantly, remember that all data

also contain a signal. Your task is to hear the signal in the midst of the noise. Be aware of the weaknesses in the data but don't dismiss the data because they have weaknesses. There are real differences between the health and well-being status and experience of different groups in our community and they are generally quite easy to see in the data.

Data analysis is part science and part art. For community work you need to develop the skill of using statistics to tell stories about people's health and well-being. This communication skill requires art and science as well as common sense. The information should be presented in a way that provokes thought and underlines that things don't have to be the way they are; they could be different, and often they are different in other places.

It is beyond the scope of this *Information Resource* to provide detailed advice on how to analyse or interpret the data. This task requires expertise in statistical methods, an understanding of epidemiological principles, knowledge of local factors and a planning process. The required expertise is most likely to be found in teams or through collaboration. For example, local planners with good data skills may seek advice from an epidemiologist when undertaking a significant needs analysis. Community health staff aware of epidemiological issues at a local level may consult a statistician when analysing large data sets. These skills are crucial to effective use of data, and if they are not available at a local level, the expertise should be sought elsewhere.

List of Data Sources and Contacts

Table 2 presents data sources and a contact phone number or a Web site address to access them, for indicators listed in the matrix (Table 1). Numbers correspond to those given in the matrix. The symbol * indicates data sources which have been assessed, using criteria for content, accessibility and applicability. Details of the Public Health Research project evaluation of these data will be made available on the Community Health Planning Resource at <http://www.dhs.vic.gov.au/phkb> early in 2001.

The list in Table 2 contains data sources identified throughout the Public Health Research Project in

1999–2000, which may be relevant to Community Health Planning in Victoria. The list was compiled in an attempt to inform local planners, service providers and consumers about what data sets are available and how to access them. Details are correct, as at December 2000, however, errors or omissions may become apparent when the lists are used for accessing data.

For a number of data sources, for example some service data sets, requirements related to privacy/confidentiality in data management may preclude the release of data at a small area level.

Table 2 Data Sources and Contact Details
Demographic and social characteristics

Data source	Contact details
1. General	
a. <i>Population by Age & Sex, Victoria</i> * Estimated Resident Population (ERP) Australian Bureau of Statistics (ABS) Cat 3235.2	(03) 9615 7755 1300 366 323 www.abs.gov.au
b. <i>Population Projections by Municipality 1996–2021</i> Department of Infrastructure, (Research Unit) 2000. Also available from Information Victoria	(03) 9655 8814 1300 366 356
c. <i>Demography Victoria</i> births, deaths, marriages, divorces, migration by SLA. ABS Cat 3311.2	(03) 9615 7755 1300 366 323
2. Ethnicity	
a. <i>Community Profile Series</i> Victorian Office of Multicultural Affairs, Dept of Premier & Cabinet	(03) 9651 1282
b. <i>Settlement Database</i> 1996 Dept of Immigration and Multicultural Affairs	(03) 9235 3970
3. Socio-economic data	
a. <i>Community Profiles</i> language; income; religion; education; ethnicity, etc. ABS Cat 2019.2.30.	03) 9615 7755 1300 366 323
b. <i>Socio-Economic Indexes for Areas (SEIFA), Vic</i> * ABS Cat 2033.2.30.001	(03) 9615 7755 1300 366 323
c. <i>Census of Population & Housing 1996</i> Social & Housing characteristics by LGA, ABS 2015.2	(03) 9615 7755 1300 366 323

Table 2 Data Sources and Contact Details (continued)

4. Income/Benefits	
a. <i>Centrelink Customers</i> by postcode Department of Social Security, Canberra, Contact Knowledge Help Desk	(02) 6244 7270
b. <i>Health Care Card holders</i> by postcode Department of Social Security, Canberra Contact Knowledge Help Desk	(02) 6244 7270
c. <i>Child Care Rebate</i> by age group Health Insurance Commission (HIC)	(02) 6124 6402 www.hic.gov.au
5. Economic Data	
a. <i>Maps and Stats</i> Economic Analysis Section, Dept of Employment, Education & Training	(03) 9637 3226
b. <i>Small Area Labour Market (SALM) *</i> Economic Analysis Section, Department of Employment, Workplace Relations & Small Businesses	(03) 9637 3226
c. <i>Property Sales Database 1997</i> Real Estate Institute of Victoria (by suburb), Access by members only	(03) 9205 6677
d. <i>Business Register</i> Australian Bureau of Statistics	(03) 9615 7755 1300 366 323
e. <i>Manufacturing Census</i> Australian Bureau of Statistics	(03) 9615 7755 1300 366 323
f. <i>Retail Census</i> Australian Bureau of Statistics	(03) 9615 7755 1300 366 323
g. <i>Building Approvals</i> Australian Bureau of Statistics	(03) 9615 7755 1300 366 323
6. Education	
a. <i>Database on School Retention</i> by old LGA 1995 Department of Employment, Education, and Training, Victoria.	(03) 9637 3226
b. <i>Patterns of Participation in Post Compulsory Schooling</i> Department of Employment, Education, and Training, Victoria.	(03) 9637 3217
c. <i>Statistical Information & Analysis Branch</i> Department of Employment, Education and Training (schools by LGA could be obtained as customised data)	(03) 9637 3218
7. Community Safety	
a. <i>Number of Victims & Offenders by Municipality 1998</i> Victoria Police, Statistical Services	(03) 9247 6705
b. <i>Crime Victimisation Survey</i> Department of Justice, Portfolio Planning	(03) 9651 6970

Table 2 Data Sources and Contact Details (continued)

8. Housing and environment	
a. <i>Supported Accommodation Assistance Program (SAAP) *</i> Office of Housing, Department of Human Services	(03) 9616 7300
b. <i>Accessibility/Remoteness Index for Australia (ARIA)</i> Department of Health and Aged Care 1999	http://www.health.gov.au:80/ari/aria.htm
c. <i>Pollen count</i> Pollen section, Botany Department, University of Melbourne	(03) 8344 5049
d. <i>Environmental Protection Authority (EPA)</i> Contact information line.	(03) 9695 2722 www.epa.vic.gov.au/envquality

Health and well-being status and service information

Data sources	Contact details
9. Disability	
a. <i>Disability Support Pension Recipients</i> by age, country of birth & disability type, Australian Bureau of Statistics	1300 135 070
b. <i>Disability Client Information System (DISCIS) *</i> DisAbility Services Division, Department of Human Services	(03) 9616 6174
c. <i>Commonwealth State Disability Agreement Minimum Data Set (CSDA-MDS)*</i> DisAbility Services Division, Department of Human Services	(03) 9616 6181
d. <i>Disability, Ageing and Carers Survey 1998</i> Australian Bureau of Statistics no. 4430.0	1300 366 323 www.abs.gov.au
10. Burden of Disease	
a. <i>Victorian Burden of Disease Study: Mortality</i> Public Health Division, Department Human Services, 1999	(03) 9637 4236
b. <i>Victorian Burden of Disease Study: Morbidity</i> Public Health Division, Department Human Services, 1999	(03) 9637 4236
c. <i>Victorian Burden of Disease Study: Local government area estimates</i> Public Health Division, Department Human Services, 2000	http://www.dhs.vic.gov.au/phd/lgabod/index.htm (03) 9637 4241
11. Acute health	
a. <i>Victorian Admitted Episode Dataset (VAED)</i> Public & Private Hospital Admissions, Acute Health Division, Department of Human Services	(03) 9616 8141
b. <i>Victorian Emergency Minimum Dataset (VEMD) *</i> Public Hospital Emergency Departments, Acute Health Division, Department of Human Services	(03) 9616 8141
c. <i>Elective Surgery Waiting List (ESIS)</i> Acute Health, Department of Human Services	(03) 9616 8141

Table 2 Data Sources and Contact Details (continued)

d. <i>Hospital Outpatients</i> VACS & Non-VACS Acute Health Divisions, Department of Human Services	(03) 9616 8173
e. <i>Post Acute Care (Ambulatory Statistics)</i> Acute Health Division, Department of Human Services	(03) 9616 7322
f. <i>Ambulance Statistics</i> * Acute Health Division, Department of Human Services	(03) 9616 8064
g. <i>Road Traffic Accidents Involving Serious Casualties</i> 1994 Information Services Department, VicRoads	(03) 9854 2954
h. <i>Victorian Injury Surveillance System (VISS)</i> Monash University Accident Research Centre	(03) 9905 1805
i. <i>Notifiable Infectious Diseases</i> 1996 * Disease Control, Public Health Division, Department of Human Services	(03) 9637 4121 www.dhs.vic.gov.au/phd/phindex.html
j. <i>Veteran's Health Care Data</i> , Department of Veteran's Affairs Veteran's Affairs data related to Community Health are also available in the Primary Health Datamart on the Primary Health Knowledge Base web site at http://www.dhs.vic.gov.au/phkb .	(03) 9284 6149
12. Mortality	
a. <i>Deaths Statistics</i> 1998 * by LGA Acute Health Division, Department of Human Services	(03) 9616 8141
b. <i>Unnatural deaths</i> * by age, cause, intent, postcode State Coronial Services	(03) 9684 4444
13. Perinatal	
a. <i>Victorian Perinatal Data</i> * by LGA, postcode and SLA Victorian Perinatal Data Collection Unit, Public Health, Department of Human Services	(03) 9637 4223
b. <i>Births in Victoria</i> 1983–1992, 1992–1996, 1996–1998 Public Health Division, Department of Human Services	
14. Cancer	
a. <i>Cancer Incidence</i> by ICD9, age, sex and LGA Anti-Cancer Council of Victoria. Contact Information Officer	(03) 9635 5000
b. <i>Projections for Deaths from Cancer</i> 1996 to 2021 by LGA Anti-Cancer Council of Victoria. Contact Information Officer	(03) 9635 5000
15. Drugs and alcohol	
a. <i>Alcohol And Drugs Information System (ADIS)</i> Public Health Division, Department of Human Services Requests for data need to be made in writing	(03) 9637 5237
b. <i>Telephone calls concerning young drug users: an analysis of direct line data</i> 1996 Turning Point	(03) 9235 9821

Table 2 Data Sources and Contact Details (continued)

c. <i>Statistical Report</i> Young People's Health Services Jan–Jun 1997 by postcode Centre for Adolescent Health	(03) 9342 7921
d. <i>Caller Database</i> National Kids Help Line, 1991 to 1995, by postcode Northern Metropolitan Region, Department of Human Services	(03) 9235 9821
e. <i>Alcohol Sales</i> * Turning point	(03) 9235 5000
f. <i>Intravenous Drug Overdose</i> * Turning Point	(03) 9235 5000
16. Mental Health	
a. <i>Redevelopment of Acute & Psychiatric Info Direction (RAPID)</i> Mental Health Branch, Department of Human Services	(03) 9616 6146
b. <i>Psychiatric Disability Support Service Minimum Dataset</i> Mental Health Branch, Department of Human Services	(03) 9616 6146
c. <i>National Survey of Mental Health & Wellbeing</i> Mental Health Branch, Commonwealth Department Health and Aged Care	1800 066 247 www.health.gov.au/hsw/mentalhe
17. Dental Services	
a. <i>Statewide Community Dental Information System (CDIS)</i> * Dental Health Services Victoria	(03) 9389 8850
b. <i>Victorian School Dental Epidemiological Data</i> Dental Health Services Victoria	(03) 9389 8850
c. <i>School Information Management System (SIMS)</i> Dental Health Services Victoria	(03) 9389 8850
18. Medical Services and Procedures	
a. <i>Ratio of general practitioners to population, services, benefits paid, fees charged</i> (GP, Specialist, Diagnostic, Surgical, Other) Health Insurance Commission	(02) 6124 6402 www.hic.gov.au
b. <i>BEACH Data</i> This is a collaborative study between Australian Institute of Health and Welfare and the University of Sydney of about 100,000 GP encounters. It includes the characteristics of GPs, patients, patient's reason for encounter, problem management, drugs prescribed, therapeutic procedures, involvement with allied health professionals and population risk factors such as smoking, alcohol and body mass index.	(02) 9845 8151 www.aihw.gov.au
19. Risk factors/Preventive activities	
a. <i>Screening for Breast and Cervical Cancer</i> Disease Control, Public Health Division, Department of Human Services	(03) 9637 4130
b. <i>Australian Childhood Immunisation Register</i> Health Insurance Commission	(02) 6124 6402 www.hic.gov.au

Table 2 Data Sources and Contact Details (continued)

c. <i>Sun protection practices by schools</i> Anti Cancer Council of Victoria. Contact Information Officer at the Council	(03) 9635 5000
d. <i>Smoking rates—Extrapolation from Quit statistics</i> Anti-Cancer Council of Victoria. Contact Information Officer at the Council	(03) 9635 5000
e. <i>Health2000-Collaborative Melbourne Cohort Study</i> Anti-Cancer Council of Victoria. This is a large study investigating the dietary intake of over 45,000 Victorians. Contact study manager.	(03) 9635 5000 Fax (03) 9635 5330
f. <i>Adolescent Health and Wellbeing Survey</i> Centre for Adolescent Health & Department of Human Services	(03) 9354 7921
g. <i>Victorian Physical Activity Survey.</i> Health Promotion Strategy Unit, Public Health Division, Department of Human Services	www.dhs.vic.gov.au/activeforlife/pages/information/
h. <i>National Health Survey</i> 1995 Data on physical health risk factors and service utilisation, ABS.	(03) 9615 7755 1300 366 323
i. <i>Nutritional Health Survey</i> ABS. Cat 4801.0, 4804.0, 4805.0, 4806.0, 4807.0	(03) 9615 7755 1300 366 323
20. Primary health/Community services	
a. <i>Primary Health Datamart: Primary Health</i> Aged, Community and Mental Health Division, Department of Human Services On the Primary Health Knowledge Base web site	(03) 9616 8995 http://www.dhs.vic.gov.au/phkb
b. <i>Primary Health Datamart: School Nursing</i> Aged, Community and Mental Health Division, Department of Human Services On the Primary Health Knowledge Base web site	(03) 9616 8995 http://www.dhs.vic.gov.au/phkb
c. <i>Maternal and Child Health *</i> Community Care Division, Department of Human Services	Contact Department of Human Services regional office for data requests
d. <i>Child Protection</i> Child Protection and Juvenile Justice Branch, Community Care Division, Department of Human Services	(03) 9616 7777
21. Aged Care	
a. <i>Home and Community Care (HACC) *</i> Aged, Community and Mental Health Division, Department of Human Services	(03) 9616 8424
b. <i>Aged Care Assessment Service (ACAS) *</i> Aged, Community and Mental Health Division, Department of Human Services	(03) 9616 7777
22. Other sources	
a. <i>Partnerships for Public Health in Victoria: Building a Platform for Better Health</i>	(03) 9637 4020 www.dhs.vic.gov.au/phd/9902005/index.htm
b. <i>Disease Foundations/specific disease registers</i> For example: Arthritis, Asthma, Heart, Huntington's Chorea etc	See phone directory

Table 2 Data Sources and Contact Details (continued)

<p><i>c. Australian Institute of Health and Welfare</i> Many publications on health status and services including Australia's Health</p>	<p>(02) 6244 1000 www.aihw.gov.au</p>
<p><i>d. Matters Register (HSC)—health service complaints in Victoria</i> Health Services Commissioner</p>	<p>(03) 8601 5222 1800 136 066 (Vic country) www.dhs.vic.gov.au/hsc</p>
<p>23. Secondary Sources</p>	
<p><i>a. HealthWIZ</i> Prometheus Information, Canberra. An information resource on HealthWiz will be made available in 2001.</p>	<p>(02) 6242 1931 (02) 6257 7356 healthwiz@prometheus.com.au</p>
<p><i>b. CDATA 96. *</i> Australian Bureau of Statistics (ABS). Mapping software with eight major datasets available.</p>	<p>(03) 9615 7755 1300 366 323 www.abs.gov.au</p>
<p><i>c. Detailed Social Profile of the Western Region *</i> Outer Urban Research and Policy Unit, Victoria University of Technology</p>	<p>(03) 9365 2913</p>

Sample Matrix

This section provides a hypothetical example of using the matrix to select and access data to address a specific health and well-being issue. The example is not meant as a recommendation of a preferred or 'correct' way.

Data Selection for a Community Asthma Care Plan

Step 1: Define Purpose and Planning Questions

Asthma is one of the National Health Priority Areas (NHPA) and may be identified in the local comprehensive needs assessment as a significant problem. Asthma is one of the most common health conditions in Australian and Victorian communities with an incidence of four per 1000 persons per annum, and a prevalence of 6.6 per cent. It is a major cause of disability rather than premature mortality. The majority of cases are diagnosed before the age of 15 years, and is prevalent in all age groups. It is the sixth most frequently managed problems by GPs (32 per 1000 consultations), a common reason for attending emergency departments, and the principal diagnosis for one per cent of hospital admissions. Health service costs are mainly for primary care and pharmaceuticals. There is very good evidence that integrated service models of care will lead to better health outcomes for this condition.

A Primary Care Partnership may choose to develop and implement a local asthma plan in order to improve health outcomes and reduce preventable hospital admissions for patients with asthma in their geographic area. Although it may be recognised as an important national health issue, there is still much to be learned about asthma at the local level where interventions will actually be implemented.

The purpose of the needs assessment would be to assess the needs for a community asthma care program. Planning questions may include:

1. What is the profile of the burden of asthma and associated factors in the local community (for example by life cycle stage, socio-economic status, ethnicity, physical environment)?
2. What are the needs of people with asthma?
3. What is the adequacy of current services to meet these needs (for example in health, home, school, workplace, leisure and other community settings)?

Step 2: Determine Indicators Required

Table 3 shows an example of how the matrix might be used to select indicators to address the first planning question. A brief explanation is given for the selection of each indicator and its relevance to the development of a local asthma plan. This is meant as an illustration only, and planners may choose indicators for different reasons in different contexts. Indicators are listed for demographic and social characteristics, health and well being status, and features of the physical environment. Indicators are not listed to address the planning questions related to reported needs of people with asthma and the adequacy of current services to meet these needs. These data will need to be collected as part of consumer consultation and local service mapping.

Step 3: Select and Access Data Sources

The 'best' source of data for each indicator has been chosen from the matrix, based on criteria for content, quality and applicability. HealthWIZ was selected as the preferred choice wherever possible. Contact details for accessing data sources are given in Table 2.

Step 4: Collect New Data if None Available

The Australian Institute of Health and Welfare (AIHW) is developing a list of potential indicators for each National Health Priority Area, including asthma. The value of these lists is to remind the user of the potential measures relevant to the condition, and to encourage standardised data collection that will contribute to development of population datasets. A list of **Potential asthma indicators** includes many indicators for disease incidence and prevalence; co-morbidity; primary care, emergency department attendance and hospital separation; quality of

life; mortality; risk factors; asthma management; health maintenance; and asthma education (Australian Institute of Health and Welfare, 1999). The list includes many indicators for which no data sets exist. This information will need to be collected at a local level if it is thought necessary to answer the planning questions.

An *Asthma Planning Tool Kit* by the Regional Asthma Planning Project team, which will be released by the Department of Human Service in mid-2001, will give a more detailed approach to the collection of new data (such as service mapping) and community consultation components of the needs assessment for this condition.

Table 3 Sample Matrix for a Community Asthma Care Plan

Health-related characteristics and indicators	Indicators required to answer the planning questions (Step 2)		Data sources (Step 3)
Demographic and Social Characteristics	Selection of indicators		Data sources
Population size and projections			
Sex	✓	Differences in health between the sexes are not usually expected with asthma, however the information will be available with 'Age' data and are easily analysed.	HealthWIZ (23a)
Age	✓	Prevention and treatment of asthma has a different focus for children, young people and adults.	HealthWIZ (23a)
Indigenous Status	✓	Access to services and health promotion programs may be difficult for Aboriginal and Torres Strait Islanders.	HealthWIZ (23a)
Ethnicity/Language	✓	<ol style="list-style-type: none"> 1. Access to services and health promotion programs may be difficult for those from culturally and linguistically diverse communities. 2. Some ethnic groups have higher rates of asthma. 	HealthWIZ (23a)
Socio-economic status	✓	Access to services and health promotion programs may be difficult for those from disadvantaged areas.	HealthWIZ (23a)
Income	✓	Low income may also affect the ability to purchase medication	HealthWIZ (23a)
Education	✓	Access to services and health promotion programs may be difficult for those with lower levels of education.	HealthWIZ (23a)
Employment	✓	As for Social Security Payments.	HealthWIZ (23a)
Occupation	✓	<ol style="list-style-type: none"> 1. Occupation will add a little more to socio-economic information, but like Social Security Payments, is probably not worth retrieving as additional data. 2. However linking asthma patients and their occupations may be very useful. For example, identifying a high rate of asthma among employees at a local industry may suggest a relationship with working conditions. 	HealthWIZ (23a)

Table 3 Sample Matrix for a Community Asthma Care Plan (continued)

Health-related characteristics and indicators	Indicators required to answer the planning questions (Step 2)		Data sources (Step 3)
Social Security payments, for example: pensions, child care	✓	<ol style="list-style-type: none"> 1. Details of Social Security Payments for the area you are reviewing may add a little to the socio-economic information, but are probably not worth retrieving as additional data. 2. However, if you are surveying patients with asthma to collect further data, finding out how many receive various types of benefits may add very useful information to your baseline data. 	HealthWIZ (23a)
Accommodation	✓	<ol style="list-style-type: none"> 1. Also adds a little to socio-economic information. 2. Lung conditions are associated with dampness and fungal growth (not very common in Australia, but may be an issue in certain areas). 	ABS(3c)
Household structure			
Migration			
Accessibility/Remoteness Index of Australia	✓	May be relevant to planning asthma services in remote area.	
Birth rate			
Crime			
Child abuse			
Domestic violence			
School retention rates			DEET(6a)
Child care			
Economic			
Health and well-being status		Relevant indicators	Data sources
Mortality			
Life expectancy at birth			
Age/Sex-specific mortality			
Cause-specific mortality/ Leading causes of death	✓	Specific to Asthma.	HealthWIZ (23a)
Perinatal and infant mortality			
Suicide rate			

Table 3 Sample Matrix for a Community Asthma Care Plan (continued)

Health-related characteristics and indicators		Indicators required to answer the planning questions (Step 2)	Data sources (Step 3)
Morbidity			
Incidence and prevalence of specific conditions	✓	Asthma, Bronchitis, Emphysema, Eczema, Hay fever.	BoD(10b,c), NHS(19h), BEACH(18b), NSMHW(16c), HIC(18a), CSDA-MDS(9c), VAED(11a), VA(11j), Drugs(15a-f), Adolescent(19f)
Disease-specific indicators	✓	Several indicators have been suggested by AIHW, however most are not yet available at population level.	Disease specific (Asthma Foundation:22b), AIHW(22c)
Perinatal and infant morbidity			
Injuries			
Dental health			
Notifiable infectious diseases			
Mental health			
Prevalence of disability			
Mortality/morbidity combined			
Disability-adjusted life years	✓	Specific to Asthma.	BOD(10a, 10c)
Disability-adjusted life expectancy			
Overall health status	✓	Several indicators have been suggested by AIHW, however most are not yet available at population level and will need to be collected.	NHS(19h)
Measures of 'positive health'/quality of life	✓	These measures should be fundamental to studies based on the World Health Organization definition of health or planning using the social model of health, however they are not well defined and further research into useful definitions, methods of data collection, etc is required.	No standard data sets available. To be collected.

Table 3 Sample Matrix for a Community Asthma Care Plan (continued)

Health-related characteristics and indicators	Indicators required to answer the planning questions (Step 2)		Data sources (Step 3)
Risk factors/ preventive activities			
Burden of disease attributable to risk factors			
Youth risk and protective factors			
Smoking rates	✓	Smoking rates on a regional level are available from Quit, however AIHW suggest specific indicators related to smoking and asthma (see Appendix 2).	Quit(19d)
Alcohol use			
Road traffic accidents associated with alcohol use			
Incidence of drink driving			
Drug use			
Participation in physical activity	✓	This is one of the AIHW suggested indicators for asthma.	Phys(19g)
Dietary patterns	✓	Some people with asthma put themselves on restricted diets mistakenly believing certain foods make their asthma worse. The National Asthma Campaign has a program to inform people about the importance of dairy products in their diet and dispelling the myths around asthma and certain foods. Dietary patterns could be useful in planning health promotion program for asthma.	NNS(19i), Health2000(19e)
Immunisation rates	✓	Immunisation rates, particularly influenza, are relevant to the health of people with asthma.	HIC(19b)
Screening rates, for example: Cervical, Breast			
Use of sun protection			
Physical environment features		Relevant indicators	Data sources
Pollen count	✓	Airborne allergens may trigger asthma and certain areas may be affected more than others.	Pollen(8c)
Air quality	✓	Air pollution can also induce asthma symptoms.	EPA(8d), Local Municipal Council

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