

Data elements

A – B

Activity when injured

Identifying and Definitional Attributes

Knowledgebase ID: 000002 **Version No:** 2

Metadata type: Data Element

Admin. status: Current
01/07/00

Definition: The type of activity being undertaken by the person when injured.

Context: Injury surveillance:
Enables categorisation of injury and poisoning according to factors important for injury control. Necessary for defining and monitoring injury control targets, injury costing and identifying cases for in-depth research. This item is the basis for identifying work-related and sport-related injuries.

Relational and Representational Attributes

Datatype: Numeric

Representational form: Code

Representational layout: NN

Minimum size: 1

Maximum size: 2

Data domain:

0	Sports activity
00	Football, rugby
01	Football, Australian
02	Football, soccer
03	Hockey
04	Squash
05	Basketball
06	Netball
07	Cricket
08	Roller blading
09	Other and unspecified sporting activity
1	Leisure activity (excluding sporting activity)
2	Working for income
3	Other types of work
4	Resting, sleeping, eating or engaging in other vital activities
5	Other specified activities
6	Unspecified activities

Guide for use: Admitted patients:
Use the appropriate codes as fourth and fifth characters to Y93 when using the ICD-10-AM 3rd edition. Used with ICD-10-AM external cause codes V01 - Y34 and assigned according to the Australian Coding Standards.

Non-admitted patients:

To be used for injury surveillance purposes for non-admitted patients when it is not possible to use ICD-10-AM codes. Select the code which best characterises the type of activity being undertaken by the person when injured, on the basis of the information available at the time it is recorded. If two or more categories

are judged to be equally appropriate, select the one that comes first in the code list.

Verification rules:

Admitted patients:

To be used with ICD-10-AM external cause codes V01 – Y34 only.

Collection methods:**Related metadata:**

supersedes previous data element Activity when injured vers 1

is used in conjunction with Bodily location of main injury vers 1

relates to the data element Diagnosis onset type vers 1

is used in conjunction with External cause – human intent vers 4

is used in conjunction with External cause – non-admitted patient vers 4

is a qualifier of Narrative description of injury event vers 1

is used in conjunction with Nature of main injury – non-admitted patient vers 1

Administrative Attributes**Source document:**

ICD-10-AM 3rd edition

Source organisation:

National Centre for Classification in Health

National Injury Surveillance Unit

Information model link:

NHIM Injury event

Data Set Specifications:

NMDS – Admitted patient care

Start date

End date

01/07/2000

NMDS – Injury surveillance

01/07/2000

Comments:

Actual place of birth

Identifying and Definitional Attributes

Knowledgebase ID: 000003 **Version No:** 1

Metadata type: Data Element

Admin. status: Current
01/07/96

Definition: The actual place where the birth occurred.

Context: Perinatal statistics:
Used to analyse the risk factors and outcomes by place of birth. While most deliveries occur within hospitals, an increasing number of births now occur in other settings. It is important to monitor the births occurring outside hospitals and to ascertain whether or not the actual place of delivery was planned.

Relational and Representational Attributes

Datatype: Numeric

Representational form: Code

Representational layout: N

Minimum size: 1

Maximum size: 1

Data domain:

1	Hospital
2	Birth centre, attached to hospital
3	Birth centre, free-standing
4	Home
8	Other
9	Not stated

Guide for use: This is to be recorded for each baby the mother delivers from this pregnancy.

Verification rules:

Collection methods:

Related metadata: is a qualifier of Intended place of birth vers 1

Administrative Attributes

Source document:

Source organisation: National Perinatal Data Development Committee

Information model link:

NHIM Other setting

Data Set Specifications:	Start date	End date
NMDS - Perinatal	01/07/1997	

Comments: The development of a definition of a birth centre is currently under consideration by the Commonwealth in conjunction with the States and Territories.

Acute care episode for admitted patients

Identifying and Definitional Attributes

Knowledgebase ID: 000004 **Version No:** 1

Metadata type: Data Element Concept

Admin. status: Current
01/07/95

Definition: An episode of acute care for an admitted patient is one in which the principal clinical intent is to do one or more of the following:

- manage labour (obstetric)
- cure illness or provide definitive treatment of injury
- perform surgery
- relieve symptoms of illness or injury (excluding palliative care)
- reduce severity of illness or injury
- protect against exacerbation and/or complication of an illness and/or injury which could threaten life or normal functions
- perform diagnostic or therapeutic procedures.

Context: Admitted patient care.

Relational and Representational Attributes

Datatype:

Representational form:

Representational layout:

Minimum size:

Maximum size:

Data domain:

Guide for use:

Verification rules:

Collection methods:

Related metadata: relates to the data element Care type vers 4

Administrative Attributes

Source document:

Source organisation: National Health Data Committee

Information model link:

NHIM Service provision event

Data Set Specifications:	Start date	End date
NMDS - Admitted patient mental health care	01/07/1995	

Comments: The development of a definition of a birth centre is currently under consideration by the Commonwealth in conjunction with the States and Territories.

Additional diagnosis

Identifying and Definitional Attributes

Knowledgebase ID:	000005	Version No: 4
Metadata type:	Data Element	
Admin. status:	Current	
	01/07/98	
Definition:	A condition or complaint either coexisting with the principal diagnosis or arising during the episode of care or attendance at a health care facility.	

Context: Additional diagnoses give information on factors which result in increased length of stay, more intensive treatment or the use of greater resources. They are used for casemix analyses relating to severity of illness and for correct classification of patients into Australian refined Diagnosis related groups.

Relational and Representational Attributes

Datatype:	Alphanumeric
Representational form:	Code
Representational layout:	ANN.NN
Minimum size:	3
Maximum size:	6

Data domain: ICD-10-AM (3rd edition) – disease codes

Guide for use: Record each additional diagnosis relevant to the episode of care in accordance with the ICD-10-AM Australian Coding Standards. An unlimited number of diagnosis and procedure codes should be able to be collected in hospital morbidity systems. Where this is not possible, a minimum of 20 codes should be able to be collected. Generally, External cause, Place of occurrence and Activity codes will be included in the string of additional diagnosis codes. In some data collections these codes may also be copied into specific fields.

The diagnosis can include a disease, condition, injury, poisoning, sign, symptom, abnormal finding, complaint, or other factor influencing health status.

Verification rules:

Collection methods: An additional diagnosis should be recorded and coded where appropriate upon separation of an episode of admitted patient care. The additional diagnosis is derived from and must be substantiated by clinical documentation.

Related metadata: supersedes previous data element Additional diagnosis – ICD-9-CM code vers 3
relates to the data element Diagnosis onset type vers 1
is used in the derivation of Diagnosis related group vers 1
supplements the data element Principal diagnosis vers 3

Administrative Attributes

Source document: International Classification of Diseases, version 10, Australian Modification, 3rd edition, 2002

Source organisation: National Centre for Classification in Health (Sydney)

Information model link:

NHIM Physical wellbeing

Data Set Specifications:

	Start date	End date
NMDS - Admitted patient care	01/07/1998	
NMDS - Admitted patient mental health care	01/07/1998	
NMDS - Admitted patient palliative care	01/07/2000	

Comments:

Address

Identifying and Definitional Attributes

Knowledgebase ID:	000799	Version No:	1
Metadata type:	Data Element Concept		
Admin. status:	Current		
	01/01/03		
Definition:	The set of descriptors identifying the geographic location of a person, organisation, and/or object place.		

Context: May be used to map to the Australian Bureau of Statistics' publication – Australian Standard Geographical Classifications using the National Localities Index (also produced by the ABS). This information can then be used to compare aggregate data to other information on a Statistical Local Area basis, for example. Similarly postcode can be obtained from Address for comparison with other information available on a postcode basis.

Relational and Representational Attributes

Datatype:	
Representational form:	
Representational layout:	
Minimum size:	
Maximum size:	
Data domain:	
Guide for use:	Multiple addresses may be recorded as required. Each address must have an Address type to indicate the form/type of address (e.g. residential, mailing or business). Multiple addresses may be held. Each address must be attributed to either one PARTY or to one PARTY IN A ROLE or to one ACTUAL SETTING.
Verification rules:	
Collection methods:	
Related metadata:	relates to the data element Address type vers 1 relates to the data element Postal delivery point identifier vers 1 relates to the data element State/Territory identifier vers 3 relates to the data element Suburb/town/locality vers 1

Administrative Attributes

Source document:	AS5017 Health care client identification	
Source organisation:	Standards Australia	
Information model link:	NHIM Address element	
Data Set Specifications:	Start date	End date
DSS - Health care client identification	01/01/2003	

Comments:

Address type

Identifying and Definitional Attributes

Knowledgebase ID:	000801	Version No: 1
Metadata type:	Data Element	
Admin. status:	Current	
	01/01/03	
Definition:	A code representing a type of person or organisation address.	

Context:

Relational and Representational Attributes

Datatype:	Alphabetic
Representational form:	Code
Representational layout:	A
Minimum size:	1
Maximum size:	1

Data domain:	B	Business or office
	M	Mailing or postal
	R	Residential
	T	Temporary residential
	U	No fixed address/unknown/not stated

Guide for use: Multiple addresses may be recorded as required. This field can be a multiple occurring field, each address must have an Address type.

Verification rules:

Collection methods: Health care establishments should always collect the residential address of a person who is a health care client when an occasion of service or admission is provided. In addition, the establishment may also need to record other addresses for the person including:

- a mail postal address (for correspondence)
- temporary residential or accommodation address (such as for a person from rural Australia who is visiting an oncology centre for a course of treatment, or a person who usually resides overseas)
- business or office address (for specific correspondence purposes)
- unknown address where the person has no fixed address or does not wish to have their residential or a correspondence address recorded

At least one address must be recorded (this may be an unknown Address type).

If more than one of the above categories applies to any one address, use that which is listed highest.

Overseas health care clients:

Record the overseas address as the 'residential address' and record a 'temporary residential address' as their contact address in Australia.

Related metadata:

- relates to the data element Australian postcode vers 1
- relates to the data element Postal delivery point identifier vers 1
- relates to the data element State/Territory identifier vers 3
- relates to the data element Suburb/town/locality vers 1

Administrative Attributes

Source document: AS5017 Health care client identification

Source organisation: Standards Australia

Information model link:

NHIM Address element

Data Set Specifications:

DSS - Health care client identification

Start date

End date

01/01/2003

Comments:

Administrative expenses

Identifying and Definitional Attributes

Knowledgebase ID:	000244	Version No:	1
Metadata type:	Data Element		
Admin. status:	Current		
	01/07/89		
Definition:	All expenditure incurred by establishments (but not central administrations) of a management expenses/administrative support nature such as any rates and taxes, printing, telephone, stationery and insurance (including workers compensation).		
Context:	Health expenditure: Considered to be a sufficiently significant element of non-salary recurrent expenditure as to be separately identified at the national level and also readily and easily collectable.		

Relational and Representational Attributes

Datatype:	Numeric
Representational form:	Currency
Representational layout:	\$999,999,999
Minimum size:	2
Maximum size:	12
Data domain:	Australian dollars. Rounded to nearest whole dollar.
Guide for use:	Record values up to hundreds of millions of dollars.
Verification rules:	
Collection methods:	
Related metadata:	relates to the data element Establishment type vers 1

Administrative Attributes

Source document:			
Source organisation:	National Health Data Committee		
Information model link:	NHIM Recurrent expenditure		
Data Set Specifications:		Start date	End date
	NMDS - Public hospital establishments	01/07/1989	
Comments:			

Admission

Identifying and Definitional Attributes

Knowledgebase ID: 000007 **Version No:** 3

Metadata type: Data Element Concept

Admin. status: Current
01/07/00

Definition: Admission is the process whereby the hospital accepts responsibility for the patient's care and/or treatment. Admission follows a clinical decision based upon specified criteria that a patient requires same-day or overnight care or treatment. An admission may be formal or statistical.

Formal admission:
The administrative process by which a hospital records the commencement of treatment and/or care and/or accommodation of a patient.

Statistical admission:
The administrative process by which a hospital records the commencement of a new episode of care, with a new care type, for a patient within one hospital stay.

Context: Admitted patient care.

Relational and Representational Attributes

Datatype:

Representational form:

Representational layout:

Minimum size:

Maximum size:

Data domain:

Guide for use: This treatment and/or care provided to a patient following admission occurs over a period of time and can occur in hospital and/or in the person's home (for hospital-in-the-home patients).

Verification rules:

Collection methods:

Related metadata:

- supersedes previous data element Admission vers 3
- relates to the data element Admission date vers 4
- relates to the data element Admission time vers 2
- relates to the data element concept Admitted patient vers 3
- relates to the data element concept Episode of care vers 1
- relates to the data element concept Separation vers 3

Administrative Attributes

Source document:

Source organisation: National Health Data Committee

Information model link:

NHIM Request for/entry into service event

Data Set Specifications: **Start date** **End date**

Comments:

Admission date

Identifying and Definitional Attributes

Knowledgebase ID:	000008	Version No: 4
Metadata type:	Data Element	
Admin. status:	Current	
	01/07/99	
Definition:	Date on which an admitted patient commences an episode of care.	
Context:	Required to identify the period in which the admitted patient episode and hospital stay occurred and for derivation of length of stay.	

Relational and Representational Attributes

Datatype:	Numeric
Representational form:	Date
Representational layout:	DDMMYYYY
Minimum size:	8
Maximum size:	8

Data domain: Valid date

Guide for use:

Verification rules: Right justified and zero filled.
Admission date <= separation date.
Admission date >= date of birth

Collection methods:

Related metadata: relates to the data element concept Admission vers 3
supersedes previous data element Admission date vers 3
relates to the data element Admission time vers 2
relates to the data element concept Admitted patient vers 3
is used in conjunction with Care type vers 4
relates to the data element Emergency department departure status vers 2
is used in the derivation of the derived data element Diagnosis related group vers 1
is used in the calculation of the derived data element Emergency department waiting time to admission vers 1
is used in the calculation of the derived data element Length of stay vers 3
relates to the data element Type of visit to emergency department vers 2
is used in the calculation of the derived data element Waiting time at removal from elective surgery waiting list vers 2

Administrative Attributes

Source document:

Source organisation: National Health Data Committee

Information model link:

NHIM Request for/entry into service event

Data Set Specifications:

NMDS - Admitted patient care

NMDS - Admitted patient mental health care

NMDS - Admitted patient palliative care

Start date

End date

01/07/1999

01/07/1999

01/07/2000

Comments:

Admission time

Identifying and Definitional Attributes

Knowledgebase ID:	000358	Version No:	2
Metadata type:	Data Element		
Admin. status:	Current		
	01/07/99		
Definition:	Time at which an admitted patient commences an episode of care.		
Context:	Admitted patient care: Required to identify the time of commencement of the episode or hospital stay, for calculation of waiting times and length of stay.		

Relational and Representational Attributes

Datatype:	Numeric
Representational form:	Time
Representational layout:	HHMM
Minimum size:	4
Maximum size:	4
Data domain:	Expressed as hours and minutes using 24-hour clock
Guide for use:	
Verification rules:	
Collection methods:	
Related metadata:	relates to the data element concept Admission vers 3 is used in conjunction with Admission date vers 4 supersedes previous data element Admission time vers 1 relates to the data element concept Admitted patient vers 3 relates to the data element Emergency department departure status vers 2 relates to the data element Type of visit to emergency department vers 2

Administrative Attributes

Source document:			
Source organisation:	National Health Data Committee		
Information model link:			
NHIM	Request for/entry into service event		
Data Set Specifications:		Start date	End date
Comments:			

Admitted patient

Identifying and Definitional Attributes

Knowledgebase ID: 000011 **Version No:** 3

Metadata type: Data Element Concept

Admin. status: Current
01/07/00

Definition: A patient who undergoes a hospital's admission process to receive treatment and/or care. This treatment and/or care is provided over a period of time and can occur in hospital and/or in the person's home (for hospital-in-the-home patients). The patient may be admitted if one or more of the following apply:

- the patient's condition requires clinical management and/or facilities not available in their usual residential environment
- the patient requires observation in order to be assessed or diagnosed
- the patient requires at least daily assessment of their medication needs
- the patient requires a procedure(s) that cannot be performed in a stand-alone facility, such as a doctor's room without specialised support facilities and/or expertise available (e.g. cardiac catheterisation)
- there is a legal requirement for admission (e.g. under child protection legislation)
- the patient is aged nine days or less.

Context: Admitted patient care.

Relational and Representational Attributes

Datatype:

Representational form:

Representational layout:

Minimum size:

Maximum size:

Data domain:

Guide for use: This data element concept should be used in conjunction with the definition of same-day patient in the data element Same-day patient.
Part 2 of Schedule 3 of the *National Health Act* (type C) professional attention may be used as a guide for the medical services not normally requiring hospital treatment and therefore not generally related to admitted patients.
All babies born in hospital are admitted patients.

Verification rules:

Collection methods:

Related metadata: supersedes previous data element Admitted patient vers 2
relates to the data element Care type vers 4
relates to the data element Newborn qualification status vers 2
relates to the data element Number of qualified days for newborns vers 2
relates to the data element Patient days vers 3

Administrative Attributes

Source document:

Source organisation:

Information model link:

NHIM Recipient role

Data Set Specifications:

Start date

End date

Comments:

This definition includes all babies who are nine days old or less. However, all newborn days of stay are further divided into categories of qualified and unqualified for Australian Health Care Agreements and health insurance benefit purposes. A newborn day is acute (qualified) when a newborn meets at least one of the following criteria:

- is the second or subsequent live born infant of a multiple birth, whose mother is currently an admitted patient
- is admitted to an intensive care facility in a hospital, being a facility approved by the Commonwealth Health Minister for the purpose of the provision of special care
- remains in hospital without its mother
- is admitted to the hospital without its mother.

Acute (qualified) newborn days are eligible for health insurance benefit purposes and should be counted under the Australian Health Care Agreements. Days when the newborn does not meet these criteria are classified as unqualified (if they are nine days old or less) and should be recorded as such. Unqualified newborn days should not be counted under the Australian Health Care Agreements and are not eligible for health insurance benefit purposes.

Admitted patient election status

Identifying and Definitional Attributes

Knowledgebase ID:	000415	Version No:	1
Metadata type:	Data Element		
Admin. status:	Current		
	01/07/00		
Definition:	Accommodation chargeable status elected by patient on admission.		
Context:	Admitted patient care.		

Relational and Representational Attributes

Datatype:	Numeric
Representational form:	Code
Representational layout:	N
Minimum size:	1
Maximum size:	1

Data domain:	1	Public
	2	Private

Guide for use: At the time of, or as soon as practicable after admission to a public hospital, the patient must elect in writing to be treated as either

- a public patient or
- a private patient in single accommodation or
- a private patient in shared accommodation.

This item is independent of patient's hospital insurance status. Private includes private-single and private-shared.

1 Public patient:

A person, eligible for Medicare, who, on admission to a recognised hospital or soon after:

- receives a public hospital service free of charge or
- elects to be a public patient or
- whose treatment is contracted to a private hospital.

2 Private patient:

A person who, on admission to a recognised hospital or soon after:

- elects to be a private patient treated by a medical practitioner of his or her choice or
- elects to occupy a bed in a single room (where such an election is made, the patient is responsible for meeting certain hospital charges as well as the professional charges raised by any treating medical or dental practitioner) or
- a person, eligible for Medicare, who chooses to be admitted to a private hospital (where such a choice is made, the patient is responsible for meeting all hospital charges as well as the professional charges raised by any treating medical or dental practitioner).

Please see the various Commonwealth/State Health Care Agreements for definitions of patient(s) and patient services.

Verification rules:**Collection methods:**

Commencing with Version 9 of the Dictionary, four separate data elements Admitted patient accommodation status, Medicare eligibility status, Department of Veterans' Affairs client and Compensable status are recorded in the Dictionary. This is because each element relates to a separate concept and requires separate information to be reported. These data elements replace the previous data elements Patient accommodation eligibility status and Compensable status.

Related metadata:

supersedes previous data element Patient accommodation eligibility status
vers 2

Administrative Attributes**Source document:****Source organisation:****Information model link:**

NHIM Insurance/benefit characteristic

Data Set Specifications:

NMDS - Admitted patient care

Start date

End date

01/07/2000

Comments:

Age-standardised rate

Identifying and Definitional Attributes

Knowledgebase ID: 000769 **Version No:** 1

Metadata type: Derived Data Element

Admin. status: Current
01/07/02

Definition: A method of adjusting the crude rate to eliminate the effect of differences in population age structures when comparing crude rates for different periods of time, different geographic areas and/or different population sub-groups (e.g. between one year and the next and/or States and Territories, Indigenous and non-Indigenous populations).
Adjustments are usually undertaken for each of the comparison populations against a standard population (rather than adjusting one comparison population to resemble another). Sometimes a comparison population is referred to as a study population.

Context: Population health and health services research:
For valid comparisons of rates in different populations, such as incidence rates, prevalence rates, mortality rates and health service utilisation rates.

Relational and Representational Attributes

Datatype: Numeric

Representational form: Quantitative value

Representational layout: NNNNNN.N

Minimum size: 1

Maximum size: 8

Guide for use: Formula:

<i>Direct method</i>	<i>Indirect method</i>
$SR = \frac{\sum(r_i P_i)}{\sum P_i}$	$SR = \frac{C}{\sum(R_i p_i)} \times R$

Where:

- SR is the age-standardised rate for the population being studied
 r_i is the age-group specific rate for age group i in the population being studied
 P_i is the population of age group i in the standard population
 C is the observed number of events* in the population being studied
 $\sum R_i p_i$ is the expected number of events in the population being studied
 R_i is the age-group specific rate for age group i in the standard population
 p_i is the population for age group i in the population being studied
 R is the crude rate in the standard population

* 'Events' can include deaths, incident or prevalent cases of disease or other conditions, or health care utilisation occurrences.

For the purposes of comparisons of population rates for Australia over time and/or populations within Australia (e.g. States and Territories, Indigenous and non-Indigenous) the standard population to be used is the final 30 June estimated Australian resident total population (males plus females) for the most recent year ending in 1 (e.g. 1991, 2001).

There are two methods (namely direct and indirect) of calculating age-standardised rates:

- The **direct method** is generally used for comparisons between study groups.
- The **indirect method** is recommended when the age-specific rates for the population being studied are not known but the total number of events is known or when calculating rates for small populations where fluctuations in age-specific rates can affect the reliability of rates calculated using the direct method.

The standard population used for purposes of international comparisons is generally the World Standard Population as recommended by the World Health Organization or the European Standard Population.

Five-year age groups should normally be used, with the age group 0-4 separated into 0 and 1 to 4, and ages over 85 years combined, thus 0, 1-4, 5-9, 10-14,, 80-84, 85+. If these age groups are not used, the actual age groups should be detailed in notes accompanying the age standardised population rate information.

Standardisation separately for males and females is not usually undertaken but may be appropriate for some applications, for example, hospitalisation rates for caesarean section is best undertaken using a female standard population rather than a standard population for both sexes. If standardisation is undertaken in this way this should be detailed in notes accompanying the age standardised population rate information.

When indirect age standardisation is undertaken for comparisons with or between Indigenous populations, the latest available rates could be used as the standard. In addition, age groups older than 70-74 years could be excluded. This is as recommended in the National Performance Indicators for Aboriginal and Torres Strait Islander Health Technical Specifications.

Collection methods:

Related metadata: relates to the data element Crude rate vers 1

Administrative Attributes

Source document: Textbooks of epidemiology, demography and biostatistics. The notation used in this data element is based on Armitage P & Berry G 1994. Statistical Methods in Medical Research. Oxford: Blackwell Scientific Publications.

Source organisation: Australian Institute of Health and Welfare

Information model link:

NHIM Program evaluation

Data Set Specifications: *Start date* *End date*

Comments: Standardised rates are generally multiplied by 1,000 or 100,000 to avoid small decimal fractions. They are then called standardised rates per 1,000 or 100,000 population.

The **indirect** method is also used to calculate **standardised mortality ratios (SMRs)** and other standardised ratios, for example for health service utilisation. These ratios express the overall experience of a comparison population in terms of the standard population by calculating the ratio of observed to expected deaths in the comparison population:

Formula:

$$\text{SMR} = \frac{C}{\sum(R_i p_i)}$$

The standard population used to calculate SMRs can be any population to which the comparison population is being compared. For example, if death rates for birthplace groups are compared to those of the Australian-born population using SMRs, the standard population would be the Australian-born population.

Sometimes the SMR is multiplied by 100 to express the ratio as a %age, although this is not universally accepted. Not multiplying by 100 has the benefit of being able to say that the SMR was, for example, 2.3 times that expected rather than 130% higher.

Standardised ratios for hospitalisations and other events can be calculated using similar techniques.

Alcohol consumption – concept

Identifying and Definitional Attributes

Knowledgebase ID:	000802	Version No:	1
Metadata type:	Data Element Concept		
Admin. status:	Current		
	01/01/03		
Definition:	<p>The ethyl alcohol (ethanol) consumed by a person in alcoholic beverages such as beer, cider, wine, spirits and mixed drinks.</p> <p>Alcohol consumption is usually measured in standard drinks.</p> <p>An Australian standard drink contains 10 grams of alcohol, which is equivalent to 12.5 millilitres of alcohol.</p>		
Context:	Public health, health care and clinical settings.		

Relational and Representational Attributes

Datatype:	
Representational form:	
Representational layout:	
Minimum size:	
Maximum size:	
Data domain:	
Guide for use:	
Verification rules:	
Collection methods:	
Related metadata:	

Administrative Attributes

Source document:	Australian Alcohol Guidelines: Health Risks and Benefits, NH&MRC, October 2001		
Source organisation:	CV-Data Working Group		
Information model link:	NHIM Lifestyle characteristic		
Data Set Specifications:	<i>Start date</i>	<i>End date</i>	

Comments:

Alcohol consumption frequency – self report

Identifying and Definitional Attributes

Knowledgebase ID:	000803	Version No:	1
Metadata type:	Data Element		
Admin. status:	Current		
	01/01/03		
Definition:	A person's self-reported frequency of alcohol consumption.		
Context:	Public health, health care and clinical settings.		

Relational and Representational Attributes

Datatype:	Numeric
Representational form:	Code
Representational layout:	NN
Minimum size:	2
Maximum size:	2

Data domain:	01	Every day/7 days per week
	02	5 to 6 days per week
	03	3 to 4 days per week
	04	1 to 2 days per week
	05	2 to 3 days per month
	06	Once per month
	07	7 to 11 days in the past year
	08	4 to 6 days in the past year
	09	2 to 3 days in the past year
	10	Once in the past year
	11	Never drank any alcoholic beverage in the past year
	12	Never in my life
	99	Not reported

Guide for use:

Verification rules:

Collection methods:

The World Health Organization, in its 2000 *International Guide for Monitoring Alcohol Consumption and Related Harm* document, suggests that in assessing alcohol consumption patterns a 'Graduated Quantity Frequency' method is preferred. This method requires that questions about the quantity and frequency of alcohol consumption should be asked to help determine short-term and long-term health consequences. This information can be collected (but not confined to) the following ways:

- in a clinical setting with questions asked by a primary health care professional
- as a self-completed questionnaire in a clinical setting
- as part of a health survey
- as part of a computer aided telephone interview.

It should be noted that, particularly in telephone interviews, the question(s) asked may not be a direct repetition of the data domain; yet they may still yield a response that could be coded to the full data domain or a collapsed version of the domain.

Related metadata: relates to the data element concept Alcohol consumption – concept vers 1
is used in conjunction with Alcohol consumption in standard drinks per day – self report vers 1
is used in conjunction with Service contact date vers 1

Administrative Attributes

Source document: The Australian Alcohol Guidelines: Health Risk and Benefits endorsed by the National Health and Medical Research Council in October 2001

Source organisation: CV-Data Working Group

Information model link:

NHIM Lifestyle characteristic

Data Set Specifications:	Start date	End date
DSS – Cardiovascular disease (clinical)	01/01/2003	

Comments: DSS – Cardiovascular disease (clinical):
These data can be used to help determine the overall health profile of an individual or of a population. Certain patterns of alcohol consumption can be associated with a range of social and health problems. These problems include:

- social problems such as domestic violence, unsafe sex
- financial and relationship problems
- physical conditions such as high blood pressure, gastrointestinal problems, pancreatitis
- an increased risk of physical injury.
- Alcohol can also be a contributor to acute health problems.

Evidence from prospective studies indicates that heavy alcohol consumption is associated with increased mortality and morbidity from coronary heart disease and stroke (Hanna et al. 1992). However, there is some evidence to suggest that alcohol appears to provide some protection against heart disease (both illness and death) for both men and women from middle age onwards. Most, if not all, of this benefit is achieved with 1–2 standard drinks per day for men and less than 1 standard drink for women (the National Health and Medical Research Council's *Australian Alcohol Guidelines*, October 2001).

Where this information is collected by survey and the sample permits, population estimates should be presented by sex and 5-year age groups. Summary statistics may need to be adjusted for age and other relevant variables.

It is recommended that, in surveys of alcohol consumption, data on age, sex, and other socio-demographic variables also be collected where it is possible and desirable to do so. It is recommended that, when alcohol consumption is investigated in relation to health, data on other risk factors including overweight and obesity, smoking, high blood pressure and physical inactivity should be collected.

The *Australian Alcohol Guidelines: Health Risk and Benefits* endorsed by the National Health and Medical Research Council in October 2001 have defined risk of harm in the short term and long term based on patterns of drinking. The table below outlines those patterns.

The alcohol consumption shown in the tables is not recommended for people who:

- have a condition made worse by drinking
- are on medication
- are under 18 years of age
- are pregnant
- are about to engage in activities involving risk or a degree of skill (e.g. driving, flying, water sports, skiing, operating machinery).

Risk of harm in the short term			
	Low risk (standard drinks)	Risky (standard drinks)	High risk (standard drinks)
Males (on a single occasion)	Up to 6	7 to 10	11 or more
Females (on a single occasion)	Up to 4	5 to 6	7 or more

Source: NH&MRC Australian Alcohol Guidelines: Health Risk and Benefits 2001.

Risk of harm in the long term			
	Low risk (standard drinks)	Risky (standard drinks)	High risk (standard drinks)
Males (on an average day)	Up to 4	5 to 6	7 or more
Overall weekly level	Up to 28 Per week	29 to 42 Per week	43 or more Per week
Females (on an average day)	Up to 2	3 to 4	5 or more
Overall weekly level	Up to 14 Per week	15 to 28 Per week	29 or more Per week

Source: NH&MRC Australian Alcohol Guidelines: Health Risk and Benefits 2001.

Alcohol consumption in standard drinks per day – self report

Identifying and Definitional Attributes

Knowledgebase ID:	000648	Version No:	1
Metadata type:	Data Element		
Admin. status:	Current		
	01/01/03		
Definition:	A person's self-reported usual number of alcohol-containing standard drinks on a day when they consume alcohol.		
Context:	Public health, health care and clinical settings.		

Relational and Representational Attributes

Datatype:	Numeric
Representational form:	Quantitative value
Representational layout:	NN
Minimum size:	2
Maximum size:	2

Data domain:	Count of consumption in Standard drinks per day
	00
	01
 etc
	99 Consumption not reported

Guide for use: This estimation is based on the person's description of the type (spirits, beer, wine, other) and number of standard drinks, as defined by the National Health and Medical Research Council, consumed per day. One standard drinks contains 10 grams alcohol.

The following gives the NH&MRC examples of a standard drink:

- Light beer (2.7%):
 - 1 can or stubbie = 0.8 a standard drink
- Medium light beer (3.5%):
 - 1 can or stubbie = 1 standard drink
- Regular Beer - (4.9% alcohol):
 - 1 can = 1.5 standard drinks
 - 1 jug = 4 standard drinks
 - 1 slab (cans or stubbies) = about 36 standard drinks
- Wine (9.5% - 13% alcohol):
 - 750-ml bottle = about 7 to 8 standard drinks
 - 4-litre cask = about 30 to 40 standard drinks
- Spirits:
 - 1 nip = 1 standard drink
 - Pre-mixed spirits (around 5% alcohol) = 1.5 standard drinks

When calculating consumption in standard drinks per day, the total should be reported with part drinks recorded to the next whole standard drink (e.g. 2.4 = 3).

Verification rules:

Collection methods: The World Health Organization's 2000 *International Guide for Monitoring Alcohol Consumption and Related Harm* document suggests that in assessing alcohol consumption patterns a 'Graduated Quantity Frequency' method is preferred. This method requires that questions about the quantity and frequency of alcohol consumption should be asked to help determine short-term and long-term health consequences. The CATI-TRG has not yet ratified a set of standard questions that addresses alcohol consumption.

Related metadata:

relates to the data element concept Alcohol consumption – concept vers 1
 is used in conjunction with the data element Alcohol consumption frequency – self report vers 1
 is used in conjunction with the data element Behaviour-related risk factor intervention vers 1
 is used in conjunction with the data element Behaviour-related risk factor intervention – purpose vers 1
 is used in conjunction with the data element Service contact date vers 1

Administrative Attributes

Source document: The Australian Alcohol Guidelines: Health Risk and Benefits endorsed by the National Health and Medical Research Council in October 2001.

Source organisation: CV-Data Working Group

Information model link:

NHIM Lifestyle characteristic

Data Set Specifications:

DSS - Cardiovascular disease (clinical)

Start date

End date

01/01/2003

Comments:

DSS - Cardiovascular disease (clinical):

These data are used to help determine the overall health profile of an individual. Certain patterns of alcohol consumption can be associated with a range of social and health problems. These problems include:

- social problems such as domestic violence, unsafe sex
- financial and relationship problems
- physical conditions such as high blood pressure, gastrointestinal problems, pancreatitis
- an increased risk of physical injury.

Alcohol can also be a contributor to acute health problems.

Evidence from prospective studies indicates that heavy alcohol consumption is associated with increased mortality and morbidity from coronary heart disease and stroke (Hanna et al. 1992).

However, there is some evidence to suggest that alcohol appears to provide some protection against heart disease (both illness and death) for both men and women from middle age onwards. Most if not all of this benefit is achieved with 1-2 standard drinks per day for men and less than 1 standard drink for women (the National Health and Medical Research Council's *Australian Alcohol Guidelines*, October 2001).

Anaesthesia administered during labour

Identifying and Definitional Attributes

Knowledgebase ID:	000013	Version No:	1
Metadata type:	Data Element		
Admin. status:	Current		
	01/07/96		
Definition:	Anaesthesia administered for the operative delivery of the baby (caesarean, forceps or vacuum extraction).		
Context:	Perinatal statistics: Anaesthetic use may influence the duration of labour, may affect the health status of the baby at birth and is an indicator of obstetric intervention.		

Relational and Representational Attributes

Datatype:	Numeric		
Representational form:	Code		
Representational layout:	N		
Minimum size:	1		
Maximum size:	1		
Data domain:	1	None	
	2	Local anaesthetic to perineum	
	3	Pudendal	
	4	Epidural or caudal	
	5	Spinal	
	6	General	
	8	Other	
	9	Not stated	
Guide for use:	If more than one agent is used, select the largest number (excluding 8 or 9) as this is how the data are tabulated.		
Verification rules:			
Collection methods:			
Related metadata:	is used in conjunction with the data element Apgar score at 1 minute vers 1		
	is used in conjunction with the data element Apgar score at 5 minutes vers 1		
	is used in conjunction with the data element Method of birth vers 1		

Administrative Attributes

Source document:			
Source organisation:	National Perinatal Data Development Committee		
Information model link:	NHIM Service provision event		
Data Set Specifications:	Start date	End date	
Comments:			

Analgesia administered during labour

Identifying and Definitional Attributes

Knowledgebase ID:	000014	Version No:	1
Metadata type:	Data Element		
Admin. status:	Current		
	01/07/96		
Definition:	Agents administered to the mother by injection or inhalation to relieve pain during labour and delivery.		
Context:	Perinatal statistics: Analgesia use may influence the duration of labour, may affect the health status of the baby at birth and is an indicator of obstetric intervention.		

Relational and Representational Attributes

Datatype:	Numeric														
Representational form:	Code														
Representational layout:	N														
Minimum size:	1														
Maximum size:	1														
Data domain:	<table> <tr><td>1</td><td>None</td></tr> <tr><td>2</td><td>Nitrous oxide</td></tr> <tr><td>3</td><td>Intra-muscular narcotics</td></tr> <tr><td>4</td><td>Epidural/caudal</td></tr> <tr><td>5</td><td>Spinal</td></tr> <tr><td>8</td><td>Other</td></tr> <tr><td>9</td><td>Not stated</td></tr> </table>	1	None	2	Nitrous oxide	3	Intra-muscular narcotics	4	Epidural/caudal	5	Spinal	8	Other	9	Not stated
1	None														
2	Nitrous oxide														
3	Intra-muscular narcotics														
4	Epidural/caudal														
5	Spinal														
8	Other														
9	Not stated														

Guide for use: If more than one agent is used, select the largest number (excluding 8 or 9) as this is how the data will be tabulated.

Verification rules:

Collection methods:

Related metadata: is used in conjunction with the data element Method of birth vers 1

Administrative Attributes

Source document:

Source organisation: National Perinatal Data Development Committee

Information model link:

NHIM Service provision event

Data Set Specifications: **Start date** **End date**

Comments:

Anticipated patient election status

Identifying and Definitional Attributes

Knowledgebase ID:	000631	Version No:	1
Metadata type:	Data Element		
Admin. status:	Current		
	01/07/01		
Definition:	Accommodation chargeable status nominated by the patient when placed on an elective surgery waiting list.		
Context:	Elective surgery waiting times.		

Relational and Representational Attributes

Datatype:	Numeric
Representational form:	Code
Representational layout:	N
Minimum size:	1
Maximum size:	1

Data domain:	1	Public
	2	Private

Guide for use:	<p>The election status nominated by the patient at the time of being placed on an elective surgery waiting list, to be treated as either:</p> <ul style="list-style-type: none"> - a public patient or - a private patient. <p>This item is independent of patient's hospital insurance status. The definitions of a public and private patient are those in the 1998- 2003 Australian Health Care Agreements:</p> <ol style="list-style-type: none"> 1. Public patient: An eligible person who receives or elects to receive a public hospital service free of charge. 2. Private patient: An eligible person who elects to be treated as a private patient; and elects to be responsible for paying fees of the type referred to in clause 57 (clause 58 of the Northern Territory Agreement) of the Australian Health Care Agreements. Clause 57 states that 'Private patients and ineligible persons may be charged an amount for public hospital services as determined by the State'. <p>Patients whose charges are to be met by the Department of Veterans' Affairs are regarded as private patients.</p>
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Verification rules:

Collection methods:

Related metadata:

Administrative Attributes

Source document:

Source organisation: National Health Data Committee

Information model link:

NHIM Planning event

Data Set Specifications:**Start date****End date****Comments:**

Anticipated election status may be used for the management of elective surgery waiting lists, but the term is not defined under the 1998-2003 Australian Health Care Agreements. Under the Australian Health Care Agreements, patients are required to elect to be treated as a public or private patient, at the time of, or as soon as practicable after admission. Therefore, the anticipated patient election status is not binding on the patient and may vary from the election the patient makes on admission.

Apgar score at 1 minute

Identifying and Definitional Attributes

Knowledgebase ID:	000344	Version No:	1
Metadata type:	Data Element		
Admin. status:	Current		
	01/07/97		
Definition:	Numerical score to evaluate the baby's condition at 1 minute after birth.		

Context:	Perinatal statistics:
	Required to analyse pregnancy outcome, particularly after complications of pregnancy, labour and birth. The Apgar score is an indicator of the health of a baby.

Relational and Representational Attributes

Datatype:	Numeric
Representational form:	Code
Representational layout:	NN
Minimum size:	2
Maximum size:	2

Data domain:	Apgar score (00-10) or 99 Not stated/inadequately described
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Guide for use:	The score is based on the five characteristics of heart rate, respiratory condition, muscle tone, reflexes and colour. The maximum or best score being 10.
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Verification rules:

Collection methods:

Related metadata: supersedes previous data element Apgar score vers 1
is a qualifier of Status of the baby vers 1

Administrative Attributes

Source document:

Source organisation: National Perinatal Data Development Committee

Information model link:

NHIM Physical wellbeing

Data Set Specifications: **Start date** **End date**

Comments:

Apgar score at 5 minutes

Identifying and Definitional Attributes

Knowledgebase ID:	000345	Version No:	1
Metadata type:	Data Element		
Admin. status:	Current		
	01/07/97		
Definition:	Numerical score to evaluate the baby's condition at 5 minutes after birth.		

Context:	Perinatal statistics:
	Required to analyse pregnancy outcome, particularly after complications of pregnancy, labour and birth. The Apgar score is an indicator of the health of a baby.

Relational and Representational Attributes

Datatype:	Numeric
Representational form:	Code
Representational layout:	NN
Minimum size:	2
Maximum size:	2

Data domain:	Apgar score (00-10)
	99 Not stated/inadequately described

Guide for use:	The score is based on the five characteristics of heart rate, respiratory condition, muscle tone, reflexes and colour. The maximum or best score being 10.
-----------------------	--

Verification rules:

Collection methods:

Related metadata: supersedes previous data element Apgar score vers 1

Administrative Attributes

Source document:

Source organisation: National Perinatal Data Development Committee

Information model link:

NHIM Physical wellbeing

Data Set Specifications:	Start date	End date
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Comments:

Area of usual residence

Identifying and Definitional Attributes

Knowledgebase ID: 000016 **Version No:** 3

Metadata type: Data Element

Admin. status: Current
01/07/97

Definition: Geographical location of usual residence of the person.

Context: Geographical location is reported using Statistical Local Area (SLA) to enable accurate aggregation of information to larger areas within the Australian Standard Geographical Classification (ASGC) (such as Statistical Subdivisions and Statistical Divisions) as well as detailed analysis at the SLA level. The use of SLA also allows analysis relating the data to information compiled by the Australian Bureau of Statistics on the demographic and other characteristics of the population of each SLA. Analyses facilitated by the inclusion of SLA information include:

- comparison of the use of services by persons residing in different geographical areas,
- characterisation of catchment areas and populations for establishments for planning purposes, and
- documentation of the provision of services to residents of States or Territories other than the State or Territory of the provider.

Relational and Representational Attributes

Datatype: Numeric

Representational form: Code

Representational layout: NNNNN

Minimum size: 5

Maximum size: 5

Data domain: Valid ASGC codes reported using a five-digit numerical code.

Guide for use: The geographical location is reported using a five digit numerical code. The first digit is the single-digit code to indicate State or Territory. The remaining four digits are the numerical code for the SLA within the State or Territory.

The single digit codes for the States and Territories and the four-digit codes for the SLAs are as defined in the *Australian Standard Geographical Classification*.

The *Australian Standard Geographical Classification* is updated on an annual basis with a date of effect of 1 July each year. Therefore, the edition effective for the data collection reference year should be used.

The codes for SLA are unique within each State and Territory, but not within the whole country. Thus, to define a unique location, the code of the State or Territory is required in addition to the code for the SLA.

The Australian Bureau of Statistics' *National Localities Index* (NLI) (Catalogue number 1252.0) can be used to assign each locality or address in Australia to a SLA. The NLI is a comprehensive list of localities in Australia with their full code (including State or Territory and SLA) from the main structure of the ASGC.

For the majority of localities, the locality name (suburb or town, for example) is sufficient to assign a SLA. However, some localities have the same name. For

most of these, limited additional information such as the postcode or State can be used with the locality name to assign the SLA. In addition, other localities cross one or more SLA boundaries and are referred to as split localities. For these, the more detailed information of the number and street of the person's residence is used with the Streets Sub-index of the NLI to assign the SLA.

If the information available on the person's address indicates that it is in a split locality but is insufficient to assign an SLA, the code for the SLA which includes most of the split locality should be reported. This is in accordance with the NLI assignment of SLA when a split locality is identified and further detail about the address is not available.

The NLI does not assign a SLA code if the information about the address is insufficient to identify a locality, or is not an Australian locality. In these cases, the appropriate codes for undefined SLA within Australia (State or Territory unstated), undefined SLA within a stated State or Territory, no fixed place of abode (within Australia or within a stated State or Territory) or overseas should be used.

Verification rules:

Collection methods:

Related metadata: supersedes previous data element Area of usual residence vers 2

Administrative Attributes

Source document: Australian Standard Geographical Classification, Australian Bureau of Statistics, Cat. No. 1216.0

Source organisation: National Health Data Committee

Information model link:

NHIM Address element

Data Set Specifications:

	<i>Start date</i>	<i>End date</i>
NMDS - Admitted patient care	01/07/1997	
NMDS - Admitted patient mental health care	01/07/1997	
NMDS - Community mental health care	01/07/2001	
NMDS - Admitted patient palliative care	01/07/2000	
NMDS - Non-admitted patient emergency department care	01/07/2003	

Comments:

Australian postcode

Identifying and Definitional Attributes

Knowledgebase ID:	000788	Version No:	1
Metadata type:	Data Element		
Admin. status:	Current		
	01/01/03		
Definition:	The numeric descriptor for a postal delivery area, aligned with locality, suburb or place for the address of a party (person or organisation), as defined by Australia Post.		

Context:

Relational and Representational Attributes

Datatype:	Numeric
Representational form:	Code
Representational layout:	NNNN
Minimum size:	4
Maximum size:	4

Data domain: Valid Australia Post Postal Code or blank.

Guide for use: Postcode may be used as a means of coding a person's area of usual residence or where an agency or organization is usually located. It can be mapped to Australian Standard Geographical Codes using an Australian Bureau of Statistics' (ABS) concordance to determine Statistical Local Area (SLA).

Verification rules: This data should be verified against the Australia Post Postcode File (web site www.auspost.com.au/postcodes). Alternatively, contact State or Territory health authorities for Postcode files.

Collection methods: Leave Postcode blank for any overseas address for:

- Overseas health care clients
- Unknown person address
- No fixed address.

Related metadata:

- relates to the data element Address type vers 1
- relates to the data element Postal delivery point identifier vers 1
- is used in conjunction with Labour force status vers 1
- relates to the data element State/Territory identifier vers 3
- relates to the data element Suburb/town/locality vers 1

Administrative Attributes

Source document:	AS5017 Health care client identification
Source organisation:	Standards Australia

Information model link:

NHIM Address element

Data Set Specifications:

	<i>Start date</i>	<i>End date</i>
DSS - Cardiovascular disease (clinical)	01/01/2003	
DSS - Health care client identification	01/01/2003	

Comments:

Australian administered territories and islands each have an Australia Post postcode:

Jervis Bay 2540

Lord Howe Island 2898

Norfolk Island 2899

Christmas Island 6798

Cocos (Keeling) Islands 6799

Macquarie Island 7151

Postal addresses may be different from where a person actually resides, or a service is actually located. As many postcodes have more than one SLA, postcode alone is not a sufficient basis for accurate coding of SLA in many cases.

DSS - Cardiovascular disease (clinical):

Postcode can also be used in association with the ABS Socio-Economic Indexes for Areas (SEIFA) (on CD-ROM Latest Issue: Aug 1996 was released on 30/10/1998) to derive socio-economic disadvantage, which is associated with cardiovascular risk.

People from lower socio-economic groups are more likely to die from cardiovascular disease than those from higher socio-economic groups. In 1997, people aged 25- 64 living in the most disadvantaged group of the population died from cardiovascular disease at around twice the rate of those living in the least disadvantaged group (Australian Institute of Health and Welfare 2001. Heart, stroke and vascular diseases - Australian facts 2001.). This difference in death rates has existed since at least the 1970s.

Behaviour-related risk factor intervention

Identifying and Definitional Attributes

Knowledgebase ID:	000806	Version No:	1
Metadata type:	Data Element		
Admin. status:	Current		
	01/01/03		
Definition:	The intervention taken to modify or manage the patient's behaviour-related risk factor(s).		

Context: Public health, health care and clinical settings:

To enable analysis of the interventions within an episode of care, in relation to the outcome of this care, especially when linked to information on risk factors. The recording of Clinician's management interventions is critical information for health service monitoring, planning and patient outcomes. It is a major descriptor of the care provided throughout an episode of care.

Relational and Representational Attributes

Datatype:	Numeric
Representational form:	Code
Representational layout:	NN
Minimum size:	2
Maximum size:	2

Data domain:	01	No intervention
	02	Information and education (not including written regimen)
	03	Counselling
	04	Pharmacotherapy
	05	Referral provided to a health professional
	06	Referral to a community program, support group or service
	07	Written regimen provided
	08	Surgery
	98	Other
	99	Not stated/inadequately defined

Guide for use: More than one code can be recorded.

Code 01 Refers to no intervention taken with regard to the 'Behaviour-related risk factor intervention - purpose'.

Code 02 Refers to where there is no treatment provided to the patient for a 'Behaviour-related risk factor intervention - purpose' other than information and education.

Code 03 Refers to any method of individual or group counselling directed towards the 'Behaviour-related risk factor intervention - purpose'. This code excludes counselling activities that are part of referral options as defined in code 5 and 6.

Code 04 Refers to pharmacotherapies that are prescribed or recommended for the management of the 'Behaviour-related risk factor intervention - purpose'.

Code 05 Refers to a referral to a health professional who has the expertise to assist the patient manage the 'Behaviour-related risk factor intervention - purpose'.

Code 06 Refers to a referral to community program, support group or service that has the expertise and resources to assist the patient manage the 'Behaviour-related risk factor intervention - purpose'.

Code 07 Refers to the provision of a written regimen (nutrition plan, exercise prescription, smoking contract) given to the patient to assist them with the management of the 'Behaviour-related risk factor intervention - purpose'.

Code 08 Refers to a surgical procedure undertaken to assist the patient with the management of the 'Behaviour-related risk factor intervention - purpose'.

Code 99 Not stated/inadequately defined

Verification rules:

Collection methods:

Related metadata:

relates to the data element Alcohol consumption frequency - self report vers 1
is used in conjunction with Behaviour-related risk factor intervention - purpose vers 1

relates to the data element Physical activity sufficiency status vers 1
is used in conjunction with Service contact date vers 1

relates to the data element Tobacco smoking status vers 1

relates to the data element Waist circumference - measured vers 2

Administrative Attributes

Source document:

Source organisation: CV-Data Working Group

Information model link:

NHIM Request for/entry into service event

Data Set Specifications:

DSS - Cardiovascular disease (clinical)

Start date

End date

01/01/2003

Comments:

Behaviour-related risk factor intervention – purpose

Identifying and Definitional Attributes

Knowledgebase ID:	000807	Version No:	1
Metadata type:	Data Element		
Admin. status:	Current		
	01/01/03		
Definition:	The behaviour-related risk factor(s) associated with an intervention(s).		
Context:	Public health, health care and clinical settings: The presence of one or more behaviour-related risk factors can be used to help determine the risk of future adverse health events and the development of chronic diseases.		

Relational and Representational Attributes

Datatype:	Numeric
Representational form:	Code
Representational layout:	N
Minimum size:	1
Maximum size:	1
Data domain:	<ul style="list-style-type: none"> 1 Smoking 2 Nutrition 3 Alcohol misuse 4 Physical inactivity 8 Other 9 Not stated/inadequately described
Guide for use:	More than one code can be selected.
Verification rules:	
Collection methods:	
Related metadata:	<ul style="list-style-type: none"> relates to the data element Alcohol consumption frequency – self report vers 1 is used in conjunction with the data element Behaviour-related risk factor intervention vers 1 relates to the data element Physical activity sufficiency status vers 1 is used in conjunction with the data element Service contact date vers 1 relates to the data element Tobacco smoking status vers 1 relates to the data element Waist circumference – measured vers 2

Administrative Attributes

Source document:	SNAP Framework – Commonwealth Department of Health and Ageing – June 2001. AIHW 2002. Chronic Diseases and associated risk factors in Australians, 2001; Canberra.
Source organisation:	CV-Data Working Group

Information model link:

NHIM Request for/entry into service event

Data Set Specifications:

DSS - Cardiovascular disease (clinical)

Start date**End date**

01/01/2003

Comments:

DSS - Cardiovascular disease (clinical):

Behaviour-related risk factors include tobacco smoking, nutrition patterns that are high in saturated fats and excessive energy (calories /kilojoules) (National Heart Foundation of Australia - A review of the relationship between dietary fat and cardiovascular disease, AJND, 1999. 56 (Supp) S5-S22), alcohol misuse and physical inactivity.

The importance of behaviour-related risk factors in health has become increasingly relevant in recent times because chronic diseases have emerged as the principal threat to the health of Australians. Most of the chronic diseases have their roots in these risk-taking behaviours (Chronic Diseases and associated risk factors in Australians, 2001; AIHW 2002 Canberra).

SNAP initiative:

Smoking, Nutrition, Alcohol, Physical Activity (SNAP) Framework for General Practice is an initiative of the Joint Advisory Group (JAG) on General Practice and Population Health.

The lifestyle-related behavioural risk factors of smoking, poor nutrition (and associated overweight and obesity) and harmful and hazardous alcohol use and declining levels of physical activity have been identified as significant contributors to the burden of disease in Australia, and particularly towards the National Health Priority Areas (NHPAs) of diabetes, cardiovascular disease, some cancers, injury, mental health and asthma. The NHPAs represent about 70% of the burden of illness and injury in Australia. Substantial health gains could occur by public health interventions that address these contributory factors.

Around 86% of the Australian population attends a general practice at least once a year. There is therefore substantial opportunity for general practitioners to observe and influence the lifestyle risk behaviours of their patients. Many general practitioners already undertake risk factor management with their patients. There are also a number of initiatives within general practices, Divisions of General Practice, State/Territory and Commonwealth governments and peak non-government organisations aimed at reducing disease related to these four behavioural risk factors. Within the health system, there is potential for greater collaboration and integration of approaches for influencing risk factor behaviour based on system-wide roll-out of evidence-based best practice interventions.

The aim of the SNAP initiative is to reduce the health and socioeconomic impact of smoking, poor nutrition, harmful and hazardous alcohol use and physical inactivity on patients and the community through a systematic approach to behavioural interventions in primary care. This will provide an opportunity to make better use of evidence-based interventions and to ensure adoption of best practice initiatives widely through general practice.

Birth order

Identifying and Definitional Attributes

Knowledgebase ID:	000019	Version No:	2
Metadata type:	Data Element		
Admin. status:	Current		
	01/07/03		
Definition:	The sequential order of each baby of a multiple birth.		

Context:	NMDS – Perinatal:
	Required to analyse pregnancy outcome according to birth order and identify the individual baby resulting from a multiple birth pregnancy. Multiple births have higher risks of perinatal mortality and morbidity. Multiple birth pregnancies are often associated with obstetric complications, labour and delivery complications, higher rates of neonatal morbidity, low birthweight, and a higher perinatal death rate.
	DSS – Health care client identification:
	While this piece of information is normally recorded for multiple births against the mother's record, if the health care client volunteers the information, it should be recorded.

Relational and Representational Attributes

Datatype:	Numeric																
Representational form:	Code																
Representational layout:	N																
Minimum size:	1																
Maximum size:	1																
Data domain:	<table> <tr><td>1</td><td>Singleton or first of a multiple birth</td></tr> <tr><td>2</td><td>Second of a multiple birth</td></tr> <tr><td>3</td><td>Third of a multiple birth</td></tr> <tr><td>4</td><td>Fourth of a multiple birth</td></tr> <tr><td>5</td><td>Fifth of a multiple birth</td></tr> <tr><td>6</td><td>Sixth of a multiple birth</td></tr> <tr><td>8</td><td>Other</td></tr> <tr><td>9</td><td>Not stated</td></tr> </table>	1	Singleton or first of a multiple birth	2	Second of a multiple birth	3	Third of a multiple birth	4	Fourth of a multiple birth	5	Fifth of a multiple birth	6	Sixth of a multiple birth	8	Other	9	Not stated
1	Singleton or first of a multiple birth																
2	Second of a multiple birth																
3	Third of a multiple birth																
4	Fourth of a multiple birth																
5	Fifth of a multiple birth																
6	Sixth of a multiple birth																
8	Other																
9	Not stated																

Guide for use: Stillborns are counted such that, if twins were born, the first stillborn and the second live-born, the second twin would be recorded as code 2 Second of a multiple birth (and not code 1 Singleton or first of a multiple birth).

Verification rules:

Collection methods: This data should be collected routinely for persons aged 28 days or less.

Related metadata: supersedes previous data element Birth order vers 1
is a qualifier of the data element Birth plurality vers 1

Administrative Attributes

Source document: AS5017 Health care client identification

Source organisation: National Perinatal Data Development Committee
Standards Australia

Information model link:

NHIM Birth event

Data Set Specifications:

NMDS - Perinatal

DSS - Health care client identification

Start date

End date

01/07/1997

01/01/2003

Comments:

Birth plurality

Identifying and Definitional Attributes

Knowledgebase ID:	000020	Version No: 1
Metadata type:	Data Element	
Admin. status:	Current	
	01/07/96	
Definition:	An indicator of multiple birth, showing the total number of births resulting from a single pregnancy.	
Context:	<p>NMDS - Perinatal:</p> <p>Multiple pregnancy increases the risk of complications during pregnancy, labour and delivery and is associated with higher risk of perinatal morbidity and mortality.</p> <p>DSS - Health care client identification:</p> <p>While this piece of information is normally recorded for multiple births against the mother's record, if the health care client volunteers the information, it should be recorded.</p>	

Relational and Representational Attributes

Datatype:	Numeric	
Representational form:	Code	
Representational layout:	N	
Minimum size:	1	
Maximum size:	1	
Data domain:	1	Singleton
	2	Twins
	3	Triplets
	4	Quadruplets
	5	Quintuplets
	6	Sextuplets
	8	Other
	9	Not stated

Guide for use: Plurality of a pregnancy is determined by the number of live births or by the number of foetuses that remain in utero at 20 weeks gestation and that are subsequently born separately. In multiple pregnancies, or if gestational age is unknown, only live births of any birthweight or gestational age, or foetuses weighing 400 grams or more, are taken into account in determining plurality. Foetuses aborted before 20 completed weeks or foetuses compressed in the placenta at 20 or more weeks are excluded.

Verification rules:

Related metadata: is qualified by the data element Birth order vers 2

Administrative Attributes

Source document:

Source organisation: National Perinatal Data Development Committee

Information model link:

NHIM Birth event

Data Set Specifications:

	Start date	End date
NMDS - Perinatal	01/07/1997	
DSS - Health care client identification	01/01/2003	

Comments:

Birthweight

Identifying and Definitional Attributes

Knowledgebase ID: 000021 **Version No:** 1

Metadata type: Data Element Concept

Admin. status: Current
01/07/96

Definition: The first weight of the foetus or baby obtained after birth. The World Health Organization further defines the following categories:

- extremely low birthweight - less than 1,000 g (up to and including 999 g)
- very low birthweight - less than 1,500 g (up to and including 1,499 g)
- low birthweight - less than 2,500 g (up to and including 2,499 g).

Context: Perinatal.

Relational and Representational Attributes

Datatype:

Representational form:

Representational layout:

Minimum size:

Maximum size:

Data domain:

Guide for use:

Verification rules:

Collection methods:

Related metadata:

Administrative Attributes

Source document: International Classification of Diseases and Related Health Problems, 10th Revision, WHO, 1992

Source organisation: National Perinatal Data Development Committee

Information model link:

NHIM Birth event

Data Set Specifications: **Start date** **End date**

Comments: The definitions of low, very low, and extremely low birthweight do not constitute mutually exclusive categories. Below the set limits they are all-inclusive and therefore overlap (i.e. low includes very low and extremely low, while very low includes extremely low).

For live births, birthweight should preferably be measured within the first hour of life before significant postnatal weight loss has occurred. While statistical tabulations include 500 gram groupings for birthweight, weights should not be recorded in those groupings. The actual weight should be recorded to the degree of accuracy to which it is measured.

Blindness – diabetes complication

Identifying and Definitional Attributes

Knowledgebase ID:	000808	Version No:	1
Metadata type:	Data Element		
Admin. status:	Current		
	01/01/03		
Definition:	Whether the individual has become legally blind in either or both eyes. Legally, blindness is defined as less than 6/60 vision in the better eye with glasses. Vision 6/60 is the ability to see only at 6 metres what the normal eye can see at 60 metres.		
Context:	Diabetes mellitus specific data element.		

Relational and Representational Attributes

Datatype:	Numeric		
Representational form:	Code		
Representational layout:	N		
Minimum size:	1		
Maximum size:	1		
Data domain:	1	Blindness - (< 6/60) occurred in either or both eyes in the last 12 months	
	2	Blindness - (< 6/60) occurred in either or both eyes prior to the last 12 months	
	3	Blindness - (< 6/60) occurred in one eye within 12 months and in the other eye prior to the last 12 months	
	4	No blindness	
	9	Not stated/inadequately described	
Guide for use:	Blindness can be diagnosed in one eye within 12 months even though it has been previously diagnosed on the other eye (refers to code 3).		
Verification rules:			
Collection methods:	Ask the individual if he/she has been diagnosed as legally blind (< 6/60) in both or either eye. If so record whether it has occurred within or prior to the last 12 months. Alternatively determine blindness from appropriate documentation obtained from an ophthalmologist or optometrist.		
Related metadata:	relates to the data element Health professionals attended – diabetes mellitus vers 1		
	relates to the data element Cataract – history vers 1		
	relates to the data element Ophthalmological assessment – outcome vers 1		
	relates to the data element Ophthalmoscopy – performed vers 1		
	relates to the data element Referred to ophthalmologist – diabetes mellitus vers 1		
	relates to the data element Visual acuity vers 1		

Administrative Attributes

Source document: National Diabetes Outcomes Quality Review Initiative (NDOQRIN) data dictionary.

Source organisation: National Diabetes Data Working Group

Information model link:

NHIM Physical wellbeing

Data Set Specifications:

DSS - Diabetes (clinical)

Start date

End date

01/01/2003

Comments:

Patients with diabetes have an increased risk of developing several eye complications including retinopathy, cataract and glaucoma that lead to loss of vision.

Diabetic retinopathy is a leading cause of blindness. Retinopathy is characterised by proliferation of the retina's blood vessels, which may project into the vitreous, causing vitreous haemorrhage, proliferation of fibrous tissue and retinal detachment. It is often accompanied by microaneurysms and macular oedema, which can express as blurred vision. The prevalence of retinopathy increases with increasing duration of diabetes. In the early stage, retinopathy is asymptomatic. Up to 20% of people with diabetes Type 2 have retinopathy at the time of diagnosis of diabetes. The cumulative prevalence of proliferation diabetic retinopathy and macular oedema after 20 years of Type 1 diabetes is about 40%. The Diabetic Retinopathy Study Group showed that panretinal photocoagulation reduces the risk of severe loss of vision by 50%.

Although diabetes retinopathy cannot totally be prevented, better control of blood sugar level slows the onset and progression of retinopathy (The Diabetes Control and Complications Trial - DCCT). Cataract and glaucoma are also associated diabetic eye problems that could lead to blindness.

Regular eye checkups are important for patients suffering from diabetes mellitus. This helps to early detect abnormalities and to avoid or postpone vision-threatening complications.

According to the NSW Principles of Care and Guidelines for the Clinical Management of Diabetes Mellitus, a comprehensive ophthalmological examination should be carried out:

- At diagnosis and then every 1-2 years for patients whose diabetes onset was at age 30 years or more.
- Within five years of diagnosis and then every 1-2 years for patients whose diabetes onset was at age less than 30 years.

If retinopathy is detected, review diabetes control and improve if necessary.

References:

Vision Australia, No. 2, 1997-8; University of Melbourne.

The Diabetic Retinopathy Study Research Group. Photocoagulation treatment of proliferative diabetic retinopathy.

Clinical application of Diabetic Retinopathy Study (DRS) finding, DRS Report Number 8. Ophthalmology. 1981; 88:583-600).

Diabetes Control and Complications Trial: DCCT New England Journal of Medicine, 329(14), September 30, 1993.

Blood pressure – concept

Identifying and Definitional Attributes

Knowledgebase ID:	000809	Version No:	1
Metadata type:	Data Element Concept		
Admin. status:	Current		
	01/01/03		
Definition:	The pressure exerted by blood against the walls of the blood vessels i.e. arteries, capillaries or veins.		

Context:

Relational and Representational Attributes

Datatype:	
Representational form:	
Representational layout:	
Minimum size:	
Maximum size:	
Data domain:	
Guide for use:	
Verification rules:	
Collection methods:	
Related metadata:	relates to the data element Blood pressure – diastolic measured vers 1 relates to the data element Blood pressure – systolic measured vers 1

Administrative Attributes

Source document:	Australian Institute of Health and Welfare (AIHW) 2001. Heart, stroke and vascular diseases – Australian facts 2001. Canberra: AIHW, National Heart Foundation of Australia, National Stroke Foundation of Australia.		
Source organisation:	CV-Data Working Group		
Information model link:	NHIM Service provision event		
Data Set Specifications:	<i>Start date</i>	<i>End date</i>	
Comments:			

Blood pressure – diastolic measured

Identifying and Definitional Attributes

Knowledgebase ID: 000649 **Version No:** 1

Metadata type: Data Element

Admin. status: Current
01/01/03

Definition: The person's measured diastolic blood pressure.

Context: Public health, health care and clinical settings:
High blood pressure is a major risk factor for coronary heart disease, heart failure, stroke, and renal failure with the risk increasing along with the level of blood pressure.

Relational and Representational Attributes

Datatype: Numeric

Representational form: Quantitative value

Representational layout: NNN

Minimum size: 2

Maximum size: 3

Data domain: Measured pressure head in millimetres of mercury (mm Hg)
999 Not collected

Guide for use: The diastolic pressure is recorded as phase V Korotkoff (disappearance of sound) however phase IV Korotkoff (muffling of sound) is used if the sound continues towards zero but does not cease.
If Blood pressure – diastolic is not collected or not able to be collected, code 999.

Verification rules:

Collection methods: Measurement protocol for resting blood pressure:
The diastolic blood pressure is one component of a routine blood pressure measurement (i.e. systolic/diastolic) and reflects the minimum pressure to which the arteries are exposed.

- The patient should be relaxed and seated, preferably for several minutes, (at least 5 minutes). Ideally, patients should not take caffeine-containing beverages or smoke for two hours before blood pressure is measured.
- Ideally, patients should not exercise within half an hour of the measurement being taken (National Nutrition Survey User's Guide).
- Use a mercury sphygmomanometer. All other sphygmomanometers should be calibrated regularly against mercury sphygmomanometers to ensure accuracy.
- Bladder length should be at least 80%, and width at least 40% of the circumference of the mid-upper arm. If the velcro on the cuff is not totally attached, the cuff is probably too small.
- Wrap cuff snugly around upper arm, with the centre of the bladder of the cuff positioned over the brachial artery and the lower border of the cuff about 2 cm above the bend of the elbow.
- Ensure cuff is at heart level, whatever the position of the patient.
- Palpate the radial pulse of the arm in which the blood pressure is being

measured.

- Inflate cuff to the pressure at which the radial pulse disappears and note this value. Deflate cuff, wait 30 seconds, and then inflate cuff to 30 mm Hg above the pressure at which the radial pulse disappeared.
- Deflate the cuff at a rate of 2–3 mm Hg/beat (2–3 mm Hg/sec) or less.
- Recording the diastolic pressure use phase V Korotkoff (disappearance of sound). Use phase IV Korotkoff (muffling of sound) only if sound continues towards zero but does not cease. Wait 30 seconds before repeating the procedure in the same arm. Average the readings.
- If the first two readings differ by more than 4 mmHg diastolic or if initial readings are high, take several readings after five minutes of quiet rest.

Related metadata:

is used in conjunction with Blood pressure – systolic measured vers 1

is used in conjunction with Service contact date vers 1

Administrative Attributes

Source document:

The National Heart Foundation Blood Pressure Advisory Committee's 'Guidelines for the Management of Hypertension – 1999' which are largely based on World Health Organization Recommendations. (Guidelines Subcommittee of the WHO-SH: 1999 WHO-ISH guidelines for management of hypertension. J Hypertension 1999; 17:151–83).

Australian Bureau of Statistics 1998. National Nutrition Survey User's Guide 1995. Cat. No. 4801.0. Canberra: ABS. (p. 20).

National Diabetes Outcomes Quality Review Initiative (NDOQRIN) data dictionary.

Source organisation:

CV-Data Working Group

National Diabetes Data Working Group

Information model link:

NHIM Service provision event

Data Set Specifications:

DSS – Cardiovascular disease (clinical)

Start date

End date

01/01/2003

DSS – Diabetes (clinical)

01/01/2003

Comments:

The pressure head is the height difference a pressure can raise a fluid's equilibrium level above the surface subjected to pressure. (Blood pressure is usually measured as a head of Mercury, and this is the unit of measure nominated for this data element.)

The current (2002) definition of hypertension is based on the level of blood pressure above which treatment is recommended, and this depends on the presence of other risk factors, e.g. age, diabetes etc. (NHF 1999 Guide to Management of Hypertension).

DSS – Cardiovascular disease (clinical):

In the primary care setting, blood pressure on both arms should be measured at the first visit, particularly if there is evidence of peripheral vascular disease.

Variation of up to 5 mm Hg in blood pressure between arms can be acceptable. In certain conditions (e.g. chronic aortic dissection, subclavian artery stenosis) all blood pressure recordings should be taken from the arm with the highest reading.

Measure sitting and standing blood pressures in elderly and diabetic patients or in other situations in which orthostatic hypotension might be suspected.

Measure and record heart rate and rhythm. Note: Atrial fibrillation in a patient with hypertension indicates increased risk of stroke.

In all patients, consideration should be given to obtaining blood pressure measurements outside the clinic setting either by self-measurement of blood pressure at home or by non-invasive ambulatory blood pressure monitoring.

Target-organ damage and cardiovascular outcome relate more closely to blood pressures measured outside the clinic, particularly with ambulatory monitoring. An accurate, reliable machine and technique are essential if home blood pressure monitoring is to be used. In up to 30% of patients who are hypertensive in the clinic, blood pressure outside the clinic is within acceptable limits ('white coat' hypertension).

High blood pressure is a major risk factor for coronary heart disease, heart failure, stroke, and renal failure with the risk increasing along with the level of blood pressure (Ashwell 1997; DSHS 1994b; Whelton 1994; Kannel 1991). The higher the blood pressure, the higher the risk of both stroke and coronary heart disease. The dividing line between normotension and hypertension is arbitrary.

Both systolic and diastolic blood pressures are predictors of heart, stroke and vascular disease at all ages (Kannel 1991), although diastolic blood pressure is a weaker predictor of death due to coronary heart disease (Neaton & Wentworth 1992).

The risk of disease increases as the level of blood pressure increases. When blood pressure is lowered by 4–6 mmHg over two to three years, it is estimated that the risk reduces by 14% in patients with coronary heart disease and by 42% in stroke patients (Collins et al. 1990; Rose 1992.) When high blood pressure is controlled by medication, the risk of cardiovascular disease is reduced, but not to the levels of unaffected people.

In settings such as general practice where the monitoring of a person's health is ongoing and where a measure can change over time, the service contact date should be recorded.

DSS - Diabetes (clinical):

The United Kingdom Prospective Diabetes Study (1987 to 1998) showed major benefit from lowering blood pressure in preventing diabetes complications.

A target for blood pressure for people who suffer from diabetes is 130/85 mm Hg or less; recommended by the Australian Diabetes Society (if proteinuria is detected it is less than 125/75 mm Hg) Australian Medicines Handbook: last modified February, 2001).

Following the NSW Principles of Care and Guidelines for the Clinical Management of Diabetes Mellitus for patients who suffer from hypertension, if pharmacological intervention is required, ACE inhibitors are the preferred agents for treating hypertension in people with diabetes (unless contraindicated).

References:

'Guidelines for the Management of Hypertension - 1999' largely based on World Health Organization Recommendations. (Guidelines Subcommittee of the WHO) *J Hypertension* 1999; 17: 151-83.).

Diabetes Control and Complications Trial: DCCT *New England Journal of Medicine*, 329(14), September 30, 1993.

UKPDS 38 Tight blood pressure control and risk of macrovascular and microvascular complications in type 2 diabetes: UK Prospective Diabetes Study Group. *British Medical Journal* (1998); 317: 703-713.

Blood pressure – systolic measured

Identifying and Definitional Attributes

Knowledgebase ID:	000650	Version No:	1
Metadata type:	Data Element		
Admin. status:	Current		
	01/01/03		
Definition:	The person's measured systolic blood pressure.		

Context:	Public health, health care and clinical settings: High blood pressure is a major risk factor for coronary heart disease, heart failure, stroke, and renal failure with the risk increasing along with the level of blood pressure
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Relational and Representational Attributes

Datatype:	Numeric
Representational form:	Quantitative value
Representational layout:	NNN
Minimum size:	2
Maximum size:	3

Data domain:	Measured pressure head in millimetres of mercury (mm Hg) 999 Not collected
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Guide for use:	For recording the systolic reading, use phase I Korotkoff (the first appearance of sound). If Blood pressure – systolic is not collected or not able to be collected, code 999.
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Verification rules:

Collection methods:	Measurement protocol for resting blood pressure: The systolic blood pressure is one component of a routine blood pressure measurement (i.e. systolic/diastolic) and reflects the maximum pressure to which the arteries are exposed. <ul style="list-style-type: none"> • The patient should be relaxed and seated, preferably for several minutes, (at least 5 minutes). Ideally, patients should not take caffeine-containing beverages or smoke for two hours before blood pressure is measured. • Ideally, patients should not exercise within half an hour of the measurement being taken (National Nutrition Survey User's Guide). • Use a mercury sphygmomanometer. All other sphygmomanometers should be calibrated regularly against mercury sphygmomanometers to ensure accuracy.-Bladder length should be at least 80%, and width at least 40% of the circumference of the mid-upper arm. If the Velcro on the cuff is not totally attached, the cuff is probably too small. • Wrap cuff snugly around upper arm, with the centre of the bladder of the cuff positioned over the brachial artery and the lower border of the cuff about 2 cm above the bend of the elbow. • Ensure cuff is at heart level, whatever the position of the patient. • Palpate the radial pulse of the arm in which the blood pressure is being measured.
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- Inflate cuff to the pressure at which the radial pulse disappears and note this value. Deflate cuff, wait 30 seconds, and then inflate cuff to 30 mm Hg above the pressure at which the radial pulse disappeared.
- Deflate the cuff at a rate of 2–3 mm Hg/beat (2–3 mm Hg/sec) or less.
- For recording the systolic reading, use phase I Korotkoff (the first appearance of sound). Wait 30 seconds before repeating the procedure in the same arm. Average the readings. If the first two readings differ by more than 6 mm Hg systolic or if initial readings are high, take several readings after five minutes of quiet rest.

Related metadata: is used in conjunction with Blood pressure – diastolic measured vers 1
is used in conjunction with Service contact date vers 1

Administrative Attributes

Source document: The National Heart Foundation Blood Pressure Advisory Committee’s ‘Guidelines for the Management of Hypertension – 1999’ which are largely based on World Health Organization Recommendations. (Guidelines Subcommittee of the WHO-ISH: 1999 WHO-ISH guidelines for management of hypertension. J Hypertension 1999; 17:151–83).
Australian Bureau of Statistics 1998. National Nutrition Survey User’s Guide 1995. Cat. No. 4801.0. Canberra: ABS. (p. 20).
National Diabetes Outcomes Quality Review Initiative (NDOQRIN) data dictionary.

Source organisation: CV-Data Working Group
National Diabetes Data Working Group

Information model link:

NHIM Service provision event

Data Set Specifications:	Start date	End date
DSS – Cardiovascular disease (clinical)	01/01/2003	
DSS – Diabetes (clinical)	01/01/2003	

Comments:

The pressure head is the height difference a pressure can raise a fluid’s equilibrium level above the surface subjected to pressure. (Blood pressure is usually measured as a head of Mercury, and this is the unit of measure nominated for this data element.)The current (2002) definition of hypertension is based on the level of blood pressure above which treatment is recommended, and this depends on the presence of other risk factors, e.g. age, diabetes etc.(NHF 1999 Guide to Management of Hypertension).

DSS – Cardiovascular disease (clinical):

In the primary care setting, blood pressure on both arms should be measured at the first visit, particularly if there is evidence of peripheral vascular disease.

Variation of up to 5 mm Hg in blood pressure between arms can be acceptable. In certain conditions (e.g. chronic aortic dissection, subclavian artery stenosis) all blood pressure recordings should be taken from the arm with the highest reading.

Measure sitting and standing blood pressures in elderly and diabetic patients or in other situations in which orthostatic hypotension might be suspected.

Measure and record heart rate and rhythm. Note: Atrial fibrillation in a patient with hypertension indicates increased risk of stroke.

In all patients, consideration should be given to obtaining blood pressure measurements outside the clinic setting either by self-measurement of blood pressure at home or by non-invasive ambulatory blood pressure monitoring.

Target-organ damage and cardiovascular outcome relate more closely to blood pressures measured outside the clinic, particularly with ambulatory monitoring. An accurate, reliable machine and technique are essential if home blood pressure monitoring is to be used. In up to 30% of patients who are hypertensive in the clinic, blood pressure outside the clinic is within acceptable limits ('white coat' hypertension).

High blood pressure is a major risk factor for coronary heart disease, heart failure, stroke, and renal failure with the risk increasing along with the level of blood pressure (Ashwell 1997; DSHS 1994b; Whelton 1994; Kannel 1991). The higher the blood pressure, the higher the risk of both stroke and coronary heart disease. The dividing line between normotension and hypertension is arbitrary.

Both systolic and diastolic blood pressures are predictors of heart, stroke and vascular disease at all ages (Kannel 1991), although diastolic blood pressure is a weaker predictor of death due to coronary heart disease (Neaton & Wentworth 1992).

The risk of disease increases as the level of blood pressure increases. When blood pressure is lowered by 4–6 mm Hg over two to three years, it is estimated that the risk reduces by 14 per cent in patients with coronary heart disease and by 42 per cent in stroke patients (Collins et al. 1990; Rose 1992.) When high blood pressure is controlled by medication, the risk of cardiovascular disease is reduced, but not to the levels of unaffected people.

In settings such as general practice where the monitoring of a person's health is ongoing and where a measure can change over time, the service contact date should be recorded.

DSS - Diabetes (clinical):

The United Kingdom Prospective Diabetes Study (1987 to 1998) showed major benefit from lowering blood pressure in preventing diabetes complications.

A target for blood pressure for people who suffer from diabetes is 130/85 mm Hg or less; recommended by the Australian Diabetes Society (if proteinuria is detected it is less than 125/75 mm Hg) Australian Medicines Handbook: last modified February, 2001).

Following the NSW Principles of Care and Guidelines for the Clinical Management of Diabetes Mellitus for patients who suffer from hypertension, if pharmacological intervention is required, ACE inhibitors are the preferred agents for treating hypertension in people with diabetes (unless contraindicated).

References:

'Guidelines for the Management of Hypertension - 1999' largely based on World Health Organization Recommendations. (Guidelines Subcommittee of the WHO) *J Hypertension* 1999; 17: 151-83.).

Diabetes Control and Complications Trial: DCCT *New England Journal of Medicine*, 329(14), September 30, 1993.

UKPDS 38 Tight blood pressure control and risk of macrovascular and microvascular complications in type 2 diabetes: UK Prospective Diabetes Study Group. *British Medical Journal* (1998); 317: 703-713.

Bodily location of main injury

Identifying and Definitional Attributes

Knowledgebase ID:	000086	Version No: 1
Metadata type:	Data Element	
Admin. status:	Current	
	01/07/96	
Definition:	The bodily location of the injury chiefly responsible for the attendance of the person at the health care facility.	

Context:	Injury surveillance:
	The injury diagnosis is necessary for purposes including epidemiological research, casemix studies and planning. The data element Nature of main injury - non-admitted patient together with data element Bodily location of main injury indicates the diagnosis.

Relational and Representational Attributes

Datatype:	Numeric
Representational form:	Code
Representational layout:	NN
Minimum size:	2
Maximum size:	2

Data domain:	01	Head (excludes face [02])
	02	Face (excludes eye)
	03	Neck
	04	Thorax
	05	Abdomen
	06	Lower back (includes loin)
	07	Pelvis (includes perineum, anogenital area and buttocks)
	08	Shoulder
	09	Upper arm
	10	Elbow
	11	Forearm
	12	Wrist
	13	Hand (include fingers)
	14	Hip
	15	Thigh
	16	Knee
	17	Lower leg
	18	Ankle
	19	Foot (include toes)
	20	Unspecified bodily location
	21	Multiple injuries (involving more than one bodily location)
	22	Bodily location not required

Guide for use:

If the full ICD-10-AM code is used to code the injury, this item is not required (see data elements Principal diagnosis and Additional diagnosis).

If any code from 01 to 12 or 26 to 29 in the data element Nature of main injury has been selected, the body region affected by that injury must be specified.

Select the category that best describes the location of the injury. If two or more categories are judged to be equally appropriate, select the one that comes first on the code list. A major injury, if present, should always be coded rather than a minor injury. If a major injury has been sustained (e.g. a fractured femur), along with one or more minor injuries (e.g. some small abrasions), the major injury should be coded in preference to coding 'multiple injuries'. As a general guide, an injury which, on its own, would be unlikely to have led to the attendance may be regarded as 'minor'. Bodily location of main injury code is not required with other Nature of main injury codes (code 22 may be used as a filler to indicate that a specific body region code is not required).

Verification rules:**Collection methods:****Related metadata:**

is used in conjunction with the data element Nature of main injury - non-admitted patient vers 1

Administrative Attributes**Source document:****Source organisation:**

National Injury Surveillance Unit

National Data Standards for Injury Surveillance Advisory Group

Information model link:

NHIM Physical wellbeing

Data Set Specifications:

NMDS - Injury surveillance

Start date

End date

01/07/1996

Comments:

This item is related to the ICD-10-AM injury and poisoning classification. However, coding to the full ICD-10-AM injury and poisoning classification (see data element Principal diagnosis) is not available in most settings where basic injury surveillance is undertaken. This item, in combination with the data element Nature of main injury - non-admitted patient, is a practicable alternative. Data coded to the full ICD-10-AM codes can be aggregated to match this item, facilitating data comparison. Further information on the national injury surveillance program can be obtained from the National Injury Surveillance Unit, Flinders University, Adelaide.

Body mass index

Identifying and Definitional Attributes

Knowledgebase ID:	000367	Version No:	2
Metadata type:	Derived Data Element		
Admin. status:	Current		
	01/07/03		
Definition:	A measure of a person's weight (body mass) relative to height used to assess the extent of weight deficit or excess in adults and excess only in children and adolescents.		

Context:	Public health and health care:
	Body mass index (BMI) is used as an indicator of underweight, normal or healthy weight, and overweight and obesity in adults, and overweight and obesity in children and adolescents. On a population basis there is a strong association between BMI and health risks such as coronary heart disease, non-insulin-dependent diabetes mellitus and high blood pressure in adults. In population based surveys, BMI may be used:
	<ul style="list-style-type: none"> - to indicate the prevalence of thinness and overweight and their sociodemographic distribution (problem identification) - to evaluate health promotion and disease prevention programs (assessment of interventions) - to monitor progress towards National public health policy - to ascertain determinants and consequences of thinness and overweight - in nutrition and physical activity surveillance and long-term planning.

Relational and Representational Attributes

Datatype:	Numeric
Representational form:	Quantitative value
Representational layout:	NN.NN*/NN.N**
Minimum size:	4
Maximum size:	5
Data domain:	Calculated ratio for body mass index
	888.8 Unknown
	999.9 Not collected

Guide for use:	Formula:
	$\text{BMI} = \frac{\text{weight (kg)}}{\text{height squared(m}^2\text{)}}$
	Body mass index is a continuous variable.
	Code body mass index to one or two decimal places (i.e. 99.99 or 99.9).
	If any component necessary for its calculation (i.e. weight or height for adults and weight, height, sex or date of birth for children and adolescents) is unknown or has not been collected (i.e. is coded to 888.8, 999.9).

Verification rules:

Collection methods: *NN.NN for BMI calculated from measured height and weight.
 **NN.N for BMI calculated from self-reported height and/or self-reported weight
 BMI calculated from measured height and weight should be distinguished from BMI calculated from self-reported height and/or weight. When either self-reported height or self-reported weight is used in the calculation, BMI should be recorded as self-reported BMI. Self-reported or parentally reported height and weight for children and adolescents should be used cautiously if at all.
 BMI should be derived after the data entry of weight and height. It should be stored on the raw data set as a continuous variable and should not be aggregated or rounded.

Related metadata: supersedes previous data element Adult body mass index vers 1
 is used in the derivation of Body mass index – classification vers 2
 relates to the data element Date of birth vers 4
 is calculated using the data element Height – measured vers 2
 is calculated using the data element Height – self-reported vers 2
 relates to the data element Sex vers 3
 is calculated using the data element Weight – measured vers 2
 is calculated using the data element Weight – self-reported vers 2

Administrative Attributes

Source document: Obesity: Preventing and Managing the Global Epidemic. Report of a WHO Consultation. 2000. World Health Organization.
 Cole TJ, Bellizzi MC, Flegal KM, Bietz WH. Establishing a standard definition for child overweight and obesity worldwide: international survey. British Medical Journal 2000; 320: 1240–1243

Source organisation: The World Health Organization and the consortium to develop an Australian standard definition of child/adolescent overweight and obesity; based at the Children’s Hospital at Westmead on behalf of the Commonwealth Department of Health and Ageing.

Information model link:
 NHIM Physical wellbeing

Data Set Specifications: *Start date* *End date*

Comments: This data element applies to persons aged 2 years or older. It is recommended for use in population surveys and health care settings for adults and population surveys only for children and adolescents. It is recommended that calculated BMI for children and adolescents be compared with a suitable growth reference such as the US Centers for Disease Control 2000 BMI-for-age chart in health care settings such as hospitals, clinics and in general practice. A BMI greater than the 85th %ile would be classified as overweight, while a BMI greater than the 95th %ile would be classified as obese. These %iles are arbitrary and do not relate to morbidity as the BMI cut-points do in adults.
 BMI can be considered to provide the most useful, albeit crude, population-level measure of obesity.
 BMI is relatively easy to determine, and has been validated against more direct measures of adiposity such as magnetic resonance imaging and dual x-ray absorptiometry.
 BMI is a low cost technique, with low respondent and investigator burden. In addition, it offers low inter-observer and intra-observer error, therefore offering

good reliability.

Overweight and obesity, as defined by WHO for the interpretation of BMI (WHO 2000), are exceedingly common in Australia and their prevalence is increasing.

It is recommended that in population surveys, sociodemographic data including ethnicity should be collected, as well as other risk factors including physiological status (e.g. pregnancy), physical activity, smoking and alcohol consumption. Summary statistics may need to be adjusted for these variables.

National health data elements currently exist for Sex, Date of birth, Country of birth, Indigenous status and smoking. Data elements are being developed for physical activity.

Presentation of data:

Means, 95% confidence intervals, medians and centiles should be reported to one decimal place. Where the sample permits, population estimates should be presented by sex and 5-year age groups. Estimates based on sample surveys may need to take into account sampling weights.

For consistency with conventional practice, and for current comparability with international data sets, recommended centiles are 5, 10, 15, 25, 50, 75, 85, 90 and 95. To estimate the 5th and 95th centiles a sample size of at least 200 is recommended for each group for which the centiles are being specified.

BMI can be calculated from measured height and weight, or self-reported height and weight, however, for children and adolescents, self-reported or parentally reported data should be used cautiously if at all.

For adults, BMI tends to be underestimated when based on self-reported, rather than measured, height and weight. This is due to the fact that, on average, height tends to be overestimated and weight tends to be underestimated when self-reported by respondents.

There are many individuals for whom BMI is an inappropriate measure of body fatness. These are individuals whose high body mass is due to excess muscle rather than fat (e.g. body builders or others in whom the level of physical activity promotes an increase in muscle mass); or in those with osteoporosis who will have a lower than usual BMI; or those who have a different body build (e.g. individuals with unusually long or short legs or a different body fat distribution) (WHO Expert Committee 1995).

This is particularly important when assessing individuals but should also be taken into account in interpreting data from populations in which there are sub-groups with genetic or environmental differences in body build, composition, skeletal proportions or body fat distribution. As such, both BMI and a measure of fat distribution (waist circumference or waist: hip ratio) are important in calculating the risk of obesity comorbidities.

Epidemiological research shows that there is a strong association between BMI and health risk. Excess adipose tissue in adults is associated with excess morbidity and mortality from conditions such as hypertension, unfavourable blood lipid concentrations, diabetes mellitus, coronary heart disease, some cancers, gall bladder disease, and osteoarthritis. It may also lead to social and economic disadvantage as well as psychosocial problems. It is a major public health issue in most industrialised societies.

Thinness (low BMI) is also an indicator of health risk, often being associated with general illness, anorexia, cigarette smoking, drug addiction and alcoholism. Low BMI is consistently associated with increased risk of osteoporosis and fractures in the elderly.

Body mass index – classification

Identifying and Definitional Attributes

Knowledgebase ID:	000368	Version No:	2
Metadata type:	Derived Data Element		
Admin. status:	Current		
	01/07/03		
Definition:	The category of weight deficit or excess in adults and weight excess only in children and adolescents.		

Context:	Public health and health care:
	Body mass index (BMI) is used as an indicator of underweight, normal or healthy weight and overweight and obesity in adults and of overweight and obesity in children and adolescents. On a population basis there is a strong association between BMI and health risk. In order to correctly categorise adults and children/adolescents, please refer to the categorisation protocol described under Guide for Use.

Relational and Representational Attributes

Datatype:	Numeric
Representational form:	Code
Representational layout:	N*/N.N**
Minimum size:	1
Maximum size:	3

Data domain:

Classification	BMI	Risk of comorbidities
1 Not overweight or obese	< 25.00	
1.1 Underweight	< 18.50	Low (but risk of other clinical problems increased)
1.2 Normal range	18.50 – 24.99	Average
2 Overweight	> or = 25.00	
2.1 Overweight	> or = 25.00	
2.2 Pre Obese	25.00 – 29.99	Increased
3 Obese	> or = 30	
3.1 Obese class 1	30.00 – 34.99	Moderate
3.2 Obese class 2	35.00 – 39.99	Severe
3.3 Obese class 3	> or = 40.00	Very severe
9 Not stated/inadequately described		

Guide for use:

Adults:
 BMI for adults cannot be calculated if components necessary for its calculation (weight or height) is unknown or has not been collected (i.e is coded to 888.8 or 999.9).
 BMI for adults is categorised according to the range it falls within as indicated by codes 1.1, 1.2, 2.1, 2.2, 3.1, 3.2, 3.3 or 9.9. For consistency, when the sample includes children and adolescents, adults can be analysed under the broader categories of 1, 2, 3 or 9 as used for categorising children and adolescents.

Children/adolescents:

BMI for children and adolescents aged 2 to 17 years cannot be calculated if components necessary for its calculation (date of birth, sex, weight or height) is unknown or has not been collected (i.e is coded to 888.8, 999.9 or 9).

Self-reported or parentally reported height and weight for children and adolescents should be used cautiously if at all.

To determine overweight and obesity in children and adolescents, compare the derived BMI against those recorded for the relevant age and sex of the subject to be classified, against Table 1: Classification of BMI for children and adolescents, based on BMI cut-points developed by Cole et al.(see below). For example, an 11-year-old boy with a BMI of 21 would be considered overweight (i.e coded as 2), or a 7-year-old girl with a BMI of 17.5 would be considered not overweight or obese (i.e coded as 1).

Using this method, children and adolescents can only be coded as 1, 2, 3 or 9.

Table 1: Classification of overweight and obesity for children and adolescents				
Age (years)	BMI equivalent to 25 kg/m ²		BMI equivalent to 30 kg/m ²	
	Males	Females	Males	Females
2	18.41	18.02	20.09	19.81
2.5	18.13	17.76	19.80	19.55
3	17.89	17.56	19.57	19.36
3.5	17.69	17.40	19.39	19.23
4	17.55	17.28	19.29	19.15
4.5	17.47	17.19	19.26	19.12
5	17.42	17.15	19.30	19.17
5.5	17.45	17.20	19.47	19.34
6	17.55	17.34	19.78	19.65
6.5	17.71	17.53	20.23	20.08
7	17.92	17.75	20.63	20.51
7.5	18.16	18.03	21.09	21.01
8	18.44	18.35	21.60	21.57
8.5	18.76	18.69	22.17	22.18
9	19.10	19.07	22.77	22.81
9.5	19.46	19.45	23.39	23.46
10	19.84	19.86	24.00	24.11
10.5	20.20	20.29	24.57	24.77
11	20.55	20.74	25.10	25.42
11.5	20.89	21.20	25.58	26.05
12	21.22	21.68	26.02	26.67
12.5	21.56	22.14	26.43	27.24
13	21.91	22.58	26.84	27.76
13.5	22.27	22.98	27.25	28.20
14	22.62	23.34	27.63	28.57
14.5	22.96	23.66	27.98	28.87
15	23.29	23.94	28.30	29.11
15.5	23.60	24.17	28.60	29.29
16	23.90	24.37	28.88	29.43
16.5	24.19	24.54	29.14	29.56
17	24.46	24.70	29.41	26.69
17.5	24.73	24.85	29.70	29.84
18	25.00	25.00	30.00	30.00

Collection methods: *N for BMI category determined (1, 2, 3 or 9) for persons (children and adolescents) aged 2 to 17 years.
 **N.N for BMI category determined (1.1, 1.2, 2.1, 2.2, 3.1, 3.2, 3.3 or 9.9) for persons aged 18 years or older.
 Standard definitions of overweight and obesity in terms of BMI are used to derive age-specific and age-adjusted indicators of overweight and obesity for reporting progress towards national public health policy.

Related metadata: supersedes previous data element Adult body mass index – classification vers 1
 is used in conjunction with data element Body mass index vers 2

Administrative Attributes

Source document: Obesity: Preventing and Managing the Global Epidemic (Report of a WHO Consultation: World Health Organization 2000)
 Cole TJ, Bellizzi MC, Flegal KM, Dietz WH. Establishing a standard definition for child overweight and obesity worldwide: international survey. British Medical Journal 2000; 320: 1240-1243

Source organisation: World Health Organization (see also Comments) and the consortium to develop an Australian standard definition of child/adolescent overweight and obesity at the Children’s Hospital at Westmead on behalf of the Commonwealth Department of Health & Ageing

Information model link:

NHIM Physical wellbeing

Data Set Specifications: *Start date* *End date*

Comments: This data element applies to persons aged 2 years or older. It is recommended for use in population surveys and health care settings for adults and population surveys only for children and adolescents. It is recommended that calculated BMI for children and adolescents be compared with a suitable growth reference such as the US Centers for Disease Control 2000 BMI-for-age chart in health care settings such as hospitals, clinics and in general practice. A BMI greater than the 85th %ile would be classified as overweight, while a BMI greater than the 95th %ile would be classified as obese. These %iles are arbitrary and do not relate to morbidity as the BMI cut-points do in adults. BMI can be considered to provide the most useful, albeit crude, population-level measure of obesity. The robust nature of the measurements and the widespread routine inclusion of weights and heights in clinical and population health surveys mean that a more selective measure of adiposity, such as skinfold thickness measurements, provides additional rather than primary information. BMI can be used to estimate the prevalence of obesity within a population and the risks associated with it, but does not, however, account for the wide variation in the nature of obesity between different individuals and populations (WHO 2000).

BMI values for adults are age-independent and the same for both sexes.

However, BMI values for children and adolescents aged 2 to 17 years are age- and sex-specific and are classified by comparing against the above table, Table 1: Classification of BMI for children and adolescents.

For adults and children and adolescents BMI may not correspond to the same degree of fatness in different populations due, in part, to differences in body proportions. The classification table shows a simplistic relationship between BMI and the risk of comorbidity, which can be affected by a range of factors, including the nature of the diet, ethnic group and activity level. The risks associated with increasing BMI are continuous and graded and begin at a BMI of 25 (or equivalent to 25 for children and adolescents). The interpretation of BMI grades in relation to risk may differ for different populations. Both BMI

and a measure of fat distribution (waist circumference or waist: hip ratio in adults) are important in calculating the risk of obesity comorbidities. The corresponding cut-off points for children and adolescents are arbitrary while those for adults relate to morbidity.

It is recommended that in population surveys, sociodemographic data including ethnicity should be collected, as well as other risk factors including physiological status (e.g. pregnancy), physical activity, smoking and alcohol consumption. Summary statistics may need to be adjusted for these variables.

National health data elements currently exist for Sex, Date of birth, Country of birth, Indigenous status and smoking. Data elements are being developed for physical activity.

Presentation of data:

A BMI of 30 or more is now widely accepted as denoting obesity. In some studies, however, other BMI cut off points both above and below 30 have been used. Differences in cut-off points have a major impact on estimates of the prevalence of obesity. For meaningful comparisons between or within populations it is advisable to use the single BMI cut off points recommended below (WHO 2000).

Caution is required in relation to BMI cut-off points when used for different ethnic groups because of limited outcome data for some ethnic groups, e.g. Aboriginal and Torres Strait Islander peoples. As with overweight the cut-off points for a given level of risk are likely to vary with body build, genetic background and physical activity.

The classification above is different from ones that have been used in the past and it is important that in any trend analysis consistent definitions are used.

BMI should not be rounded before categorisation to the classification above.