Data Set Specification

Cardiovascular disease (clinical)

National Health Data Dictionary, Version 12

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Cardiovascular disease (clinical)

National Health Data Dictionary, Version 12

National Health Data Committee
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Introduction

Data Set Specifications (DSS) are metadata sets that are not mandated for collection but are recommended as best practice. It is recommended that, if collecting data for the purposes of primary patient care, planning or analysis, the entire DSS be collected.

The following pages contain the Cardiovascular disease (clinical) DSS and its associated data elements and data element concepts.

This metadata set is primarily concerned with the clinical use of CV-data. It could also be used by a wider range of health and health-related establishments that create, use or maintain, records on health care clients.

The collection of cardiovascular data (CV-data) in this metadata set is voluntary.

The definitions used in CV-Data are designed to underpin the data collected by health professionals in their day-to-day practice. They relate to the realities of a clinical consultation and the ongoing nature of care and relationships that are formed between doctors and patients in clinical practice.

The data elements specified in this metadata set provide a framework for:

- promoting the delivery of high quality cardiovascular disease preventive and management care to patients;
- facilitating ongoing improvement in the quality of cardiovascular and chronic disease care predominantly in primary care and other community settings in Australia; and
- supporting general practice and other primary care services as they develop information systems to complement the above.

This is particularly important as general practice is the setting in which chronic disease prevention and management predominantly takes place. Having a nationally recognised set of definitions in relation to defining a patient's cardiovascular behavioural, social and biological risk factors, and their prevention and management status for use in these clinical settings, is a prerequisite to achieving these aims.

Many of the data elements in this metadata set are also used in the collection of diabetes clinical information.

Where appropriate, it may be useful if the data definitions in this metadata set were used to address data definition needs for use in non-clinical environments such as public health surveys etc. This could allow for qualitative comparisons between data collected in, and aggregated from, clinical settings (i.e. using application of CV-Data), with that collected through other means (e.g. public health surveys).

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Cardiovascular disease (clinical) DSS

Admin. status: CURRENT 1/01/2003 Version number: 1

Metadata type: DATA SET SPECIFICATION

Start date: 01/01/2003

Scope: The collection of cardiovascular data (CV-data) in this metadata set is voluntary.

The definitions used in CV-Data are designed to underpin the data collected by health professionals in their day-to-day practice. They relate to the realities of a clinical consultation and the ongoing nature of care and relationships that are formed between doctors and patients in clinical practice.

The data elements specified in this metadata set provide a framework for:

promoting the delivery of high quality cardiovascular disease preventive and management care to patients;

facilitating ongoing improvement in the quality of cardiovascular and chronic disease care predominantly in primary care and other community settings in Australia; and

supporting general practice and other primary care services as they develop information systems to complement the above.

This is particularly important as general practice is the setting in which chronic disease prevention and management predominantly takes place. Having a nationally recognised set of definitions in relation to defining a patient's cardiovascular behavioural, social and biological risk factors, and their prevention and management status for use in these clinical settings, is a prerequisite to achieving these aims.

Many of the data elements in this metadata set are also used in the collection of diabetes clinical information.

Where appropriate, it may be useful if the data definitions in this metadata set were used to address data definition needs for use in non-clinical environments such as public health surveys etc. This could allow for qualitative comparisons between data collected in, and aggregated from, clinical settings (i.e. using application of CV-Data), with that collected through other means (e.g. public health surveys).

Collection methodology: This metadata set is primarily concerned with the clinical use of CV-data. It could also be used by a wider range of health and health-related establishments that create, use or maintain, records on health care clients.

Data elements included: Alcohol consumption frequency – self report, version 1♦

Alcohol consumption in standard drinks per day – self report, version 1♦

Australian postcode, version 1♦

Behaviour-related risk factor intervention, version 1♦

Behaviour-related risk factor intervention – purpose, version 1♦

Blood pressure – diastolic measured, version 1♦

♦ new in NMDS this version ∇ modified this version

Data elements included (continued):

Blood pressure – systolic measured, version 1♦
Carer availability, version 3♦
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Service contact date, version 1♦
Sex, version 3♦
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Tobacco smoking status, version 1♦
Triglycerides measured, version 1♦
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Supporting data elements and data element concepts:

Alcohol consumption – concept, version 1♦
Blood pressure – concept, version 1♦
Service contact, version 1♦

Data elements included

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: 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 following table 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:	***Start date***	***End date***
DSS – Cardiovascular disease (clinical)	01/01/2003	

Comments: 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).

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:	***Start date***	***End date***
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.

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:	***Start date***	***End date***
DSS – Cardiovascular disease (clinical)	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:

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: 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:	***Start date***	***End date***
DSS – Cardiovascular disease (clinical)	01/01/2003	

Comments:

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.

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:	*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).

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; DHSH 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.

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.).

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

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: 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.

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.

- 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.
- 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).

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; DHSH 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.

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.).

Carer availability

Identifying and Definitional Attributes

Knowledgebase ID:	***000022***	***Version No:***	***3***
Metadata type:	Data Element		
Admin. status:	Current		
	01/01/03		

Definition: Whether someone, such as a family member, friend or neighbour, has been identified as providing regular and sustained care and assistance to the person requiring care.

Carers include those people who receive a pension or benefit for their caring role but does not include paid or volunteer carers organised by formal services.

Context: Personal and social support, clinical settings:

Recent years have witnessed a growing recognition of the critical role that informal support networks play in caring for frail older people and people with disabilities within the community. Not only are informal carers responsible for maintaining people with often high levels of functional dependence within the community, but the absence of an informal carer is a significant risk factor contributing to institutionalisation. Increasing interest in the needs of carers and the role they play has prompted greater interest in collecting more reliable and detailed information about carers and the relationship between informal care and the provision of and need for formal services.

Relational and Representational Attributes

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

Data domain:

1	Has no carer
2	Has a carer
9	Not stated/inadequately described

Guide for use: This data element is purely descriptive of a client's circumstances. It is not intended to reflect whether the carer is considered by the service provider to be capable of undertaking the caring role.

In line with this, the expressed views of the client and/or their carer should be used as the basis for determining whether the client is recorded as having a carer or not.

A carer is someone who provides a significant amount of care and/or assistance to the person on a regular and sustained basis. Excluded from the definition of carers are paid workers or volunteers organised by formal services (including paid staff in funded group houses). When asking a client about the availability of a carer, it is important for agencies to recognise that a carer does not always live with the person for whom they care. That is, a person providing significant care and assistance to the client does not have to live with the client in order to be called a carer.

The availability of a carer should also be distinguished from living with someone else. Although in many instances a co-resident will also be a carer, this is not necessarily the case. The data element Living arrangement is designed to record information about person(s) with whom the client may live.

Verification rules:

Collection methods: Agencies and service providers may collect this item at the beginning of each service episode and also assess this information at subsequent assessments or re-assessments. Some agencies/providers may record this information historically so that they can track changes over time. Historical recording refers to the practice of maintaining a record of changes over time where each change is accompanied by the appropriate date.

Related metadata: supersedes previous data element Carer availability vers 2

relates to the data element Formal support access status vers 1

relates to the data element Living arrangement vers 1

is used in conjunction with Service contact date vers 1

Administrative Attributes

Source document: HACC Data Dictionary Version 1.0, 1998

Source organisation: Australian Institute of Health and Welfare

Information model link:

NHIM Request for/entry into service event

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

Comments: There is inconsistency between this definition of 'Carer availability' and the ABS definition of 'Principal carer', 1993 Disability, Ageing and Carers Survey and 'Primary carer' used in the 1998 survey. The Australian Bureau of Statistics definitions require that the carer has or will provide care for a certain amount of time and that they provide certain types of care. This may not be appropriate for community services agencies wishing to obtain information about a person's carer regardless of the amount of time that care is for or the types of care provided. Information such as the amount of time for which care is provided can of course be collected separately but, if it is not needed, it would place a burden on service providers.

Informal carers are now present in 1 in 20 households in Australia (Schofield HL, Herrman HE, Bloch S, Howe A and Singh B. ANZ J PubH. 1997) and are acknowledged as having a very important role in the care of stroke survivors (Stroke Australia Task Force. National Stroke Strategy. NSF; 1997) and in those with end-stage renal disease.

Absence of a carer may also preclude certain treatment approaches (e.g. home dialysis for end-stage renal disease). Social isolation has also been shown to have a negative impact on prognosis in males with known coronary artery disease with several studies suggesting increased mortality rates in those living alone or with no confidant.

Cholesterol-HDL – measured

Identifying and Definitional Attributes

Knowledgebase ID: ***000651*** ***Version No: 1***

Metadata type: Data Element

Admin. status: Current

01/01/03

Definition: A person's measured high-density lipoprotein cholesterol (HDL-C).

Context: Public health, health care and clinical settings:

The evidence is strong that HDL-C has a direct protective effect against the development of arteriosclerosis.

Relational and Representational Attributes

Datatype: Numeric

Representational form: Quantitative value

Representational layout: N.NN

Minimum size: 2

Maximum size: 3

Data domain: Measurement in mmol/L to 2 decimal places

9.99 Not measured/inadequately described

Guide for use: When reporting, record whether or not the measurement of HDL Cholesterol was performed in a fasting specimen.

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

Verification rules:

Collection methods: Measurement of lipid levels should be carried out by laboratories, or practices, which have been accredited to perform these tests by the National Association of Testing Authorities.

- To be collected as a single venous blood sample, preferably following a 12-hour fast where only water and medications have been consumed.
- Prolonged tourniquet use can artefactually increase levels by up to 20%.

Related metadata: is used in the calculation of Cholesterol-LDL calculated vers 1

relates to the data element Cholesterol-total – measured vers 1

relates to the data element Dyslipidaemia – treatment vers 1

is used in conjunction with Fasting status vers 1

is used in conjunction with Service contact date vers 1

relates to the data element Triglycerides – measured vers 1

Administrative Attributes

Source document: National Heart Foundation of Australia and the Cardiac Society of Australia and New Zealand, Lipid Management Guidelines – 2001, MJA 2001; 175: S57–S88.

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: High-density lipoprotein cholesterol (HDL-C) is easily measured and has been shown to be a negative predictor of future coronary events.

An inverse relationship between the level of HDL-C and the risk of developing premature coronary heart disease (CHD) has been a consistent finding in a large number of prospective population studies. In many of these studies, the level of HDL-C has been the single most powerful predictor of future coronary events. Key studies of the relationship between HDLs and CHD include the Framingham Heart Study (Castelli et al. 1986), the PROCAM Study (Assman et al. 1998), the Helsinki Heart Study (Manninen et al. 1992) and the MRFIT study (Stamler et al. 1986; Neaton et al. 1992).

There are several well-documented functions of HDLs that may explain the ability of these lipoproteins to protect against arteriosclerosis (Barter and Rye 1996). The best recognised of these is the cholesterol efflux from cells promoted by HDLs in a process that may minimise the accumulation of foam cells in the artery wall. The major proteins of HDLs and also other proteins (e.g. paraoxonase) that co-transport with HDLs in plasma have anti-oxidant properties. Thus, HDLs have the ability to inhibit the oxidative modification of LDLs and may therefore reduce the atherogenicity of these lipoproteins.

Overall, it has been concluded from the prospective population studies that for every 0.025 mmol/L increase in HDL-C, the coronary risk is reduced by 2–5%. For a review of the relationship between HDL-C and CHD, see Barter and Rye (1996). A level below 1.0 mmol/L increases risk approximately 2-fold (Gordon et al. 1989; Assmann et al. 1998). (Lipid Management Guidelines – 2001, MJA 2001; 175: S57–S88.

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.

References:

National Heart Foundation of Australia – Lipid Management Guidelines 2001.

Cholesterol-LDL – calculated

Identifying and Definitional Attributes

Knowledgebase ID:	***000652***	***Version No:***	***1***
Metadata type:	Derived Data Element		
Admin. status:	Current 01/01/03		
Definition:	A person's calculated low-density lipoprotein cholesterol (LDL-C).		
Context:	Public health, health care and clinical setting.		

Relational and Representational Attributes

Datatype:	Numeric
Representational form:	Quantitative value
Representational layout:	NN.N
Minimum size:	2
Maximum size:	3

Data domain: Calculated value recorded in mmol/L to one decimal place

Guide for use: Formula:

LDL-C = (plasma total cholesterol) - (high-density lipoprotein cholesterol) - (fasting plasma triglyceride divided by 2.2).

Verification rules:

Collection methods: The LDL-C is usually calculated from the Friedwald Equation (Friedwald et al. 1972), which depends on knowing the blood levels of the total cholesterol and high-density lipoprotein cholesterol and the fasting level of the triglyceride.

Note that the Friedwald equation becomes unreliable when the plasma triglyceride exceeds 4.5 mmol/L.

Note also that while cholesterol levels are reliable for the first 24 hours after the onset of acute coronary syndromes, they may be unreliable for the subsequent 6 weeks after an event.

- Measurement of lipid levels should be carried out by laboratories, or practices, which have been accredited to perform these tests by the National Association of Testing Authorities.
- To be collected as a single venous blood sample, preferably following a 12-hour fast where only water and medications have been consumed.

Related metadata: is calculated using Cholesterol-HDL – measured vers 1

is calculated using Cholesterol-total – measured vers 1

is calculated using Fasting status vers 1

is used in conjunction with Service contact date vers 1

is calculated using Triglycerides – measured vers 1

Administrative Attributes

Source document: National Heart Foundation of Australia and the Cardiac Society of Australia and New Zealand, Lipid Management Guidelines, 2001, MJA 2001; 175: S57–S88.

Source organisation: CV-Data Working Group

Information model link:

NHIM Service provision event

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

Comments:

High blood cholesterol is a key factor in heart, stroke and vascular disease, especially coronary heart disease (CHD).

Poor nutrition can be a contributing factor to heart, stroke and vascular disease as a population's level of saturated fat intake is the prime determinant of its level of blood cholesterol.

The majority of the cholesterol in plasma is transported as a component of LDL-C. Thus, the evidence linking CHD to plasma total cholesterol and LDL-C is essentially the same.

Many studies have demonstrated the significance of blood cholesterol components as risk factors for heart, stroke and vascular disease.

Scientific studies have shown a continuous relationship between lipid levels and CHD and overwhelming evidence that lipid lowering interventions reduces CHD progression, morbidity and mortality.

There are many large-scale, prospective population studies defining the relationship between plasma total (and LDL) cholesterol and the future risk of developing CHD. The results of prospective population studies are consistent and support several general conclusions:

- the majority of people with CHD do not have markedly elevated levels of plasma total cholesterol or LDL-C
- there is a continuous positive but curvilinear relationship between the concentration of plasma total (and LDL) cholesterol and the risk of having a coronary event and of dying from CHD
- there is no evidence that a low level of plasma (or LDL) cholesterol predisposes to an increase in non-coronary mortality.

The excess non-coronary mortality at low cholesterol levels in the Honolulu Heart Study (Yano et al. 1983; Stemmermann et al. 1991) was apparent only in people who smoked and is consistent with a view that smokers may have occult smoking-related disease that is responsible for both an increased mortality and a low plasma cholesterol.

It should be emphasised that the prospective studies demonstrate an association between plasma total cholesterol and LDL-C and the risk of developing CHD. (Lipid Management Guidelines – 2001, MJA 2001; 175: S57–S88 and Commonwealth Department of Health & Ageing and Australian Institute of Health and Welfare (1999) National Health Priority Areas Report: Cardiovascular Health 1998. AIHW Cat. No. PHE 9. HEALTH and AIHW, Canberra 14–17).

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.

Cholesterol-total – measured

Identifying and Definitional Attributes

Knowledgebase ID: ***000653*** ***Version No: 1***

Metadata type: Data Element

Admin. status: Current

01/01/03

Definition: A person's measured total cholesterol (TC).

Context: Public health, health care and clinical settings.

Relational and Representational Attributes

Datatype: Numeric

Representational form: Quantitative value

Representational layout: NN.N

Minimum size: 3

Maximum size: 4

Data domain: Measurement in mmol/L to one decimal place

99.9 Not stated/Inadequately described

Guide for use: Record the absolute result of the TC measurement. When reporting, record whether or not the measurement of Cholesterol-total – measured was performed in a fasting specimen.

Verification rules:

Collection methods: Measurement of lipid levels should be carried out by laboratories, or practices, which have been accredited to perform these tests by the National Association of Testing Authorities.

- To be collected as a single venous blood sample, preferably following a 12-hour fast where only water and medications have been consumed.
- Prolonged tourniquet use can artefactually increase levels by up to 20%.

Related metadata: relates to the data element Cholesterol-HDL – measured vers 1

is used in the calculation of Cholesterol-LDL calculated vers 1

relates to the data element Dyslipidaemia – treatment vers 1

is used in conjunction with Fasting status vers 1

is used in conjunction with Service contact date vers 1

relates to the data element Triglycerides – measured vers 1

Administrative Attributes

Source document: National Heart Foundation of Australia and the Cardiac Society of Australia and New Zealand, Lipid Management Guidelines – 2001, MJA 2001; 175:

S57–S88

National Health Priority Areas Report: Cardiovascular Health 1998. AIHW Cat. No. PHE 9. HEALTH and AIHW, Canberra.

The Royal College of Pathologists of Australasia web-based Manual of Use and Interpretation of Pathology Tests

Source organisation: CV-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:

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

High blood cholesterol is a key factor in heart, stroke and vascular disease, especially coronary heart disease.

Poor nutrition can be a contributing factor to heart, stroke and vascular disease as a population's level of saturated fat intake is the prime determinant of its level of blood cholesterol.

Scientific studies have shown a continuous relationship between lipid levels and coronary heart disease and overwhelming evidence that lipid lowering interventions reduce coronary heart disease progression, morbidity and mortality. Studies show a positive relationship between an individual's total blood cholesterol level and risk of coronary heart disease as well as death (Kannel & Gordon 1970; Pocock et al. 1989).

Many studies have demonstrated the significance of blood cholesterol components as risk factors for heart, stroke and vascular disease.

Several generalisations can be made from these cholesterol lowering trials:

- That the results of the intervention trials are consistent with the prospective population studies in which (excluding possible regression dilution bias) a 1.0 mmol/L reduction in plasma total cholesterol translates into an approximate 20% reduction in the risk of future coronary events.
- It should be emphasised, however, that this conclusion does not necessarily apply beyond the range of cholesterol levels which have been tested in these studies.
- That the benefits of cholesterol lowering are apparent in people with and without coronary artery disease.

There is high level evidence that in patients with existing coronary heart disease, lipid intervention therapy reduces the risk of subsequent stroke.

Country of birth

Identifying and Definitional Attributes

Knowledgebase ID: ***000035*** ***Version No: 3***

Metadata type: Data Element

Admin. status: Current

01/07/01

Definition: The country in which the person was born.

Context: Country of birth is important in the study of access to services by different population sub-groups. Country of birth is the most easily collected and consistently reported of possible data items. The item provides a link between the Census of Population and Housing, other Australian Bureau of Statistics' (ABS) statistical collections and regional data collections. Country of birth may be used in conjunction with other data elements such as Period of residence in Australia, etc., to derive more sophisticated measures of access to services by different population sub-groups and may help in identifying population sub-group(s) that may be at increased risk of cardiovascular disease.

Relational and Representational Attributes

Datatype: Numeric

Representational form: Code

Representational layout: NNNN

Minimum size: 4

Maximum size: 4

Data domain: Standard Australian Classification of Countries (SACC) 4-digit (individual country) level. ABS catalogue no. 1269.0 (1998).

Guide for use: A country, even if it comprises other discrete political entities such as 'states', is treated as a single unit for all data domain purposes. Parts of a political entity are not included in different groups. Thus, Hawaii is included in Northern America (as part of the identified country United States of America), despite being geographically close to and having similar social and cultural characteristics as the units classified to Polynesia.

Verification rules:

Collection methods:

Related metadata: supersedes previous data element Country of birth vers 2

Administrative Attributes

Source document: ABS Catalogue No. 1269.0 (1998)

Source organisation: Australian Bureau of Statistics

Information model link:

NHIM Demographic characteristic

Data Set Specifications:	*Start date*	*End date*
NMDS – Admitted patient care	01/07/2000	
NMDS – Admitted patient mental health care	01/07/2000	
NMDS – Perinatal	01/07/2001	
NMDS – Community mental health care	01/07/2001	
NMDS – Admitted patient palliative care	01/07/2001	
NMDS – Alcohol and other drug treatment services	01/07/2001	
NMDS – Non-admitted patient emergency department care	01/07/2003	
DSS – Cardiovascular disease (clinical)	01/01/2003	
DSS – Health care client identification	01/01/2003	

Comments: The Standard Australian Classification of Countries (SACC) (ABS 1269.0 1998) supersedes the Australian Standard Classification of Countries for Social Statistics (ASCCSS) which was reported in version 9 of the NHDD.

Creatinine serum – measured

Identifying and Definitional Attributes

Knowledgebase ID: ***000655*** ***Version No: 1***

Metadata type: Data Element

Admin. status: Current

01/01/03

Definition: A person's measured serum creatinine.

Context: Clinical settings and population survey:

Serum creatinine can be used to help determine renal function. Serum creatinine by itself is an insensitive measure of renal function because it does not reliably increase above the normal range until more than 50% of renal function has been lost.

Relational and Representational Attributes

Datatype: Numeric

Representational form: Quantitative value

Representational layout: NNNN

Minimum size: 2

Maximum size: 4

Data domain: Measured in µmol/L (micromoles per litre)

Guide for use: Record the absolute result of the most recent serum creatinine measurement.

Note: If the measurement is obtained in mmol/L it is to be multiplied by 1000.

Serum creatinine together with a patient's age, weight and sex can be used to calculate glomerular filtration rate (GFR), which is an indicator of renal status/function. The calculation uses the Cockcroft-Gault formula.

Verification rules:

Collection methods: Measurement of creatinine should be carried out by laboratories, or practices, which have been accredited to perform these tests by the National Association of Testing Authority.

- Single venous blood test taken at the time of other screening blood tests.
- Fasting not required.

Related metadata: is used in conjunction with Date of birth vers 4

relates to the data element Diabetes status vers 1

is used in conjunction with Renal disease – end stage, diabetes complication vers 1

is used in conjunction with Service contact date vers 1

is used in conjunction with Sex vers 3

is used in conjunction with Weight – measured vers 2

Administrative Attributes

Source document: Caring for Australians with Renal Impairment (CARI) Guidelines. Australian Kidney Foundation

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:

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

There is no agreed standard as to which units serum creatinine should be recorded in.

In combination with age, sex and body weight, it could be used for a more accurate assessment of renal function.

Creatinine is normally produced in fairly constant amounts in the muscles, as a result the breakdown of phosphocreatine. It passes into the blood and is excreted in the urine. Serum creatinine can be used to help determine renal function. The elevation in the creatinine level in the blood indicates disturbance in kidney function.

GFR decreases with age, but serum creatinine remains relatively stable. When serum creatinine is measured, renal function in the elderly tends to be overestimated, and GFR should be used to assess renal function, according to the Cockcroft-Gault formula:

$$\text{GFR (ml/min)} = \frac{(140 - \text{age [yrs]}) \times \text{body wt (kg)}}{814 \times \text{serum creatinine (mmol/l)}} \left[\times 0.85 \text{ (for women)} \right]$$

To determine chronic renal impairment

GFR > 90 ml/min: normal

GFR > 60 – 90 ml/min: mild renal impairment

GFR > 30 – 60 ml/min: moderate renal impairment

GFR 0 – 30 ml/min: severe renal impairment

Note: The above GFR measurement should be for a period greater than 3 months. GFR may also be assessed by 24-hour creatinine clearance adjusted for body surface area.

In general, patients with GFR < 30 ml/min are at high risk of progressive deterioration in renal function and should be referred to a nephrology service for specialist management of renal failure.

Patients should be assessed for the complications of chronic renal impairment including anaemia, hyperparathyroidism and be referred for specialist management if required.

Patients with rapidly declining renal function or clinical features to suggest that residual renal function may decline rapidly (ie. hypertensive, proteinuric (> 1 g/24 hours), significant comorbid illness) should be considered for referral to a nephrologist well before function declines to less than 30 ml/min. (CARI Guidelines 2002. Australian Kidney Foundation). Patients in whom the cause of renal impairment is uncertain should be referred to a nephrologist for assessment.

CVD drug therapy – condition

Identifying and Definitional Attributes

Knowledgebase ID: ***000664*** ***Version No: 1***

Metadata type: Data Element

Admin. status: Current

01/01/03

Definition: Describes the condition(s) for which drug therapy is being used for the prevention or long-term treatment of cardiovascular disease.

Context: Public health, health care and clinical settings:

Its main use is to enable categorisation of drug management regimens used in the community for the long-term care of patients with or at increased risk of vascular disease.

Relational and Representational Attributes

Datatype: Numeric

Representational form: Code

Representational layout: NN

Minimum size: 2

Maximum size: 2

Data domain:

01	Heart failure
02	Ischaemic heart disease
03	Hypertension
04	Atrial fibrillation (AF)
05	Other dysrhythmia or conductive disorder
06	Dyslipidaemia
07	Peripheral vascular disease (PVD)
08	Renal vascular disease
09	Stroke
10	Transient ischaemic attack (TIA)
97	Other
98	No CVD drugs prescribed
99	Not recorded

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

The categorisations may be made using the most recent version of the Australian Modification of the appropriate International Classification of Diseases codes.

Verification rules:

Collection methods:

Related metadata: is used in conjunction with Service contact date vers 1

relates to the data element Vascular history vers 1

Administrative Attributes

Source document: The reference document for CVD drug therapy is the Australian Medicines Handbook, 2000.

Source organisation: CV-Data Working Group

Information model link:

NHIM Physical wellbeing

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

Comments: References such as the Australian Medicines Handbook can be used to identify specific drugs that are appropriate for use in the management of the conditions identified in the data domain.

Date of birth

Identifying and Definitional Attributes

Knowledgebase ID:	***000036***	***Version No:***	***4***
Metadata type:	Data Element		
Admin. status:	Current		
	01/07/03		
Definition:	The date of birth of the person.		
Context:	Required to derive age at a point of time for clinical or administrative use.		

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:	If date of birth is not known, provision should be made to collect age (in years) and a date of birth derived from age.
Verification rules:	This field must not be null.
Collection methods:	It is recommended that in cases where all components of the date of birth are not known or where an estimate is arrived at from age, a valid date be used together with a flag to indicate that it is an estimate.
Related metadata:	supersedes previous data element Date of birth vers 3 is used in the derivation of Diagnosis related group vers 1 is qualified by Estimated date flag vers 1 is used in the calculation of Length of stay (antenatal) vers 1 is used in the calculation of Length of stay (postnatal) vers 1

Administrative Attributes

Source document:

Source organisation: National Health Data Committee

Information model link:

NHIM Demographic characteristic

Data Set Specifications:	***Start date***	***End date***
NMDS – Admitted patient care	01/07/2003	
NMDS – Admitted patient mental health care	01/07/2003	
NMDS – Admitted patient palliative care	01/07/2003	
NMDS – Alcohol and other drug treatment services	01/07/2003	
NMDS – Community mental health care	01/07/2003	

NMDS – Health labour force	01/07/2003
NMDS – Non-admitted patient emergency department care	01/07/2003
NMDS – Perinatal	01/07/2003
DSS – Cardiovascular disease (clinical)	01/01/2003
DSS – Diabetes (clinical)	01/01/2003
DSS – Health care client identification	01/01/2003

Comments:

Any new information collections should allow for 0000YYYY. (Refer Standards Australia, AS5017 Health care client identification).

Do not use punctuation (slashes or hyphens) or spaces.

In cases where all components of the date of birth are not known or where an estimate is arrived at from age, use 00 for day and 00 for month and estimate year of birth according to the person's approximate age. As soon as known or on re-presentation, always update the Date of Birth (DOB) field. The use of the Estimated date flag is also to be used to signify that an estimate is being made.

Age is an important non-modifiable risk factor for cardiovascular conditions. The prevalence of cardiovascular conditions increases dramatically with age. For example, more than 60% of people aged 75 and over had a cardiovascular condition in 1995 compared with less than 9% of those aged under 35. Aboriginal and Torres Strait Islander peoples are more likely to have cardiovascular conditions than other Australians across almost all age groups. For example, in the 25–44 age group, 23% of Indigenous Australians reported cardiovascular conditions compared with 16% among other Australians (Heart, Stroke and Vascular Diseases: Australian Facts 2001. AIHW).

References:

National Institute of Aging U. S. Department of Health and Human Services

Date of diagnosis

Identifying and Definitional Attributes

Knowledgebase ID: ***000666*** ***Version No: 1***

Metadata type: Data Element

Admin. status: Current

01/01/03

Definition: The date a disease or condition is diagnosed.

Context: Health services and clinical setting:

Diagnostic information provides the basis for analysis of health service usage, epidemiological studies and monitoring of specific disease entities and conditions.

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:

Collection methods:

Related metadata: relates to the data element Diabetes status vers 1

relates to the data element concept Diagnosis vers 1

is used in conjunction with Service contact date vers 1

relates to the data element Vascular history vers 1

relates to the data element Vascular procedures vers 1

Administrative Attributes

Source document:

Source organisation: CV-Data Working Group

Information model link:

NHIM Service provision event

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

Comments: Classification systems, which enable the allocation of a code to the diagnostic information, can be used in conjunction with this data element.

Date of referral to rehabilitation

Identifying and Definitional Attributes

Knowledgebase ID: ***000656*** ***Version No: 1***

Metadata type: Data Element

Admin. status: Current

01/01/03

Definition: The date on which a person is referred to a rehabilitation service.

Context: Clinical settings.

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: If date of referral is not known then provision should be made to collect month and year as a minimum, using 01 as DD if only the month and year are known.

Verification rules:

Collection methods: To be collected at the time of commencement of rehabilitation.

Related metadata: relates to the data element Date of diagnosis vers 1

relates to the data element Vascular history vers 1

relates to the data element Vascular procedures vers 1

Administrative Attributes

Source document:

Source organisation: CV-Data Working Group

Information model link:

NHIM Service provision event

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

Comments: Required to derive those referred to a rehabilitation service from those eligible to attend and who actually attend. This data element can be used to determine the time lag between referral and commencement of rehabilitation.

Diabetes status

Identifying and Definitional Attributes

Knowledgebase ID: ***000654*** ***Version No: 1***

Metadata type: Data Element

Admin. status: Current

01/01/03

Definition: Identifies a person with or at risk of diabetes.

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	Type 1 diabetes
02	Type 2 diabetes
03	Gestational diabetes mellitus (GDM)
04	Other (secondary diabetes)
05	Previous gestational diabetes mellitus (GDM)
06	Impaired fasting glucose (IFG)
07	Impaired glucose tolerance (IGT)
08	Not diagnosed with diabetes
09	Not assessed
99	Not stated/inadequately described

Guide for use: Note that where there is a GDM or Previous GDM (i.e. data domains 3 & 5) and a current history of Type 2 diabetes then record 'Code 2' Type 2 diabetes.

This same principle applies where a history of either IFG (impaired fasting glycaemia) or IGT (impaired glucose tolerance) and a current history and Type 2 diabetes, then record 'Code 2' Type 2 diabetes.

Code 01 Type 1 diabetes:

Beta-cell destruction, usually leading to absolute insulin deficiency. Includes those cases attributed to an autoimmune process, as well as those with beta-cell destruction and who are prone to ketoacidosis for which neither an aetiology nor pathogenesis is known (idiopathic). It does not include those forms of beta-cell destruction or failure to which specific causes can be assigned (e.g. cystic fibrosis, mitochondrial defects). Some subjects with this Type can be identified at earlier clinical stages than 'diabetes mellitus'.

Code 02 Type 2 diabetes:

Type 2 includes the common major form of diabetes, which results from defect(s) in insulin secretion, almost always with a major contribution from insulin resistance.

Code 03 Gestational diabetes mellitus (GDM):

GDM is a carbohydrate intolerance resulting in hyperglycaemia of variable severity with onset or first recognition during pregnancy. The definition

applies irrespective of whether or not insulin is used for treatment or the condition persists after pregnancy. Diagnosis is to be based on the Australian Diabetes in Pregnancy Society (ADIPS) Guidelines.

Code 04 Other (Secondary diabetes):

This categorisation include less common causes of diabetes mellitus, but are those in which the underlying defect or disease process can be identified in a relatively specific manner. They include, for example, genetic defects of beta-cell function, genetic defects in insulin action, diseases of the exocrine pancreas, endocrinopathies, drug or chemical-induced, infections, uncommon forms of immune-mediated diabetes, other genetic syndromes sometimes associated with diabetes.

Code 05 Previous GDM:

Where the person has a history of GDM.

Code 06 Impaired fasting glycaemia (IFG):

IFG or 'non-diabetic fasting hyperglycaemia' refers to fasting glucose concentrations, which are lower than those required to diagnose diabetes mellitus but higher than the normal reference range. An individual is considered to have IFG if they have a fasting plasma glucose of 6.1 or greater and less than 7.0 mmol/L if challenged with an oral glucose load, they have a fasting plasma glucose concentration of 6.1 mmol/L or greater, but less than 7.0 mmol/L, AND the 2 hour value in the Oral Glucose Tolerance Test (OGTT) is less than 7.8 mmol/L.

Code 07 Impaired glucose tolerance (IGT):

IGT is categorised as a stage in the natural history of disordered carbohydrate metabolism; subjects with IGT have an increased risk of progressing to diabetes. IGT refers to a metabolic state intermediate between normal glucose homeostasis and diabetes. Those individuals with IGT manifest glucose intolerance only when challenged with an oral glucose load. IGT is diagnosed if the 2 hour value in the OGTT is greater than 7.8 mmol/L. and less than 11.1 mmol/L AND the fasting plasma glucose concentration is less than 7.0 mmol/L.

Code 08 Not diagnosed with diabetes:

The subject has no known diagnosis of Type 1, Type 2, GDM, Previous GDM, IFG, IGT or Other (secondary diabetes).

Code 09 Not assessed:

The subject has not had their diabetes status assessed.

Code 99 is for unknown or information unavailable.

Verification rules:

Collection methods: The diagnosis is derived from and must be substantiated by clinical documentation.

DSS – Diabetes (clinical):

A type of diabetes should be recorded and coded for each episode of patient care.

Related metadata: relates to the data element Date of diagnosis vers 1

relates to the data element Diabetes therapy type vers 1

is used in conjunction with Service contact date vers 1

Administrative Attributes

Source document: Developed based on Definition, Diagnosis and Classification of Diabetes Mellitus and its Complications Part 1: Diagnosis and Classifications of Diabetes Mellitus Provisional Report of a WHO Consultation (Alberti & Zimmet 1998).

Source organisation: CV-Data Working Group

National Diabetes Data Working Group

Information model link:

NHIM Physical wellbeing

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

Comments:

People with diabetes have two to five times increased risk of developing heart, stroke and vascular disease (Zimmet & Alberti 1997). Cardiovascular disease is the most common cause of death in people with diabetes.

Diabetes is also an important cause of stroke, and people with diabetes may have a worse prognosis after stroke.

Heart, stroke and vascular disease and diabetes share common risk factors, but also diabetes is an independent risk factor for heart, stroke and vascular disease.

During the 1995 National Health Survey, about 15 per cent of those with diabetes reported having heart disease, at almost six times the rate noted among people without diabetes. In 1996–97, almost one in six hospital separations, with coronary heart disease as any listed diagnosis, also had diabetes recorded as an associated diagnosis. Heart disease appears earlier in life and is more often fatal among those with diabetes.

Diabetes may accentuate the role of elevated blood pressure in stroke. The incidence and prevalence of peripheral vascular disease in those with diabetes increase with the duration of the diabetes.

Mortality is increased among patients with peripheral vascular disease and diabetes, in particular if foot ulcerations, infection or gangrene occur. There is limited information on whether the presence of heart, stroke and vascular disease promotes diabetes in some way.

High blood pressure, high cholesterol and obesity are often present along with diabetes. As well as all being independent cardiovascular risk factors, when they are in combination with glucose intolerance (a feature of diabetes) and other risk factors such as physical inactivity and smoking, these factors present a greater risk for heart, stroke and vascular disease.

Evidence is accumulating that high cholesterol and glucose intolerance, which often occur together, may have a common aetiological factor. Despite these similarities, trends in cardiovascular mortality and diabetes incidence and mortality are moving in opposite directions.

While the ageing of the population following reductions in cardiovascular mortality may have contributed to these contrasting trends, the role of other factors also needs to be clearly understood if common risk factor prevention strategies are to be considered (from Commonwealth Department of Health & Ageing and Australian Institute of Health and Welfare (1999) National Health Priority Areas Report: Cardiovascular Health).

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

Diabetes therapy type

Identifying and Definitional Attributes

Knowledgebase ID: ***000668*** ***Version No: 1***

Metadata type: Data Element

Admin. status: Current

01/01/03

Definition: The type of diabetes therapy the person is currently receiving.

Context: Public health, health care and clinical setting:

Its main use is to enable categorisation of management regimes against best practice for diabetes.

Relational and Representational Attributes

Datatype: Numeric

Representational form: Code

Representational layout: NN

Minimum size: 2

Maximum size: 2

Data domain:

01	Diet and exercise only
02	Oral hypoglycaemic – sulphonylurea only
03	Oral hypoglycaemic – biguanide (e.g. metformin) only
04	Oral hypoglycaemic – alpha-glucosidase inhibitor only
05	Oral hypoglycaemic – thiazolidinedione only
06	Oral hypoglycaemic – meglitinide only
07	Oral hypoglycaemic – combination (e.g. biguanide and sulphonylurea)
08	Oral hypoglycaemic – other
09	Insulin only
10	Insulin plus oral hypoglycaemic
98	Nil – not currently receiving diabetes treatment
99	Not stated/inadequately described

Guide for use:

Code 01 includes the options of generalised prescribed diet; avoid added sugar/simple carbohydrates; low joule diet; portion exchange diet and uses glycaemic index and a recommendation for increased exercise.

Code 98 no current diet, tablets or insulin therapy(ies)

Code 99 missing information

Verification rules:

Collection methods: To be collected at the commencement of treatment and at each review.

Related metadata: relates to the data element Diabetes status vers 1

relates to the data element Renal disease therapy vers 1

is used in conjunction with Service contact date vers 1

relates to the data element Vascular history vers 1

relates to the data element Year insulin started vers 1

Administrative Attributes

Source document:

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

Information model link:

NHIM Physical wellbeing

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

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

Division of General Practice number

Identifying and Definitional Attributes

Knowledgebase ID: ***000669*** ***Version No: 1***

Metadata type: Data Element

Admin. status: Current

01/01/03

Definition: The Division of General Practice number as designated by the Commonwealth Government of Australia. Each separately administered Division of General Practice has a unique identifying number.

Context: Public health and health care:

To facilitate outcomes focused collection, linkage, pooling, analysis, reporting and feedback of aggregated data, which could potentially be linked to other health initiatives.

Relational and Representational Attributes

Datatype: Numeric

Representational form: Code

Representational layout: NNN

Minimum size: 3

Maximum size: 3

Data domain: Codes defined in the Commonwealth Department of Health and Ageing: General Practice in Australia: 2000. First Edition May 2000.

Guide for use: Divisions of General Practice are geographically based networks of general practitioners. In geographical terms, each Division of General Practice can be described by the postcodes that fall within its jurisdiction.

Verification rules:

Collection methods:

Related metadata: relates to the data element Person identifier vers 1

Administrative Attributes

Source document: Commonwealth Department of Health and Ageing: General Practice in Australia: 2000. First Edition May 2000.

Source organisation: CV-Data Working Group

Information model link:

NHIM Service provider role

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

Comments:

Fasting status

Identifying and Definitional Attributes

Knowledgebase ID: ***000665*** ***Version No: 1***

Metadata type: Data Element

Admin. status: Current

01/01/03

Definition: The fasting status of the patient at the time of an examination, test, investigation or procedure.

Context: Public health, health care and clinical setting.

Relational and Representational Attributes

Datatype: Numeric

Representational form: Code

Representational layout: N

Minimum size: 1

Maximum size: 1

Data domain:

1	Fasting
2	Non-fasting
9	Not stated/inadequately described

Guide for use:

Verification rules:

Collection methods:

Related metadata: is used in conjunction with Cholesterol-HDL – measured vers 1
is used in conjunction with Cholesterol-total – measured vers 1
relates to the data element Dyslipidaemia – treatment vers 1
is used in conjunction with Triglycerides – measured vers 1

Administrative Attributes

Source document:

Source organisation: National Diabetes Data Working Group
CV-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: In settings where the monitoring of a person's health is ongoing and where management can change over time (such as general practice), the service contact date should be recorded.

Formal community support access status

Identifying and Definitional Attributes

Knowledgebase ID: ***000660*** ***Version No: 1***

Metadata type: Data Element

Admin. status: Current

01/01/03

Definition: Identifies a person who is currently accessing a formal community support service or services.

Context: Personal and social support and clinical settings:

This data element provides information about the use of formal community support services by clients.

Relational and Representational Attributes

Datatype: Numeric

Representational form: Code

Representational layout: N

Minimum size: 1

Maximum size: 1

Data domain:

1 Currently accessing

2 Currently not accessing

9 Not known/inadequately described

Guide for use: Code 1 The person is currently accessing at least one paid community support service (i.e. meals on wheels, home help, in-home respite, service packages, district nursing services, etc.).

Code 2 The person is not currently accessing any paid community support service or services.

Code 9 The person's current status with regards to accessing community support services is not known or inadequately described for more specific coding.

Verification rules:

Collection methods:

Related metadata: relates to the data element Carer availability vers 3

relates to the data element Living arrangement vers 1

is used in conjunction with Service contact date vers 1

Administrative Attributes

Source document:

Source organisation: CV-Data Working Group

Information model link:

NHIM Request for/entry into service event

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

Comments:

Height – measured

Identifying and Definitional Attributes

Knowledgebase ID: ***000362*** ***Version No:*** ***2***

Metadata type: Data Element

Admin. status: Current

01/07/03

Definition: A person's measured height.

In order to ensure consistency in measurement, the measurement protocol described under Collection methods should be used.

Context: Public health, health care and clinical settings:

Stature is a major indicator of general body size and of bone length and of nutritional and health status of the individual and the community at large. It is important in screening for disease or malnutrition, and in the interpretation of weight (Lohman et al. 1988). Shortness is known to be a predictor of all-cause mortality, coronary heart disease mortality in middle-aged men, and of less favourable gestational outcomes in women (Marmot et al. 1984, Kramer 1988).

Measurements of height should be assessed in relation to children and adolescents' age and pubertal status.

Disease, nutritional, genetic and environmental factors all exert an influence on the height of an individual, hence this variable, together with its related variable weight, is of unique value in health surveillance. It enables the calculation of body mass index which requires the measurement of height and weight (body mass) for adults as well as sex and date of birth for children and adolescents.

Relational and Representational Attributes

Datatype: Numeric

Representational form: Quantitative value

Representational layout: NNN.N

Minimum size: 3

Maximum size: 4

Data domain: Measurement in centimetres to one decimal place

999.9 Not able to be measured

Guide for use:

Verification rules:

Collection methods: Measurement protocol:

Height measurements can be based on recumbent length or standing height. In general, length measurements are recommended for children under 2 years of age and height measurements for others.

The measurement of height requires a vertical metric rule, a horizontal headboard, and a non-compressible flat even surface on which the subject stands. The equipment may be fixed or portable, and should be described and reported.

The graduations on the metric rule should be at 0.1 cm intervals, and the metric rule should have the capacity to measure up to at least 210 cm.

Measurement intervals and labels should be clearly readable under all conditions of use of the instrument.

Apparatus that allows height to be measured while the subject stands on a platform scale is not recommended.

Adults and children who can stand:

The subject should be measured without shoes (i.e. is barefoot or wears thin socks) and wears little clothing so that the positioning of the body can be seen. Anything that may affect or interfere with the measurement should be noted on the data collection form (e.g. hairstyles and accessories, or physical problems). The subject stands with weight distributed evenly on both feet, heels together, and the head positioned so that the line of vision is at right angles to the body. The correct position for the head is in the Frankfort horizontal plan (Norton et al. 1996). The arms hang freely by the sides. The head, back, buttocks and heels are positioned vertically so that the buttocks and the heels are in contact with the vertical board. To obtain a consistent measure, the subject is asked to inhale deeply and stretch to their fullest height. The measurer applies gentle upward pressure through the mastoid processes to maintain a fully erect position when the measurement is taken. Ensure that the head remains positioned so that the line of vision is at right angles to the body, and the heels remain in contact with the base-board.

The movable headboard is brought onto the top of the head with sufficient pressure to compress the hair.

The measurement is recorded to the nearest 0.1 cm. Take a repeat measurement. If the two measurements disagree by more than 0.5 cm, then take a third measurement. All raw measurements should be recorded on the data collection form. If practical, it is preferable to enter the raw data into the database as this enables intra-observer and, where relevant, inter-observer errors to be assessed. The subject's measured height is subsequently calculated as the mean of the two observations, or the mean of the two closest measurements if a third is taken, and recorded on the form. If only a mean value is entered into the database then the data collection forms should be retained.

It may be necessary to round the mean value to the nearest 0.1 cm. If so, rounding should be to the nearest even digit to reduce systematic over-reporting (Armitage & Berry 1994). For example, a mean value of 172.25 cm would be rounded to 172.2 cm, while a mean value of 172.35 cm would be rounded to 172.4 cm.

Infants:

For the measurement of supine length of children up to and including 2 years of age, two observers are required. One observer positions the head correctly while the other ensures the remaining position is correct and brings the measuring board in contact with the feet. The subject lies in a supine position on a recumbent length table or measuring board. The crown of the head must touch the stationary, vertical headboard. The subject's head is held with the line of vision aligned perpendicular to the plane of the measuring surface. The shoulders and buttocks must be flat against the table top, with the shoulders and hips aligned at right angles to the long axis of the body. The legs must be extended at the hips and knees and lie flat against the table top and the arms rest against the sides of the trunk. The measurer must ensure that the legs remain flat on the table and must shift the movable board against the heels. In infants care has to be taken to extend the legs gently. In some older children two observers may also be required.

In general, length or height is measured and reported to the nearest 0.1 cm. For any child, the length measurement is approximately 0.5–1.5 cm greater than the height measurement. It is therefore recommended that when a length measurement is applied to a height-based reference for children over 24 months of age (or over 85 cm if age is not known), 1.0 cm be subtracted before the length measurement is compared with the reference. It is also

recommended that as a matter of procedure and data recording accuracy, the date be recorded when the change is made from supine to standing height measure.

Validation and quality control measures:

All equipment, whether fixed or portable should be checked prior to each measurement session to ensure that both the headboard and floor (or footboard) are at 90 degrees to the vertical rule. With some types of portable anthropometer it is necessary to check the correct alignment of the headboard, during each measurement, by means of a spirit level. Within- and, if relevant, between-observer variability should be reported. They can be assessed by the same (within-) or different (between-) observers repeating the measurement of height, on the same subjects, under standard conditions after a short time interval. The standard deviation of replicate measurements (technical error of measurement (Pederson & Gore 1996)) between observers should not exceed 5 mm and be less than 5 mm within observers.

Extreme values at the lower and upper end of the distribution of measured height should be checked both during data collection and after data entry. Individuals should not be excluded on the basis of true biological difference. Last digit preference, and preference or avoidance of certain values, should be analysed in the total sample and (if relevant) by observer, survey site and over time if the survey period is long.

Related metadata: supersedes previous data element Adult height – measured vers 1

is used in the calculation of Body mass index vers 2

Administrative Attributes

Source document: The measurement protocol described below are those recommended by the International Society for the Advancement of Kinanthropometry as described by Norton et al. (1996), and the World Health Organization (WHO Expert Committee 1995), which was adapted from Lohman et al. (1988).

Source organisation: International Society for the Advancement of Kinanthropometry

World Health Organization

The consortium to develop standard methods for the collection and collation of anthropometric data in children as part of the National Food and Nutrition Monitoring and Surveillance Project, funded by the Commonwealth Department of Health and Ageing.

Information model link:

NHIM Physical characteristic

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

Comments: This data element applies to persons of all ages. It is recommended for use in population surveys and health care settings.

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. However 5-year age groups are not generally suitable for children and adolescents. 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.

For some reporting purposes, it may be desirable to present height data in categories. It is recommended that 5 cm groupings are used for this purpose. Height data should not be rounded before categorisation. The following categories may be appropriate for describing the heights of Australian men, women, children and adolescents although the range will depend on the population.

Ht < 70 cm

70 cm = Ht < 75 cm

75 cm = Ht < 80 cm

... in 5 cm categories

185 cm = Ht < 190 cm

Ht => 190 cm

Indigenous status

Identifying and Definitional Attributes

Knowledgebase ID: ***000001*** ***Version No: 4***

Metadata type: Data Element

Admin. status: Current

01/07/03

Definition: Indigenous status is a measure of whether a person identifies as being of Aboriginal or Torres Strait Islander origin. This is in accord with the first two of three components of the Commonwealth definition. See Comments for the Commonwealth definition.

Context: Australia's Aboriginal and Torres Strait Islander peoples occupy a unique place in Australian society and culture. In the current climate of reconciliation, accurate and consistent statistics about Aboriginal and Torres Strait Islander peoples are needed in order to plan, promote and deliver essential services, to monitor changes in wellbeing and to account for government expenditure in this area.

The purpose of this data element is to provide information about people who identify as being of Aboriginal or Torres Strait Islander origin. Agencies wishing to determine the eligibility of individuals for particular benefits, services or rights will need to make their own judgements about the suitability of the standard measure for these purposes, having regard to the specific eligibility criteria for the program concerned.

Relational and Representational Attributes

Datatype: Numeric

Representational form: Code

Representational layout: N

Minimum size: 1

Maximum size: 1

Data domain:

1	Aboriginal but not Torres Strait Islander origin
2	Torres Strait Islander but not Aboriginal origin
3	Both Aboriginal and Torres Strait Islander origin
4	Neither Aboriginal nor Torres Strait Islander origin
9	Not stated/inadequately described

Guide for use: This data element is based on the Australian Bureau of Statistics' (ABS) standard for Indigenous status. For detailed advice on its use and application please refer to the ABS web site as indicated below in the Source document section.

The classification for 'Indigenous status' has a hierarchical structure comprising two levels. There are four categories at the detailed level of the classification which are grouped into two categories at the broad level. There is one supplementary category for 'not stated' responses. The classification is as follows:

Indigenous:

- Aboriginal but not Torres Strait Islander origin
- Torres Strait Islander but not Aboriginal origin

- both Aboriginal and Torres Strait Islander origin

Non-indigenous:

- neither Aboriginal nor Torres Strait Islander origin

Not stated/inadequately described:

This category is not to be available as a valid answer to the questions but is intended for use:

- primarily when importing data from other data collections that do not contain mappable data
- where an answer was refused
- where the question was not able to be asked prior to completion of assistance because the client was unable to communicate or a person who knows the client was not available.

Only in the last two situations may the tick boxes on the questionnaire be left blank.

Verification rules:

Collection methods:

The standard question for Indigenous status is as follows:

[Are you] [Is the person] [Is (name)] of Aboriginal or Torres Strait Islander origin?

(For persons of both Aboriginal and Torres Strait Islander origin, mark both 'Yes' boxes.)

No.....☐

Yes, Aboriginal.....☐

Yes, Torres Strait Islander.....☐

This question is recommended for self-enumerated or interview-based collections. It can also be used in circumstances where a close relative, friend, or another member of the household is answering on behalf of the subject.

When someone is not present, the person answering for them should be in a position to do so, i.e. this person must know the person about whom the question is being asked well and feel confident to provide accurate information about them. However, it is strongly recommended that this question be asked directly wherever possible.

This question must always be asked regardless of data collectors' perceptions based on appearance or other factors.

The Indigenous status question allows for more than one response. The procedure for coding multiple responses is as follows:

If the respondent marks 'No' and either 'Aboriginal' or 'Torres Strait Islander', then the response should be coded to either Aboriginal or Torres Strait Islander as indicated (i.e. disregard the 'No' response).

If the respondent marks both the 'Aboriginal' and 'Torres Strait Islander' boxes, then their response should be coded to 'Both Aboriginal and Torres Strait Islander origin'.

If the respondent marks all three boxes ('No', 'Aboriginal' and 'Torres Strait Islander'), then the response should be coded to 'Both Aboriginal and Torres Strait Islander origin' (i.e. disregard the 'No' response).

This approach may be problematical in some data collections, for example when data are collected by interview or using screen-based data capture systems. An additional response category:

Yes, both Aboriginal and Torres Strait Islander…….☐

may be included if this better suits the data collection practices of the agency concerned.

Related metadata: supersedes previous data element Indigenous status vers 3

Administrative Attributes

Source document: Available on the ABS web site. From the ABS Home page (www.abs.gov.au) select: About Statistics/About Statistical Collections (Concepts & Classifications) /Other ABS Statistical Standards/Standards for Social Labour and Demographic Variables/Cultural Diversity Variables/Indigenous Status.

Source organisation: Australian Bureau of Statistics

Information model link:

NHIM Social characteristic

Data Set Specifications:	***Start date***	***End date***
NMDS – Admitted patient care	01/07/2003	
NMDS – Admitted patient mental health care	01/07/2003	
NMDS – Perinatal	01/07/2003	
NMDS – Community mental health care	01/07/2003	
NMDS – Admitted patient palliative care	01/07/2003	
NMDS – Alcohol and other drug treatment services	01/07/2003	
NMDS – Non-admitted patient emergency department care	01/07/2003	
DSS – Cardiovascular disease (clinical)	01/01/2003	
DSS – Diabetes (clinical)	01/01/2003	
DSS – Health care client identification	01/01/2003	

Comments: The following definition, commonly known as 'The Commonwealth Definition' was given in a High Court judgement in the case of Commonwealth v Tasmania (1983) 46 ALR 625.

'**An Aboriginal or Torres Strait Islander is a person of Aboriginal or Torres Strait Islander descent who identifies as an Aboriginal or Torres Strait Islander and is accepted as such by the community in which he or she lives'.**

There are three components to the Commonwealth Definition:

- descent
- self-identification
- community acceptance.

In practice, it is not feasible to collect information on the community acceptance part of this definition in general purpose statistical and administrative collections and therefore standard questions on Indigenous status relate to descent and self-identification only.

Labour force status

Identifying and Definitional Attributes

Knowledgebase ID: ***000670*** ***Version No: 1***

Metadata type: Data Element

Admin. status: Current

01/01/03

Definition: The self reported status the person currently has in being either in the labour force (employed/unemployed) or not in the labour force. The categories are determined by a person's status in relation to current economic activity (which is measured by their activities in relation to work in a specified reference period).

Context: Clinical settings:

Labour force status is an indicator of the socio-economic status (economic activity) of a person and is a key element in assessing the circumstances and needs of individuals and families. In all social classes, the mortality rate of unemployed people was higher than that of the employed, particularly for death from cardiovascular disease, lung cancer, accidents and suicide (Mathers CD and Schofield DJ. MJA 1998; 168: 178–182). It is one of a group of items that provide a description of a person's labour force characteristics.

Relational and Representational Attributes

Datatype: Numeric

Representational form:

Representational layout: N

Minimum size: 1

Maximum size: 1

Data domain:

1	Employed
2	Unemployed
3	Not in the labour force
4	Not stated/inadequately described

Guide for use: Definitions for these categories are:

Employed:

Employed persons comprise all those aged 15 years and over who, during the reference week:

(a) worked for one hour or more for pay, profit, commission or payment in kind in a job or business, or on a farm (comprising 'Employees', 'Employers' and 'Own Account Workers');

(b) worked for one hour or more without pay in a family business or on a farm (i.e. 'Contributing Family Worker');

(c) were 'Employees' who had a job but were not at work and were:

- on paid leave
- on leave without pay, for less than four weeks, up to the end of the reference week
- stood down without pay because of bad weather or plant breakdown at their place of employment, for less than four weeks up to the end of the reference week

- on strike or locked out
- on workers' compensation and expected to be returning to their job
- receiving wages or salary while undertaking full-time study;

(d) were 'Employers', 'Own Account Workers' or 'Contributing Family Workers' who had a job, business or farm, but were not at work.

Unemployed:

Unemployed persons are those aged 15 years and over who were not employed during the reference week, and:

(a) had actively looked for full-time or part-time work at any time in the four weeks up to the end of the reference week. Were available for work in the reference week, or would have been available except for temporary illness (i.e. lasting for less than four weeks to the end of the reference week). Or were waiting to start a new job within four weeks from the end of the reference week and would have started in the reference week if the job had been available then;

(b) were waiting to be called back to a full-time or part-time job from which they had been stood down without pay for less than four weeks up to the end of the reference week (including the whole of the reference week) for reasons other than bad weather or plant breakdown.

Note: Actively looking for work includes writing, telephoning or applying in person to an employer for work. It also includes answering a newspaper advertisement for a job, checking factory or job placement agency notice boards, being registered with a job placement agency, checking or registering with any other employment agency, advertising or tendering for work or contacting friends or relatives.

Not in the labour force:

Persons not in the labour force are those persons who, during the reference week, were not in the categories employed or unemployed, as defined. They include persons who were keeping house (unpaid), retired, voluntarily inactive, permanently unable to work, persons in institutions (hospitals, gaols, sanatoriums, etc.), trainee teachers, members of contemplative religious orders, and persons whose only activity during the reference week was jury service or unpaid voluntary work for a charitable organisation.

Verification rules:

Collection methods: For information about collection, refer to the Australian Bureau of Statistics' (ABS) web site: www.abs.gov.au/

Related metadata: is used in conjunction with Service contact date vers 1

Administrative Attributes

Source document: AIHW: 2000 National Community Services Data Dictionary, version 2. Catalogue No. HWI 27. Canberra: AIHW. (Data element 'Labour force status' 000526 V2). Standards for Social, Labour and Demographic Statistics.

Source organisation: Australian Bureau of Statistics

Information model link:

NHIM Labour characteristic

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

Comments: This definition is based on the ABS standard definition of labour force status. It is generally measured at the point of coming into contact with (or completion of assistance by) a community services agency.

Living arrangement

Identifying and Definitional Attributes

Knowledgebase ID: ***000629*** ***Version No: 1***

Metadata type: Data Element

Admin. status: Current

01/01/03

Definition: Whether a person usually resides alone or with others.

Context: Client support needs and clinical setting: It is important to record the type of living arrangements for a person in order to develop a sense of the level of support, both physically and emotionally, to which a person may have access. Whether or not a person lives alone is a significant determinant of risk.

Relational and Representational Attributes

Datatype: Numeric

Representational form: Code

Representational layout: N

Minimum size: 1

Maximum size: 1

Data domain:

1	Lives alone
2	Lives with others
9	Not stated/inadequately described

Guide for use: The item does not seek to describe the quality of the arrangements but merely the fact of the arrangement. It is recognised that this item may change on a number of occasions during the course of an episode of care.

Verification rules:

Collection methods:

Related metadata: relates to the data element Carer availability vers 3

relates to the data element Formal community support access status vers 1

is used in conjunction with Service contact date vers 1

Administrative Attributes

Source document:

Source organisation: CV-Data Working Group

Information model link:

NHIM Functional wellbeing

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

Comments: Living alone may preclude certain treatment approaches (e.g. home dialysis for end-stage renal disease). Social isolation has also been shown to have a negative impact on prognosis in males with known coronary artery disease with several studies suggesting increased mortality rates in those living alone or with no confidant.

Person identifier

Identifying and Definitional Attributes

Knowledgebase ID: ***000127*** ***Version No: 1***

Metadata type: Data Element

Admin. status: Current

01/07/89

Definition: Person identifier unique within an establishment or agency.

Context: This item could be used for editing at the establishment or collection authority level and, potentially, for episode linkage. There is no intention that this item would be available beyond collection authority level.

Relational and Representational Attributes

Datatype: Alphanumeric

Representational form: Identification number

Representational layout: AN(20)

Minimum size: 6

Maximum size: 20

Data domain: Valid person identification number.

Guide for use: Individual establishments or collection authorities may use their own alphabetic, numeric or alphanumeric coding systems.

Verification rules: Field cannot be blank.

Collection methods:

Related metadata: relates to the data element Establishment identifier vers 4

is qualified by Person identifier type – health care vers 1

Administrative Attributes

Source document: AS5017 Health care client identification (with adaptation)

Source organisation: National minimum data set working parties

Information model link:

NHIM Recipient role

Data Set Specifications:	***Start date***	***End date***
NMDS – Admitted patient care	01/07/2000	
NMDS – Admitted patient mental health care	01/07/2000	
NMDS – Perinatal	01/07/1997	
NMDS – Community mental health care	01/07/2000	
NMDS – Admitted patient palliative care	01/07/2000	
NMDS – Alcohol and other drug treatment services	01/07/2000	
NMDS – Non-admitted patient emergency department care	01/07/2003	
DSS – Cardiovascular disease (clinical)	01/01/2003	
DSS – Health care client identification	01/01/2003	

Comments:

Physical activity sufficiency status

Identifying and Definitional Attributes

Knowledgebase ID:	***000672***	***Version No: 1***
Metadata type:	Data Element	
Admin. status:	Current	
	01/01/03	
Definition:	Sufficiency of moderate or vigorous physical activity to confer a health benefit.	
Context:	Public health, health care and clinical setting: To monitor health risk factors for national health priority areas and other chronic diseases.	

Relational and Representational Attributes

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

Data domain:

1	Sufficient
2	Insufficient
3	Sedentary
9	Not stated/inadequately described

Guide for use:

The clinician makes a judgment based on assessment of the person's reported physical activity history for a usual 7-day period where:

Code 1: Sufficient physical activity for health benefit for a usual 7-day period is calculated by summing the total minutes of walking, moderate and/or vigorous physical activity.

Vigorous physical activity is weighted by a factor of two to account for its greater intensity. Total minutes for health benefit need to be equal to or more than 150 minutes per week.

Code 2: Insufficient physical activity for health benefit is where the sum of the total minutes of walking, moderate and/or vigorous physical activity for a usual 7-day period is less than 150 minutes but more than 0 minutes.

Code 3: Sedentary is where there has been no moderate and/or vigorous physical activity during a usual 7-day period.

Code 9: There is insufficient information to more accurately define the person's physical activity sufficiency status or the information is not known.

Note: The National Heart Foundation of Australia and the National Physical Activity Guidelines for Australians describes moderate-intensity physical activity as causing a slight but noticeable, increase in breathing and heart rate and suggests that the person should be able to comfortably talk but not sing. Examples of moderate physical activity include brisk walking, low pace swimming, light to moderate intensity exercise classes. Vigorous physical activity is described as activity, which causes the person to 'huff and puff', and where talking in a full sentence between breaths is difficult.

Examples of vigorous physical activity include jogging, swimming (freestyle) and singles tennis.

Verification rules:

Collection methods:

Related metadata: relates to the data element Behaviour-related risk factor intervention vers 1

is used in conjunction with Service contact date vers 1

Administrative Attributes

Source document: The National Heart Foundation of Australia's Physical Activity Policy, April 2001.

National Physical Activity Guidelines For Australians, developed by the University of Western Australia & the Centre for Health Promotion and Research, Sydney, for the Commonwealth Department of Health and Ageing.

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: The above grouping subdivides a population into three mutually exclusive categories.

A sufficiently physically active person is a person who is physically active on a regular weekly basis equal to or in excess of that required for a health benefit. Sufficient physical activity for health results from participation in physical activity of adequate duration and intensity. Although there is no clear absolute threshold for health benefit, the accrual of 150 minutes of moderate (at least) intensity physical activity over a period of one week is thought to confer health benefit. Walking is included as a moderate intensity physical activity. Note that the 150 minutes of moderate physical activity should be made up of 30 minutes on most days of the week and this can be accumulated in 10 minute bouts (National Physical Activity Guidelines for Australians).

Health benefits can also be obtained by participation in vigorous physical activity, in approximate proportion to the total amount of activity performed, measured either as energy expenditure or minutes of physical activity (Pate et al. 1995).

Physical activity – health benefit for vigorous physical activity is calculated by:

- incorporating a weighted factor of 2, to account for its greater intensity
- summing the total minutes of walking, moderate and/or vigorous physical activity will then give an indication if a health benefit is likely.

Insufficient physical activity describes a person who engages in regular weekly physical activity but not to the level required for a health benefit through either moderate or vigorous physical activity.

A sedentary person is a person who does not engage in any regular weekly physical activity.

Preferred language

Identifying and Definitional Attributes

Knowledgebase ID: ***000132*** ***Version No: 2***

Metadata type: Data Element

Admin. status: Current

01/07/98

Definition: The language (including sign language) most preferred by the person for communication. This may be a language other than English even where the person can speak fluent English.

Context: Health and welfare services:

An important indicator of ethnicity, especially for persons born in non-English-speaking countries. Its collection will assist in the planning and provision of multilingual services and facilitate program and service delivery for migrants and other non-English speakers.

Relational and Representational Attributes

Datatype: Numeric

Representational form: Code

Representational layout: NN

Minimum size: 2

Maximum size: 2

Data domain:

00	Afrikaans
01	Albanian
02	Alyawarr (Alyawarra)
03	Arabic (including Lebanese)
04	Armenian
05	Arrernte (Aranda)
06	Assyrian (including Aramaic)
07	Australian Indigenous languages, not elsewhere classified
08	Bengali
09	Bisaya
10	Bosnian
11	Bulgarian
12	Burarra
13	Burmese
14	Cantonese
15	Cebuano
16	Croatian
17	Czech
18	Danish
19	English
20	Estonian
21	Fijian

22 Finnish
23 French
24 German
25 Gilbertese
26 Greek
27 Gujarati
28 Hakka
29 Hebrew
30 Hindi
31 Hmong
32 Hokkien
33 Hungarian
34 Indonesian
35 Irish
36 Italian
37 Japanese
38 Kannada
39 Khmer
40 Korean
41 Kriol
42 Kuurinji (Gurindji)
43 Lao
44 Latvian
45 Lithuanian
46 Macedonian
47 Malay
48 Maltese
49 Mandarin
50 Mauritian Creole
51 Netherlandic
52 Norwegian
53 Persian
54 Pintupi
55 Pitjantjatjara
56 Polish
57 Portuguese
58 Punjabi
59 Romanian
60 Russian
61 Samoan
62 Serbian
63 Sinhalese
64 Slovak
65 Slovene
66 Somali
67 Spanish

68	Swahili
69	Swedish
70	Tagalog (Filipino)
71	Tamil
72	Telugu
73	Teochew
74	Thai
75	Timorese
76	Tiwi
77	Tongan
78	Turkish
79	Ukranian
80	Urdu
81	Vietnamese
82	Walmajarri (Walmadjari)
83	Warlpiri
84	Welsh
85	Wik-Mungkan
86	Yiddish
95	Other languages, not further defined
96	Inadequately described
97	Non-verbal, so described (including sign languages e.g. Auslan, Makaton)
99	Not stated

Guide for use: The classification used in this data element is a modified 2-digit level version of the Australian Bureau of Statistics' (ABS) classification: Australian Standard Classification of Languages (ASCL).

All non-verbal means of communication, including sign languages, are to be coded to 97.

Code 96 should be used where some information, but insufficient, is provided.

Code 98 is to be used when no information is provided.

All Australian indigenous languages not shown separately on the code list are to be coded to 07.

Verification rules:

Collection methods: This information may be collected in a variety of ways. It may be collected by using a predetermined shortlist of languages that are most likely to be encountered from the above code list accompanied by an open text field for Other language or by using an open ended question that allows for recording of the language nominated by the person. Regardless of the method used for data collection the language nominated should be coded using the above ABS codes.

Related metadata: supersedes previous data element Preferred language vers 1

Administrative Attributes

Source document: Australian Standard Classification of Languages, Australian Bureau of Statistics, Catalogue No. 1267.0

Source organisation: National Health Data Committee
Australian Bureau of Statistics

Information model link:

NHIM Social characteristic

Data Set Specifications:	***Start date***	***End date***
NMDS – Alcohol and other drug treatment services	01/07/2002	
DSS – Cardiovascular disease (clinical)	01/01/2003	

Comments:

The ABS has developed a detailed 4-digit language classification of 193 language units which was used in the 1996 Census. Although it is preferable to use the classification at a 4-digit level, the requirements of administrative collections have been recognised and the ABS has developed a classification of 86 languages at a 2-digit level from those most frequently spoken in Australia. Mapping of this 2-digit running code system to the 4-digit ASCL is available from ABS. The classification used in this data element is a modified version of the 2-digit level ABS classification. The National Health Data Committee considered that the grouping of languages by geographic region was not useful in administrative settings. Thus the data domain includes an alphabetical listing of the 86 languages from the ABS 2-digit level classification with only one code for Other languages, not further defined. By removing the geographic groupings from the classification information about the broad geographic region of languages that are not specifically coded is lost. However, the NHDC considered that the benefits to data collectors gained from simplifying the code listing outweighed this disadvantage.

Premature cardiovascular disease family history – status

Identifying and Definitional Attributes

Knowledgebase ID:	***000659***	***Version No: 1***
Metadata type:	Data Element	
Admin. status:	Current	
	01/01/03	
Definition:	Identifies a person who has a first degree relative (father, mother or sibling) who has had a vascular event or condition diagnosed before the age of 60 years.	
Context:	Public health, health care and clinical settings.	

Relational and Representational Attributes

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

Data domain:

1	Yes
2	No
3	Family history status not known
9	Not recorded

Guide for use:

Code 1: Yes, the person has a first-degree relative under the age of 60 years who has had a vascular disease/condition diagnosed.

Code 2: No, the person does not have a first-degree relative under the age of 60 years who has had a vascular disease/condition diagnosed.

Code 3: Family history status not known, the existence of a premature family history for cardiovascular disease cannot be determined.

Code 9: Not recorded, the information as to the existence of a premature family history for cardiovascular disease has not been recorded.

Verification rules:

Collection methods:

Related metadata:

Administrative Attributes

Source document: Guidelines Subcommittee of the WHO-ISH: 1999 WHO-ISH guidelines for management of hypertension. J Hypertension 1999; 17: 151–83.

Source organisation: CV-Data Working Group

Information model link:

NHIM Physical wellbeing

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

Comments:

Having a family history of cardiovascular disease (CVD) is a risk factor for CVD and the risk increases if the event in the family member occurs at a young age. For vascular risk assessment a premature family history is considered to be present where a first-degree relative under age 60 years (woman or man) has had a vascular event/condition diagnosed. The evidence of family history being a strong risk factor for stroke only applies to certain limited stroke subtypes in certain populations.

Proteinuria – status

Identifying and Definitional Attributes

Knowledgebase ID: ***000673*** ***Version No: 1***

Metadata type: Data Element

Admin. status: Current

01/01/03

Definition: The presence of excessive protein in the urine of the person.

Context: Health care and clinical settings:

Proteinuria is one of several indicators for renal disease or of conditions leading to renal disease. Renal disease when detected early is often responsive to intervention.

Relational and Representational Attributes

Datatype: Numeric

Representational form: Code

Representational layout: N(.N)

Minimum size: 1

Maximum size: 3

Data domain:

1	Negative for proteinuria
1.1	Microalbuminuria present
1.2	Microalbuminuria not present
1.3	Microalbuminuria not tested
2	Proteinuria
3	Not tested
9	Not stated/inadequately described

Guide for use: Dipstick testing can be used to test for protein in a urine specimen. Proteinuria (i.e. excessive protein in the urine) on Dipstick urinalysis is described as one or more pluses of protein and for a 24-hour urine collection where the patient excretes more than 300mg/day of protein.

Microalbuminuria can be determined using any one of the following tests: Spot urine, Timed urine (24-hour collection) or Albumin/creatinine ratio. Although the presence of microalbuminuria does not warrant categorisation as proteinuria, it is clinically significant in the diagnosis and treatment of diabetes.

Code 1 Negative for proteinuria – less than 1 plus on dipstick-testing or excretion of 300 mg or less of protein from 24-hour urine collection

Code 1.1 Microalbuminuria present

Code 1.2 Microalbuminuria not present

Code 1.3 Microalbuminuria not tested

Code 2 Proteinuria – one or more pluses of protein in Dipstick urinalysis or for a 24-hour urine collection, where the patient excretes more than 300 mg/per day of protein.

Code 3 Not tested – no urinalysis for proteinuria was taken.

Code 9 Not stated/ inadequately described

Verification rules:

Collection methods: Three test options are available for determining microalbuminuria and consist of spot urine or timed urine (24-hour collection) or Albumin/creatinine ratio. Where laboratory testing is used to determine Proteinuria status the categorisation must be substantiated by clinical documentation such as an official laboratory report.

Related metadata: relates to the data element Date of diagnosis vers 1

is used in conjunction with Service contact date vers 1

Administrative Attributes

Source document:

Source organisation: CV-Data Working Group

Information model link:

NHIM Assessment event

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

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

Renal disease therapy

Identifying and Definitional Attributes

Knowledgebase ID: ***000675*** ***Version No: 1***

Metadata type: Data Element

Admin. status: Current

01/01/03

Definition: The therapy the person is receiving for renal disease.

Context: Clinical settings:

Its main use is to enable categorisation of management regimes.

Relational and Representational Attributes

Datatype: Numeric

Representational form: Code

Representational layout: N

Minimum size: 1

Maximum size: 1

Data domain:

1	Drugs for modification of renal disease
2	Drugs for treatment of complications of renal disease
3	Peritoneal dialysis
4	Haemodialysis
5	Functioning renal transplant

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

Code 1	Drugs for modification of renal disease, includes drugs intended to slow progression of renal failure. Examples include antiproteinurics such as angiotensin converting enzyme inhibitors (ACEI), angiotensin II receptor antagonists (ATRA) and immunosuppressants
Code 2	Drugs for the treatment of the complications of renal disease. Examples include antihypertensive agents and drugs that are intended to correct biochemical imbalances caused by renal disease. (e.g. loop diuretics, ACEI, erythropoietin, calcitriol, etc.).
Code 3	Peritoneal dialysis, chronic peritoneal dialysis, delivered at home, at a dialysis satellite centre or in hospital.
Code 4	Haemodialysis, chronic haemodialysis delivered at home, at a dialysis satellite centre or in hospital.
Code 5	Functioning renal transplant, the presence of a functioning renal transplant.

Verification rules:

Collection methods: To be collected on commencement of treatment and regularly reviewed.

Related metadata: is used in conjunction with Service contact date vers 1

Administrative Attributes

Source document: CARI Guidelines. Australian Kidney Foundation

Source organisation: CV-Data Working Group

Information model link:

NHIM Service provision event

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

Comments:

Nephrotoxic agents (including radiocontrast) should be avoided where possible. Drugs that impair auto-regulation of glomerular filtration rate (GFR) (NSAIDs, COX-2, ACEI, ATRA) should be used with caution in renal impairment, particularly when patients are acutely unwell for other reasons (sepsis, peri-operative etc.).

Although combination ACEI and diuretic can be a very potent and efficacious means of reducing blood pressure (and thereby slowing progression), either drug should be introduced individually and carefully in a patient with underlying renal impairment. At the very least, diuretic therapy should be held or reduced when commencing an ACEI in a patient with renal impairment. Combination therapy with ACEI, diuretics and NSAIDs or COX-2 may be particularly harmful.

Drugs, which are primarily excreted by the kidney (e.g. metformin, sotalol, cisapride, etc.) need to be used with caution in patients with renal impairment. The calculated GFR needs to be determined and the dose reduced or the drug avoided as appropriate.

Service contact date

Identifying and Definitional Attributes

Knowledgebase ID: ***000402*** ***Version No: 1***

Metadata type: Data Element

Admin. status: Current

01/07/99

Definition: The date of each service contact between a health service provider and patient/client.

Context: Community-based mental health care and clinical settings:

The service contact is required for clinical audit and other quality assurance purposes.

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: Requires services to record the date of each service contact, including the same date where multiple visits are made on one day (except where the visits may be regarded as a continuation of the one service contact). Where an individual patient/client participates in a group activity, a service contact date is recorded if the person's participation in the group activity results in a dated entry being made in the patient's/client's record.

Verification rules:

Collection methods: For collection from community-based (ambulatory and non-residential) agencies.

Related metadata: is used in the derivation of Number of service contact dates vers 2

relates to the data element concept Service contact vers 1

Administrative Attributes

Source document:

Source organisation:

Information model link:

NHIM Service provision event

Data Set Specifications:	***Start date***	***End date***
NMDS – Community mental health care	01/07/2000	
DSS – Cardiovascular disease (clinical)	01/01/2003	
DSS – Diabetes (clinical)	01/01/2003	

Comments:

Sex

Identifying and Definitional Attributes

Knowledgebase ID:	***000149***	***Version No: 3***
Metadata type:	Data Element	
Admin. status:	Current	
	01/07/03	
Definition:	The sex of the person.	
Context:	Required for analyses of service utilisation, needs for services and epidemiological studies.	

Relational and Representational Attributes

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

Data domain:

1	Male
2	Female
3	Indeterminate
9	Not stated/inadequately described

Guide for use:

An indeterminate sex category may be necessary for situations such as the classification of perinatal statistics when it is not possible for the sex to be determined.

Verification rules:

Code 3 Indeterminate should be queried for people aged 90 days (3 months) or greater.

For the provision of State and Territory hospital data to Commonwealth agencies this field must be consistent with diagnosis and procedure codes, for records grouped in Major diagnostic categories 12, 13 and 14, for valid grouping. For other Major diagnostic categories, sex conflicts should be queried.

Collection methods:

Code 9 is not to be an allowable option when data is being collected ie it is not to be a tick box on any collection forms or computer screens. Systems are to take account of any null values that may occur on the primary collection form. It is suggested that the following format be used for data collection:

What is your (the person's) sex?

___ Male ___ Female

The term 'sex' refers to the biological differences between males and females, while the term 'gender' refers to the socially expected/perceived dimensions of behaviour associated with males and females – masculinity and femininity.

The Australian Bureau of Statistics advises that the correct terminology for this data element is sex.

Information collection for transsexuals and people with transgender issues should be treated in the same manner.

To avoid problems with edits, transsexuals undergoing a sex change operation should have their sex at time of hospital admission recorded.

Related metadata: is used in the derivation of Diagnosis related group vers 1

supersedes previous data element Sex vers 2

Administrative Attributes

Source document:

Source organisation: National Health Data Committee

Information model link:

NHIM Demographic characteristic

Data Set Specifications:	***Start date***	***End date***
NMDS – Admitted patient care	01/07/2003	
NMDS – Admitted patient mental health care	01/07/2003	
NMDS – Perinatal	01/07/2003	
NMDS – Community mental health care	01/07/2003	
NMDS – Admitted patient palliative care	01/07/2003	
NMDS – Alcohol and other drug treatment services	01/07/2003	
NMDS – Non-admitted patient emergency department care	01/07/2003	
DSS – Cardiovascular disease (clinical)	01/01/2003	
DSS – Diabetes (clinical)	01/01/2003	
DSS – Health care client identification	01/01/2003	

Comments: This item enables standardisation of the collection of information relating to sex (to include indeterminate), gender, people with transgender issues and transsexuals.

In collection systems (ie on forms and computer screens) Male and Female may be mapped to M and F respectively for collection purposes; however, they should be stored within information systems as the codes 1 and 2 respectively.

Tobacco smoking – consumption/quantity (cigarettes)

Identifying and Definitional Attributes

Knowledgebase ID: ***000403*** ***Version No: 1***

Metadata type: Data Element

Admin. status: Current

01/07/99

Definition: The number of cigarettes (manufactured or roll-your-own) smoked per day by a person.

Context: Public health and health care: The number of cigarettes smoked is an important measure of the magnitude of the tobacco problem for an individual. Research shows that of Australians who smoke, the overwhelming majority smoke cigarettes (manufactured or roll-your-own) rather than other tobacco products. From a public health point of view, consumption level is relevant only for regular smokers (those who smoke daily or at least weekly).

Data on quantity smoked can be used to:

- evaluate health promotion and disease prevention programs (assessment of interventions)
- monitor health risk factors and progress towards National Health Goals and Targets
- ascertain determinants and consequences of smoking
- assess a person's exposure to tobacco smoke.

Relational and Representational Attributes

Datatype: Numeric

Representational form: Quantitative value

Representational layout: NN

Minimum size: 1

Maximum size: 2

Data domain: Count of the number of cigarettes smoked daily.

99 Not stated/inadequately described

Guide for use: This data element is relevant only for persons who currently smoke cigarettes daily or at least weekly. Daily consumption should be reported, rather than weekly consumption. Weekly consumption is converted to daily consumption by dividing by 7 and rounding to the nearest whole number.

Quantities greater than 98 (extremely rare) should be coded 98.

Verification rules:

Collection methods: The recommended standard for collecting this information is the Standard Questions on the Use of Tobacco Among Adults – interviewer administered (Questions 3a and 3b) and self-administered (Questions 2a and 2b) versions. The questions cover persons aged 18 years and over.

Related metadata: is qualified by Date of birth vers 4

is qualified by Tobacco smoking – frequency vers 1

is qualified by Tobacco smoking – product vers 1

Administrative Attributes

Source document: Standard Questions on the Use of Tobacco Among Adults (1998)

Source organisation: Australian Institute of Health and Welfare

Information model link:

NHIM Lifestyle characteristic

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

Comments:

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 smoking, data on age, sex and other socio-demographic variables should be collected. It is also recommended that when smoking is investigated in relation to health, data on other risk factors including pregnancy status, physical activity, overweight and obesity, and alcohol consumption should be collected.

The Standard Questions on the Use of Tobacco Among Adults (self- and interviewer-administered versions) can be obtained from the National Centre for Monitoring Cardiovascular Disease at the AIHW, telephone (02) 6244 1000.

Tobacco smoking status

Identifying and Definitional Attributes

Knowledgebase ID: ***000410*** ***Version No: 1***

Metadata type: Data Element

Admin. status: Current

01/07/99

Definition: A person's current and past smoking behaviour.

Context: Public health, health care and clinical settings:

Smoker type is used to define sub-populations of adults (age 18 years and over) based on their smoking behaviour. Smoking has long been known as a health risk factor. Population studies indicate a relationship between smoking and increased mortality/morbidity. This data element can be used to estimate smoking prevalence.

Other uses are to:

- evaluate health promotion and disease prevention programs (assessment of interventions)
- monitor health risk factors and progress towards National Health Goals and Targets

Relational and Representational Attributes

Datatype: Numeric

Representational form: Code

Representational layout: N

Minimum size: 1

Maximum size: 1

Data domain:

1	Daily smoker
2	Weekly smoker
3	Irregular smoker
4	Ex-smoker
5	Never smoked

Guide for use: The above grouping subdivides a population into five mutually exclusive categories.

- Daily smoker: A person who smokes daily
- Weekly smoker: A person who smokes at least weekly but not daily
- Irregular smoker: A person who smokes less than weekly
- Ex-smoker: A person who does not smoke at all now, but has smoked at least 100 cigarettes or a similar amount of other tobacco products in his/her lifetime.
- Never-smoker: A person who does not smoke now and has smoked fewer than 100 cigarettes or similar amount of other tobacco products in his/her lifetime.

Verification rules:

Collection methods: The recommended standard for collecting this information is the Standard Questions on the Use of Tobacco Among Adults – interviewer administered (Questions 1 and 4) and self-administered (Questions 1 and 1a) versions. The questionnaires are designed to cover persons aged 18.

Related metadata: is qualified by Date of birth vers 4

relates to the data element Behaviour-related risk factor intervention vers 1

relates to the data element Behaviour-related risk factor intervention – purpose vers 1

Administrative Attributes

Source document: Standard Questions on the Use of Tobacco Among Adults (1998)

Source organisation: Australian Institute of Health and Welfare

Information model link:

NHIM Lifestyle characteristic

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

Comments: There are two other ways of categorising this information:

- Regular and irregular smokers where a regular smoker includes someone who is a daily smoker or a weekly smoker. 'Regular' smokers is the preferred category to be reported in prevalence estimates.
- Daily and occasional smokers where an occasional smoker includes someone who is a weekly or irregular smoker. The category of 'occasional' smoker can be used when the aim of the study is to draw contrast between daily smokers and other smokers. 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 smoking, data on age, sex and other socio-demographic variables should be collected. It is also recommended that when smoking is investigated in relation to health, data on other risk factors including pregnancy status, physical activity, overweight and obesity, and alcohol consumption should be collected.

The Standard Questions on the Use of Tobacco Among Adults Available etc. are available from the National Centre for Monitoring Cardiovascular Disease at the AIHW, telephone (02) 6244 1000.

Triglycerides – measured

Identifying and Definitional Attributes

Knowledgebase ID: ***000658*** ***Version No: 1***

Metadata type: Data Element

Admin. status: Current

01/01/03

Definition: A person's measured triglycerides.

Context: Public health, health care and clinical setting.

Relational and Representational Attributes

Datatype: Numeric

Representational form: Quantitative value

Representational layout: NN.N

Minimum size: 3

Maximum size: 4

Data domain: Measurement in mmol/L to 1 decimal place

99.9 Not stated/inadequately described

Guide for use: Record the absolute result of the total triglyceride measurement.

Verification rules:

Collection methods: Measurement of lipid levels should be carried out by laboratories, or practices, which have been accredited to perform these tests by the National Association of Testing Authorities.

- To be collected as a single venous blood sample, preferably following a 12-hour fast where only water and medications have been consumed.

Note that to calculate the low-density lipoprotein – cholesterol (LDL-C) from the Friedwald Equation (Friedwald et al. 1972):

- a fasting level of plasma triglyceride and knowledge of the levels of plasma total cholesterol and high-density lipoprotein – cholesterol (HDL-C) is required
- the Friedwald equation becomes unreliable when the plasma triglyceride exceeds 4.5 mmol/L and
- that while levels are reliable for the first 24 hours after the onset of acute coronary syndromes, they may be unreliable for the subsequent 6 weeks after an event.

(Lipid Management Guidelines – 2001, MJA 2001; 175: S57–S88. National Heart Foundation of Australia and the Cardiac Society of Australia and New Zealand.)

Related metadata: relates to the data element Cholesterol-total – measured vers 1

relates to the data element Cholesterol-HDL – measured vers 1

is used in the calculation of Cholesterol-LDL calculated vers 1

relates to the data element Dyslipidaemia – treatment vers 1

is used in conjunction with Fasting status vers 1

is used in conjunction with Service contact date 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 Assessment event

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

Comments:

A relationship between triglyceride and HDL-C and chronic heart disease (CHD) event rates has been shown. This view is supported by the observation that the remnants of triglyceride-rich lipoproteins are the particles that occur in dysbetalipoproteinaemia, a condition associated with a very high risk of premature atherosclerotic vascular disease. There have been two comprehensive reviews of the relationship between plasma triglyceride and CHD (see Criqui et al. 1993 and Austin et al. 1991). Criqui concludes that triglyceride is not an independent predictor of CHD and is probably not causally related to the disease, while Austin provides a compelling case for a causal role of (at least) some triglyceride-rich lipoproteins. Conclusions drawn from population studies of the relationship between plasma triglyceride and the risk of CHD include the following:

- an elevated concentration of plasma triglyceride (> 2.0 mmol/L) is predictive of CHD when associated with either an increased concentration of LDL-C or a decreased concentration of HDL-C
- the relationship between CHD risk and plasma triglyceride is not continuous, with evidence that the risk is greatest in people with triglyceride levels between 2 and 6 mmol/L. (Lipid Management Guidelines – 2001, MJA 2001; 175: S57–S88. National Heart Foundation of Australia and the Cardiac Society of Australia and New Zealand.)

It is likely that the positive relationship between plasma triglyceride and CHD, as observed in many population studies, is because an elevated level of plasma triglyceride in some people is a reflection of an accumulation of the atherogenic remnants of chylomicrons and very low density lipoprotein. These particles are rich in both triglyceride and cholesterol and appear to be at least as atherogenic as LDL.

References:

National Heart Foundation of Australia – Lipid Management Guidelines 2001.

Hypertriglyceridaemia; Australian Medicines Handbook.

Vascular history

Identifying and Definitional Attributes

Knowledgebase ID: ***000676*** ***Version No: 1***

Metadata type: Data Element

Admin. status: Current

01/01/03

Definition: Describes the vascular history of the person.

Context: Public health, health care and clinical settings:

The vascular history of the patient is important as an element in defining future risk for a cardiovascular event and as a factor in determining best practice management for various cardiovascular risk factor(s).

It may be used to map vascular conditions, assist in risk stratification and link to best practice management.

Relational and Representational Attributes

Datatype: Numeric

Representational form: Code

Representational layout: NN

Minimum size: 2

Maximum size: 2

Data domain:

01	Myocardial infarction
02	Unstable angina pectoris
03	Angina
04	Heart failure
05	Atrial fibrillation
06	Other dysrhythmia or conductive disorder
07	Rheumatic heart disease
08	Non-rheumatic valvular heart disease
09	Left ventricular hypertrophy
10	Stroke
11	Transient ischaemic attack
12	Hypertension
13	Peripheral vascular disease (includes abdominal aortic aneurism)
14	Deep vein thrombosis
15	Other atherosclerotic disease
16	Carotid stenosis
17	Vascular renal disease
18	Vascular retinopathy (hypertensive)
19	Vascular retinopathy (diabetic)
97	Other vascular
98	No vascular history
99	Unknown/not stated/not specified

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

Verification rules:

Collection methods: Ideally, vascular history information is derived from and substantiated by clinical documentation.

Related metadata: is used in conjunction with Date of diagnosis vers 1

relates to the data element Service contact date vers 1

Administrative Attributes

Source document: International Classification of Diseases – Tenth Revision – Australian Modification (3rd edition 2002), National Centre for Classification in Health, Sydney.

Source organisation: CV-Data Working Group

National Centre for Classification in Health

National Data Standards for Injury Surveillance Advisory Group

Information model link:

NHIM Physical wellbeing

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

Comments: Further work needs to be undertaken to ensure that the values in the data domain can be mapped to the current version of ICD-10-AM.

Vascular procedures

Identifying and Definitional Attributes

Knowledgebase ID: ***000677*** ***Version No: 1***

Metadata type: Data Element

Admin. status: Current

01/01/03

Definition: Describes the vascular procedures the person has undergone.

Context: Public health and health care:

This data element is important for tracking cardiovascular patient management against appropriate practice for cardiovascular presentation(s) and risk factor(s) the person may exhibit.

Relational and Representational Attributes

Datatype: Numeric

Representational form: Code

Representational layout: NN

Minimum size: 1

Maximum size: 2

Data domain:

01	Amputation for arterial vascular insufficiency
02	Carotid endarterectomy
03	Carotid angioplasty/stenting
04	Coronary angioplasty/stenting
05	Coronary artery bypass grafting
06	Renal artery angioplasty/stenting
07	Heart transplant
08	Heart valve surgery
09	Abdominal aortic aneurism repair/bypass graft/stenting
10	Cerebral circulation angioplasty/stenting
11	Femoral/popliteal bypass/graft/stenting
12	Congenital heart and blood vessel defect surgery
13	Permanent pacemaker implantation
14	Implantable cardiac defibrillator
98	Other
99	Unknown/not recorded

Guide for use:

Verification rules:

Collection methods: Ideally, Vascular procedure information is derived from and substantiated by clinical documentation.

Related metadata: is used in conjunction with Service contact date vers 1

Administrative Attributes

Source document: Australian Institute of Health and Welfare (AIHW) 2001. Heart, stroke and vascular diseases – Australian facts 2001. AIHW Cat. No. CVD 13. Canberra: AIHW, National Heart foundation of Australia, National Stroke Foundation of Australia (CVD Series No. 14).

Source organisation: CV-Data Working Group

Information model link:

NHIM Physical wellbeing

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

Comments: In settings where the monitoring of a person's health is ongoing and where a history can change over time (such as general practice), the Service contact date should be recorded.

Waist circumference – measured

Identifying and Definitional Attributes

Knowledgebase ID:	***000372***	***Version No: 2***
Metadata type:	Data Element	
Admin. status:	Current	
	01/01/03	
Definition:	A person's waist circumference measured half way between the inferior margin of the last rib and the crest of the ilium in the mid-axillary plane. In order to ensure consistency in measurement, the measurement protocol described under Collection methods should be used.	
Context:	Public health, health care and clinical settings: Originally used in the calculation of Waist-to-hip ratio which requires the measurement of hip circumference and waist circumference as a predictor of obesity-related morbidity and mortality. More recently it has been used in it's own right as an indicator of risk associated with excess abdominal fat.	

Relational and Representational Attributes

Datatype:	Numeric
Representational form:	Quantitative value
Representational layout:	NNN.N
Minimum size:	4
Maximum size:	5
Data domain:	Distance in centimetres, measured to the nearest 0.1cm. 999.9 Not collected
Guide for use:	If measured waist circumference is not able to be collected, code 999.9 The measurement is recorded as a continuous variable measured to the nearest 0.1 cm.
Verification rules:	
Collection methods:	The collection of anthropometric measurements, particularly in those who are overweight or obese or who are concerned about their weight, should be performed with great sensitivity, and without drawing attention to an individual's weight. Measurement protocol: The measurement of waist circumference requires a narrow (< 7 mm wide), flexible, inelastic tape measure. The kind of tape used should be described and reported. The graduations on the tape measure should be at 0.1 cm intervals and the tape should have the capacity to measure up to 200 cm. Measurement intervals and labels should be clearly readable under all conditions of use of the tape measure. The subject should remove any belts and heavy outer clothing. Measurement of waist circumference should be taken over at most one layer of light clothing. Ideally the measure is made directly over the skin. The subject stands comfortably with weight evenly distributed on both feet, and the feet separated about 25–30 cm. The arms should hang loosely at the sides. Posture can affect waist circumference. The measurement is taken

midway between the inferior margin of the last rib and the crest of the ilium, in the mid-axillary plane. Each landmark should be palpated and marked, and the midpoint determined with a tape measure and marked.

The circumference is measured with an inelastic tape maintained in a horizontal plane, at the end of normal expiration. The tape is snug, but does not compress underlying soft tissues. The measurer is positioned by the side of the subject to read the tape. To ensure contiguity of the two parts of the tape from which the circumference is to be determined, the cross-handed technique of measurement, as described by Norton et al. (1996), should be used. Ideally an assistant will check the position of the tape on the opposite side of the subject's body.

The measurement is recorded at the end of a normal expiration to the nearest 0.1 cm. Take a repeat measurement and record it to the nearest 0.1 cm. If the two measurements disagree by more than 1 cm, take a third measurement. All raw measurements should be recorded on the data collection form. If practical, it is preferable to enter the raw data into the database as this enables intra-observer and, where relevant, inter-observer errors to be assessed. The subject's measured waist circumference is subsequently calculated as the mean of the two observations, or the mean of the two closest measurements if a third is taken, and recorded on the form. If only a mean value is entered into the database then the data collection forms should be retained.

It may be necessary to round the mean value to the nearest 0.1 cm. If so, rounding should be to the nearest even digit to reduce systematic over-reporting (Armitage & Berry 1994). For example, a mean value of 72.25 cm would be rounded to 72.2 cm, while a mean value of 72.35 cm would be rounded to 72.4 cm.

Validation and quality control measures:

Steel tapes should be checked against a 1 metre engineer's rule every 12 months. If tapes other than steel are used they should be checked daily against a steel rule.

Within- and, if relevant, between-observer variability should be reported. They can be assessed by the same (within-) or different (between-) observers repeating the measurement, on the same subjects, under standard conditions after a short time interval. The standard deviation of replicate measurements (technical error of measurement (Pederson & Gore 1996)) between observers should not exceed 2% and be less than 1.5% within observers.

Extreme values at the lower and upper end of the distribution of measured waist circumference should be checked both during data collection and after data entry. Individuals should not be excluded on the basis of true biological difference.

Last-digit preference, and preference or avoidance of certain values, should be analysed in the total sample and (if relevant) by observer, survey site and over time if the survey period is long.

Related metadata: supersedes previous data element Adult abdominal circumference – measured vers 1

is used in the calculation of Waist-to-hip ratio vers 2

Administrative Attributes

Source document: The measurement protocol described below is that recommended by the World Health Organization (WHO Expert Committee 1995) which was adapted from Lohman et al. (1988) and the International Society for the Advancement of Kinanthropometry as described by Norton et al. (1996).

Source organisation: World Health Organization (see also Comments) and the International Society for the Advancement of Kinanthropometry.

Information model link:

NHIM Physical characteristic

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

Comments:

This data element applies to persons of all ages. It is recommended for use in population surveys and health care settings.

There is evidence that waist circumference alone might be used to identify people at health risk both from being overweight and from having a central fat distribution (Lean et al. 1995; Han et al. 1995; Pouliot et al. 1994; Seidell et al. 1992). It has been suggested that waist circumference as an index of truncal adiposity in adults may have certain advantages over other measurements of adiposity in predicting obesity related diseases. However, among children and adolescents, waist circumference measures should only be used as a measure of variation in an individual. As yet, no age appropriate cut-off points indicative of risk factors have been developed for use among children and adolescents.

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. However 5-year age groups are not generally suitable for children and adolescents. 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.

For reporting purposes, it may be desirable to present waist circumference in categories. It is recommended that 5-cm groupings are used for this purpose. Waist circumference should not be rounded before categorisation. The following categories may be appropriate for describing the waist circumferences of Australian men, women children and adolescents, although the range will depend on the population.

Waist < 35 cm

35 cm = Waist < 40 cm

40 cm = Waist < 45 cm

... in 5 cm categories

105 cm = Waist < 110 cm

Waist => 110 cm

Weight – measured

Identifying and Definitional Attributes

Knowledgebase ID:	***000365***	***Version No: 2***
Metadata type:	Data Element	
Admin. status:	Current	
	01/01/03	
Definition:	A person's measured weight (body mass).	
	In order to ensure consistency in measurement, the measurement protocol described under Collection methods should be used.	
Context:	Public health, health care and clinical settings:	
	Weight is an overall measure of body size that does not distinguish between fat and muscle. Weight is an indicator of nutritional and health status. Low pre-pregnancy weight is an indicator of poorer gestational outcome in women (Kramer 1988). Low weight is also associated with osteoporosis. In general, change in weight in adults is of interest because it is an indicator of changing health status, and in children as it indicates changing health status and growth and development. It enables the calculation of body mass index (BMI) which requires the measurement of height and weight for adults as well as sex and date of birth for children and adolescents.	

Relational and Representational Attributes

Datatype:	Numeric
Representational form:	Quantitative value
Representational layout:	NNN.N
Minimum size:	4
Maximum size:	5
Data domain:	Measurement of weight in kilograms to one decimal place
	999.9 Not able to be collected
Guide for use:	
Verification rules:	
Collection methods:	The collection of anthropometric measurements, particularly in those who are overweight or obese or who are concerned about their weight, should be performed with great sensitivity and without drawing attention to an individual's weight.
	Measurement protocol:
	Weight – measured is a continuous variable measured to the nearest 0.1 kg.
	Equipment used should be described and reported. Scales should have a resolution of at least 0.1 kg and should have the capacity to weigh up to at least 200 kg. Measurement intervals and labels should be clearly readable under all conditions of use of the instrument. Scales should be capable of being calibrated across the entire range of measurements. Precision error should be no more than 0.1 kg. Scales should be calibrated on each day of use. Manufacturers' guidelines should be followed with regard to the transportation of the scales.

Adults and children who can stand:

The subject stands over the centre of the weighing instrument, with the body weight evenly distributed between both feet.

Heavy jewellery should be removed and pockets emptied. Light indoor clothing can be worn, excluding shoes, belts, and sweater. Any variations from light indoor clothing (e.g. heavy clothing, such as kaftans or coats worn because of cultural practices) should be noted on the data collection form. Adjustments for non-standard clothing (i.e. other than light indoor clothing) should only be made in the data checking/cleaning stage prior to data analysis.

If the subject has had one or more limbs amputated, record this on the data collection form and weigh them as they are. If they are wearing an artificial limb, record this on the data collection form but do not ask them to remove it. Similarly, if they are not wearing the limb, record this but do not ask them to put it on.

The measurement is recorded to the nearest 0.1 kg. If the scales do not have a digital readout, take a repeat measurement. If the two measurements disagree by more than 0.5 kg, then take a third measurement. All raw measurements should be recorded on the data collection form. If practical, it is preferable to enter the raw data into the database as this enables intra-observer and, where relevant, inter-observer errors to be assessed. The subject's measured weight is subsequently calculated as the mean of the two observations, or the mean of the two closest measurements if a third is taken, and recorded on the form. If only a mean value is entered into the database then the data collection forms should be retained.

It may be necessary to round the mean value to the nearest 0.1 kg. If so, rounding should be to the nearest even digit to reduce systematic over reporting (Armitage & Berry 1994). For example, a mean value of 72.25 kg would be rounded to 72.2 kg, while a mean value of 72.35 kg would be rounded to 72.4 kg.

Infants:

Birth weight and gender should be recorded with gestational age. During infancy a levelled pan scale with a bean and movable weights or digital scales capable of measuring to two decimal places of a kilogram are acceptable. Birth weight should be determined within 12 hours of birth. The infant, with or without a nappy or diaper is placed on the scales so that the weight is distributed equally about the centre of the pan. When the infant is lying or suspended quietly, weight is recorded to the nearest 10 grams. If the nappy or diaper is worn, its weight is subtracted from the observed weight, i.e. reference data for infants are based on nude weights.

Validation and quality control measures:

If practical, equipment should be checked daily using one or more objects of known weight in the range to be measured. It is recommended that the scale be calibrated at the extremes and in the mid range of the expected weight of the population being studied.

Within- and, if relevant, between-observer variability should be reported. They can be assessed by the same (within -) or different (between-) observers repeating the measurement of weight, on the same subjects, under standard conditions after a short time interval. The standard deviation of replicate measurements (technical error of measurement) between observers should not exceed 0.5 kg and be less than 0.5 kg within observers.

Extreme values at the lower and upper end of the distribution of measured height should be checked both during data collection and after data entry. Individuals should not be excluded on the basis of true biological difference.

Last digit preference, and preference or avoidance of certain values, should be analysed in the total sample and (if relevant) by observer, survey site and over time if the survey period is long.

Related metadata: supersedes previous data element Adult weight – measured vers 1
is used in the calculation of Body mass index vers 2
is used in conjunction with Creatinine serum – measured vers 1

Administrative Attributes

Source document: The measurement protocol described below is that recommended by the World Health Organization (WHO Expert Committee 1995).

Source organisation: World Health Organization

Information model link:

NHIM Physical characteristic

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

Comments: This data element applies to persons of all ages. It is recommended for use in population surveys and health care settings.

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 and 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. However 5-year age groups are not generally suitable for children and adolescents. 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.

For some reporting purposes, it may be desirable to present weight data in categories. It is recommended that 5 kg groupings are used for this purpose. Weight data should not be rounded before categorisation. The following categories may be appropriate for describing the weights of Australian men, women, children and adolescents, although the range will depend on the population.

Wt< 10 kg

10 kg = Wt <15 kg

15 kg = Wt < 20 kg

... in 5 kg categories

135 kg = Wt < 140 kg

Wt => 140 kg

References:

Clinical Guidelines on the Identification, Evaluation and Treatment of Overweight and Obesity in Adults (US National Heart, Lung and Blood Institute (NHLBI) in cooperation with the National Institute of Diabetes and Digestive and Kidney Diseases).

Chronic Diseases and Associated Risk Factors in Australia 2001 (AIHW).

Supporting data elements and data element concepts

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: The ethyl alcohol (ethanol) consumed by a person in alcoholic beverages such as beer, cider, wine, spirits and mixed drinks.

Alcohol consumption is usually measured in standard drinks.

An Australian standard drink contains 10 grams of alcohol, which is equivalent to 12.5 millilitres of alcohol.

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:	***Start date***	***End date***

Comments:

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: ***Start date*** ***End date***

Comments:

Service contact

Identifying and Definitional Attributes

Knowledgebase ID: ***000401*** ***Version No: 1***

Metadata type: Data Element Concept

Admin. status: Current

01/07/99

Definition: A contact between a patient/client and an ambulatory care health unit (including outpatient and community health units) which results in a dated entry being made in the patient/client record.

Context: Identifies service delivery at the patient level for mental health services (including consultation/liaison, mobile and outreach services).

A service contact can include either face-to-face, telephone or video link service delivery modes. Service contacts would either be with a client, carer or family member or another professional or mental health worker involved in providing care and do not include contacts of an administrative nature (e.g. telephone contact to schedule an appointment) except where a matter would need to be noted on a patient's record.

Service contacts may be differentiated from administrative and other types of contacts by the need to record data in the client record. However, there may be instances where notes are made in the client record that have not been prompted by a service contact with a patient/client (e.g. noting receipt of test results that require no further action). These instances would not be regarded as a service contact.

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 Number of service contact dates vers 2

relates to the data element Service contact date vers 1

Administrative Attributes

Source document:

Source organisation:

Information model link:

NHIM Service provision event

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

Comments: The proposed definition is not able to measure case complexity or level of resource usage with each service contact alone. This limitation also applies to the concept of occasions of service (in admitted patient care) and hospital separations. The National Health Data Committee also acknowledges that

information about group sessions or activities that do not result in a dated entry being made in each individual participant's patient/client record is not currently covered by this data element concept.