Australian Sports Injury Data Dictionary

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Identifying and definitional attributes

Metadata item type:	Data Set Specification
METEOR identifier:	777500
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DSS type:	Data Set Specification (DSS)
Scope:	The Australian Sports Injury Data Dictionary (ASIDD) has been developed to provide guidelines for injury data collection and classification for the prevention and control of injury in sport and recreation. The dictionary is written to assist sporting and recreation organisations, researchers, sports medicine professionals, first aiders and individual clubs collect information on sports injury.

The dictionary aims to ensure national consistency in relation to defining and recording information on sports injuries. The concise and unambiguous definitions in the dictionary are intended to standardise collection across data sets. |

Collection and usage attributes

Statistical unit:	Injury event
Guide for use:	The Sports Injury data collections categories explored in this data dictionary include:

Administration Items

This data item characterises the person providing the injury details on the data collection form. It is not the setting of the data collection. Typically, but not always, this will be the person providing the initial management, treatment or assessment of the injury, e.g. emergency department staff, sports trainer etc.

Demographics

The elements collected for demographics include age at time of injury, the sex and gender of the person as injury risk appears to differ between males and females, and the area of usual residence.

Place of Injury Occurrence

This provides a further breakdown of 'recreation/fitness area' and 'sports or athletic area' area into practical classifications of where people are participating. The responsibility for the provision of a safe environment can lie with local, state and federal governments, and private facility owners. Policies directed at providing safe environments will need to be developed in conjunction with these facility providers. The additional classifications of sport and recreation places will also provide information on levels of participant supervision. A surfer at an unpatrolled beach will have minimal supervision, whereas an indoor cricket game will be well supervised. It will be easier to implement prevention strategies in a well supervised place of activity.

Activity when Injured

This category allows for formal club sport to be differentiated from social sport, recreation, fitness activities and informal play. This information allows identification of the organisation or individual who is responsible for the safe conduct of the activity, which will help to target the most appropriate injury prevention strategy.

Major Injury Factors

Injury factors are broken into types of objects, substances and environment factors involved in the occurrence of injury.

Mechanism Of Injury

This element describes the way in which the injury was sustained i.e. what hurt the person. For example, if a player is tackled and collides with the knee of another player with their head, it is the collision with the knee that is the injury mechanism, not the tackle.

Body Region Injured

This element describes the site of injury on the body.

Nature of Injury - Pathology

The most common sports injury pathologies.

Treatment Factors

Treatment factors are included in the dictionary as injury reporting is often conducted at treatment settings.

Treatment

Treatment information will also provide details to analyse the cost of injury, the severity of the injury and the services required to provide sports medicine coverage for events.

Injury surveillance is the ongoing systematic collection, analysis and interpretation of health data needed to plan, implement and evaluate public health programs (Graitcer et al., 1987). Injury surveillance can provide the information necessary for determining priorities and targets for prevention activities by specific sports, organisations, or groups of participants (Finch, 1997). Surveillance data can sometimes be used to evaluate the effectiveness of current activities or be used to trial new policies on rules or protective equipment.

Barriers towards collecting sports injury data by clubs and organisation include the lack of clear guidance about what information to collect and how it should be done. A standardised data collection methodology, including a simple to use data collection form, was identified as a key requirement by sporting clubs and organisations (Finch et al., 1995).

The sporting organisation or researcher may customise a data collection form to suit their needs, but a sporting club may choose to use the sport specific forms. The dictionary is prescriptive in the use of data categories and options within those categories. This is necessary if the advantages of comparability and consistency are to be gained. Users are, of course, free to design forms and data systems that meet their needs, and to extend the items and classification in the Dictionary,

Collection methods: The sports injury data dictionary is a national project developed as part of the National Sports Injury Data Strategy and is funded by the Australian Government.

Source and reference attributes

Submitting organisation: Australian Institute of Health and Welfare

Origin: The sports injury data dictionary was developed under the auspices of the Sports Injury Data Dictionary Working Group, with input from ...

Reference documents: Finch C, Ozanne-Smith J and Williams F. 1995. *The feasibility of Improved Data Collections Methodologies for Sports Injuries*. Monash University Accident Research Centre, Report 106.

Finch C. 1997. *An overview of some definitional issues for sports injury surveillance.* Sports Medicine. Sep; 24(3): 157-163.

Graitcer L. 1987. *The development of state and local injury surveillance systems.* Journal of Safety Research, 18(4): 191-198.

Relational attributes

Metadata items in this Data Set Specification

Seq No.	Metadata item	Obligation	Max occurs
1	Person—relationship to reference person, with injury code N[N]	Optional	1

DSS specific information:

In the ASIDD this data element collects information on the person providing the injury details on the data collection form. It does not collect the setting where data was collected. Typically, but not always, this will be the person providing the initial management, treatment or assessment of the injury, e.g., emergency department staff, sports trainer etc.

The item is useful for identifying who is completing the forms in a particular setting and also establishing expectations on the quality of the data

Seq No.	Metadata item	Obligation	Max occurs
2	Record—record source, injury code N[N]{.N}	Optional	1
3	Injury event—injury date, DDMMYYYY	Mandatory	1
4	Injury event—time of injury event, hhmm	Mandatory	1

DSS specific information:

In the ASIDD the time at which the injury occurred should be recorded by using a 24 hour clock. A 12 hour clock may be used on a data collection form but it is important to indicate whether the injury occurred during the morning or afternoon.

Where the precise time of injury is unknown, record to the nearest hour. Where the time of injury is not stated or completely unknown, the supplementary value of 9999 should be recorded.

In some settings, where the time of treatment of the injury is also recorded, the difference between these two variables can be used to determine the time lag between injury and administration of treatment.

Seq No.	Metadata item	Obligation	Max occurs
5	Record—record date, DDMMYYYY	Optional	1

DSS specific information:

In the ASIDD this data element collects the date on which the injury record is made. It is not necessarily the same as the date of injury. For example, a person may not attend a sports medicine clinic for treatment of their injury until days after the injury occurred. This date can be cross referenced to the source of record date of injury.

Seq No.	Metadata item	Obligation	Max occurs
6	Person—age, total years N[NN]	Mandatory	1

DSS specific information:

In the ASIDD this data element collects the age of the person injured.

| 7 | Person—sex, code X | Conditional | 1 |

Conditional obligation:

This data element is collected on a Conditional basis with the element Person—gender, code X. Data must be reported for at least one of the two elements, either sex or gender.

Where both sex and gender are known, both should be collected.

DSS specific information:

In the ASIDD this data element is used to collect a person's sex as recorded at birth.

Where sex at birth is not available, Person—gender, code X only should be collected.

| 8 | Person—gender, code X | Conditional | 1 |

Conditional obligation:

This data element is collected on a Conditional basis with the element Person—sex, code X. Data must be reported for at least one of the two elements, either sex or gender.

Where both sex and gender are known, both should be collected.

9	Person—Indigenous status, code N	Mandatory	1
10	Person—country of birth, code (SACC 2016) NNNN	Optional	1
11	Person—main language other than English spoken at home, code (ASCL 2016) N[NNN]	Optional	1
12	Person—interpreter service required indicator, yes/no/not stated/inadequately described code N	Optional	1
13	Person—need for assistance with activities in a life area, disability flag code N	Optional	1
14	Person—primary disability group, reported type code N[N]	Mandatory	1
15	Person—area of usual residence, statistical area level 2 (SA2) code (ASGS Edition 3) N(9)	Optional	1
16	Injury event—place of occurrence, text X[X(499)]	Optional	1
17	Injury event—place of occurrence, sports code N[N]	Mandatory	1

DSS specific information:

In the ASIDD this data element is used to record the primary or main place where the injury occurred.

Seq No.	Metadata item	Obligation	Max occurs
18	Event location—location type, sports/exercise code N[N]	Mandatory	99

DSS specific information:

Select the code which best characterises the type of the recreation place where the person was situated when the injury occurred on the basis of the information available at the time it is recorded. If two or more categories are judged to be equally appropriate, select the one that comes first in the code list.

Where the location is used by more than one sport with very similar requirements, or for which the place is modified from time to time (e.g., a field used for one sport in summer and another in winter), record according to the use of the venue when the injury occurred.

Seq No.	Metadata item	Obligation	Max occurs
19	Event location—indoor flag, yes/no/unknown/not stated/inadequately described code N	Mandatory	1

DSS specific information:

In the ASIDD this data element collects information on the whether the venue is considered indoor or outdoor. This may not always correspond to the location of the person when injured. For example, use CODE 2 'No' (Outdoors) for injuries at or around a swimming pool that is open to the sky, even for injuries that occur in a changing room.

Seq No.	Metadata item	Obligation	Max occurs
20	Event location—management status, code N	Optional	1

DSS specific information:

Select the code which best characterises the management or ownership status of the place where the person was situated when the injury occurred, on the basis of the information available at the time it is recorded. If two or more categories are judged to be equally appropriate, select the one that comes first in the code list.

Note, a venue may be owned by one party (e.g. a State government) and managed by another (e.g. a sports federation). Select the party with most direct operational control over the venue – usually the managing body.

Seq No.	Metadata item	Obligation	Max occurs
21	Injury event—place of occurrence, sports venue location code N	Optional	1
22	Injury event—activity type, code N[N]	Mandatory	99

DSS specific information:

Select the most appropriate item which best characterises the type of activity being undertaken by the person when injured. If two or more items are judged to be equally appropriate, select the one that comes first in the code list.

The 'unorganised' category was created to include informal and social sport, fitness activities, and recreational activity. These categories are important to differentiate injuries that occur in a formal club structure to those that occur ad hoc such as in back yard cricket and touch at lunchtime.

Seq No.	Metadata item	Obligation	Max occurs
23	Injury event—sport/exercise type, code N[N]{.NN}	Mandatory	1
24	Injury event—sport/exercise phase, code N	Mandatory	1

Seq No.	Metadata item	Obligation	Max occurs
25	Sporting activity—grade or level, code N	Optional	1

DSS specific information:

In the ASIDD this data element records the grade or level of competition or type of activity at the time of injury. The elite level includes state or national representation, a national level competition such as the National Basketball League or National Soccer League, or athletes on an AIS/SIS scholarship. The grade of competition can be broken down into Masters/Veterans, Adult/Other and Junior. The grade of competition can be broken down into sport specific categories if required.

This item can help to identify if injuries are more prevalent in elite or non-elite competition as well as if the injury rate is higher in lower grade competition. In some sports the level of sports medicine support is higher for first grade with doctors, physiotherapists and sports trainers, whereas in lower grades the players are not well supported. Skill levels and fitness may vary between levels of play and relate to injury prevalence.

Seq No.	Metadata item	Obligation	Max occurs
26	Sporting activity—disability specific flag, yes/no/unknown/not stated/inadequately described code N	Optional	1

DSS specific information:

In the ASIDD this data element collects information to indicate whether the sporting activity being undertaken by the person when injured is one intended for people with a **disability**, impairment or limitation.

Seq No.	Metadata item	Obligation	Max occurs
27	Injury event—external cause, factor for sports injury code N[N]	Optional	99

DSS specific information:

Select the code that best describes the main factor which led to the occurrence of the injury. Give preference to specific factors over general ones. If two or more categories are judged to be equally appropriate, select the one that comes first in the code list.

Seq No.	Metadata item	Obligation	Max occurs
28	Sporting activity—protective equipment, personal code N[N]	Optional	99

DSS specific information:

Select the item or items from the list that were used on the body part injured, or may relate to the cause of injury. For example, a mouthguard can protect the teeth and gums, but can also reduce the forces transmitted to the head and reduce concussion.

Seq No.	Metadata item	Obligation	Max occurs
29	[Device—instrumented flag, yes/no/not applicable/unknown/not stated/inadequately described code N](#)	Conditional	99

Conditional obligation:

Conditional on a response being recorded for the data element [Sporting activity—protective equipment, personal code N[N]](#).

DSS specific information:

In the ASIDD this data element collects information to flag whether the protective equipment used by the person when injured is one equipped to collect, measure and or transmit data.

One response should be recorded for every instance of the data element [Sporting activity—protective equipment, personal code N[N]](#).

Seq No.	Metadata item	Obligation	Max occurs
30	[Sporting activity—protective equipment, environmental code N[N]](#)	Optional	99

DSS specific information:

Protective devices, personal or environmental, are important factors in creating a safer environment for sport. This question is designed to ascertain the use of protective equipment and the relationship to injury. This can be a valuable question for assessing the effectiveness of protective environmental equipment of reducing or preventing injury.

Seq No.	Metadata item	Obligation	Max occurs
31	[Injury event—external cause, mechanism of main injury code N[N].N{.N}](#)	Mandatory	1
32	[Injury event—external cause, text X[X(499)]](#)	Optional	1

DSS specific information:

Write a brief description (8 words minimum) of how the injury occurred. It should indicate what went wrong (the breakdown event); the mechanism by which this event led to injury; and the object(s), substance(s), or other environmental factors most important in the event. The type of place at which the event occurred, and the activity of the person when injured should also be indicated, as should use (or presence) or non-use (or absence) of relevant protective devices.

This item is useful for club or facility injury records. The information is easily collated and able to be used for injury prevention measures.

Seq No.	Metadata item	Obligation	Max occurs
33	[Person—bodily location of injury, code N[N]](#)	Mandatory	18
34	[Person—bodily location of injury, laterality code N](#)	Mandatory	1
35	[Injury event—nature of injury, type code N[N]](#)	Mandatory	7

DSS specific information:

The nature of injury determines the type of assistance sought and the place of treatment. Abrasions and cuts may be treated by a sports trainer at the side of the field, whereas fractures would be referred to hospital or medical officer.

Seq No.	Metadata item	Obligation	Max occurs
36	[Injury event—presumptive diagnosis, injury code (OSIICS v14.0) AAX[XA]](#)	Optional	1

Seq No.	Metadata item	Obligation	Max occurs
37	Intervention—presentation date, DDMMYYYY	Optional	1

DSS specific information:

In the ASIDD this data element records the date of intervention for the injury. In many cases, it will be the same as the date of injury (particularly for acute and severe injuries). This may not necessarily be so, however, if the injured person delays seeking intervention for their injury.

For data consistency, it should be checked that the Intervention—presentation date, DDMMYYYY is not recorded as occurring before the Injury event—injury date, DDMMYYYY.

Seq No.	Metadata item	Obligation	Max occurs
38	Intervention—presentation time, hhmm	Optional	1

DSS specific information:

This variable is likely to be of most relevance to a medical coverage setting or sporting event setting. In some settings, where the Time of Injury is also recorded, the difference between these two variables can be used to determine the time lag between injury and administration of treatment.

For data consistency, it should be checked that the Intervention—presentation time, hhmm is not recorded as occurring before the Injury event—time of injury event, hhmm

Seq No.	Metadata item	Obligation	Max occurs
39	Intervention—presentation reason, sports injury code N[N]	Optional	1
40	Injury event—intervention, sports injury code N[N]	Optional	99
41	Injury event—initial advice given, sporting injury code N	Optional	1

DSS specific information:

The items in this category can also be used in determining the perceived severity of injury.

Seq No.	Metadata item	Obligation	Max occurs
42	Injury event—referral requirement flag, yes/no code N	Optional	1

DSS specific information:

A question can be phrased on the injury form as follows:

1. Did you or will you need to refer the injured person for further assessment or treatment?

… Yes … No

Seq No.	Metadata item	Obligation	Max occurs
43	Referral—referral priority, time period code N	Optional	1

DSS specific information:

A question can be phrased on the injury form as follows:

2. How soon does the person require further assessment or treatment?

Seq No.	Metadata item	Obligation	Max occurs
44	Referral—referral category, sports injury code N[N]	Optional	1
45	Person—relationship to reference person, sports injury treatment provider code N[N]	Optional	1