

# Proposals for revisions to the Elective Surgery Information System (ESIS) for July 2004

November 2003

Published by the Victorian Government Department of Human Services  
Melbourne, Victoria

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# Executive Summary

This document details the proposed revisions to the Elective Surgery Information System (ESIS) for 1 July 2004. These proposed revisions are summarized below.

1. ESIS file restructure.
2. Addition of new data item to collect description of procedure where the PPP code is one of the "other" PPP codes.
3. Modification to the Locality data item to improve data quality for episodes reported with an overseas postcode.
4. Modification to the Reason for Not Ready for Care data item to simplify the codeset.
5. Modification to the Sex data item to include a new code for capturing the sex of a person whose sex may change during their lifetime.
6. Modification to the Unique Key data item to increase the length of unique key to nine characters.

This document details the above proposals and describes the consultation process that will assist in the development and possible introduction of these revisions to ESIS.

# Introduction

## The ESIS proposals consultation process

Each year the Department of Human Services (DHS) reviews the data elements and format of ESIS in conjunction with the ESIS Technical Reference Group. This review seeks to ensure that the admitted patient collection supports the Department's national reporting obligations, and assists DHS planning and policy development.

This document is being distributed to all Victorian hospitals, to patient management system suppliers known to have Victorian clients, and to a range of industry bodies. It outlines *proposals* for changes to ESIS, as at the time of its release in November 2003. This should not be regarded as a complete list of changes to be made for 2004—2005. Items in this publication cannot be guaranteed to change or to change in the form suggested here; nor does the absence of an item from this publication indicate it will not change from 1 July 2004. Confirmed changes will be published in the document '*Specification for Revisions to the Elective Surgery Information System (ESIS) for 1 July 2004*', which will be published in February 2004.

It is expected that release of these proposals will stimulate discussion within the health industry. **Prompt feedback is sought on these proposals.** Hospitals and software suppliers should review this document and assess the feasibility of the proposals. All are invited to provide written feedback to the Department by completing the proforma provided with this document, and forwarding it to the Department as indicated, **by Wednesday 3 December 2003.**

There will be a **summary presentation** of these proposals during the **HDSS Forum** to be conducted on **Friday 5 December 2003.** If you have any questions or comments, it is important to forward these promptly, as responses to feedback will be provided at the forum, where question time may be limited.

There will be further opportunity to provide written comment following the forum.

## Orientation to this document

As this document provides 'proposals' for revisions, there are a few features that require explanation:

- New values and definitions relating to existing items appear in boxes
- ~~• Redundant values and definitions relating to existing items are struck through.~~
- The text is divided into the categories of 'Specification' and 'Administration' as presented in the *Elective Surgery Information System (ESIS) 6<sup>th</sup> Edition, July 2003.*
  - Specification:* details the reporting requirements for the item.
  - Administration:* provides additional information including the purpose of the collection of the data item and the source of the code set and definitions.
- Further information such as the background to each proposal is provided.

## Abbreviations

ABS	Australian Bureau of Statistics
ACES	Advisory Committee on Access to Elective Surgery
AIHW	Australian Institute of Health and Welfare
DHS	Department of Human Services, Victoria
ESAS	Elective Surgery Access Service
ESIS	Elective Surgery Information System
HDSS	Health Data Standards and Systems
NHDC	National Health Data Committee
NHDD	National Health Data Dictionary
NESWTDC	National Elective Surgery Waiting Times Data Collection

# Proposed modification to file structure

## Proposal 1—File structure

**It is proposed to** Amend the file structure to address deficiencies with the current structure.

**Proposed by** **Gregory O'Connell, Health Data Standards and Systems (HDSS)**  
Department of Human Services  
Phone: 9616 7327, Email: [Gregory.O'Connell@dhs.vic.gov.au](mailto:Gregory.O'Connell@dhs.vic.gov.au)

**Implementation Date** 1 July 2004

### Background

#### The need for change:

The current ESIS file structure has several deficiencies that render it:

- Expensive to maintain.
- Unnecessarily complex and difficult to interpret.
- Cumbersome to edit by DHS. Time-consuming to report workload at the hospital end.
- Impossible to represent potentially critical events that can occur more than once in a month.
- Repetitious. Data for one episode can often be submitted over 60 times, when much of it only needs to be submitted once.

The specific deficiencies that have led to this situation include:

- Requiring hospitals to interpret and report complex derived and calculated items instead of simply submitting raw data.
- Using a single flat file to represent multidimensional, multivariate phenomena.
- Submitting every field in every record for a given month every time even a correction needs to be made.
- Resubmitting multiple months' data to correct errors that have occurred in the past.

These deficiencies cause the following problems:

- It is hard to say with confidence, how accurate the final reports are.
- It is not possible to transfer waiting episodes between different reporting bodies without incorrectly calculating the waiting days.
- It is not possible to merge Patient Identifiers.
- It is not possible to properly delete long episodes that have been loaded incorrectly.
- Reinstating episodes that have been removed in error, is either cumbersome or impossible.
- One error in one field in a submission of 10,000 episodes results in the resubmission of the entire 10,000 episodes. This means that it statistically it is almost impossible for extracts over a certain size to be error-free with out some degree of manual adjustment of the extracted data.

#### The proposed solution:

- Remove all derived and calculated data items, instead collecting only raw data. This may reduce the number of fields required, by between a quarter and a third.
- Collect all raw data relating to relevant intra episode events (all changes in urgency, readiness and booking details that occur throughout the episode).
- Only submit data when it is new, a change, or a deletion.
  
- Decompose the existing flat file in to three related tables.
  - The first table (tblPatient) would represent data that

- describe the patient rather than the episode (eg sex). Although many of these features are likely to change over time, they should remain consistent across any waiting episodes that exist concurrently.
- The second table (tblEpisode) would contain data that describe the episode. Most of these features should only ever occur once per episode. For example a patient can only be registered once per episode. In some cases certain features may change (a patient's Principal Prescribed Procedure may change, but at any point there will only be one of them).
  - The third table (tblIntraEpisode) represents **events** that may happen multiple times within the episode. Each event must have an **Event Date** (the date on which the event occurred) and an **Event Value**. For example a change in clinical urgency (the type of event) also requires the date of the change and the value of the change (say from 3 to 2) to be reported.
  - Relate the tables to one another using Primary and Foreign keys.
    - In tblPatient the primary key is the Patient Identifier. One patient can have many episodes.
    - In tblEpisode the primary key is the Episode Identifier (formerly known as Unique Key). This table also contains the Patient Identifier to enable the one-to-many relationship with tblPatient. One episode will have many intra episode events.
    - In tblIntraEpisode the Primary Key is a composite of Episode Identifier, Event Type and Event Date. It is only possible to report one instance of a particular type of event on any given day. The Episode Identifier also acts as a foreign key linking back to tblEpisode.
  - Develop a reconciliation process to ensure that DHS aggregate reporting matches that of the submitting body.

## Proposed addition to data items

### Proposal 2—Principal Prescribed Procedure (PPP) Description

<b>It is proposed to</b>	Add a new data item to record the description of the procedure where the Principal Prescribed Procedure (PPP) code is one of the “other” PPP codes.
<b>Proposed by</b>	<b>Carla Read, Health Data Standards and Systems (HDSS)</b> Department of Human Services Phone: 9616 8118, Email: <a href="mailto:Carla.Read@dhs.vic.gov.au">Carla.Read@dhs.vic.gov.au</a>
<b>Implementation Date</b>	1 July 2004
<b>Background</b>	To monitor the use of the “other” PPP codes in relation to the procedure the patient is waiting for, to assist DHS in refining existing PPP codes or creating new ones.

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## Principal Prescribed Procedure Description (*new*)

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### Specification

<b>Definition</b>	The description of the patient’s procedure.		
<b>Datatype</b>	Alpha/numeric	<b>Form</b>	Code
<b>Field size</b>	50	<b>Layout</b>	AAAAAAAAAAAAAAAAAAAAAAAAAAAA AAAAAAAAAAAAAAAAAAAAAAAAAAAA AA, left justified
<b>Reported for</b>	All Waiting List episodes whose PPP code is one of the “other” PPP codes.		
<b>Reported when</b>	The patient is first registered on the Waiting List.		
<b>Reporting guide</b>	Report the description of the patient’s procedure as free text.		
<b>Edits</b>	### Blank description but PPP code is “other”		
<b>Related items</b>	Section 3: Principal Prescribed Procedure.		

### Administration

<b>Purpose</b>	To analyse the use of the “other” PPP codes to assist in further refining and enhancing the PPP code set.		
<b>Principal data users</b>	DHS		
<b>Collection start</b>	July 2004	<b>Version</b>	1 (Effective 01.07.04)
<b>Definition source</b>	DHS	<b>Code set source</b>	Hospital generated.

# Proposed modification to existing data item

## Proposal 3—Locality

<b>It is proposed to</b>	Refine the Locality field Reporting Guide to improve data quality for episodes reported with an overseas postcode.
<b>Proposed by</b>	<b>Greg O'Connell, Health Data Standards and Systems (HDSS)</b> Department of Human Services Phone: 9616 7327, Email: <a href="mailto:Gregory.O'Connell@dhs.vic.gov.au">Gregory.O'Connell@dhs.vic.gov.au</a>
<b>Implementation Date</b>	1 July 2004
<b>Background</b>	The Locality data item specifies that when a postcode of 8888 (overseas) is entered, the country name must be reported utilising free text. To improve the data quality reported for overseas episodes, required for the Reciprocal Health Care Agreement (RCHA), it is proposed to refine the Reporting Guide to ensure that when a postcode of 8888 (overseas) is reported, the country name entered in the Locality field is one that corresponds with the country descriptors in the reference file, available at: <a href="http://www.health.vic.gov.au/hdss/reffiles/index.htm">http://www.health.vic.gov.au/hdss/reffiles/index.htm</a>

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## Locality (*Amended*)

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### Specification

<b>Definition</b>	Geographic location (suburb/town/locality) for Australian residents, country for overseas residents of usual residence of the patient ( <i>not</i> postal address).		
<b>Datatype</b>	Alphanumeric	<b>Form</b>	Code
<b>Field size</b>	Thirty 22	<b>Layout</b>	AAAAAAAAAAAAAAAAAAAAA Left justified.
<b>Reported for</b>	All Waiting List episodes without a Postcode of 1000 or 9988.  If Postcode is 1000 or 9988, Locality remains blank.		
<b>Reported when</b>	The patient is first registered on the Waiting List.		
<b>Code set</b>	Refer to the DHS Postcode/Locality/SLA reference file available from: <a href="http://hdss.health.vic.gov.au/reffiles/index.htm">http://hdss.health.vic.gov.au/reffiles/index.htm</a>		
<b>Reporting guide</b>	Do not transmit the street address (number, name of road). Do not use non-residential localities (such as mail delivery centres).  The hospital may collect the patient's postal address for its own purposes. However, for submission to ESIS, the Locality field must represent the patient's residential address.  Australia Post web-site listing of postcodes and localities is available from: <a href="http://www.auspost.com.au">www.auspost.com.au</a>  The DHS file excludes non-residential postcodes listed in the Australia Post file.		

Where the Locality Postcode is 8888 (overseas), report the country name in Locality. The country name must be one that corresponds with the descriptor in the reference file, available at:

<http://www.health.vic.gov.au/hdss/reffiles/index.htm>

**Edits** S122 Postcode/Locality Combination Invalid

**Related items** Section 3: *Postcode*

## Administration

**Purpose** To enable calculation (with Postcode field) of the patient's appropriate Statistical Local Area (SLA) which enables:

- Analysis of service utilisation and need for services.
- Identification of patients living outside Victoria for purposes of cross-border funding.
- Identification of patients living outside Australia for the Reciprocal Health Care Agreement (RHCA).

**Principal data users** DHS, AIHW.

<b>Collection start</b>	July 1997	<b>Version</b>	1 (Effective 01.07.97) 2 (Effective 01.07.99) 3 (Effective 01.07.00) 4 (Effective 01.07.04)
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<b>Definition source</b>	DHS	<b>Code set source</b>	ABS National Locality Index (Cat. No. 1252)
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## Postcode (*Amended*)

### Specification

**Definition** Postcode of locality in which the patient usually *resides* (*not* postal address).

<b>Datatype</b>	Numeric	<b>Form</b>	Code
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<b>Field size</b>	4	<b>Layout</b>	NNNN
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**Reported for** All Waiting List episodes.

**Reported when** The patient is first registered on the Waiting List.

**Code set** Refer to the Postcode/Locality/SLA reference file available from:  
<http://hdss.health.vic.gov.au/reffiles/index.htm>

Other codes for use in this field:

<b>Code</b>	<b>Descriptor</b>
1000	No fixed abode
8888	Overseas (Report the four digit country name code in the Locality field.)
9988	Unknown

**Reporting guide** The Australia Post listing of postcodes and localities is available from:  
[www.auspost.com.au](http://www.auspost.com.au)

From the Australia Post list, non-residential postcodes are excluded and

common variations of locality spellings, as used in Melway references and the Australian Bureau of Statistics National Locality Index (Cat. No. 1252), are included.

The hospital may collect the patient's postal address for its own purposes. However, for transmission to PRS/2, the Postcode must represent the patient's *residential* address. PRS/2 will *reject* non-residential Postcodes (such as mail delivery centres).

For newborns, use the postcode of mother's residential address.

**Edits** S122 Postcode/Locality Combination Invalid

**Related items** Section 3: *Locality*

## Administration

**Purpose** To enable calculation (with Locality field) of the patient's appropriate Statistical Local Area (SLA) which enables:

- Analyses of service utilisation and need for services.
- Identification of patients living outside Victoria for purposes of cross-border funding.

**Principal data users** Multiple internal and external users.

<b>Collection start</b>	July 1997	<b>Version</b>	1 (Effective 01.07.97) 2 (Effective 01.07.00) 3 (Effective 01.07.04)
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<b>Definition source</b>	DHS	<b>Code set source</b>	Australia Post (DHS modified)
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## Proposal 4—Reason for Not Ready for Care Status

<b>It is proposed to</b>	Streamline the codeset for Reason for Not Ready for Care Status
<b>Proposed by</b>	<b>Mitchell Wilson, Hospital Demand Management</b> Department of Human Services Phone: 9616 8575, Email: <a href="mailto:Mitchell.Wilson@dhs.vic.gov.au">Mitchell.Wilson@dhs.vic.gov.au</a>
<b>Implementation Date</b>	1 July 2004
<b>Background</b>	Feedback received indicates that “clinically unfit” and “staged” are used interchangeably; therefore it is proposed to simplify the codeset to incorporate “staged” into the “clinically unfit” category.

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## Reason for Not Ready for Care Status (*amended*)

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### Specification

<b>Definition</b>	The reason the patient has a <i>Readiness Status</i> of <i>Not Ready For Care</i> .		
<b>Datatype</b>	Alpha/numeric	<b>Form</b>	Code
<b>Field size</b>	One	<b>Layout</b>	A
<b>Reported for</b>	All patients who have a reported <i>Readiness Status</i> of: <b>N</b> <i>Not Ready for Care</i>		

**Recorded when** The patient becomes *Not Ready for Care*.

<b>Code set</b>	<b>Code</b>	<b>Descriptor</b>
	C	Clinically <del>unfit</del> initiated deferral
	D	Deferred
	S	Staged
	P	Patient initiated deferral

**Reporting guide** C Clinically ~~Unfit~~ initiated deferral

Patient whose health status has *temporarily* declined to the extent that they cease to be suitable candidates for the prescribed procedure.

This includes patients whose medical condition will not require or be amenable to surgery until some future date. For example, a patient who has had internal fixation of a fractured bone and will require removal of the fixation device after a suitable time delay.

If a patient's health has *permanently* declined to this extent, remove from the Waiting List with *Reason for Removal* code Q Surgery declined or not required.

**Reporting guide (continued)** D — Deferred

Patient who refuses booking or admission for personal, non-clinical reasons. Hospitals are expected to exercise discretion to distinguish between a patient who is reasonably negotiating an admission date to suit their particular circumstances (taking the patient's *Clinical Urgency* into consideration) and one who declares themselves unavailable for treatment for prolonged periods. If the surgeon considers a patient's deferral to be unreasonable (eg, the patient wishes to defer indefinitely or repeatedly defers for long periods) and removes the patient from the Waiting List, assign *Reason for Removal* code Q Surgery declined or not required. As a general rule, a patient who is unable to present for admission for longer than a six-week period may be considered to have declined.

S — Staged

Patients whose medical condition will not require or be amenable to surgery until some future date. For example, a patient who has had internal fixation of a fractured bone and will require removal of the fixation device after a suitable time delay.

P Patient initiated deferral

Patient who refuses booking or admission for personal, non-clinical reasons. Hospitals are expected to exercise discretion to distinguish between a patient who is reasonably negotiating an admission date to suit their particular circumstances (taking the patient's *Clinical Urgency* into consideration) and one who declares themselves unavailable for treatment for prolonged periods.

If the surgeon considers a patient's deferral to be unreasonable (eg, the patient wishes to defer indefinitely or repeatedly defers for long periods) and removes the patient from the Waiting List, assign *Reason for Removal* code Q Surgery declined or not required. As a general rule, a patient who is unable to present for admission for longer than a six-week period may be considered to have declined.

If the *Readiness Status* has been reassigned, the *Readiness Change Date* must also be reported.

**Edits**

S267 Reason For NRFC Status Invalid  
S268 Status NRFC, No Reason For NRFC  
S269 Reason for NRFC Status Current RFC

**Related items**

Section 3: *Readiness Change Date* and *Readiness Status*.

**Administration**

**Purpose**

Used to provide information on the reason why the patient is *Not Ready for Care*.

**Principal data users**

DHS

**Collection start**

July 1997

Version

2 (Effective 01.07.01)

3 (Effective 01.07.04)

**Definition source**

DHS

Code set source

DHS

## Proposal 5—Sex

<b>It is proposed to</b>	Add a new code to include the concept of intersex.
<b>Proposed by</b>	<b>Catherine Perry, Health Data Standards and Systems</b> Department of Human Services Phone: 9616 6928, Email: <a href="mailto:Catherine.Perry@dhs.vic.gov.au">Catherine.Perry@dhs.vic.gov.au</a>
<b>Implementation Date</b>	1 July 2004
<b>Background</b>	The National Health Data Committee (NHDC) has approved (out-of-session) a change in the Sex data item (of the National Health Data Dictionary) to incorporate the concept of “intersex” into the data element, and to more adequately capture the sex of person’s who sex may change during their lifetime.

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## Sex (*amended*)

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### Specification

<b>Definition</b>	The sex of the patient.		
<b>Datatype</b>	Alpha/Numeric	<b>Form</b>	Code
<b>Field size</b>	One	<b>Layout</b>	N
<b>Location</b>	Episode Record		
<b>Reported by</b>	All Waiting List episodes.		
<b>Reported for</b>	The patient is first registered on the Waiting List.		
<b>Reported when</b>	The Episode Record is reported.		
<b>Code set</b>	<b>Code</b>	<b>Descriptor</b>	
	1	Male	
	2	Female	
	3	Indeterminate	
	4	Intersex	
<b>Reporting guide</b>	Sex should be inferred or accepted as reported by the patient, as at the time of registration. That is, it is usually unnecessary and may be inappropriate or even offensive to ask a person their sex. Sex may be inferred from other cues such as observation, relationship to patient, or first name.		

A person’s sex may change during their lifetime as a result of procedures known alternatively as Sex change, Gender reassignment, Transsexual surgery, Transgender reassignment or Sexual reassignment. Throughout this process, which may be over a considerable period of time, sex could be recorded as either Male or Female.

Codes 3 and 4 should not generally be used on data collection forms completed by the respondent. It should only be used if the person or respondent volunteers that the person is intersex or where it otherwise becomes clear during the collection process that the individual is neither male

nor female.

For infants with ambiguous sexual genitalia, the biological sex as determined at birth, possibly following genetic testing, is recorded. Only where this cannot be determined during the episode of care should 'Indeterminate' be assigned.

**Edits** S091 Sex code invalid  
S093 Indeterminate sex – check  
#### Sex code intersex - check

**Related items** Nil

## Administration

**Purpose** Used for demographic analyses of service utilisation.

**Principal data users** DHS

**Collection start** July 1997

**Definition source** ABS **Code set source** NHDD (DHS modified).

## Proposal 6—Unique Key

<b>It is proposed to</b>	Ensure that all Unique Keys are reported as a nine character field.
<b>Proposed by</b>	<b>Gregory O'Connell, Health Data Standards and Systems</b> Department of Human Services Phone: 9616 7327, Email: <a href="mailto:Gregory.O'Connell@dhs.vic.gov.au">Gregory.O'Connell@dhs.vic.gov.au</a>
<b>Implementation Date</b>	1 July 2004
<b>Background</b>	For consistency across datasets.

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## Unique Key (*amended*)

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### Specification

<b>Definition</b>	A hospital derived unique identifier specific to an individual Waiting List patient episode.		
<b>Datatype</b>	Alpha/numeric	<b>Form</b>	Code
<b>Field size</b>	6 9	<b>Layout</b>	XXXXXXXXX
<b>Reported for</b>	All Waiting List episodes.		
<b>Reported when</b>	The patient is first registered on the Waiting List.		
<b>Reporting guide</b>	<p>The patient must have a different <i>Unique Key</i> for each waiting episode.</p> <p>A <i>Unique Key</i> must be unique to a single episode, and cannot be re-used; a <i>Unique Key</i> must <i>not</i> be re-assigned to another episode for the same patient or to another patient.</p> <p>It is usually generated and allocated by the computer system, and should have no relationship with the patient's unit record number/<i>Patient Identifier</i>.</p> <p>Once allocated to an episode, the <i>Unique Key</i> cannot be changed.</p> <p>The <i>Unique Key</i> remains constant throughout the episode. Whilst other information in the patient record may be changed (including the <i>Patient Identifier</i>), the <i>Unique Key</i> ensures that the episode can be identified by the hospital.</p>		
<b>Edits</b>	S060 Unique Key Invalid S061 Unique Key Is Not Unique S136 Procedure Mismatch Between Months S148 Surgical Specialty Mismatch Between Months S280 Booking Number Mismatch Between months S330 Hospital Initiated Postponement Decreased Between Months		
<b>Related items</b>	Section 3: <i>Booking Number, Hospital Initiated Postponement, Patient Identifier, Principal Prescribed Procedure, Reason for Scheduled Admission Date Change, Registration Date, Surgical Specialty</i> and <i>Waiting Number</i> .		

## Administration

<i>Purpose</i>	Used as a reliable episode identifier, as it is system-generated, and numbers are not re-used.		
<i>Principal data users</i>	Hospitals, DHS		
<i>Collection start</i>	July 1999		
<i>Definition source</i>	DHS	<i>Version</i>	1 (Effective 01.07.99)