NATIONAL GENERAL PRACTICE
INJURY SURVEY
PILOT STUDY: OCTOBER 1994

FINAL REPORT

by

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May 1995

Report No. 72

A collaborative study between
Monash University Accident Research Centre
and the Royal Australian College Of General Practitioners

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Sponsoring organisation: Commonwealth Department of Human Services And Health

Abstract: A national survey of injury presentations to general practice was piloted in October 1994 by MUARC in conjunction with the Royal Australian College of General Practitioners (RACGP). The pilot, funded by the Commonwealth Department of Human Services And Health was conducted in conjunction with the 1994 Inter Practice Comparison (IPC) to: determine the feasibility of a definitive study; trial participant recruitment strategies; assess mechanisms for ensuring the representativeness, quality and utility of the data.

This report presents the results of the pilot study, with particular reference to: the methodology trialled, participation levels of general practitioners (by recruitment strategy, RARA code and state); the injury data collected (analyses of injury and injury event data, evaluation of quality and completeness); and the feasibility of a major study.

The report concludes that a definitive national study is feasible, but major issues identified in the pilot study would need to be addressed. Recommendations made in the report are as follows:

- that a 12 month planning and recruitment phase be undertaken
- that a randomised sampling process be developed incorporating considerable over-sampling (particularly among urban general practitioners) and personalised recruitment (if possible) to optimise the sample size
- that an external auditing process to determine capture rate and biases due to non-inclusion be incorporated into the study design and budget of the major project
- that the allocation of quality assurance (QA) points and nominal financial remuneration be considered for participating general practitioners
- that a consultative process and perhaps a small workshop should be held to clarify methods and the sample size for the major study
- that a proposal incorporating methods of dealing with these issues be developed collaboratively by MUARC and the RACGP, and submitted to appropriate funding bodies (to be undertaken in consultation with Commonwealth Department of Human Services And Health)
- that in consultation with the College, the suitability of the Inter Practice Comparison as an appropriate vehicle for a randomised national survey to develop national estimates be re-considered due to the constraints identified.

Key words: injury surveillance
           general practitioner
           feasibility study
           pilot
           national
           data quality

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EXECUTIVE SUMMARY

1. BACKGROUND

A study (survey) of cases of injury presentation to general practitioners, in conjunction with the Royal Australian College of General Practitioners (RACGP), was discussed as a possibility for 1995. The study was envisaged to cover urban and rural areas nationally, and a suggested method of conducting the study was that it be undertaken in conjunction with the 1995 Inter Practice Comparison (IPC). It was determined that a pilot study (national) should be first undertaken to: determine the feasibility of a definitive study; to trial participant recruitment strategies; and to assess mechanisms for ensuring the representativeness, quality and utility of the data. The pilot study was conducted in conjunction with the 1994 IPC survey.

This report presents the results of the pilot study, with particular reference to: the methodology trialed, participation levels of general practitioners (by recruitment strategy, RARA code and state); the injury data collected (analyses of injury and injury event data, evaluation of quality and completeness); and the feasibility of a major study.

2. METHODOLOGY

The pilot survey trialed two methods for recruiting general practitioners. Practitioners were advised that 5 Practice Assessment points could be earned by general practitioners who satisfactorily completed the survey, and who provided a written assessment of their individual practice results as they related to the total survey data. Thus, both participation and the supply of reliable data was encouraged. Two groups of general practitioners from the 1994 Inter Practice Comparison cohort were sent materials for the pilot survey.

- **Group 1:** comprised 28 selected general practitioners, from a cross section of practice types, who had expressed interest in prevention and who responded to an initial invitation to participate in an injury survey associated with the Inter Practice Comparison.

- **Group 2:** comprised a single volunteer per randomly selected practice. Twenty-eight (28) practices were selected from a random stratified sample of general practices (stratified by RARA code), with the sampling designed so that the total sample selected would reflect the national distribution of practices by RARA code. Sampling thus covered both rural and urban areas.

3. RESULTS

3.1 Participation

3.1.1 Participation by recruitment method

**Group 1:**
Of the 28 general practitioners who expressed an interest in injury prevention and who responded positively to an invitation prior to the survey, 22 participated in the survey. Thus the participation rate was 78.6%. This included 1 general practitioner, who specified that no cases fulfilling the inclusion criteria had presented.

**Group 2:**
Of the 28 practices, which were selected from a randomly stratified sample of general practices, 19 general practitioners participated, providing a participation rate of 67.9%.
Comparison of groups
Group 1 demonstrated a higher participation rate (78.6%) compared with Group 2 (67.9%). This is not surprising given that those in Group 1 had previously expressed interest in injury prevention, and had responded positively to an invitation to participate in the survey. However, given the previous expression of interest in injury prevention and the positive response to invitation, it is surprising that this difference is not more marked.

3.1.2 Participation by RARA code
Within the selected sample, the response rate was lowest in urban regions (RARA 1 & 2), particularly in Group 2 (Table 2). This suggests that over-sampling of urban general practitioners may be required in order to obtain a representative sample in a national survey.

3.1.3 Participation by state
Participation varied widely between states, as can be seen from Table 3. In the 3 states where more than 10 practices were selected (NSW, Vic., Queensland), those responding ranged from 62% to 81%. Of the 3, Victoria had the highest response. In attempting to design a national sampling frame, practices would need to be selected in proportion to the population served. Initial over-sampling may be required in those states demonstrating low compliance.

3.2 Injury event data

It must be borne in mind that the data represents a small number of cases and has a number of biases. Although the data cannot be considered a representative sample, it provides indications of injury problems and issues arising in general practice. In addition, the pilot study results provide the information needed on study design to ensure the representativeness of the definitive survey sample.

Areas of bias in the pilot study data included:
• under-representation of practices in the RARA 1 group
• limitations on reliability of the data due to low levels of participation by doctors and because of non-auditing of the data.

However, the pilot study data is still useful in providing a guide to the injury problems and issues arising in general practice, and a summary is now provided.

3.2.1 Aggregate general practice data
• Sex: There was a similar sex distribution (2 males: 1 female) among children and adults.
• Location: Injuries in the home comprised the greatest group in both children and adults. More than a quarter of child injuries occurred in educational institutions, and a quarter of adult injuries occurred in the commerce/production areas.
• Activity: Children were, not surprisingly, most likely to present following leisure/recreation-related injury. Adults were most likely to present following work-related injury.
• External cause of injury (ICD 9 code): Falls were the largest group for adults (a quarter) and children (half). Cutting and piercing injuries comprised a further quarter of adult cases.
• Intent of injury: 96% were reported as unintentional.
• Reason for presentation to general practice: The most frequent responses were a preference to see a doctor known to the patient. This was particularly marked for children and for rural patients.

3.2.2 Urban/rural comparison
• Age and sex: The ratio of child:adult cases is similar in both urban and rural data (3:1) and the sex ratio is also similar (2 males: 1 female).
• **Location:** Similar distributions were noted, but the proportion of residential injuries was higher in rural than in urban children.

• **Breakdown factors:** The distribution of breakdown factors was similar in urban and rural areas, except for a higher proportion of falls in urban compared with rural adults.

• **Activity:** Urban children were more likely than rural children to present following sports-related injury. Rural adults presented more following leisure/recreation activities than their urban counterparts, whereas urban adults presented with more occupational-related injuries.

• **Reason for presentation to general practice:** Although a preference to see a doctor known to the patient was the most frequently cited preference in both urban and rural groups, this response was particularly high in rural child cases. 'Injury not severe enough' was the second most common response in both areas. Shorter waiting time was more commonly cited for urban children (15% vs 6% of urban children) and closer proximity was more frequently cited in urban areas for both children and adults.

### 3.2.3 Comparison of general practice versus emergency department data

• **Sex:** There was a similar sex distribution (2 males: 1 female) among children and adults.

• **Location:** More adults presented to general practice for injury in the home and in areas of production, and more presented to the emergency department for transport-related injury. For children, more of the injuries presenting to general practice occurred in educational areas.

• **Activity:** Work-related injuries comprised almost a third of those attending the emergency department compared with a seventh of those attending general practice.

• **Intent of injury:** 8% of injuries presenting to the emergency department were reported as intentional compared with only 1.7% of cases presenting to general practice.

### 3.3 Injury data

#### 3.3.1 Aggregate general practice data

• **Nature of injury:** Lacerations, strains/sprains, bruising and fractures accounted for the main injuries in both children and adults. The distribution of child and adult injuries was similar, except for fractures which accounted for 14% of child and only 6% of adult injuries.

• **Body region injured:** Upper limb injuries were the largest group in both children and adults. Head and face injuries were the second largest group in both children and adults, being more frequent in children (not surprising given their comparatively large head size, small total size and vulnerability in an environment principally designed for adults).

• **Disposition of patient:** In 57% of child and 59% of adult cases, no further follow-up was necessary and in a further 24% of child and 32% of adult cases, review by the general practitioner was required. Referrals were made for 15% of children and 8% of adults.

#### 3.3.2 Urban/rural comparison

• **Nature of injury:** Upper limb injuries were markedly higher in both child and adult urban cases (child 45% vs 18%; adult 42% vs 28%), as were head/face injuries in children (29% vs 19% of rural children). It is possible that urban general practitioners are better equipped, than their rural counterparts, to deal with fractures and other injuries requiring procedural treatment.

• **Body region injured:** Fractures were more frequent among urban than rural children (18% vs 7%), whereas in rural areas bruising accounted for a higher proportion of rural cases in both children and adults (child 19% vs 10%; adult 17% vs 12%).

• **Disposition of patient:** The distributions of disposition were similar in both urban and rural areas, but urban children were more likely than their rural counterparts to require either no treatment or treatment with no follow-up.
3.3.3 Comparison of general practice versus emergency department injury data

- **Nature of injury:** More sprains/sprains in both adults and children were seen in general practice. Fractures and poisoning, in both children and adults, were seen to a greater extent in the emergency department, and more children were seen in the emergency department for inflammation and concussion.

- **Body region injured:** In both children and adults, more lower limb injuries were seen in general practice. More systemic injuries, in both children and adults, were seen in those presenting to the emergency department (not surprising given the greater presentation injuries such as poisoning and concussion to the emergency department).

- **Disposition of patient:** Those presenting to general practice were twice as likely to require review/referral than those presenting to emergency departments, and admission to hospital was far more frequent (18% vs 3%) in those presenting to emergency departments.

3.4 Data quality and completeness

3.4.1 Data completeness

To determine the completeness of data, it is necessary to audit the data to establish the number of cases for which data was not received (due either to patient refusal or to the case being missed). Thus, auditing is necessary to determine whether (i) any pre-set minimum catchment rate is achieved by all participants and (ii) there are any biases in the data.

In the pilot study, auditing of practices to ascertain the number of missed cases was not undertaken, because of the logistics of organising this. Doctors were asked to forward a count of patient refusals, but this information was available only from those (16 of the 41) who completed the follow-up evaluation questionnaire. Of the 16, 11 stated that there were no refusals and in 5 cases, it was not clear whether there were any refusals. Work with both the Victorian Injury Surveillance System (presentations to hospital emergency departments) and the Extended Latrobe Valley Injury Surveillance System (presentations to general practice) underscores the necessity of monitoring missed cases in any ongoing definitive study, and the necessity of external workers for such activities.

In order for auditing to occur, Ethics Committee approval, as well as the agreement of participating general practitioners, would be required (such an agreement has been negotiated for the general practice study in the Latrobe Valley).

3.4.2 Quality of data

Quality of the data provided was encouraging with only 61 items of data missing in the more than 4000 items. In terms of specific variables, activity and breakdown were the best completed with no missing data. Missing data was minimal in the age and injury type variables. However, Table 16 indicates that some attention could be given to the sex, location and body region injured variables to minimise missing data. Such attention could include:
- changing the layout of the form to encourage the recording of sex
- providing clearer instructions for the variables 'location' and 'body region'.

3.5 Acceptability of the data collection process

A brief evaluation questionnaire sent to participating general practitioners after the study elicited the following results from the 16 respondents replying:

- 15 indicated there were no problems with the Plain Language Statement supplied to patients for the purpose of informed consent. 1 respondent did not answer this question.
• 6 indicated there were no problems with the laminated A4 card initially given to the patient to inquire about the presence of injury. Other comments included: 4 stated that it was useful; 1 that it was not useful; 3 that it was not used/not used much; 1 that it was time-consuming; and 1 wrote 'what card?'.
• All respondents indicated no problems with the Operational Guidelines.
• 11 indicated that no patients declined to participate. 1 indicated there were no problems with recording patients who declined to participate; 2 indicated that the doctor kept a log of patient refusals and 1 that the receptionist kept such a log.

4. CONCLUSIONS

While providing some new insights into the presentation of injury cases to general practice, the pilot study has indicated a number of limitations of the trialed methodology. A national general practice injury study to develop national estimates is feasible, though major issues identified in the pilot study would need to be addressed.

4.1 Sampling frame

Recruitment:
The method used in Group 1 (personal invitation prior to survey, following earlier expression of interest) generated a higher response rate (79%) than for the group randomly selected (68%). Although this pattern was evident only in practices with a RARA code of 1 or 2, practices with these RARA codes constituted 71% of all practices surveyed. For this reason, and because monitoring of data quality and completeness through external auditing may prove more acceptable to Group 1, it would be preferable to undertake recruitment using the method of personal invitation prior to survey. However, given the large size of the sample required, use of this method may be precluded given logistic difficulties. The sample obtained by the methods employed resulted in an uneven distribution by RARA code, with over-sampling of rural general practitioners, who were more compliant with this pilot study than urban general practitioners.

4.2 Data completeness

The (i) failure of most participating general practitioners to provide a log of missed cases and a count of the number of patient refusals (from practice records), and (ii) the absence of an external auditing process result in there being no valid measure of capture rate by the method trialed.

Information on patient refusals was available only from those (16 of the 41) who completed the follow-up evaluation questionnaire. Of these, 11 of the 16 stated that there were no refusals but in 5 further evaluations it was not clear whether there were any refusals (and if so, how many). Work with both the Victorian Injury Surveillance System (presentations to hospital emergency departments) and the Extended Latrobe Valley Injury Surveillance System (presentations to general practice) underscores the necessity of monitoring missed cases in any ongoing definitive study, and the necessity of external workers for such activities.

In order for auditing to occur, Ethics Committee approval, as well as the agreement of participating general practitioners, would be required (such an agreement has been negotiated for the general practice study in the Latrobe Valley).

4.3 Data quality

Quality of the data provided was encouraging but improvements to the design of the data collection form, clearer instructions in its use for patients and doctors, and other procedural issues need to be
addressed. Comments on the data quality in this pilot study relate only to the number of variables completed; it does not however allow examination of the accuracy of the data. In order to ascertain this, the data recorded needs to be compared with the original patient record to ascertain that the data provided is accurate and provided in full. However, a problem here is that the original patient record may not contain much detailed data on the circumstances surrounding the injury event.

Training for staff and general practitioners would be an advantage, though a mechanism would need to be developed to overcome geographical separation. Training in the data collection process has been shown to improve data completeness and quality (Williams et al, 1995).

5. **RECOMMENDATIONS**
The report concludes that a definitive national study is feasible, but major issues identified in the pilot study would need to be addressed and recommendations for this were made.

- that a 12 month planning and recruitment phase be undertaken
- that a randomised sampling process be developed incorporating considerable over-sampling, particularly among urban general practitioners and, if possible, personalised recruitment to ensure an optimal sample size is obtained
- that an external auditing process, to determine capture rate and biases due to non-inclusion, be incorporated into the study design and budget of the major project
- that allocation of QA points and nominal financial remuneration be considered for participating general practitioners
- that a consultative process, and perhaps a small workshop, be held to clarify methods and the sample size for the major study
- that a proposal, incorporating methods of dealing with these issues, be developed collaboratively by MUARC and the RACGP, and submitted to appropriate funding bodies (to be undertaken in consultation with the Department of Human Services and Health)
- that in consultation with the College, the suitability of the Inter Practice Comparison as an appropriate vehicle for a randomised national survey to develop national estimates be reconsidered due to the constraints of an October only survey, particularly regarding seasonal variation and any biases that this self-selected group of general practitioners may introduce.
1. BACKGROUND TO THE PILOT STUDY

A study (survey) of cases of injury presentation to general practitioners, in conjunction with the Royal Australian College of General Practitioners (RACGP), was discussed as a possibility for 1995. The study was envisaged to cover urban and rural areas nationally, and a suggested method of conducting the study was that it be undertaken in conjunction with the 1995 Inter Practice Comparison (IPC). It was determined that a pilot study (national) should be first undertaken.

A pilot survey was intended to:

- test the level of information which participating general practitioners are willing to provide and are able to provide reliably
- help to maximise the useful information from a subsequent large study
- minimise the risk of having an unsatisfactory outcome which might preclude further surveys by this method.

A number of methodological issues were raised during pre-testing of the proposed method in a small number of practices in mid-1994 and during a previous general practitioner survey of injury, conducted by MUARC in the Shire of Bulla in 1992. To maximise compliance and data quality, these issues need to be addressed, and solutions trialed, in the pilot survey.

Approval for the pilot study was received from the Monash University Standing Committee on Ethics in Research on Humans.

2. AIMS AND OBJECTIVES

2.1 Aims

1. To refine the process for the collection of data for cases of first presentation for injury to general practice.

2. To further develop a methodology for injury data collection from a representative sample of general practices in Australia.

2.2 Objectives for the major study (1995)

1. To determine the nature and circumstances of injuries which present to general practice in Australia.

2. To determine the incidence of injury as it presents to general practice, to complement data on injury cases in coronial and hospital data. The survey would initially be confined to the month of October (a future objective would be to determine seasonal variation).

3. To characterise the types and severities of injury cases seen by general practitioners to assist in the process of planning health care delivery services.

4. To compare the characteristics of injury cases attending general practitioners with those seen elsewhere (are the right cases going to the right place?).
5. To determine differences in injury cases presenting to general practitioners in different types of practice, particularly rural vs urban.

6. To provide inter-practice comparison data for practitioners working in similar geographic circumstances.

2.3 Objectives for the pilot study (1994)

1. To trial and compare two methods of recruitment for participation in the collection of general practice data.

2. To assess the completeness and quality of data collected.

3. To design and trial the data collection instrument.

4. To assess any barriers to the collection of high quality data.

5. To report on the results of the pilot study.

6. To design the sampling frame and detailed methodology necessary for a definitive survey to be undertaken.

7. To determine the feasibility of a definitive National survey.

3. METHOD

3.1 Recruitment of general practitioners

The pilot survey trialed two methods for recruiting general practitioners. Practitioners were advised that 5 Practice Assessment points could be earned by general practitioners who satisfactorily completed the survey, and who provided a written assessment of their individual practice results as they related to the total survey data. Thus, both participation and the supply of reliable data was encouraged. Two groups of general practitioners from the 1994 Inter Practice Comparison cohort were sent materials for the pilot survey.

- **Group 1**: comprised 28 selected general practitioners, from a cross section of practice types, who had expressed interest in prevention and who responded to an initial invitation to participate in an injury survey associated with the Inter Practice Comparison. These practitioners were then sent the information and data collection kit (see Appendices 5 to 8). Two additional general practitioners had also responded but could not be included because: one did not receive the mailed information and the other needed to withdraw prior to the survey period.

- **Group 2**: comprised a single volunteer per randomly selected practice. Twenty-eight (28) practices were selected from a random stratified sample of general practices (stratified by RARA code), with the sampling designed so that the total sample selected would reflect the national distribution of practices by RARA code. Sampling thus covered both rural and urban areas (an additional general practitioner had to be excluded from this group as he was found to
be in Group 1). A letter of explanation and a request to participate was sent to these practices with the information and data collection kit (see Appendices 4 to 8).

These samples were too small, in the pilot, to allow stratification of the groups on other criteria such as size of practice or gender of practitioner.

3.2 Estimation of sample size

Participation in the survey required that general practitioners would, for a consecutive 14 day period, forward information on the total number of injury cases (a count) and forward the completed, detailed forms of patients consenting to participation. Pre-test data suggested that each participating general practitioner would be expected to see between 9 and 24 new cases of injury in the 2 week survey period so that approximately 1000 cases were anticipated if all selected practitioners/practices participated.

3.3 Definition of cases

Eligible cases included all NEW cases of acute injury (including poisoning) regardless of whether the event was accidental or intentional (or of unknown intent).

This excluded:
- chronic injury and injuries of slower onset (such as RSI and occupational hearing loss)
- cases where there is no apparent relationship of the patient's symptoms to an injury event
- cases of adverse effects of prescribed medication
- presentations for review where a form has already been completed.

This included diverse injuries and causes such as:
- burns, poisonings, lacerations, bruising, fractures, sprains/strains, foreign bodies etc.
- cases of self harm - suicide attempts, mutilation, poisoning, insertion of foreign bodies
- collapses and fits IF resulting in laceration, bruising etc
- motor vehicle -related injury
- bites - insects, dogs etc
- cellulitis WHEN it is secondary to an initial injury.

3.4 The data collection form

Injury data was collected on a modified Victorian Injury Surveillance System form, thus including in-depth information about the nature and circumstances of injuries (see Appendix 8 for the general practice data collection form and Appendix 9 for a sample VISS form).

The form is 2-sided:

- the front page is designed to be completed by the patient and requests details on the date, time, and location of injury as well as details on the injury event (activity at the time of injury, events leading to the injury, how the body was injured). Additional questions relate to the use of any safety precautions (i.e. equipment).

- the back page is designed to be completed by the treating doctor and requests details on the nature and region of injury, the intent of injury, and disposition of the patient.
The form was then, for the majority of questions, coded using the Injury Surveillance Information System (used to code data for the Victorian Injury Surveillance System). In addition, an E-code was also allocated for each case to provide overview data and the means for comparison with hospital admission data.

3.5 Distribution of survey materials

Prior to the survey, all selected participating general practitioners were mailed:

- A letter of explanation, invitation and procedural instructions
- Operational guidelines for data collection
- Laminated card to be shown to all patients presenting to reception (notification of the study)
- Plain Language Statement, for informed consent purposes, to be given to patients presenting with an injury
- Data collection forms (15).

3.6 Suggested procedure for data collection, as supplied to participating general practitioners

- Choose any consecutive 14 day period between 1st and 30th October
- Ensure completion of the data collection form for all NEW cases of injury
- Suggested procedure:
  - each patient (or parent) is handed a card asking the patient to notify the receptionist if the presentation is injury- or poisoning- related;
  - where this is the case, the receptionist will briefly explain that the practice is participating in a national short term collection of data and request the patient's participation;
  - for all injury cases, the receptionist will place an alerting sticker on the patient's file to facilitate a count of all injuries. For patients agreeing to participate, the receptionist will place an additional alerting sticker on the patient's file and the patient will be asked to complete the data collection form while waiting;
  - if such identification of the patient is missed by the receptionist, the nurse or doctor will need to undertake the explanation to the patient and request participation;
  - the doctor needs to complete the relevant sections (back of form) and ensure that patient details and information relating to the circumstances of injury (front of form) have been entered by the patient (need to enter any missed details);
  - the form is then returned with the patient file to the receptionist;
  - to ensure inclusion of all injured patients, please check the daily or weekly records for any cases which may have been overlooked;
• photocopy the completed forms and retain the photocopies (essential for both comparison of your data with the study results and for earning of Practice Assessment points);

• return (i) the completed forms (originals) and (ii) unused forms with your IPC data;

• it may be advisable to place a notice in your waiting-room advising patients of collection of data on injuries and poisoning.

3.7 Development of the data entry and analysis systems

The computerised data entry system used for the National General Practice study, was developed using a software package called Epi Info. Epi Info is a programming system designed to handle epidemiologic data in questionnaire format. It is a public domain software, developed for public health use by the Centers for Disease Control and Prevention. It provides word processing, data entry and analysis functions. Data can be imported or exported in various formats therefore making it compatible with other packages such as SPSS, SAS, dBase and Lotus 1-2-3.

Epi Info was chosen for this project for its ability to allow the design of the data entry screen to be as similar as possible to the data collection form, with a mixture of text and codes, quite quickly and easily. Also as the installation of the software and the data entry system was quite simple, more than one computer, including a portable, could be used and data entry could be performed on site. Furthermore, minimal computer skills are needed to operate the system.

The National General Practice injury recording system was developed by reproducing the data collection form with entry fields on a screen. The entry fields comprised of a combination of numeric and text fields as is on the data collection form. The word processing facility in Epi Info was used to create the data entry screen. Epi Info automatically sets up the database (the file containing the data) from the on-screen questionnaire by using the entry fields as the variables. By having the screen and form similar, data could be entered into the system directly from the form with minimal coding required by staff.

A data validation system was developed to ensure that all necessary information was entered and codes (eg. body part) were correct. For example:

• the program checked that all fields requiring a value were entered.
• the date of birth was checked against the date of injury to ensure that the date of birth does not occur after the injury date.
• error checking on codes was provided so that only correct codes were entered in appropriate fields.

A help function was provided for these fields to guide and assist the user on the values available.

A field at the bottom of the screen was included to guide the user about what was required to be entered into a field. Also the text description of a value of the previous field would be displayed at the bottom when a code was entered and error messages would display on screen if incorrect values were entered.

Backup procedures were practiced to ensure a copy of the data was available if by chance there was a problem with the computer or data was deleted unintentionally.
3.8 Comparison with VISS data

The general practice data is, in sections 5 and 6, compared with injury data collected by emergency departments to allow comparison of the characteristics of injury cases presenting to the two types of health services. Thus, the 293 general practice cases are compared with data collected by the Victorian Injury Surveillance System (VISS), which has collected data from the emergency departments of 7 hospitals in metropolitan Melbourne and rural Victoria (the Latrobe Valley). VISS is one of a number of state surveillance systems, which also feeds its data into the National Injury Surveillance Unit (NISU) database.

Given that neither the general practitioner nor VISS data sets are necessarily representative, comparisons between the two are confined to comparisons of proportions. These comparisons are made separately for children (< 15 years) and adults, due to a bias towards child cases in the VISS database.

4. RESULTS: DOCTOR PARTICIPATION AND CASE NUMBERS

4.1 Doctor participation by recruitment method

Group 1:
Of the 28 general practitioners who expressed an interest in injury prevention and who responded positively to an invitation prior to the survey, 22 participated in the survey. Thus the participation rate was 78.6%. This included 1 general practitioner, who specified that no cases fulfilling the inclusion criteria had presented.

Group 2:
Of the 28 practices, which were selected from a randomly stratified sample of general practices, 19 general practitioners participated, providing a participation rate of 67.9%.

Comparison of groups
The higher participation rate for Group 1 (78.6%), compared with Group 2 (67.9%), is not surprising given that those in Group 1 had previously expressed interest in injury prevention, and had responded positively to an invitation to participate in the survey. However, given the previous expression of interest in injury prevention and the positive response to invitation, it is surprising that this difference is not more marked.

4.2 Doctor participation by practice region

The use of the RARA coding system allows the description of practice type in terms of the geographical coverage of the practice. The codes are allocated as follows:

1. Capital city
2. Other major urban (non-capital city urban area)
3. Rural major
4. Rural other
5. Remote major
6. Remote other
Potential participants were selected from RARA codes 1 to 4. No potential participants were selected by the RAC general practitioner from RARA codes 5 and 6 (remote areas) because:

- their work is likely to encompass the full range of medical services and it would thus be difficult to isolate their general practice work for survey purposes
- practitioners in RARA codes 5 and 6 have generally proved non-responders in such surveys because of their workload and hospital involvement.

Table 1 outlines the distribution by RARA code for (i) those selected to participate in the pilot study, (ii) those who actually participated in the pilot study, and (iii) for the national distribution of all general practitioners by RARA code.

When the distribution of RARA codes in the sample is compared with the distribution of those selected, it is apparent that RARA 1 practices were under-sampled and RARA 2 practices were over-sampled, thus indicating the need for review of the sampling methodology for a definitive study. As the response reflected the sampling (Table 1), it must be remembered that the pilot study data presented in sections 5 and 6 is biased to under-representation of injuries from RARA 1 and over-representation of injuries from RARA 2.

Table 1. Participation by RARA code

<table>
<thead>
<tr>
<th>RARA code</th>
<th>Selected sample by RARA code</th>
<th>Participants by RARA code</th>
<th>National distribution of practices by RARA code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>58%</td>
<td>23 (56%)</td>
<td>69%</td>
</tr>
<tr>
<td>2</td>
<td>19%</td>
<td>6 (15%)</td>
<td>9%</td>
</tr>
<tr>
<td>3</td>
<td>14%</td>
<td>7 (17%)</td>
<td>11%</td>
</tr>
<tr>
<td>4</td>
<td>9%</td>
<td>5 (12%)</td>
<td>8%</td>
</tr>
<tr>
<td>5, 6</td>
<td>-</td>
<td>-</td>
<td>3%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>41 (100%)</td>
<td>100%</td>
</tr>
</tbody>
</table>

Within the selected sample, the response rate was lowest in urban regions (RARA 1 & 2), particularly in Group 2 (Table 2). This suggests that over-sampling of urban general practitioners may be required in order to obtain a representative sample in a national survey.

Table 2. Participation by group by RARA code

<table>
<thead>
<tr>
<th>RARA code</th>
<th>Group 1</th>
<th>Group 2</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Selected</td>
<td>Participated</td>
<td>Selected</td>
</tr>
<tr>
<td>1</td>
<td>16</td>
<td>12 (75%)</td>
<td>17</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>3 (75%)</td>
<td>6</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>3 (75%)</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>4 (100%)</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>28</td>
<td>22 (78.6%)</td>
<td>28</td>
</tr>
</tbody>
</table>
Participation varies widely between states, as can be seen from Table 3. In the 3 states where more than 10 practices were selected (NSW, Vic., Queensland), those responding ranged from 62% to 81%. Of the 3, Victoria had the highest response. In attempting to design a national sampling frame, practices would need to be selected in proportion to the population served. Initial over-sampling may be required in those states demonstrating low compliance.

Table 3. Participation by State

<table>
<thead>
<tr>
<th>State</th>
<th>Selected</th>
<th>Participated</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSW</td>
<td>13</td>
<td>8 (62%)</td>
</tr>
<tr>
<td>ACT</td>
<td>1</td>
<td>1 (100%)</td>
</tr>
<tr>
<td>Vic.</td>
<td>16</td>
<td>13 (81%)</td>
</tr>
<tr>
<td>Tas.</td>
<td>5</td>
<td>4 (80%)</td>
</tr>
<tr>
<td>SA</td>
<td>5</td>
<td>2 (40%)</td>
</tr>
<tr>
<td>WA</td>
<td>5</td>
<td>4 (80%)</td>
</tr>
<tr>
<td>Q'land</td>
<td>12</td>
<td>9 (75%)</td>
</tr>
<tr>
<td>Total</td>
<td>57</td>
<td>41 (72%)</td>
</tr>
</tbody>
</table>

4.3 Case numbers per doctor and practice region

Forms for 293 cases from 41 doctors were forwarded following the survey period:
- the minimum number of cases seen was 0 (freq. = 2)
- the maximum number of cases seen was 19 (freq. = 1)
- the median number of cases seen was 4.5
- the mean number of cases seen was 7.

The total number of cases, detailed by practice region (RARA) and state in Tables 4 and 5, is considerably less than was expected. However, case numbers per doctor have also proved lower than expected in a general practice injury data collection currently underway in Victoria’s Latrobe Valley (RARA codes 3 and 4). In this collection, the number of data forms received from each participating doctor has been variable, ranging from 1 to 26 for a similar 2 week period. Auditing of this collection, where there all general practitioners in the region are participating, has suggested that completion of forms occurs in about 78% of first injury presentations. This is despite the full range of back-up and quality control provided the project co-ordinator.

Cases per doctor varied across RARA groups (Table 4), with those in RARA group 3 submitting almost double the mean number of cases.
Table 4. Case numbers per doctor by RARA type

<table>
<thead>
<tr>
<th>RARA code</th>
<th>No. doctors replying</th>
<th>No. cases</th>
<th>No. cases/doctor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>23</td>
<td>133</td>
<td>5.8</td>
</tr>
<tr>
<td>2</td>
<td>6</td>
<td>45</td>
<td>7.5</td>
</tr>
<tr>
<td>3</td>
<td>7</td>
<td>87</td>
<td>12.4</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>28</td>
<td>5.6</td>
</tr>
<tr>
<td>Total</td>
<td>41</td>
<td>293</td>
<td>7.1</td>
</tr>
</tbody>
</table>

Case numbers per state, per doctor (Table 5), show less variation than case numbers by RARA groups with NSW (5.3) showing most variation from the 7.1 mean.

Table 5. Case numbers by State

<table>
<thead>
<tr>
<th>State</th>
<th>Cases by State</th>
<th>Cases per doctor per state</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n=</td>
<td>% of total cases</td>
</tr>
<tr>
<td>NSW</td>
<td>42</td>
<td>14</td>
</tr>
<tr>
<td>ACT</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Vic.</td>
<td>105</td>
<td>36</td>
</tr>
<tr>
<td>Tas.</td>
<td>31</td>
<td>11</td>
</tr>
<tr>
<td>SA</td>
<td>15</td>
<td>5</td>
</tr>
<tr>
<td>WA</td>
<td>30</td>
<td>10</td>
</tr>
<tr>
<td>Q'land</td>
<td>64</td>
<td>22</td>
</tr>
<tr>
<td>Totals</td>
<td>293</td>
<td>100%</td>
</tr>
</tbody>
</table>

5. RESULTS: INJURY EVENT DATA

In this section, the data collected in the pilot study is examined to provide:

(i) summary data on injury events and injuries seen by general practitioners

(ii) comparison of data presenting to urban versus rural general practices

(ii) comparison of the characteristics of injury cases presenting to general practice with those presenting to emergency departments.

(i) Summary information is provided on the demographic attributes of the injured persons and on the events leading to injury. The following variables are examined: age; sex; location of the injury event; activity at the time of injury; 'breakdown' factors (event leading to injury); external cause of injury; diagnosis; body part injured; and disposition of the patient.

(ii) Data on cases presenting to urban versus rural practices is compared with respect to the injury event and injury data. For the purposes of this comparison, practices with a RARA code of 1 or 2 are categorised as urban; practices with a RARA code of 3 or 4 are categorised as rural. See Appendix 1 for detailed tables.
(iii) Comparison with injury data collected by other sources has been undertaken by comparing the 293 pilot study cases with data collected by the Victorian Injury Surveillance System (VISS), for October 1993, from the emergency departments of 7 hospitals in metropolitan Melbourne and rural Victoria (the Latrobe Valley). VISS is one of a number of state surveillance systems, which also feeds its data into the National Injury Surveillance Unit (NISU) database. See Appendix 2 for detailed tables, which can be used for comparative purposes by individual practices.

The time period for the extraction of VISS data (for comparison) was set as October 1st-31st (to reflect the October period in which this pilot general practice survey was undertaken), but data was selected from 1993 since in October 1994 VISS data is less comprehensive due to the transitional phase inherent in the move to a fully computerised data collection system.

Given that neither the general practice nor VISS datasets are necessarily representative, comparisons between the two will be confined to comparisons of proportions. These comparisons are made separately for children (< 15 years) and adults, due to a bias towards child cases in the VISS database.

5.1 General practitioner injury presentations: Age and Sex

Tables 6 and 7 detail the age and sex distribution of the 293 injury presentations to general practice. Males accounted for 181 cases and females for 96 cases. Sex was unrecorded in 16 cases. The approximate 2:1 ratio of males:females applied to both children (< 15 years) and adults.

**Table 6. Distribution of age groups**

<table>
<thead>
<tr>
<th>Age group</th>
<th>all ages</th>
</tr>
</thead>
<tbody>
<tr>
<td>n =</td>
<td></td>
</tr>
<tr>
<td>&lt; 15</td>
<td>78 (27%)</td>
</tr>
<tr>
<td>15-19</td>
<td>21 (7%)</td>
</tr>
<tr>
<td>20-29</td>
<td>49 (17%)</td>
</tr>
<tr>
<td>30-39</td>
<td>33 (11%)</td>
</tr>
<tr>
<td>40-49</td>
<td>34 (12%)</td>
</tr>
<tr>
<td>50-59</td>
<td>20 (7%)</td>
</tr>
<tr>
<td>60-69</td>
<td>17 (6%)</td>
</tr>
<tr>
<td>70+</td>
<td>39 (13%)</td>
</tr>
<tr>
<td>adult NFS*</td>
<td>2 (1%)</td>
</tr>
</tbody>
</table>

Totals 293 (100%)

* date of birth not completed on form but from text description it is assumed that they are adults (occupational injury)
Table 7  Distribution of sex

<table>
<thead>
<tr>
<th>Sex</th>
<th>&lt; 15 years</th>
<th>15 + years</th>
<th>all ages</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n=</td>
<td>n=</td>
<td>n=</td>
</tr>
<tr>
<td>Male</td>
<td>53 (68%)</td>
<td>128 (60%)</td>
<td>181 (62%)</td>
</tr>
<tr>
<td>Female</td>
<td>25 (32%)</td>
<td>71 (33%)</td>
<td>96 (33%)</td>
</tr>
<tr>
<td>Unknown</td>
<td>0 ( 0%)</td>
<td>16 ( 7%)</td>
<td>16 ( 5%)</td>
</tr>
<tr>
<td>Total</td>
<td>78 (100%)</td>
<td>215 (100%)</td>
<td>293 (100%)</td>
</tr>
</tbody>
</table>

Urban/rural comparison
The data shows a similar child: adult case ratio (3:1) in both urban and rural data. The data also shows a similar ratio of males:females (2:1).

Comparison of age and sex distribution with VISS data:
The VISS sample showed a similar 2:1 ratio of males:females in both children (<15 years) and adults.

5.2 General practitioner injury presentations: Location of injury event

Child and adult data
There was little difference in the proportion of child and adult home injuries presenting to general practitioners (42% vs 38%). However, there were, not surprisingly, differences in the 2 groups in locations such as areas of education (28% vs 4%), areas of production (0% vs 15%) and areas of commerce (3% vs 10%).

Table 8. Distribution of location of injury event

<table>
<thead>
<tr>
<th>Location</th>
<th>&lt; 15 years</th>
<th>15 + years</th>
<th>all ages</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n=</td>
<td>n=</td>
<td>n=</td>
</tr>
<tr>
<td>Residential</td>
<td>33 (42%)</td>
<td>82 (38%)</td>
<td>115 (39%)</td>
</tr>
<tr>
<td>Transport areas</td>
<td>8 (10%)</td>
<td>26 (12%)</td>
<td>34 (12%)</td>
</tr>
<tr>
<td>Areas of production</td>
<td>0 (0%)</td>
<td>32 (15%)</td>
<td>32 (11%)</td>
</tr>
<tr>
<td>Areas of education</td>
<td>22 (28%)</td>
<td>8 (4%)</td>
<td>30 (10%)</td>
</tr>
<tr>
<td>Areas of commerce</td>
<td>2 (3%)</td>
<td>22 (10%)</td>
<td>24 (8%)</td>
</tr>
<tr>
<td>Areas of organised sport</td>
<td>3 (4%)</td>
<td>18 (8%)</td>
<td>21 (7%)</td>
</tr>
<tr>
<td>Other*</td>
<td>7 (7%)</td>
<td>7 (4%)</td>
<td>14 (5%)</td>
</tr>
<tr>
<td>Unknown</td>
<td>3 (4%)</td>
<td>20 (9%)</td>
<td>23 (8%)</td>
</tr>
<tr>
<td>Total</td>
<td>78 (100%)</td>
<td>215 (100%)</td>
<td>293 (100%)</td>
</tr>
</tbody>
</table>

* Other includes: pubic playgrounds, outdoor land/water recreation areas

Urban/rural comparison
Residential injuries were the location most frequently cited for injury presenting to both urban and rural general practices, but were higher in rural (compared with urban) children (48% vs 39%). The distribution of other locations was similar between urban and rural areas.
Comparison with VISS:
(i) adults - The general practice data showed higher proportions of adult injuries in the home (38% vs 30%) and in areas of production (15% vs 6%), but lower proportions in areas of transport (12% vs 21%).
(ii) children - The general practice data showed a higher proportion of injuries in educational areas (28% vs 19%).

5.3 General practitioner injury presentations: Activity at the time of injury

Child and adult data
Leisure/recreation activities accounted for the majority of child presentations to general practice (68%). Another notable activity was sport (19%). In adults, leisure/recreation activities accounted for only 19% of presentations; adults are not surprisingly were more likely to present following work (33%), maintenance activities (16%) and sport (12%).

Table 9. Activity at the time of injury

<table>
<thead>
<tr>
<th>Activity</th>
<th>&lt; 15 years</th>
<th>15 + years</th>
<th>all ages</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n=</td>
<td>n=</td>
<td>n=</td>
</tr>
<tr>
<td>Leisure and recreation</td>
<td>53 (68%)</td>
<td>41 (19%)</td>
<td>94 (32%)</td>
</tr>
<tr>
<td>Working</td>
<td>1 (0%)**</td>
<td>71 (33%)</td>
<td>72 (25%)</td>
</tr>
<tr>
<td>Playing sport</td>
<td>15 (19%)</td>
<td>26 (12%)</td>
<td>41 (14%)</td>
</tr>
<tr>
<td>Maintenance</td>
<td>0 (0%)</td>
<td>33 (16%)</td>
<td>33 (11%)</td>
</tr>
<tr>
<td>In transit/travelling</td>
<td>7 (9%)</td>
<td>24 (11%)</td>
<td>31 (11%)</td>
</tr>
<tr>
<td>Other*</td>
<td>2 (3%)</td>
<td>20 (9%)</td>
<td>22 (7%)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>78 (100%)</td>
<td>215 (100%)</td>
<td>293 (100%)</td>
</tr>
</tbody>
</table>

• Other includes: Miscellaneous household activities, personal activities.
•• This person is a school pupil

Urban/rural comparison
Urban children presented with a higher proportion of injury related to sports activity (21% vs 15%). Adults in rural areas presented to a greater extent following leisure/recreation activities (24% vs 16%), whereas urban adults presented more following occupational activities (36% vs 29%). Distributions of other activities were similar between urban and rural areas.

Comparison with VISS data:
(i) adults - A greater proportion of adults presented to general practice than to emergency departments following injury at work (33% vs 14%). They were also more likely to report to general practice following injury occurring during maintenance activities (16% vs 8%). However, they were less likely to present to general practice following leisure/recreation activities.
(ii) children - Children were more likely to present to general practice following organised sports activities (19% vs 12%), but no other major differences were apparent.
5.4 General practitioner injury presentations: Breakdown events for injury
(what led to the injury event)

Child and adult data
Falls contributed, not surprisingly, a greater proportion of injuries in children (39% vs 27%), whereas loss of control was greater in adults (14% vs 4%). The distribution of events leading to injury followed a similar pattern in both data sets for adults and children.

Table 10. Breakdown factors (Event leading to injury)

<table>
<thead>
<tr>
<th>Breakdown factors</th>
<th>&lt; 15 years</th>
<th>15 + years</th>
<th>all ages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall**</td>
<td>30 (39%)</td>
<td>58 (27%)</td>
<td>88 (30%)</td>
</tr>
<tr>
<td>Placing self in dangerous position</td>
<td>20 (26%)</td>
<td>61 (28%)</td>
<td>81 (28%)</td>
</tr>
<tr>
<td>Overexertion</td>
<td>12 (16%)</td>
<td>42 (20%)</td>
<td>54 (18%)</td>
</tr>
<tr>
<td>Loss of control</td>
<td>4 (5%)</td>
<td>31 (14%)</td>
<td>35 (12%)</td>
</tr>
<tr>
<td>Practical joke</td>
<td>8 (9%)</td>
<td>2 (1%)</td>
<td>10 (3%)</td>
</tr>
<tr>
<td>Other*</td>
<td>4 (5%)</td>
<td>21 (10%)</td>
<td>35 (9%)</td>
</tr>
<tr>
<td>Total</td>
<td>78 (100%)</td>
<td>215 (100%)</td>
<td>293 (100%)</td>
</tr>
</tbody>
</table>

* Other includes: caught in, collisions
** Falls occurred due to slipping (27), tripping (26), fall at same level (20), fall up to 1 metre (11), fall over 1 metre (4)

Urban/rural comparison
The distribution of breakdown factors was similar in urban and rural areas, except for a higher proportion of falls in urban adults compared with rural adults (33% vs 19%).

5.5 General practitioner injury presentations: External cause of injury (ICD 9 code)

The largest groupings for external cause of injury (the actual cause of injury) were falls (33%) and cutting/piercing (20%). However, falls were far more common in children (50% vs 28%), whereas cutting/piercing events were more common amongst adults (23% vs 12%).

Table 11. External cause of injury (ICD 9 code)

<table>
<thead>
<tr>
<th>ICD 9 code</th>
<th>&lt; 15 years</th>
<th>15 + years</th>
<th>all ages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Falls</td>
<td>39 (50%)</td>
<td>59 (28%)</td>
<td>98 (33%)</td>
</tr>
<tr>
<td>Cutting/piercing</td>
<td>9 (12%)</td>
<td>48 (23%)</td>
<td>57 (20%)</td>
</tr>
<tr>
<td>Transport-related</td>
<td>5 (6%)</td>
<td>14 (6%)</td>
<td>19 (7%)</td>
</tr>
<tr>
<td>Sport - collisions</td>
<td>5 (6%)</td>
<td>11 (5%)</td>
<td>16 (6%)</td>
</tr>
<tr>
<td>Fire/burn/scalds</td>
<td>2 (3%)</td>
<td>5 (2%)</td>
<td>7 (2%)</td>
</tr>
<tr>
<td>Poisoning</td>
<td>0 (0%)</td>
<td>1 (.5%)</td>
<td>1 (0%)</td>
</tr>
<tr>
<td>Other unintentional injury</td>
<td>18 (23%)</td>
<td>76 (35%)</td>
<td>94 (32%)</td>
</tr>
<tr>
<td>Intentional infliction of</td>
<td>0 (0%)</td>
<td>1 (.5%)</td>
<td>1 (0%)</td>
</tr>
<tr>
<td>Total</td>
<td>78 (100%)</td>
<td>215 (100%)</td>
<td>293 (100%)</td>
</tr>
</tbody>
</table>
Urban/rural comparison

Falls were a higher proportion of both child and adult causes of injury in urban compared with rural areas (53% vs 45% in children; 32% vs 21% in adults). In rural areas, child injuries from cutting/piercing (18% vs 8%) and transport (11% vs 4%) were higher than in urban children.

Comparison with VISS data

VISS data is not E-coded and therefore only broad comparisons can be made. The lower proportions of poisonings (<1% vs 8%), fractures (14% vs 21%) and concussion (nil vs 4%) presenting to general practice suggests that these cases may be more serious or urgent and thus present directly to hospital. A greater proportion of strains/sprains and bruising was seen in general practice.

5.6 General practitioner injury presentations: Intent of injury

Of the 293 cases: 282 (96%) were reported as unintentional; 5 (1.7%) were reported as intentional (3 of these were children); and 6 (2.3%) were reported as of unknown intent (4 of these were children).

Comparison with VISS data

Of the 2700 cases, 2444 (91%) were reported as unintentional. 227 (8.3%) were reported as possibly or actually intentional (99 or 3.6% of these were self-inflicted; 4.7% were not self-inflicted). 30 (1%) were reported as of unknown intent. (of these were children)

Thus, it appears that a greater proportion of intentional injuries present to the emergency department. There may be a number of explanations, including possible non-disclosure of the true nature of the injury in general practice.

5.7 General practitioner injury presentations: Reason for choice of presentation to general practice

Multiple responses could be given to this question, and the distribution is listed below. The most frequently cited reason for attending the general practitioner was given as a preference to see a doctor known to the patient (34%). This preference was especially marked in child presentations, where 51% of responses given indicated such preference.

Table 12. Reason for choice of presentation to general practice

<table>
<thead>
<tr>
<th>Preference</th>
<th>&lt; 15 years</th>
<th>15 + years</th>
<th>all ages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prefer to see doctor I know</td>
<td>56 (50%)</td>
<td>37 (23%)</td>
<td>93 (34%)</td>
</tr>
<tr>
<td>Injury is not severe enough</td>
<td>20 (18%)</td>
<td>37 (23%)</td>
<td>57 (21%)</td>
</tr>
<tr>
<td>Waiting time is shorter</td>
<td>14 (13%)</td>
<td>27 (17%)</td>
<td>41 (15%)</td>
</tr>
<tr>
<td>Closer than hospital</td>
<td>12 (11%)</td>
<td>27 (17%)</td>
<td>39 (14%)</td>
</tr>
<tr>
<td>Other</td>
<td>9 (8%)</td>
<td>34 (21%)</td>
<td>43 (16%)</td>
</tr>
<tr>
<td>Total responses</td>
<td>111* (100%)*</td>
<td>162 (100%)</td>
<td>273 (100%)</td>
</tr>
</tbody>
</table>

N.B. Multiple responses can be given for reason for choice of presentation
Urban/rural comparison

The most frequently cited reason for attending general practice was, in both urban (child 44%; adult 56%) and rural (child 65%; adult 50%) areas, a preference to see a doctor known to the patient. However, this was most marked in the case of rural children (65% vs 44% of urban children). The second most common response in both urban and rural areas was that the injury was not severe enough to attend hospital. Further responses cited, and more marked in urban than rural cases, were shorter waiting times and closer proximity of general practice.

5.8 General practitioner injury presentations: Summary

It must be borne in mind that the data outlined above, and summarised below, represents a small number of cases and has a number of biases. Although the data cannot be considered a representative sample, it provides indications of injury problems and issues arising in general practice. In addition, the pilot study results provide the information needed on study design to ensure the representativeness of the definitive survey sample.

Areas of bias in the pilot study data included:
- under-representation of practices in the RARA 1 group
- limitations on reliability of the data due to low levels of participation by doctors and because of non-auditing of the data.

As noted above, the pilot study data is still useful in providing a guide to the injury problems and issues arising in general practice, and a summary is now provided.

Aggregate general practice data

- **Sex**: There was a similar sex distribution (2 males: 1 female) among children and adults.
- **Location**: Injuries in the home comprised the greatest group in both children and adults. More than a quarter of child injuries occurred in educational institutions, and a quarter of adult injuries occurred in the commerce/production areas.
- **Activity**: Children were, not surprisingly, most likely to present following leisure/recreation-related injury. Adults were most likely to present following work-related injury.
- **External cause of injury (ICD 9 code)**: Falls were the largest group for adults (a quarter) and children (half). Cutting and piercing injuries comprised a further quarter of adult cases.
- **Intent of injury**: 96% were reported as unintentional.
- **Reason for presentation to general practice**: The most frequent responses were a preference to see a doctor known to the patient. This was particularly marked for children and for rural patients.

Urban/rural comparison

- **Age and sex**: The ratio of child:adult cases is similar in both urban and rural data (3:1) and the sex ratio is also similar (2 males: 1 female).
- **Location**: Similar distributions were noted, but the proportion of residential injuries was higher in rural than in urban children.
- **Breakdown factors**: The distribution of breakdown factors was similar in urban and rural areas, except for a higher proportion of falls in urban compared with rural adults.
- **Activity**: Urban children were more likely than rural children to present following sports-related injury. Rural adults presented more following leisure/recreation activities than their urban counterparts, whereas urban adults presented with more occupational-related injuries.
• **Reason for presentation to general practice**: Although a preference to see a doctor known to the patient was the most frequently cited preference in both urban and rural groups, this response was particularly high in rural child cases. 'Injury not severe enough' was the second most common response in both areas. Shorter waiting time was more commonly cited for urban children (15% vs 6% of urban children) and closer proximity was more frequently cited in urban areas for both children and adults.

**Comparison of general practice versus emergency department data**

- **Sex**: There was a similar sex distribution (2 males: 1 female) among children and adults.
- **Location**: More adults presented to general practice for injury in the home and in areas of production, and more presented to the emergency department for transport-related injury. For children, more of the injuries presenting to general practice occurred in educational areas.
- **Activity**: Work-related injuries comprised almost a third of those attending the emergency department compared with a seventh of those attending general practice.
- **Intent of injury**: 8% of injuries presenting to the emergency department were reported as intentional compared with only 1.7% of cases presenting to general practice.

### 6. RESULTS: INJURY DATA

#### 6.1 Body region injured

Presentations for upper limb injuries were the most frequent in both children and adults. Head and face injuries were the second largest group in both children and adults, being more frequent in children. Trunk injuries accounted for another child/adult difference, comprising only 1% of injuries in children but 10% of injuries in adults. This result is consistent with the over-representation of head injuries in children (especially in young children) due to the comparatively large size of their head, the small size of the child and the child's vulnerability in an environment principally designed for adults.

**Table 13. Body region injured**

<table>
<thead>
<tr>
<th>Body region</th>
<th>&lt; 15 years</th>
<th>15+ years</th>
<th>all ages</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n=</td>
<td>n=</td>
<td>n=</td>
</tr>
<tr>
<td>Head/face</td>
<td>20 (26%)</td>
<td>38 (18%)</td>
<td>58 (20%)</td>
</tr>
<tr>
<td>Upper limb</td>
<td>28 (36%)</td>
<td>77 (36%)</td>
<td>105 (36%)</td>
</tr>
<tr>
<td>Lower limb</td>
<td>19 (24%)</td>
<td>63 (29%)</td>
<td>82 (28%)</td>
</tr>
<tr>
<td>Trunk</td>
<td>1 (3%)</td>
<td>22 (10%)</td>
<td>23 (8%)</td>
</tr>
<tr>
<td>Not specified</td>
<td>4 (5%)</td>
<td>9 (4%)</td>
<td>13 (5%)</td>
</tr>
<tr>
<td>No injury detected</td>
<td>2 (3%)</td>
<td>2 (1%)</td>
<td>4 (1%)</td>
</tr>
<tr>
<td>Systemic injury*</td>
<td>2 (3%)</td>
<td>4 (2%)</td>
<td>6 (2%)</td>
</tr>
<tr>
<td>Total</td>
<td>78 (100%)</td>
<td>215 (100%)</td>
<td>293 (100%)*</td>
</tr>
</tbody>
</table>

* No body region was required to be inserted for the 6 systemic injuries (2 in children and 4 in adults)
Urban/rural comparison

Upper limb injuries were markedly higher in urban cases (child 45% vs 18%; adult 42% vs 28%), as were head/face injuries in children (29% vs 19% of rural children). It is possible that urban general practitioners are better equipped than their rural counterparts to deal with fractures and other injuries requiring procedures. The VISS data (see section 6.2) supports a preference for emergency department treatment for certain injuries, but VISS data cannot differentiate between urban and rural.

Comparison with VISS data:
In both children and adults, more lower limb injuries were seen in general practice (24% vs 16%; 29% vs 23%). More systemic injuries were seen in the emergency department in both children (9% vs 3%) and adults (9% vs 2%). This is not surprising given that systemic injuries are associated with injury types such as poisoning and concussion which are seen more in the emergency department.

6.2 Nature of injury

In both children and adults, the main injuries were lacerations (24% and 22% for children and adults respectively), strains/sprains (17% and 19%), bruising (13% and 14%) and fractures (14% and 6%). The distribution of injury types was similar in both children and adults, except for fractures and foreign bodies (Table 14). Fractures accounted for 14% of injuries in children, but only 6% of injuries in adults. Presentations for foreign bodies were small in number, but were higher in adults (5% vs 1.5%).

Table 14. Nature of injury

<table>
<thead>
<tr>
<th>Injury type</th>
<th>&lt;15 years</th>
<th>15 + years</th>
<th>all ages</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n =</td>
<td>n =</td>
<td>n =</td>
</tr>
<tr>
<td>Laceration</td>
<td>19 (24%)</td>
<td>47 (22%)</td>
<td>66 (23%)</td>
</tr>
<tr>
<td>Strain/sprain</td>
<td>13 (17%)</td>
<td>40 (19%)</td>
<td>53 (18%)</td>
</tr>
<tr>
<td>Bruising</td>
<td>10 (13%)</td>
<td>30 (14%)</td>
<td>40 (14%)</td>
</tr>
<tr>
<td>Fracture</td>
<td>11 (14%)</td>
<td>12 (6%)</td>
<td>23 (8%)</td>
</tr>
<tr>
<td>Puncture</td>
<td>3 (4%)</td>
<td>11 (5%)</td>
<td>14 (5%)</td>
</tr>
<tr>
<td>Bite</td>
<td>4 (5%)</td>
<td>10 (5%)</td>
<td>14 (5%)</td>
</tr>
<tr>
<td>Abrasion</td>
<td>4 (5%)</td>
<td>10 (5%)</td>
<td>14 (5%)</td>
</tr>
<tr>
<td>Foreign body</td>
<td>1 (1.5%)</td>
<td>11 (5%)</td>
<td>12 (4%)</td>
</tr>
<tr>
<td>Burn (part/full)</td>
<td>2 (2.5%)</td>
<td>9 (4%)</td>
<td>11 (4%)</td>
</tr>
<tr>
<td>Inflammation</td>
<td>2 (2.5%)</td>
<td>9 (4%)</td>
<td>11 (4%)</td>
</tr>
<tr>
<td>Poisoning</td>
<td>0 (-)</td>
<td>1 (-)</td>
<td>1 (-)</td>
</tr>
<tr>
<td>Concussion</td>
<td>0 (-)</td>
<td>3 (1%)</td>
<td>3 (1%)</td>
</tr>
<tr>
<td>Dislocation</td>
<td>2 (2.5%)</td>
<td>3 (1%)</td>
<td>5 (2%)</td>
</tr>
<tr>
<td>Other*</td>
<td>4 (5%)</td>
<td>11 (5%)</td>
<td>8 (3%)</td>
</tr>
<tr>
<td>Not specified/no injury detected</td>
<td>3 (4%)</td>
<td>8 (4%)</td>
<td>11 (4%)</td>
</tr>
</tbody>
</table>

Total: 78 (100%) 215 (100%) 293 (100%)

* Other includes: penetrating injury, crush injury
Urban/rural comparison
Fractures were more frequent among urban than rural children (18% vs 7%) and to a marginal extent among urban adults (7% vs 3%). Bruising accounted for a higher proportion of presentations among rural children and adults compared with their urban counterparts (child 19% vs 10%; adult 17% vs 12%). Distributions of other injury types were similar.

Comparison with V/SS data:
Differences were found, as expected, in the type of injury presenting to both general practice and the emergency department. In children, there were more presentations to the emergency department for fractures (21% vs 14%), inflammation (8% vs 2.5%), poisoning (4% vs nil) and concussion (4% vs nil). However, more strains/sprains (17% vs 9%) presented to general practice.

In adults, as in children, fractures (16% vs 6%) and poisoning (8% vs <1%) were greater in those presenting to the emergency department. Inflammation was another injury type seen more in the emergency department. Injuries presenting with greater frequency to general practice were, as in children, strains/sprains (19% vs 11%). Bruising was, in adults, more likely to present to general practice.

6.3 Disposition of patient
In 57% of child and 59% of adult cases, no further follow-up was necessary and in a further 24% of child and 32% of adult cases. Referrals were made for 15% of children and 8% of adults.

<table>
<thead>
<tr>
<th>Table 15. Disposition of patient</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>No treatment given</td>
</tr>
<tr>
<td>Treated, no referral/review</td>
</tr>
<tr>
<td>Treated, for review by GP</td>
</tr>
<tr>
<td>Treated, short stay in GP surgery</td>
</tr>
<tr>
<td>Treated, referred to outpatients</td>
</tr>
<tr>
<td>Treated, referred to emergency dept.</td>
</tr>
<tr>
<td>Treated, other referral</td>
</tr>
<tr>
<td>Treated, direct referral to hospital</td>
</tr>
<tr>
<td>Unknown</td>
</tr>
<tr>
<td>Totals</td>
</tr>
</tbody>
</table>

Urban/rural comparison
The distributions of disposition were similar in both urban and rural areas, but differences noted were that urban children were more likely than their rural counterparts to require either no treatment or treatment with no follow-up (61% vs 51%).

Comparison with V/SS data:
Patients presenting to general practice were more likely to require no further review/referral (58% vs 29%), with this being far more marked in adults presenting to general practice (59% vs 15%) than for children (57% vs 40%). It should be noted, however, that of the referrals made by emergency departments 41% of these were to the general practitioner (48% in adults and 32% in children).
Admission to hospital/presentation to the emergency department comprised 3% of presentations to general practice, whereas 18% of emergency department presentations were subsequently admitted.

6.4 Summary

Aggregate general practice data

- **Nature of injury**: Lacerations, strains/sprains, bruising and fractures accounted for the main injuries in both children and adults. The distribution of child and adult injuries was similar, except for fractures which accounted for 14% of child and only 6% of adult injuries.
- **Body region injured**: Upper limb injuries were the largest group in both children and adults. Head and face injuries were the second largest group in both children and adults, being more frequent in children (not surprising given their comparatively large head size, small total size and vulnerability in an environment principally designed for adults).
- **Disposition of patient**: In 57% of child and 59% of adult cases, no further follow-up was necessary and in a further 24% of child and 32% of adult cases, review by the general practitioner was required. Referrals were made for 15% of children and 8% of adults.

Urban/rural comparison

- **Nature of injury**: Upper limb injuries were markedly higher in both child and adult urban cases (child 45% vs 18%; adult 42% vs 28%), as were head/face injuries in children (29% vs 19% of rural children). It is possible that urban general practitioners are better equipped, than their rural counterparts, to deal with fractures and other injuries requiring procedural treatment.
- **Body region injured**: Fractures were more frequent among urban than rural children (18% vs 7%), whereas in rural areas bruising accounted for a higher proportion of rural cases in both children and adults (child 19% vs 10%; adult 17% vs 12%).
- **Disposition of patient**: The distributions of disposition were similar in both urban and rural areas, but urban children were more likely than their rural counterparts to require either no treatment or treatment with no follow-up.

Comparison of general practice versus emergency department injury data

- **Nature of injury**: More sprains/sprains in both adults and children were seen in general practice. Fractures and poisoning, in both children and adults, were seen to a greater extent in the emergency department, and more children were seen in the emergency department for inflammation and concussion.
- **Body region injured**: In both children and adults, more lower limb injuries were seen in general practice. More systemic injuries, in both children and adults, were seen in those presenting to the emergency department (not surprising given the greater presentation injuries such as poisoning and concussion to the emergency department).
- **Disposition of patient**: Those presenting to general practice were twice as likely to require review/referral than those presenting to emergency departments, and admission to hospital was far more frequent (18% vs 3%) in those presenting to emergency departments.
7. EVALUATION: DATA QUALITY

7.1 Completeness of data

To determine the completeness of data, it is necessary to audit the data to establish the number of cases for which data was not received (due either to patient refusal or to the case being missed). Thus, auditing is necessary to determine whether (i) any pre-set minimum catchment rate is achieved by all participants and (ii) there are any biases in the data.

In the pilot study, auditing of practices to ascertain the number of missed cases was not undertaken, because of the logistics of organising this. Doctors were asked to forward a count of patient refusals, but this information was available only from those (16 of the 41) who completed the follow-up evaluation questionnaire. Of the 16, 11 stated that there were no refusals and in 5 cases, it was not clear whether there were any refusals. Work with both the Victorian Injury Surveillance System (presentations to hospital emergency departments) and the Extended Latrobe Valley Injury Surveillance System (presentations to general practice) underscores the necessity of monitoring missed cases in any ongoing definitive study, and the necessity of external workers for such activities.

Auditing in the Latrobe Valley general practice data collection has demonstrated that even with the back up and presence of a project co-ordinator, completion of forms occurs in only about 78% of first injury presentations. Auditing of the VISS data suggested that forms were received for, on average, 65% to 80% of first injury presentations prior to follow-up by the project staff (follow-up not given ethical approval for the general practice study).

In order for auditing to occur, Ethics Committee approval, as well as the agreement of participating general practitioners, would be required (such an agreement has been negotiated for the general practice study in the Latrobe Valley).

7.2 Quality of data

Quality of the data provided was encouraging with only 61 items of data missing in the more than 4000 items. In terms of specific variables, activity and breakdown were the best completed with no missing data. Missing data was minimal in the age and injury type variables. However, Table 16 indicates that some attention could be given to the sex, location and body region injured variables to minimise missing data. Such attention could include:
- changing the layout of the form to encourage the recording of sex
- providing clearer instructions for the variables 'location' and 'body region'.

Table 16. Variables with missing data

<table>
<thead>
<tr>
<th>Variable</th>
<th>No. of missing data items</th>
</tr>
</thead>
<tbody>
<tr>
<td>age</td>
<td>2</td>
</tr>
<tr>
<td>sex</td>
<td>16</td>
</tr>
<tr>
<td>location</td>
<td>23</td>
</tr>
<tr>
<td>injury type</td>
<td>7</td>
</tr>
<tr>
<td>body region injured</td>
<td>13</td>
</tr>
<tr>
<td>Total</td>
<td>61</td>
</tr>
</tbody>
</table>
Table 16 provides guidance only on the quantity of variables completed; it does not however allow examination of the quality of the data. In order to ascertain this, the data recorded needs to be compared with the original patient record to ascertain that the data provided is accurate and provided in full. However, a problem here is that the original patient record may not contain much detailed data on the circumstances surrounding the injury event. Training in the data collection process has been shown to improve data completeness and quality (Williams et al, 1995).

8. EVALUATION: ACCEPTABILITY OF THE DATA COLLECTION PROCESS

8.1 Acceptability of the data form

A brief (1 page) questionnaire was sent to all general practitioners who had participated in the survey, requesting comments on the acceptability of both the data form and the data collection process (see Appendix 10). Comments received on the data form itself will be dealt with here and comments on the data collection process will be dealt with in section 8.2.

Of the 41 general practitioners who participated in the survey, 16 (39%) responded to the evaluation questionnaire. Of the 16 respondents:

- 15 reported no problems with completion of the doctor's section (back page). One respondent stated that the only difficulty was that some thought was required in cases of multiple injuries (only one injury - the most severe - was to be coded).

- 12 reported that patients had no problems with the patient section (front page). 2 reported that the patient section of forms was completed by the doctor, with reasons for this given as patients are not generally co-operative with completing forms (1) and it was easier for the doctor to do (1). 1 respondent stated that the patient(s) had difficulty understanding the form (no further detail given on this) and 1 that the patient(s) appeared not to understand that they were requested to complete details on location.

It thus appears, from those responding, that the layout of the form proved reasonably acceptable, but in the light of missing data outlined in Section 7, it would be advisable to make layout changes to ensure greater recording of sex and location (patients) and body region injured (doctors).

It is concerning that the patient section of the forms was completed by 2 of the 16 general practitioners. From experience in hospital injury surveillance (emergency departments), it appears that patients provide more detailed information than doctors on the events leading to the injury. It is, of course, preferable that this section is completed by the doctor rather than not at all, and this would apply where patients have difficulty completing the form (e.g. language difficulties) or where they are unco-operative generally with completion of forms (but wish to participate). Completion by the doctor may not be a realistic option if a longer term survey were to be undertaken.
8.2 Acceptability of the data collection process

The remaining questions, on the evaluation questionnaire described in the preceding section, requested comments on the data collection process.

Of the 16 respondents:

- 15 indicated there were no problems with the Plain Language Statement supplied to patients for the purpose of informed consent. 1 respondent did not answer this question.

- 6 indicated there were no problems with the laminated A4 card initially given to the patient to inquire about the presence of injury. Other comments included: 4 stated that it was useful; 1 that it was not useful; 3 that it was not used/not used much; 1 that it was time-consuming; and 1 wrote ‘what card?’.  

- All respondents indicated no problems with the Operational Guidelines.

- 11 indicated that no patients declined to participate. 1 indicated there were no problems with recording patients who declined to participate; 2 indicated that the doctor kept a log of patient refusals and 1 that the receptionist kept such a log.

8.3 Non-responding general practitioners

- Non-responding general practitioners accounted for 21.4% of Group 1 and 32.1% of Group 2. Those in RARA 1 and 2 accounted for the highest non-response, particularly in Group 2. No further information is available on non-responders.

8.4 Other comments

- In response to questions on whether there was any pattern in demographics or injury type of those declining to participate, 1 stated that there was no pattern and 1 had indicated that they had no patients declining to participate. 4 provided no comment to this.

9. FEASIBILITY OF A MAJOR STUDY: CONCLUSIONS

While providing some new insights into the presentation of injury cases to general practice, the pilot study has indicated a number of limitations of the trialed methodology.

9.1 Sampling frame

Recruitment:
The method used in Group 1 (personal invitation prior to survey, following earlier expression of interest) generated a higher response rate (79%) than for the group randomly selected (68%). Although this pattern was evident only in practices with a RARA code of 1 or 2, practices with these RARA codes constituted 71% of all practices surveyed. For this reason, and because monitoring of data quality and completeness through external auditing may prove more acceptable to Group 1, it would be preferable to undertake recruitment using the method of personal invitation prior to survey.
However, given the large size of the sample required, use of this method may be precluded given logistic difficulties.

The sample obtained by the methods employed resulted in an uneven distribution by RARA code, with over-sampling of rural general practitioners, who were more compliant with this pilot study than urban general practitioners.

Sample size:
Estimates of sample size will need to take into account the oversampling required to address non-participation. The lower participation rate by urban general practitioners, and by some states, in the pilot study also indicates areas where over-sampling would be required. The sample obtained in the pilot survey was expected to be approximately 1000 cases, based on pre-testing undertaken by the RACGP. In fact, only 293 cases were obtained and no estimates could be made of completeness of collection by the participating general practitioners since compliance with the verification method of self-auditing was extremely low. Results of the comprehensive quality control studies from the 12 month Latrobe Valley general practice study will also be required to determine the level of capture and data quality in a well supported and verified collection.

As indicated, it is clear from the pilot study that an extensive planning process and greater resources than originally expected will be required for a valid national representation study of injury presentation to general practice.

Preliminary results from the Latrobe Valley study also indicate that the ratio of emergency department presentations to general practice visits may be quite variable, and this is a factor that needs to be measured in order to meaningfully interpret the results of a general practice study.

Because of the issues raised by the relatively low levels of compliance in the pilot study and the information which will become available within a few months from the Latrobe Valley study, no sample size estimate for the definitive study can be made at this stage. It is also recommended that a consultative process and perhaps a small workshop should be held to clarify methods and the sample size for the major study.

9.2 Data completeness

The (i) failure of most participating general practitioners to provide a log of missed cases and a count of the number of patient refusals (from practice records), and (ii) the absence of an external auditing process result in there being no valid measure of capture rate by the method trialed.

Information on patient refusals was available only from those (16 of the 41) who completed the follow-up evaluation questionnaire. Of these, 11 of the 16 stated that there were no refusals but in 5 further evaluations it was not clear whether there were any refusals (and if so, how many). Work with both the Victorian Injury Surveillance System (presentations to hospital emergency departments) and the Extended Latrobe Valley Injury Surveillance System (presentations to general practice) underscores the necessity of monitoring missed cases in any ongoing definitive study, and the necessity of external workers for such activities.

In order for auditing to occur, Ethics Committee approval, as well as the agreement of participating general practitioners, would be required (such an agreement has been negotiated for the general practice study in the Latrobe Valley).
9.3 Data quality

Quality of the data provided was encouraging but improvements to the design of the data collection form, clearer instructions in its use for patients and doctors, and other procedural issues need to be addressed. Comments on the data quality in this pilot study relate only to the number of variables completed; it does not however allow examination of the accuracy of the data. In order to ascertain this, the data recorded needs to be compared with the original patient record to ascertain that the data provided is accurate and provided in full. However, a problem here is that the original patient record may not contain much detailed data on the circumstances surrounding the injury event.

Training for staff and general practitioners would be an advantage, though a mechanism would need to be developed to overcome geographical separation. Training in the data collection process has been shown to improve data completeness and quality (Williams et al., 1995).

9.4 Comparison of general practice and emergency department injury data

Although neither the emergency department (VISS) nor the pilot study general practice data sets are representative (each has biases), the data sets provide insights into differences in the two health service types.

- **Sex:** There is a similar sex distribution (2 males: 1 female) among children and adults.

- **Location:** More adults present to general practice for injury in the home and in areas of production, and more present to the emergency department for transport-related injury. For children, more of the injuries presenting to general practice occurred in educational areas.

- **Activity:** Work-related injuries comprise almost a third of those attending the emergency department compared with a seventh of those attending general practice.

- **Intent of injury:** 8% of injuries presenting to the emergency department were reported as intentional compared with only 1.7% of cases presenting to general practice.

- **Nature of injury:** More sprains/sprains in both adults and children were seen in general practice. Fractures and poisoning, in both children and adults, were seen to a greater extent in the emergency department, and more children were seen in the emergency department for inflammation and concussion.

- **Body region injured:** Whilst upper limb injuries predominated in both general practice and emergency department data, in both children and adults, more lower limb injuries were seen in general practice. More systemic injuries, in both children and adults, were seen in those presenting to the emergency department.

- **Disposition of patient:** Both children and adults presenting to general practice were twice as likely to require review/referral than those presenting to emergency departments, and admission to hospital was far more frequent (18% vs 3%) in those presenting to emergency departments.

9.5 Conclusion

A national general practice injury study to develop national estimates is feasible, though major issues identified in the pilot study would need to be addressed.
10. **RECOMMENDATIONS**

10.1 **Methodology and time frame**

It is apparent that the development and implementation of a high quality national general practice injury data collection, leading to reliable national estimates, will require a substantial time frame to overcome the methodological difficulties identified in the pilot study. The general practice data collection project currently being undertaken in the Latrobe Valley, for which MUARC is a collaborating research partner, will provide further useful methodological information. It is due to report in March 1996 and preliminary results will be available earlier.

**Recommendation 1:**
*That a 12 month planning and recruitment phase be undertaken.*

**Recommendation 2:**
*That a randomised sampling process be developed which incorporates*
- considerable over-sampling, particularly among urban general practitioners,
- personalised recruitment to ensure an optimal sample size is obtained.

10.2 **Auditing of data**

Without an external auditing process it will be impossible to determine the inclusion rate of injured patients, which is essential to the process of establishing accurate national estimates. After 4 months of data collection in the Latrobe Valley, an almost complete participation rate for general practitioners has been achieved. Within the Latrobe Valley project, where payments are made to general practitioners as well as the allocation of QA points, the capture rate of cases has been slightly less than 80%. Processes are in place to conduct detailed audits to determine what biases (if any) are introduced by failing to capture the remaining 20%. Appropriate weightings can then be introduced into total population estimates.

**Recommendation 3:**
*That an external auditing process to determine capture rate and biases due to non-inclusion be incorporated into the study design and budget of the major project.*

**Recommendation 4:**
*That the allocation of QA points and nominal financial remuneration be considered for participating general practitioners.*
10.3 Developing a proposal for a definitive study

Resources required will be greater than initially anticipated. Greater effort will need to be devoted to recruitment; over-sampling will be required to obtain an adequately representative sample; improved arrangements would need to be negotiated with Ethics Committees to allow adequate quality control of data; improvements would need to be made to the data collection form; and training of the participants and their staff would be advantageous, though logistically difficult.

Recommendation 4:
That a consultative process, and perhaps a small workshop, should be held to clarify methods and the sample size for the major study

Recommendation 5:
That a proposal, incorporating methods of dealing with these issues, be developed collaboratively by MUARC and the RACGP and submitted to appropriate funding bodies (to be undertaken in consultation with the Department of Human Services and Health)

Recommendation 6:
That in consultation with the College, the suitability of the Inter Practice Comparison as an appropriate vehicle for a randomised national survey to develop national estimates be reconsidered due to the constraints of an October only survey, particularly regarding seasonal variation and any biases that this self-selected group of general practitioners may introduce.
## APPENDIX 1

### COMPARISON OF URBAN / RURAL GENERAL PRACTICE DATA

(where urban = RARA 1 & 2 and rural = RARA 3 & 4)

#### Distribution of age groups

<table>
<thead>
<tr>
<th>Age group</th>
<th>Urban</th>
<th>Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 15 years</td>
<td>51 (29%)</td>
<td>27 (23%)</td>
</tr>
<tr>
<td>15+ years</td>
<td>125 (71%)</td>
<td>90 (77%)</td>
</tr>
<tr>
<td>Total</td>
<td>176 (100%)</td>
<td>117 (100%)</td>
</tr>
</tbody>
</table>

#### Distribution of sex

<table>
<thead>
<tr>
<th>Sex</th>
<th>Urban</th>
<th>Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 15 years</td>
<td>36 (71%)</td>
<td>17 (63%)</td>
</tr>
<tr>
<td>15+ years</td>
<td>77 (62%)</td>
<td>51 (57%)</td>
</tr>
<tr>
<td>Female</td>
<td>15 (29%)</td>
<td>10 (37%)</td>
</tr>
<tr>
<td>&lt; 15 years</td>
<td>46 (38%)</td>
<td>25 (28%)</td>
</tr>
<tr>
<td>15+ years</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unknown</td>
<td>-</td>
<td>14 (15%)</td>
</tr>
<tr>
<td>Total</td>
<td>51 (100%)</td>
<td>27 (100%)</td>
</tr>
</tbody>
</table>

#### Distribution of location of the injury event

<table>
<thead>
<tr>
<th>Location</th>
<th>Urban</th>
<th>Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 15 years</td>
<td>20 (39%)</td>
<td>13 (48%)</td>
</tr>
<tr>
<td>15+ years</td>
<td>50 (40%)</td>
<td>32 (36%)</td>
</tr>
<tr>
<td>Transport areas</td>
<td>5 (10%)</td>
<td>3 (11%)</td>
</tr>
<tr>
<td>Areas of production</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Areas of education</td>
<td>15 (29%)</td>
<td>7 (26%)</td>
</tr>
<tr>
<td>Areas of commerce</td>
<td>1 (2%)</td>
<td>8 (9%)</td>
</tr>
<tr>
<td>Areas of organised sport</td>
<td>3 (6%)</td>
<td>8 (9%)</td>
</tr>
<tr>
<td>Other*</td>
<td>5 (10%)</td>
<td>2 (7%)</td>
</tr>
<tr>
<td>Unknown/NEC**</td>
<td>2 (4%)</td>
<td>8 (9%)</td>
</tr>
<tr>
<td>Total</td>
<td>51 (100%)</td>
<td>27 (100%)</td>
</tr>
</tbody>
</table>

* Other includes: pubic playgrounds, outdoor land/water recreation areas
**NEC = not elsewhere classified
### Activity at the time of injury

<table>
<thead>
<tr>
<th>Activity</th>
<th>Urban &lt;15 years</th>
<th>Urban 15+ years</th>
<th>Rural &lt;15 years</th>
<th>Rural 15+ years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leisure and recreation</td>
<td>35 (69%)</td>
<td>20 (16%)</td>
<td>18 (67%)</td>
<td>21 (24%)</td>
</tr>
<tr>
<td>Working**</td>
<td>-</td>
<td>45 (36%)</td>
<td>1** (3.5%)</td>
<td>26 (29%)</td>
</tr>
<tr>
<td>Playing sport</td>
<td>11 (21%)</td>
<td>13 (10%)</td>
<td>4 (15%)</td>
<td>13 (14%)</td>
</tr>
<tr>
<td>Maintenance</td>
<td>-</td>
<td>18 (15%)</td>
<td>-</td>
<td>15 (16%)</td>
</tr>
<tr>
<td>In transit/travelling</td>
<td>4 (8%)</td>
<td>16 (13%)</td>
<td>3 (11%)</td>
<td>8 (9%)</td>
</tr>
<tr>
<td>Other*</td>
<td>1 (2%)</td>
<td>13 (10%)</td>
<td>1 (3.5%)</td>
<td>7 (8%)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>51 (100%)</td>
<td>125 (100%)</td>
<td>27 (100%)</td>
<td>90 (100%)</td>
</tr>
</tbody>
</table>

* Other includes: Miscellaneous household activities, personal activities

** This person is a school pupil

### Breakdown factors (what led to injury event)

<table>
<thead>
<tr>
<th>Breakdown factors</th>
<th>Urban &lt;15 years</th>
<th>Urban 15+ years</th>
<th>Rural &lt;15 years</th>
<th>Rural 15+ years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall*</td>
<td>20 (39%)</td>
<td>41 (33%)</td>
<td>10 (37%)</td>
<td>17 (19%)</td>
</tr>
<tr>
<td>Placed self in dangerous position</td>
<td>14 (27%)</td>
<td>33 (27%)</td>
<td>6 (22%)</td>
<td>28 (31%)</td>
</tr>
<tr>
<td>Overexertion</td>
<td>7 (14%)</td>
<td>23 (18%)</td>
<td>5 (18.5%)</td>
<td>19 (21%)</td>
</tr>
<tr>
<td>Loss of control</td>
<td>3 (6%)</td>
<td>19 (15%)</td>
<td>1 (4%)</td>
<td>12 (13%)</td>
</tr>
<tr>
<td>Other**</td>
<td>7 (14%)</td>
<td>9 (7%)</td>
<td>5 (18.5%)</td>
<td>14 (16%)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>51 (100%)</td>
<td>125 (100%)</td>
<td>27 (100%)</td>
<td>90 (100%)</td>
</tr>
</tbody>
</table>

* Falls occurred due to slipping (27), tripping (26), fall at same level (20), fall up to 1 metre (11), fall over 1 metre (4)

** Other includes: caught in, collisions, practical jokes

### External cause of injury (ICD 9 code)

<table>
<thead>
<tr>
<th>ICD 9 code</th>
<th>Urban &lt;15 years</th>
<th>Urban 15+ years</th>
<th>Rural &lt;15 years</th>
<th>Rural 15+ years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Falls*</td>
<td>27 (53%)</td>
<td>40 (32%)</td>
<td>12 (45%)</td>
<td>19 (21%)</td>
</tr>
<tr>
<td>Cutting/piercing</td>
<td>4 (8%)</td>
<td>29 (23%)</td>
<td>5 (18%)</td>
<td>19 (21%)</td>
</tr>
<tr>
<td>Transport-related</td>
<td>2 (4%)</td>
<td>6 (5%)</td>
<td>3 (11%)</td>
<td>8 (9%)</td>
</tr>
<tr>
<td>Sport - collisions</td>
<td>4 (8%)</td>
<td>7 (6%)</td>
<td>1 (4%)</td>
<td>4 (5%)</td>
</tr>
<tr>
<td>Fire/burn/collisions</td>
<td>2 (4%)</td>
<td>4 (3%)</td>
<td>-</td>
<td>1 (1%)</td>
</tr>
<tr>
<td>Other unintentional</td>
<td>12 (23%)</td>
<td>39 (31%)</td>
<td>6 (22%)</td>
<td>38 (42%)</td>
</tr>
<tr>
<td>Intentional</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1 (1%)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>51 (100%)</td>
<td>125 (100%)</td>
<td>27 (100%)</td>
<td>90 (100%)</td>
</tr>
</tbody>
</table>
### Reason for presentation to general practice

<table>
<thead>
<tr>
<th>Preference</th>
<th>Urban</th>
<th>Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prefer to see doctor I know</td>
<td>&lt; 15 years</td>
<td>15 + years</td>
</tr>
<tr>
<td></td>
<td>34 (44%)</td>
<td>87 (56%)</td>
</tr>
<tr>
<td>Injury is not severe enough</td>
<td>15 (19%)</td>
<td>21 (14%)</td>
</tr>
<tr>
<td>Waiting time is shorter</td>
<td>12 (15%)</td>
<td>16 (10%)</td>
</tr>
<tr>
<td>Closer than hospital</td>
<td>11 (14%)</td>
<td>20 (13%)</td>
</tr>
<tr>
<td>Other</td>
<td>6 (8%)</td>
<td>10 (7%)</td>
</tr>
<tr>
<td><strong>Total responses</strong></td>
<td>78 (100%)</td>
<td>154 (100%)</td>
</tr>
<tr>
<td><strong>Total no. cases</strong></td>
<td>51</td>
<td>125</td>
</tr>
</tbody>
</table>

N.B. Multiple responses can be given for reason for choice of presentation

### Region of body injured

<table>
<thead>
<tr>
<th></th>
<th>Urban</th>
<th>Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&lt; 15 years</td>
<td>15 + years</td>
</tr>
<tr>
<td>Head/face</td>
<td>15 (29%)</td>
<td>19 (15%)</td>
</tr>
<tr>
<td>Upper limbs</td>
<td>23 (45%)</td>
<td>52 (42%)</td>
</tr>
<tr>
<td>Lower limbs</td>
<td>11 (22%)</td>
<td>40 (32%)</td>
</tr>
<tr>
<td>Trunk</td>
<td>-</td>
<td>12 (10%)</td>
</tr>
<tr>
<td>Unknown/missing</td>
<td>1 (2%)</td>
<td>-</td>
</tr>
<tr>
<td>Region not allocated (systemic)</td>
<td>1 (2%)</td>
<td>2 (1%)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>51 (100%)</td>
<td>125 (100%)</td>
</tr>
</tbody>
</table>

### The nature of injury

<table>
<thead>
<tr>
<th></th>
<th>Urban</th>
<th>Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&lt; 15 years</td>
<td>15 + years</td>
</tr>
<tr>
<td>Laceration</td>
<td>13 (26%)</td>
<td>28 (22%)</td>
</tr>
<tr>
<td>Strain/sprain</td>
<td>9 (18%)</td>
<td>26 (21%)</td>
</tr>
<tr>
<td>Bruising</td>
<td>5 (10%)</td>
<td>15 (12%)</td>
</tr>
<tr>
<td>Fracture</td>
<td>9 (18%)</td>
<td>9 (7%)</td>
</tr>
<tr>
<td>Puncture</td>
<td>1 (2%)</td>
<td>6 (5%)</td>
</tr>
<tr>
<td>Bite</td>
<td>2 (4%)</td>
<td>5 (4%)</td>
</tr>
<tr>
<td>Abrasion</td>
<td>3 (6%)</td>
<td>5 (4%)</td>
</tr>
<tr>
<td>Foreign body</td>
<td>1 (2%)</td>
<td>5 (4%)</td>
</tr>
<tr>
<td>Burn (part/full)</td>
<td>2 (4%)</td>
<td>6 (5%)</td>
</tr>
<tr>
<td>Inflammation</td>
<td>1 (2%)</td>
<td>7 (6%)</td>
</tr>
<tr>
<td>Poisoning</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Concussion</td>
<td>-</td>
<td>2 (1.5%)</td>
</tr>
<tr>
<td>Dislocation</td>
<td>2 (4%)</td>
<td>2 (1.5%)</td>
</tr>
<tr>
<td>Other</td>
<td>1 (2%)</td>
<td>6 (5%)</td>
</tr>
<tr>
<td>Not specified/no injury detected</td>
<td>2 (4%)</td>
<td>3 (2%)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>51 (100%)</td>
<td>125 (100%)</td>
</tr>
</tbody>
</table>
## Disposition of the patient

<table>
<thead>
<tr>
<th>Disposition</th>
<th>Urban &lt;15 years</th>
<th>Urban 15+ years</th>
<th>Rural &lt;15 years</th>
<th>Rural 15+ years</th>
</tr>
</thead>
<tbody>
<tr>
<td>No treatment given</td>
<td>6 (12%)</td>
<td>8 (6%)</td>
<td>2 (7%)</td>
<td>5 (6%)</td>
</tr>
<tr>
<td>Treated, no referral/review</td>
<td>25 (49%)</td>
<td>63 (50%)</td>
<td>12 (44%)</td>
<td>49 (54%)</td>
</tr>
<tr>
<td>Treated, for review by GP</td>
<td>13 (25%)</td>
<td>41 (33%)</td>
<td>6 (22%)</td>
<td>27 (30%)</td>
</tr>
<tr>
<td>Treated, short stay in GP surgery</td>
<td>1 (2%)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Treated, referred to outpatients</td>
<td>-</td>
<td>1 (1%)</td>
<td>-</td>
<td>1 (1%)</td>
</tr>
<tr>
<td>Treated, referred to emergency dept.</td>
<td>2 (4%)</td>
<td>3 (2%)</td>
<td>1 (4%)</td>
<td>1 (1%)</td>
</tr>
<tr>
<td>Treated, other referral</td>
<td>2 (4%)</td>
<td>7 (6%)</td>
<td>4 (15%)</td>
<td>4 (5%)</td>
</tr>
<tr>
<td>Treated, direct admission to hospital</td>
<td>1 (2%)</td>
<td>1 (1%)</td>
<td>1 (1%)</td>
<td>1 (1%)</td>
</tr>
<tr>
<td>Unknown</td>
<td>1 (2%)</td>
<td>1 (1%)</td>
<td>1 (1%)</td>
<td>2 (2%)</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td>51 (100%)</td>
<td>125 (100%)</td>
<td>27 (100%)</td>
<td>90 (100%)</td>
</tr>
</tbody>
</table>
**APPENDIX 2**

**VISS SUMMARY DATA FOR OCTOBER 1993**

### Distribution of age groups

<table>
<thead>
<tr>
<th>Age group (VISS)</th>
<th>all ages</th>
</tr>
</thead>
<tbody>
<tr>
<td>n =</td>
<td></td>
</tr>
<tr>
<td>&lt; 15</td>
<td>1501 (56%)</td>
</tr>
<tr>
<td>15-19</td>
<td>280 (10%)</td>
</tr>
<tr>
<td>20-29</td>
<td>347 (13%)</td>
</tr>
<tr>
<td>30-39</td>
<td>234 (9%)</td>
</tr>
<tr>
<td>40-49</td>
<td>130 (5%)</td>
</tr>
<tr>
<td>50-59</td>
<td>67 (2%)</td>
</tr>
<tr>
<td>60-69</td>
<td>67 (2%)</td>
</tr>
<tr>
<td>70 +</td>
<td>74 (3%)</td>
</tr>
<tr>
<td>Total</td>
<td>2700 (100%)</td>
</tr>
</tbody>
</table>

* Other includes: pubic playgrounds, outdoor land/water recreation areas

**NEC = not elsewhere classified**

### Distribution of location of injury

<table>
<thead>
<tr>
<th>Location (VISS)</th>
<th>&lt; 15 years</th>
<th>15 + years</th>
<th>all ages</th>
</tr>
</thead>
<tbody>
<tr>
<td>n =</td>
<td>n=</td>
<td>n=</td>
<td>n=</td>
</tr>
<tr>
<td>Residential</td>
<td>696 (47%)</td>
<td>357 (30%)</td>
<td>1053 (39%)</td>
</tr>
<tr>
<td>Transport areas</td>
<td>150 (10%)</td>
<td>257 (21%)</td>
<td>407 (15%)</td>
</tr>
<tr>
<td>Areas of production</td>
<td>5 (0%)</td>
<td>74 (6%)</td>
<td>79 (3%)</td>
</tr>
<tr>
<td>Areas of education</td>
<td>287 (19%)</td>
<td>38 (3%)</td>
<td>325 (12%)</td>
</tr>
<tr>
<td>Areas of commerce</td>
<td>52 (4%)</td>
<td>90 (8%)</td>
<td>142 (5%)</td>
</tr>
<tr>
<td>Areas of organised sport</td>
<td>49 (3%)</td>
<td>66 (6%)</td>
<td>115 (4%)</td>
</tr>
<tr>
<td>Other*</td>
<td>91 (6%)</td>
<td>36 (3%)</td>
<td>127 (5%)</td>
</tr>
<tr>
<td>Unknown/ NEC**</td>
<td>171 (11%)</td>
<td>281 (23%)</td>
<td>452 (17%)</td>
</tr>
<tr>
<td>Total</td>
<td>1501 (100%)</td>
<td>1199 (100%)</td>
<td>2700 (100%)</td>
</tr>
</tbody>
</table>

* Other includes: Miscellaneous household activities, personal activities, catastrophes

**School students**

### Activity at the time of injury

<table>
<thead>
<tr>
<th>Activity (VISS)</th>
<th>&lt; 15 years</th>
<th>15 + years</th>
<th>all ages</th>
</tr>
</thead>
<tbody>
<tr>
<td>n =</td>
<td>n=</td>
<td>n=</td>
<td>n=</td>
</tr>
<tr>
<td>Leisure and recreation</td>
<td>1056 (70%)</td>
<td>364 (30%)</td>
<td>1420 (53%)</td>
</tr>
<tr>
<td>Working</td>
<td>15** (1%)</td>
<td>166 (14%)</td>
<td>181 (7%)</td>
</tr>
<tr>
<td>Playing sport</td>
<td>178 (12%)</td>
<td>110 (9%)</td>
<td>288 (10%)</td>
</tr>
<tr>
<td>Maintenance</td>
<td>11 (1%)</td>
<td>101 (9%)</td>
<td>112 (4%)</td>
</tr>
<tr>
<td>In transit/travelling</td>
<td>157 (10%)</td>
<td>218 (18%)</td>
<td>375 (14%)</td>
</tr>
<tr>
<td>Other*</td>
<td>84 (6%)</td>
<td>240 (20%)</td>
<td>324 (12%)</td>
</tr>
<tr>
<td>Total</td>
<td>1501 (100%)</td>
<td>1199 (100%)</td>
<td>2700 (100%)</td>
</tr>
</tbody>
</table>

* Other includes: Miscellaneous household activities, personal activities, catastrophes

**School students**
### Breakdown factors (Event leading to injury)

<table>
<thead>
<tr>
<th>Breakdown factors (VISS)</th>
<th>&lt; 15 years n=</th>
<th>15 + years n=</th>
<th>all ages n=</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall**</td>
<td>556 (37%)</td>
<td>253 (21%)</td>
<td>809 (30%)</td>
</tr>
<tr>
<td>Placed self in dangerous position</td>
<td>336 (23%)</td>
<td>229 (19%)</td>
<td>565 (21%)</td>
</tr>
<tr>
<td>Overexertion</td>
<td>274 (18%)</td>
<td>295 (25%)</td>
<td>569 (21%)</td>
</tr>
<tr>
<td>Loss of control</td>
<td>151 (10%)</td>
<td>134 (11%)</td>
<td>285 (11%)</td>
</tr>
<tr>
<td>Practical joke</td>
<td>75 (5%)</td>
<td>10 (1%)</td>
<td>85 (3%)</td>
</tr>
<tr>
<td>Other*</td>
<td>109 (7%)</td>
<td>278 (23%)</td>
<td>387 (14%)</td>
</tr>
<tr>
<td>Total</td>
<td>1501 (100%)</td>
<td>1199 (100%)</td>
<td>2700 (100%)</td>
</tr>
</tbody>
</table>

** Falls occurred due to slipping (137), tripping (120), fall at same level (282), fall up to 1 metre (176), fall over 1 metre (94)

### Region of body injured

<table>
<thead>
<tr>
<th>Body region (VISS)</th>
<th>&lt; 15 years n=</th>
<th>15 + years n=</th>
<th>all ages n=</th>
</tr>
</thead>
<tbody>
<tr>
<td>Head/face</td>
<td>369 (25%)</td>
<td>251 (22%)</td>
<td>1057 (39%)</td>
</tr>
<tr>
<td>Upper limb</td>
<td>595 (40%)</td>
<td>385 (33%)</td>
<td>980 (37%)</td>
</tr>
<tr>
<td>Lower limb</td>
<td>232 (16%)</td>
<td>271 (23%)</td>
<td>403 (15%)</td>
</tr>
<tr>
<td>Trunk</td>
<td>108 (7%)</td>
<td>83 (7%)</td>
<td>191 (7%)</td>
</tr>
<tr>
<td>Missing/unspecified/nil detected/</td>
<td>55 (2%)</td>
<td>72 (6%)</td>
<td>127 (5%)</td>
</tr>
<tr>
<td>Systemic*</td>
<td>105 (9%)</td>
<td>105 (9%)</td>
<td>210 (8%)</td>
</tr>
<tr>
<td>Totals</td>
<td>1499 (99%)</td>
<td>1167 (100%)</td>
<td>2666 (99%)</td>
</tr>
</tbody>
</table>

**Systemic injuries (includes poisoning, CNS injuries, dental etc)

### Disposition of the patient

<table>
<thead>
<tr>
<th>Breakdown factors</th>
<th>&lt; 15 years n=</th>
<th>15 + years n=</th>
<th>all ages n=</th>
</tr>
</thead>
<tbody>
<tr>
<td>No treatment given</td>
<td>192 (13%)</td>
<td>15 (1%)</td>
<td>207 (8%)</td>
</tr>
<tr>
<td>Treated, no referral/review</td>
<td>402 (27%)</td>
<td>163 (14%)</td>
<td>565 (21%)</td>
</tr>
<tr>
<td>For review/referral</td>
<td>643 (43%)</td>
<td>804 (67%)</td>
<td>1447 (53%)</td>
</tr>
<tr>
<td>Admission to hospital/ transfer/fatality*</td>
<td>264 (17%)</td>
<td>214 (18%)</td>
<td>478 (18%)</td>
</tr>
<tr>
<td>Totals</td>
<td>1501 (100%)</td>
<td>1197 (100%)</td>
<td>2697 (100%)</td>
</tr>
</tbody>
</table>

* 1 fatality
<table>
<thead>
<tr>
<th>Injury type (VISS)</th>
<th>&lt; 15 years n=</th>
<th>15 + years n=</th>
<th>all ages n=</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laceration</td>
<td>295 (20%)</td>
<td>257 (21%)</td>
<td>552 (21%)</td>
</tr>
<tr>
<td>Strain/sprain</td>
<td>138 (9%)</td>
<td>137 (11%)</td>
<td>275 (10%)</td>
</tr>
<tr>
<td>Bruising</td>
<td>200 (13%)</td>
<td>81 (7%)</td>
<td>281 (10%)</td>
</tr>
<tr>
<td>Fracture</td>
<td>317 (21%)</td>
<td>196 (16%)</td>
<td>513 (19%)</td>
</tr>
<tr>
<td>Puncture</td>
<td>12 (1%)</td>
<td>10 (1%)</td>
<td>22 (1%)</td>
</tr>
<tr>
<td>Bite</td>
<td>40 (3%)</td>
<td>23 (2%)</td>
<td>63 (2%)</td>
</tr>
<tr>
<td>Abrasion</td>
<td>36 (2%)</td>
<td>25 (2%)</td>
<td>61 (2%)</td>
</tr>
<tr>
<td>Foreign body</td>
<td>55 (4%)</td>
<td>55 (5%)</td>
<td>110 (4%)</td>
</tr>
<tr>
<td>Burn (part/full)</td>
<td>61 (4%)</td>
<td>37 (3%)</td>
<td>98 (4%)</td>
</tr>
<tr>
<td>Inflammation</td>
<td>126 (8%)</td>
<td>182 (15%)</td>
<td>308 (11%)</td>
</tr>
<tr>
<td>Poisoning</td>
<td>63 (4%)</td>
<td>95 (8%)</td>
<td>158 (6%)</td>
</tr>
<tr>
<td>Concussion</td>
<td>58 (4%)</td>
<td>20 (2%)</td>
<td>78 (3%)</td>
</tr>
<tr>
<td>Dislocation</td>
<td>37 (2%)</td>
<td>22 (2%)</td>
<td>59 (2%)</td>
</tr>
<tr>
<td>Other*</td>
<td>34 (3%)</td>
<td>40 (3%)</td>
<td>74 (3%)</td>
</tr>
<tr>
<td>Not specified/nil injury</td>
<td>29 (2%)</td>
<td>19 (2%)</td>
<td>48 (2%)</td>
</tr>
</tbody>
</table>

* Other includes: crush injury (21), dental injury (15), asphyxiation (6), penetrating wound (8), haemorrhage (6), other (18)
October 12th, 1994

Dear Doctor

Re: The National General Practice Injury Survey Pilot Study (October 1994)

Ethical approval for this study has been granted by the Monash University Standing Committee for Ethics in Research on Humans. Approval was granted on October 11th, 1994.

Please find enclosed a copy of the plain language statement for patients: a copy of this is to be given to all patients at the time they are advised of the study and participation is requested.

In the case of patients declining to participate, no information is to be collected or recorded. Please record the event as a missed case: the patient will simply be counted in the total number of cases seen. The counting of totals is necessary for completeness in epidemiological studies.

For practices choosing to use the sticker system for identifying cases of injury, it was suggested by the Ethics committee that a second set of coloured stickers be applied to patients records at reception in order to denote that the patient has agreed to participate. By using the 2 sticker system:

- you can identify patients who have agreed to complete the form (2 stickers) and you can then ask the patient for the form
- you can identify patients who did not agree to complete the form (1sticker) and these cases should be noted as a count only, so that the total number of cases of injury is known.

Please return both the completed forms (originals) and unused forms with your IPC data.

Thank you, in anticipation, for your assistance in the provision of data for this important area.

Dr. John North
Chairman
Victorian Faculty
RACGP
17 October 1994

Dr J Ozanne-Smith
Senior Research Fellow
Accident Research Centre
CAULFIELD CAMPUS

Re: Project 166/94 - A National General Practice Injury Survey: Pilot Study 1994

The Standing Committee on Ethics in Research on Humans at its meeting on 11 October 1994 considered the above submission and appreciated the opportunity of discussing the research with you. The Committee agreed to approve the project with the following provisos:

(a) that a dual system of stickers be adopted in order to identify patients as "willing to participate" or "not willing to participate".

(b) that the explanatory statement be revised. Members agreed that the document tabled at the meeting was a suitable model for use in this survey.

The Committee then agreed to approve the project as conforming to NH&MRC Guidelines subject to adoption of the above amendments. This approval is of the project as submitted and if any changes are subsequently made, the Committee should be advised. Please quote the project number above in any further correspondence.

Institutional Ethics Committees are required by the NH&MRC to monitor research projects until completion to ensure that they continue to conform with approved ethical standards. The Committee undertakes this role by means of annual progress reports and termination reports. Please ensure that the Committee is provided with a brief summary of the outcomes of your project when the project has concluded.

The Chief Investigators of approved projects are responsible for the storage and retention of original data pertaining to a project, for a minimum period of five years. You are requested to comply with this requirement.

Lyn Gash
Secretary
Standing Committee on Ethics in Research on Humans
6 September 1994

Dear Doctor

I am writing to seek your assistance in the surveying of accident events and injury in conjunction with the IPC Survey for 1994. Injury is an important public health problem and has been designated as one of the four priority areas in the National Health Goals and Targets. In addition, in 1996, Australia will host the International Conference on Injury Prevention. At present in Australia, the majority of data on accident events and injury is provided by hospitals (Emergency Department and Inpatient data) and the Coroner. To complete our understanding of this area, it is vital that we learn the extent, circumstances and nature of injuries presenting to general practice.

I therefore ask you to collect data on all NEW cases of injury seen by you over any 14 day period between October 1st and October 30th where the patient agrees. This two week survey does not have to be undertaken concurrently with IPC data tabulation. The data will be analysed by the Monash University Accident Research Centre in accordance with the ethical standards outlined in the NH&MRC Guidelines. Final Ethics Committee approval is pending and will be notified prior to data collection. A report will be forwarded to those involved in the collection of the data. The QA Committee has allocated 5 Practice Assessment points to those doctors who respond with data which is complete and of good quality.

Instructions:

• if you are unable to collect the data, please ask another doctor in your practice to do so
• please refer to the Operational Guidelines (enclosed) for clarification of definitions
• the material enclosed should be sufficient (please photocopy the double-sided data form if more are required)
• choose any consecutive 14 day period between 1st and 30th October
• ensure completion of the data collection form for all NEW cases of injury where the patient agrees. (see Operational Guidelines)

A suggested procedure is:

♦ that each patient (or parent) is handed a card to read and this will ask the patient to notify the receptionist if the presentation is injury- or poisoning-related
♦ where this is the case, the receptionist will briefly explain that the practice is participating in a national short term collection of data and request the patient's participation (patient information is attached)
♦ if the patient is willing to participate, the receptionist will place an alerting sticker (enclosed) on the patient's file and the patient will be asked to complete the data collection form while waiting
♦ if such identification of the patient is missed by the receptionist, the nurse or doctor will need to undertake the explanation to the patient and request participation
♦ the doctor needs to complete the relevant sections (back of form) and ensure that patient details and information relating to the circumstances of injury (front of form) have been entered by the patient (need to enter any missed details)
♦ the form is then returned with the patient file to the receptionist

NB. It may be advisable to:
- place a notice in your waiting-room advising patients of the data collection of data on injuries and poisoning

• to ensure inclusion of all injured patients, please check the daily or weekly records for any cases which may have been overlooked and provide the number of missed cases when you return the forms.
• photocopy the completed forms and retain the photocopies (essential for both comparison of your data with the study results and for earning of Practice Assessment points)
• return (i) the completed forms (originals) and (ii) unused forms with your IPC data (2 bull-dog clips are enclosed)

Thank you, in anticipation, for your assistance in the provision of data for this important area.

Dr. John North
RACGP
APPENDIX 5

GENERAL PRACTICE SURVEY  OCTOBER 1st to 30th, 1994

ACCIDENT EVENT AND INJURY DATA COLLECTION

OPERATIONAL GUIDELINES

NB. Please collect data on all NEW cases of injury or poisoning (see definition below) by ensuring that a form is completed

1. CASE DEFINITION FOR THE PURPOSE OF THIS SURVEY

- all NEW cases of acute injury (including poisoning)
  (if form not completed at initial presentation, then complete at subsequent presentation)

This excludes:
- chronic injury and injuries of slower onset (such as RSI and occupational hearing loss)
- cases where there is no apparent relationship of the patient's symptoms to an injury event
- cases of adverse effects of prescribed medication
- presentations for review where a form has already been completed

This includes diverse injuries and causes such as:
- burns, poisonings, lacerations, bruising, fractures, sprains/strains, foreign bodies etc.
- cases of self harm - suicide attempts, mutilation, poisoning, insertion of foreign bodies
- collapses and fits IF resulting in laceration, bruising etc
- motor vehicle -related injury
- bites - insects, dogs etc
- cellulitis WHEN it is secondary to an initial injury

- all injury cases are to be included regardless of whether the event was accidental or intentional (or of unknown intent)

2. DEFINITION OF SELECTED ITEMS

Date:
- in day/month/year format

Postcode of residence and postcode of injury:
- record postcode if known (otherwise just record suburb name)

Location: please provide
- general location type (eg. school, home, workplace type - factory, shop etc)
- specific area (eg. school - yard/oval, home - bedroom/kitchen etc, workplace - boiler room etc)
- name if public place (eg. name of school, name of workplace, name of sports facility)

Cause of injury (how it happened):
- please be as specific as possible (eg. fell from ladder while changing light globe, lost control of bicycle and fell onto road)
- please include name and brand of any product involved (eg. brand name of drug in accidental poisoning)

Diagnosis (nature of injury & body part):
- select the appropriate diagnosis codes for the most severe presenting injury
- where nature of injury is systemic/special injury (codes 91-99), do not record a body part
APPENDIX 6

NATIONAL GENERAL PRACTICE SURVEY

ACCIDENT EVENT AND INJURY DATA COLLECTION

OCTOBER 1994

Have you come to see the doctor today as the result of an accident or other event which has caused you harm such as an injury, or swallowing a poisonous substance?

eg. a sprained ankle, a pulled muscle, a cut, an overdose of medication, a burn, an object in your eye

If the answer is yes, or you think your problem might be the result of an injury, then please inform the receptionist now.
APPENDIX 7

PILOT STUDY FOR THE NATIONAL GENERAL PRACTICE SURVEY ON ACCIDENTS AND INJURIES

RESEARCHERS AND CONTACT PERSON
The researchers conducting this study are:
Dr. John North (The Royal College of General Practitioners)
Dr. Joan Ozanne-Smith (Monash University Accident Research Centre)

The contact person for this study is:
Ms. Fiona Williams (Study Co-ordinator)
Monash University Accident Research Centre
P.O. Box 197, Caulfield East VIC 3145
Phone: 903-2886
Fax: 903-2882

WHAT IS THE STUDY ABOUT?
Injury, whether at home, on the road, in sports or at work, is an important public health problem. In Australia, however, little is known about the number and kind of injuries which cause people to seek treatment from their general practitioner, or about how common such injuries are. This study is being carried out to work out the best way to get that information. A nation-wide survey is planned for 1995 and this study is a trial run for the full survey.

WHAT DOES PARTICIPATION INVOLVE?
For you, participation in the study would involve filling out a form giving some personal details (about who you are and where you live) and answering some questions about how and where you suffered the injury. This would take less than 5 minutes and would be done while you are waiting to see the doctor. Your doctor (who is also taking part in the study) would then check the information you have given and fill in the back of the form saying what your injury was and how it was treated.

WILL MY PRIVACY BE PROTECTED?
The information you provide will remain confidential and personal details other than your age, sex and postcode will not be included in any database. The form you fill in will be destroyed after the study is completed, and only overall results will be made public.

DO I HAVE TO TAKE PART? CAN I CHANGE MY MIND?
It is entirely up to you whether or not you take part in the study. Your treatment will not be affected in any way if you choose not to fill out the form. Even if you agree at first, you can change your mind at any time.
- If you do not wish to take part, please hand the blank form back to the receptionist (and keep this information sheet if you wish).
- If you do wish to take part, please complete the front of the form now while waiting to see the doctor (and you may keep this information sheet).

Should you have any complaints concerning the manner in which this research is conducted, please do not hesitate to contact:
The Secretary
The Standing Committee on Ethics in Research in Humans
Monash University, Wellington Road, Clayton, VIC 3168
Telephone: 03 905-2052

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APPENDIX 8

National General Practice Survey 1994
Injury and Poisons Form
For all injuries and poisonings

Date: Time: am/pm
Participating Doctor's Initials: IPC No: RARA Code:

GIVE AS MUCH DETAIL AS POSSIBLE

1. When did the injury occur? Date ☐ Time ☐ am (please circle) ☐ pm

2. Where did the injury occur? (Give exact place and suburb where injury or poisoning occurred)
   (e.g. at intersection of Jones and Smith St in on the side of the road - Coburg; in the bathroom shower recess at home - Werribee)

3. What was the injured person doing at the time the injury occurred?
   (e.g. having tea and playing around with sister; using a bench grinder; crossing road on way to school; up ladder pruning tree)

4. What went wrong?
   (e.g. chased by dog and lost control of bike; fell off top level of ladder; hot coffee knocked over; scaffold collapsed)

5. What actually caused the injury?
   (e.g. landed on concrete; cut hand on edge of broken toy; swallowed disinfectant and digoxin tablets; hot metal flew into eye)

6. Was he/she injured on the job? (please tick) Yes ☐ No ☐

7. What is the injured person's occupation?

8. In what sort of business is he/she employed?

9. If a specific product or equipment was involved. Please give details (product, brand & model):

10. What safety precautions or devices were being used at the time the injury occurred?
    (e.g. safety belt; infant capsule; child-resistant bottle cap; bicycle helmet; safety goggles; harness; none)

11. Why did you choose to see a general practitioner? (please tick)
    prefer to see doctor I know ☐ other, please specify ☐
    waiting time shorter than hospital ☐
    closer to home than hospital ☐
    injury not severe enough for hospital ☐

FOR OFFICE USE ONLY

E-Code ☐☐☐☐☐☐☐☐ Special Project ☐☐☐☐☐☐☐☐

46
Complete only for first attendance of a particular episode

1. NATURE OF THE INJURY

   (If more than one injury, please record the most severe)

   □□ SEVEREST SEVEREST □□ □□

   In these boxes write the body part code for corresponding injury recorded in Section 1 at left

   systemic and special injury

   91 poisonings (thru skin/lung/mouth etc)
   93 asphyxiation or respiratory difficulty
   94 electric shock
   95 over-exertion, heat/cold stress
   96 concussion
   97 dental injury
   99 no injury detected

   head
   101 eye
   102 ocular adnexum
   103 nose
   104 mouth external, e.g. jaw, lip
   105 ear
   106 face/sheek/forehead/scalp
   107 skull base
   108 skull vault
   109 neck, NEC
   198 other injury to head

   upper extremity
   201 clavicle
   202 scapula
   203 shoulder, NEC
   204 humerus
   205 upper arm, NEC
   206 radius, ulna
   207 elbow
   208 forearm
   209 wrist
   210 carpal bone
   211 metacarpal bone
   212 digit/phalanx
   213 hand, NEC
   298 other injury to upper extremity

   lower extremity
   301 hip
   302 femur
   303 upper leg, NEC
   304 knee
   305 tibia/fibula
   306 lower leg, NEC
   307 ankle
   308 tarsal bone
   309 metatarsal bone
   310 digit/phalanx
   311 foot, NEC
   398 other injury to lower extremity

   trunk
   401 rib(s)
   402 sacroiliac joint
   403 spine (incl. cervical), excluding cord
   404 pelvis
   405 chest, NEC
   406 abdomen, NEC
   407 upper back, NEC
   408 lower back, NEC
   409 genitalia
   410 heart
   498 other injury to trunk

   respiratory tract
   501 pharynx
   502 larynx
   503 trachea
   504 bronchus
   505 lung
   598 other injury to respiratory tract

   digestive tract
   601 mouth *internal*, e.g. gum, palate
   602 oesophagus
   603 stomach
   604 small bowel
   605 colon
   606 rectum
   607 liver
   608 spleen
   609 injury to other internal organs
   698 other injury to digestive tract

   nervous system
   701 brain, not concussion
   702 brain stem
   703 cervical spinal cord
   704 thoracic spinal cord
   705 lumbar spinal cord
   706 peripheral nerve
   798 other injury to nervous system

   bone, tendon or joint
   20 fracture
   21 dislocation
   22 sprain/strain

   soft tissue
   01 cut/laceration
   02 puncture
   03 bite
   04 superficial abrasion
   05 penetrating wound
   06 other wound, incl. amputation
   07 haematoma/bruising
   08 haemorrhage
   09 inflammation/edema/tenderness
   10 burn, full thickness
   11 burn, partial thickness
   12 foreign body in soft tissue
   13 damage to major blood vessel
   14 crushing injury

3. INTENT OF INJURY

   □ SELECT ONE CODE

   0 accidental injury (ie, unintentional)
   1 intentionally self-inflicted, or possibly so
   2 victim of assault, or possibly so
   3 unknown intent

4. WHAT YOU DID WITH YOUR PATIENT

   □□ SELECT ONE CODE

   01 no treatment
   02 treated no referral
   10 treated, re-appointment for review
   03 treated, referred to outpatients
   04 treated, referred to emergency
   05 treated, other referral
   06 short-stay observation in practice
   07 direct admission to hospital by treating GP
   09 DOA or died in practice

Note: NEC means "not elsewhere classified"
APPENDIX 9

ROYAL CHILDREN'S HOSPITAL MELBOURNE
Injury and Poisons Form
For all injuries and poisonings
Complete only for FIRST attendance of a particular episode

Date: Time: am/pm

RCH UR No.: 

Parent or Guardian

Child's surname: Boy/Girl: 
Child's first name: (circle)
Address: Birth date: 
Postcode: Telephone: 

Parents, give as much detail as possible

1. When did the injury occur? Date: Time: 

2. Where did the injury occur? (Give exact place and suburb where injury or poisoning occurred)
(e.g. at intersection of Jones and Smith St in on the side of the road - Coburg; in the bathroom shower recess at home - Werribee)

3. What was the child doing at the time the injury occurred?
(e.g. washing up; having tea and playing around with sister; playing soccer; crossing road on way to school)

4. What went wrong?
(e.g. chased by dog and lost control of bike; fell out of tree; toy truck broke; hot coffee knocked over; got into medicine cabinet)

5. What actually caused the injury?
(e.g. landed on concrete; cut hand on sharp edge of broken toy; swallowed disinfectant and digoxin tablets)

6. If a specific product or article was involved, please give details:
Product: Brand or Make:
Type or Model:

7. What safety precautions or devices were being used at the time the injury occurred?
(e.g. seat belt; infant capsule; child-resistant bottle cap; bicycle helmet; none)

8. If a motor vehicle was involved, please give details:
Make & Model: Year: Type of vehicle:
(e.g. Honda Civic) (e.g. sedan; station wagon; hatchback)

9. If the child was in a motor vehicle, show the seating position of the child:

Circle the appropriate number ->

Sometimes we need to get in touch with parents for additional information about an injury. If you do not wish to be contacted, please place an X here.

Please note: 1 = driver (other position which is not shown)

Important: Please hand this sheet to the doctor when you are seen

Special Projects

Form V2.5 MEB
MAY 1998
## Nature of the Injury

### Systemic and Special Injury
- 90 poisonings (through skin/lungs/mouth etc)
- 93 asphyxiation or respiratory difficulty
- 94 electric shock
- 95 over-exertion, heat/cold stress
- 97 dental injury
- 99 no injury detected

### Soft Tissue
- 01 cut/laceration
- 02 puncture
- 03 bite
- 04 superficial abrasion
- 05 penetrating wound
- 06 other wound, incl. amputation
- 07 haematoma/bruising
- 08 haemorrhage
- 09 inflammation/oedema/tenderness
- 10 burn, full thickness
- 11 burn, partial thickness
- 12 foreign body in soft tissues
- 13 damage to major blood vessel
- 14 crushing injury

### Bone, Tendon or Joint
- 20 fracture
- 21 dislocation
- 22 sprain/strain

## Body Part

### Systemic and Special Injury
- 000 defined as in Section 1 at left

### Upper Extremity
- 201 clavicle
- 202 scapula
- 203 shoulder, NEC
- 204 humerus
- 205 upper arm, NEC
- 206 radius, ulna
- 207 elbow
- 208 forearm
- 209 wrist
- 210 carpal bone
- 211 metacarpal bone
- 212 digit/phalanx
- 213 hand, NEC
- 298 other injury to upper extremity

### Lower Extremity
- 301 hip
- 302 femur
- 303 upper leg, NEC
- 304 knee
- 305 tibia/fibula
- 306 lower leg, NEC
- 307 ankle
- 308 tarsal bone
- 309 metatarsal bone
- 310 digit/phalanx
- 311 foot, NEC
- 398 other injury to lower extremity

### Head
- 101 eye
- 102 ocular adnexum
- 103 nose
- 104 mouth external, e.g. jaw, lip
- 105 ear
- 106 face/cheek/forehead/scalp
- 107 skull base
- 108 skull vault
- 109 neck, NEC
- 198 other injury to head

### Respiratory Tract
- 501 pharynx
- 502 larynx
- 503 trachea
- 504 bronchus
- 505 lung
- 598 other injury to respiratory tract

### Digestive Tract
- 601 mouth internal, e.g. gum, palate
- 602 oesophagus
- 603 stomach
- 604 small bowel
- 605 colon
- 606 rectum
- 607 liver
- 608 spleen
- 609 injury to other internal organs
- 698 other injury to digestive tract

### Nervous System
- 701 brain, not concussion
- 702 brain stem
- 703 cervical spinal cord
- 704 thoracic spinal cord
- 705 lumbar spinal cord
- 706 peripheral nerve
- 798 other injury to nervous system

## Intent of Injury

### Select One Code
- 01 no treatment
- 02 treated, no referral
- 10 treated, review later in Emerg./GC
- 03 treated, referred to outpatients
- 04 treated, referred to family doctor
- 05 treated, other referral

### What You Did with Your Patient

### Select One Code
- 06 short-stay observation in Emergency
- 07 admitted to hospital
- 08 transferred to other hospital
- 09 DOA or died in Emergency

Note: NEC means "not elsewhere classified"
November 29th 1994

Re: The General Practice Injury Survey Pilot Study (October 1994)

Dear Doctor

Thank you for your participation in the recent pilot study, on data collection on injuries presenting to general practice, which was undertaken by the RACGP in collaboration with Monash University Accident Research Centre. As outlined earlier, the majority of data on accident events and injury is provided by hospitals (Emergency Department and Inpatient data) and the Coroner. Thus data on the extent, circumstances and nature of injuries presenting to general practice is vital for a complete understanding of the injury area, and for planning purposes in general practice service delivery.

The pilot study will provide preliminary data and will also assist planning. Of the forms reviewed to date, the data has been of a very high quality. Other comments on form completion are:

- the item most frequently missing is postcode (or town) of both residence and injury
- some forms are also missing all patient demographic details (patient details box blank)
- in some practices, the doctor has completed the patient section (front page). It is preferable for the patient to complete this section as patients often provide very specific information on the events leading to the injury.

I would be grateful if you would complete a very brief questionnaire on both the data collection form and the data collection process to assist us in future activities. Would you please return the completed questionnaire to Reply Paid 1463, RACGP Services, 1 Palmerston Crescent, South Melbourne 3205.

Once again, thank you for your assistance. The results of the pilot study will be provided to participants when analyses are completed.

Dr. John North
RACGP Services
In order to gauge our future activities in this area, would you please record any comments (difficulties, suggestions for improvement) you have on the following:

1. **THE DATA FORM**

   the patient section (front page)
   (eg. did patients report any problems in completing the form?)

   the doctor section (back page)
   (eg. did you have any problems allocating codes for nature of injury/body part/intent/disposition?)

2. **THE DATA COLLECTION PROCESS**

   the patient information sheet (Plain Language Statement)
   (eg. did patients have any difficulty understanding it? did they have any additional questions?)

   the card to be shown to patients on initial presentation to Reception (asking if the patient was presenting for injury) (eg. was it useful?, did patients have any difficulty understanding it?)

   the operational guidelines sheet
   (eg. did you have any difficulty with of comments on the inclusion/exclusion criteria?)

   the method of notification and recording of patients who declined to participate
   (eg. what system was used to inform the doctor that the patient declined to participate? who maintained a log of the no. of these cases?)

3. **OTHER**

   was there any pattern in demographics/type of injury amongst patients declining to participate? (eg. non-English speaking background, or presentations due to domestic violence)

   would you be willing to be contacted to discuss in more detail how well the survey worked for you? YES / NO

   any other comments

*Thank you. Please return this form to:
Reply Paid 1463, RACGP Services, 1 Palmerston Crescent, South Melbourne 3205.*