



Podiatry Information Project

Final Report

September 2004

CONTENTS

| | |
|--|--------------|
| <u>Lists of tables and charts</u> | Page 3 |
| <u>Executive Summary</u> | Page 5- 6 |
| <u>Commentary from Chair of the Society of Chiropodists and Podiatrists Scottish Faculty of Management Group</u> | Page 7 |
| <u>Introduction</u> | Page 8 |
| <u>Background</u> | Page 8 |
| <u>Aim/ Objectives</u> | Page 8 |
| <u>Method</u> | Page 8 - 9 |
| <u>Overview and Timetable of Study</u> | Page 9 |
| <u>Steering Group for Study</u> | Page 10 |
| <u>Stage 1 – Agreeing data structure</u> | Page 11 -12 |
| <u>Stage 2 – Initial Pilot</u> | Page 13 - 20 |
| <u>Stage 3 – Extended pilot</u> | Page 21 - 43 |
| <u>Introduction</u> | Page 21 - 22 |
| <u>Aims and Objectives</u> | Page 22 - 24 |
| <u>Method</u> | Page 22 - 26 |
| <u>Results</u> | Page 27 - 41 |
| <u>Discussion</u> | Page 42 |
| <u>Conclusion and Recommendations</u> | Page 43 |
| <u>Appendix I - Data Capture Sheet</u> | Page 45 |
| <u>Appendix II - PSPs And Interventions Where The Patient Has No Associated Problem/ Risk Factors</u> | Page 46 |
| <u>Appendix III - Mappings and definitions document</u> | Page 47 – 60 |
| <u>Appendix IV - Evaluation Forms (week 2 and week 10/11)</u> | Page 61 - 73 |

LIST OF CHARTS

| Number | Title | Page |
|----------|--|------|
| Chart 1 | Age/ sex breakdown for all areas together | 32 |
| Chart 2 | Rates of encounter per 1,000 population | 32 |
| Chart 3 | Encounters by location by area | 33 |
| Chart 4 | Encounters by location <60 for all areas combined | 33 |
| Chart 5 | Multidisciplinary contacts by location by area | 34 |
| Chart 6 | Age distribution of major associated problems | 35 |
| Chart 7 | Number of associated problems recorded per patient by area | 35 |
| Chart 8 | Proportion of Podiatry Specific Problem Categories by Associated Problem | 36 |
| Chart 9 | Proportion of Intervention Categories by Associated Problem | 36 |
| Chart 10 | Podiatry Specific Problems by area | 37 |
| Chart 11 | Podiatry Specific Problems <60 for all areas combined | 38 |
| Chart 12 | Interventions by area | 39 |
| Chart 13 | Interventions <60 for all areas combined | 40 |
| Chart 14 | Combination of Podiatry Specific Problem and intervention (known as ‘event’) by area | 41 |

LIST OF TABLES

| Number | Title | Page |
|---------|--|------|
| Table 1 | Workload statistics | 31 |
| Table 2 | Age/Sex statistics of Patients by Area | 31 |
| Table 3 | Interventions recorded for the PSP of ‘No podiatric pathology’ | 38 |

AUTHORSHIP AND ACKNOWLEDGEMENTS

This report has been compiled by:

Fiona Black (Project Development Officer), Data Intelligence Group, Information Services, Gyle Square, 1 South Gyle Crescent, Edinburgh, EH12 9EB. Enquiries please telephone Fiona Black 0131 275 6065.

The study was conducted in collaboration with the Society of Chiropodists and Podiatrists Scottish Faculty of Management Group.

Thanks to the Steering Group and all staff in participating sites for their invaluable help in making this study possible.

Thanks also to Ron Smith, ISD and Mageed Abdalla, ISD for their excellent work of data analysis and database design. Thanks also to Gerry Mulvenna, ISD for his significant contribution to the work since the commencement of the study, to Yvonne Cownie, ISD for design of training and guideline materials and to Phil Dalglish, ISD for development and data entry during the initial pilot.

EXECUTIVE SUMMARY

Podiatrists, previously known as chiropodists, are specialists who assess, diagnose and treat a wide range of problems of the foot and lower limb below the knee.

Podiatrists routinely record patient activity data for the current national Chiropody Services dataset ISD (8). Questions have been raised as to whether information routinely collected to describe the activity of podiatry is sufficient to reflect adequately the activity of podiatrists, and their role in the management of conditions such as diabetes, rheumatoid arthritis and peripheral vascular disease.

The Information for Podiatry project was undertaken to develop and pilot the collection of national information categories for podiatry, which would provide useful information about podiatry activity and the patients for whom they provide care. The study was conducted in collaboration with The Society of Chiropodists and Podiatrists Scottish Faculty of Management Group.

The project began in March 2000. ISD were invited to a meeting of the Scottish Faculty of Management Group, where they agreed to work together to develop definitive national podiatry information categories.

Following visits by ISD to meet with podiatry staff working in five Primary Care Trusts across Scotland, and a subsequent meeting of the Scottish Faculty of Management Group, it was agreed that the proposed dataset should contain the following:

- Patient name
- Date of birth
- Sex
- Location
- Date of contact
- Podiatrist(s) who saw the patient
- Activity (Intervention) e.g. debridement
- Associated problems/ risk factors e.g. diabetes
- Podiatry specific problems e.g. callus

A basic structure for data collection was agreed and a small steering group was established and tasked with finalising the list of categories, agreeing definitions for each category and then mapping specific interventions and problems to appropriate categories.

An initial 4-week pilot was held two sites in January 2002. Following the successful completion of the initial pilot it was agreed to progress to an extended pilot in order to further assess the robustness of the definitions/ mappings and the feasibility of collecting the data over a longer time period and in a variety of different settings. The extended pilot ran for 3 months in 3 sites in Winter 2003/ Spring 2004.

The aims/ objectives of the extended pilot were:

- To develop national information categories for podiatry
- To determine the feasibility of data collection by podiatrists working in a number of different health care setting
- To assess whether or not the agreed definitions and mappings are sufficiently robust
- To determine the usefulness of these data at local and national level

Approximately 12 podiatrists from 3 sites participated in data collection, recording every face-face contact with a patient into a customised Access database. Comparative analyses for the 3 sites were presented to all participating sites at a workshop in May 2004, and to the Scottish Faculty of Management Group in June 2004.

Although the method of data collection used in the extended pilot was slightly repetitive and cumbersome, data collection was feasible over the 3-month period. Most of the data collection issues were connected to the practicalities of recording information into a standalone Access database, which could be overcome in future by integration into a computerised podiatry system that facilitates both data collection and direct patient care.

The pilot demonstrated that podiatrists working in a variety of different settings and locations could collect data. There were some difficulties in capturing information on patients seen in their own homes or in hospital wards as the patient's date of birth was not always easily accessible, and it wasn't practical to record data directly onto the laptop during consultation. Again, integration of the dataset into a computerised podiatry system containing patient details would ensure that this information could be easily obtained.

The definitions and mappings have been shown to be sufficiently robust for rollout, with very few mapping issues arising from the extended pilot. In assessing the feasibility of rollout across Scotland, data collection onto stand-alone laptops would not facilitate the sharing of information. However, the dataset appears to be a robust and reliable way of describing the interventions undertaken, and problems presented to the podiatry service in the 3 pilot sites.

One of the original aims at the start of the project in March 2000 was to develop a podiatry dataset that would ultimately replace ISD (8). The results of the extended pilot have demonstrated that it is possible to classify podiatry activity using the proposed dataset and structure. Since this time the Scottish Executive have launched the [National Clinical Dataset Development Programme](#) (NCDDP) which has a remit to support clinicians in developing a set of interoperable national clinical datasets, to facilitate the implementation of integrated care records across NHS Scotland. The NCDDP will be collaborating with the [eCHIP AHP project](#) to develop Programmes of Care for Podiatry, that have already incorporated the work of this project.

The Programmes of Care for Podiatry and the National Framework for Podiatry Services in NHS Scotland will shape the future collection of national podiatry information, ensuring the dataset effectively meets the needs of the service, individual podiatrists and the delivery of patient care.

COMMENTARY FROM THE SOCIETY OF CHIROPODISTS AND PODIATRISTS SCOTTISH FACULTY OF MANAGEMENT GROUP

Mr David Wylie, Chairman of the Society of Chiropodists and Podiatrists Scottish Faculty of Management Group

For many years, the information reported to ISD by Chiropody and Podiatry services across Scotland has been a source of frustration for managers of Podiatry Services.

The current national Chiropody Services dataset ISD (8) is a relic from the long-gone days of "priority group" chiropody when NHS services were limited to the elderly, children, expectant mothers and physically and mentally handicapped patients. It included an overview of the locations from which chiropody was being delivered and incorporated a feel for the number of whole time equivalent clinicians delivering the service. In addition to the self-imposed limitations of such a dataset, in terms of it being able to do little more than count contacts, the information reported varied significantly between Health Board areas making benchmarking and meaningful comparisons across Scotland impossible.

As health care services have developed, particularly over the last 15 years, the need to provide more clinically relevant information about podiatry has increased. With these developments, and the abolition of the internal market in favour of a more collaborative approach, the Scottish Podiatry managers came together in 1999 to discuss what areas they could collectively influence that would have a significant impact on the profile of Podiatry services nationally.

It was agreed that a replacement required to be found for the ISD (8) return that would tell a better clinical story about the contribution made by Podiatrists to healthcare in Scotland.

An approach was made to ISD with a view to commencing work on the production of a dataset that would facilitate uniformity of data collection within Podiatry in order to provide more clinically relevant information to the Scottish Health Department.

Building on lessons already learned from Community Nursing, the project has made a significant contribution to the creation of a national dataset for Podiatry reporting that will form the foundation of Podiatry's contribution to the Electronic Community Health Information Project (eCHIP), which has already incorporated the work done by the group.

The enthusiasm and energy of the working group provided the impetus to see the project through to completion, despite significant organisational barriers and financial constraints.

This collaboration between Scottish Podiatry managers and the ISD project team has been an example of exemplary project management. The quality of work produced, contained in this report, is of the highest order, and the information gleaned from the piloting of the dataset will help inform the strategic agenda for future provision of Podiatry Services in NHS Scotland.

DEVELOPMENT OF INFORMATION FOR PODIATRY

INTRODUCTION

Podiatrists, previously known as chiropodists, are specialists who assess, diagnose and treat a wide range of problems of the foot and lower limb below the knee. Questions have been raised as to whether information routinely collected to describe the activity of podiatry is sufficient to reflect adequately the activity of podiatrists, and their role in the management of conditions such as diabetes, rheumatoid arthritis and peripheral vascular disease.

BACKGROUND

Podiatrists routinely record patient activity data on the ISD(8) scheme. According to the latest available statistics from the ISD (8) return, in 2002, 582 whole time equivalent chiropodists/ podiatrists were employed by Scotland's Health Boards at a rate of 11.5 per 100,000 population. This equated approximately 431,000 patients treated, with an average of 3.3 treatments per patient.

The Information for Podiatry project was undertaken to develop and pilot the collection of national information categories for podiatry, which would provide useful information about podiatry activity and the patients for whom they provide care

The study was conducted in collaboration with The Society of Chiropodists and Podiatrists Scottish Faculty of Management Group.

AIMS AND OBJECTIVES

- To develop national information categories for podiatry
- To determine the feasibility of data collection by podiatrists working in a number of different health care settings
- To assess whether or not the agreed definitions and mappings are sufficiently robust
- To determine the usefulness of these data at local and national level

METHOD

The study comprised three stages:

In the first stage visits were made to podiatry managers in five Primary Care Trusts to determine their requirements for information. Based on this information a basic structure for data collection was agreed and the steering group finalised the list of categories, definitions and mappings. In the second stage the feasibility of data collection was assessed in the initial pilot, which ran in 2 sites for a 4-week period.

The third stage of the study was dependant on the results of the initial pilot. Following modifications to some of the categories, pilot data collection of the modified data set commenced in 3 sites for a 3-month period. This extended pilot included an evaluation of the feasibility of data collection, and of the uses that could be made of the data by the podiatrists.

OVERVIEW AND TIMETABLE OF STUDY

The project began in March 2000. ISD were invited to a meeting of the Scottish Faculty of Management Group, where they agreed to work together to develop definitive national podiatry information categories. ISD then met with podiatry staff working in five Primary Care Trusts across Scotland, to discuss and agree a data structure with a view to piloting data collection. At a subsequent meeting of the Scottish Faculty of Management Group, the basic structure for data collection was agreed and a small steering group was established and tasked with finalising the list of categories, agreeing definitions for each category and then mapping specific interventions and problems to appropriate categories.

The second stage of the study was the initial pilot, which ran for four weeks, starting on 16 January 2002 and concluding on 12 February 2002. Following completion of the initial pilot it was recommended that we progressed to a larger scale pilot in order to further assess the robustness of the definitions/ mappings and the feasibility of collecting the data over a longer time period and in a variety of different settings.

The third stage of the study was the extended pilot, which ran for 3 months in 3 sites in Winter 2003/ Spring 2004. Interim analyses were presented to the participating sites mid-way through the pilot, to inform the content of the final analysis. Final local analysis was presented to the 3 sites in February/ March 2004. Comparative analyses for the 3 sites were presented to all participating sites at a workshop in May 2004, where discussions were held on the usefulness of the data. The final comparative results were presented the Scottish Faculty of Management Group in June 2004.

STEERING GROUP FOR STUDY

A steering group for the study was set up to include representation for the Society of Chiropodists and Podiatrists Scottish Faculty of Management Group and ISD. The Steering group comprised:

David Wylie (Southern General) (Chairman)
Brian Christie (Tayside PCT)
Mary MacLeod (Highland PCT)
Paul Weir (Dumfries and Galloway PCT)
Jamie Quinn (Greater Glasgow PCT) until summer 2003
Gerry Mulvenna (ISD) until September 2003
John McConway (Ayrshire PCT)
Yvonne Cowrie (ISD) until October 2003
Phil Dagleish (ISD) until summer 2002
Ron Smith (ISD) from June 2003
Mageed Abdalla (ISD) and other ISD analysts
David Knowles (ISD)
James Urquhart (ISD) until end 2000
Robert Smyth (Renfrewshire PCT)
Bruce McGuinness (Renfrewshire PCT)

STAGE 1

AGREEING DATA STRUCTURE

In the latter part of 1999, The Society of Chiropodists and Podiatrists Scottish Faculty of Management Group (hereafter referred to as the Scottish Faculty of Management Group) approached the Information Services Division of NHS Scotland (ISD; formerly Information & Statistics Division) about the possibility of working together to develop definitive national podiatry information categories.

The process got underway during March 2000 at a meeting of the Scottish Faculty of Management Group held at Perth Royal Infirmary. At that meeting general consensus was reached by the podiatry representatives on three matters:

- The current national Chiropody Services Return ISD (8) did not adequately describe the activity of podiatrists across the country.
- The approach developed by community nursing staff, in collaboration with ISD (ie mapping specific interventions and problems into nationally agreed and defined categories, thus allowing for considerable local variation in data collected) would appear to be appropriate for podiatry.
- Work should begin on exploring what shape this approach might take in podiatry with a view to piloting data collection.

Following visits by ISD to meet with podiatry staff working in five Primary Care Trusts across Scotland, and a subsequent meeting of the Scottish Faculty of Management Group, it was agreed that the proposed dataset should contain the following:

Patient identification data

Patient name, date of birth and sex could be collected for local purposes, and were then anonymised prior to return to ISD submission.

Administrative data

To allow analysis of contacts in different settings, it was suggested location be recorded. Date of contact and podiatrists who saw the patient were required for monitoring purposes, and would allow analysis at individual podiatrist level.

Activity (Intervention) data

This would provide information about the activities, or interventions carried out by podiatrists when they saw a patient. DNAs could also be captured in this category, as 'non-interventions'. It was suggested that it should be possible for the podiatrist to record multiple interventions at each contact, if required.

Diagnosis/ problems

Following discussions around the recording of patient conditions such as diabetes, and specific foot pathologies, such as in grown toe nail (IGTN), it was agreed that diagnoses/ problems should be split into two areas:

1. Associated problems/ risk factors

These included any associated reasons or risk factors that the patient had that may have influenced them visiting the podiatrist; or may be an important factor that influenced who treated the patient and/or the treatment they received i.e. Diabetes or Gait Disorder. It was suggested that it should be possible for the podiatrist to record multiple associated problems/ risk factors at each contact, if required.

2. Podiatry specific problems

This is the podiatric reason for the contact taking place e.g. an in-grown toe nail or corn. It was suggested that it should be possible for the podiatrist to record multiple podiatry specific problems at each contact, if required.

A small steering group (made up of representatives from the Scottish Faculty of Management Group and staff from ISD) were then tasked with developing the headings for the intervention categories, podiatry specific problem categories and associated problem / risk factor categories. Once agreed, the lists were finalised, definitions were agreed for each category and mapped to specific interventions and problems to appropriate categories.

This work was presented to the Scottish Faculty of Management Group for their approval. Following this meeting it was agreed to progress to a small-scale pilot.

STAGE 2

INITIAL PILOT

INTRODUCTION

In progressing to an initial pilot, the steering group recognised the importance of ensuring that data collection was relatively simple, user friendly and accommodated existing work patterns. For this reason it was important to avoid duplication of effort in the recording of information and to ensure that the information recorded was seen to be of direct relevance to patient care. The steering group recognised that, in the long term, a computer based clinical system that facilitated patient care would meet these requirements. However, it was also recognised that the only realistic method of conducting a short-term pilot to test the data set and structure was to use paper-based recording.

AIMS AND OBJECTIVES

The following five aims and objectives for the initial pilot were agreed with the participating areas and Mr David Wylie, Chair of the Scottish Faculty of Management Group:

- To determine the feasibility of data collection.
- To determine the time required for podiatrists to collect data.
- To explore if it is possible to map the specific problems and interventions recorded by podiatrists to the agreed and defined intervention and problem categories
- To assess whether or not the agreed definitions and mappings were sufficiently robust.
- To establish whether or not it was feasible to progress to a larger scale pilot.

METHOD

The pilot ran for four weeks, starting on Wednesday 16 January 2002 and concluding on Tuesday 12 February 2002.

Podiatrists from two Primary Care Trust areas participated:

- Two Senior II Podiatrists from Area A.
- Two Senior II Podiatrists from Area B.

In advance of the start of data collection, staff from ISD met with the participants to:

- Explain the background to the project
- Provide basic training on what to collect and how to collect it
- Answer participants' questions

To help the podiatrists, ISD drew up three lists – one each for interventions, podiatry specific problems and associated problems / risk factors. These lists contained the specific interventions and problems that had already been discussed and mapped by the steering group. However, it was emphasised that the podiatrists should describe each intervention and problem in a way that was meaningful to them – i.e. they were not to restrict themselves to the problems and interventions on the list. This was to ensure that the pilot identified interventions and problems not previously included in the mapping work.

Each participant was given a supply of data capture sheets and asked to return the data to ISD on a weekly basis using the established protocols for returning named patient data (i.e. double envelope and recorded delivery – paid for by ISD).

The dataset to be collected at each face-to-face contact was as follows:

- Name of podiatrist
- Name(s) of any assisting podiatrist(s)
- Location at which contact took place
- Patient name
- Patient sex
- Patient date of birth
- Date of contact
- Intervention
- Podiatry specific problem(s)
- Associated problem(s) / Risk factors(s)

Facility was provided for recording multiple interventions and problems at each contact.

RESULTS

1. DATA CAPTURE

Feasibility

This was assessed in two ways: the first from the data returned by the participants; the second from the views expressed by the participants during the evaluation interviews.

A review of the data capture sheets returned to ISD led to the following conclusions:

- Data capture sheets were completed and returned to ISD by each podiatrist for each working day.
- Each data capture sheet was completed along 'expected lines' – i.e. each sheet contained the required information.

- In nearly all cases, a recognisable podiatric intervention was recorded. The same applies to podiatry specific problems and associated problems / risk factors.

A summary of the review meetings with the four participating podiatrists and/or their managers follows:

Area A

Both podiatrists commented that it was easy to collect the required information – i.e. patient demographics, interventions and problems. It was noted that having all the patient demographics on the patient record cards was a big help.

While the boxes on the data capture sheets were a bit small they considered the layout of the form to be helpful in terms of facilitating data collection. The location in which the patient was seen had a bearing on how easy it was in practical terms to collect the data – it was more difficult to gather data from house visits. There was agreement that data capture was much easier if the data capture sheet was completed after each contact with a patient.

Significantly, both participants indicated that they would be prepared to continue data collection on paper (but a computerised system would be preferable, assuming appropriate training would be provided). They qualified this by noting that it would be very important to make sure that the data collected was actually used to help review and improve the service. They also raised a question regarding whether or not this data would have to be collected continuously, or whether data collection could be switched on and off to meet specific information needs at any given time.

Area B

In practical terms it proved to be relatively straightforward to collect the data. For each face-to-face contact the podiatrist already has a patient record card and the date of birth, etc can be taken from there. In terms of the clinical information the podiatrists felt that it became easier to collect with the progression of time – this was partially due to becoming familiar with the interventions and problems that were recorded regularly.

The main difficulty with regard to the data capture sheets was that the boxes were far too small to accommodate the various descriptions of problems and interventions.

One podiatrist tried to record the data after each contact, and the other tended to record all the data in a block at the end of a session. Recording the data after each contact was particularly difficult on domiciliary visits and if the clinical session was particularly busy.

It was pointed out that if data collection were to continue it would be vital to ensure that this was accommodated within the working day – i.e. podiatrists were given allocated time for this task and it wasn't at the expense of clinical or personal

time. However, there was a view that even if time were allocated for the task it would be difficult to see how this could be achieved without eating into clinical or personal time.

Costs

The costs of data collection can only be expressed in terms of the time taken by the staff to complete the data capture sheets - the average time taken to record each contact was less than 2 minutes. There is some evidence to suggest that the time required for data capture decreased as the podiatrists become more familiar with the process. One podiatrist took an average of 2 minutes 20 seconds to record each contact during the first two days of the pilot. This reduced to an average of 1 minute and 25 seconds during the last two days of the pilot.

Area A

Both podiatrists felt that while it was important to recognise that time did have to be allowed for data capture it wasn't considered to be over-time-consuming and definitely became less so as the pilot progressed.

Area B

The podiatrists indicated that the time taken for data capture was less than they had expected at the outset of the pilot. Initially they were concerned about the time data capture would take – they were pleased to discover that it didn't have too big an impact on the rest of their work. Once again the importance of recognition that time does have to be allowed for data capture was highlighted.

While the pilot demonstrated that data collection on paper was feasible and didn't take an excessive amount of time, it is important to note that the development of electronic means of capturing data would be likely to bring a number of benefits. Most importantly it could streamline the data capture process and may reduce the time taken. It could also help to ensure that all required data fields were completed with a value that was valid.

2. DATA ENTRY

Costs

Once again, this can only be expressed in terms of the staff time required to enter data. The data was entered into a purpose-designed Microsoft Access database by the team at ISD. It is important to note that the system for data entry was changed after the first few days. The team at ISD started off by entering the data from the capture sheets and mapping the specific interventions and problems to categories as part of that data entry process. This proved to be very time-consuming, so the system was modified so that one team entered the data from the data capture sheets and another team, at a later stage, mapped the specific problems and interventions to categories. This saved considerable time.

Those responsible for entering the data reported that data entry became quicker as they became more familiar with the data capture sheets and the database. Once staff became familiar with the revised process they were entering approximately 200 contacts per day. Given an average working day of eight hours, this averaged out at 2 minutes and 25 seconds per contact. It only took around 45 seconds per contact to do the mapping. This gave a total time to enter data for each contact of just over 3 minutes. It would therefore seem reasonable to conclude that data entry is feasible and the time required can be reduced to manageable levels.

It is very likely that customised software, written by appropriate professionals, would make the task of entering data much easier and quicker.

3. MAPPING

Even though only four clinicians were involved in the pilot, there were considerable numbers of interventions and problems (from both categories) that had not previously been mapped to categories by the steering group. This required input from the lead podiatrists in both Primary Care Trust areas. Some of the specific interventions and problems were clearly local ways of describing interventions and problems that already existed on the list – they were relatively easy to map. Others were much more difficult to map. The steering group ratified all the mappings that were “agreed” during the pilot.

4. DATA ANALYSIS

Once the data had been entered into the database and some validation and quality control checks had been completed, the data was passed over to ISD’s analytical team for analysis.

A range of analyses, comparing the data collected in the two different areas, were performed including:

- Number of contacts
- Numbers of contacts in each of the intervention categories (ditto for podiatry specific problems and associated problems/risk factors)
- Percentage of patients/contacts with an associated problem/risk factor
- Age of patients seen
- Number of interventions per contact

Area A

Broadly speaking, the podiatrists considered this data feedback to be accurate. The main “surprises” in these data was with regard to the differences between the two areas – e.g. in Area 2 a higher percentage of the patients seen were under 45 (10.3% compared with 3.9%).

Area B

The data feedback presented to the podiatrists was considered to be accurate in terms of the numbers of contacts and the proportion of contact in each category (once

allowance was made for the issue of mapping nail cut, etc, to the Operative Work and Nail Cut intervention categories).

It was noted that the data collected was clinically more significant than that which the podiatrists had previously collected. While this exercise has demonstrated some of the potential ways of analysing and subsequently using the data collected, it is important to note that the pilot was small, with data being collected from less than 1000 contacts. Although little consultation had taken place regarding what types of analyses would be useful, the range produced acted as a starting point for discussions about future analysis.

DISCUSSION

It was reasonable to conclude that the initial pilot exercise demonstrated that data collection and data entry were both feasible. It was demonstrated, and later ratified by the steering group that the local interventions and problems recorded by clinicians could be mapped to the agreed intervention and problem categories. While the definitions and mappings appear to be reasonably robust, areas for further work were also identified.

While most of the issues arising were dealt with when ratifying the mappings agreed during the pilot, it would be valuable to mention some of them here:

- It was almost impossible to consistently determine whether the intervention of nail cut (cut nails) should be mapped to the Nail Cut or Operative Work category. *Please note for the purposes of the pilot, each specific intervention of nail cut (or cut nails) was checked with the podiatrist and an appropriate mapping agreed with the podiatrist and the area lead podiatrist.*
- On a large number of occasions the podiatry specific problem was recorded as *Long Nails*. Is it accurate to classify this as a problem? If so, which category should it be mapped to? For the purposes of the pilot an additional podiatry specific problem category labelled 'Long Nails' was created.
- On a few occasions an intervention was recorded in the podiatry specific problem field. It was unlikely that the data was recorded in the wrong place on the capture sheet. The more likely explanation was that the podiatrist found it difficult to describe the problem.
- Significantly large numbers of the specific interventions recorded mapped to the Operative Work category. It would be desirable to attempt to sub-divide this category and create two or more distinct categories. This would only be possible if the interventions that mapped to the operative work category could be sensibly and meaningfully grouped under alternative category headings.
- A large number of associated problems / risk factors were mapped to the "Other" category. Further analysis of the problems and/or risk factors in the "Other" category might result in creating additional categories.

A number of important lessons were learnt from this exercise. These findings were very helpful in planning the extended pilot and form part of the conclusion and recommendations of stage 2 of this project.

CONCLUSION AND RECOMMENDATIONS

It is recognised that paper based data collection has many disadvantages – it is inevitably going to result in some duplication of effort, and does not provide instant access to information. In evaluating the feasibility of data capture it is, in some ways, the worse case scenario. Given that the evaluation findings were largely positive, ISD recommended to the Scottish Faculty of Management Group that sufficient progress had been made to undertake a larger extended pilot. The one proviso being that, having viewed and considered the type of feedback produced from the pilot, the Scottish Faculty of Management Group felt that the feedback was likely to provide them with the range of information that they require.

Prior to commencing an extended pilot, it was recommended that the following issues be addressed when planning the larger pilot:

- The principal finding from the experience of entering the contact data was that the data entry process should be kept quite separate from the mapping process. In other words, the data should be entered exactly as it is recorded on the data capture sheet. The mapping should take place at a later stage. Ideally the mapping could be done automatically using computer software.
- It is likely that some podiatrists were recording a single intervention - e.g. “nail cut” - to denote that patient had nails cut, nails filed and debris cleared, while other podiatrists were recording this as three separate interventions. It will be important to establish mechanisms (probably through definitional work) to ensure consistency in what is recorded.
- It will be crucial to develop robust definitions for the ‘nail cut’ (cut nails) and ‘simple nail cut interventions’ given that they map to different intervention categories. It will also be crucial to train those collecting data to understand the difference between the two descriptions of intervention and to make sure they clearly denote which type of intervention is on the data capture sheet.
- It may be desirable to attempt to sub-divide the Operative Work category and create two or more distinct categories. This would only be possible if the interventions that mapped to the operative work category could be sensibly and meaningfully grouped under alternative category headings.
- The format of the data capture sheet should be changed to record associated problem/risk factors only once for each contact. The current data capture sheet is set out to record the associated problems / risk factors alongside each intervention recorded.
- The extended pilot should include both acute and primary care settings.

- It would be useful for the steering group to ‘meet’ on a monthly basis throughout the pilot to consider and reach agreement on any new mapping issues that arise.

STAGE 3

EXTENDED PILOT

INTRODUCTION

Following the initial pilot, ISD met with the steering group in March 2002 to work on the recommendations prior to commencement of an extended pilot. The outcome of these discussions, and actions taken are detailed below:

- In response to feedback from the initial pilot, podiatrists participating in the extended pilot were able to choose to either record on paper using customised data capture sheets, or directly into an Microsoft Access database installed on the podiatrist's laptops/ clinic PCs. Those recording onto data capture sheets were given a list of categories, which they selected using tick boxes.
- The data capture sheet was redesigned so that separate associated problems/ risk factors only had to be recorded once at every contacts; rather than alongside every intervention (see Appendix I)
- Around 80% of all interventions recorded during the initial pilot mapped to the one 'Operative Work' category. It was decided to replace the Operative Work category with 3 new ones:
 - 1) Nail Interventions
 - 2) Soft Tissue Interventions
 - 3) Dermatological Interventions
- It was agreed to drop the 'nail cut' category, and instead map both nail cuts and simple nail cuts to the new 'Nail Interventions' category (created from the Operative Work category).
- To facilitate recording of nail cuts carried out on patients who have no nail pathology e.g. those who are unable to self-care, a new podiatry specific problem category of 'No podiatric pathology' was created.
- At the end of 2002 ISD produced analyses of frequencies of PSPs and Interventions recorded in the initial pilot. These data, and the top 30 list created by the steering group were used to draw up a comprehensive list of all interventions and PSPs from which to agree mappings in advance of the extended pilot.
- A query was written into ISD's customised Access database to allow an individual mapping to be automatically duplicated in all cases, thus reducing the amount of time required to complete the mapping process, and minimising the potential for human error.

Following implementation of the recommendations, the steering group and ISD agreed to progress to an extended pilot, to be held in a larger number of areas, over a longer time period, in order to assess whether or not the data collection process, definitions and mapping categories were sufficiently robust for rollout across the country.

The extended pilot ran for a 3-month period in the Autumn/ Winter of 2003. Participants collected data on all face-to-face contacts including DNAs.

AIMS AND OBJECTIVES

The following five aims and objectives were agreed with the participating areas and Mr David Wylie, Chair of the Scottish Faculty of Management Group:

- To determine the feasibility of data collection over a 3 month period.
- To determine the feasibility of data collection by podiatrists working in a number of different health care settings.
- To assess whether or not the agreed definitions and mappings are sufficiently robust for rollout across Scotland
- To establish whether or not it is feasible to progress to rollout across Scotland
- To determine the usefulness of these data at local (podiatrists, managers) and national (ISD and Faculty of Management Podiatrists) level.

METHOD

1. RECRUITMENT AND SELECTION

Initially it was planned to recruit 4 pilot sites. In recruiting the 4 sites it was important to ensure that they were different in terms of geography, rural/urban mix, covering both Acute and Primary Care – this was in order to evaluate the feasibility of data collection in a variety of different health care settings.

ISD attended a meeting of the Scottish Faculty of Management Podiatrists in June 2003. A presentation was given on the proposals for the extended pilot, and interested sites willing to volunteer their participation were asked to get in touch. It was explained that ISD were able to provide support by means of project management, database design, training and data extraction/ analysis. However, as no external funding was available for data collection, it was important that the sites were able to cover the costs themselves.

A total of 4 sites meeting the initial requirements agreed to participate, and ISD began discussions with them to establish their preferred data entry method. With no external funding the most cost-effective method of data collection was direct data

entry by podiatrists. However, direct data entry was dependant on the podiatrists having easy access to PCs/laptops in their place of work. Two of the sites (Area B and C) opted for direct data entry by the podiatrists, and the third site (Area A) agreed that the podiatrists would capture their contacts on paper-based data capture sheets.

The fourth site that volunteered to take part in the pilot was to provide the acute comparison. At the time of recruitment, an Access based podiatry clinical system was being developed for rollout in this area. The clinical system incorporated the data items in the data set used for the extended pilot, and this was to be used by all podiatry staff. Unfortunately due to a number of technical difficulties with the system, the site reluctantly had to withdraw their participation prior to the start of the pilot, as the system was not going to be ready in time. It was agreed to progress with three sites instead of the planned four, as recruitment of an additional site at such a late stage would have impacted on the project timescales.

In terms of the time period in which the pilot was held, the preferred option was to run the pilot concurrently in the 3 sites from September to November 2003 (in order to avoid Christmas holiday period). However, as discussions around data collection methods were progressing at different speeds, in the 3 areas, it was decided to commence the pilot in each area as and when data collection issues were resolved rather than delay the start of the pilot for the other two areas. Whilst this was an opportunistic development, it had the advantage of allowing ISD to stagger their involvement in terms of training, support and data extraction in the three pilot sites.

Initial meeting with participants

The podiatry leaders in each site identified 12 interested 'volunteers'. ISD then visited each site to give an overview of the extended pilot, and deal with any outstanding issues/ questions prior to the delivery of training. At this stage a date for training and the start of data collection was agreed with participants.

Profile of Pilot Areas

A total of 34 podiatrists from 3 Primary Care Trust areas participated:

Area 1

The 12 participating podiatrists were predominantly Senior II podiatrists working in the three community podiatry LHCC Teams, and therefore gave a representative 'snapshot' of typical community activity. The sample comprised approximately 25% of the community podiatrists from the area. The pilot did not include the activity of Senior Specialist clinicians, who comprise approximately 30% of the service, and only 0.3 W.T.E of Senior I (Diabetes Specialist) activity was included.

Area 1 wished to participate in the pilot to help inform the service what progress had been made (and what support community staff required) in the process of changing the delivery of the service from 'demands to needs' led, in line with the area's strategy of service development.

Area 2

The 8 participating podiatrists from area 2 were predominantly Senior I, as they were the podiatrists with access to laptops/PCs on which to do direct data entry. 4 of the Senior I podiatrists were also clinical advisors who have protected administration time. This meant that some of them only worked in clinics 4 days out of 5 (depending on the needs of the service). All the clinical work was undertaken by generalist specialists who carry out all types of work as required.

Area 2 covers a wide rural area, and the numbers of patients seen was affected by the time required to travel to patients' homes. Given the spread of the population it was not always possible for the patients to be sent in to a specialist. It is important that podiatrists can treat any condition they see. 3 of the clinicians working within the specialist posts cover diabetes and Mental Health.

Area 3

The 12 participating podiatrists from area 3 were predominantly senior II (9 podiatrists). The senior II podiatrists deliver the majority of community Podiatric care in a variety of settings and one locality in the area has a mobile podiatry unit which travels to those areas which have no suitable facilities. The remaining 3 participants were Senior II (2 podiatrists) and an Enhanced Care Practitioner (1 Biomechanics podiatrist). The senior I podiatrists and the Enhanced Care Practitioner deliver specialist podiatry care in the fields of Diabetes, Rheumatology, Podopaediatrics, Biomechanics, Learning Disabilities and Mental Health. There is also an established Homeless and Nail Surgery service.

Area 3 covers a population of almost 400,000 people, and a large geographical area, covering 2 rural and 1 urban localities. Service provision is therefore flexible to accommodate the differing demands of each locality.

2. TRAINING AND SUPPORT

In order to ensure that data was collected consistently across the 3 areas, ISD produced training and guidelines materials, a copy of which was given to each individual podiatrist. A 1-day training session was organised separately for each of the 3 areas, approximately one week prior to the start of data collection. Training was delivered by ISD using a combination of Powerpoint presentations and practical workshops, and each podiatrist was given their own copy of the guidelines in an A3 folder to refer to during the pilot period. The guidelines folder contained contact details for ISD staff, and the participants were encouraged to telephone if they had any questions during the pilot. ISD also contacted the participants on a regular basis during the pilot to ensure data was being collected, and resolve any issues around data recording.

3. DATA CAPTURE

Area 1

The pilot ran from Monday 1st September until Sunday 30th November 2003.

Participants recorded data onto a customised data capture sheet (appendix II). The completed sheets were then passed to the Trust's podiatry administration office, where the data was entered into a customised Access database. A separate database was installed by ISD on PCs of three members of the support staff team who were based in the administration office.

Area 2

The pilot ran from Monday 8th December until Sunday 7th March 2003.

Participants recorded the data directly onto a customised Access database, installed by ISD on their laptops/ clinic PCs.

Area 3

The pilot ran from Monday 15th September until Sunday 14th December 2003.

Participants recorded the data directly onto a customised Access database, installed by ISD on their laptops/ clinic PC's.

4. DATA EXTRACTION

The data that was collected in the pilot could not be made available to staff in 'real time' because of the constraints of data collection into standalone databases. In order to produce local and comparative analysis for participating sites, the data was anonymised and extracted onto floppy disk by ISD on two occasions:

- Week 3/ 4 of data collection in each site
- Two weeks after the end of data collection in each site

ISD visited every participant in Area 2 and 3 to extract the data from their laptops/ clinic PC's. In Area 1 data was extracted from the 3 PC's in the podiatry administration office.

5. EVALUATION

ISD undertook an evaluation, in order to assess the feasibility of data collection, and to identify any issues faced by participating podiatrists. An evaluation (postal questionnaire issued to every participant) was undertaken at the two different stages in order to highlight any changes in perception over time:

- Initial evaluation (after 2 weeks)
- Final evaluation (week 10/ 11 of pilot)

6. MAPPING

Following extraction of data from individual laptops and PC's, the data (approx 12 floppy disks per site) was returned to ISD to allow analysis of all of the data collected in each site. Analysts at ISD collated all the data from the individual disks onto a single access database for every participating site, to enable analysis at area level.

ISD then mapped all the individual interventions, podiatry specific problems and associated problems/risk factors recorded by the podiatrists, to the relevant categories, agreed at the beginning of the pilot, thus enabling comparative analysis between the 3 sites.

As with the initial pilot, there were a small number of interventions, podiatry specific problems and associated problems/risk factors that did not map to an existing category. A meeting was held with the working group in April 2004 to ratify the mapping undertaken by ISD prior to analysis, and to create additional categories where appropriate.

7. DATA ANALYSIS

Area Specific Analysis

ISD visited participating sites separately to present them with an interim analysis 6 weeks through the data collection phase of the pilot, to help inform the content of the final local analysis.

Participants were also presented with feedback approximately four weeks after the end of the 3-month period. They were presented with information on:

- Common interventions
- Podiatry specific problems
- Associated problems/risk factors
- Age/sex breakdown of patients
- Analysis of patients seen by location
- Contacts with individual podiatrists

Comparative Analysis

In order to ensure that the final pilot data met the needs of the participating podiatrists, the content was informed partly from feedback received during presentations of local analysis, and partly through discussions with the individual working group members.

Once agreed, two ISD statisticians undertook the comparative analysis in May 2004. This was then presented to the 3 participating sites and working group members at a workshop in Perth, held on 5th June 2004. A copy of the presentation was emailed to every participant in advance of the meeting, to ensure those not attending were still able to view the findings from the pilot.

RESULTS

1. EVALUATION RESULTS AND MAPPING ISSUES

Data Capture/ Entry

Feasibility

The feasibility of data capture was assessed from the evaluation results, the quality of the data (completeness and consistency) and from ad hoc comments from participants.

A total of 32 evaluation questionnaires were issued to participants 3 weeks into data collection, and 26 (81%) responses were received. A follow up evaluation questionnaire was also sent near the end of the data collection period, with 22 (67%) responses received.

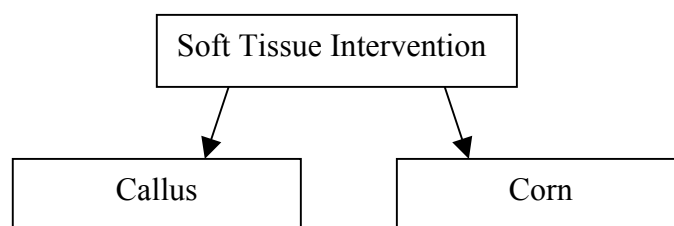
There was an even split of people collecting their data onto data capture sheets (38%), directly into the database (35%) or recording both on paper and then into the database (27%), ensuring that the evaluation results reflected a variety of different data collection methods. The evaluation results for both data capture and entry were discussed together, because for many participants the data was captured through entry into the customised Access database – and therefore the process of data capture and entry was undertaken simultaneously.

Participants were asked if they were clear about what data they were meant to capture, and reassuringly no one said no. 15% (n=4) said *very much so*, 70% (n=19) said *yes* and 15% (n=4) said *partially*. Three respondents commented that they started to record on paper due to initial problems with computer access, but they preferred direct data entry. Another commented that their method of data entry varied depending on where they saw the patients. If in the clinic they would use the computer, but would record on capture sheet if visiting patients in their own home, and then enter the data when they returned to their base.

In practical terms, only 8% (n=2) found capturing data difficult. The majority found it *easy* (n=5, 19%) or *okay* (n=19, 73%). Comments suggest that data capture could have been made easier if the database automatically stored the patients details, date of contact and clinicians name so these field did not have to be completed by the podiatrists at each contact. Comments also suggest that having a larger number of associated problems/risk factors to choose from would be beneficial. This could be achieved through the use of a clinical coding system such as Read or SNOMED CT.

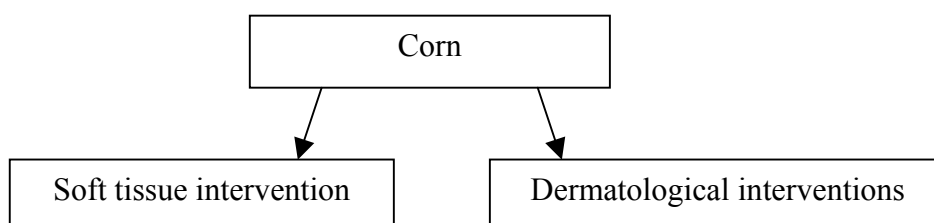
Some participants also felt that changing the structure of the dataset would have made data collection easier. The data structure used in the initial and extended pilot had a one-to-many relationship, linking multiple problems to individual interventions. For example the following would be recorded for a patient receiving soft tissue interventions for a corn and a callus:

Structure A



The design of the database used for the extended pilot adopted structure A above. However, during the pre-pilot meeting with Area 2 it became apparent that it was more intuitive for the podiatrists to capture data using structure B (below), because they were more likely to carry out a number of different interventions for the one podiatry problem, than carry out the same intervention for a number of different podiatry problems.

Structure 2



However, this did not become apparent to the steering group until the pre-pilot meeting with Area 2. Unfortunately because Area 2 was the last site to begin data collection it was not possible to change the data structure, as this would have made the data incompatible with that already being collected in Areas 1 and 3. It was initially hoped that data collected in Area 2 could be recorded directly into their existing PEAK system, however this was not feasible as the PEAK system used the structure 2. Area 2 therefore had to record their information into the customised Access database being used in the other two sites. However, despite this, the categories and mappings were consistent with the care pathways and protocols currently recorded in Area 2. Thus, podiatrists were able to record their information as they would have done locally (using care pathways and protocols), and the information could still be easily mapped into the high level categories designed for the pilot, thus ensuring comparability between the 3 participating sites.

Approximately half of the respondents (n=11, 48%) found it easier to record data in one location compared to another. Many found it easier to record data whilst in the clinic setting, because of easy access to laptops/ PCs. It was more difficult to capture data in patient's homes and nursing homes, where it would not have been practical or feasible to record directly onto laptops.

Based on their experience of the first few weeks 77% (n=20) recommended that the data be recorded after every contact, 15% (n=4) felt it should be recorded a couple of times a day, and 8% (n=2) felt that it should be recorded at the end of each day. No one recommended capturing data on a less than daily basis.

42% (n=11) felt that their feelings about data collection had changed as the pilot had progressed. 4 felt that it was less time consuming than they had expected it to be, and 3 people felt it was more time consuming than they had originally anticipated and protected time was required for data entry. Of those whose feelings did not change, one person commented that it was 'just another thing to complete', whilst another felt that it was a step forward as they recognised more information had to be collected.

Examination of the data quality from both site visits and feedback following local presentations indicated that the data collected was very complete and accurate. It appeared to have face validity with the participants and ad hoc comments suggested that it presented an accurate picture of the way in which they work. The data was not wholly consistent, for example there were some differences in the way in which a nail wound following removal of an IGTN was recorded. Some podiatrists recorded that they were dressing a 'wound', whereas others recorded IGTN. Issues in consistency of recording were to be expected given the fact that data was collected in a pilot situation, however further recording guidance in such scenarios would improve future consistency of recording.

Costs

As with the initial pilot, the costs of data collection for the extended pilot can only be expressed in terms of the time taken by the staff to complete the data capture sheets. 77% (n=20) found data capture moderately time consuming and 19% (n=5) found it very time consuming. The average time taken to record each contact was approximately 2 minutes, or around about 30 minutes per day for most podiatrists who were capturing/ entering their contacts on a daily basis. When asked what could be done to make data entry less time consuming, the podiatrists felt that automatic storing of patient details, appointments scheduling and use of palm top devices would all bring about significant improvements.

Mapping

The ratification of mappings and definitions from the initial pilot made mapping in the extended pilot a much more straightforward exercise. Many of the interventions recorded into the Access database were at category level, and there was a relatively small number of podiatry specific problems requiring mapping to categories. As can be seen from the comparative data in the results section, approximately 80% of all podiatry specific problems mapped to the four categories of soft tissue problems, nail pathologies, wounds and No podiatric pathology. Likewise, approximately 70% of all interventions mapped to the 3 categories of assessment, nail interventions and soft-tissue interventions. The steering group ratified all mappings before the final comparative analysis was undertaken, to ensure the categories were still accurate and consistent.

Mapping for the extended pilot was also less time consuming, because a query was built into the access database to ensure that the mapping of an individual intervention/ PSP was automatically duplicated for all entries where it occurred. However, one limitation of using standalone Access databases was that entries with different spellings e.g. 'IGTN' and 'in grown toe nail' were identified as being separate

problems. This meant that some ‘tidying’ up of the data had to be done to reduce the time required during the mapping stage.

There were some interventions/ problems that could not be mapped, mainly where an intervention had been recorded as a problem and vice versa. Given the structure of the Access database it was not possible to recode the information to enable it to map to the correct category. This meant that this information could not be analysed for comparative purposes as we would not be comparing ‘like with like’. However, to ensure that this information was not lost, and could still be presented when examining events it was mapped to a category called ‘exclude from analysis’.

An ‘event’ is the term used to describe the combination of a Podiatry specific problem and a linked intervention e.g. an example of such an event would be if a patient presented with a soft tissue pathology such as a corn (a PSP) and the podiatrist undertook a soft tissue intervention such as reduction (an intervention).

There were a very small number of mappings to the ‘exclude from analysis’ category, some examples of the things excluded are shown below:

- Diabetes assessment (intervention) being recorded as a PSP
- Referrals (which were not included in the pilot) being recorded as interventions
- Chemical application (intervention) being recorded as a PSP
- Child (can be derived from age) being recorded as an associated problem/ risk factor

Data Analysis

Once the data had been entered into the database and extracted onto disk ISD’s analytical team compiled all the data from each of the sites onto the one Access database in order to undertake comparative analysis. A range of analyses was undertaken in response to feedback from the evaluation questionnaire, local presentations and the steering group. Given the developmental nature of the data collection and structure, ISD invested significant analytical time to ensure that the final analysis met the needs of the podiatrists. The process of designing the Access database, developing a programme for anonymising and extracting the data, designing an interactive pivot table and undertaking both local and final comparative analysis equated to approximately 1 full time analyst for a 10 week period.

The final comparative analysis presented to the sites can be seen in the results section over the page, and in Appendix II.

2. COMPARATIVE ANALYSIS

Workload

Table 1 - Workload statistics

| | Area 1 | Area 2 | Area 3 | Totals |
|---------------------------------------|--------|--------|--------|--------|
| Number of patients seen | 5570 | 2912 | 4910 | 13392 |
| Number of encounters | 5982 | 3329 | 5541 | 14852 |
| Number of encounters per patients | 1.1 | 1.1 | 1.1 | 1.1 |
| Number of interventions | 8373 | 6904 | 9595 | 24872 |
| Number of interventions per encounter | 1.4 | 2.1 | 1.7 | 1.7 |
| Number of podiatry specific problems | 8636 | 6168 | 9609 | 24413 |
| Number of problems per encounter | 1.4 | 1.9 | 1.7 | 1.7 |
| Number of events (PSP > intervention) | 9617 | 7608 | 11552 | 28777 |

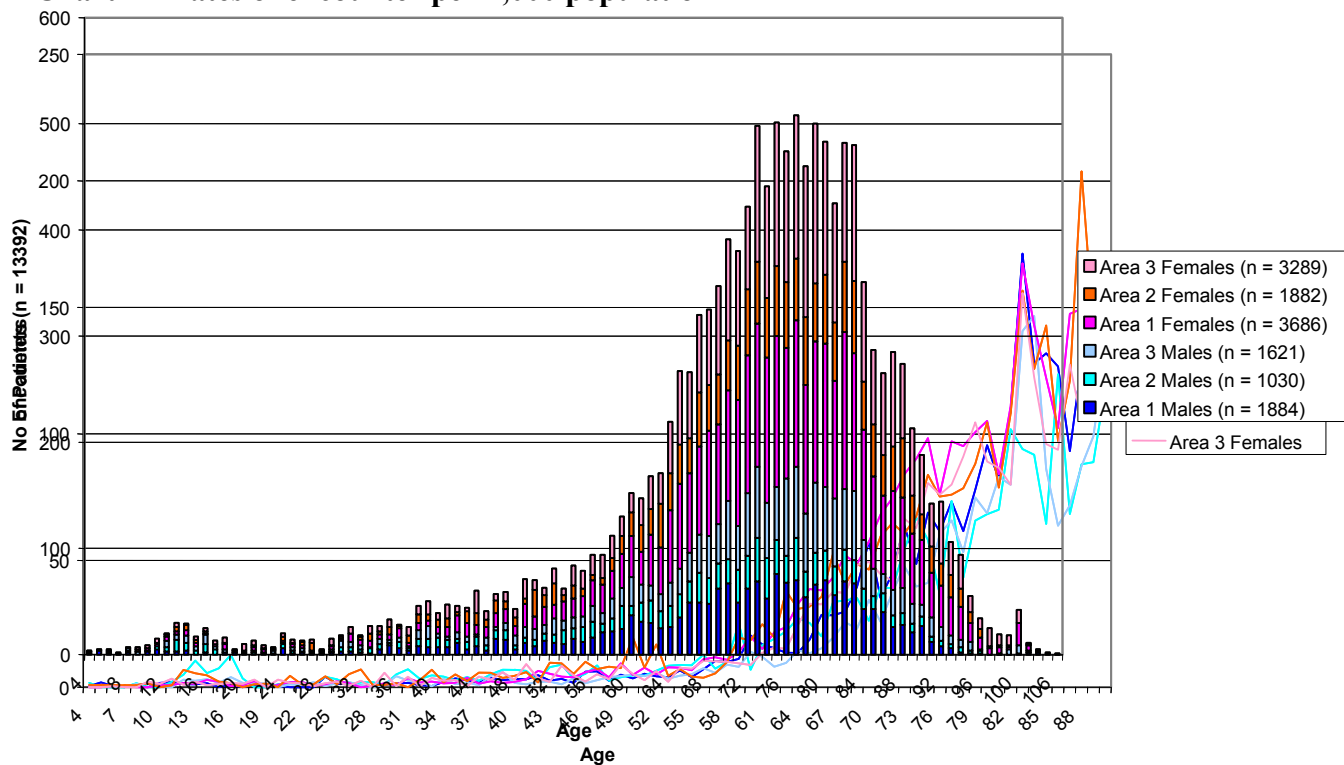
As can be seen from table 1, patients were seen an average of 1.1 times during the 3 month period. Fewer patients were seen in Area 2, partly because the pilot was undertaken during Christmas, when fewer patients were seen and also because of the amount of time spent travelling to patient's homes. An average of 1.7 interventions and podiatry specific problems were recorded for every encounter, therefore the majority of patients presented with multiple problems, and received more than one intervention for these problems.

Table 2 below shows the age/sex breakdown of the patients. The average age of the patients seen was 72 years old, with the average male (69 years old) being 4 years younger than the average female (73 years old). Overall the youngest person seen was 4 years old, and the oldest was an amazing 106 years old! Analysis of patients over and under 60 years old showed that 15% of patients were under 60 years of age, with the remaining 85% being over 60 years old. The age/sex distribution of the patients can be seen in Chart 1 over the page.

Table 2 – Age/Sex statistics of Patients by Area

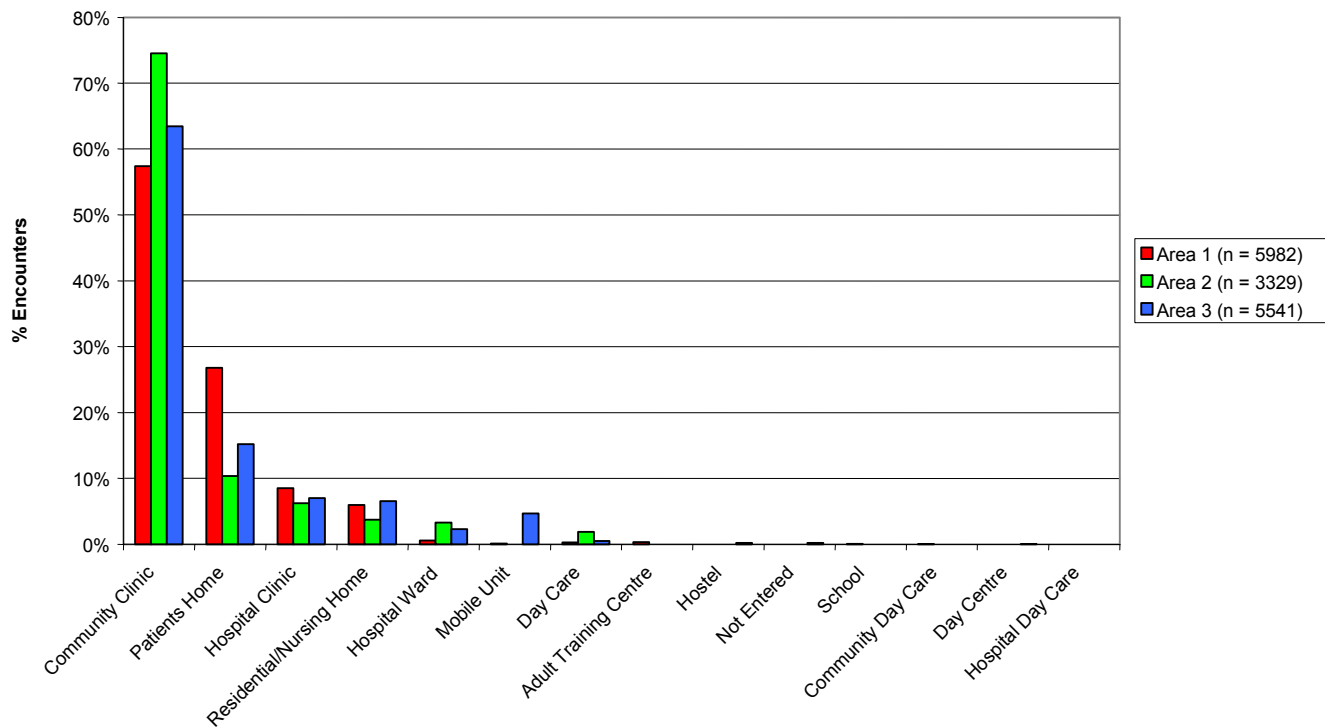
| | Count | Mean | Median | Mode | Youngest | Oldest |
|--------------------|---------------|-----------|-----------|-----------|----------|--------|
| Area 1 Males | 1,884 | 70 | 73 | 75 | 4 | 102 |
| Area 2 Males | 1,030 | 65 | 70 | 73 | 4 | 103 |
| Area 3 Males | 1,621 | 70 | 74 | 76 | 6 | 101 |
| All Males | 4,535 | 69 | 73 | 73 | | |
| Area 1 Females | 3,686 | 74 | 75 | 82 | 6 | 102 |
| Area 2 Females | 1,882 | 72 | 75 | 83 | 4 | 101 |
| Area 3 Females | 3,289 | 74 | 77 | 79 | 6 | 106 |
| All Females | 8,857 | 73 | 76 | 75 | | |
| Group Total | 13,392 | 72 | 75 | 77 | | |

Chart 1 - Age/ sex breakdown for all areas together
Chart 2 - Rates of encounter per 1,000 population



The chart shows the result of dividing the number of encounters for the patients with the same age in years (by individual year and separately by gender and area) by the population of the area then multiplying by 1,000. The fact that the pattern for every individual year of age, for each gender and for each area is so similar suggests that the data is representative and that the level of encounters with podiatrists is low until people reach age 60 to 65 years of age.

Chart 3 - Encounters by location by area



As can be seen from chart 3 above, more than half of all patients were seen in a community clinic, at least one tenth were seen in their own homes and the majority of the remaining patients were seen either in a hospital clinic or a residential/ nursing home. Slightly more patients from Area 2 were seen in a community clinic than in the other two areas, however fewer patients in this area were seen in their own homes. In Area 3 approximately 5% of patients were seen in a mobile unit.

Chart 4 - Encounters by location < 60 and > or =60 for all areas combined

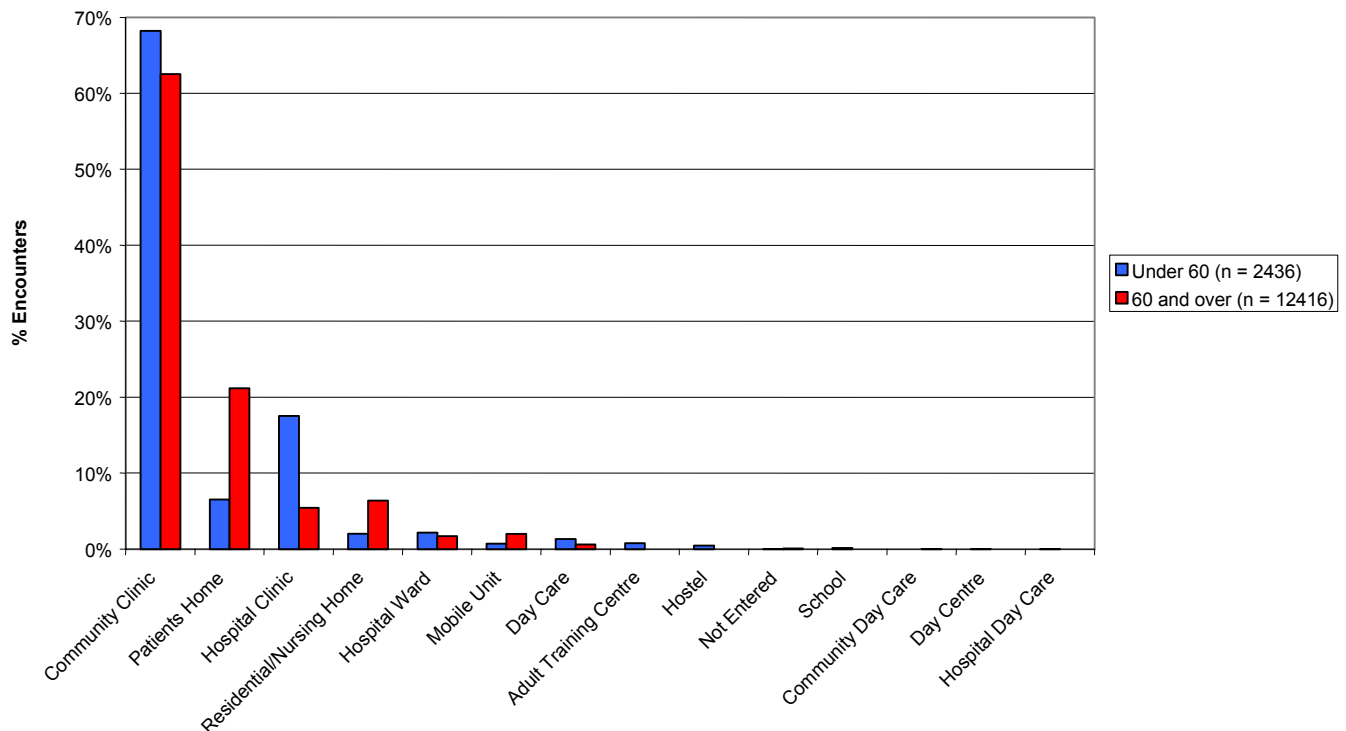
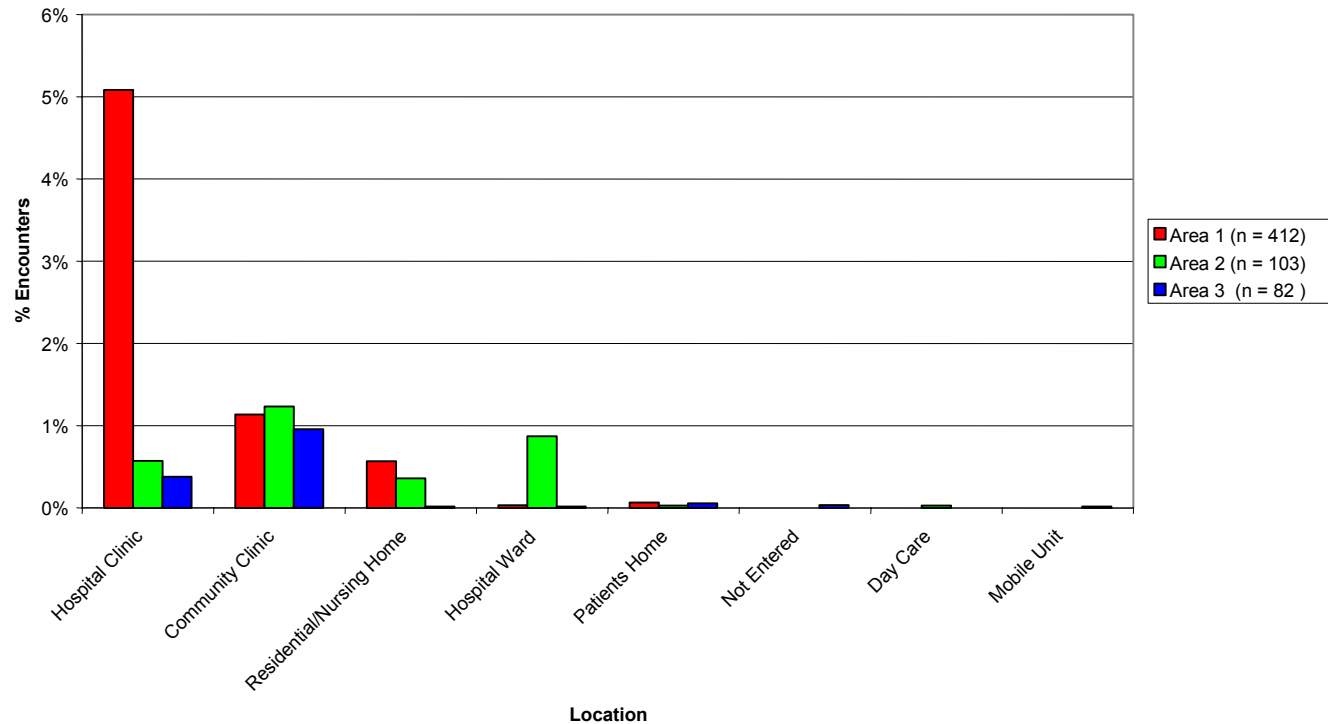


Chart 4 details the location where patients over and under 60 years old were seen. As would be expected, the majority of patients under 60 were seen in a community or hospital clinic, compared to patients over 60 who were more likely to be seen in the community clinic or their own homes.

Chart 5 - Multidisciplinary contacts by location by area



In examining the multidisciplinary contacts in chart 5 above, the majority of multidisciplinary contacts (a contact where a non-podiatrist was present) took place in a hospital clinic, perhaps reflecting diabetic reviews undertaken in the presence of the a hospital consultant.

Analysis of the age distribution of patient’s associated problem/ risk factors (Chart 6 on the next page) showed that the average age of patients with diabetes (68 years old) was less than the average age of patients seen who had either rheumatoid disease (73 years old) or cardiac disease (76 years old). Discussions with the pilot sites indicated this is perhaps explained by the fact that patients with diabetes will often be referred, and therefore present to the podiatrists at an earlier stage because of their high risk of foot disease, and increasing health promotion.

Associated problems/ risk factors

Chart 6 - Age distribution of major associated problems

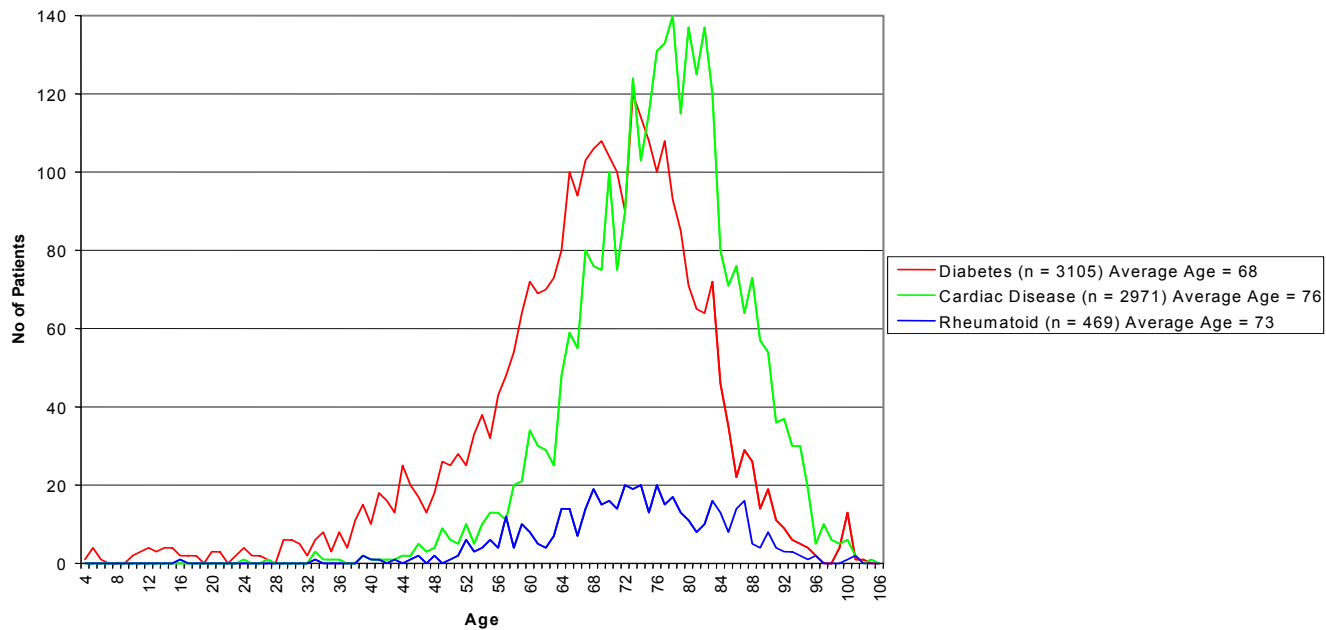
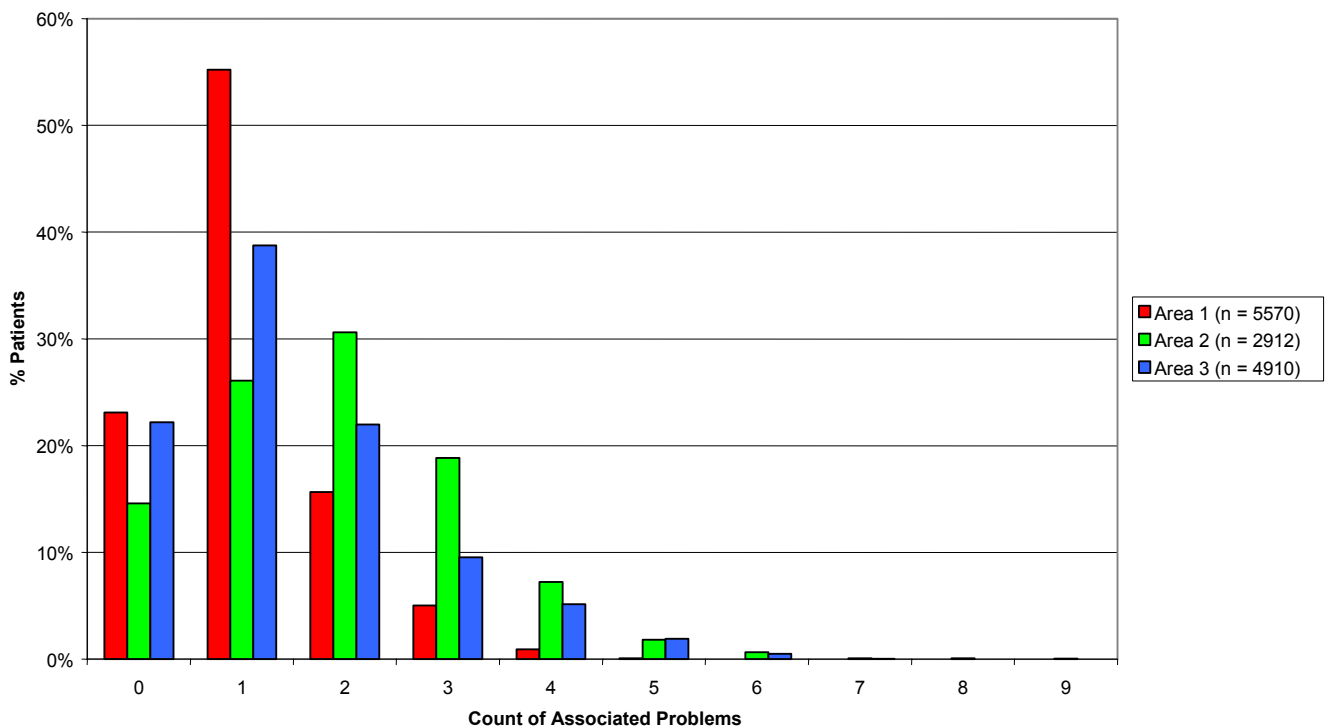


Chart 7 - Number of associated problems recorded per patient by area



As can be seen in Chart 7 above, around one fifth of all patients had no associated problem or risk factor. The majority of patients had one associated problem/ risk factor; with the numbers gradually reducing to the maximum of 9 associated problems/ risk factors.

Chart 8 - Proportion of Podiatry Specific Problem Categories by Associated Problem

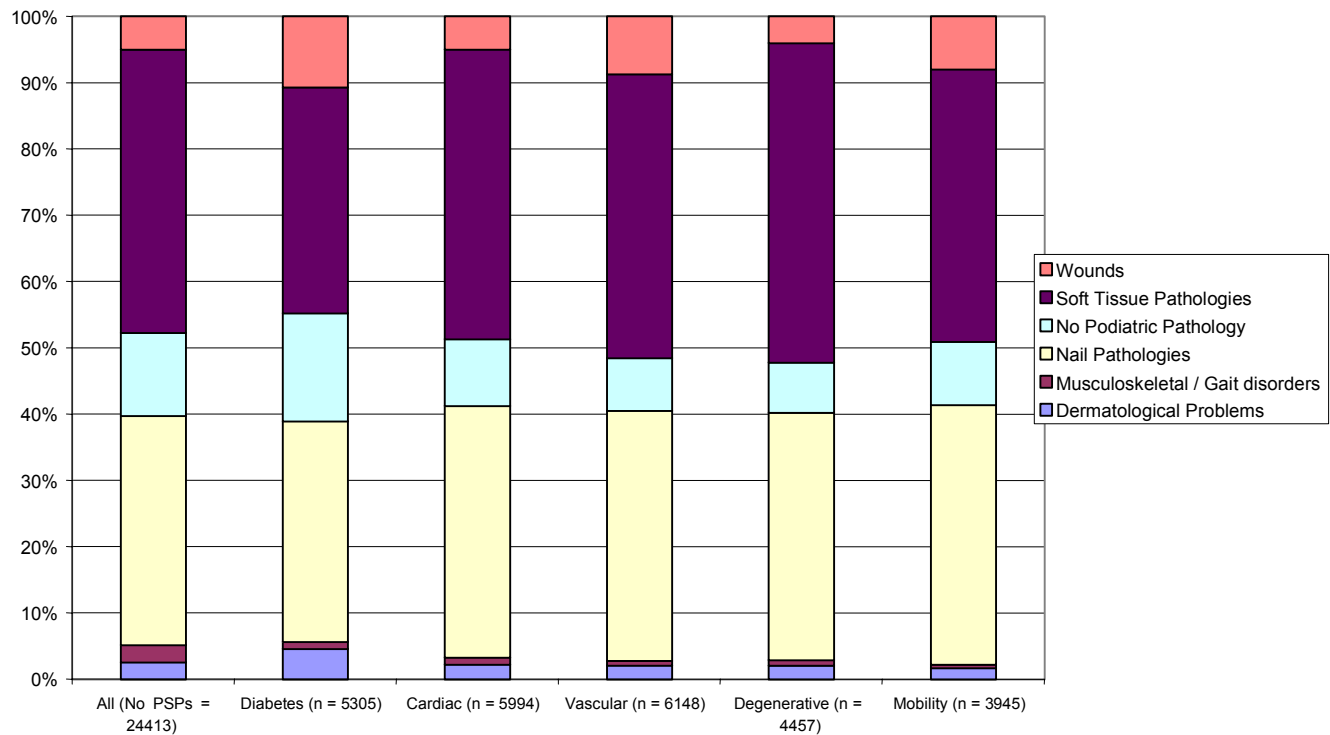
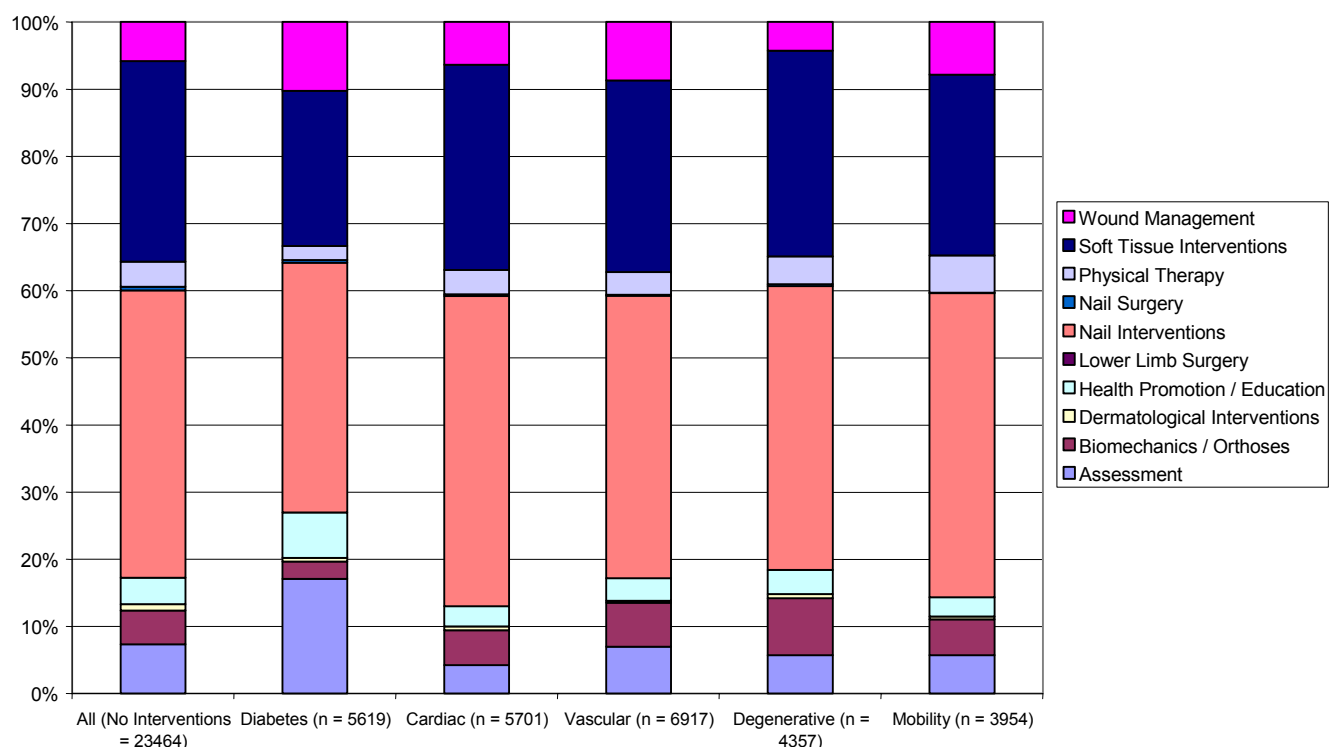


Chart 8 above shows the proportion of PSPs by associated problem/ risk factor. The spread of PSPs is similar for all associated problems/ risk factors – for most patients, regardless of the associated problem/ risk factor they presented with, soft tissue pathologies and nail pathologies made up around 80% of PSPs they presented with. Around 10% had ‘No podiatric pathology’.

Chart 9 - Proportion of Intervention Categories by Associated Problem



Examination of the proportion of interventions by associated problem/ risk factor in Chart 9 on the previous page shows that the spread of interventions is also very similar for all associated problems/ risk factors. However, slightly more assessments are carried out on patients with diabetes than any of the other conditions. Feedback suggests that this reflects the management of foot disease for diabetic patients, as many diabetic patients receive an annual review from the podiatrist.

Podiatry Specific Problems

Chart 10 – Podiatry Specific Problems by area

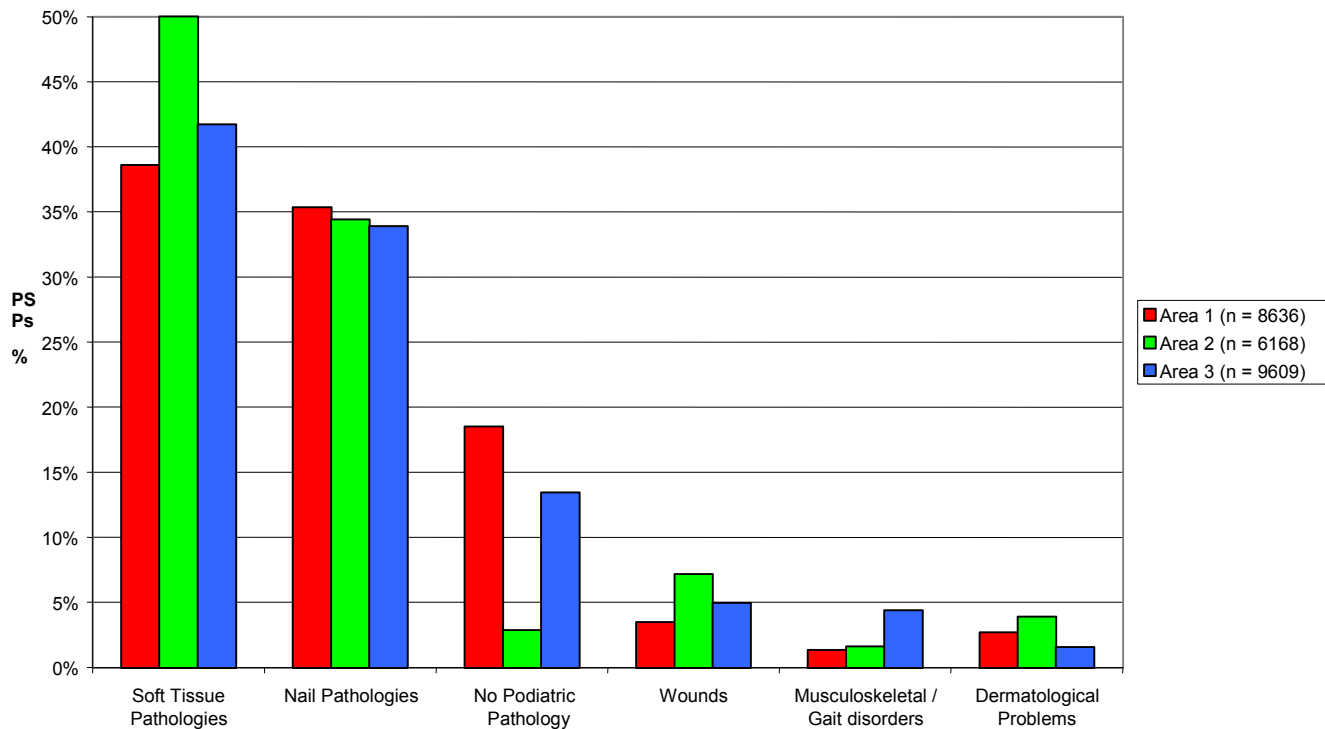


Chart 10 details the distribution of PSPs by area. The most common problem that the podiatrist treated was soft tissue pathologies, which made up almost half of all problems. Nail pathologies was the second highest, accounting for approximately 1/3rd of all problems. Surprisingly ‘No podiatric pathology’ was the 3rd highest problem. However, as can be seen from the chart there are significant differences between the percentage of no podiatry pathologies being treated in Area 2, compared to Area 1 and 3. Feedback from Area 2 explains that this finding is down to recent service redesign, which has aimed to reduce the numbers of patients seen for ‘social reasons’ i.e. no podiatric pathology through health promotion on self care. Thus allowing resource to be freed to treat patients with complex conditions. It should be noted that most patients with no podiatric pathology recorded for a given intervention may also have had other problems recorded at the same session. Generally no podiatric pathology related to social nail cutting, however these patients may also have had other podiatry specific problems such as a soft tissue pathology and/ or an associated problem/ risk factor such as diabetes. Analysis of PSPs in patients over and under 60 years old shows that wounds, musculoskeletal/gait disorders and dermatological problems are more common in the under 60s, whilst soft tissue and nail pathologies are more common in the over 60s.

Chart 11 - Podiatry Specific Problems <60 and >or=60 for all areas combined

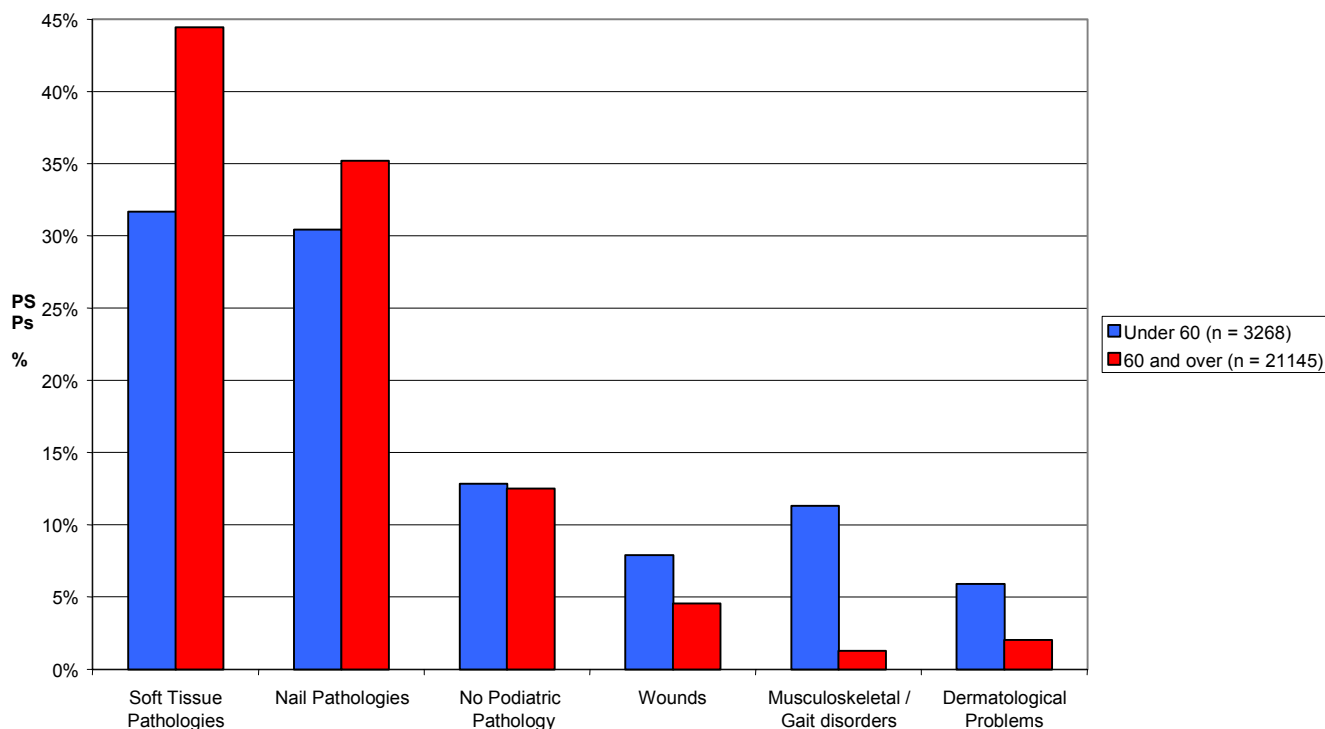


Table 3 below shows the interventions carried out on patients with ‘No podiatric pathology’ - nail intervention accounts for nearly 80% of all interventions.

Table 3 – Interventions recorded for the PSP of ‘No Podiatric Pathology’

| Intervention (Protocol) Category | PSP (Care Pathway) = No Podiatric Pathology | |
|----------------------------------|---|-------------|
| | Number | Percentage |
| Nail Interventions | 2151 | 78% |
| Assessment | 303 | 11% |
| Soft Tissue Interventions | 135 | 4.9% |
| Physical Therapy | 79 | 2.8% |
| Health Promotion/ Education | 50 | 1.8% |
| Wound Management | 16 | 0.6% |
| Biomechanics/ Orthoses | 11 | 0.4% |
| Exclude from analysis | 5 | 0.2% |
| Nail Surgery | 2 | 0.07% |
| Dermatological Interventions | 1 | 0.03% |
| TOTAL | 2753 | 100% |

Interventions

Chart 12 - Interventions by area

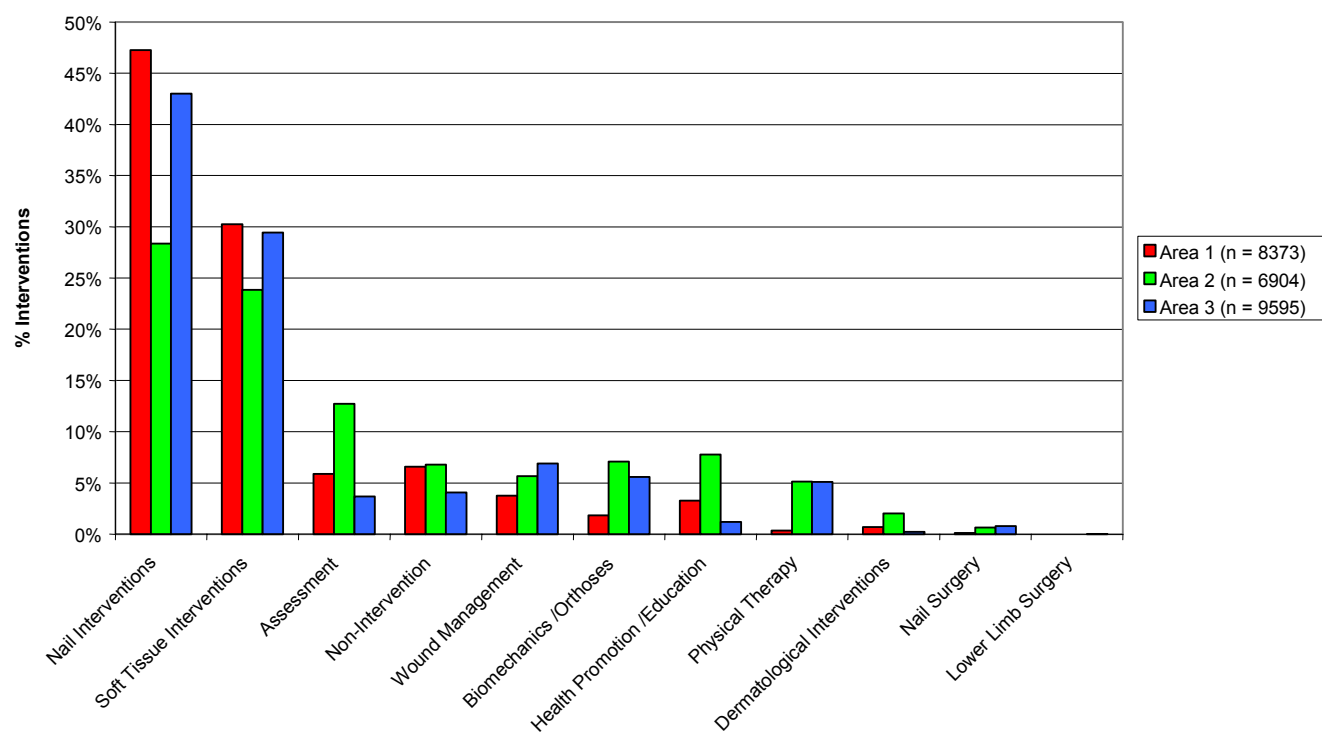
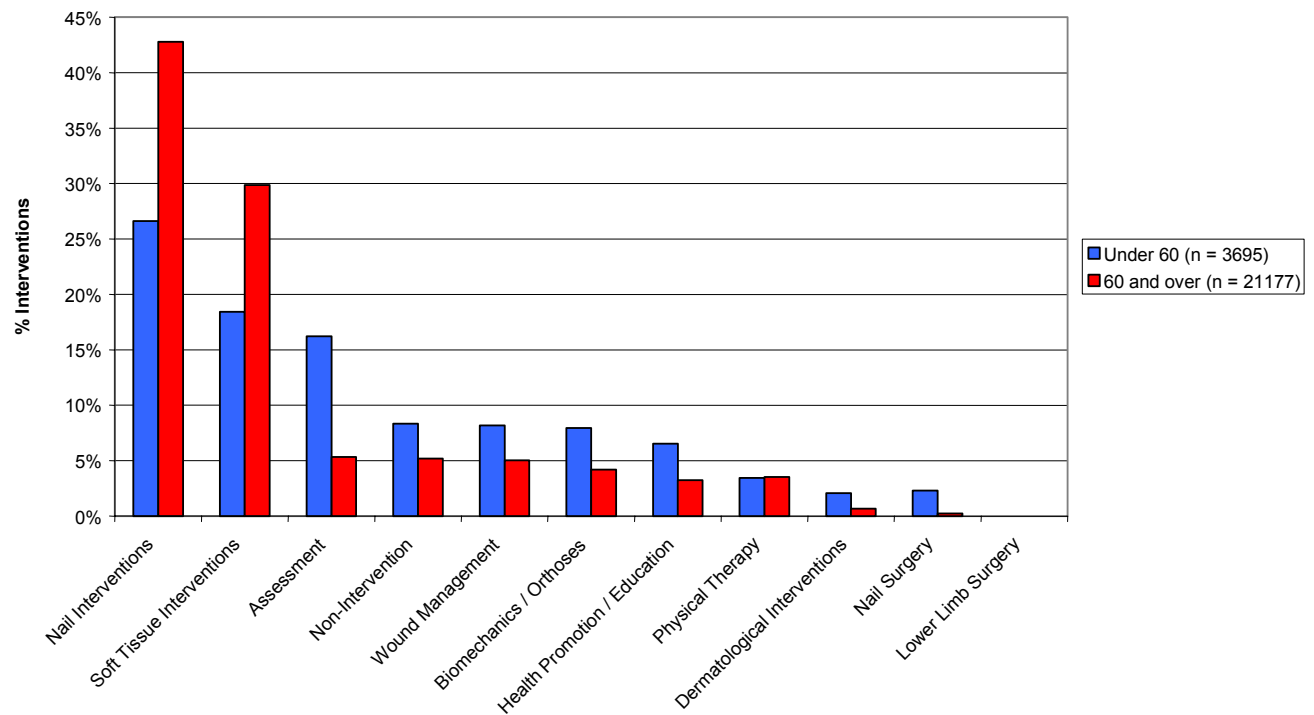


Chart 12 details the distribution of interventions by area. The most common intervention that the podiatrist carried out was a nail intervention, which made up almost one third of all interventions. Soft tissue interventions was the second highest, also accounting for approximately one third of all problems. Non-interventions, which were predominantly people who did not attend (DNAs) accounted for around 5% of interventions, although strictly speaking they are not an intervention as such. Analysis of interventions in patients over and under 60 years old showed that only two interventions; nail interventions and soft tissue interventions were more common in the over 60s. All other interventions were carried out more on patients under, rather than over 60 years of age.

Chart 14 perhaps best describes the work of the podiatrists who participated in the extended pilot, as it links the podiatry specific problems that the patients presented with, to the intervention that the podiatrist carried out for the problem, known as the 'event'. As can be seen on Chart 14 in the next page, soft tissue pathologies/ interventions and nail pathologies/ interventions account for almost 2/3rds of what the podiatrists do when seeing patients.

Nail interventions for no podiatric pathology accounted for 8% of what the podiatrists do when seeing patients. Crucially, examination of associated problems/ risk factors for patient receiving a nail intervention for no podiatric pathology found that **99%** of these patients had at least one associated problem/ risk factor. Overall 78% of patients in chart 14 had at least one associated problem / risk factor. Further detail can be seen in the chart in appendix II, which highlights the input of podiatrists into the management of patients with associated problems/ risk factors such as diabetes.

Chart 13 - Interventions <60 and > or =60 for all areas combined



Event

Chart 14 - Combination of PSP with (>) intervention by area

| Combination of PSP (Care Pathway) Category and Intervention (Protocol) Category | Area 1 | % | Area 2 | % | Area 3 | % | Total | % |
|---|-------------|------------|-------------|------------|--------------|------------|--------------|------------|
| Soft Tissue Pathologies > Soft Tissue Interventions | 3151 | 33% | 2014 | 26% | 3226 | 28% | 8391 | 29% |
| Soft Tissue Pathologies > Physical Therapy | 13 | 0% | 324 | 4% | 492 | 4% | 829 | 3% |
| Soft Tissue Pathologies > Biomechanics / Orthoses | 62 | 1% | 416 | 5% | 66 | 1% | 544 | 2% |
| Soft Tissue Pathologies > Health Promotion / Education | 20 | 0% | 154 | 2% | 24 | 0% | 198 | 1% |
| Soft Tissue Pathologies > Dermatological Interventions | 2 | 0% | 136 | 2% | 4 | 0% | 142 | 0% |
| Soft Tissue Pathologies > Wound Management | 8 | 0% | 6 | 0% | 120 | 1% | 134 | 0% |
| Nail Pathologies > Nail Interventions | 2949 | 31% | 1887 | 25% | 2793 | 24% | 7629 | 27% |
| Nail Pathologies > Soft Tissue Interventions | 5 | 0% | 8 | 0% | 174 | 2% | 187 | 1% |
| Nail Pathologies > Health Promotion / Education | 11 | 0% | 105 | 1% | 24 | 0% | 140 | 0% |
| Nail Pathologies > Nail Surgery | 7 | 0% | 35 | 0% | 68 | 1% | 110 | 0% |
| Nail Pathologies > Wound Management | 22 | 0% | 9 | 0% | 75 | 1% | 106 | 0% |
| Exclude from analysis > Assessment | 80 | 1% | 888 | 12% | 197 | 2% | 1165 | 4% |
| Exclude from analysis > Non-Intervention | 393 | 4% | 320 | 4% | 382 | 3% | 1095 | 4% |
| Exclude from analysis > Nail Interventions | 142 | 1% | 29 | 0% | 560 | 5% | 731 | 3% |
| Exclude from analysis > Soft Tissue Interventions | 24 | 0% | 29 | 0% | 290 | 3% | 343 | 1% |
| Exclude from analysis > Biomechanics / Orthoses | 18 | 0% | 12 | 0% | 279 | 2% | 309 | 1% |
| Exclude from analysis > Health Promotion / Education | 141 | 1% | 106 | 1% | 38 | 0% | 285 | 1% |
| Exclude from analysis > Exclude from analysis | 170 | 2% | 31 | 0% | 50 | 0% | 251 | 1% |
| Exclude from analysis > Wound Management | 7 | 0% | 7 | 0% | 96 | 1% | 110 | 0% |
| No Podiatric Pathology > Nail Interventions | 1124 | 12% | 54 | 1% | 1034 | 9% | 2212 | 8% |
| No Podiatric Pathology > | 296 | 3% | 7 | 0% | 7 | 0% | 310 | 1% |
| No Podiatric Pathology > Non- | 125 | 1% | 108 | 1% | 2 | 0% | 235 | 1% |
| No Podiatric Pathology > Soft Tissue | 3 | 0% | 2 | 0% | 132 | 1% | 137 | 0% |
| Wounds > Wound Management | 275 | 3% | 375 | 5% | 411 | 4% | 1061 | 4% |
| Musculoskeletal / Gait disorders > Biomechanics / Orthoses | 67 | 1% | 60 | 1% | 220 | 2% | 347 | 1% |
| Musculoskeletal / Gait disorders > Assessment | 21 | 0% | 11 | 0% | 124 | 1% | 156 | 1% |
| Dermatological Problems > Health Promotion / Education | 64 | 1% | 196 | 3% | 31 | 0% | 291 | 1% |
| Dermatological Problems > Soft Tissue Interventions | 90 | 1% | 13 | 0% | 85 | 1% | 188 | 1% |
| All Others (n = 46) | 327 | 3% | 266 | 3% | 548 | 5% | 1141 | 4% |
| Total | 9617 | | 7608 | | 11552 | | 28777 | |

3. USEFULNESS OF DATA

Final comparative analysis was presented to the participating sites and steering group members at a meeting in Perth in May 2004. At this meeting participants were split into three groups and asked to consider the usefulness of the data presented to them. A summary of the discussions is detailed below:

1. How useful is the information that has been presented to you today, and during local presentations?
 - Very useful
 - It is designed for local collection with national data falling out of it
 - It reflects modernisation of the service
 - It is a joy to get any information!

2. Can you suggest ways that this information can be used?

At national level

 - Recruitment into profession e.g. number of university places required
 - Workload projection
 - Skill/mix specialists e.g. to identify need for additional enhanced care professionals
 - Obtain a baseline in order to track changes over time
 - Get global picture of what is happening in each area for redesign e.g. target resources for specialist clinics to meet any unmet need e.g. vascular disease.
 - Reflect patient problems and complexity of treatment/ risk category of patients with multiple associated problems

At local level

 - Evidence to support requests and examine what other podiatrists are doing
 - Will be good as a clinician to know who/ when patients are being seen
 - Can look at information by rural/ urban, referral types and by location

At individual patient level

 - Could look at information for a particular group of patients, and make a projection of requirements area wide
 - Audit/ research

3. What additional information would have to be collected/ available to make the data of more use?
 - Waiting times and outcome information
 - Rural/urban travel time
 - Would need a single system across Scotland for collecting data, with a local central place to store data
 - Number of discharges e.g. to self care or to carer/ family
 - Assessment of risk/ deterioration of patients condition

DISCUSSION

The results of the extended pilot have demonstrated that it is possible to classify podiatry activity using the proposed dataset and structure.

The data structure is compatible with requirements in that it highlights the input that podiatrists have into conditions such as diabetes and the complexity of patients presenting to the service. The data structure was able to provide high-level information on which to make comparisons between participating areas, whilst at the same time it could be adapted to meet local needs. The definitions and categories were demonstrated to be robust and reliable, evident from the fact that the extended pilot produced very few mapping issues. The majority of the mapping issues that did arise were in relation to the associated problem /risk factor categories, which could be avoided in future through use of a coding system such as Read or SNOMED CT.

Ad hoc comments from participants also suggested that the dataset could be further improved by revising the Health Promotion definition to make it clearer when the intervention of Health Promotion should and should not be recorded. During the pilot routine health promotion given during assessment and/or consultation was not recorded unless this is the only reason for contact. However, feedback from the podiatrists suggested that it is important for them to be able to record routine advice given to patients where appropriate.

All of the participants were able to collect the data across different locations for different patient groups, and crucially they were prepared to put in the time and effort required to ensure that the data was collected and recorded. This is significant because data collection into the standalone Access database was not without difficulties. Time and cost limitations in the design of the Access database used for data collection meant that some aspects of data collection were repetitive and cumbersome, and required duplication of effort. In addition, practicalities around data collection, such as backlog in data entry, difficulties accessing laptops and a lack of protected time meant that participants were often undertaking data entry outwith their normal working hours. However, despite these difficulties the dataset had face validity with the participants, and many of the issues arising from the pilot could be overcome through 'scaling up' the database, or implementation of the dataset/ data structure into existing podiatry systems.

Feedback from the participants indicated that the data presented to them very accurately reflected their activity and the complexity of the patients they see. Differences in the staff/skill mix means that the data generated from the pilot is not strictly comparable between the 3 areas. However, despite this a major benefit of this data collection is the scope it provides for generating information that can be used to redesign the service, track changes over time and generate patient summaries.

One of the original aims at the start of the project in March 2000 was to develop a podiatry dataset that would ultimately replace ISD (8). Since that time the Scottish Executive have launched the [National Clinical Dataset Development Programme](#), which has a remit to support clinicians in developing a set of interoperable national clinical datasets, to facilitate the implementation of integrated care records across NHS Scotland. The NCDDP will be collaborating with the [eCHIP AHP project](#) to

develop Programmes of Care for Podiatry, which will shape the future collection of national podiatry information. The data categories and mappings produced from the pilot have been incorporated into the development of care programmes, in addition to outcome and waiting time information. Outcome information was an area considered by the steering group, but unfortunately outwith the scope of this project. The eCHIP project and NCDDP will ensure that the dataset from this project is enhanced over time, thus ensuring the dataset effectively meets the needs of the service, individual podiatrists and the delivery of patient care.

CONCLUSION AND RECOMMENDATIONS

The existing national return for podiatry ISD (8) does not provide detailed clinical information on which to support direct patient care, as it does not capture the interventions undertaken by podiatrists, or the complexities of the patients that they treat.

Although the method of data collection used in the pilot was slightly repetitive and cumbersome, data collection was feasible over the 3-month period. Most of the data collection issues were connected to the practicalities of recording information into a standalone Access database, which could be overcome in future by integration into a computerised podiatry system that facilitates both data collection and direct patient care.

The pilot demonstrated that podiatrists working in a variety of different settings and locations could collect data. There were some difficulties in capturing information on patients seen in their own homes or in hospital wards as the patient's date of birth was not always easily accessible, and it wasn't practical to record data directly onto the laptop during consultation. Again, integration of the dataset into a computerised podiatry system containing patient details would ensure that this information could be easily obtained.

The definitions and mappings have been shown to be sufficiently robust for rollout, with very few mapping issues arising from the extended pilot. Some revisions to the existing categories were made at the end of the pilot to further improve the categories prior to analysis:

- The categories of Biomechanics and Orthoses, were combined to give one category of Biomechanics/Orthoses.
- The Electro Surgery category was moved as an intervention mapping to the Physical Therapy category.

In assessing the feasibility of rollout across Scotland, data collection onto stand-alone laptops would not facilitate the sharing of information. However, the dataset appears to be a robust and reliable way of describing the interventions undertaken, and problems presented to the podiatry service in the 3 pilot sites.

The incorporation of the dataset into the eCHIP Programmes of Care for Podiatry, using the appropriate terminology e.g. SNOMED CT with the addition of outcome and waiting times information will ensure that collection of national podiatry information will continue to evolve in order to meet the needs of podiatry services over time.

APPENDIX I

DATA CAPTURE SHEET

| | | | |
|---|--|---|--|
| Patient Name _____ | Patient DoB _____ | Date of Contact _____ | Podiatrist Assisted By: _____ |
| Associated Problems & Risk Factors - please tick as many as are relevant to provision of care for this patient | | | |
| Amputee <input type="checkbox"/> | Diabetes <input type="checkbox"/> | Other Connective Tissue Disorder <input type="checkbox"/> | Rheumatoid <input type="checkbox"/> |
| Cancer <input type="checkbox"/> | Mental Health <input type="checkbox"/> | Other Degenerative <input type="checkbox"/> | Stroke <input type="checkbox"/> |
| Cardiac Disease <input type="checkbox"/> | Mobility Problems <input type="checkbox"/> | Learning disabilities <input type="checkbox"/> | Vascular Disease <input type="checkbox"/> |
| Congenital Abnormality <input type="checkbox"/> | Neurological Disorder <input type="checkbox"/> | Post-surgical <input type="checkbox"/> | Other _____ <input type="checkbox"/> |
| | | | Location: Home <input type="checkbox"/> Clinic <input type="checkbox"/> Hospital Ward <input type="checkbox"/> Other _____ <input type="checkbox"/> |

| First Intervention | | Second Intervention | | Third Intervention | |
|---|---|---|---|---|---|
| Intervention | Podiatry Problem | Intervention | Podiatry Problem | Intervention | Podiatry Problem |
| Assessment <input type="checkbox"/> | Anhydrosis <input type="checkbox"/> | Assessment <input type="checkbox"/> | Anhydrosis <input type="checkbox"/> | Assessment <input type="checkbox"/> | Anhydrosis <input type="checkbox"/> |
| Biomechanics <input type="checkbox"/> | Bleeding Point <input type="checkbox"/> | Biomechanics <input type="checkbox"/> | Bleeding Point <input type="checkbox"/> | Biomechanics <input type="checkbox"/> | Bleeding Point <input type="checkbox"/> |
| Dermatological Interventions <input type="checkbox"/> | Callus <input type="checkbox"/> | Dermatological Interventions <input type="checkbox"/> | Callus <input type="checkbox"/> | Dermatological Interventions <input type="checkbox"/> | Callus <input type="checkbox"/> |
| Electro Surgery <input type="checkbox"/> | Dry Skin <input type="checkbox"/> | Electro Surgery <input type="checkbox"/> | Dry Skin <input type="checkbox"/> | Electro Surgery <input type="checkbox"/> | Dry Skin <input type="checkbox"/> |
| Health Promotion / Education <input type="checkbox"/> | Helloma Dura <input type="checkbox"/> | Health Promotion / Education <input type="checkbox"/> | Helloma Dura <input type="checkbox"/> | Health Promotion / Education <input type="checkbox"/> | Helloma Dura <input type="checkbox"/> |
| Lower Limb Surgery <input type="checkbox"/> | Helloma Millane <input type="checkbox"/> | Lower Limb Surgery <input type="checkbox"/> | Helloma Millane <input type="checkbox"/> | Lower Limb Surgery <input type="checkbox"/> | Helloma Millane <input type="checkbox"/> |
| Nail Interventions <input type="checkbox"/> | Helloma Molle <input type="checkbox"/> | Nail Interventions <input type="checkbox"/> | Helloma Molle <input type="checkbox"/> | Nail Interventions <input type="checkbox"/> | Helloma Molle <input type="checkbox"/> |
| Nail Surgery <input type="checkbox"/> | Inappropriate footwear <input type="checkbox"/> | Nail Surgery <input type="checkbox"/> | Inappropriate footwear <input type="checkbox"/> | Nail Surgery <input type="checkbox"/> | Inappropriate footwear <input type="checkbox"/> |
| Non-intervention <input type="checkbox"/> | Ingrowing Toenail <input type="checkbox"/> | Non-intervention <input type="checkbox"/> | Ingrowing Toenail <input type="checkbox"/> | Non-intervention <input type="checkbox"/> | Ingrowing Toenail <input type="checkbox"/> |
| Orthotics <input type="checkbox"/> | Involution <input type="checkbox"/> | Orthotics <input type="checkbox"/> | Involution <input type="checkbox"/> | Orthotics <input type="checkbox"/> | Involution <input type="checkbox"/> |
| Physical Therapy <input type="checkbox"/> | Mycotic Nail <input type="checkbox"/> | Physical Therapy <input type="checkbox"/> | Mycotic Nail <input type="checkbox"/> | Physical Therapy <input type="checkbox"/> | Mycotic Nail <input type="checkbox"/> |
| Soft Tissue Interventions <input type="checkbox"/> | Nail pathologies <input type="checkbox"/> | Soft Tissue Interventions <input type="checkbox"/> | Nail pathologies <input type="checkbox"/> | Soft Tissue Interventions <input type="checkbox"/> | Nail pathologies <input type="checkbox"/> |
| Wound Management <input type="checkbox"/> | Onychauxis <input type="checkbox"/> | Wound Management <input type="checkbox"/> | Onychauxis <input type="checkbox"/> | Wound Management <input type="checkbox"/> | Onychauxis <input type="checkbox"/> |
| Other _____ <input type="checkbox"/> | Onychocryptosis <input type="checkbox"/> | Other _____ <input type="checkbox"/> | Onychocryptosis <input type="checkbox"/> | Other _____ <input type="checkbox"/> | Onychocryptosis <input type="checkbox"/> |
| | Onychomycosis <input type="checkbox"/> | | Onychomycosis <input type="checkbox"/> | | Onychomycosis <input type="checkbox"/> |
| | Onychophosis <input type="checkbox"/> | | Onychophosis <input type="checkbox"/> | | Onychophosis <input type="checkbox"/> |
| | Subunginal <input type="checkbox"/> | | Subunginal <input type="checkbox"/> | | Subunginal <input type="checkbox"/> |
| | Subungual Corn <input type="checkbox"/> | | Subungual Corn <input type="checkbox"/> | | Subungual Corn <input type="checkbox"/> |
| | Thick Nails <input type="checkbox"/> | | Thick Nails <input type="checkbox"/> | | Thick Nails <input type="checkbox"/> |
| | Ulceration <input type="checkbox"/> | | Ulceration <input type="checkbox"/> | | Ulceration <input type="checkbox"/> |
| | Other _____ <input type="checkbox"/> | | Other _____ <input type="checkbox"/> | | Other _____ <input type="checkbox"/> |

APPENDIX II

PSPS AND INTERVENTIONS WHERE THE PATIENT HAS NO ASSOCIATED PROBLEM/ RISK FACTORS

| Combination of PSP (Care Pathway) Category and Intervention (Protocol) Category | Area 1 | % | Area 2 | % | Area 3 | % | Total | % |
|---|-------------|---------------|------------|--------------|-------------|---------------|-------------|---------------|
| Soft Tissue Pathologies > Soft Tissue Interventions | 616 | 6.41% | 130 | 1.71% | 455 | 3.94% | 1201 | 4.17% |
| Soft Tissue Pathologies > Physical Therapy | 4 | 0.04% | 25 | 0.33% | 85 | 0.74% | 114 | 0.40% |
| Soft Tissue Pathologies > Biomechanics / Orthoses | 12 | 0.12% | 35 | 0.46% | 25 | 0.22% | 72 | 0.25% |
| Soft Tissue Pathologies > Dermatological Interventions | 1 | 0.01% | 28 | 0.37% | 1 | 0.01% | 30 | 0.10% |
| Soft Tissue Pathologies > Assessment | 7 | 0.07% | | | 10 | 0.09% | 17 | 0.06% |
| Soft Tissue Pathologies > Health Promotion / Education | 5 | 0.05% | 3 | 0.04% | 8 | 0.07% | 16 | 0.06% |
| Soft Tissue Pathologies > Wound Management | 3 | 0.03% | | | 12 | 0.10% | 15 | 0.05% |
| Soft Tissue Pathologies > Nail Interventions | 3 | 0.03% | 4 | 0.05% | 5 | 0.04% | 12 | 0.04% |
| Soft Tissue Pathologies > Non-Intervention | 1 | 0.01% | 5 | 0.07% | | | 6 | 0.02% |
| Soft Tissue Pathologies > Nail Surgery | | | | | 1 | 0.01% | 1 | 0.00% |
| Nail Pathologies > Nail Interventions | 428 | 4.45% | 73 | 0.96% | 295 | 2.55% | 796 | 2.77% |
| Nail Pathologies > Nail Surgery | 2 | 0.02% | 12 | 0.16% | 40 | 0.35% | 54 | 0.19% |
| Nail Pathologies > Soft Tissue Interventions | | | | | 43 | 0.37% | 43 | 0.15% |
| Nail Pathologies > Wound Management | 4 | 0.04% | 2 | 0.03% | 25 | 0.22% | 31 | 0.11% |
| Nail Pathologies > Assessment | 5 | 0.05% | 7 | 0.09% | 13 | 0.11% | 25 | 0.09% |
| Nail Pathologies > Health Promotion / Education | 3 | 0.03% | 7 | 0.09% | 9 | 0.08% | 19 | 0.07% |
| Nail Pathologies > Physical Therapy | 1 | 0.01% | | | 18 | 0.16% | 19 | 0.07% |
| Nail Pathologies > Non-Intervention | 1 | 0.01% | 15 | 0.20% | 1 | 0.01% | 17 | 0.06% |
| Nail Pathologies > Biomechanics / Orthoses | | | | | 1 | 0.01% | 1 | 0.00% |
| Nail Pathologies > Dermatological Interventions | | | | | 1 | 0.01% | 1 | 0.00% |
| No Podiatry Problem > Nail Interventions | 142 | 1.48% | 5 | 0.07% | 124 | 1.07% | 271 | 0.94% |
| No Podiatry Problem > Soft Tissue Interventions | 1 | 0.01% | | | 30 | 0.26% | 31 | 0.11% |
| No Podiatry Problem > Non-Intervention | 7 | 0.07% | 23 | 0.30% | | | 30 | 0.10% |
| No Podiatry Problem > Physical Therapy | | | | | 19 | 0.16% | 19 | 0.07% |
| No Podiatry Problem > Assessment | 3 | 0.03% | 2 | 0.03% | 2 | 0.02% | 7 | 0.02% |
| No Podiatry Problem > Health Promotion / Education | 3 | 0.03% | | | 1 | 0.01% | 4 | 0.01% |
| No Podiatry Problem > Wound Management | | | | | 4 | 0.03% | 4 | 0.01% |
| No Podiatry Problem > Biomechanics / Orthoses | 2 | 0.02% | | | 1 | 0.01% | 3 | 0.01% |
| Musculoskeletal / Gait disorders > Biomechanics / Orthoses | 29 | 0.30% | 21 | 0.28% | 112 | 0.97% | 162 | 0.56% |
| Musculoskeletal / Gait disorders > Assessment | 13 | 0.14% | 5 | 0.07% | 86 | 0.74% | 104 | 0.36% |
| Musculoskeletal / Gait disorders > Physical Therapy | 2 | 0.02% | 3 | 0.04% | 27 | 0.23% | 32 | 0.11% |
| Musculoskeletal / Gait disorders > Health Promotion / Education | | | 4 | 0.05% | 4 | 0.03% | 8 | 0.03% |
| Musculoskeletal / Gait disorders > Nail Interventions | 2 | 0.02% | | | 2 | 0.02% | 4 | 0.01% |
| Musculoskeletal / Gait disorders > Non-Intervention | 2 | 0.02% | | | | | 2 | 0.01% |
| Musculoskeletal / Gait disorders > Wound Management | | | | | 1 | 0.01% | 1 | 0.00% |
| Dermatological Problems > Dermatological Interventions | 19 | 0.20% | 13 | 0.17% | 7 | 0.06% | 39 | 0.14% |
| Dermatological Problems > Soft Tissue Interventions | 12 | 0.12% | 5 | 0.07% | 6 | 0.05% | 23 | 0.08% |
| Dermatological Problems > Health Promotion / Education | 8 | 0.08% | 8 | 0.11% | 4 | 0.03% | 20 | 0.07% |
| Dermatological Problems > Physical Therapy | | | 3 | 0.04% | | | 3 | 0.01% |
| Dermatological Problems > Assessment | 2 | 0.02% | | | | | 2 | 0.01% |
| Dermatological Problems > Biomechanics / Orthoses | | | | | 2 | 0.02% | 2 | 0.01% |
| Dermatological Problems > Wound Management | | | | | 1 | 0.01% | 1 | 0.00% |
| Wounds > Wound Management | 9 | 0.09% | 35 | 0.46% | 27 | 0.23% | 71 | 0.25% |
| Wounds > Physical Therapy | | | 3 | 0.04% | 2 | 0.02% | 5 | 0.02% |
| Wounds > Soft Tissue Interventions | 2 | 0.02% | 2 | 0.03% | | | 4 | 0.01% |
| Wounds > Nail Interventions | 2 | 0.02% | 1 | 0.01% | 1 | 0.01% | 3 | 0.01% |
| Wounds > Nail Surgery | | | 2 | 0.03% | | | 2 | 0.01% |
| Wounds > Assessment | | | 1 | 0.01% | | | 1 | 0.00% |
| Total | 1356 | 14.10% | 482 | 6.34% | 1510 | 13.07% | 3348 | 11.63% |

MAPPINGS AND DEFINITIONS DOCUMENT

LIST OF CATEGORIES

PROBLEM CATEGORIES

| <u>Associated Problem/ Risk Factor Categories</u> | <u>Podiatry Specific Problems</u> |
|---|--|
| 1. Amputee | 1. Musculoskeletal/ Gait disorders |
| 2. Blood borne | 2. Dermatological Problems |
| 3. Cancer | 3. Nail Pathologies |
| 4. Cardiac/ Cardiovascular Disease | 4. Soft-tissue Pathologies |
| 5. Congenital Abnormality | 5. Wounds |
| 6. Diabetes | 6. No podiatric pathology |
| 7. Learning disabilities | |
| 8. Mental Health | |
| 9. Mobility/ Musculoskeletal Problems | |
| 10. Neurological Disorders | |
| 11. Other Connective Tissue/ Other degenerative disorders | |
| 12. Post-Surgical | |
| 13. Respiratory | |
| 14. Rheumatoid | |
| 15. Social problems e.g. homeless | |
| 16. Stroke | |
| 17. Vascular Disease | |

INTERVENTION CATEGORIES

| |
|---|
| 1. Assessment |
| 2. Health Promotion/Education |
| 3. Biomechanics/ Orthoses |
| 4. Dermatological Interventions |
| 5. Soft Tissue Interventions |
| 6. Nail Interventions |
| 7. Wound Management |
| 8. Nail Surgery |
| 9. Local anaesthetic |
| 10. Lower Limb Surgery |
| 11. Physical Therapy |
| 12. Non intervention |

ASSOCIATED PROBLEMS/ RISK FACTORS CATEGORIES

Associated Problems/ Risk Factors Category 1: **Amputee**

| | |
|---|----------------------------------|
| Definition | Removal of limb or part of limb. |
| <i>Mapping of specific associated problems/ risk factors to this category</i> | |
| Amputation | |

Associated Problems/ Risk Factors Category 2: **Blood-borne diseases**

| | |
|---|--|
| Definition | |
| <i>Mapping of specific associated problems/ risk factors to this category</i> | |
| | |
| | |

Associated Problems/ Risk Factors Category 3: **Cancer**

| | | |
|---|--|---------------------------|
| Definition | <p>“A range of over 200 diseases, with common features and distinct characteristics. Common features include the abnormality of cell multiplication and the ability to spread and invade different parts of the body”.</p> <p>Adapted from the National Policy Framework for Cancer (England / Wales), NHS Direct and Cancer Scenarios, ISD.</p> | |
| <i>Mapping of specific associated problems/ risk factors to this category</i> | | |
| Radiotherapy | | Radiotherapy/Chemotherapy |
| Chemotherapy | | Throat cancer |

Associated Problems/ Risk Factors Category 4: **Cardiac disease**

| | | |
|---|--|------------------------|
| Definition | <p>“Damage to the blood supply to the heart, leading to a variety of heart problems (angina, heart attack, heart failure)”.</p> <p>Adapted from ISD website site, and English / Welsh NHS National Service Framework for Coronary Heart Disease (March 2000)</p> | |
| <i>Mapping of specific associated problems/ risk factors to this category</i> | | |
| Angina | | Heart trouble |
| Cardiac | | Heart trouble/problems |

| | |
|---------------------|----------------------|
| Atrial fibrillation | Recent heart surgery |
| Heart problems | MI |

Associated Problems/ Risk Factors Category 5: Congenital abnormality

| | |
|-------------------|---|
| Definition | Conditions that have been present (although not necessarily apparent) since birth |
|-------------------|---|

| | |
|---|--|
| <i>Mapping of specific associated problems/ risk factors to this category</i> | |
| | |
| | |

Associated Problems/ Risk Factors Category 6: Diabetes

| | |
|-------------------|--|
| <i>Definition</i> | <p>“A metabolic disorder, which occurs when there is a shortage and/or an inability to respond to insulin. The disorder produces a chronic and progressive disease due to damage to the body’s small blood vessels”</p> <p>Adapted from the Scottish Diabetes Framework April 2002, Scottish Executive (p12,13).</p> |
|-------------------|--|

| | |
|---|--------------------|
| <i>Mapping of specific associated problems/ risk factors to this category</i> | |
| Glaucoma | Arthrosclerosis |
| Neuropathy | Ulceration |
| Renal complications | Necrosis/ gangrene |
| Microvascular disease | |

Associated Problems/ Risk Factors Category 7: Learning Disabilities

| | |
|-------------------|-----------------|
| Definition | Need definition |
|-------------------|-----------------|

| | |
|---|--|
| <i>Mapping of specific associated problems/ risk factors to this category</i> | |
| | |

Associated Problems/ Risk Factors Category 8: Mental Health

| | |
|-------------------|--|
| Definition | <p>“A change in an individual’s experience of thinking, feeling and/or disorders that excludes learning disability and personality disorder”.</p> <p>Adapted from MIND, ISD sites and the National Service Framework, England and Wales.</p> |
|-------------------|--|

| | |
|---|---------------|
| <i>Mapping of specific associated problems/ risk factors to this category</i> | |
| Dementia | Agraphobia |
| Alzheimers disease | Schizophrenia |
| Depression | Anxiety |

Associated Problems/ Risk Factors Category 9: Mobility problems

| | |
|-------------------|--|
| Definition | Disorders leading to restrictions in the ability to move around. |
|-------------------|--|

| | |
|---|--------------|
| <i>Mapping of specific associated problems/ risk factors to this category</i> | |
| Paralysis | Hip fracture |
| Hip and knee replacement | |

Associated Problems/ Risk Factors Category 10: Neurological Disorders

| | |
|-------------------|---|
| Definition | Disorders of the nervous system including the brain, spinal cord and all peripheral nerves, excluding any mental health problems. |
|-------------------|---|

| | |
|---|--------------------|
| <i>Mapping of specific associated problems/ risk factors to this category</i> | |
| Transient Ischaemic attacks | Multiple Sclerosis |
| Motor Neurone Disease | Polio |
| Traumatic spinal injury | Epilepsy |

Associated Problems/ Risk Factors Category 11: Other

| | |
|-------------------|--|
| <i>Definition</i> | Any other associated problem or risk factor not covered by the categories defined above. |
|-------------------|--|

| | |
|---|------------------|
| <i>Mapping of specific associated problems/ risk factors to this category</i> | |
| Gout | Vertigo |
| Obesity | Prostate problem |
| Frail | Deflection |
| COAD (Chronic Obstructive Airways Disease) | Prostate |
| COPD (Chronic Obstructive Pulmonary Disease) | Stomach problems |
| Hypothyroid | Thyroid |
| Hyperthyroid | Mis-shaped legs |

Associated Problems/ Risk Factors Category 12: Other connective tissue disorders

| | |
|-------------------|--|
| Definition | A group of diseases with the following common features: arthritis/ arthralgia, multi-system involvement, vasculitis and immunological abnormalities. |
|-------------------|--|

| | |
|---|----------------------|
| <i>Mapping of specific associated problems/ risk factors to this category</i> | |
| Osteoporosis | Psoratic arthropathy |
| Sore heels | Ulcerative colitis |
| Osteomyelitis | Frostbite to feet |

Associated Problems/ Risk Factors Category 13: Other degenerative

| | |
|-------------------|--|
| Definition | |
|-------------------|--|

| | |
|---|-----------|
| <i>Mapping of specific associated problems/ risk factors to this category</i> | |
| Osteoarthritis | Arthritis |

Associated Problems/ Risk Factors Category 14: Post-surgical

| | |
|-------------------|--|
| Definition | The period following a surgical operation. (If a time limit is required, it is usual to expect a 3 month time post-op until systems are relatively normal) |
|-------------------|--|

| | |
|---|------------------|
| <i>Mapping of specific associated problems/ risk factors to this category</i> | |
| HV replacement | Breast operation |
| Colon operation | Pelvis |
| Cyst on neck | Knee Replacement |
| Hip | Abdominal repair |

Associated Problems/ Risk Factors Category 15: Respiratory Diseases

| | |
|-------------------|--|
| Definition | |
|-------------------|--|

| | |
|---|--|
| <i>Mapping of specific associated problems/ risk factors to this category</i> | |
| | |
| | |

Associated Problems/ Risk Factors Category 16: Rheumatoid

| | |
|-------------------|--|
| Definition | An immune disorder of unknown cause, producing a common, |
|-------------------|--|

| | |
|--|--|
| | chronic, multi-system inflammatory disease affecting joints, with the potential to involve the lungs and other organs OR Medical disorders of the locomotor system, including arthritis, back pain and soft-tissue rheumatism. |
|--|--|

| | |
|---|--|
| <i>Mapping of specific associated problems/ risk factors to this category</i> | |
| Rheumatoid | |

Associated Problems/ Risk Factors Category 17: Roofless/Homeless

| | |
|-------------------|--|
| Definition | |
|-------------------|--|

| | |
|---|----------|
| <i>Mapping of specific associated problems/ risk factors to this category</i> | |
| Rough sleeper | Roofless |
| Homeless | |

Associated Problems/ Risk Factors Category 18: Stroke

| | |
|-------------------|---|
| Definition | <p>“Usually an acute medical emergency due to interruption of the oxygen supply to parts of the brain, resulting in a range of physical disabilities”.</p> <p>Adapted from English / Welsh National Service Framework for Older People (March 2001)</p> |
|-------------------|---|

| | |
|---|--|
| <i>Mapping of specific associated problems/ risk factors to this category</i> | |
| CVA | |

Associated Problems/ Risk Factors Category 19: Vascular disease

| | |
|-------------------|--|
| Definition | Abnormalities of the peripheral venous system leading to a variety of acute and chronic ischemic changes to end organs conditions including varicose veins and venous thromboses AND/OR abnormalities of the peripheral arterial system leading to a variety of acute and chronic (mainly lower limbs, but also the kidneys) |
|-------------------|--|

| | |
|---|-----------------------------|
| <i>Mapping of specific associated problems/ risk factors to this category</i> | |
| Oedema | Varicose eczema |
| Vascular ulcer | Peripheral vascular disease |
| Cellulitis | High Blood Pressure (HBP) |
| Septicaemia | DVT |

PODIATRY SPECIFIC PROBLEM CATEGORIES

Podiatry Specific Problem Category 1: **Musculoskeletal/ Gait disorders**

| | |
|-------------------|--|
| <i>Definition</i> | Any acquired or inherited structural pathology causing actual or potential health problems and anomalies of the walking cycle that require podiatry intervention to address the specific gait problem. |
|-------------------|--|

| |
|---|
| <i>Mapping of specific podiatry problems to this category</i> |
| Biomechanical problem |
| Back pain |
| Leg length discrepancy |
| Genu valgum |
| Knee pain |
| Medial tibial stress syndrome |
| Posterior tibial dysfunction |
| Achillies tendonitis |
| Ankle pain |
| Ankle equines |
| Heel spur |
| Heel pain |
| Abnormal structure / Foot deformity |
| Flat feet |
| Pes cavus |
| Dropped foot |
| Plantar fasciitis |
| Hyper mobility |
| mid-foot instability |
| Forefoot equinus |
| Metatarsalgia / Forefoot pain |
| Sesamoiditis |
| Neuromas / Pronation |
| Fibroma |
| Capsulitis / Muscuoskeletal inflammation |
| Atrophy of fibro fatty pads |
| HAV / Hallix abducto valgus (bunion) |
| Plantar digital neuritis |
| Claw toe |
| Overlying toes / Curling toe |
| Subluxed toe |

Podiatry Specific Problem Category 2: **Dermatological Problems**

| | |
|-------------------|---|
| <i>Definition</i> | Anything not mechanical in origin affecting the skin needing direct intervention for that problem |
|-------------------|---|

| |
|---|
| <i>Mapping of specific podiatry problems to this category</i> |
| Anhydrosis / Dry Skin / Psoriatic skin |
| Hyperhidrosis |
| Bromidrosis |
| Tinea pedis / Athletes foot / Fungal skin condition |
| Hyperkeratosis |
| Dermatitis / Allergic reaction / Skin irritation |
| Verruca / V/P |
| Psoriatic skin |

Podiatry Specific Problem Category 3: **Nail Pathologies**

| | |
|-------------------|--------------------------------------|
| <i>Definition</i> | Any anomaly affecting the nail plate |
|-------------------|--------------------------------------|

| |
|---|
| <i>Mapping of specific podiatry problems to this category</i> |
| Involution |
| Onychophosis / Infected onychophosis |
| Onychauxis / Thick nails / Rough nails / Club nails |
| Onychogryphosis |
| Spicula / Spur removal |
| Onychocryptosis / IGTN / O/C |
| Onycholysis (loose nails) / Loose nail |
| Previous TNA / Nail regrowth |
| Nail pathology / Dystrophic nails |
| Splinter haemorrhages under nail |
| Psoriatic nail |
| Mycotic nail |

Podiatry Specific Problem Category 4: **Soft Tissue Pathologies**

| | |
|-------------------|---|
| <i>Definition</i> | Any mechanically/ environmentally induced (not infective) anomaly affecting the soft tissue where the soft tissue is understood as the epidermis, dermis and anything arising there from. |
|-------------------|---|

| |
|---|
| <i>Mapping of specific podiatry problems to this category</i> |
| Callus / Plantar keratinous |
| Corn / Hard corn / Helloma Dura/ Subungal corn |
| Neurovascular corn |
| Soft corns / Helloma Molle / I/D lesion |

| |
|--|
| Corn under nail |
| Bruising / Soft tissue inflammation |
| Inflamed nail sulci |
| Subungal haematoma / Blisters |
| Chilblains (unbroken) |
| Bursitis |
| Cyst |
| Vulnerable tissue e.g. ulceration risk |
| Fissures/ Heel fissure |
| Bleeding point |

Podiatry Specific Problem Category 5: Wounds

| | |
|-------------------|--|
| <i>Definition</i> | A break in the epithelium (skin) including loss of epithelial tissue requiring an intervention to promote healing. |
|-------------------|--|

| | |
|---|--|
| <i>Mapping of specific podiatry problems to this category</i> | |
| Ulceration / Ulcer / Ulcer formation | |
| Subungal ulcer / Subungal breakdown / Nail – subungal ulcer / Subungal necrosis | |
| Septic toe / Infected wound / Septic corn | |
| Gangrene | |
| Abrasions | |
| Broken blister | |
| Pressure sore | |
| Burns | |
| Chilblains (broken) | |
| Hypergranulation infection / Hypergranulation | |
| Wound from nail surgery / Post-operative wound | |
| Foreign object | |

Podiatry Specific Problem Category 6: No podiatric pathology

| | |
|-------------------|---|
| <i>Definition</i> | Patients who are referred or present to the service with non-pathological problems. |
|-------------------|---|

| | |
|---|---------------------|
| <i>Mapping of specific podiatry problems to this category</i> | |
| Long nails (no pathology) | Unable to self care |
| Foot hygiene | |

INTERVENTION CATEGORIES

Intervention Category 1: **Assessment**

| | |
|-------------------|--|
| Definition | An assessment of patient needs in relation to the design and/or review of treatment plan where specific time may be allocated to undertake the task (does not include routine monitoring). |
|-------------------|--|

| |
|--|
| <i>Mapping of specific interventions to this category</i> |
| New Patient assessment |
| Return patient assessment / Yearly assessment |
| Diabetic assessment / Screening for diabetes |
| Biomechanical assessment / Biomechanical examination / Gait analysis |
| Paediatric assessment |
| Community rehabilitation assessment / Mainstream podiatry assessment |
| Risk assessment (of patient's risk factor) |
| No vascular, no neuropathy |
| Vascular, no neuropathy |
| Vascular and neuropathy |
| No vascular, neuropathy |
| Intensive care at home service (ICAS) assessment |
| Single shared assessment |
| Nail surgery assessment |
| Wound assessment |

Intervention Category 2: **Health Promotion / Education**

| | |
|-------------------|--|
| Definition | Provision of health education material (does not include routine advice given during assessment and/or consultation – unless this is the only reason for contact). |
|-------------------|--|

| |
|---|
| <i>Mapping of specific interventions to this category</i> |
| Smoking advice – no other intervention / Self care advice – no other intervention / General maintenance advice – no other intervention / Advice given – no other intervention / Advice only |
| Footwear advice - no other intervention / Footwear advice |
| Disease specific advice – no other intervention |
| Advice emollient / Advice – dermatological / Astringents, mycosis, verrucae self care (all Highland) |
| Verrucae self care |
| Nail surgery advice – no other intervention |
| Provide written materials |

Intervention Category 3: **Biomechanics/ Orthoses**

| | |
|-------------------|--|
| <i>Definition</i> | Application of biomechanical principles in the prescription of orthotic device to correct/accommodate foot, and/or give advice as required. Production and/or provision/fitting/modification of an orthotic appliance/device to correct/accommodate the identified pathology. Review once orthotic device has been fitted. |
|-------------------|--|

| | |
|--|--|
| <i>Mapping of specific interventions to this category</i> | |
| Orthotic review | |
| Prescribe orthotics / Orthoses / Prescription of insole | |
| Fit chair side device / Chair side orthotics | |
| Silicone prop. Made / Silicone therapy / Silicone appliance | |
| Cast taken, orthotic casting / Manufacture of casted device / Orthotic, non-casted | |
| Manufacture of non casted device | |
| Appliance/ orthotic | |
| Biomechanics | |
| Orthotic fitting | |

Intervention Category 4: **Dermatological Interventions**

| | |
|-------------------|--|
| <i>Definition</i> | Non-mechanical treatment of a skin pathology (including caustic therapy following reduction) |
|-------------------|--|

| | |
|--|--|
| <i>Mapping of specific interventions to this category</i> | |
| Apply emollient / Emollient rub / Emollients / Application E45 | |
| Astringents | |
| Marigold therapy / Caustic therapy / Chemical application – silver nitrate | |
| Nail and skin samples for analysis | |

Intervention Category 5: **Soft-Tissue Interventions**

| | |
|-------------------|--|
| <i>Definition</i> | Mechanical debridement of a skin pathology |
|-------------------|--|

| | |
|--|--|
| <i>Mapping of specific interventions to this category</i> | |
| Callus reduction / Reduction of skin / Reduction of lesions / Planter reduction / Callus, corn reduction / Reduction / Debridement (Highland only) | |
| Corn enucleation / Reduce and enucleate corns / Reduce corns / Enucleation | |
| Soft corn reduced | |
| Corn reduction (vascular) | |
| Fissure reduction | |
| I/D Fissure | |
| V/P reduction only / Verrucae reduction only (no therapy) | |
| Curettage | |

Intervention Category 6: **Nail Interventions**

| | |
|-------------------|---|
| <i>Definition</i> | Non-surgical treatment of nail pathology OR mechanical treatment of nails which could be carried out by an assistant non-podiatrist |
|-------------------|---|

| | |
|--|--|
| <i>Mapping of specific interventions to this category</i> | |
| Cut nails / Nail care / Cut and clean nails / Nail treatment (nails cut, filed, cleared and drilled) / Clear nails / Cut and clear nails / Simple nail cut / Nail cuts | |
| Drilling nails / Reduce nails | |
| Spicula removed | |
| Pack nails / Packing and chamois / Cotton wool pack | |
| Clear debris from nail | |
| Reduce corns under nails | |
| Nail samples | |
| Brace nails | |

Intervention Category 7: **Wound management**

| | |
|-------------------|---|
| <i>Definition</i> | Any kind of break in the integrity of skin requiring intervention to promote healing. |
|-------------------|---|

| | |
|---|--|
| <i>Mapping of specific interventions to this category</i> | |
| Wound management | |
| Take swab / Dressing | |
| Ulcer debridement / Debridement | |
| Removal of foreign body / Glass removal | |
| Application of dressing / Dressing regimes / Ulcer, dressing / Sterile dressing / Dressing change | |
| Post nail surgery dressing / Nail dressing | |
| Pressure relief | |
| Septic Ulcer | |
| Prescribe medication (when authorised to do so – assume antibiotics for wound) | |

Intervention Category 8: **Nail Surgery**

| | |
|-------------------|---|
| <i>Definition</i> | Removal of part or all of a nail with or without phenolisation of the nail bed. |
|-------------------|---|

| | |
|---|--|
| <i>Mapping of specific interventions to this category</i> | |
| Nail surgery | |
| Partial Nail Avulsion | |
| Total Nail Avulsion | |
| Phenolisation | |
| Flushed 70% IPA | |

Intervention Category 9: **Local anaesthetic**

| | |
|-------------------|--|
| <i>Definition</i> | The administration by injection of specific medicines for the purpose of local analgesia |
|-------------------|--|

| | |
|---|------------|
| <i>Mapping of specific interventions to this category</i> | |
| Local anaesthetic | L/A |

Intervention Category 10: **Lower Limb Surgery**

| | |
|-------------------|---|
| Definition | Invasive surgery (does not include nail surgery). |
|-------------------|---|

| | |
|---|-------------------|
| <i>Mapping of specific interventions to this category</i> | |
| Ambulatory foot surgery | Podiatric surgery |

Intervention Category 11: **Physical Therapy**

| | |
|-------------------|--|
| Definition | A variety of treatment modalities for the purpose of pain relief, improvement and/ or maintenance of tissue viability and/ or foot function. |
|-------------------|--|

| | |
|---|--|
| <i>Mapping of specific interventions to this category</i> | |
| Strapping / Padding – adhesive / Padding and strapping / Protective padding | |
| Replaceable pads / Padding provided | |
| Strapping – therapeutic | |
| Electro therapy / Electro surgery | |
| TENS machine | |
| Ultrasound | |
| Cryotherapy | |
| Laser therapy | |
| Acupuncture | |
| Exercise regime | |
| Wax bath | |

Intervention Category 12: **Non-intervention**

| | |
|-------------------|--|
| <i>Definition</i> | When there is no treatment or activity carried out on, or for, a patient. This could mean a patient has refused treatment, failed to attend/or that the appointment has been cancelled (by either the patient or the service). |
|-------------------|--|

| |
|--|
| <i>Mapping of specific interventions to this category</i> |
| Died |
| Cancelled / Cancelled by patient |
| Cancelled by department |
| DNA (Did not attend) / CNA (could not attend) / FTA (Failed to Attend) |
| Declined to wait |
| Failed – patient unwell / Failed – in hospital |
| Failed – no access |
| Failed transport – patient not collected |
| Refused treatment |
| Discharge |
| Hospital discharge |

APPENDIX IV

EVALUATION FORM (WEEK 2)

SECTION 1 - TRAINING AND SUPPORT

How well did the training meet the objective of:

Giving you a clear understanding of the background to the pilot? (please tick the appropriate box)

Very well

Well

Not that well

Not at all

Enabling you to capture data in line with Information for podiatry guidelines? (please tick the appropriate box)

Very well

Well

Not that well

Not at all

Did you feel more time should have been spent covering any particular area? (please tick appropriate box)

Yes

No

If yes, please comment below:

Was there anything that was missing from the training session? (please tick appropriate box)

| | |
|-----|--------------------------|
| Yes | <input type="checkbox"/> |
| No | <input type="checkbox"/> |

If yes, please comment below:

Overall, did you find the training session to be worthwhile? (please tick appropriate box)

| | |
|--------------|--------------------------|
| Very much so | <input type="checkbox"/> |
| Yes | <input type="checkbox"/> |
| Partially | <input type="checkbox"/> |
| No | <input type="checkbox"/> |
| Not at all | <input type="checkbox"/> |

Please feel free to add any further comments you may have about the training session:

SECTION 2 - DATA CAPTURE

Were you clear about what data you were meant to capture?

| | |
|--------------|--------------------------|
| Very much so | <input type="checkbox"/> |
| Yes | <input type="checkbox"/> |
| Partially | <input type="checkbox"/> |
| No | <input type="checkbox"/> |
| Not at all | <input type="checkbox"/> |

How do you capture the data?

I record it on data capture sheets I enter it directly into the database

I do both (record on paper and then into database)

If you started doing it one way then switched e.g. started on paper, then decided to enter directly yourself, please explain why, and which method you preferred:

In practical terms, was capturing this data?

Easy

Okay

Difficult

What, if anything, could be done to make it easier?

How did you find capturing the information?

Patient details:

| | |
|-----------------|--------------------------|
| Very easy | <input type="checkbox"/> |
| Quite easy | <input type="checkbox"/> |
| Not too bad | <input type="checkbox"/> |
| Quite difficult | <input type="checkbox"/> |
| Very hard | <input type="checkbox"/> |

Any comments:

Clinical information (i.e. interventions/problems)

| | |
|-----------------|--------------------------|
| Very easy | <input type="checkbox"/> |
| Quite easy | <input type="checkbox"/> |
| Not too bad | <input type="checkbox"/> |
| Quite difficult | <input type="checkbox"/> |
| Very hard | <input type="checkbox"/> |

Any comments:

Was it easier to record data in one location, compared to the other e.g. clinic vs. home?

Yes No

Please explain:

On the basis of your experience of the last few weeks, how often would you recommend the data capture sheet should be filled in?

| | |
|-----------------------|--------------------------|
| After each contact | <input type="checkbox"/> |
| Couple of times a day | <input type="checkbox"/> |
| End of each day | <input type="checkbox"/> |
| Once a week | <input type="checkbox"/> |

Have your feelings about data collection changed as the pilot has progressed?

Yes No

Please explain:

SECTION 3 - TIME COMMITMENTS

How time-consuming was it to capture this data?

Not at all

Moderately

Very

What is the total number of hours that you work during a normal working week?

How much time you would normally spend each week capturing data for the pilot (whether onto the capture sheet, or entering it directly into the database)?

Are there any ways that data collection could be made less time-consuming?

Yes No

If yes, please explain:

Did collecting the data raise any problems with data protection/ confidentiality?

Yes No

If yes, please explain:

Was the storage of the capture sheets problematic for you? e.g. where to keep them in the office, what to do with them when you went to a patient's house

Yes

No

If yes, please explain:

SECTION 4 - ENTERING DATA INTO THE ACCESS DATABASE

Complete this section only if you entered your data directly into the database. If you have never entered data directly into the database please go straight to the next section.

Were you clear about what data you had to enter onto the database?

Yes

No

If no, please explain:

In practical terms, was entering the data into the database

Very easy

Quite easy

Not too bad

Quite difficult

Very hard

| |
|--|
| |
| |
| |
| |
| |

SECTION 6 - NEXT STEPS

Would it be useful to collect any additional data?

Yes No

If yes, please comment.

Could anything be done to improve the:

Data capture sheet?

Yes No

If yes, please comment.

Access database that the information is entered into?

Yes No

If yes, please comment.

Data items e.g. interventions and podiatry problems?

Yes

No

If yes, please comment.

Please describe how would you feel about collecting this sort of data all the time?

On paper

On a computer with software designed specifically for the purpose

What would need to change to encourage you to do it all the time?

Short term (0-6 months)?

Medium term (6 months – 2 years)?

Long term (2 + years)?

On the basis of your experience so far do you think that collecting data in this way might have any benefits:

In the clinical process e.g. enhancing knowledge of the patient?

In providing an overview of what you do?

Thank you very much for taking the time to complete this questionnaire. Please return it in the reply paid envelope provided.

EVALUATION FORM (WEEK 10/11)

1. Did data collection get quicker as the pilot progressed?

Yes, was quicker Difference of _____ mins per contact

Was the same

No, got slower Difference of _____ mins per contact

Please explain why you feel this way:

2. Overall, how time-consuming do you feel it was to capture the data?

Not at all time consuming

Moderately time consuming

Very time consuming

Please explain why you feel this way:

3. Overall, do you feel that the time you have spent collecting the data has been worthwhile?

Yes

No

I'm unsure

Please explain why you feel this way:

4. In general, how have your feelings about data collection changed as the pilot has progressed?

No change

Changed for the better

Changed for the worse

Please explain why you feel this way:

Thank you very much for taking the time to complete this questionnaire.