Census held on 14 September 2005 to ascertain the magnitude, variety and diversity of AHPs’ caseloads.

**AHPs Do Count**

Relating findings from the AHP census to the AHP electronic community health information project (AHPeCHIP)

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Delivering for Health\(^1\) (Scottish Executive Health Department 2005) focuses on new ways of working and on an increasing emphasis on sustainable clinical teams. It headlines exciting new ways that Allied Health Professionals (AHPs), nurses and other healthcare professionals have in

- becoming the first point of contact for patients,
- providing faster access,
- achieving better outcomes
- delivering local services.

The Draft Framework for Rehabilitation\(^2\) (August 2006) highlights the need for patient information to be shared across sectors to improve clinical care. This requires sharing common terms, definitions and data standards that will allow different IT systems to exchange information.

The data standards and definitions developed as part of the National Clinical Dataset Development Programme (NCDDP) and tested within the September 2005 AHP census, strongly support the AHP Workload report (to be published by the Scottish Executive in September 2006). The use of these data standards by AHPs in their clinical recording to provide a summary of AHP activity will facilitate the development of modelling tools for workload and workforce.

This first national census of AHP activity, has provided a rich source of information about :-

- the numbers of cases being seen by AHPs;
- access to AHP services;
- the clinical conditions and the patients’ presenting problems;
- the different care objectives of patients seen by AHPs on census day (14th September 2005).

The response of AHPs in NHS Scotland to this exercise has been overwhelmingly positive in articulating the valuable service they deliver to patients. AHPs Do Count is the final major output from the AHP census and describes some of the clinical information analysed by colleagues within NHS NSS Information Services Division.

This service report focuses on how information derived from clinical recording can be used to consider population needs and to evaluate service impact. It fully reflects the diversity of the clinical services provided by AHPs and contributes to the debate around models of care and service delivery. It joins together the work streams from the eCHIP project and identifies areas for further development within the eHealth strategy. It brings to a close the AHP electronic Community Health Information Project (eCHIP) (2003 – 2006) which was a deliverable from Building on Success - Future Directions for Allied Health Professionals in Scotland\(^3\).

We now have AHP eHealth Leads working within the NHS Board eHealth structures, who will work with the recently established Nursing, Midwifery and AHP (NMAHP) eHealth Programme Board to set the direction for NMAHPs within the developing eHealth strategy. The outcomes from the AHP census will be fully incorporated into the eHealth agenda which will build a solid platform for future development.

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2 - [Moving from Care to Enablement: Framework for Rehabilitation (Scottish Executive, August 2006)](http://www.rehabilitationframework.scot.nhs.uk/Documents/reports/rehabilitationframeworkdraft.pdf#search=%22%20%22draft%20framework%20for%20rehabilitation%22%22)
AHPs Count – the key findings from the 2005 AHP Census

Background

A census (AHPs Count) of Allied Health Professionals in NHSScotland, commissioned by the Scottish Executive, was held on 14th September 2005. Its aim was to ascertain the magnitude, variety and diversity of AHPs’ caseload.

This was the first ever occasion on which there has been a Scotland-wide census of AHPs. It has provided a rich source of information about the numbers of cases being seen by AHPs; access to AHP services; the clinical conditions and the patient’s presenting problems; and the different care objectives of 70% of the patients seen by AHPs on census day.

A series of AHP Census reports has been published:

1. AHPs Count - Preliminary Results from the census (January 2006)
2. AHPs Count - Waiting for AHP services (July 2006)
3. AHPs Count - Developing clinical data to inform the service about the work of AHPs (September 2006)

These have identified the information agenda for AHPs that the service needs to address to ensure that the vision within Delivering for Health can be achieved. The census demonstrated that the majority of AHPs can:

• collect a summary clinical record about AHP activity that can be shared within health and social care and education services
• provide information for service planners about the need for AHPs in service delivery (from live data collected as part of the clinical care record)
• access IT at work
• provide information about waiting times to access AHP services (this varies by profession and is keenly related to workforce planning)
• describe the number of new patients, cases and care objectives of their caseload (which is more meaningful than the current central return (for hospital services) of new patients and contacts)

AHPs do count but they need to be more informed about and consistent in what they are counting.

2 - That is: arts therapists, chiropodists and podiatrists, dieticians, occupational therapists, orthoptists, orthotists, physiotherapists, prosthethists, radiographers, speech and language therapists.
5 - http://www.isdscotland.org/allied_health_professionals
1. Preliminary Results

A website was set up to allow census returns to be entered via the Internet. As a result almost three quarters of the returns were submitted electronically, either by the clinicians themselves, or by someone else on their behalf. This translates to a figure of 59% electronic submission for all AHPs who held a caseload.

5,955 clinicians completed the census. 217 service managers completed a second part of the census, most were also AHP clinicians. The service managers recorded a total headcount of 7,444 AHPs in Scotland who, at the census date, managed a caseload, thus the clinician’s returns covered 80% of all AHPs.

The combined reported caseload of all AHPs, based on clinicians who responded to the census, was 844,000, that is, for every six people in Scotland, on average one of them was an AHP case on census day. The average caseload per AHP on census day was 115 patients.

On census day a total of 56,997 patient contacts were recorded by clinicians who completed a return, that is, one patient contact on that day for every 89 people in Scotland.

58% of the patient contacts on census day were patients seen in hospital outpatient and day care clinics, health centres, schools, prisons, etc; 31% were hospital inpatients and 11% were seen in their current place of residence.

2. Waiting for Services

Across Scotland 94,308 people were on waiting lists to see AHPs, that is, on average, approximately 1 in every 50 people in Scotland was on an AHP waiting list. The average number of patients on any one AHP’s waiting list on census day was 12.

94% of patients could be expected to be offered an appointment which would result in them being seen within 18 weeks.

75% of patients could expect to be offered an appointment which would result in them being seen in less than:

- 10 weeks if they are to attend a clinic
- 6 weeks if they are to be seen at home
- 2 weeks if they are to be seen while an inpatient.

A list of 2,609 separate waiting lists were identified across all the AHP services from acute hospital specialist clinics to local community clinics in health centres, local authority premises and schools.

There were large variances between numbers on waiting lists within professions across Scotland suggesting a need for more consistent AHP waiting list management across NHS Scotland.

Introducing target waiting times would assist in promoting more consistency between services and benefit patients in understanding access times for AHP services.

3. Describing Clinical Cases

Clinicians were asked to describe up to 10 patient contacts, choosing them to represent the variety and diversity of their caseload. Some 40,000 patient contacts were described; these provided evidence for the use of the AHP Core Data Standards in clinical data recording systems and for the development of the Electronic Health Record in Scotland.

The census provides data to confirm that AHPs are involved at many phases of care as the patients’ needs and their health problems change as they move through their journey of care – for instance in prevention, screening, diagnosis, education, maximising potential, supplying or repairing equipment, and education.

95% of the 40,000 clinical cases were classified as having at least one of a Diagnosis or Aetiology, a Problem or a Procedure. Analysis of these cases confirms that health problems and issues can be coded using the International Classification of Functioning, Disability and Health (ICF), but that the aetiology / diagnosis of the problem should also be provided using ICD10 / OPCS4 codes. ICF has now been included in NCDDP data standards.
The National Clinical Dataset Development Programme (NCDDP) supports clinicians in developing interoperable national data standards in order to facilitate the implementation of integrated care records across NHS Scotland.

AHPs were asked to complete a number of fields all taken from the draft AHP NCDDP data dictionary. This allowed the fields to be tested to see whether they were meaningful to AHPs and could be completed.

The present national data collections schemes, which are used to quantify and describe AHP work, are hampered by inaccuracy and incomplete coverage and are thus limited in their utility.

The census found very little overlap in the words used to describe cases between professions. With the exceptions of Diabetes, Arthritis, Stroke, Fractures, Pain and Assessment, most of the top ten words are unique to a profession.

AHPs record in clinical notes, information about the patient’s presenting problem(s), the aetiology of the problem(s), the objective of care for the AHP involvement, the caseload status and the outcome of the spell of care. A minimum summary dataset that includes these data items can provide data to inform clinical governance and service planning processes.

Introducing new NCDDP data dictionaries with defined fields will make no difference unless they are accepted as useful by the professions and contribute to improvements in inpatient care through knowledge of what is being done, who is best suited to do it, where it is best carried out and how many staff are required to provide a good timeous service.

A minimum care episode summary dataset will provide information that can be used for:-

Caring
• identify who is responsible for and working with the patient and their problems.
• note the patient’s journey of care through the discipline specific aspect of care.
• provide structured base for developing fuller clinical record to support clinical decision making.

Sharing
• notify other professionals with an ongoing duty of care for the patient of progress. E.g. GP can see at a glance how a specific patient is progressing through Occupational Therapy.
• Inform one profession when another professions care episode is complete E.g. physiotherapy can automatically be notified when radiotherapy is completed.

Measuring
• caseloads within team both inter- and multidisciplinary.
• case complexity and resource use.
• access to services.

Comparing
• clinical service delivery models.
• capacity and demand across services.
• case mix, clinical outcomes and service delivery models.
• caseload management by service or team.
Introduction

Delivering for Health sets out the Executive’s priorities for NHS Scotland over the next decade. It presents a new vision for NHS Scotland, a vision based on:

- delivering care close to where people live
- offering people timely access to services
- promoting a strong emphasis on anticipatory care
- supporting patient self-management of long-term conditions.

Delivering for Health calls for:

- a fundamental shift in the way the NHS works, from an acute, hospital-driven service to one that is embedded within the community, is patient focused and is based on a philosophy which moves from ‘care’ to enablement and rehabilitation
- a focus on meeting the twin challenges of an ageing population and the rising incidence of long-term conditions
- a concentration on preventing ill-health and treating people faster and closer to home
- a determination to develop responses that are proactive, modern, safe and embedded in communities
- a mechanism to support health care professionals, patients and their carers to deliver sustainable, quality services
- an information agenda which supports direct (patient centred) clinical care
- service information extracted from electronic health records systems, as a by product of the record keeping process
- information available for management and clinical purposes, including quality indicators.

This series of 3 reports at http://www.isdscotland.org/allied_health_professionals

1. Preliminary Results from the census (January 2006)
2. Waiting for AHP services (July 2006)
3. Developing clinical data to inform the service about the work of AHPs (September 2006)

have identified the information agenda for AHPs which the service needs to address to ensure that the vision within Delivering for Health can be achieved. The results have demonstrated that the majority of AHPs can

- collect a summary clinical record about AHP activity that can be shared within health and social care and education services.
- provide information for service planners about the need for AHPs in service delivery (from live data collected as part of the clinical care record).
- access IT at work.
- provide information about waiting times to access AHP services (this varies by profession and is keenly related to workforce planning).
- describe the number of new patients, cases and care objectives of their caseload (which is more meaningful than the current central return (for hospital services) of new patients and contacts).

Appendix 1 contains a copy of the census form that AHPs were asked to complete. It is recognised that opportunities were missed to consider some of the specific questions about AHP activity in Care groups e.g children’s services, mental health, older people etc. Changes were made to the data standards during the consultation phase and the completed standards are now part of the national data dictionary (www.datadictionary.scot.nhs.uk). The census has demonstrated that AHPS do count but they need to be more informed and consistent in what they are counting. Good quality data can be collected, but it is the combined knowledge of clinicians and managers that will make it become useful information to facilitate benchmarking across acute services and Community Health Partnerships as part of clinical effectiveness programmes.
Information that supports direct (patient-centred) clinical care

**AHP Clinical Recording**

AHPs record primary clinical information to:

- provide care and demonstrate clinical reasoning processes (within professional recording standards)
- share information within and between disciplines, within care sectors and with patients
- compare techniques, audit effectiveness and aid clinical decision making.

To do this they must have access to patient demographic information and use Community Health Index (CHI) on all clinical information. There are challenges in NHS Board areas to ensure that AHPs, many of whom still work with a paper record, have access to demographic labels with CHI included. The increasing self-referral systems that ensure faster access to AHP services in the community mean that all initial contact reception desks require to have a demographic look-up and labelling facility.

**Standardising Clinical Records**

To ensure that the clinical information can be distilled to good quality clinical data it must use definitions which are agreed and understood. For sharing and implementation in Electronic Health Records, the data must be collected in a nationally consistent way. Since December 2004 an AHP has been a member of the National Clinical Dataset Development Programme Team, working with AHPs throughout NHS Scotland to develop the AHP Core Data standards. These data standards define the data item, set the format and field length and provide the standard codes and values to be used within NHS Scotland and where applicable throughout the UK or Internationally.

The census successfully tested AHP core Data Standards and demonstrated that the standards could be recorded in the majority of cases described. To date only core data standards and AHP uni-professional datasets for care planning have been considered. Each profession will require support in ensuring that all the clinical data for each condition with which they are involved has data standards to enable recording in any Electronic Health Record. These systems must support professional needs for clinical analysis and decision-making as well as providing evidence for meeting standards of professional practice. This will require continued involvement with NCDDP and the AHP Practice Development Unit at NHS Quality Improvement Scotland both in uni-professional and multi-professional working groups.

National clinical interest groups e.g. hand therapists may be able to identify the recording data items required as an inter-disciplinary record and seek help from health records and information colleagues to turn these into data standards. As the data dictionary grows then the need for new data items will be reduced but expertise will still be required to review and update as clinical practice changes. AHP groups will require support to use the data dictionary. We need to ensure that learning and development materials on informatics are available to all clinicians and included in the undergraduate curriculum.

Health Records departments are already central to information, training and development of national standards but mainly in the hospital setting and in supporting a, now somewhat outdated, medical model. There is therefore the opportunity to build a much wider supporting structure that will help improve and maintain the quality of data being collected about the patient irrespective of where he/she is being seen and irrespective of who is seeing him/her.
Describing Cases

An AHP ‘case’ is defined as a patient for whom the AHP has a duty of care, which extends for the entire episode of care. Initial agreement of the AHP process of care (Diagram 1) was defined as part of the eCHIP project. This gave the core summary data items for which standards were developed and agreed. The AHP Census tested acceptability of these standards.

Diagram 1 - AHP Process of Care

Information for patients and care professionals

For patients and carers to be more involved in the management of their care, AHPs need to be more explicit about care plans and expected outcomes. As patients become more involved in self-managed care, services need to be clearer about how to access services and what the service can provide. Referral Guidelines and the use of screening tools all aim to get the patient to the right professional at the right time. From the AHP Census it has become clear that AHP services lack consistency in providing standard information.

Sharing of information with referrers, other team members and other services is one of the key benefits of using electronic records. The summary AHP Core Dataset (see Appendix 2) provides information about the involvement of AHPs with patients, for example:

- Notifies others with a duty of care to that patient how they are progressing through the service. E.g. GP can see at a glance how a specific patient is progressing through Occupational Therapy
- Can automatically inform one profession when another profession’s care episode is complete. E.g. physiotherapy can automatically be notified when radiotherapy is completed.
Referrals

To enable appropriate clinical decisions to be made about how the service can meet patients’ needs, appropriate referral information must be provided. Referrals to AHP services will come from a variety of health, education and social care providers as well as self-referral. The development of electronic referral protocols for SCI Gateway will ensure explicit referral information is provided to services. Clear guidance about what services can provide will deliver realistic expectations about patient benefit.

Anticipated waiting times for accessing AHP services must be made explicit. Managers within NHS Boards should ensure that AHP departments collect waiting times information applying the principles set out by the New Ways of Measuring and Defining Waiting Times for inpatients, outpatients and day cases in consultant led services. Several NHS boards monitor their AHP waiting times even though there are no national waiting times guarantees for AHP services. For comparison this must be done consistently throughout Scotland. Some professions have traditionally counted all continuing patients as new patients at the start of every year, others counted a patient as new if they had not been seen for six months. For any national reporting system rules must be systematically applied to every case. Diagram 2 demonstrates the interaction along the care journey of different datasets collected for different purposes.

Diagram - 2 AHP Data

Patient Journey and Phase of Care

Concentrating on the patient journey and the need for AHP involvement at different stages focuses care on patients’ need, not on service activity. This has been demonstrated through the introduction of the Additional Support for Learning Act, which has provided an explicit target of 10 weeks to deliver clinical reports to Local Authority Education Departments about children for whom they are considering opening a Co-ordinated Support Plan (CSP). AHP services need to know the level of involvement with the child and whether this meets the requirements of the Act for a CSP. The Caseload status data item was introduced to ensure consistency in describing case management across all AHP professions. Table 1 gives an extract for the data item ‘Caseload Status’ from the Data Dictionary. Following consultation this replaced the data item ‘Patient Journey Stage’.

6 - http://www.newways.scot.nhs.uk/
### Table 1 Formal Name: Caseload Status for AHPs

**Definition:** The management stage and frequency of input within the AHP's Duty of Care.

<table>
<thead>
<tr>
<th>Code</th>
<th>Value</th>
<th>Explanatory Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>New Referral</td>
<td>New Referral – on waiting list for 1st consultation</td>
</tr>
<tr>
<td>02</td>
<td>Known case</td>
<td>Inactive involvement, e.g. on waiting list for 1st appointment post triage (this is not a new referral)</td>
</tr>
<tr>
<td>03</td>
<td>Diagnosis / problem intervention</td>
<td>Currently being assessed or diagnosed</td>
</tr>
<tr>
<td>04</td>
<td>Current active intervention</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A</td>
<td>More than once per day</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>Daily</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>More than once per week</td>
</tr>
<tr>
<td></td>
<td>D</td>
<td>Weekly</td>
</tr>
<tr>
<td></td>
<td>E</td>
<td>Fortnightly</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>3 weekly</td>
</tr>
<tr>
<td></td>
<td>G</td>
<td>Weekly</td>
</tr>
<tr>
<td></td>
<td>H</td>
<td>Monthly</td>
</tr>
<tr>
<td></td>
<td>I</td>
<td>6 weekly</td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>2 monthly</td>
</tr>
<tr>
<td></td>
<td>K</td>
<td>Quarterly</td>
</tr>
<tr>
<td></td>
<td>L</td>
<td>6 monthly</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>Other</td>
</tr>
<tr>
<td>05</td>
<td>Review</td>
<td>An appointment to allow the health professional to evaluate progress of and/or intervene with a patient undertaking an autonomous programme of management, awaiting the effect of an intervention or needing to have a series of interventions to achieve the aims of the programme of care, e.g. formal assessment with intervention if required</td>
</tr>
<tr>
<td></td>
<td>A</td>
<td>Monthly</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>Quarterly</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>Annually</td>
</tr>
<tr>
<td></td>
<td>D</td>
<td>Other</td>
</tr>
<tr>
<td>06</td>
<td>Monitor as required</td>
<td>The process of determining the status of a patient in respect of the condition for which they are under a programme of care. Monitoring can be face to face or remote but does not necessarily imply intervention, e.g. observation, regulate, record or control.</td>
</tr>
<tr>
<td>07</td>
<td>On ‘discharge pending list’</td>
<td>This is a time-limited period where no active interventions are scheduled during which the patient has the right to initiate a return to active intervention. At the end of this period the patient will automatically be discharged.</td>
</tr>
<tr>
<td>08</td>
<td>Discharged</td>
<td>This links to Discharge Reason</td>
</tr>
<tr>
<td>98</td>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>

Delivering local services is a key policy within Delivering for Health. It is clear from the analysis of the clinical conditions that were recorded during the AHP Census that patients will sometimes be treated in different settings for the same condition. Service users and health and care commissioners need to understand the reasons for this and it is an area that requires further investigation. The responses to accessing AHP services suggested that 75% of patients could expect to be offered an appointment which would result in them being seen in less than 10 weeks if they are to attend a clinic; 6 weeks if they are to be seen at home; 2 weeks if they are to be seen while an inpatient. Implementing *Delivering for Health* will require more responsive services within the community as well as in acute hospitals. Waiting times should be dependent on clinical need not clinical setting.
Diagnosis, Health Problems and Issues (HPI)

The AHP census identified the main diagnosis and problems which patients presented to AHP services. Early in the eCHIP project it proved difficult to get consistency in use of language for the many diagnoses and health problems, which make up the clinical caseload. The analysis of the 40,000 clinical cases confirms that health problems and issues can be coded using the International Classification of Functioning, Disability and Health,(ICF) but that the diagnosis / aetiology of the problem should also be provided using ICD10 / OPCS4 codes.

The Objective of care identifies the reason for AHP involvement with the problem and what outcome the care plan will be targeted towards. It must be recognised that every professional group has a different objective for involvement with a patient and this may vary at different care phases. This has been very clearly demonstrated with the ICF classification of the Health Problem/Issue, (please see the accompanying report AHPs Do Count. Developing clinical data to inform the service about the work of AHPs) There is a rich tapestry of clinical models to meet patients’ needs from the bio-medical to bio-psychosocial. Some of the AHP professions will be involved with patients throughout their life’s journey; others will have a single short episode of involvement. Patients may present with two or more separate problems linked to the same a different cause at the same time. This leads to continuing episodes with different phases of care or co-morbidity with different episodes.

This can be demonstrated by looking at AHP involvement in different areas of the patient journey e.g. stroke pathway (diagram 3).

Diagram 3 - Stroke Pathway

Exercise
Healthy Eating

Prevention
Diagnosis
Intervention

"Living With"

Patient’s Health Issues/Problems

Orthoptics
Arts Therapists
Prosthetics & Orthotics
Speech and Language Therapy
Podiatry
Occupational Therapy
Physiotherapy
Radiography
Dietetics

CT Scan
Doppler Scan
Nutritional Support
Diet Advice
Interventions
The detail and range of interventions and treatments carried out by AHP services is vast. Between March 2000 and June 2004 the Podiatry Information Project was undertaken by ISD (in collaboration with The Society of Chiropodists and Podiatrists Scottish Faculty of Management Group). This detailed work identified:

- Interventions undertaken by podiatrists e.g. debridement
- Podiatry problems e.g. callus
- Associated problems/risk factors patients had e.g. diabetes.

Within specialty clinical areas of different professions it will be possible to describe (as the podiatrists have done) short pick-lists of common interventions. The interventions will need to be mapped for each profession and should be recorded as Snomed Clinical Terms. SNOMED-CT is a computerised, coded clinical terminology designed by clinicians. It is intended to set a new world standard for electronic clinical vocabulary. It is the result of a three year collaboration between the National Health Service and the College of American Pathologists (CAP) which amalgamated the NHS’s Clinical Terms Version 3 (Read Codes) and CAP’s SNOMED-Reference Terms to produce the new terminology. In due course, SNOMED-CT is planned to replace Read Codes as the preferred clinical terminology for the NHS. The Podiatry project did identify that different intervention synonyms due to different dialects throughout the country can all be mapped back to high-level problems for systematic reporting and analysis.

Outcome Analysis
As part of effective practice each phase of care should have an outcome. This has been defined as “the achievement of agreed goals in relation to the original objectives”. Within the current data standards it has been kept simple, but this area will be developed within Clinical Quality Indicators work as part of the NMAHP eHealth programme.

‘Fair to all, personal to each’ requires nothing less than that patients should be at the centre of a responsive healthcare delivery system with measurably improving outcomes. As clinical services develop there is need to identify both their responsiveness and how well they are making the lot of the patient better; the use of e-health records should make this possible while the consistency of standardisation makes it worthwhile. The census suggests that as far as AHPs are concerned the foundations are there.

Evidence-based and safe care
Clinical Effectiveness
Clinical effectiveness is a collaborative responsibility shared between individual practitioners, professionals, departmental managers and organisations. It can be defined as:

The right person (competence)
    doing
The right thing (evidence-based)
    in
The right way (skills and competence)
    at
The right time (for the patient)
    in
The right place (location)
    with
The right results (health gain)
Practice development

“Practice development is a continuous process of improvement designed to promote increased effectiveness in patient-centred care. It is brought about by enabling healthcare teams to develop their knowledge and skills and, in doing so, transform the culture and context of care. It is enabled and supported by facilitators who are committed to a systematic, rigorous and continuous process of change that will free practitioners to act in new ways that better reflect the perspectives of both service users and service providers”.

Whilst the concepts of Clinical Effectiveness and Practice Development may have different definitions, in essence, they are both about providing safe and effective care that is evidence-based and patient-focused.

The NHS QIS Allied Health Professions Clinical Effectiveness and Practice Development (AHPCEPD) network aims to:

- ensure best practice (including redesign) is recognised and shared across the country
- earn from ideas and experiences generated from local projects and innovation, and sharing these with national organisations and groups
- focus on key clinical topics to identify best practice and opportunities for improvement in patient care
- facilitate knowledge transfer across specialties, professions and organisations

The linkages between the eCHIP project and the AHPCEPD network has ensured that the data standards to deliver these aims are recognised by all clinicians involved in the Clinical Effectiveness and CPD network and that recording to facilitate clinical effectiveness is part of routine clinical practice.

The Allied Health Professions Research and Development Action Plan (SEHD 2004) identified that one of the first stages in enhancing research and research-led practice is through the incorporation of evidence-based practice into clinical practice. There is much excitement among AHP researchers in Scotland at the ability to extract comparative data to analyse health problems and activity which can inform future research work streams to benefit patient care. The historic lack of consistency in the use of clinical terms and recording of data items across all AHP professions has produced inconclusive results in clinical audit and benchmarking. Standardisation provides a framework for capturing information that is fit for use in benchmarking and audit activities among and across AHP professions, throughout Scotland and between care sectors.

The regulation of AHP professionals by the Health Professions Council (HPC) demands standards of conduct, performance and ethics. Standards relating to information that AHPs must keep are about Confidentiality, Communication, Clinical Supervision, Obtaining consent and Keeping accurate patient, client and user records. Analysis of clinical records for reflection, peer review and learning is a key activity of Continuing Professional Development. Structured standardised records will facilitate comparison and analysis and ensure greater consistency.
S
ervice Information, including quality indicators

The first report to be published as a result of the AHP Census: Preliminary Results from the Census showed the very substantial numbers of people in Scotland that formed the caseload of the AHP services (844,000). The second report Waiting for AHP Services identified that on census day there were 94,308 people waiting for AHP services. This suggests that AHP services provide challenges to NHS Scotland planning departments. The dearth of consistent information about these services in the past has made planning problematical. The AHP Workload Project found no consistent use of a workload tool in NHS Scotland in 2005. The use of standardised data, collected consistently across services is essential to provide meaningful workload analysis.

Workload measurement and management systems

A workload measurement and management system needs to be dynamic to respond to external influencing factors such as changing patterns of activity, changing patterns of work and flexible working arrangements, service redesign and professional role development.

Tools and approaches used for measuring and managing workload and to inform staffing requirements need to be valid, reliable and easy to use in terms of data collection. They need to:

- take account of activity and any back log or waiting that exists within the system
- include measures that can match capacity to demand (of varying types and degrees of urgency)
- take account of the capability of the workforce, the skills and competencies needed to deliver care
- take account of systems of monitoring the quality of care delivered.

Caseload

Caseload is one of the most common ways of dividing AHP demand and activity into manageable workloads for individuals and clinical teams.

The resources required for individual cases will be determined by the case need, the service capacity and the capability of the staff member.

Case complexity

Case complexity emerged as a significant variable in decision making about workload management within the AHP workload measurement / Workforce report (to be published by the SEHD September 2006). Case complexity is multi-dimensional and includes:

- consideration of co-morbidities
- social circumstances and emotional factors
- complexity of intervention(s)
- identification and management of clinical risk
- factors relating to complex decision-making
- severity / progression of disease.

The International Classification of Functional Disability and Health8 defines a standard language and framework for the description of health and health-related domains that helps to describe changes in body functions, structures, activities and participation, including environmental factors. It describes clearly the clinical components of case complexity. The caseload status (Table 1) determines the level of involvement/commitment to care required from each profession at each stage of the patient journey. It is expected that this work on case complexity will be further developed within the NMAHP eHealth agenda.

8 - International Classification of Functioning, Disability and Health. NHS Quality Improvement Scotland (NHS QIS 2006)
http://www3.who.int/icf/icftemplate.cfm
Service Capacity

To monitor capacity it is essential that patterns of throughput and turnover can be derived from clinical systems. In order to do this effectively the criteria for patient entry to and exit from services must be clearly defined by data standards. System design must reflect that new patients will have different contact types including individual face to face contacts, group contacts, telephone contacts and indirect contact through attending team meetings etc. The length of time on an individual caseload or length of time within the service informs throughput as well as the length of a session or appointment. This is an extreme variable between different professions reflecting the levels of ongoing involvement with people with chronic diseases.

Population Health

The focus of Community Health Partnerships on the health of their local population will raise questions about how services are being targeted. For example:-

“Are all Type 2 Diabetics known to Podiatry services in this CHP?”

“What percentage of new strokes has community Rehabilitation within the CHP?”

In the first report published from the AHP Census Preliminary Results from the Census Table 2 gave the total caseload by profession on census day which was expressed as a ratio of one case per six people in Scotland. Collection of the summary dataset by AHPs will ensure that service information about activity with specific care groups can be identified.

Throughout the eCHIP project some AHP professions have expressed concern that their work in Population Health cannot be measured using single patient records. The podiatry project (described under Diagnosis, Health Problems and Issues) demonstrated that health promotion and health education are routine interventions for most AHPs for all clinical cases. Within an electronic record this will be recorded as an intervention but further definition of population health Work Activity is a component of Workload and should be classified within workload analysis which will be considered by the Workload Implementation Project.

Demand Management

Many AHP services now provide screening services (by telephone or drop-in clinics) which, combined with referral protocols and centralised waiting lists, can provide ways of managing service demand and keeping waiting times to a minimum. There are examples of how IT scheduling systems have reduced waiting times and helped to target clinical sessions to areas of greater need, without any extra clinical resource requirement. AHP services need to review their waiting times management in line with guidance from the Centre for Change and Innovation. From the waiting time report of the census, 94% of ‘routine’ patients referred to AHP services could expect to be seen within 18 weeks of referral. Professional service standards may advocate that patients should be seen, for example, within 6 weeks of referral. Introducing target waiting times would assist in promoting more consistency between services and benefit patients in understanding access times for AHP services.

Clinical Quality Indicators

A clinical quality indicator is a quantitative measure that captures information about the quality of clinical care. Clinical indicators relate to either the process or the outcomes of clinical care. A clinical indicator is a tool. Whether it leads to improvement in the quality of patient care will depend not only on properties inherent to the indicator itself (eg whether it is valid, meaningful and well presented), but also on how it is used in practice.

Clinical indicators can support clinical governance at several levels – for example they can be used by clinical teams to review and improve services, and also to inform strategic review and planning of services. For example, it is important that clinical indicators are based on data that are complete, accurate and up-to-date.
The experience of using standard datasets across all AHP professions and the many different clinical teams with which they are involved will facilitate the implementation of AHP Clinical Quality Indicators once these have been developed by NHS QIS.

All AHP professions have professional quality standards within the UK. Some colleges have developed detailed datasets to test compliance with these standards. However there is no consistency across professional bodies. The professional bodies have taken a keen interest in the data standard developments in NHS Scotland and have been highly supportive of the task.

**Information Intelligence – an example**

Within a continually changing healthcare service, standard historical reports no longer provide sufficient intelligence about service planning and modelling. Value for money studies, Balanced scorecard approaches and Performance Indicators all look for different information to demonstrate the performance of a service. New questions are frequently asked. Systems can be used as a source of data and to provide results, but it requires clinicians and managers to interpret and apply the findings. The various AHP disciplines have collected data to be used for their own purposes but rarely using standard definitions, clinical terms, data items etc and mainly because they have not been developed for the professions. These data are used mainly for local planning purposes and have generally provided little or no national or consistent picture of activity or epidemiology.

All AHPs with leadership roles should have Information Management as one of the key competencies in their role profile. The following example demonstrates a real situation. NHS QIS was not overwhelmed by lots of high quality data from the service. The use of electronic health records will change the ability to record and analyse the data consistently in clinical care, and AHPs must continue to demonstrate their willingness to incorporate ehealth into their professional practice.

In undertaking the Health Technology Assessment for low back pain, NHS QIS had no national information available about referrals to physiotherapy, source of referral, numbers of physiotherapists treating people with low back pain, or any idea of capacity within the NHS. A request went out to service leads to provide any information they could, which was mainly from departmental clinical audit databases. However one department which has used an IT system with data using the data standards model was able to extract a report which showed that in the financial year 2005/06 1,270 patients had been referred to the Physiotherapy service. This was 24% of all physiotherapy non-inpatient referrals. 49% of the 1,270 patients had been referred by a general practitioner, 41% were self-referrals and 10% had been referred by Consultants. With a local population of 78,000 this gives an incidence rate for people with low back pain who were referred to physiotherapy of 1.6%.

<table>
<thead>
<tr>
<th>Care Objective</th>
<th>Outcomes</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessment</td>
<td>5%</td>
<td>Goals achieved 56%</td>
</tr>
<tr>
<td>Curative / Restore</td>
<td>81%</td>
<td>Goals not achieved 10%</td>
</tr>
<tr>
<td>Enabling</td>
<td>14%</td>
<td>Rx not completed by 31/03/05 7%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Goals not recorded 22%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Did Not Attend 5%</td>
</tr>
</tbody>
</table>

Other systems were able to extract data but care must be taken in making comparisons as there is no way of ensuring those low back pain coding schemas were consistent across the country.
**Electronic Health Record Systems**

**Integrated Healthcare**

As we move towards the electronic health record, professions should be able to identify the key functions of recording systems that will be of initial benefit in changing the current paper records to electronic format. Experience in the NHS suggests that an incremental change is more acceptable to clinicians than a total change.

AHPs need to be supported through the eHealth strategy to record their clinical interventions into electronic rather than hand written records. Within the Electronic Health Record AHP professionals will need to record multiple involvements with single cases and may be involved with concurrent problems requiring several phases of care. The needs for AHP clinical recording systems will be addressed through the eHealth strategy by use of Generic Clinical Toolkit; Community systems; Radiology Intervention System; Patient Administration Systems; SCI DC; Oncology & Cancer Systems; Scheduling systems. All should use agreed data items from the data dictionary.

In Appendix 3 is a list of AHP record functions that systems should provide to support AHP clinical recording. For AHPs the ability to discuss their requirements within this list of functions will be beneficial. AHPs work in many different organisations with patients of all ages and will challenge the eHealth framework to ensure that they are able to connect to a secure health information network supporting integrated community, acute and inter-agency services wherever they are working. AHPs need to use administration, scheduling systems and waiting times modules, currently available within NHS Scotland. These would provide caseload lists, waiting time information and outcome of first attendance. Referrals should be received through SCI Gateway wherever possible. AHPs need to exploit the current systems within NHS Scotland to deliver some of the functionality they require which will help with the culture change process as we move to the EHR. Radiographers’ IT needs will be met with the national RIS procurement. Some Podiatrists and Dietitians may use SCI DC for their Diabetic patients. A relatively small proportion of AHPs currently have access to an AHP Electronic Patient Record System e.g TIARA and Tynedale which can meet their needs for patient administration, recording, analysis and sharing of clinical information.

**Information Technology.**

It was encouraging that a high proportion (74%) of responses to the AHP Census were made electronically. It identified that significant numbers of AHPs were able to access IT within normal working hours. Feedback from AHP eHealth leads in NHS boards identified a variety of methods to access limited IT. Some boards increased the availability of web-accessed computers to AHPs during the AHP census data collection period. As we move towards electronic records then AHPs will need to have access to mobile devices that will enable them to record clinical records during the patient consultation. There were many queries to the AHP Census helpdesk which required local IT resolution, e.g old versions of internet explorer, limited access. AHPs would benefit from the standard desktop and improved technical infrastructure within the eHealth strategy.

As previously mentioned AHPs span across all divisions of healthcare as well as Local Authority partners in social care and education. They will provide challenges to all sectors in being able to use single systems within different network environments.
Conclusion

The AHP Census demonstrated that grouping the clinical problems using ICF, together with the diagnosis or aetiology of the condition contributing to the problem, using ICD10 / OPCS4 codes, could describe the majority of the clinical cases with which AHPs are involved.

AHPs record, in clinical notes, information about the patient’s presenting problem(s), the aetiology of the problem(s), the objective of care for the AHP involvement, the caseload status and the outcome of the spell of care. Collecting a minimum summary dataset that includes these data items can provide data to inform clinical governance and service planning processes.

Ideally such information might be captured for all referrals to AHP services. Future development of an electronic health record (EHR) and clinical information system(s) should allow such information capture. In addition to facilitating patient care, an EHR should enable ‘secondary use’ of derived information, for example to assist with service planning and performance management at local, regional and national levels.

The Scottish Executive have stated that implementation of an EHR is expected to be completed by 2010. Until details are available on the content and coverage of a national EHR then there may be a need for interim future AHP data collection. To make most effective use of limited resources such interim data collection might be best carried out via some form of ‘sampling’. The September 2005 census of AHPs work was a form of sampling and one that has produced a wealth of information - information that is being used in a variety of ways.

The comparison of regional figures on caseloads, new patients and staffing levels can help the understanding and benchmarking of differing AHP local care models. Any subsequent AHP censuses should ideally be designed to allow some comparison with data from the September 2005 census, perhaps with the addition of data on new patients; the measurement of data across time will help assessment of changes in service delivery, locally and nationally.

The design of any future AHP census should, of course, take account of lessons learned from the inaugural September 2005 census. Future ‘samples’ of AHP work could be carried out via different methodology – an example being the selection of a specific sub-section of AHPs and data collection on them over a longer time period.

The role of the AHP is both expanding and extending and already crosses ‘the divide’ between the hospital sector and the primary care sector and patients’ records are following. A strong link between AHPs and Health Records would offer exciting synergies as the AHPs spearhead new models of delivery of care and Health Records provide robust support for the introduction of new data concepts and recording requirements.

Implementing Delivering for Health will require more responsive services within the community as well as in acute hospitals. If AHP services are going to treat people faster and closer to home, Community Health Partnerships will have to review AHP waiting list management and scheduling systems within their Chronic Disease Management Plans.

Service data derived from consistent, standardised clinical data will provide information, which will be useful in service analysis and workforce planning for NHS Boards. The clinical report has demonstrated that through collecting six AHP care episode data items we can demonstrate some of the diversity of clinical groups with which AHPs are working and that there is limited commonality across the nine diverse professions. Further development of case complexity, as part of the Workload / Workforce programme will need to be based on a common language to describe clinical problems and AHP involvement. The use of the Care Episode Summary dataset and the recommended classification systems will provide a common platform for this work.

This report brings to a close the AHP electronic Community Health Information Project (eCHIP) (2003 – 2006) which was a deliverable from Building on Success - Future Directions for Allied Health Professionals in Scotland (SEHD 2002). AHPeHealth Leads within each NHS Board ensures that AHPs are linked in with the NHS Board ehealth programme. A national Nursing, Midwifery and AHP (NMAHP) eHealth Programme Board has been established to set the direction for NMAHPs within the developing national eHealth strategy. The findings from the AHP census and the AHPeCHIP project will be fully incorporated into the eHealth agenda which will build a solid platform for future development.