

Allied Health Professions

Research and Development

Action Plan

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FOREWORD

by the Minister for Health and Community Care

It is vital that health and healthcare practice in NHS Scotland is based on sound knowledge and a robust evidence base. How reassuring, then, for the thousands of people cared for by allied health professionals in Scotland each year, that the professionals themselves have identified research and development as a vital priority for action.



AHPs know how important research and development activity is to good quality, safe and effective patient care. A wide range of activities relating to the clinical effectiveness/evidence-based practice agenda is already underway, with AHPs in practice and academic settings carrying out innovative research that has led to improved services for patients. This provides a solid foundation from which future AHP research activity can grow.

But the potential of AHPs – all AHPs – as consumers and practitioners of research is not yet fully realised. Support is now needed to enable them to become fully research-aware, research-active, evidence-based professions.

Patients expect to receive high quality services, with AHPs doing the right thing to the right patient, in the right place and at the right time. Patients should be confident that any treatments offered are based on the best available evidence. For this to happen, all AHPs must have access to reliable current evidence and must participate in evaluating clinical practice on an ongoing basis.

This action plan for research and development in the allied health professions in Scotland puts in place the initiatives that will allow AHPs to move to the next stage. It does so by setting out a range of measures that focus on key elements essential to building AHP research infrastructure and capacity. It spells out the importance of partnership in driving the research and development agenda forward. And it puts in place the kinds of support that individual AHPs need to develop themselves as research-focused practitioners.

The action plan gives AHPs the lead they have asked for in relation to developing their research and development activity. But most important, it will increase the public's already strong confidence in the excellence and reliability of services delivered by the allied health professions.

A handwritten signature in blue ink that reads "Malcolm Chisholm". The signature is written in a cursive, flowing style.

Malcolm Chisholm, MSP

Minister for Health and Community Care



PREFACE

by the Chief Scientist

Allied health professionals provide an immense amount of direct patient and client care in NHSScotland and other service organisations. The care they provide is supported by long-standing research activity in a range of specialty areas.

AHP research is a vital resource in meeting the needs of patients, service users and service providers and is an important component of the national strategy for the health services. Much of the best research is the result of teams of professionals contributing as partners in innovative research programmes. This is a model which parallels the working pattern of AHPs, who are well used to teamwork.

The Chief Scientist Office (CSO) has been, and will continue to be, an active supporter of AHP research, as its practical benefits are not hard to find. There are many examples of superlative research carried out by AHPs in Scotland within individual specialties and as part of multi-professional and multi-sectoral teams. And we want to see even more in the future, throughout the allied health professions.

To achieve this, we need to see research activity growing in all the professions and in all the academic units that support them. We need to see more AHPs becoming involved in research, building their research expertise and leadership potential. We need to see growing numbers of research-active staff in our academic institutions and more AHPs at senior lecturer, reader and professorial level. And we need to see a more equitable distribution of PhD students across the professions, backed by strong leadership.

We need these developments to ensure that patients and service users accessing health and social care services in all sectors now, and in the future, can benefit from the delivery of evidence-based interventions from AHPs.

So what is required? Improved strategic focus, greater selectivity to improve rigour and quality, investment in research capacity at experienced research leadership level, and increased inter-departmental, inter-disciplinary, national and international collaborations to increase the scale, relevance, applicability and eventual impact of the research – all these will be necessary. There also needs to be increased involvement of service providers and service users in planning, delivering and evaluating research, and the development of innovative employment packages that allow AHPs to develop their research expertise and productivity while retaining a brief for caring for patients and service users in practice settings.

It's a long list, but this action plan for research and development in the allied health professions in Scotland is designed to begin the process of change. That means change for the better, inspiring greater and more focused research activity across the professions and driving more evidence-based interventions with patients and service users.



PREFACE

The action plan will not be achieved overnight, but will be delivered over time. I look forward with confidence to seeing the allied health professions develop their capacity to play a full and active role as leaders of research programmes that support their vital services to patients and service users.

Professor Roland Jung

Chief Scientist, Scottish Executive Health Department

INTRODUCTION

by the Allied Health Professions Officer

Allied health professions (AHPs) is an umbrella term for a diverse group of practitioners. Each of the nine professions under the AHP grouping offers a unique and distinct contribution to improving the health of the people of Scotland and to health and social care services. All share a commitment to improving outcomes for service users and developing a better evidence base to underpin their interventions.



It is this foundation that has enabled the professions to work together effectively towards these common goals.

AHPs throughout Scotland are acutely aware of the importance of research and a strong evidence base for healthcare interventions. As Smith (1996) notes:

The methodologies applied to biomedical and health services research have matured dramatically over the past three decades. Effectiveness, efficiency, and efficacy of clinical practice has been carefully examined in focused areas and is under increasing scrutiny to ensure that the right procedure is delivered to the right person at the right time.

AHPs have a proud record of producing high quality, patient-focused research within uni- and multi-professional contexts. But AHPs are, on the whole, relatively new academic disciplines and their influence on wider health, health care and social care research has not yet matched the significance of their impact on an individual's care journey, or on the wider delivery of health and social care across Scotland.

Within the AHP grouping, a number of the professions have an acknowledged record in patient-centred research, while others are emerging as enthusiastic research-active professionals keen to maximise their capacity and capability. It is clear that research excellence is the ultimate goal for all the professions and that working in partnership to build research leadership and infrastructure will be the key to its achievement.

Building on Success: Future Directions for the Allied Health Professions in Scotland (SEHD, 2002a), published in June 2002, made a commitment to establishing a 'short term working group... to review AHP research and develop an action plan for building AHP research capacity and capability within health and social care'.

This short-term working group was set up early in 2003 with representation from a range of AHPs, researchers and other stakeholders. It became clear during the group's Scotland-wide consultation process, which provided direction for the action plan's development, that research and development is a key priority for AHPs.

INTRODUCTION

The consultation found that AHPs in Scotland share the objective of developing clinically effective, evidenced-based practice to meet the needs and expectations of patients. There is widespread recognition of the need to build on existing achievements and strengths, but also awareness of the importance of addressing issues in key areas such as:

- skills development in research awareness and critical appraisal
- research capacity and capability
- funding and support
- dissemination and development.

Participants expressed a wish to see better partnership working among stakeholders in driving this agenda forward, with the development of clinical/academic career pathways and alliances that support strategic developments in the field. Significantly, this was a shared view among practitioners, researchers and academics from all the allied health professions.

The issue of developing evidence-based care is driven by policy, service delivery and redesign challenges for health and social care. It is one that is common to all health professions and increasingly cuts across the health and social care spectrum. As the largest combined group providing direct patient care, AHPs, nurses and midwives share the challenge of developing a knowledge base which is as extensive and robust as their commitment to care.

From the original consultation process to the feedback from the consensus conference in June 2003, it has become evident that the professions believe research and development is an area that requires specific attention. This action plan reflects the consensus views of the participants who generated such enthusiastic debate through those events, and is the first of its kind for AHPs in Scotland. It maps out the direction of travel required for AHPs to achieve their full potential as producers, and users, of high-quality research that influences and shapes the way health and social care is delivered in Scotland, the UK and beyond.

The action plan has been developed through partnership working with AHP stakeholders (including the AHP professional bodies) and key organisations such as the Chief Scientist Office (CSO), NHS Education for Scotland (NES), NHS Quality Improvement Scotland (NHS QIS), the Scottish School of Primary Care (SSPC), and Scotland's higher education institutions (HEIs). It also builds on extensive work undertaken through the development of *Choices and Challenges: the strategy for research and development in nursing and midwifery* (SEHD, 2002b) and subsequent initiatives, to address common issues of capacity and capability and the need for a more robust evidence base to underpin professional interventions.

I believe that the energy and enthusiasm generated through the process of developing this action plan is a strong indication of the appetite the professions have for the challenge that lies ahead. I look forward to seeing AHPs building on their success to date and emerging as key players in the multi-professional research agenda.

Jacqui Lunday

Allied Health Professions Officer, Scottish Executive Health Department

SECTION 1 BACKGROUND

1.1 Context and drivers of research and development for AHPs

Research, development and evidence-based practice

CSO defines research and development as:

...structured activity which is intended to provide new knowledge which is generalisable (i.e. of value to others in a similar situation) and intended for wider dissemination (www.show.scot.nhs.uk/cso/).

A report on promoting research in the nursing and allied health professions (CPNR *et al.*, 2001) developed a staged approach to defining what research and development mean in practice, an abridged version of which appears in Table 1.

Stages	Typical activities
ENABLING ACTIVITIES	
1. Appreciation of research-led practice.	Basic research awareness; understanding of the need for evidence in relation to practice.
2. Basic application of research-led practice and teaching.	Practice-based professional development; incorporation of evidence-based practice into clinical practice.
3. Acquisition of knowledge and skills in research.	Research-based professional development; acquisition of appropriate professional and post-graduate qualifications; commissioning research within NHS systems to address defined priorities.
DEVELOPMENTAL ACTIVITIES	
4. Integration of research skills into practice.	Establishing research strategies and mechanisms to implement them; internal professional development activities to embed research within teaching.
5. Development and enhancement of research expertise.	Integration and synergy between activities among HEIs and between HEIs and the NHS; development of specialist research centres and research staff.
APPLICATION ACTIVITIES	
6. Application of research capacity to local needs.	Planned collaboration with local NHS systems; effective dissemination of research findings to local practice.
7. Application of research capacity to regional needs.	Planned collaboration with regional NHS systems; effective dissemination of research findings to regional practice.
8. Achieving excellence in research and engaging in international activities to enhance capacity.	Involvement by HEIs in collaborative international research activity.

SECTION 1

Evidence-based practice in the health services is defined as:

...an approach to decision making in which the clinician uses the best evidence available, in consultation with the patient, to decide the option that suits the patient best (Gray, 1997).

It is enacted when:

...decisions that affect the care of patients are taken with due weight accorded to all valid relevant information (Hicks, 1997).

In a social care context, evidence-based practice is defined as:

...the conscientious, explicit and judicious use of current best evidence in making decisions regarding the welfare of those in need (Sheldon and Chilvers, 2000).

Policy context and drivers

NHSScotland

NHSScotland is driven by the key priorities at the heart of the Scottish Executive's agenda. These include:

- stepping up action on health improvement
- preventing ill-health
- promoting safer lifestyles
- redesigning health service provision
- increasing patient and public involvement
- developing national service standards
- addressing inequalities in health provision
- improving provision of services
- developing and supporting the workforce (Scottish Executive, 2003a).

Research, development and evidence-based practice have key roles to play in delivering on all parts of this agenda.

Scotland's health white paper, *Partnership for Care* (SEHD, 2003a), confirmed that the Executive would 'continue to invest in research to underpin health improvement and better health services'. The vehicle for ensuring this investment is appropriately channeled is the *Research Strategy for Health and Healthcare* (SEHD, 2003b), which sets out to improve the scope, relevance and quality of research to meet the health and healthcare needs of the people of Scotland. The strategy focuses on key research issues such as:

- defining priority areas for research activity
- supporting important research projects outwith the defined priority areas
- strengthening the system of research governance
- supporting local NHSScotland systems in performing and utilising research studies
- developing research partnerships

- increasing research capacity in under-developed areas
- promoting a multi-professional approach to research.

The research agenda closely reflects the wider NHSScotland agenda. Particularly significant in the latter is the drive to improve the health and well-being of the people of Scotland, with a package of measures set out in *Improving Health in Scotland: the challenge* (Scottish Executive, 2003b), increasing access to health services for all regardless of race, creed, cultural background or ability (*Fair for All*: SEHD, 2002c), and the need to increase the involvement of patients and the public in the design, delivery and evaluation of services (*Patient Focus, Public Involvement*: SEHD, 2001a).

People now expect to be involved in deciding about their own health care as responsible partners, and *Partnership for Care* (SEHD, 2003a) emphasises that the Scottish Executive is 'committed to a new culture of patient focus and individual care in the NHS'. This focus must drive not only services, but also research and development activity (SEHD, 2001a).

This is reflected in the CSO approach to patient and public involvement. An involvement group consisting of members of the public has been formed, with members invited to join each of CSO's committees and groups. The members are also involved routinely in a range of research-focused activities.

Social services

Under the Scottish Social Services Council Codes of Practice for social service workers and employers (SSSC, 2003), employers of social service workers are committed to promoting practice-based learning and continuing professional development. By doing so they are ensuring that staff are adequately prepared to provide an effective service. In turn, social service workers must practice in an effective way and take responsibility for ensuring they are adequately prepared so to do.

While the concept of evidence-based social care is an emerging one, there is strong support for the introduction and development of services that are not only user focused and provide best value within a local authority context, but are also evidence based and support users to make informed choices about the services they receive. This is being seen as increasingly important across a wide range of settings, and is an approach already firmly embedded in the Scottish Criminal Justice System.

Other professional groups

The national strategy for research and development for nursing and midwifery, *Choices and Challenges* (SEHD, 2002b), is another significant driver of the action plan. The strategy sets out a series of recommendations relating to four key areas:

- developing research and development infrastructure
- adopting a focused approach to research and development
- building an evidence-based culture
- promoting dissemination of research and development findings.

SECTION 1

It is clear from the consultation process for this action plan that many of the issues faced by AHPs in relation to research and development mirror those faced by a range of other healthcare professions engaged in direct patient care, including nursing and midwifery. As such, the four key areas set out in *Choices and Challenges* also closely reflect the areas in which action is needed to develop AHP research and development in pursuit of this common agenda.

1.2 Process

Following a recommendation in *Building on Success* (SEHD, 2002a) to review research and development activity among AHPs in Scotland and develop an action plan, a short-term working group with wide representation from the professions and other relevant stakeholders was convened early in 2003.

The group considered different aspects of AHP research in Scotland, focusing on key issues such as:

- building research capacity
- developing structures and infrastructures to sustain AHP research
- supporting the development of a stronger evidence base to underpin practice.

To assist the group in its work, the AHP Officer, in partnership with the Scottish Higher Education Funding Council (SHEFC), commissioned a national scoping exercise of current research capacity, capability and activity among AHPs in Scotland.

National scoping exercise

The exercise, carried out between March-May 2003, involved a postal questionnaire survey of HEIs and directors of AHPs in NHS Trusts. It did not attempt to compare individual institutions against each other; rather, it set out to gain a 'snapshot' of current AHP research capacity and capability in Scotland.

Key strengths found by the exercise included:

- shared goals between HEIs and NHSScotland, particularly in relation to strengthening joint working
- high levels of motivation to move research and development forward for AHPs
- the discovery of many examples of good and innovative practice.

Two key areas in which development is required were identified:

- the need to increase the cadre of research leaders for AHPs
- the need to increase the research capacity and capability of AHPs.

The information produced by the exercise provides a strong platform on which future AHP research and development activity can be built. A full report will be disseminated by the Scottish Executive Health Department (SEHD) in due course.

SECTION 1

1.3 Sources of support for AHP research activity

AHPs require strong systems and structures to support and nurture research and development activity and to maximise their contribution to research and development projects. A number of organisations fulfil key functions in supporting and facilitating research and development across services in Scotland, offering opportunities for AHPs to access networks, advice and support for their research and development activity. They include the organisations listed below.

Chief Scientist Office (CSO)

CSO commissions, funds, encourages and supports research and advises the SEHD on how research contributes to improvements in health and health care. Among its main functions are:

- funding investigator-led research projects
- sponsoring research training initiatives
- defining research priorities
- developing a research strategy for NHSScotland
- promoting dissemination and implementation of research findings
- encouraging strong research ethics appraisal and research governance
- supporting a number of research units across Scotland, including the Nursing, Midwifery and Allied Health Professions Research Unit¹
- encouraging multidisciplinary, collaborative research.

CSO supports the infrastructure for research in NHSScotland, enabling NHS practitioners and researchers to participate in a range of externally funded research activities. It also funds the management of research in NHS organisations, often within a Research and Development Office which provides access to facilities and services for research.

CSO funds a broad range of health and healthcare-related research and publishes a quarterly newsletter, *Research Matters*, which lists all current funded projects, including those being developed in whole or in part by AHPs.

Nursing, Midwifery and Allied Health Professions Research Unit (NMAHPRU)

NMAHPRU was established as the Nursing Research Initiative for Scotland (NRIS) (see footnote 1) in 1994 to provide a focus within Scotland for direct patient care research. The unit has a multi-professional research remit and its work encompasses all care settings.

¹ This was known as the Nursing Research Initiative for Scotland (NRIS) prior to January 2004.

Four programmes of research are under way, focusing on:

- stroke (including communication, nutrition and specific needs)
- practice judgement and decision making
- practitioner interventions (involving patients with cancer and those with urogenital problems)
- patient-centred outcomes (focusing on reviews of the literature to identify what patient-centred outcome measures are available and where they are being used).

Funding of this unit is subject to periodic external peer review by a panel which reports to CSO.

NHS Quality Improvement Scotland (NHS QIS)

NHS QIS brought together five separate bodies – the Clinical Standards Board for Scotland (CSBS), the Nursing and Midwifery Practice Development Unit (NMPDU), the Scottish Health Advisory Service (SHAS), the Clinical Research and Audit Group (CRAG) and the Health Technology Board for Scotland (HTBS). NHS QIS has assumed elements of the responsibilities of each of these organisations, including the operation of a national system of quality assurance of clinical services. The Scottish Intercollegiate Guidelines Network (SIGN) will become part of NHS QIS in 2005.

The Practice Development Unit within NHS QIS (formerly the Nursing and Midwifery Practice Development Unit (NMPDU)) is currently reviewing how nurses, midwives and AHPs can work together to develop practice in a collaborative way and build networks of support. This will involve the dissemination of best evidence and clinical guidelines to drive practice and will be supported by the AHP Professional Officer for NHS QIS.

NHS Education for Scotland (NES)

NES was established as a Special Health Board on 1 April 2002. Its aim is to contribute to the highest quality of health and health care in NHSScotland by promoting best practice in the education and lifelong learning of all its staff. The new body builds on the work of the National Board for Nursing, Midwifery and Health Visiting for Scotland (NBS), the Postqualification Education Board for Health Service Pharmacists (PQEB) and the Scottish Council for Postgraduate Medical and Dental Education (SCPMDE) in extending its activities to cover all staff groups. An AHP Professional Officer was appointed to NES during 2003 to lead on specific AHP developments and support interprofessional learning.

Also included within NES is the Scottish School of Primary Care (SSPC), the national organisation promoting research and increasing capacity for research in primary care across Scotland. The School is funded by the SEHD, CSO and SHEFC to provide high quality research evidence to inform decisions made by service users, practitioners, managers and policy makers. It develops research capacity and capability within Scotland through increasing the accessibility of education and training in primary care research.

SECTION 1

NHS Health Scotland

Formed through the merger of the Health Education Board for Scotland (HEBS) and the Public Health Institute for Scotland (PHIS), NHS Health is Scotland's health promotion and public health agency. One of its functions is to commission and publish research on key areas affecting people's health and well-being.

Scottish Higher Education Funding Council (SHEFC)

The main strand of the Scottish Executive's support for research in HEIs is administered principally by SHEFC. The council supports research capacity by distributing funding to HEIs selectively according to the quality of research in each institution as measured by the research assessment exercise (RAE). SHEFC funding for research activity also underpins and encourages investment in research projects from other potential funders such as Research Councils, the European Union, research charities and private funding bodies.

Professional bodies

AHP professional bodies have a clearly defined role in ensuring practitioners adopt an evidence-based approach to practice and in funding individual pieces of research. The distinct bodies for the professions have joined together to address this common agenda and provide some focus and direction to support research and development for the AHPs, specifically through the Research and Clinical Effectiveness Forums (Box 1.3.1).

**Box
1.3.1****AHP Research and Clinical Effectiveness Forums**

The Research Forum for Allied Health Professions (RFAHP) aims to develop a strong inter-professional research culture responsive to the needs of patients, carers and providers of health and social care services. The Forum is committed to collaborative, inter-agency partnerships to promote high-quality research that fulfils the required outcomes of national policies, and actively participates and contributes to the development and implementation of national research and development policy.

(Source: Allied Health Professions Forum. *Towards a Strategy for R&D in the Allied Health Professions. Proposals for action: a discussion paper.* May 2001).

The Clinical Effectiveness Forum for Allied Health Professions (CEFAHP) is a strategic alliance among the 12 professional bodies regulated by the Health Professions Council (HPC). It provides a single source of information about clinical effectiveness across the allied health professions whose purpose is to:

- take a strategic view of clinical effectiveness as it relates to allied health professions
- share information about clinical effectiveness across the allied health professions
- represent AHPs in wider groups and settings related to clinical effectiveness
- facilitate joint working on specific projects related to clinical effectiveness, such as clinical guidelines and clinical audit
- communicate the work of the Forum and its position on clinical effectiveness to members of participating organisations and to other national bodies, including the Department of Health, other statutory and professional bodies and Royal Colleges.

(Source: <http://www.csp.org.uk/effectivepractice/clinicaleffectiveness/multiprofessional.cfm?PrintPage=1>)

SECTION 2 DEVELOPING AN ACTION PLAN FOR RESEARCH AND DEVELOPMENT IN THE ALLIED HEALTH PROFESSIONS IN SCOTLAND

2.1 Developing infrastructure

In relation to infrastructure, the focus falls on four key areas:

- developing partnerships
- funding and funding bodies
- developing capacity
- clinical/academic career pathways.

Developing partnerships

AHPs are key members of multi-professional teams and are now beginning to work more effectively together following the publication of *Building on Success* (SEHD, 2002a). The Scottish Executive has emphasised the need for effective partnerships between professions, service users and carers. Strengthening these relationships is essential for AHPs to enable them to use their expertise to best effect, engaging the skills and experience of professional colleagues in all sectors of health and social care service provision, service users and carers to develop excellence in service provision.

Partnerships in research and development will be equally critical in ensuring expertise is harnessed and resources used effectively across Scotland. In the past, AHPs have often had to forge these relationships with limited support and infrastructure. Enhanced infrastructure will be key to enabling the professions to maximise their potential as researchers and develop consensus on evidence on which to base practice in health and social care environments.

Research alliances or 'consortia' will be central to the development of partnerships and to the effective use of resources (Box 2.1.1). They have the potential to enable novice researchers to develop confidence and experience through working with more experienced investigators and collaborators, eventually ensuring a 'critical mass' of active researchers with the knowledge and expertise to develop focused programmes of research.

Box 2.1.1

Research consortia (SEHD, 2002b)

For the purposes of this action plan, the term '**research consortia**' refers to research communities working within a collaborative model to develop focused programmes of research. They are likely to be 'virtual' bodies consisting of a variety of organisations and individuals in separate locations throughout Scotland.

SECTION 2

Action

A1. HEIs and NHSScotland should explore opportunities to develop partnerships based on the Research Consortia model to ensure that resources are co-ordinated and used to maximum potential. Professors and Heads of Departments, together with NHS Board AHP Directors, Leads and Managers, will have a particular responsibility in providing strong leadership to encourage the creation and development of partnerships.

Funding and funding bodies

The main non-commercial funders of research in the UK are the Health Departments in the four countries, the research councils and research charities. The Scotland-wide scoping exercise (see page 11) demonstrated that funding was secured from a diverse range of funding bodies, including CSO, charities and research councils.

Funding streams for AHP research and development need to be diversified and expanded to ensure that capacity can continue to expand to meet service-users' and carers' needs. The data from the scoping exercise will be used to inform the development of potential funding models.

Action

A2. SHEFC, NES, CSO and SEHD should work together to develop funding streams which Research Consortia can use to resource capacity and capacity-building strategies.

Potential funders of research should be encouraged to take a broad view of the range of research projects needed to underpin effective health and health care. For instance, research into health-related quality of life issues and the effects of long- and short-term morbidity or disability are important to service users and the public and lend themselves to AHP perspectives and investigations. They are relatively under-represented in funded research, however, which consequently presents opportunities for increases in current levels of funding for well-focused studies aiming to improve outcomes for service users and carers.

Action

A3. SEHD, CSO, SHEFC and NES should encourage independent research commissioners (such as voluntary organisations, Research Councils and charities) to base their funding decisions on an extended concept of health and health care research needs.

Developing capacity

If robust evidence to underpin practice is to become a reality for AHPs, a number of challenges in service and academic settings need to be overcome. These include:

- increasing the numbers of AHPs with the knowledge and training to undertake research
- increasing the numbers of practitioners who are informed consumers of research
- increasing the numbers of AHPs participating in and leading research
- developing more effective networks among the professions to link AHP researchers with the wider research community
- managing workload and 'backfill' pressures which impinge on experienced practitioners' opportunities to undertake training to develop research skills and expertise.

Research awareness and understanding of methods are integral to the under-graduate and graduate-level entry AHP academic programmes, but acquired knowledge and competencies are likely to erode over time if not used in the workplace. Further development of research awareness, competencies, knowledge and skills requires training at post-graduate level, both for newly registered practitioners emerging from training programmes and those AHPs who have been practising for some time. HEIs and other education providers should establish networks to support the development of relevant research training packages. They should also seek to develop opportunities that link with their identified research themes and programmes (UKCfGE, 2003).

Actions

A4. HEIs and other education providers and NHS Boards should provide training programmes designed to enable AHPs actively to participate in research linked to their identified research themes and programme of research at a variety of levels, ranging from developing research awareness to acting as research collaborators.

A5. CSO, SHEFC, NES, HEIs, NHS Boards, SSPC, NMAHPRU, Professional Bodies and trade unions should work in partnership to enhance the capacity to prepare individuals for future research roles by facilitating doctoral and post-doctoral research opportunities for graduate AHPs.

Good supervision is vital for students undertaking research training at post-graduate level. HEIs should facilitate academic staff development to ensure they achieve the appropriate level of knowledge and skills to support AHPs undertaking study at Masters, doctoral and post-doctoral levels.

SECTION 2

Action

A6. HEIs, in collaboration with stakeholders and funding bodies, should provide opportunities for individuals to acquire the requisite skills, knowledge, competencies and qualifications to support the development and conduct of research projects by post-graduate AHP research students.

Developing clinical/academic career pathways

It became clear during the consultation exercise that many practitioners would like the opportunity to become further involved in research. For AHPs to maximise capacity, practitioners need a clinical/academic career pathway model that defines leadership roles and sets out a route for novice researchers (Box 2.1.2).

Box 2.1.2

Key elements of a clinical/academic career pathway (SEHD 2002b)

A clinical/academic career pathway offers opportunities for:

- high-quality research training at different career stages, while allowing the AHP to maintain involvement in practice
- a wide range of training activities that reflects the spectrum of clinical, scientific, social, methodological, managerial and administrative research skills required to meet the needs of service users and services
- those who have taken research training to further develop their skills
- the creation of sustainable posts which allow experienced researchers to continue developing their research portfolio and collaborations while maintaining involvement in practice.

A range of opportunities (such as joint researcher/practitioner appointments and the creation of the AHP consultant role) has begun to be developed across Scotland, but the options for contracts that allow movement between clinical and academic positions are limited at present. This needs to be explored further. A wider range of creative opportunities that supports individuals in pursuing research careers and enables flexible training between health and social care services is required. Research training initiatives need to be matched with enhanced career opportunities within NHSScotland and other agencies.

Action

A7. NHS Boards, other employers of AHPs, HEIs, NES and the SSPC should work together to develop models of clinical/academic career pathways for NHSScotland, considering the potential benefits of both uni- and multi-professional/sectoral models.

This poses a significant challenge to health and social care services in Scotland to show how they can enable AHPs undertaking research and development training to remain in practice with options in career development. Employers and HEIs also need to provide the appropriate infrastructure to avoid those in clinical/academic roles becoming isolated from colleagues in either practice or academic settings.

Actions

A8. HEIs, NHS Boards and other employers of AHPs and NES should work together to develop innovative approaches to the creation of joint clinical/academic roles which have research activity at their core.

A9. NHS Boards and other employers of AHPs should explore means of ensuring continued practice employment and career progression options for AHP researchers.

Individuals will be able to decide to become involved in research at a variety of levels, from principal investigator to clinical collaborators. Those who wish to become immersed in research may do so as principal investigators. Developing these future research leads in the AHPs will be vital. The framework of roles and levels of research involvement is outlined in Box 2.1.3.

SECTION 2

Box
2.1.3

Levels of research involvement (modified from SEHD, 2001b)

Principal investigator (lead researcher)

Under the *Research Governance Framework for Health and Community Care* (SEHD, 2001b), each project must have a named principal investigator who bears overall responsibility for the design and conduct of the study. The principal investigator will usually have completed a recognised research training and will have previous research experience. If inexperienced, an experienced supervisor or investigator should be available. A principal investigator would not normally work full-time on any single project (unless a major project is being undertaken), but could be involved in several studies or may combine research with practice, management or teaching.

Investigator

Research teams usually need a number of investigators to provide the required breadth of knowledge and skills for a study. They could include experienced researchers, inexperienced researchers in learning roles, those who have particular technical skills (such as statisticians) and clinical collaborators. The principal investigator and investigators are named on grant applications and submissions to ethics committees. They develop the research protocol, obtain necessary resources and publish results. They often employ research workers to collect data.

Clinical collaborator

These are experienced individuals with clinical and/or management commitments who are able to facilitate access to service users or staff. They may be involved in research at different levels, but do not necessarily have to be part of the research team.

Research worker

Individuals employed to carry out the study. Some are skilled researchers who play a major role in study design and data analysis, while others may have no research skills and are employed to collect data.

Supervisor

Research students must have academic supervisors and may also have clinical supervisors. These individuals sponsor the study and take responsibility for the proper conduct of the research. Increasingly, steering groups consisting of service, academic and service-user stakeholders also supervise research teams.

2.2 Adopting a focused approach

The scoping exercise (see page 11) found a wide range of topic areas being researched in the four HEIs providing AHP programmes, with similar diversity in the service setting. Many of these projects were small studies not linked to wider research programmes nationally or internationally, and may have limited potential for generalisation.

A clear understanding of how AHPs can best contribute to achieving the national research priorities for NHSScotland is essential. Current research and development strengths need to be identified to allow emerging research consortia to access them when planning programmes of research. HEIs, in collaboration with NHSScotland, need to develop existing strengths to maximise opportunities for AHPs to develop their evidence base.

HEIs tend to generate a strong body of knowledge when they can develop programmes of research that reflect their particular areas of interest, which can be wide-ranging. AHP departments should build their research portfolios on their current expertise and resources, identifying opportunities for collaborative work within research consortia as they do so. Developing the body of knowledge and research relevant to the portfolio will strengthen the ability of the higher education sector to influence and encourage focused post-graduate research.

Actions

A10. HEIs, in partnership with NHSScotland and other employers of AHPs, should develop research portfolios with defined research programmes which build on identified research portfolios, expertise and resources available to them, and which maximise opportunities for collaboration within Research Consortia.

A11. Research Consortia should work to develop a focused approach to meeting NHSScotland research priorities which offers maximum potential to AHPs within a multi-professional context.

By matching their research interests to the identified research portfolio of individual HEIs, AHP post-graduate students (and potentially those from other disciplines within the higher education sector) will be assured of access to the best available supervision and expertise.

Action

A12. HEIs should encourage AHP post-graduate research students to be primarily guided in their choice of project by the HEI's research portfolio and programmes.

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One of the challenges is that much of the work undertaken by AHPs remains unpublished, reducing its potential to increase the knowledge base for practice. HEIs and NHS Boards should work together to support and facilitate the publication of sound under-graduate and post-graduate research that contributes to the body of evidence required to underpin practice interventions.

The further development of research portfolios at HEI and research consortia-level raises exciting prospects for bi- or multi-centre collaboration on a UK and/or international basis, potentially increasing the influence and standing of Scotland's AHPs in the international research community.

Action

A13. Research Consortia should consider the potential of bi- or multi-centre collaboration on a UK and/or international basis.

The recent re-naming of the Nursing, Midwifery and Allied Health Professions Research Unit (NMAHPRU) demonstrates in a very tangible way its commitment to advancing AHP research. The unit offers an excellent model of collaborative, focused research on key issues such as practitioner decision making, practitioner interventions, patient-centred outcomes and stroke – all issues that are important to the work of AHPs.

Action

A14. NMAHPRU should continue to develop its multi-professional programme of research, ensuring that the programme continues to promote collaboration with NHSScotland, HEIs, Research Consortia and others.

AHPs, working together and with other professionals involved in providing care, should enhance their understanding of local support systems and opportunities to participate in research activity at all levels. Models that provide forums through which AHPs can, for example, explore opportunities to develop their research expertise and leadership potential and engage in discussions with research consortia and established stakeholders should be deployed.

Action

A15. AHP Directors, Leads and Managers in NHS Boards from all professions should work with Research and Development Leads to agree and develop a model, such as a network, to support the implementation of this action plan locally and enhance their strategic focus and AHP research leadership at local level.

2.3 Building an evidence-based culture

Evidence-based practice is integral to the clinical governance agenda in NHSScotland, and efforts to base health and health care on the best available evidence have gained momentum over the last five years (see Box 2.3.1).

Box 2.3.1

Clinical effectiveness in the allied health professions in Scotland

The Clinical Effectiveness for Allied Health Professions in Scotland project (Holdsworth and Blair, 2004) ran from 2001-2004. Its aims were to co-ordinate, implement and evaluate multi-professional AHP support mechanisms for the successful implementation of clinical effectiveness throughout the country. Specific objectives included:

- evaluating AHP activity in relation to specific SIGN and other professional guidelines
- identifying training needs and delivering AHP generic clinical effectiveness training initiatives
- sharing good practice, nationally and worldwide.

The three-year project initially targeted five of the allied health professions: physiotherapy (year 1); podiatry and dietetics (year 2); and occupational therapy and speech and language therapy (year 3). The final phase focused on multi-professional working.

The final evaluation highlighted significant success in building a clinical effectiveness, evidence-based culture among AHPs. Since completion of the project in March 2004, clinical effectiveness for the AHPs has been supported by NHS QIS and will now expand achievements to wider professional groups.

Clinical effectiveness and evidence-based practice are strong driving forces behind Managed Clinical Networks (MCNs), which have become the recommended vehicle for delivery of services to patients with defined needs throughout the country (SEHD, 2002d).

The evidence to support many AHP interventions commonly relies on a combination of sources of knowledge. These sources include evidence gleaned from research work, but might also acknowledge the importance of expert opinion, clinical experience and the perspectives of service users and carers. The challenge is how best to combine these different types of evidence to inform clinical decision-making.

An evidence-based culture is one in which there is strong clinical leadership at organisational level actively promoting, through a variety of mechanisms, the integration of best evidence into practice. But all in NHSScotland – practitioners, managers, educators and researchers – in combination with SEHD, HEIs, professional bodies and others associated with research and development activity, can contribute to the creation of a culture that endorses and promotes evidence-based practice.

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Actions

A16. NHS Boards should work to create within their organisations a strong culture that recognises the importance of evidence-based practice. Evidence-based practice should be integral to Board-level strategies on clinical governance, performance appraisal and staff governance, service delivery and continuing professional development.

A17. AHP Directors, Leads and Managers in NHS Boards should ensure their organisations have in place a framework for implementing evidence-based practice in the AHPs.

A18. AHP Directors, Leads and Managers in NHS Boards, working with Research and Development Leads, should develop mechanisms to ensure that AHPs in clinical leadership posts demonstrate a commitment to implementing evidence-based practice.

A19. The AHP Professional Bodies should continue to promote a culture of research and evidence-based practice and, where indicated, work together at UK level, and in the four countries, to facilitate collaboration in this area of shared interest.

Individual AHPs will need access to opportunities to update their knowledge and skills on evidence-based practice through focused educational activity, in accordance with their personal development plans as agreed with managers and supervisors. Those with management responsibility for AHPs, as senior professionals, should be able to support AHPs to develop evidence-based practice. This should include clarification of key result areas for senior practitioners and others on their contribution to developing an evidence-based culture, and appropriate performance management of these objectives.

Action

A20. AHP Directors, Leads and Managers in NHS Boards should ensure their organisation's continuing professional development strategy/plan offers AHPs access to education and training opportunities related to evidence-based practice.

Building an evidence-based culture in the AHPs should begin with students. Developing an evidence-based philosophy among students is likely to lead to a career-long evidence-based focus among the qualified practitioners of the future. Under-graduate curricula should continue to reflect the importance of evidence-based practice to the delivery of clinically effective, safe and resource-efficient health, health care and social care services.

Action

A21. HEIs, NHS Boards and the Professional Bodies, in partnership with the Health Professions Council (HPC), should ensure that the requirements for under-graduate AHP curricula provide students with the necessary competencies to adopt an evidence-based approach to health, health care and social care.

The *Research Governance Framework for Health and Community Care* (SEHD, 2001b) defines standards for good and ethical research practice and stresses the importance of partnerships in developing research activity. It describes the roles and responsibilities of the main individuals and organisations involved in initiating, conducting, evaluating, funding and disseminating research. Careful planning by research teams and monitoring from R&D Leads are necessary to ensure that AHP research activity complies with the standards and is of the highest quality.

Action

A22. NHS Board Research and Development Departments should seek to ensure that AHP research activity funded from internal and external sources conforms with research governance standards.

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2.4 Dissemination

Dissemination is the vital link between research and development. New knowledge generated from research which has the potential to improve care delivery needs to be made accessible to the practitioners who can utilise it and the managers who can facilitate change in practice and policy. Barriers to research dissemination and implementation in practice areas have been identified, however, and in many instances, the information generated by research is not disseminating through to the people who would be able to implement it in practice.

HEIs and research consortia have a responsibility to ensure that high-quality, peer-reviewed research carried out within institutions is presented for dissemination to the wider AHP community. This can be achieved through a variety of portals, which includes scholarly publications (paper and web-based), but also involves conference presentations, in-service education events, summary sheets, public and professional meetings, organisational newsletters and the local and national press. Increasingly, electronic means of disseminating research findings and information are being exploited.

Action

A23. HEIs and Research Consortia, working with HEIs, the NHS QIS Practice Development Unit, AHP research and development networks, Research and Development Leads and the NHSScotland e-Library,² should develop, publicise and evaluate a dissemination strategy to achieve maximum practice impact for their research outputs and to ensure that the results of research undertaken are disseminated in a way that makes them accessible to practitioners.

The NHS QIS Practice Development Unit has a multi-professional remit to develop and promote clinical excellence and encourage networking in NHSScotland through the sharing of good practice underpinned by evidence. One of its main strengths is its ability to make links and develop networks involving a variety of professional bodies and organisations of relevant stakeholders. It must continue to offer this facility as a mechanism to ensure that reliable research evidence and good practice guidelines are disseminated to areas where practitioners can easily access them.

Action

A24. NHS QIS Practice Development Unit will actively link with organisations which currently disseminate research, such as Professional Bodies, forming networks to develop a shared strategic vision that supports the dissemination of evidence generated from research.

² The NHS Scotland e-Library (www.elib.scot.nhs.uk) reflects the need for all NHSScotland staff to focus on evidence-based care and best practice. The fundamental aim of the e-Library is to provide on-line access to research, information and learning resources for all NHSScotland staff, regardless of geographic location, staff category or discipline. The source provides routes to thousands of on-line journals, books and other resources, with access controlled through an individual password system.

The ability to identify gaps in the research evidence is as important as the dissemination of evidence. Through this process, data to inform the development of future research questions can be identified for the research community in Scotland.

Action

A25. NHS QIS Practice Development Unit and appropriate others should inform the research community of potential research questions that arise from perceived gaps in evidence.

NHS QIS Practice Development Unit, working in partnership with relevant organisations, has the capability to build on existing initiatives to further utilise networking models and develop new ones to facilitate the dissemination of evidence generated from research to AHPs in NHSScotland and elsewhere.

Actions

A26. HEIs and NHS Boards, in partnership with NHS QIS Practice Development Unit, should utilise existing models for networking and develop new models to support individual AHPs to deliver care that is evidence based.

A27. Professional Bodies, NHS QIS Practice Development Unit and SEHD should seek to persuade charities and other funding bodies to support the development of new and existing networks to promote the implementation of evidence-based practice.

The Clinical Effectiveness project (Holdsworth and Blair, 2004) (see Box 2.3.1, page 25) scored the building of significant networks among its biggest successes. Hosted within NHS QIS, these networks will now be extended to include all nine AHP groups. In addition, the focus will extend to multi-professional care group developments (such as stroke and cancer).

Action

A28. The AHP Professional Officer will work with the Lead AHP in the NHS QIS Practice Development Unit to develop and promote a sustainable model of 'Practice Development' that supports the implementation of evidence-based practice and future research prioritisation.

The drive to increase the body of knowledge has gained great momentum. Where work done by students is adjudged to be of good quality following HEIs' rigorous review and quality assurance mechanisms, stakeholders such as employers and HEIs should actively encourage and support individuals to publish.

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Action

A29. HEIs and AHP Directors/Leads should actively promote within their organisations a culture of dissemination of new knowledge generated from AHP research.

2.5 Moving forward...

The action plan sets out a challenging agenda for progressing research and development among the allied health professions. Its successful implementation will depend on a strong ethos of partnership and collaboration involving many services, agencies, organisations and individuals. And its recommended actions call for focused activity across a wide range of research and development fields.

But the allied health professions have shown that when they combine their individual strengths in common purpose, they are a strong force for change and progress. The huge strides that have been taken by AHPs in key areas since *Building on Success* (SEHD, 2002a) – driving service redesign, introducing new models of care, developing new and extended roles, and supporting recruitment and retention in the professions – demonstrate clearly that when AHPs put their collective energies into a task, they deliver.

Now, the AHP research and development agenda is in place. Moving forward in partnership with this action plan, AHPs have the opportunity to develop as research-literate, evidence-based professions at the cutting edge of health and social care practice and research. And while the professions will reap many rewards from carrying the action plan through to implementation, the ultimate winners will be the service users who will benefit from increasingly excellent and effective AHP services.

Annex 1

Working Group membership

Sonya Lam (Chair)	Therapy Services Director, Lothian University Hospitals NHS Trust
Jane Arroll	Director of Therapy Services, Gartnavel Royal Hospital, Glasgow
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Dr Brian Durward	Dean, School of Health and Social Care, Glasgow Caledonian University
Theresa Fyffe	Nursing Officer, Scottish Executive Health Department
Prof. Bill Hardcastle	Dean of Research, Queen Margaret University College, Edinburgh
Roberta Lees	Head of Speech and Language Therapy, Strathclyde University
Jacqui Lunday	Allied Health Professions Officer, Scottish Executive Health Department
Prof. Val Maele	Director of Radiography, Head of School of Health Sciences, Robert Gordon University, Aberdeen
Dr Sarah Mitchell	Superintendent II Physiotherapist, North Glasgow University Hospitals NHS Trust
Prof. Kate Niven	Director, Nursing, Midwifery and Allied Health Professions Research Unit
Dr Jennifer Waterton	Chief Scientist Office, Scottish Executive Health Department
Simon Willoughby-Booth	Art Therapy Centre, Greenbank Centre, Edinburgh
Dr Sally Wyke	Director, Scottish School of Primary Care

Annex 2

Glossary

AHPs

Allied health professions/professionals

CEFAHP

Clinical Effectiveness Forum for Allied Health Professions

CSO

Chief Scientist Office

HEIs

Higher education institutions

HPC

Health Professions Council

MCNs

Managed clinical networks

NES

NHS Education for Scotland

NHS QIS

NHS Quality Improvement Scotland

NMAHPRU

Nursing, Midwifery and Allied Health Professions Research Unit

RAE

Research assessment exercise

RFAHP

Research Forum for Allied Health Professions

SEHD

Scottish Executive Health Department

SHEFC

Scottish Higher Education Funding Council

SIGN

Scottish Intercollegiate Guidelines Network

SSPC

Scottish School of Primary Care

SSSC

Scottish Social Services Council

UKCfGE

UK Council for Graduate Education

Annex 3

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Orthoptists, Speech and Language Therapists
Therapists, Radiographers, Podiatrists, Ortho
Occupational Therapists, Physiotherapists, Di
Prosthetists, Orthoptists, Speech and Langua
Arts Therapists, Radiographers, Podiatrists, O
Therapists, Occupational Therapists, Physioth
Orthotists and Prosthetists, Orthoptists, Spee
Physiotherapists, Dietitians, Arts Therapists, R
Speech and Language Therapists, Occupation
Radiographers, Podiatrists, Orthotists and Pro
Occupational Therapists, Physiotherapists, Di
Prosthetists, Orthoptists, Speech and Langua
Arts Therapists, Radiographers, Podiatrists, O
Therapists, Occupational Therapists, Physioth
Orthotists and Prosthetists, Orthoptists, Spee
Physiotherapists, Dietitians, Arts Therapists, R
Speech and Language Therapists, Occupation
Radiographers, Podiatrists, Orthotists and Pro
Occupational Therapists, Physiotherapists, Di
Prosthetists, Orthoptists, Speech and Langua
Arts Therapists, Radiographers, Podiatrists, O
Therapists, Occupational Therapists, Physioth
Orthotists and Prosthetists, Orthoptists, Spee
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