Academic General Practice in Scotland:
Securing the Future

RC GP SCOTLAND
Royal College of General Practitioners

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ROYAL COLLEGE OF GENERAL PRACTITIONERS (SCOTLAND)
Scottish Academic Forum

The Scottish Academic Forum was established by the Royal College of General Practitioners (RCGP) Scotland, in 1997 with the following aim:

"to bring together the main organisations that have a key role to play in the development of Academic General Practice in Scotland including undergraduate and postgraduate education, primary care research and contributions to service development."

Membership of the group, which is chaired by RCGP Scotland, is attended by College Officers and representatives of Directors of Postgraduate General Practice, University Medical School Academic Units of General Practice and Primary Care, the Scottish School of Primary Care (SSPC), the Scottish General Practitioners' Committee of the British Medical Association (SGPC), NHS Medical Directors and the Primary and Community Care Directorate of the Scottish Government.

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Foreword

I would like to thank RCGP Scotland and members of the Scottish Academic Forum for carrying out this timely review of Academic General Practice in Scotland.

The Scottish Government is very supportive of the development of Academic General Practice, and recognises the particular challenges associated with the recruitment and training of clinical academic staff, many of which are highlighted in the Securing the Future report.

General Practice in Scotland is already evolving to shift the balance of care in a way that enables high quality healthcare services to be delivered as safely and locally as possible. I am in no doubt that locally delivered, person centred care, requires and will continue to require, an appropriate and robust evidence base provided by Academic General Practice. I am also in no doubt that Academic General Practice cannot develop in isolation and needs to link in with the development of other academic disciplines involved in the delivery of healthcare.

This report, which recognises the need for a strong but cross-connected evidence base, is the first positive step in the next phase of Academic General Practice in Scotland and provides a sound base from which to start the process of change where required, for the benefit of patients and professionals.

The Scottish Government therefore very much welcomes the direction of travel in this report, and recognises the opportunities that the recommendations present to achieve the best services and outcomes for the academic future of GPs, and for patient care, in Scotland.

Nicola Sturgeon MSP
Deputy First Minister and Cabinet Secretary for Health and Wellbeing

Executive Summary

Please note: this Executive Summary is deliberately extended to facilitate assimilation of the key aspects of the full document. A Glossary is provided on page 61, in order to provide further clarity for some of the terms and abbreviations used in this Report. The Report has been published in two versions – a Full Report (this version) and a Summary Report. Both are available in download format from the RCGP Scotland website: www.rcgp-scotland.org.uk/

Purpose

This report seeks to achieve the following aims:-

- Describe and quantify the valuable contributions of Scottish academic general practice and primary care in research, education, patient care, policy development and leadership roles
- Develop a new sustainable and flexible general practitioner academic career pathway which will build up a cohort of internationally competitive senior clinical academic researchers
- Equip and empower a new generation of general practitioners who will lead the development, redesign and implementation of patient services that are fit for the future
- Promote a strategic programme of primary care research leading to increasingly evidence-based, safe and effective patient care for the people of Scotland
- Secure the support of the Scottish Government for implementation of the recommendations made

Background

Academic general practitioners (GPs) in Scotland fulfil a number of important roles including high level leadership within Universities and Postgraduate Deaneries in education and research. They also make significant contributions to the quality and safety of patient care at local, regional and national levels. Building on their previous experience, evaluative expertise and research contributions, they are well placed to contribute to the further development and implementation of Government policies and plans in *Better Health, Better Care*.

Academic GPs aspire to do much more and better, but there is limited capacity to undertake important new initiatives and concerns about present and projected academic capacity to meet the many challenges ahead. Currently senior academic general practitioners constitute ~0.5% of GP principals in Scotland, compared to ~8.5% of hospital consultants who hold senior academic posts (GP to consultant ratio: 1 to 17). More than 35% of present senior academic GPs will reach retiring age in the next ten years (2018) and more than 70% in the next fifteen (2023). There is also a significant lack of junior academic staff with very few doctors in training, which takes a minimum of ten years, to replace senior academics as they retire.

There are a number of limitations in the present academic GP career pathway, including:-

- The lack of a systematic career structure and opportunities to underpin and sustain a vibrant clinical academic GP workforce
- A paucity of opportunities for achieving a higher degree – only about 1% of GPs possess a higher degree in Scotland and this severely limits the development of principal research investigators
- The present number and configuration of GP Academic Fellowship posts are unsatisfactory. These one year posts are unattractive to GPs seeking academic career opportunities and are distinct from other NES SCREDS (Scottish Clinical Research Excellence Development Scheme) medical specialty academic training posts in Scotland, which allow flexible entry, including at the outset of specialty training and are of longer duration

Other challenges include difficulty in sustaining joint working between University Departments and Postgraduate Departments of General Practice, and the need to develop academic support for new and sustainable models of health care delivery in remote and rural settings. A major appraisal of the future requirements and priorities for primary care research and development in Scotland was last undertaken in 1999, when the Scottish School of Primary Care was founded. Much has happened in the past ten years, but there is much still to do – a further strategic review of primary care research and development beckons.

Format of report

This report is divided into **five Sections** as follows:-

Section 1 describes how this report was commissioned by the Scottish Academic Forum, following concerns about the ability of academic general practice to respond optimally to the challenges facing primary care development in NHS Scotland. A Working Group was formed, chaired by Professor Lewis Ritchie, to address these issues and to make specific recommendations for Scottish Government support, to increase academic

capacity and to develop attractive and sustainable career pathways for academic GPs. The Working Group Members and Peer Reviewers are listed in ***Annex A.***

Section 2 summarises the research, educational and wider service contributions made by University Departments of General Practice and Primary Care, Postgraduate Departments of General Practice and the Scottish School of Primary Care. In the six year period 2002-2007, to coincide with the latest Research Assessment Exercise (RAE), University Departments of General Practice and Primary Care and Postgraduate GP Departments published 933 papers (Table 2.1). University Departments attracted £61.5 million in research funds over the same period (Table 2.2), equivalent to an average of ~£3.3 million per wte University senior GP academic in post at January 2007 (Table 3.1). A bibliometric comparison of all published primary care research articles over the same period, shows that Scotland produced *pro rata* a significantly higher output of articles than England and the Netherlands, and had higher citation rates. Other evidence is provided on the quality and radical expansion of undergraduate medical teaching (three fold over the last ten years, involving more than 40% of all general practices in Scotland) and enhanced postgraduate training (involving extended training, and increased exposure to general practice and Training Fellowships). This record of recent past achievement is encouraging, but must be further built upon to achieve higher levels of international research excellence and educational endeavour. Looking to the future, it is essential that Scottish primary care research and educational capacity is fit for purpose and internationally competitive, contributing to the increasing evidence base for the delivery of safe and effective care to patients.

Section 3 provides details of the present clinical academic general practitioner workforce in both University and Postgraduate settings (Tables 3.1 and 3.2). Comparisons are made with senior academic staff in other medical specialties and also the SCREDS Clinical Lecturer training scheme. There are significant challenges and opportunities requiring action: the wide gap in numbers of senior academic staff between academic general practice and other medical specialties, unsatisfactory configuration of existing general practitioner academic training posts, the lack of a systematic academic career structure and the need for robust plans for replacing and augmenting retiring senior staff. However, the overriding argument for expanding the numbers of senior academic GPs in Scotland, is not equity driven - but rather is led by the imperative for academic excellence and the unequivocal need to produce a larger cadre of high quality internationally competitive clinical researchers in primary care.

Section 4 describes the current general practitioner clinical academic career pathway and its limitations. The importance of early investment in academic training is stressed as are lessons from previous schemes. Relevant comparisons are made with recent strategic research initiatives in England and the Netherlands - where significant investments have been made in academic general practitioner career development, inspired by the concerns of senior Dutch GP academics. Key opportunities and options

are suggested for: targeted improvement and investment in a new enhanced and sustainable academic career pathway which is illustrated in **Figure 1** (page 11).

17 detailed recommendations are made and listed together for convenience at the end of this ***Executive Summary*** – along with suggested responsibilities for action. These can be grouped into ***three high level recommendations:-***

1. **The establishment of a new and enhanced academic general practitioner career pathway**
2. **Close collaboration of University and Postgraduate Departments of General Practice in a *'joint future'***
3. **A strategic review of primary care R&D priorities**

Section 5 seeks to provide a summary of key messages and to provide a vision for the future for academic general practice in Scotland.

Key messages and action points:-

- Academic general practice and primary care has made substantial and beneficial contributions to patient care, service redesign and health professional development. Recent international comparisons made are favourable - but we can do better, with the right support, and also must guard against complacency.

- A new and sustainable academic general practitioner pathway is recommended to replenish and enhance retiring senior academic capacity. Early and resolute action will be required to implement this effectively - particularly careful planning and phasing of sufficient new NES SCREDS Clinical Lecturer posts and Doctoral posts.

  This will require:-
  - annual monitoring of numbers at all stages of the academic GP career ladder
  - ongoing active engagement of the Scottish Academic Forum as a reference group
  - meticulous preparation with the SCREDS Operational Group
  - active liaison to address clinical/academic payscale differentials

  Intimate and continued collaboration by University and Postgraduate GP Departments is fundamental for progressing this. A number of other joint issues are recommended to be pursued, including the development of a new combined General Practice and Primary Care Academic Unit in Inverness.

- The proposed new academic GP pathway is designed to equip and empower a new generation of general practitioners and multi-professional team members

working in primary care, not just aspiring University or Postgraduate clinical academics. The pathway contains sufficient flexibility to provide expertise and additional leadership skills as essential outcomes of the training process and will also be potentially relevant for other clinical disciplines. This will be delivered by increased academic exposure within general practice specialty training, the NES SCREDS Clinical Lecturer scheme, by MSc programmes and In-practice Fellowships. NHS Boards will be important stakeholders to realise these opportunities for the forward development of primary care, workforce and infrastructure strategies. Increased exposure to academic general practice is also proposed for undergraduates, FY2s and existing GP vocational training schemes. Careful planning will be required – scope and timescales must be realistic.

- A major strategic review of primary care R&D priorities by the Scottish School of Primary Care (SSPC) is recommended. It should focus on building up the evidence base for safer and more effective patient care, for shifting the balance of care, supporting self-care and for promoting international excellence. The forward research agenda must be cross-cutting, multi-professional and focus on the patient and the journey of care. The potential for translational medicine is huge, as are imperatives for the evaluation of new technologies and models of care. Maximising health improvement and minimising health inequalities will also figure prominently, as will educational research. This will further harness the strong record of collaborative primary care research across Scotland and the role of SSPC.

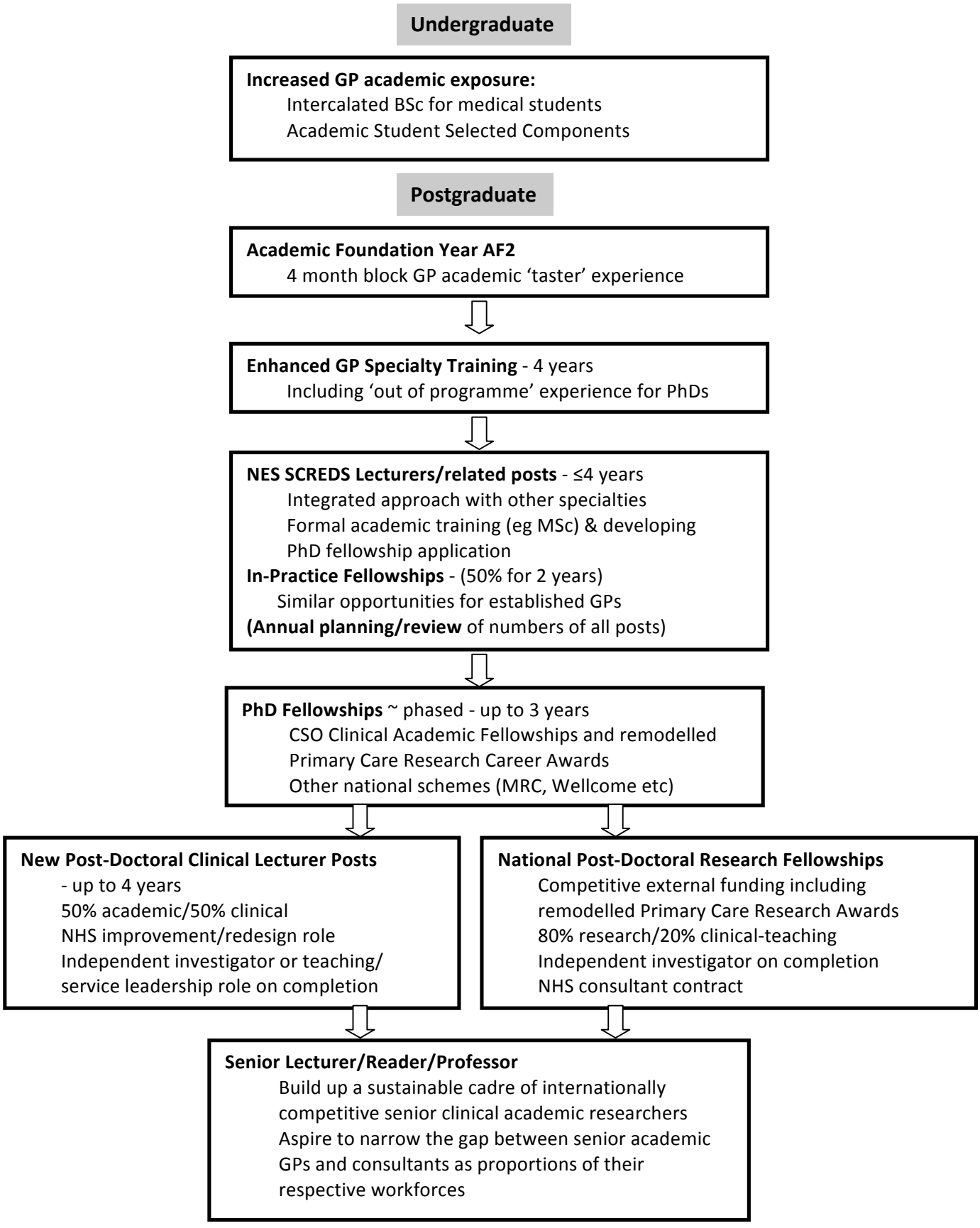
- Irrespective of the rationale for the recommendations made, the true measure of this report will be the effectiveness of its translation into action by NHS Scotland, Medical Schools and other Government agencies. This will also require the active assistance of service general practitioners and professional organisations.

Resource implications: We envisage that many of the recommendations in this report, while not resource neutral, will be achieved by reconfiguration of existing resources, posts and priorities.

The report concludes by looking ahead to the potential impact of its recommendations and the future of academic general practice in Scotland. Hopefully this report will help to secure that future and to serve as a compass for the way forward.

The views of the Scottish Government were sought on the final draft of this report. A supportive letter from the Cabinet Secretary for Health and Wellbeing was received in response. It is included as ***Annex B,*** along with some comments and clarification from the Working Group and a statement of the intended way forward from the Scottish Academic Forum.

Figure 1 Proposed new GP clinical academic training pathway



Detailed recommendations and responsibilities for action

Recommended Actions	**Action by**
1 Increase early exposure to academic general practice within undergraduate medical programmes. This includes more intercalated degrees and student selected components (SSCs) in general practice.	*Medical Schools*
2 Establish four month academic general practice 'taster' options for second year foundation training (AF2) – initial target of 5% rising to 10% as resources permit	*NES/Medical Schools*
3 Increase exposure to academic general practice and research in all general practice specialty training schemes	*NES/Medical Schools*
4 Fund 'out of programme' experience to undertake a PhD during general practice specialty training	*NES/Medical Schools*
5 General practice academic training programme to be configured as for all other medical specialties, maintaining all the principles and flexibilities of the SCREDS scheme, allowing transfers to/from other medical specialty training schemes	*NES/Medical Schools*
6 Establish "In-Practice" Fellowship posts. Numbers of posts to be determined in conjunction with SCREDS post configurations	*NES/Medical Schools*
7 Numbers of general practice NES SCREDS Clinical Lecturer and related academic training posts **(4-6)** to be progressively expanded and kept under careful annual review	*NES/Medical Schools*
8 CSO Primary Care Research Career Awards scheme and criteria for entry to be remodelled in the light of other recent developments such as SCREDS – as additional pathways to doctorates	*CSO/Medical Schools / NES*

Recommended Actions *(continued)*	**Action by**
9 Numbers of Doctoral posts should be closely aligned/phased to the output of the NES SCREDS Clinical Lecturer scheme and the future replacement requirements of senior academic posts.	Medical Schools/NES/ CSO/Other funding streams: Wellcome, MRC etc
10 New Post-Doctoral Clinical Lectureship posts to be created with specific academic and service remits, including NHS development and redesign	*Medical Schools/NES /NHS Boards/Other funding streams*
11 Numbers of academic general practitioners in Scotland, at all stages of the career ladder, should be subject to annual monitoring and review	*Scottish Academic Forum/NES/Medical Schools*
12 Overall numbers of senior academic general practitioner posts to be considered in the context of broader clinical academic workforce planning in Scotland	*Government agencies, including: Scottish Funding Council (SFC) /NES /Medical Schools*
13 Increased GP access to Master Degree Programmes in Primary Care to be investigated and encouraged. NHS Boards should look to how they can support these and other academic study activities using devolved Prolonged Study Leave funds or alternative mechanisms	*SSPC/Medical Schools/other participating HEIs/NES/ NHS Boards*
14 Financial barriers to GP clinical academic careers must be addressed for academics in training. Academic payscales should be appropriately aligned with clinical payscales. This academic/clinical payscale comparability issue also applies to part-time teaching/training contributions by service GPs and requires resolution	*Medical Schools/NES Government agencies/ NHS Boards*

Recommended Actions *(continued)*	**Action by**
15 University and Postgraduate Departments must work more closely together in a *'joint future'* and implement /explore:- ▪ The potential for 'academic general practices' – which undertake significant educational programmes and/or research activities to enhance evidence-based care ▪ Co-location opportunities where possible – particularly in relation to new developments ▪ Effective joint planning of future capacity and infrastructure requirements for both undergraduate and postgraduate teaching/training – including joint: - posts to promote educational excellence - training, as appropriate for GP trainers/ undergraduate tutors - educational research activities - quality assurance development for undergraduate and postgraduate teaching - forward planning for AF2 and all academic GP specialty training options ▪ Honorary academic status for all GP Postgraduate Deanery clinical staff	*Medical Schools/NES/ NHS Boards (for primary care strategy, infrastructure and workforce issues in teaching/training practices)*
16 Development of a new combined undergraduate/ postgraduate Academic General Practice and Primary Care Unit should be supported in Inverness, with a particular focus on remote and rural health/health care issues, and with a national perspective	*Centre for Health Science and others including: NES/NHS Highland/UHI Millennium Institute/University of Aberdeen/University of Stirling*
17 A systematic review of primary care research and development priorities for Scotland, should be undertaken, to enhance evidence based policy and its delivery, particularly focused on the patient and shifting the balance of care, as outlined in *Better Health, Better Care*	*SSPC*

1 Background and Remit

This section describes how this report was commissioned by the Scottish Academic Forum, following concerns about the ability of academic general practice to best respond to the challenges facing primary care development in NHS Scotland. A Working Group was formed to address these issues and to make specific recommendations in order to develop attractive and sustainable career pathways for academic general practitioners in Scotland.

It has been said that over a professional lifetime, an effective clinician working in general practice or in hospitals, may improve the health of thousands of patients. By teaching and training the next generation of clinicians, an effective teacher may improve the health of tens or hundreds of thousands of patients. Through research, by providing evidence to inform changes in policy and practice, an effective practitioner may improve the health of millions.[1] It is therefore essential that any clinical discipline must have an appropriate proportion of its numbers engaged in high quality teaching and research.

The current cadre of senior academic general practitioners (GPs) in Scotland has exercised high level leadership roles within University and Postgraduate Deanery teaching and research activities, generated substantial amounts of research grant income and peer reviewed publications, and contributed to service development at local, regional, national and international levels. However, there is concern about the ability of present and projected capacity to cover the huge range of opportunities and challenges to support the Scottish Government's policies and plans in *Better Health, Better Care*.[2] These include: priorities for more preventive, anticipatory care, for the development of more high quality, locally accessible health services and continued transfer of care from secondary to primary settings.

The workforce in academic primary care increasingly involves clinical staff from other health professions, including nurses, pharmacists, dentists, clinical psychologists and other allied health professionals. Primary care research activities also depend upon an important and growing contribution from non-clinical researchers.[3] Recognising these synergistic and interdependent relationships, the Scottish Academic Forum, convened and chaired by the Royal College of General Practitioners (RCGP Scotland), debated how best to address academic capacity issues. The aims and membership of the Scottish Academic Forum are listed on page 1 of this report. One of the major past contributions of the Forum was the report: *Shaping the Future: A Primary Care Research and Development Strategy for Scotland*,[4] published in 1999, which led to the establishment of the Scottish School of Primary Care (SSPC).[5]

In the light of the particular challenges facing clinical academic medical careers and recent developments such as: Modernising Medical Careers (MMC),[6] the Tooke Report[7] and the Scottish Clinical Research Excellence Development Scheme (SCREDS),[8] it was agreed that the immediate focus should be on the difficulties and potential solutions for general practitioner clinical academic career development.

In February 2008, a Working Group of academic general practitioners, chaired by Professor Lewis Ritchie, *(see **Annex A**, page 53)* was established under the auspices of the Scottish Academic Forum, in order to start to develop a robust clinical academic career framework for general practitioners in Scotland.

Terms of Reference were agreed as follows:-

- To describe recent developments and contributions of University and Postgraduate Departments of general practice and primary care in Scotland
- To identify concerns around the present general practice academic career pathway and workforce capacity
- To advise and make recommendations on sustainable future academic general practice career pathways in Scotland
- To identify potential future research and service development contributions that academic general practice could make to secure the aims of shifting the balance of care as outlined in: *Better Health, Better Care: Action Plan*

Group Process

The Group met on five occasions between 22 February 2008 and 21 August 2008. All deliberations of the Group were minuted. Draft versions of this report were circulated to senior University and Postgraduate academic general practitioners in Scotland for comment. The draft report was peer reviewed by five academic general practitioners working outwith Scotland, by an Officer of RCGP UK, by a Scottish Medical School Deputy Executive Dean and by a Medical Director of a NHS Board. Their names are also listed in ***Annex A*.** The draft report was considered at separate meetings of the Scottish Academic Forum, the Executive Board, and the Council of RCGP Scotland. Modifications were incorporated and a final draft of the report was submitted to Scottish Government on 28 August 2008. Following receipt of the response of the Cabinet Secretary for Health and Wellbeing, the Working Group met for a sixth and final time on 25 February

2009, with the Scottish Academic Forum, in order to complete the report. The Cabinet Secretary's letter is included as ***Annex B,*** along with some comments and clarification by the Working Group, and a statement of the intended way forward by the Scottish Academic Forum.

Please note: The final draft version of the report considered by the Cabinet Secretary differs from this published version in: (a) the revised content of the **Group Process** description in the preceding paragraph and in the ***Executive Summary***; (b) updating of postgraduate training statistics in Section 2.4 to provide latest year figures; (c) an extra recently published new reference (23); (e) the addition of ***Annex B***. There are also several minor rewording changes throughout the text – made for clarification only.

2 The Value of Academic General Practice and Primary Care

This section summarises the research, educational and wider service contributions made by University Departments of General Practice and Primary Care, Postgraduate Departments of General Practice and the Scottish School of Primary Care. Encouraging national and international comparative evidence is presented on the breadth and quality of research and educational endeavour.

2.1 Policy context and the contribution of academic general practice and primary care

Better Health, Better Care[2] explicitly aims to drive improvement in health and health care in Scotland and sets out an ambitious action plan of work to achieve this over the next five years. It places an emphasis on health improvement, reducing health inequalities, mental health, efficiency and anticipatory care. There are two main parts of the plan that coincide with the aims of academic general practice and primary care:

Firstly, there is a commitment to:

> *'…base current and future action on the available evidence and add to the evidence for the future, through introducing new policies and interventions in ways which allow for evaluating progress and success'.*

Secondly, under leadership development, there is a further commitment to:

> '….*invest in staff skills, training and competencies to help improve services for patients, support team working and enhance Scotland's reputation as a base for leading health science and research'.*

Evidence based policy and practice, multi-professional team working and clinical leadership are of crucial importance, taking account of the growing complexity of primary care.

Working collaboratively across disciplinary and University boundaries, particularly through the Scottish School of Primary Care, **academic general practice and primary care has added value to NHS Scotland in the following areas:**

- ***By leading research, creating new knowledge that has changed clinical practice, directly leading to enhanced patient care***

For example, the recently completed Bell's Palsy Trial was led by academic general practitioners (GPs) in the four University Departments of General Practice and Primary Care and required the collaboration of GPs, other primary care providers, SSPC and a number of hospital specialists across Scotland. The results of this prize-winning study have been published in the *New England Journal of Medicine*[9] (internationally, the highest rated general medical journal) and is changing clinical practice worldwide. In 2008, three of the first four Chief Scientist Office (CSO) Research Programme Grants were awarded to teams led by academic general practitioners: studying the impact of home monitoring and telehealth on care and outcomes for people with common long term conditions; developing new interventions to improve quality of life for younger people with multiple chronic conditions living in deprived communities; and developing and testing interventions to improve the safety and quality of general practice prescribing. The fourth CSO Research Programme Grant, led by the Scottish Medicines for Children Network has an academic general practitioner and two members of a department of academic primary care as grant holders.

- ***By supporting the development of, and evaluating the implementation of National and Health Board policy initiatives***

This has included independent evaluation of:- the projects *Doing Well by People With Depression,*[10] *Keep Well*,[11] and the introduction of NHS 24.[12] Considerable expertise has been built up and continues to develop in how to effectively evaluate complex health service initiatives such as these.

- ***By developing a strong tradition of innovation in undergraduate and postgraduate education development***

This includes a range of activities, including:- a significantly increased role in medical student education and general practice postgraduate training; supporting Continuing Professional Education of GPs; high level postgraduate education for GPs and the wider primary care team via Masters and similar CPD programmes - for example the multi-centre Scottish MSc in Primary Care,[13] and Glasgow University's Master of Primary Care degree.[14]

2.2 Research activities

In terms of numbers of peer-reviewed original research publications (including systematic reviews, but excluding all other publications) information was sought from the four established University Academic Departments of General Practice and Primary Care (Aberdeen, Dundee, Edinburgh and Glasgow) and from the four Postgraduate Departments (North, East, South East and West Deaneries) for the six year period 2002-2007, to coincide with the Research Assessment Exercise (2008 RAE) cycle. These are summarised in **Table 2.1.**

Table 2.1 Peer-Reviewed Publications – 2002-2007

University Departments of General Practice and Primary Care

Evaluation	Clinical	Educational	Laboratory/other	Total
622	131	44	17	**814**

Departments of Postgraduate General Practice Education

Evaluation	Clinical	Educational	Other	Total
19	9	85	6	**119**

In total, 814 publications were produced from the four University Departments, covering the following areas: evaluation (622 – including epidemiology, economic and qualitative); clinical research (131 – mainly trials); health care educational research (44) and other (17 – including laboratory linked research). For the four Postgraduate Deaneries a total of 119 publications were produced over the same period with the expected major focus on educational research (85 papers – 71%), with additional papers on evaluation (19), clinical (9) and others (6). Each Postgraduate Deanery is involved in research and development activities. The national NHS Education for Scotland (NES) Lead Role for Research is presently held by an academic general practitioner – the research portfolio has a particular emphasis on educational research and the development of the role of general practice educators.

The Scottish academic general practice and primary care community *'punches above its weight'* in terms of grant income and publications. This can be evidenced by the Institute for Scientific Information (ISI) Bibliometric Indices of Progress,[15] in primary care, general practice and family practice for the RAE period 2002-2007, where a total of 1311 articles (average 9.7 citations per item) were published from all sources in Scotland compared to 8194 (average 7.9 citations per item) from England and 2436 (average citations 9.0 per item) from the Netherlands. On a population per capita basis (2006 estimates) the ratio of published articles is approximately - Scotland: 10; England: 6; Netherlands: 7.

In parallel, over the same six year period, the research grant income total for University Departments of General Practice and Primary Care was £61.5M (million) - of which £20.0M came from Scottish Government (excluding CSO), £18.7M from the Chief Scientist Office (CSO); £9.8M from UK/EU or international sources; £6.1M from charities; £4.0M from industry; and £2.9M from local NHS Boards as summarised in **Table 2.2.**

The total figure of £61.5 million is the equivalent of ~£3.3 million per wte University senior GP academic in post at January 2007 (see Table 3.1), but reflects the hard work and commitment of the *whole* multi-professional primary care academic workforce.

Table 2.2 Research Grant Income – 2002-2007 £ million (M)

University Departments of General Practice and Primary Care

Scottish Government (Non CSO)	Chief Scientist Office (CSO)	UK/EU/ international	Charities	Industry	Local NHS Boards	Total
£20.0M	£18.7M	£9.8M	£6.1M	£4.0M	£2.9M	**£61.5M**

As part of their research activities, the University Departments of General Practice and Primary Care also have active programmes of multi-professional postgraduate research degrees (MSc, MEd, MPhil, PhD and MD).

2.3 Scottish School of Primary Care

The Scottish School of Primary Care (SSPC) was established in 1999, with a view to promoting excellence and building up capacity in primary care R&D.[5] It was inaugurated as part of the work of the Chief Scientist Office (CSO) Primary Care Research and Development Implementation Committee (1998-2002). Initial funding sponsors were: CSO, the Scottish Executive (now Government) Health Department and the Scottish Council for Postgraduate Medical and Dental Education (SCPMDE - now NES). Logistic support was also provided at the outset by RCGP Scotland and the Royal Pharmaceutical Society. An additional funding package was put in place in 2006, with a strategic research development grant from the Scottish Funding Council (SFC), leading to a collaboration of nine Higher Education Institutions (HEIs). In addition to this SFC grant, core funding is now provided by Scottish Government Health Directorates (CSO, Chief Nursing Officer, Primary and Community Care). SSPC was successfully externally reviewed in 2004 and presently has three strategic objectives supported by defined work programmes:

1. To develop internationally recognised, methodologically rigorous research which address important issues in Scotland and beyond

2. To increase recruitment to trials and other methodologically rigorous research

3. To ensure higher level career development opportunities

SSPC incorporates the successful Scottish Primary Care Research Network (SPCRN) which presently has 877 multi-professional clinical and multidisciplinary academic members. SPCRN works with the other Scottish topic specific networks and within the framework of the UK Clinical Research Network (UKCRN). SSPC also provides administrative support for the Scottish MSc in Primary Care and encourages SCOTCAT sharing with Glasgow University's Master of Primary Care degree.[13,14] Further activities and progress are described in the SSPC Annual Report 2007-08.[5]

Scottish primary care research and evaluation capacity and infrastructure must be fit for the future and internationally competitive. There have been recent major strategic investments in primary care research capacity in England[16] and in clinical academic career development in the Netherlands[17] which as yet, have not been mirrored in Scotland.

2.4 Educational and teaching activities

University undergraduate teaching developments: Following the publication of *Tomorrow's Doctors* by the General Medical Council in 1993[18] and investment of significant new NHS Additional Cost of Teaching (ACT) funds, the proportion of general practice based teaching expanded dramatically, more than three-fold, in all Scottish Medical Schools with Departments of General Practice and Primary Care. General practice-based teaching now comprises ~12% of the undergraduate medical curriculum in these Schools. This expansion, which occurred generally throughout the United Kingdom, is described in the 2002 report: *New Century, New Challenges*,[19] from the Heads of Departments of General Practice and Primary Care in UK Medical Schools. Clinical general practice exposure for all students (not just those entering general practice) includes 5-8 weeks of clinical experience towards the end of the course and variable amounts of earlier, community-based experience, including early patient contact, communication skills, clinical skills, ethics and patient, family and community-based projects.

This tripling of the general practice-based contribution has made good use of the professional approach to medical education that has been the hallmark of general practice in the UK for three decades. It also recognises and makes use of the abilities of clinical generalists to address educational activities across a broad spectrum and to provide medical students with influential role models. Community-based attachments allow early exposure of students to patients and examples of multi-professional working in health care teams. Much more could be done in this area, including joint educational activities for students in different health care professions.

General practice-based teaching is highly valued by medical students, as shown by formal evaluations and external General Medical Council (GMC) inspection of courses.[20] This teaching is also greatly appreciated and popular with GP Tutors, as judged by their commitment to training, evaluation and by their feedback. It is also beneficial to the NHS by exposing students in training to examples of high quality, high morale practice, particularly in rural, remote and disadvantaged populations - thus increasing the prospect of later career choices being influenced in this direction.

Currently*, over 40% of Scottish general practices are involved in undergraduate medical education***,** with student placements to all of the territorial Health Boards, taking in the full geographical (urban, rural, remote) and socioeconomic spectrum of Scotland.

Undergraduate experience of general practice is often limited to clinical attachments. While this experience is invaluable and highly regarded, it is important that medical students are also given the same opportunities to be involved in general practice research as they are in other specialties. This would translate into more students taking general practice and primary care intercalated degrees, student selected components/special study modules and elective projects. Integrating medical students into University Departments at an early stage will increase awareness of a fulfilling career in academic general practice.

Postgraduate teaching developments: The core business of the Postgraduate Deaneries is training doctors to enable them to practise as independent general practitioners. The significant changes brought by Modernising Medical Careers (MMC)[6] have required the Deaneries to move from Vocational Training to GP Specialty Training. All doctors now complete a two year foundation programme before entering General Practice Specialty Training (GPST). The number of doctors being trained for GPST has increased and the projected Scottish intake in 2009 is 393, 220 to a three year integrated programme and 173 to the new four year integrated programme. The additional year is presently based in hospital in appropriate specialties allowing a greater breadth of experience.

A training curriculum is now in place, developed under the auspices of RCGP UK, with specialty content appropriate to the needs of general practice. This includes a more robust assessment at the end of training, again led by the RCGP.[21] The outcomes of the GP specialty training scheme will meet the objectives originally outlined in *Delivering for Health.*[22]

From 2008, all doctors entering new GPST programmes will spend 18 months in a general practice training environment, requiring a pre-planned expansion of 50% in the

number of GP trainers. The educational supervision has been maintained with this expansion and presently in Scotland (June 08) there are 320 approved training practices with 528 approved trainers. The number of doctors receiving a Certificate of Completion of Training (CCT) in general practice was 2140 over the nine year period 2000-2008.

Postgraduate general practice education programmes have only been able to deliver high quality postgraduate training for general practitioners in Scotland due to the significant infrastructural investment made by NES. Creation of this additional educational capacity has enabled the development of a high quality training experience for general practitioner specialty training programmes. In the last Postgraduate Medical and Education Training Board (PMETB) survey in 2007, three of the four Scottish Deaneries were in the top four for quality of training as reported by trainees in the UK.

However, in spite of general recognition that GP education is a continuum from undergraduate, foundation and specialist training, through to lifelong learning, relationships remain somewhat disjointed, due to separate University and Postgraduate Department funding mechanisms and infrastructure.

2.5 Additional contributions of academic general practitioners

As part of their role, academic general practitioners, like other clinical academics, make a significant contribution to service delivery and development. Apart from their responsibilities as practising GPs (which will vary according to individual contractual arrangements) they also contribute to NHS development by providing strategic advice for national policy formulation and its implementation at both national and local levels. All senior academic general practitioners with substantive University posts are now eligible for the new NHS Consultant Contract, including clinical excellence awards. The new Contract involves not only direct clinical activities but also indirect service development activities at local, regional and national level. All are subject to annual job plans, appraisal and review, providing concrete evidence of additional contributions. Some salaried academic GP posts have clinical commitments that are targeted to those in greatest need – the homeless, dispossessed and patients with drug or alcohol abuse problems.

Postgraduate Deaneries also support the GP Retainer Scheme, make a valuable contribution to the continuing professional development (CPD) of doctors in their area and also exercise a supportive role for general practitioners who have performance issues. The national general practitioner appraisal scheme is also led by NES, as is the core CPD programme for practice managers. Further details of the activities and

contributions of the GP Units of Scottish Postgraduate Deaneries are provided in the publication: *Innovation and Creativity in Postgraduate General Practice Education.*[23]

Additional valuable contributions from academic general practitioners include: clinical leadership, policy development, service redesign, clinical governance support and the promotion of safe, clinically effective patient care.

3 Academic General Practitioner Workforce: Challenges and Opportunities

This section describes the present Scottish clinical academic general practitioner workforce in both University and Postgraduate Department settings. Comparisons are made with senior academic staff numbers and the SCREDS training scheme in other medical specialties. Significant challenges are discussed for sustaining and enhancing current GP academic capacity. Opportunities must be harnessed for internationally competitive research, high quality educational activities and the promotion of leadership and excellence.

3.1 University workforce capacity

A workforce survey was undertaken recently, on behalf of the Scottish Heads of Departments of General Practice and Primary Care.[24] The establishment of clinical academic general practitioners working in Scottish Universities, including the single professorial post at the University of St Andrews, as at January 2007, is summarised in **Table 3.1**:-

Table 3.1 Clinical Academic General Practitioner Establishment Scottish University Departments of General Practice and Primary Care Numbers (whole time equivalent – wte)

Professors/ Readers/ Senior Lecturers	Primary Care Career Scientists	Senior Clinical Tutors	Clinical Lecturers/ Tutors	Clinical Research Fellows	Totals
22 (18.6)	4 (2.0)	54 (8.7)	8 (4.4)	5 (1.1)	93 (34.8)

The majority of these individuals have two contracts – as part-time GP academics, and separately as serving general practitioners. This constraint applies particularly to the 54 senior clinical tutors (8.7 wte) who are mainly serving NHS general practitioners and whose part-time duties - with an average commitment of less than one day per week - are focused almost wholly on teaching activities.

Two key capacity issues are identified by this snapshot:

- The 22 (18.6 wte) senior university based academic general practitioners represent ~0.5% of GPs in Scotland,[25] compared to the ~8.5% of wte hospital consultants who hold senior clinical academic positions.[26,27]
- There is a significant lack of junior academic capacity, with very few academic doctors in training to replace current senior academics as they retire. This is not peculiar to general practice and represents an ongoing challenge for all medical specialties.[27,28]

3.2 Postgraduate workforce capacity

In parallel, the establishment of clinical academic general practitioners working in Scottish Postgraduate Deaneries, comprise the following:-

Table 3.2 Clinical Academic General Practitioner Establishment
Scottish Postgraduate Deaneries
Numbers (whole time equivalent – wte)

Directors	Assistant Directors	Associate Advisers	Totals
4 (3.9)	8 (4.3)	65 (14.6)	77 (22.8)

All Assistant Directors and Associate Advisers have a contracted part-time commitment, with a continuing substantive role as serving general practitioners - comparable to part-time senior clinical tutors, working in University undergraduate units.

NES additionally supports 18 one year GP Clinical Fellowships which are designated for GPs who have recently completed their postgraduate training. 12 of the 18 fellowships address Scottish Government priority areas in Health Inequality (2), Rural General Practice (6) and Paediatrics (4). These have proven to be popular and provide a first step in career development for important policy development areas. The remaining six clinical fellowship posts have recently been reconfigured. Two have been reshaped into four half-time one year posts in Medical Education, and allocated to each of the four Deaneries. These provide new opportunities to develop the postgraduate general practice/primary care teachers of the future. The remaining four posts have been defined as one year Academic Fellowships, based in Medical Schools (one each at Aberdeen, Dundee, Edinburgh and Glasgow). These academic training posts and the two posts in medical education provide a point of entry to academic general practice for doctors who have recently completed their clinical training and who have little (or no)

research or teaching experience. However, this scheme remains at an early stage and there are particular issues for academic general practice.

As presently constituted, the four introductory NES GP Academic Fellowship posts are of one year duration. Within that year, aspiring clinical academic general practitioners must undertake basic research training, develop a field of interest and prepare applications to apply for national research fellowships – the next rung of the academic career - whilst retaining clinical skills. This is not realistic and compares adversely to other specialties.

3.3 Common challenges, combined opportunities

In summary, the development of academic general practice in Scotland has been significant and encouraging over the last 15 years, mirroring progress elsewhere in the UK.[19] Research and evaluation activity has radically increased, with a clear impact on practice and significant input on policy. About 12% of Scottish Medical Schools' curricula are delivered in general practice, and over 40% of practices teach undergraduate students. In parallel, the volume and scope of the educational and research work of general practice Departments in Scottish Postgraduate Deaneries has also expanded considerably.

However, significant challenges and opportunities must be addressed, in particular:-

- **Sustaining current capacity and excellence**

There is, as yet, no viable and sustainable 'pipeline' of younger clinical academic general practitioners to replace retirees. In terms of research capacity as currently configured, the senior academic general practitioner establishment will continue to contribute to primary care development in Scotland over the next 10-15 years. However, the majority of existing senior staff will be retiring over the same time window – estimated at >35% by 2018 and >70% by 2023 - and the prospect after that period is precarious. It takes approximately ten years to train an academic to senior level and urgent, resolute action must be taken to address this challenge now.

- **Increasing senior academic GP capacity**

A separate issue is whether the academic general practitioner establishment should increase in size, from its current ~6% of the senior clinical academic establishment in Scotland, to higher and arguably more equitable levels. The present academic general practitioner comparator figure in the rest of the UK is ~7%,[27] but this antedates recent substantial and ongoing investment in primary care research infrastructure and capacity

in England.[16] Another way of illustrating this, as mentioned earlier, is that ~0.5% of general practitioners in Scotland are in senior clinical academic posts compared to ~8.5% of hospital consultants (a ratio of 1 to 17). *Only about 1% of the 4000 GPs in Scotland possess a higher degree.*[24] These figures and comparisons provide a stark contrast and also point to a compelling case for considering a progressive increase in the general practitioner clinical academic establishment.

However, the overriding argument for expanding the numbers of senior academic GPs in Scotland is not equity driven - but rather is led by the imperative for academic excellence and the unequivocal need to produce a larger cadre of high quality internationally competitive clinical researchers in primary care.

- **Realising Opportunities**

As government policy ambitions grow for moving more care from hospital into community settings, with a greater emphasis on preventive and anticipatory care - as described in *Better Health, Better Care,*[2] it is important that this is also reflected in the contribution and forward composition of the clinical academic workforce.

In terms of educational activities, there is an eagerness for promoting combined research and development in both undergraduate and postgraduate general practice domains, and to integrate more effectively to promote lifelong learning for all health professionals working in primary care. This enthusiasm, in both University and Postgraduate GP Departments, must be harnessed to promote academic and clinical leadership and to further rekindle professional excellence in general practice.

Action is needed to ensure that there is a suitable career structure for both University and Postgraduate Deanery employed academic general practitioners and to plan for sufficient numbers to replace and augment the current cohort of senior clinical academic staff.

4 Securing the Future

This section describes the current general practitioner clinical academic career pathway and its limitations. Detailed recommendations are made for: a new, enhanced GP academic career pathway; closer University and Postgraduate collaboration, a new combined Academic General Practice and Primary Care Unit in Inverness, and a strategic review of primary care research priorities for Scotland.

4.1 Career pathways for academic general practitioners

In addition to pressing capacity issues, this report is primarily focused on the future remit and responsibilities of academic general practitioners. It is crucial that clinical academic general practitioners grasp the opportunity to undertake leadership roles in research, teaching and service management, in order to inform the future development of health and health services in Scotland.

In particular academic general practice must be positioned to:-

- Conceive, design and contribute to leading major research projects, which will shape future clinical practice and more widespread organisational NHS reforms
- Develop and implement changes to undergraduate and postgraduate curricula to ensure that current and future challenges are robustly addressed
- Champion and lead service redesign as appropriate, ensuring that future change is evidence based and rigorously evaluated

Figure 4.1, *page 32* demonstrates the main pathways which a trained general practitioner, on completion of specialty training, may follow. From the outset, the majority will work primarily in delivering clinical general practice. Over time, many of these doctors will also contribute more widely, by teaching medical students, training future general practitioners and actively participating in research projects. Additional roles on behalf of NHS Scotland will include: QOF review, GP appraisal, and essential clinical contributions in acute services, out-of-hours care and community hospital services. Some general practitioners will also adopt wider roles in postgraduate education and in NHS service management and development - including Health Board, Community Health Partnership (CHP) and Managed Clinical Network (MCN) posts. However, most general practitioners could benefit from further training, experience and

support to quickly assume lead roles in the future development and innovation of general practice. Typically in the past, these roles have been taken on after extended periods as full-time serving clinicians.

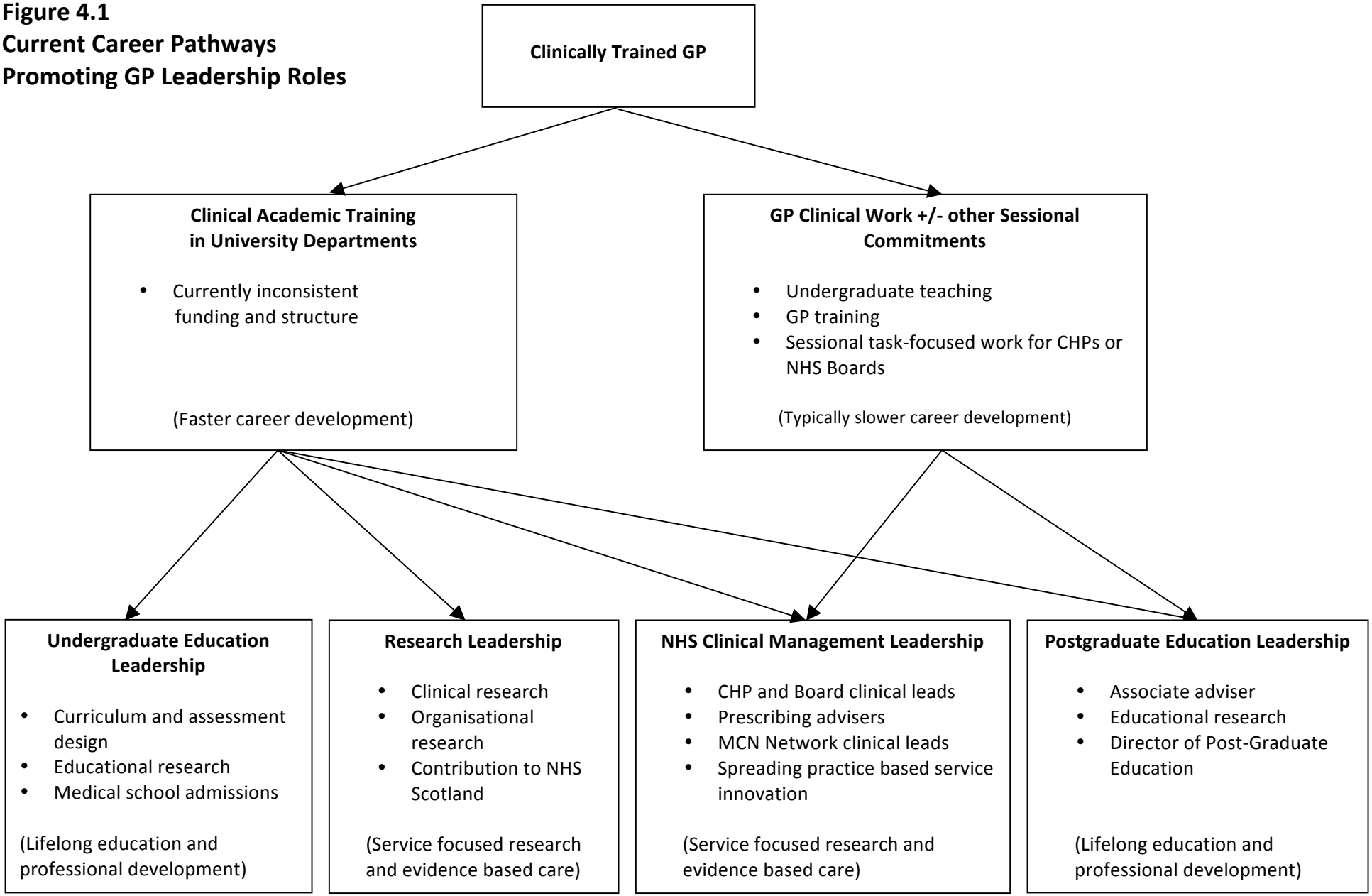
Formerly, a small number of clinically trained general practitioners have entered academic training, in a determined, but at times haphazard way. The lack of consistent funding or structure to 'clinical academic training' in general practice, has meant that there has been a great deal of happenstance in career development. From these somewhat tenuous roots, University based research and undergraduate teaching leadership has emerged and flourished. However, general practitioners who have followed the clinical academic path, but who have not wished to remain in the University sector, have used their clinical academic training as a springboard for enhanced development of broader leadership roles. Rather than thinking that the sole purpose of clinical academic training is to create University posts, academic training should also help to create general practice leaders capable of working in a variety of contexts, and to assist the integration of the many different and complex elements of primary care.

The lack of a 'pipeline' of junior academics to replace senior colleagues approaching retirement, identified above, is a consequence of the shortcomings of the current career pathway. Moreover, the deficiency of stable funding and infrastructure leads to many other wasted opportunities to develop individuals who could otherwise be effective leaders, both in the University sector and postgraduate teaching and in clinical management, quality and safety improvement roles for the NHS.

4.2 The importance of early investment in clinical academic training

Training clinicians to be senior academics takes a considerable time, typically 10 or more years (1-2 years initial exposure and Master's level training, 3-6 years PhD allowing for part-time working, 3-5 years postgraduate research training). Some clinicians make the switch to academia after a prolonged period in practice and it is important not to close this route, but early recruitment to academic careers is essential for sustainability. Over the last 20 years, there have been a series of relatively short-lived schemes usually providing one year initial academic placement. In contrast, the Higher Professional Training Fellowship Scheme (HPTF) was a two year scheme for GPs straight out of clinical training, which ran between 1996 and 2005. Fellows were based in both University General Practice and Primary Care Departments and Postgraduate Departments/Deaneries of General Practice, working part-time clinically and part-time in research training, teaching and service management, according to their future career intentions. However, like most similar schemes that preceded it, HPTF was treated more as a short-lived experiment funded on soft monies rather than a long-term investment, and was withdrawn before its full impact could be properly evaluated.

Figure 4.1
Current Career Pathways
Promoting GP Leadership Roles



The lessons of previous academic training schemes are:

- First, that early investment can pay dividends for research, teaching and service development in the future. Ten years on, the first cohorts of HPTFs already includes two current Scottish Professors of General Practice, as well as others who returned to clinical general practice but who rapidly took on significant out of practice responsibilities in service development and management, as well as undergraduate and postgraduate teaching.
- Second, *only* providing posts at the very start of an academic career does not adequately address the unsystematic nature of subsequent training. There are currently a number of programmes for PhD level training through the Chief Scientist Office (CSO),[29] the Medical Research Council (MRC),[30] National Institute for Health Research (NIHR),[16] Wellcome,[31] and other funders. These nationally competitive schemes provide a useful and high hurdle to test ability and commitment, but only a few well-prepared candidates will be in a position to create a competitive proposal after a few months in an introductory academic post, as happened under the one year SCREDS academic fellowship model introduced in 2008. This is clearly illustrated by the lack of applicants to the CSO Clinical Academic Training Fellowship Scheme,[29] where there have been as yet no applicants from aspiring academic general practitioners, since the scheme began in 2006. Additionally, under the current system, the lack of Clinical Lecturer posts means that a second gap exists between being awarded a PhD and obtaining a substantive senior academic appointment.
- Third, academic training can help practising GPs to appreciate the *'bigger picture'* of health services away from the immediacy of day-to-day clinical work. Additional skills include: critical appraisal of evidence, data analysis, the health of populations, leadership development and multidisciplinary teamwork. GP academic pathways must be well organised and flexible to ensure that those who return into clinical practice are well placed to rapidly move into leadership and other service development and redesign roles.
- Fourth, although a clear career structure for University based academics is needed, it is also important to ensure that there is flexibility to allow later entry to those who chose to work in full time clinical general practice initially, but then wish to develop in new directions. A clear career structure will help to ensure that the potential of doctors who have taken career breaks for family or other reasons is not lost to NHS Scotland. The 'Prolonged Study Leave' scheme provided one such support for GPs taking a career break to undertake some research activity or study. The administration and the funding for this scheme were devolved to Health Boards, which have not uniformly supported the scheme with these devolved resources. The Prolonged Study Leave scheme and alternative support mechanisms should be investigated by Boards for supporting academic study activities for serving GPs.

4.3 Opportunities for targeted improvement and investment

The most significant problems lie in the University based academic career pathway, reflecting past and ongoing investment in postgraduate GP education careers and departments by NHS Education for Scotland.

Figure 4.2, *page 35* identifies the relatively unstructured way in which senior academic general practitioner careers progress, and new opportunities to make this more effective. Of particular note are the two major gaps, immediately after the end of clinical training (now only partly filled by the new one-year NES GP Academic Fellowships posts) and after completion of a PhD - where the only routinely available options are national post-doctoral research fellowships which are explicitly focused on research training. Accordingly, there are too few posts available to maintain a strong, broadly based academic discipline.

It will be essential that a new clinical academic GP career structure is sufficiently flexible to take account of future changes in specialty training, including new core medical training developments.[6,7]

Key opportunities include - developing the academic pipeline, recognising the need for an integrated approach across the continuum of lifelong education and ensuring that current research and evaluation expertise are expanded. In particular:-

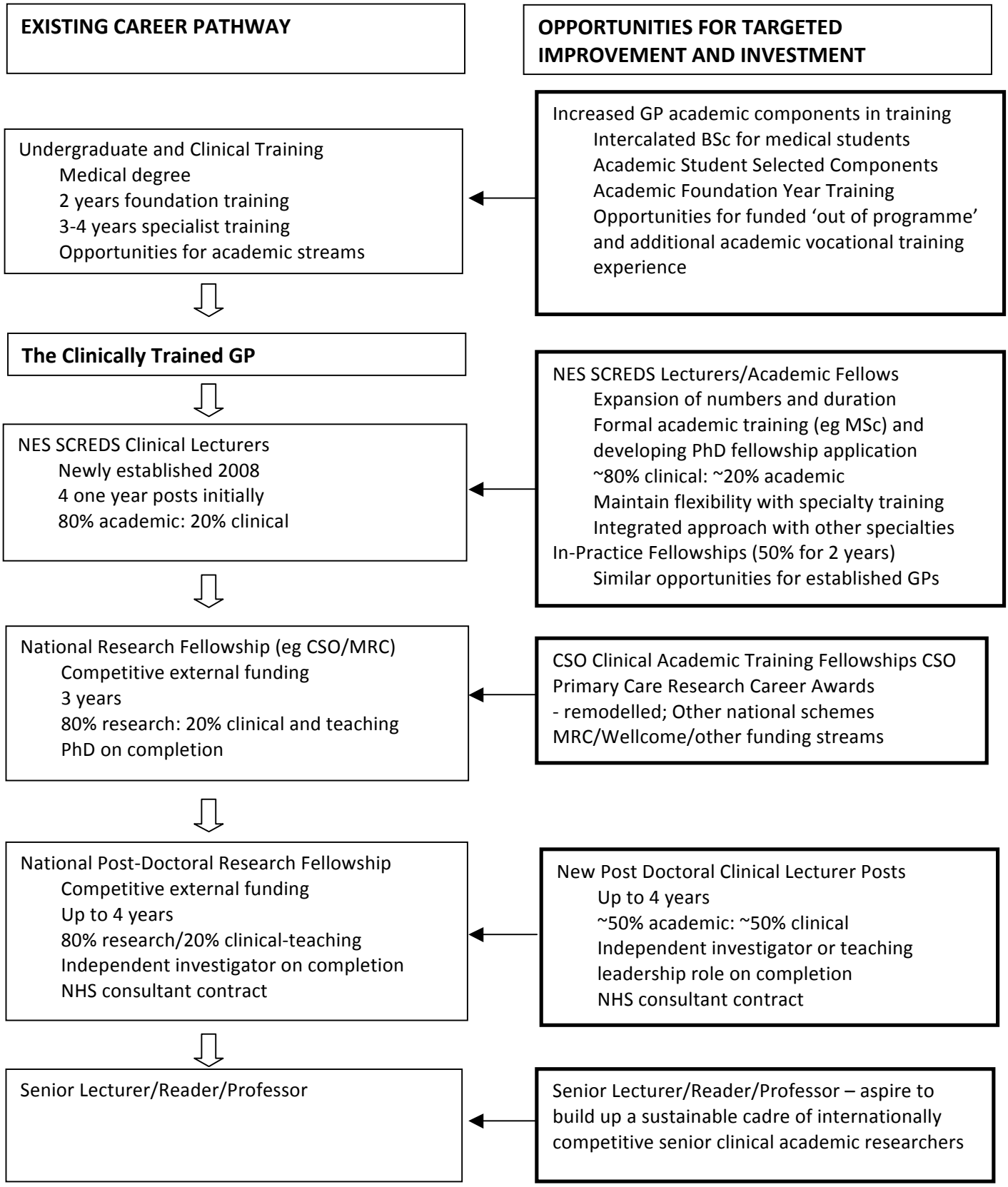
At undergraduate level:

- To include more general practice 'academic' elements and exposure in undergraduate clinical training – particularly intercalated BSc degrees and Student Selected Components (SSCs).

We suggest that exposure to academic research opportunities in general practice and primary care should be increased at undergraduate level

Expansion of these opportunities will require careful preparation, taking existing and future teaching resource/supervisory capacity into account and set in the context of overall undergraduate curriculum planning.

Figure 4.2 **Current and proposed clinical academic training pathways**



At postgraduate level:

- **Academic Foundation Training (AF2):** To establish increased academic general practice options for foundation training. In England,[16,32] 5% of doctors in the second year of foundation training (FY2) receive some exposure to research for four months in academic foundation year 2 placements (AF2). The Medical Academic Staff Committee of the British Medical Association (MASC) have suggested that at least 10% of the second year foundation programme posts should have 'research tasters' comprising four month blocks in academic environments. [33]

We suggest that 5%, rising to 10% as resources permit, of these academic foundation programmes should involve general practice

Careful planning of these options must take into account existing and projected supervisory capacity.

- **Enhanced GP Specialty Training Programmes**: To increase exposure to academic general practice research and career opportunities within all general practice specialty training programmes. Flexibilities for this will arise as general practice specialty training moves progressively from three to four years (and possibly, in due course to five years).[7] This might include undergraduate teaching opportunities, introductory research experience and allow 'out of programme' experience to undertake a funded PhD, as happens in hospital based specialties, re-entering the training programme at completion of the degree. Such schemes are available in England[16] and the Netherlands.[17]

It is likely that as we move to longer GP specialty training programmes there will be a greater emphasis within the RCGP Curriculum on research and teaching as core elements of the syllabus.[21]

- **Clinical Academic Training Posts**: To move general practice clinical academic training into alignment with other specialty equivalents, adhering to all of the principles of the NES SCREDS scheme,[8] specifically: competitive entry, availability to enter at any point, including at the outset of specialty training, retaining flexibility and allowing entry/transition from other specialty training schemes. For someone entering a NES GP SCREDS Clinical Lecturer post at the outset of specialty training this could amount to up to four (or five) years in post, until a CCT is obtained.

- **Academic In-Practice Fellowships:** Another academic route available in England recognises that there should be research training opportunities for established general practitioners who may have missed Clinical Academic Fellowship or SCREDS Clinical Lecturer posts. These are termed 'In-Practice Fellowships' and offer clinicians 50% funding out of practice for two years (or one-year full time) to do a Masters degree or other research training.[16]

For the purposes of considering potential numbers at the level of enhanced GP specialty training, NES SCREDS Clinical Lecturer posts and Academic In-Practice Fellowships, can be grouped together:

We suggest that numbers of SCREDS GP Clinical Lecturer and related posts should be progressively expanded and kept under annual review

In terms of target figures, a progressive increase to ~10 posts per annum should be considered, yielding at 'steady state' ~30 posts, over a three year cycle. A figure of 30 equates to ~3.0% of the present GP training cohort and compares to an estimated 4.3% for all other medical specialties in post (~120 NES SCREDS Clinical Lecturer posts out of 2807 training posts, at August 2008). Pursuing the principle of equity, it seems reasonable to aspire to similar proportions of academic trainees in general practice as for the average of other medical specialties. This will be particularly important as the SCREDS scheme continues to evolve in the light of MMC developments,[6] and academic specialty training establishment numbers are revised. Careful planning will be required: in terms of workload considerations for present senior academic staff; reconfiguration of existing training posts as GP specialty training extends from three to four years (and to possibly five)[7]; and taking into account all associated funding costs and implications.

Meeting an implementation time window of ~five years will be important to ensure onwards career progression and effective succession planning for retiring senior academic general practitioners. However, this will be a dynamic process. Numbers and timescales will be informed by cumulative experience of the calibre and numbers of applicants, attrition rates, academic progress of recruits in terms of application success rates for clinical academic fellowships/doctorate posts and other factors. It follows that it will be important that these proposals are robustly evaluated. Introduction of these posts will also require phasing, the ratios of the suggested three main variants will alter with time, and therefore continuous monitoring will be required for successful implementation. Further discussion is required to ensure how best these proposals can be achieved, involving active involvement by the SCREDS Operational Group of NES,[8] the General Practice, Public Health and Occupational Training Board of NES, by Medical Schools and ongoing engagement by the Scottish Academic Forum.

It is also important to assimilate cumulative experience in England and the Netherlands – in terms of numbers and lessons learned. As at July 2008, in Walport ACF Schemes, 120 new academic training posts in general practice in England were in place or being filled over the next five years, discounting an additional unknown number of 'out of programme' posts funded by individual Postgraduate Deaneries.[32] In the Netherlands, (~3x population of Scotland) there are presently estimated to be 50-60 clinical academic trainees in general practice. Over the period 2001-2005, 2.1% of their GP workforce in training had participated in an academic programme.[17] These comparisons underpin the recommended numbers of academic GP specialty training posts in Scotland. They also reinforce the need for early, firm action.

- The ongoing **CSO Primary Care Research Career Awards Scheme** is predicated on significant pre-existing research experience. It aims to support primary care clinicians while sustaining significant clinical responsibilities. Awards are for periods up to five years, allowing research commitments of 2-5 sessions per week for candidates who normally have already completed a relevant PhD or MD.[29] The higher degree output of general practitioners in Scotland, mostly from academic departments, has averaged only under two doctorate degrees per annum over many years.[24]

We suggest that the terms for the CSO Primary Care Research Career Awards scheme should be revisited – particularly the entry criteria in order to add opportunities for acquiring doctorates, to align with SCREDS GP clinical academic training developments in Scotland

- **Clinical Academic Training Fellowships**: Continuing eligibility for the CSO Clinical Academic Training Fellowship Scheme, in place since 2006, and designed to help nurture a cadre of research-led clinical academics, capable of going on to leadership roles, by providing the opportunity to undertake research leading to a PhD.[29] The scheme allows vocationally trained GP applicants up to 3 years of funding. It is likely that the broadening of access to SCREDS opportunities should help to rectify the lack of general practitioner applications to the CSO Clinical Academic Training Fellowship Scheme.

It is important that the annual number of doctorate posts/fellowships must be sufficient to provide enough opportunities for high calibre candidates to progress beyond the

initial stage of academic training. Again, this will require careful planning, phased to take into account potential candidates emerging with CCTs from the NES SCREDS Clinical Lecturer Scheme. In terms of target figures, we suggest that ~5 posts per annum would be required to yield sufficient numbers progressing to post-doctoral positions. Looking again to the continuity and sustainability of the proposed new GP clinical career pathway:

We suggest that numbers of Doctoral posts should be closely phased to the output of the NES SCREDS Clinical Lecturer scheme and the future requirements of senior academic posts

- **National Post-doctoral and Career Scientist Fellowships** are intended for exceptional researchers, and available for competitive entry by academic general practitioners, as for other specialties.[16,30,31] Academic excellence also requires outstanding teachers and inspirational individuals able to work creatively with NHS Scotland on quality improvement and evaluation.

We suggest there is a clear need to create new Clinical Lecturer posts at post-doctoral level, with specific academic and service commitments, including NHS development and redesign

These new Clinical Lecturer posts will involve a wider academic commitment than the pure research fellowships - including teaching duties and supporting many of the 'upstream' developments in the pipeline such as general practice intercalated degrees and SSCs. Part of their NHS commitment could be to explicitly support and evaluate quality improvement and service development in general practice/primary care. This would be analogous to the Walport Lectureship scheme in England.[16]

In addition, the service elements of these posts could be focused on specific needs within local NHS Board areas and should take account of active engagement with Board R&D, Training & Development and Primary Care strategies. This could open opportunities for co-funding. No specific target numbers are suggested here, but they should be seen as part of a cohesive whole within the previous career pathway recommendations, and subject to the same careful planning approach.

- **Masters Degree Programmes**: The successful modular multicentre Scottish MSc in Primary Care[13] and the Glasgow University Master of Primary Care[14]

programmes were established to meet the multi-professional educational needs of health care personnel working in primary care. In practice, only a small minority of candidates have been practising general practitioners. The reasons for this remain unclear.

We suggest that barriers/reluctance to access MScs by general practitioners should be explored and more GP candidates encouraged and supported to apply. NHS Boards should look to how they can support these and other academic study activities using devolved Prolonged Study Leave funds or alternative mechanisms

- **Senior Academic Appointments**: the extent of the present gap between general practitioners and hospital consultants seems difficult to justify. It is recognised that there is a wide variation between individual medical specialties, and the numbers of all senior clinical academic staff have diminished significantly over the last ten years.[27,33] The ratio of numbers of senior clinical academic GPs to consultants has improved over the last fifteen years, but should progress further, on the basis of proven academic excellence, in a highly competitive environment, with alignment to the research priorities of the NHS and government policy.[2]

We suggest that the numbers of academic general practitioners in Scotland, at all stages of the career ladder, should be subject to annual monitoring and review

This should help ensure that capacity keeps pace with replacement factors, the support needed for new academic GP specialty training and for health service policy requirements**.** This is part of a broader workforce issue - the need for a vibrant clinical academic community in Scotland that is fit for purpose – in terms of quality, quantity and relevant specialty mix. This will require careful consideration by Government agencies, the Board for Academic Medicine and by Medical Schools, but is clearly outwith the scope of this report. However, in relation to future opportunities, the new Senior Clinical Fellowship Scheme, funded by the Scottish Funding Council, will be available for competitive entry. Four posts will be available initially, with a likely overall establishment of 20, in due course.[34]

We suggest that overall numbers of senior academic general practitioner posts should be considered in the context of broader clinical academic workforce planning in Scotland

- **Financial Barriers:** There is a definite need to reduce barriers for entry to academic general practice. Some of these do not necessarily require additional resources, such as creating formal mentoring schemes for those interested in academic careers. However, the current system creates significant financial penalties for those wishing to pursue an academic career since academic training payscales are generally lower than clinical training ones. Moving into academic training therefore usually leads to a significant reduction in income, at a time when peers are moving into substantive GP posts and seeing significant increases over training remuneration. Again, this issue is not just confined to academic general practice.

As indicated in **Section 3**, NHS service general practitioners form the bedrock of both undergraduate teaching and postgraduate training programmes in general practice. A specific example of the need for payscale harmony relates to GPs involved in part-time teaching/training activities, where academic rates of pay generally lag behind clinical payscales.

We suggest that financial barriers to GP academic careers must be addressed for academics in training. Academic payscales should be appropriately aligned to clinical payscales. Academic/clinical pay comparability for part-time teaching/training contributions by service GPs also requires resolution

4.4 University and Postgraduate Departments – working together

As indicated earlier, the continuing dichotomy of University and Postgraduate Deanery General Practice Departments has not always been helpful for progress. Separate funding streams may also have hindered matters - Scottish Funding Council core grant, student fees, research grants and ACT funding for Universities – NES funding and research grants for Postgraduate Deaneries. In addition, although Postgraduate Deanery GP staff members are academic general practitioners in their own right, many do not hold formal academic status. There are clear synergies across the educational continuum from student to lifelong learning for established GPs, and for both University and Postgraduate sectors to pursue collaborative high quality educational research activities.

We suggest, in order to accomplish the recommendations in this report, that it will be essential for University and Postgraduate academic general practice to work more closely together in a 'joint future', and also to explore/implement:-

- The potential for 'academic general practices' – which undertake significant educational programmes and/or research activities to enhance evidence-based care
- Co-location opportunities where possible – particularly in relation to new developments
- Effective joint planning of future capacity and infrastructure requirements for both undergraduate and postgraduate teaching/training – including joint:
  - posts to promote educational excellence
  - training, as appropriate, for GP trainers/undergraduate tutors
  - educational research activities
  - quality assurance development for undergraduate and postgraduate teaching
  - forward planning for AF2 and all academic GP Specialty Training options
- Honorary academic status for all GP Postgraduate Deanery clinical staff

4.5 New Combined Academic Unit in Inverness

The distinctive needs of remote and rural areas of Scotland pose significant challenges for effective health care delivery. Educational endeavour will play an important role in underpinning sustainable future models of service delivery.[35] The Remote and Rural Steering Group recently produced its report: *Delivering for Remote and Rural Healthcare,*[36] which described the development of a Remote and Rural Healthcare Education and Learning Network (RRHEAL) coupled with new remote and rural training pathways. In 2005, *Delivering for Health*,[22] mooted the establishment of a virtual school of rural health care.

We suggest there is a strong case to be made for supporting the development of a new combined undergraduate and postgraduate General Practice and Primary Care Academic Unit based in Inverness

Recognising the importance of increasing overall academic capacity, and the specific needs and circumstances of remote and rural Scotland, this unit could have a particular emphasis on multi-professional teamwork, educational excellence and the evaluation of

new and sustainable models of health care delivery in remote and rural settings. This would build on recent innovations such as the Centre for Rural Health Research and Policy[37] and the Centre for Health Science,[38] and is already being considered as a potential development. This also marries with the recommendations in the previous section for more joint working between University and Postgraduate academic general practice. It could be established, in the first instance, as a combined undergraduate/postgraduate general practice/primary care unit, primarily with an educational focus. This initial model could evolve, developing into a broad, multi-professional primary care academic unit, engaging all relevant stakeholders. While located in Inverness, the unit could look, in due course, to develop a national perspective for remote and rural health and health care issues.

4.6 Research and development imperatives

Much of this report has rightly focused on developing sustainable academic career pathways for aspiring Scottish academic general practitioners**.** Along the way, academic general practice and primary care research and development contributions have been described that are already shifting the balance of care, in harmony with Government policy. However there is much work still to do.

In particular, the last time that there was a major *'stock take'* of the future requirements of primary care research and development, was in 1998-99, when the Chief Scientist Office in its 1998 Research Strategy, predicated primary care research as a priority area for additional funding. As indicated in **Section 1** of this document, the RCGP Scotland Report: *Shaping the Future: a Primary Care Research and Development Strategy for Scotland,*[4] led to the establishment of the Scottish School of Primary Care (SSPC) and the furtherance of primary care research networks in Scotland.[5] The encouraging progress and priorities of SSPC and the Scottish Primary Care Research Network (SPCRN) are described in **Section 2.3**.

Much has changed for the better over ten eventful years, but there remain concerns about the viability and sustainability of SSPC in the longer term, and also the fitness-for-purpose of current overall primary care research capacity and infrastructure funding in Scotland. This is reinforced by comparisons with the academic primary care community in England, which recently has had significant strategic research funding investment including: the English School of Primary Care, the National Centre for Primary Care Research and Development, and participation in the National Institute of Health Research (NIHR) Collaborations for Leadership in Applied Health Research and Care (CLAHRC).[16]

We suggest that it is timely that there should be a systematic review of primary care research and development priorities for Scotland, focused on shifting the balance of care, as outlined in Better Health, Better Care[2]

This review should take the form of a priority setting exercise to help inform the agenda for the Scottish School over the next 5-10 years. It will be focused on the research ambitions articulated throughout this report and how they will be addressed. This would include consideration of the amount and nature of strategic investments in primary care R&D, elsewhere in the UK and with other international comparators, where possible – particularly the Netherlands. It should take into account the amounts, sources and future direction of funding – for example **Table 2.2,** *page 21* indicates relatively little recent funding from Industry and local NHS Board sources. The review could also be informed by more detailed comparative analysis of quality and impact of publications, including recent trend analysis.

Innovative approaches should be pursued, to encourage, justify and capitalise on funding investments and to best address the national requirements of NHS Scotland, set in the context of wider aspirations for international excellence.

Please note: Main Recommendations, together with suggested responsibilities for actions are listed in the Executive Summary at the outset of this report (pages 12-14)

5 Promoting Progress

This Section seeks to provide a summary of key messages and to provide a vision of the future for academic general practice in Scotland.

5.1 Translation into action

In drawing the many separate strands of this report together, the members of the Working Group are conscious of its limitations and of the expectations of the Scottish general practice academic community, in particular. We have attempted to set the looming workforce challenges, which initially triggered this report, in the positive context of a sustainable way forward for academic general practice careers. We have also sought to enhance the wider development and equipping of general practitioners for leadership roles and the promotion of a primary care research agenda that will deliver better care for the people of Scotland and beyond. We are equally conscious that any report is not an end in itself but rather a vehicle for achieving progress. Irrespective of the rationale of the analysis and recommendations made, the true measure of this report will be in its acceptance and translation into action by NHS Scotland, Medical Schools and other Government agencies. This will also require the support of service general practitioners, the wider clinical and medical academic community across Scotland, a number of professional organisations and moreover, the Scottish Government.

5.2 Achieving our purpose

At the outset of this report we sought to declare its purpose and to achieve five specific aims. Revisiting each of these in turn:-

1. *To describe and quantify the valuable contributions of Scottish academic general practice and primary care in research, education, patient care, policy development and leadership roles*

We have demonstrated beneficial contributions made in each of these areas which have enhanced care for the people of Scotland. While the existing investment in academic general practitioner capacity has been comparatively modest, we believe that the research funding leverage and published output has been both encouraging and impressive. International comparisons of peer reviewed publication and citation rates, with both England and the Netherlands, have reinforced this view. However, we must

guard against complacency, and this is underlined by recent strategic investments in research and GP academic workforce capacity in these countries.

2. *To develop a new sustainable and flexible general practitioner academic career pathway which will build up a cohort of internationally competitive senior clinical academic researchers*

We have quantified the present number and spectrum of academic general practitioners working in both University and Postgraduate GP Departments. Telling comparisons have been made nationally – with other medical specialties and with academic general practitioner training initiatives in England and the Netherlands. We have explored two pressing issues: (a) sustaining capacity and excellence in the absence of a viable 'pipeline' of younger clinical academic general practitioners to replace retirees; (b) increasing senior academic GP capacity. There are powerful arguments for both, and following dissection of the shortcomings of existing academic career structures, we have made a series of recommendations designed to produce a new sustainable career pathway for academic general practitioners in Scotland, which will replenish and enhance existing senior capacity. While equity and comparability are useful guiding principles, the overriding drivers are excellence and the development of a larger cadre of high quality international clinical researchers. However, we must sound a clear note of urgency - the new career pathway will take ten years to begin to deliver senior GP academics. Accordingly, we recommend early and resolute action to implement the new career pathway. The numbers and phasing of NES SCREDS Clinical Lecturers and next stage Doctoral Fellowships, in particular, must be sufficient to achieve this. We recommend close annual monitoring of numbers of academic GPs at all stages of their career, and legitimacy for ongoing engagement of the Scottish Academic Forum as a reference group. Intensive operational planning will be key to bring all of this to fruition: we suggest that close cooperation with the NES SCREDS Operational Group will be important, as will intimate collaborative working between University and Postgraduate GP Departments. In that regard, we call for a *'joint future'* and make a number of specific recommendations for working closely together, including a new co-located joint Academic Unit, to be developed in Inverness, with a particular focus on remote and rural issues, and with a national perspective.

3. *To equip and empower a new generation of general practitioners who will lead the development, redesign and implementation of patient services that are fit for the future*

In coming to our view of the nature of a new, fit for purpose academic general practitioner career pathway, we are mindful of the need for promoting excellence and leadership across the whole discipline of general practice, not just for those aspiring to substantive senior academic positions. The proposals also provide potential

'transferable' opportunities for specialty trainees working in other clinical disciplines. The recommended new academic GP career pathway contains sufficient flexibility to provide opportunity, experience and additional leadership skills and to promote clinical, educational and service redevelopment expertise as essential outcomes of the training process. These skills will be particularly relevant for carrying forward the strategic primary care objectives of NHS Boards and we would expect them to be important stakeholders in realising these opportunities. Key recommendations to promote these skills include: the NES SCREDS Clinical Lecturer scheme, the promotion of MScs, In-Practice Fellowships, and greater academic GP exposure in existing vocational training schemes with suggested academic taster sessions in FY2/AF2. As a prelude to increased postgraduate academic GP exposure, we also propose increasing opportunities at undergraduate level. We recognise again that careful planning will be required for implementation of these recommendations, including constraints on existing supervisory capacity and competing priorities, taking into account the evolving Modernising Medical Careers (MMC) agenda.[6] Scope and timescales must therefore be realistic.

4. *To promote a strategic programme of primary care research leading to increasingly evidence-based, safe and effective patient care for the people of Scotland*

Looking ahead, we foresee research in primary care not as parochial or sector focused, but rather transcending hospital/primary/social care and self-care boundaries, centred on the patient and the journey of care. It follows that the research agenda should be cross cutting, engaging multi-professional teams and colleagues working in community and hospital settings. The potential for translational medicine and for robust collaborative large scale clinical trials on a *'Unit Scotland'* basis is gathering momentum - academic general practice and primary care has a demonstrable track record of active cooperation and is well placed to play a key role in maximising this potential. Recognising the demographic challenges that lie ahead and the increasing emphasis on shifting the balance of care and of promoting self care, the exploitation and evaluation of new technologies and models of care will become increasingly important. Maximising health improvement and minimising health inequalities will also figure prominently as will educational research. Researching other aspects of professional development including values, leadership and teamwork should also be considered. In consequence, we have recommended a major strategic review of primary care R&D priorities by the Scottish School of Primary Care (SSPC), with a focus on building up the evidence base for safer and more effective care, for shifting the balance of care and for promoting international excellence.

Resource Implications: *We envisage that many of the recommendations in this report, while not resource neutral, will be achieved by reconfiguration of existing resources, posts and priorities.*

5. To secure the support of the Scottish Government for implementation of the recommendations made in this report

A draft of this report was made available to the Scottish Government and the Cabinet Secretary for Health and Wellbeing kindly undertook to respond to it. Her letter of response is included as ***Annex B*** of this report *(page 54)*, followed by some comments and clarification provided by the Working Group, and a statement of the intended way forward by the Scottish Academic Forum *(page 59)*.

5.3 A glimpse of the future

In the next 10 years or so, academic general practitioners, working throughout Scotland, in multi-professional teams and across traditional boundaries, will make ever larger contributions to improving the care of individual patients, communities and the health of the nation. These benefits will be realised through input to education at all levels of professional development, making critical enquiry a normal part of practice and ensuring that research evidence can be produced in the community. When we establish a clear, competitive career structure for young doctors, we will complement the work of excellent basic and clinical scientists in Scotland and develop ways of working together throughout primary care.

Changes in undergraduate and postgraduate curricula will require more GP educators and there will be an increasing demand for that teaching to occur in a research rich environment. Academic careers in general practice will begin for some students during the first few weeks of the curriculum when they see their GP tutor engaged in research and asking students about the best evidence to support decision making. As those students progress though their undergraduate and postgraduate careers there will be opportunities to participate in research activities and, for those with the interest and aptitude, the opportunity to lead projects that answer key questions. The academic environment we are developing will also attract international postgraduate students who wish to understand how advances being made here can be applied in their own countries.

Some of the evidence needed to improve health care in Scotland can only come from research led by academics working in primary care. We will undertake clinical trials and

other methodologically rigorous research to address questions that cannot be answered in laboratories or hospital settings. An increasing proportion of GPs and other clinicians will work in local Scottish and international research networks on programmes of research. One of Scotland's key advantages in research is our high quality electronic clinical and administrative data which can be linked using the Community Health Index (CHI) number. Recent substantial investments by the Wellcome Trust and major pharmaceutical companies underline the importance of secure access to general practice records, the huge potential of translational medicine and the effective implementation of research evidence.

A decade from now, general practitioners in Scotland will progressively value research findings, for their practice will increasingly be based on high quality evidence. They will expect that where evidence does not exist to help them make a decision about optimal patient care, there will be a way of ensuring that the question will be addressed by well trained, highly productive academics working at the forefront of their discipline on an international stage. Hopefully, this report will help to serve as a compass for the way forward.

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14 University of Glasgow Degree: Master of Primary Care. www.gla.ac.uk/departments/generalpracticeprimarycare/postgraduatestudy/masterofprimarycare.

15 ISI Bibliometric Indices of Progress http://apps.isiknowledge.com/WOS_GeneralSearch_input.do?product=WOS&SID=N1mkKhjo581llJPn5on&search_mode=GeneralSearch.

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Walport Academic Clinical Fellows: www.nccrcd.nhs.uk/intetacatrain/
Walport In-practice Fellowships: www.nccrcd.nhs.uk/intetacatrain/inpracticefellowships
Walport Lecturers: www.nccrcd.nhs.uk/intetacatrain/
English School of Primary Care: www.nspcr.ac.uk
Implementation plan: www.nihr.ac.uk/programmes_primary_care_research.aspx
Other sources of funding: www.nihr.ac.uk, specifically programme grants: www.nihr-ccf.org.uk/site/callsproposals/programmegrants/default.cfm
Academic primary care has also been closely involved in the successful National Institute of Health Research Collaborations for Leadership in Applied Health Research and Care (CLAHRC) initiative resulting in successful bids for funding, amounting to £20 million each. www.nihr.ac.uk/infrastructure_clahrcs.aspx.

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Acknowledgements

The members and chairman of the Working Group are particularly appreciative of all contributions and advice received from colleagues in Scotland, elsewhere in the UK and the Netherlands - both formally and informally - during the preparation of this report. Special thanks are due to our peer reviewers, list in ***Annex A***, for their invaluable input. The administrative support of RCGP Scotland was essential to underpin our process, particularly the secretariat assistance from Diane Rich and Claire Godley. The report was published with funding and design support, kindly provided by the Scottish School of Primary Care (SSPC) - we are particularly grateful to Laura Wilkie for her assistance.

Annex A

Working Group Members

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Professor Jim McKillop – Deputy Executive Dean of Medicine, University of Glasgow
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Annex B

Response of the Cabinet Secretary for Health and Wellbeing

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18 January 2009

Dear Ken

ACADEMIC GENERAL PRACTICE IN SCOTLAND: SECURING THE FUTURE

When we met, with your colleagues, in September and December last year I undertook to let you have the Scottish Government's broad response to the RCGP Scotland/Scottish Academic Forum report "Academic General Practice in Scotland: Securing the Future" early in 2009. This letter fulfils that undertaking.

The Scottish Government is very supportive of the development of academic general practice and, as you will be aware, already provides substantial resources through NHS Education for Scotland (NES) to ensure the development of high quality trainees fit for substantive posts in the academic environment. The Scottish Government also recognises the particular challenges associated with the recruitment and training of clinical academic staff which are covered in Securing the Future. These have been extensively discussed and reported on in many forums at a national level and, in Scotland, gave rise to SCREDS as essentially Scotland's response to the 2005 Walport report on the training of researchers and educators of the future. In overall terms, the Scottish Government therefore very much welcomes the direction of travel in Securing the Future and, subject to my comments below, is broadly comfortable with the three high level recommendations.

I have noted that most of the 17 more detailed recommendations in Securing the Future are specifically addressed to bodies other than the Scottish Government. It will, of course,

be for those bodies to consider and respond to the actions directed specifically to them and it would therefore not be appropriate for me to pre-empt that or to offer a detailed Scottish Government response to each of those recommendations. I do, however, have one general observation to make and some broad comments on some, but not all, of the specific recommendations as follows.

On the my general point, Securing the Future appears to adopt a much broader definition of 'clinical academic practice' than that commonly used in hospital based specialties, including leadership, service development and postgraduate training, in addition to the normally recognised education and research roles. I wonder whether you might therefore need to give more consideration to the potential implications of this wider definition once the report is published.

On some specific recommendations I have the following comments:

Recommendation	**Comment**
1. Increase early exposure to academic practice in undergraduate medical programmes, more intercalated degrees and student selected components (SSCs) in general practice.	While this recommendation is correctly addressed to the Medical Schools, and is for them to respond, the Scottish Government would be supportive of it.
2. Establish four month academic general practice "taster" options for second year foundation training (AF2) – initial target of 5% rising to 10% as resources permit	I understand that the inclusion of academic general practice "taster" options is already established in parts of Scotland, notably in the West Deanery. The Scottish Government would therefore be generally supportive of this recommendation, which would be for NES and the Medical Schools to take forward, but the service implications of making this change would need to be considered carefully by those bodies to ensure no negative impact on service delivery or on the career requirements of specialist/GP trainees.
3. Increase exposure to academic general practice and research in all general practice specialty training schemes.	The Scottish Government would support this recommendation, which is addressed to NES and the Medical Schools. I understand that current changes to GP specialty training are likely to facilitate increased academic exposure.
4. Fund "out of programme" experience to undertake a PhD during general practice specialty training.	The Scottish Government would support this recommendation, which is addressed to NES and the Medical Schools. The PhD scheme (Clinical Academic Fellowships) operated by the Chief Scientist Office since 2006 is already

4. Fund "out of programme" experience to undertake a PhD during general practice specialty training *(continued)*.	open to those from General Practice, with more generous eligibility criteria allowing applicants from General Practice to apply up to 3 years post CCT in recognition of the shorter training period currently undertaken (applicants from secondary care are expected to be pre-CCT).
5. General practice SCREDS programme to be configured as for all other medical specialties, maintaining all the principles and flexibilities of the scheme, allowing transfers to/from the Medical Specialty Training schemes	The Scottish Government would generally support this recommendation, which is addressed to NES and the Medical Schools. We are comfortable with the suggestion that the SCREDS programme should be flexible and provide similar opportunities for general practice as occurs in other specialties but we would not want this to result in ring fencing posts for any specific specialty. We would expect the SREDS Operational Group to take this recommendation forward.
6. Establish "in practice" fellowship posts. Numbers of posts to be determined with SCREDS posts configuration.	I understand that one year GP Clinical Fellowship posts for recently qualified GPs, in priority areas of Health Inequality, Rural General Practice and Paediatrics are already available and are very popular. Some of these posts are in medical education and SCREDS academic training. The Scottish Government would therefore generally support the recommendation which is addressed to NES and the Medical Schools, subject to further consideration of the resource implications by those bodies.
7. Numbers of general practice NES SCREDS clinical lecturer and related posts (4-6) to be progressively expanded and kept under careful review.	The Scottish Government would generally support this recommendation, which is addressed to NES and the Medical Schools, subject to the resource implications being considered further by those bodies.
8. CSO primary care research career awards scheme and criteria for entry to be remodelled in the light of recent developments such as SCREDS – as additional pathways to doctorates.	The Scottish Government would not support this recommendation, which is addressed to the Chief Scientist Office, the Medical Schools and NES. The primary care research career awards scheme was originally configured as post-PhD/MD awards but makes allowance for

8. CSO primary care research career awards scheme and criteria for entry to be remodelled in the light of recent developments such as SCREDS – as additional pathways to doctorates *(continued)*.	those with significant experience and MSc by research to apply. As this scheme is also open to those from other clinical backgrounds working in Primary Care this must be taken into consideration. As those from General Practice can apply for a Clinical Academic Fellowship, and therefore gain a PhD, there is no compelling reason to change the criteria for these awards.
9. Numbers of doctoral posts should be closely aligned / phased to the output of the NES / SCREDS clinical lecturer scheme and the future replacement requirement of senior academic posts.	The Scottish Government would be broadly supportive of this recommendation insofar as it is addressed to the Chief Scientist Office. As with all other forms of funding the CSO Clinical Academic Fellowships are offered on the basis of quality following peer review and rigorous scrutiny by a selection panel. The Guidance does, however, make it clear that applications are particularly requested in certain clinical areas and it would be appropriate to revise this list as and when required to ensure clinical academics are trained in appropriate disciplines – which could of course include primary care.
10, New post doctoral clinical lectureship posts to be created with specific academic and service remits, including NHS development and redesign.	The Scottish Government would generally support this recommendation, which is addressed to NES, the Medical Schools and NHS Boards, subject to the resource implications being considered further by those bodies.
11. Numbers of academic general practitioners in Scotland at all stages of the career ladder should be subject to annual monitoring and review.	The Scottish Government would generally support this recommendation, which is addressed to the Scottish Academic Forum, NES and the medical Schools. You might also wish to seek the views of the Board for Academic Medicine.
12. Overall numbers of senior academic general practitioner posts to be considered in the context of broader clinical academic workforce planning in Scotland.	The Scottish Government would generally support this recommendation.
16. Development of a new combined undergraduate/postgraduate academic general practice and primary care unit should be supported in Inverness with a particular focus on remote and rural health /	It is not clear from the report what form this new unit might take or what the funding implications might be. It is also not clear whether the Scottish Funding Council, which has a statutory role to

healthcare issues, and with a national prospective.	consider the cohesion of provision across Scotland, has been consulted, or when it will be consulted, on this recommendation. The Scottish Government would therefore reserve its position on this recommendation.

I am grateful to have been given the opportunity to comment on Securing the Future and I hope you find the above comments helpful. I wish you well in taking the work forward in liaison with all of those to whom Securing the Future addresses specific recommendations.

I am copying this to the Chief Executive of NES for information.

NICOLA STURGEON

Comments and Clarification by the Working Group

The response of the Cabinet Secretary for Health and Wellbeing indicates that the Scottish Government is generally very supportive of the development of academic general practice and overall very much welcomes the direction of travel in this report. The Scottish Government is broadly comfortable with the three high level recommendations of the Working Group as follows:-

1. The establishment of a new and enhanced academic general practitioner career pathway
2. Close collaboration of University and Postgraduate Departments of General Practice in a *'joint future'*
3. A strategic review of primary care R&D priorities in Scotland

The Cabinet Secretary makes comment on 13 of the 17 detailed recommendations in this report. In only one case is there a lack of agreement (Recommendation 8, *page 12*, regarding the potential remodelling of CSO Primary Care Research Career Awards Scheme). The Working Group welcomes clarification that those with significant experience and MSc by research can apply to this scheme and emphasises again the importance of working closely with the Chief Scientist Office, in order to shape the future. In a further recommendation (Recommendation 16, *page 14*, regarding the potential development of a combined academic primary care unit in Inverness) the pivotal position of the Scottish Funding Council (SFC) is recognised and encouraging work is proceeding, under the auspices of the Centre for Health Science, Inverness. This will involve a number of stakeholders, including SFC. This work will develop a shared business plan, which will clarify and specify the scale and scope of the intended development.

The Cabinet Secretary also notes that the report takes a broader view of *'clinical academic medicine'* than commonly used in hospital medicine. The Working Group acknowledges this by recognising that as with hospital specialty training, not all GPs who embark on a clinical academic training pathway will necessarily proceed to substantive senior academic appointments, in due course. Early academic training provides opportunities for doctors to understand clinical practice in its wider population and organisational context and to develop skills in the use of evidence and data analysis. For those GPs who start on an academic pathway, the flexible career route described in this report will equip them to contribute more effectively to NHS service redesign, improvements in the quality and safety of patient care – and to support the professional development of other healthcare staff. Although ensuring the future of the senior GP academic workforce was the main progenitor of this report, early career enrichment

through academic training brings additional benefits that will support the delivery of the priorities identified in *Better Health, Better Care*.[2]

As stated at the outset of **Section 5**, the Working Group recognises that the key litmus test for this report will not be its publication but rather its translation into effective progress. To that end, the Scottish Academic Forum endorsed this report at its meeting on 25 February 2009 and welcomed the letter of support from the Cabinet Secretary for Health and Wellbeing. The Forum will strive to take forward and to monitor the implementation of the recommendations in this report by regular liaison with the bodies identified as crucial for progress, in order to secure the future of academic general practice in Scotland.

Glossary

Academic – research, educational and other scholarly activities. In the context of this report, academic general practice and primary care is mainly focused on the activities of University Medical School Units of General Practice and Primary Care (at Aberdeen, Dundee, Edinburgh and Glasgow - also a single senior general practitioner academic post at the University of St Andrews as at April 2009), the four Postgraduate General Practice Education Departments (within the North, East, South East and West Postgraduate Deaneries) and the Scottish School of Primary Care (SSPC). Academic primary care research and educational activities are also carried out by a number of non medical school Higher Education Institutions in Scotland (HEIs), including five members aligned to SSPC

Academic general practice/general practitioner See descriptions of academic and general practice/general practitioner

Academic primary care See descriptions of academic and primary care

ACF Academic Clinical Fellow/Fellowship

ACT Additional Cost of Teaching funds. These funds are made available to NHS Boards in Scotland to pay for replacement costs incurred by NHS personnel and facilities engaged in the teaching of medical undergraduates. All undergraduate medical teaching activities undertaken by serving NHS general practitioners are covered by ACT funds. As from 2006, NHS Education for Scotland (NES) has been responsible for the oversight of these monies on behalf of Scottish Government

AF2 See FY2 and Foundation training

CCT Certificate of Completion of (Specialty) Training

Career Scientist (Primary Care) A nationally awarded senior post doctoral research fellowship – normally a prelude to a substantive senior clinical academic post

CHP Community Health Partnership

CLAHRC Collaborations for Leadership in Applied Health Research and Care

Clinical academic – an academic engaged in the clinical care of NHS patients. In the context of this report refers to medical practitioners - general practitioners and hospital doctors. See also the discussion on page 59

Clinical Research Fellowship (Fellow) A specific post where research activity is learned and undertaken. Usually undertaken jointly with a variable proportion of clinical duties

Clinical Tutor (Senior Clinical Tutor) A part time post usually held by serving NHS general practitioners focused almost wholly on teaching activities. May hold honorary tutor/clinical lecturer or senior tutor/clinical senior lecturer status according to specific contractual arrangement and seniority (see also GP Tutor)

Community Health Index Number (CHI) A unique ten digit patient identifier for all patients in Scotland. It serves as the lynchpin of securing efficient access to, and electronic transfer of patient records

CPD Continuing Professional Development

CSO Chief Scientist Office

Directors of Postgraduate General Practice Education – work in Postgraduate Deaneries with their clinical academic colleagues – Assistant Directors, Associate Advisers and support staff for GP Trainers (see also postgraduate general practice education)

Doctors' Retainers Scheme See GP Retainers Scheme

Foundation Training The two year basic training requirement for all doctors in training, following graduation from medical school. In the case of general practice this would usually directly lead on to General Practice Specialty Training and provide the educational supervision throughout the programme

FY2 Second year of foundation training (qv). AF2 – Academic foundation year 2 training

General practice/practitioner Shortened from general medical practice/practitioner. General practice can be defined as the practice of medicine within the setting of primary care. This report is mainly focused on sustainable career pathways for clinical academic general practitioners

GMC General Medical Council

GPST General Practice Specialty Training

GP Retainers Scheme Allows trained general practitioners to maintain contact with their specialty. They have a commitment of up to four sessions with a mentor in general practice and this allows them to opportunistically return to the NHS workforce as individual circumstances permit

GP Trainers Are serving general practitioners who undertake the clinical general practice training of postgraduate doctors undergoing training as part of the two year Foundation Training Programme (FY1/FY2) and provide the educational supervision throughout the general practice specialty training (GPST) programme. Funding is provided through NHS Education for Scotland (NES)

GP Tutors Are usually serving general practitioners who undertake teaching of undergraduate medical students in their practices (practice/community based attachments) or within Medical Schools. In addition, they may be engaged in curriculum development, student assessment and quality assurance of undergraduate medical education. Funding is provided by ACT monies (qv), through local NHS Boards. (See also Clinical Tutor)

HEI Higher Educational Institution

HPTF Higher Professional Training Fellow

ISI Institute for Scientific Information

MCN Managed Clinical Network

MMC Modernising Medical Careers

MRC Medical Research Council

NES NHS Education for Scotland

NIHR National Institute for Health Research

Postgraduate general practice education The responsibility of NHS Education for Scotland (NES), which funds all general practitioner specialty training, and Directors of
General Practice Postgraduate Education and their teams, who are located within Postgraduate Deaneries

PMETB Postgraduate Medical Education and Training Board – recently integrated within the responsibilities of the General Medical Council

Primary Care Usually the point of first NHS contact for patients seeking care and advice. Academic primary care involves all of the academic multi-professional team members focused on primary care. This report mainly concentrates on academic general practitioners

RCGP Royal College of General Practitioners

Research Assessment Exercise (RAE) The RAE is conducted jointly by all UK Higher Funding Councils including the Scottish Funding Council. The primary purpose of the RAE is to produce quality profiles for each submission of research activity made by institution - see: www.rae.ac.uk

Research Fellowship (Fellow) See Clinical Research Fellowship (Fellow)

Research Practice A general practice (or staff therein) undertaking research activities – usually but not exclusively as a member of the Scottish Primary Care Research Network (SPCRN)

RRHEAL Remote and Rural Healthcare Education and Learning Network

SAF Scottish Academic Forum of RCGP Scotland

SAPC Society for Academic Primary Care

SCOTCAT Scottish Credit Accumulation and Transfer. SCOTCAT points are used to quantify the outcomes of learning and give them a value or currency as one component of the Scottish Credit and Qualifications Framework

Scottish MSc in Primary Care/Glasgow Master of Primary Care The Scottish School of Primary Care (qv) provides administrative support which is delivered by a collaboration of 6 HEIs. The Universities of Aberdeen, Dundee and Queen Margaret's University College are the major providers - with students able to take modules from the other three participating Universities – Edinburgh, Glasgow Caledonian and the Robert Gordon University. In addition, the University of Glasgow offers its own Master of Primary Care degree

SCREDS Scottish Clinical Research Excellence Development Scheme

SFC Scottish Funding Council

SPCRN Scottish Primary Care Research Network – operating under the auspices of SSPC (qv)

SSC Student Selected Components – specific learning modules chosen by undergraduate medical students – as non-core learning

SSPC Scottish School of Primary Care - see Section 2.3

Teaching/Training Practice A general practice undertaking the teaching of medical undergraduates, postgraduates or both

Trainers See GP Trainers

Tutors See Clinical Tutors/Senior Tutors or GP Tutors

UKCRN UK Clinical Research Network

Undergraduate medical education The responsibility of University Medical Schools mainly funded by Scottish Funding Council core grant, additional student fees and with teaching contributions and facilities supported by the NHS via ACT funding (qv). Arrangements vary between Medical Schools but undergraduate general practice teaching is normally led by Academic Units of General Practice and Primary Care

Walport See reference 16 named for Sir Mark Walport, Director of the Wellcome Trust, who led the re-development of the integrated clinical academic specialty training scheme in England

Royal College of General Practitioners

SCOTLAND

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