A National Framework for Service Change
in the **NHS in Scotland**
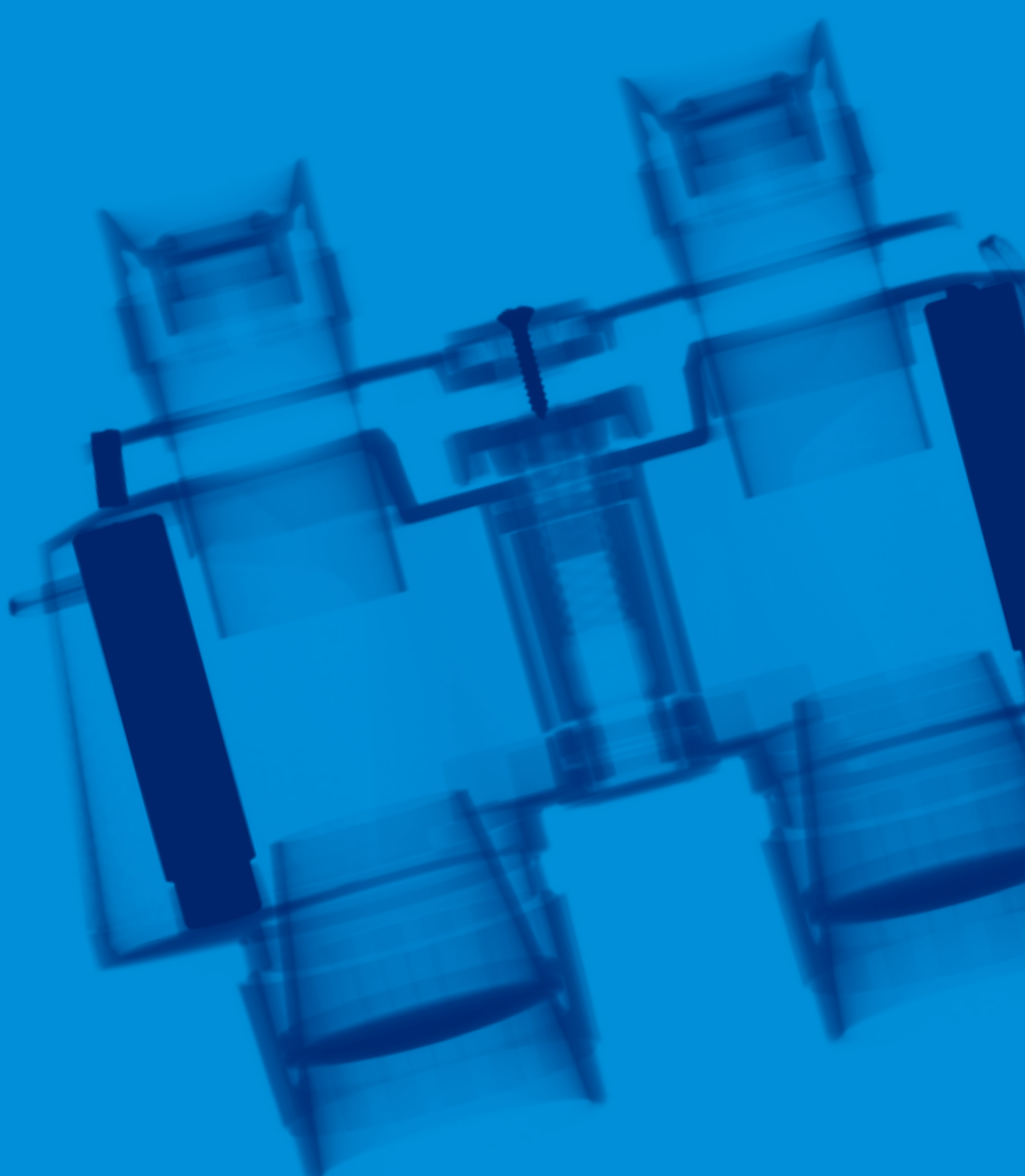
**NHS
SCOTLAND**

BUILDING A HEALTH SERVICE
FIT FOR THE FUTURE

A National Framework for Service Change
in the **NHS in Scotland**

BUILDING A HEALTH SERVICE
FIT FOR THE FUTURE

CONTENTS

The Reports of the individual Action Teams involved in the work of the Framework (see Appendix 2 for memberships) are available on the National Framework website:
www.show.scot.nhs.uk/sehd/nationalframework

FOREWORD

Andy Kerr, MSP
Minister for Health and Community Care
Scottish Executive
St Andrew's House
Edinburgh

Dear Minister,

When Malcolm Chisholm asked me just over a year ago to chair the work of the National Framework Advisory Group, I was delighted to accept. It seemed to me to be an ideal time to consider the future shape of the NHS in Scotland and I am grateful to you for providing the opportunity to do this work. I hope we have provided you with a set of proposals that you will find helpful in delivering your vision for a modern NHS in Scotland.

One of the most important components of our work was to give voice to the public and healthcare professionals working in the clinical front line so that we could understand more fully the dominant issues that were causing concern. These tended to converge around:

› Maintaining high quality services locally
› Improving waiting times
› Supporting Scotland's remote and rural communities
› Empowering clinical staff to meet the challenge of reforming the Health Service
› Using new technology to improve the standard of care
› Reducing the health gap between rich and poor
› Ensuring that we get value for money across the NHS

This sets an enormous agenda to be framed by this twenty year plan for the NHS, and one which could only be met by the Advisory Group members (appendix 1) chairing a series of action teams, drawn from multidisciplinary teams of healthcare professionals and members of the public, each of which dealt in detail with work-streams which serve to illustrate how the NHS should respond to and contextualise these concerns. We have been busy and lateral in our thinking and I would commend the two hundred or so members of our action teams (appendix 2), the two thousand or so members of the public and NHS staff who attended our ten open, "town hall" and "front line forum" meetings and our colleagues in the media who have given us fair hearing. One of us has estimated that the sum of this activity approximates to ten thousand man hours of heated debate and discussion.

First the good news – I did not doubt for a moment that Scotland had anything other than a highly trained and committed staff, capable of delivering health care on a par with anywhere in the world. Our medical and nursing schools produce eager and enthusiastic graduates who grace medical communities all over the globe, we support areas of research which are truly internationally competitive and we live through a time of record investment in the Service. Outstanding progress has been made in tackling some of Scotland's killer diseases. And yet, we find ourselves still suffering in comparison over a range of health indicators with our neighbours. We find health to be Scotland's touchstone issue, with over 250,000 folk signing petitions to "save our health service" although quite from what remains a matter of uncertainty. Given the extraordinary health pressures that we face from a rapidly ageing population, dwindling birth rate, imposed working time directives from Europe, changes in working patterns, evolving technology and an ever expanding health gap between rich and poor, it should be obvious to all that the status quo definitely cannot be an option.

This is the moment, then, for all of us to transform the NHS with a series of bold initiatives which will provide a framework to deliver safe, quick and sustainable health care for the future. We need to establish and empower systems for national and regional planning to create strong, cohesive health communities. Rather than restructure Boards, I would rather build on this well of human resource, improve their culture of leadership, collectivism and engagement with both the public and clinicians to lead implementation of the key recommendations which stem from our report. The health debate in Scotland has polarized, or disconnected several communities and it is clear that we need to win back public confidence and build bridges between several constituents, including the Royal Colleges, Boards, Health Department and NHS staff.

At risk of seeming overly sentimental, I believe that a more truly Scottish model of healthcare would be to take a collective approach in which we generate strength from integration and transformation through unity of purpose. Patient choice is important, but the people of Scotland sent us a strong message that certainty carries greater weight – if we make a commitment to see or treat a patient on a specific date, we must honour this, and ensure the quality of care delivered.

In practical terms, this implies investment in patient pathways that span primary and secondary care, networks of rural hospitals linked to and supported by the major teaching hospitals, rational distribution of services between neighbouring hospitals and national planning of complex service frameworks like neurosurgery and specialised children's services. I believe that Scotland is better suited to health improvement through collaboration and internal cohesion, making us externally competitive.

We can start to map the route that will incentivise the Service to collaborate to enhance quality of care; managed care pathways that describe the patient's pathway from the community through to specialised care; joint consultant appointments, that increase the potential to keep services local; evolving technology such as telemedicine that can link ambulance paramedics in a patient's home to teaching hospital consultants; an IT solution that connects all aspects of clinical care, across boundaries of primary and secondary health provision, throughout the Service to enhance the timeliness and quality of diagnosis, treatment and research. We make a series of recommendations, evidence based as far as possible, which will make our NHS safer, faster, fitter for purpose and more capable of sustaining care in remote communities. When the evidence supporting the recommended policy change is incomplete, we will ensure that there is sufficient prospective data collection to support or refute the direction of travel. We will ascribe roles for these recommendations to the organisations charged with their delivery, namely the Health Department, Regional Planning Groups, Boards, Community Health Partnerships so that we may hold them accountable.

In closing, I would like to touch on a general impression which I gained particularly from our "town hall" events. Scotland's NHS, though criticised and maligned by some, is still seen as Government's greatest gift to its citizens, the vast majority of whom are well served by a dedicated staff. The health debate has touched many a raw nerve, but I sense that folk want to see the various protagonists, politicians, the media, clinicians, hospital campaign groups, etc put aside what is sometimes seen as narrow self interest and pull together to reconfigure Scotland's NHS to better serve our old, our infirm, our poor and our children's children so that at last we might cast off the label of the "sick man of Europe".

Let me thank the Advisory group who worked tirelessly and Derek Feeley and his team from the Scottish Executive Health Department who provided an inspired and thoughtful secretariat.

Professor David Kerr
CBE, MA MD DSc FRCP (Glas & Lon) FMedSci

EXECUTIVE SUMMARY

OUR KEY MESSAGES

The NHS in Scotland needs to change. Not because it is in crisis as some would have us believe – it is not; but because Scotland's health care needs are changing rapidly and we need to act now to ensure we are ready to meet the future challenges. There could not be a more appropriate time to undertake a review of Scotland's NHS, and plan its future.

But just as the NHS needs to change, so too do the citizens of Scotland need to take a greater responsibility for their own health and for the overall effectiveness of the health system. As we set out in this report, in an area as dynamic as health care, change is inevitable. We have an extraordinary opportunity to improve our health and our health service, but that will not be done by complacent defence of the status quo. The NHS in Scotland and the public must work hand in hand if we are to deliver a health service that is fit for the future.

In developing this National Framework for Service Change, we provide a policy context as well as a plan of action. We make a number of detailed recommendations in the Report and these are underpinned by the following key messages. In planning the future of the NHS in Scotland we need to;

❯ **ensure sustainable and safe local services;** redesign where possible to meet local needs and expectations – specialise where required having regard to clinical benefit and to access.

❯ **view the NHS as a service delivered predominantly in local communities rather than in hospitals;** 90% of health care is delivered in primary care but we still focus the bulk of our attention on the other 10% – our current emphasis on hospitals does not provide the care that people are likely to need.

❯ **preventative, anticipatory care rather than reactive management;** the NHS should work with other public services and with patients and carers to provide continuous, anticipatory care to ensure that, as far as possible, health care crises are prevented from happening.

❯ **galvanise the whole system;** more fully integrate the NHS (including the contribution of hospitals, general practice teams, social care providers, patients and their carers) to meet the challenges.

❯ **become a modern NHS;** using new technology to improve the standard and the speed of care, connect clinicians, involve patients in their own care and support the research vital to future wellbeing.

❯ **develop new skills to support local services;** generalists as well as specialists, nurses and allied health professionals as well as doctors – all with the right skills for patients.

❯ **develop options for change <u>with</u> people, not <u>for</u> them,** starting from the patient experience and engaging the public early on to develop solutions rather than have them respond to pre-determined plans conceived by the professionals.

OUR PROPOSALS

Our report is wide in scope and contains a large number of proposals that we are asking the Minister for Health to consider. Some of these build on initiatives already underway, some are based on international best practice and some are entirely new innovations. The top ten are as follows:

› All NHS Boards to put in place a systematic approach to caring for the most vulnerable (especially older people) with long term conditions with a view to managing their conditions at home or in the community and reducing the chance of hospitalisation.

› Targeted action in deprived areas to reach out with anticipatory care to prevent future ill-health and help reduce health inequality.

› Support for patients and their carers to manage their own health care needs and to help others with similar conditions.

› Implement urgently a national information and communications technology (ICT) system, including an electronic patient record and the development of tele-medicine, as a means to improve access, quality, research and integration of the NHS.

› Empower multi-disciplinary teams in community casualty departments to provide the vast majority of hospital-based unscheduled care – networked by tele-medicine to consultant led emergency units.

› Shorten waiting times and inform patient choice by separating planned care from urgent cases, treating day surgery as the norm (rather than inpatient surgery), enabling better community based access to diagnostics, developing referral management services and introducing a delivery function that will draw on best practice across the world to further speed up patient access to services.

› Concentrate specialised or complex care on fewer sites to secure clinical benefit or manage clinical risk.

› Develop networks of rural hospitals to support our remote communities and establish a Clinical School for Rural Health Care to ensure workforce development.

› A step change in the development of regional planning to ensure that Health Boards make regionally based decisions about the shape of hospital based health services.

› Set a clear agenda for Community Health Partnerships to work across barriers between primary and secondary care and engage with partners in social care to shift the balance of care.

THE NATURE OF THE CHALLENGE

"The most important policy issue facing European Governments over the next 50 years is how to cope with ageing populations…For Scotland the future is now… its population is ageing faster and dying quicker than any other industrialised nation"

The Scottish Report – Scotland the Grave? (2003)

The ageing of Scotland's population is a particular challenge for health care. In the next 25 years or so, the proportion of the population over 65 will increase to over one in four. One in twelve of us will be over 80. Older people are more likely to have a long term illness, more likely to have a combination of such illnesses, more likely to be admitted to hospital and more likely to stay there following admission.

We also expect an increased incidence and burden of long term conditions (chronic diseases such as diabetes, arthritis, rheumatism, high blood pressure etc) – and we know that patients with long term conditions are twice as likely to be admitted to hospital.

A major locus of pressure on the NHS over the last twenty years (and potentially into the future, unless we address the issue) has been the rise in emergency hospital admission. The increasing burden of ill-health associated with an ageing population only explains a proportion of this increase in emergency admissions. Perhaps the most fundamental strand of explanation for the rise in emergency admissions lies in the mismatch between the needs of the population for proactive, integrated and preventive care for chronic conditions and a healthcare system where the balance of resources is aimed at specialised, episodic care for acute conditions.

This suggests that there are a number of future challenges and pressures on the system that require an increased focus on the delivery of proactive, locally responsive care.

In responding to the challenge, we have been guided by a number of factors;

(a) Patient expectation and public trust

Patients and the general public told us at our open meetings that they wanted services delivered locally wherever possible; they were willing to travel for highly specialised surgery but wanted as many "core" services as possible close to home. They have lost a certain amount of confidence in the NHS due to what they perceive as unnecessary "creeping" centralisation driven by what is convenient rather than what patients need. Patients want access as quickly as possible to consistently high quality services delivered by a suitably trained professional, whilst realising that we could not provide a hospital at the end of every street.

(b) Rural issues

One fifth of the Scottish population lives in a rural area. Rural communities face particular challenges in terms of transport, access to services and the sustainability of local communities. We need to recognise those differences and describe models of care to meet rural needs.

(c) Inequalities

Although the health of Scots is improving, the differences within Scotland in life expectancy and mortality are significant and widening. In a deprived area, you are more than twice as likely to have a long term illness than if you live in an affluent area and it has been calculated that the deprived lose fifteen years of life compared to the affluent.

(d) Standards

The public should feel that national standards can ensure local excellence. The Scottish Executive needs to take a lead role in building the evidence base for change monitoring practice and intervening if services are seen to be failing.

(e) Staffing issues

The size and composition of the workforce is a key determinant of the capacity of NHS Scotland. The workforce is increasing. And while we must all welcome the much needed reduction in working hours, at the same time, the impact on doctors' hours is substantial, there are recruitment and retention challenges and new contracts require different approaches to providing care "out of hours". We have an opportunity to match service change with workforce change. This will require a re-profiling of the workforce and an investment in training and education across the clinical professions. In particular, new approaches are required to staff the "hospital at night".

(f) Affordability

By 2007-08 we will be spending twice as much per head of population than we were in 1999-2000 and the total budget will be £10 billion. Whatever we do needs to be affordable within that budget and to get the best possible value for every public pound spent.

OUR VALUES

The basic ethos of the NHS in Scotland – free comprehensive care available to all – still commands universal public support. The future of our health services needs to be built from that base. Our work with the public also tells us that they are looking for health services that are better, quicker, closer and safer; health care that meets the needs of all Scotland, old and young, rich and poor, urban and rural. They are looking for health care that is local wherever possible, specialised where it has to be but delivered to national standards, providing a level of certainty about what people can expect. That suggests to us a set of values to underpin our work as follows:

Fair to all

Equity of access, based on clinical need, to services of the right quality

Personal to each of us

Care designed for each individual, ensuring the patient is at the heart of what we do.

A NEW WAY OF DELIVERING CARE

We believe that to meet the challenges and to deliver on the key requirements described above will require a shift in the way we deliver health care in Scotland. This will require new ways of working, new skills, new thinking and a new culture in the NHS – one of shared responsibility and engagement of front-line staff in service improvement.

In effect, this new approach is about getting the NHS in Scotland to work as a single, whole system. We need all of the partners in the system to realise that they are inter-dependant. Action in one part of the system has an impact elsewhere. And we need the partners to understand that we all need to change. For example, in order to meet the challenges of caring for people with long term conditions we need much better integration of primary, secondary and social care. The nature of the change required is summarised in the box below.

Current view	Evolving model of care
Geared towards acute conditions	**Geared towards long-term conditions**
Hospital centred	**Embedded in communities**
Doctor dependent	**Team based**
Episodic care	**Continuous care**
Disjointed care	**Integrated care**
Reactive care	**Preventative care**
Patient as passive recipient	**Patient as partner**
Self care infrequent	**Self care encouraged and facilitated**
Carers undervalued	**Carers supported as partners**
Low tech	**High tech**

IMPLEMENTATION

Of course, this will not be easy. The health system is complex and it will take time to set a new direction. We have referred already to the workforce constraints and the need for the NHS to be affordable. It will require improved leadership throughout the NHS, from clinicians and from managers, and a willingness from patients and the public to look beyond the bricks and mortar of their local hospital.

Much has been said and written about the future of the traditional District General Hospital. People want to retain local services and that is understandable. But for some of the care that we will provide in the future, it is also unambitious. When we talk about local care, particularly in our work on the care of older people and on the care of people with long term conditions, one of our key aims is to keep the patient out of hospital by providing the necessary support and treatment in or close to home.

That will not always be possible. There is a range of care that needs a critical mass of patients in order for it to be provided. We have in mind here, diagnostic testing, routine procedures including some surgery (much of which can be done as a day case), and treatments such as dialysis, chemotherapy, rehabilitation etc. Because this kind of care requires investment in equipment and expertise, we cannot deliver it in every GP surgery, but we could do some of it in a Community health centre if we could get GP practices to band together, we could do most of it in Community Hospitals and we can do potentially all of it in every District General Hospital (DGH).

Largely as a result of the much needed reduction in doctors' hours, it has become much more difficult to deal with emergency care in all local hospitals. But, even here, there is much that can be done. It will require redesign of services, advanced roles for nurses and paramedics and GPs working in teams with other professionals to provide out of hours care. The range of hospitals that we currently badge as District General Hospitals will be able to provide, as a minimum, a twenty four hour "community casualty" service – as will a number of Community Hospitals. But in some cases it will not have consultant cover on site and if a patient is likely to require emergency surgical or medical interventions, they may be transferred (or taken immediately) to a bigger hospital – using clinical guidelines which have been written and approved by both hospitals in partnership. The sense of linkage, interdependence and networking in a key cultural challenge which needs to be met at many levels of the NHS.

For highly specialised care, we point to clear evidence of better outcomes related to higher volume. We identify a range of such complex conditions and provide the evidence (not shroud waving) that will convince the public that centralisation of certain services leads to much better outcomes.

So what does this tell us about the shape of our future NHS? What should it look like if we are to be best placed to meet the challenges? The large majority of care should be provided in the community. Much of it should be delivered in or close to home. We should extend the scope of what we currently know as primary care to include routine diagnostic tests, providing alternatives to hospitalisation (e.g. GPs with special interests) and doing the follow up from acute care. To maximise the opportunities for this, we need to fully utilise the potential of the community hospitals, we need to import to urban Scotland the model of the Community Hospital as a local hub (perhaps by bringing together a number of GP practices on to a single site where they can share access to diagnostic and other facilities) and that will require a shift in resources to achieve a shift in the balance of care.

By shifting care from the traditional District General Hospital to multi-disciplinary, community based teams, we have the opportunity to use the DGH in a number of different ways. Some will focus on planned surgery to enable quicker access to care. These units may have "community casualty departments" attached but they will not admit patients who need emergency surgery. Other DGHs will continue to do both planned and emergency work but they will stream these procedures as far as possible. This will mean that, over time, the shape of our hospital provision will change. We cannot staff every hospital to do everything and the evidence shows that there is a massive downturn in activity during the night that can be safely dealt with by local nurse led teams, transfer of high risk patients to designated partner hospitals and networked emergency centres. In the central belt, we are confident that the stabilisation and transfer of seriously ill patients is the optimal means to manage risk within the limit of the available resource. In rural communities, transport becomes more problematic and our Rural General Hospital model offers a variation to take account of this.

It is not the function of a National Framework to say precisely what every DGH in Scotland should do. Our aim has been to make the decision making process more evidence based, transparent and therefore easier to make Boards more accountable to Government and the public alike.

One of the key messages for us in doing this work has been that we need to invest in the whole system. A good example is delayed discharges. We know that a number of patients stay in an NHS bed longer than they have to because there has been a delay in providing them with the support they need when they return to the community. What is less well known is that the vast majority of delayed discharges are from patients admitted on an emergency basis. If we prevent the admission, we could resolve the delayed discharge. We need to treat the cause of the problem rather than the symptom.

The keys to whole system improvement are as follows;

› a clearer understanding of what we are trying to achieve (summarised in the key messages set out earlier in the Report);

› integrated, collaborative and co-ordinated working by the NHS and its partners across the professions, across the traditional boundaries and across Scotland – Regional Planning Groups, Community Health Partnerships and Managed Clinical Networks will have a key role here;

› excellent management to ensure performance is aligned with the vision and that the NHS rewards those contributing to the whole system;

› resource flows that channel additional investment to support service change;

› an empowered workforce able to lead the clinical change necessary to make this work.

THE NATURE OF THE CHALLENGE

Three factors in particular – and our response to them – will determine the shape of health care in Scotland for the next 15-20 years.

› Demographic change and associated shifts in the pattern of ill-health will determine the demands on the health care system.

› The composition and skills of the workforce will be the major determinant of how we are able to respond to these changes in demand.

› Information and communications technology will give us the tools to fundamentally reshape how health care is delivered.

POPULATION CHANGE AND LONG TERM CONDITIONS

The next twenty years will see an ageing population, a continuing shift in the pattern of disease towards long term conditions (or chronic diseases as some people call them) and growing numbers of older people with multiple conditions and complex needs. These changes in themselves will make the current model of health care delivery unsustainable. We will no longer be able to afford a health care system which more often than not waits for a health crisis before providing care. This reactive approach often results in an unnecessary, damaging, expensive and prolonged hospital admission. We need a health care system with an emphasis on providing continuous preventative care for people with long term conditions to balance our ability to react quickly and safely to medical emergencies.

In 25 years' time, there will be more people in Scotland who are of retirement age than there will be children. The biggest growth is in the number of the 'oldest old' (i.e. those over 80) the numbers of whom will double from around 200,000 at present to 400,000 over that time. Scotland is not alone in facing these changes and challenges. An ageing population and the growing burden of chronic disease are factors common to all advanced industrial societies.

What are the implications of this ageing population in terms of potential demands on the health care system? In general the older a person is, the more ill-health they will suffer. They will have a higher incidence of chronic disease and on average a greater number of long term conditions. However we need to bear in mind that the balance of evidence at an international, British and Scottish level is that age for age, older people have been getting healthier. So, while we can expect an increasing health care load from an ageing population it is not as straightforward as saying, for example, that a 20% increase in the number of older people means a 20% increase in the demand for health care. But there is no doubt that it increases the demands on the system.

We can demonstrate why that is the case. Figure 1 shows the cumulative distribution of use of NHS inpatient beds in Scotland. It can be seen that the 5% of patients who were the 'heaviest users' of inpatient beds in financial year 2003/4 accounted for 43% of all inpatient bed days. The 10% heaviest users accounted for 59% of inpatient bed days. 1% of patients accounted for no less than 16% of inpatient bed days.

Figure 1. Cummulative use of inpatient bed days.

1% of patients account for 16% of overall inpatient days
2% of patients account for 25% of over all inpatient days
3% of patients account for 32% of overall inpatient days
4% of patients account for 38% of overall inpatient days

5% of inpatients account for 43% of overall inpatient days

10% of inpatients account for 59% of overall inpatient days

50% of inpatients account for 7% of overall inpatient days

Source: SMR01, ISD Scotland

Who are the heavy users of inpatient beds? Table 1 shows that they are disproportionately older people. People aged 80 and over are only 4% of the population, yet nearly half of the 1% of patients who account for most bed days are aged 80 and over and nearly 80% of the top 1% of patients are aged 65 and over.

Table 1. Age composition of bed days usage groups.

| Age Group | Bed days usage group | | | | | |
	Top 1%	Top 3%	Top 5%	Top 10%	All patients	Population
0 to 64	20.3%	20.7%	21.7%	24.8%	63.7%	83.8%
65 to 79	35.2%	35.8%	36.3%	37.6%	23.3%	12.2%
80+	44.5%	43.4%	41.9%	37.6%	13.0%	4.0%
All ages	100%	100%	100%	100%	100%	100%

On the whole, the distribution of diagnoses among the heavy use groups is not dissimilar to the distribution of diagnoses for all inpatients. Therefore, it is not the nature of the diagnosis, disease or treatment that determines who is most often in our hospital beds. The principal determinant of being among the 'heavy usage' group of patients is age, for example someone aged 80 and over is around 40 times more likely to end up in the top 3% of hospital bed users than someone aged under 65.

We do not provide this analysis to suggest that older people are in any way responsible for putting pressure on the system. Rather, our argument is that in the absence of a sufficiently integrated and preventative health and social care system, hospitalisation is often the default response. We need to find alternatives to hospital admission for some of those frail older people. The number of multiple emergency admissions of older patients has been rising particularly rapidly over the last twenty years. In 1981 0.5% of the population aged 85 and over (242 patients) was admitted as an emergency three or more times in a single year. By 2001 this had risen to 2.6% of the population aged 85 and over (2321 patients). Identifying those patients at greatest risk, especially those suffering from more than one disease, and providing co-ordinated care based round their local general practice team would be a good start.

We predict that the traditional doctor-patient relationship will evolve over the next 20 years. Patients will be less deferential and less unquestioningly accepting of the treatment being offered to them. They will want to understand and be involved in the care which they are given. Via the internet they will have full access to a range of evidence on best-practice. For some, this level of patient involvement will be seen as a nuisance. It is the opposite. Patients and their carers will be the best resource we have for dealing with the growing burden of long term conditions. They will have the time and the motivation for becoming expert partners of NHS staff. In this context the role of health care professionals will increasingly be that of supporting and facilitating the management of long-term conditions by patients and carers.

Shifts in demography, epidemiology and attitudes tend to have their effects over a relatively long period of time. In contrast, many of the factors relating to the workforce are more immediate. They bring challenges but also opportunities for workforce development. They require well considered but quick responses – which may well have long-term implications.

WORKFORCE ISSUES

The NHS of the future will require a set of staff providing a different service, in different working environments and with different skills and roles. The size and the composition of the workforce is perhaps the most important determinant of the capacity of the NHS in Scotland.

A number of developments have brought workforce dynamics to the forefront of planning concerns. These challenges apply to all frontline staff, not just to doctors;

> fewer people of working age
> greater demand for flexible working patterns and part-time working to reflect the need for work-life balance
> increased demand for career breaks
> a reduction in the length of the working week in line with the European Working Time Directive (EWTD)
> skills shortages in some areas
> difficulties with respect to recruitment and retention in remote and rural communities.

The impact of the European Working Time Directive, Modernising Medical Careers, new contractual arrangements for GPs and consultants, and the need to improve the standard of care available to patients are the main medical workforce factors placing a pressure for change on the system. Many of the pressures place limitations on the supply of medical or surgical input and when that is set alongside the potential for much increased demand, the case for change is obvious.

The scope for an effective response to these issues extends to 3 broad areas;

> rota redesign – e.g. fewer tiers of cover, introducing cross cover between specialties or designing rotas including professionals other than doctors;
> new or extended roles – nurses, allied health professionals etc;
> service redesign – new ways of delivering out of hours care, exploiting new technologies etc.

In Scotland, we need to do all three. We must be clear about this. If we are to secure our aim to deliver local services where it is safe and sustainable to do so, these changes will be required. More often, patient care will be managed and delivered by a health care professional who is not a doctor. We spoke about this concept at all of our public meetings. The overwhelming view of those who attended was that they were happy to see a trained nurse, allied health professional or other skilled health care provider so long as that person was trained and competent. The bottom line here is that local services can be made sustainable but it will require creative redesign and may not extend to the full range of emergency services available out of hours.

Work on national workforce planning (including education) is underway. It will be essential to link service planning to workforce planning at every level (local, regional and national). We need to ask some fundamental questions about the recruitment and training of medical and nursing staff in Scotland. We also need to be sure that we make the best and the most appropriate use of our staff. Given the population trends, recruitment may be more competitive in the future. If we are to successfully attract, train and retain high quality staff, then we need to offer careers in a modern, attractive environment. We also need to ensure that the roles of staff meet the changing demands of the service. If we are right about the future trends in service provision, then we will need clinical generalists working in local environments but a significant degree of specialisation in the units delivering far more complex care. We need to plan too for the particular issues faced in our rural communities. Given the time lag in training new clinical staff, we need to be planning now for these future scenarios.

Recent years have seen a range of initiatives to enhance and broaden the roles of health care professionals throughout the NHS. These developments need to be accelerated in order to deliver better service in the face of new and increasing demands and in order to make NHS careers all the more fulfilling and attractive.

INFORMATION AND COMMUNICATIONS TECHNOLOGY

Technology is not a panacea. However information and communication technology (ICT) has the potential, in combination with organisational modernisation, to revolutionise the way health care is delivered. It is simply not acceptable any longer to turn a blind eye to the cancellation of operations because the medical records have been mislaid or not sent, to shrug our shoulders as patients get the same test over again because we cannot find the previous results, to bemoan the lack of decision support tools that would enable care providers to respond safely and effectively on the basis of evidence based guidelines. We need to take action now.

Many of the interactions between patients and the health service will be conducted electronically in the future. At the end of 2002, 40% of Scottish households had access to the internet and that figure is increasing rapidly. It is easy to envisage a future where patients could access officially recognised websites run by the NHS. The aim of increasing patient involvement would also be much enhanced if patients were able to access and update their individual Electronic Health Record. We might expect that within the next 10 to 15 years patients will be able to carry a credit-card sized copy of their medical record.

An Electronic Health Record will be perhaps the single most important development in ICT aimed at supporting a new model of health care delivery. Patients will increasingly have a complex mix of medical and social problems requiring input from several different services. Co-ordination of care can best be built on the basis of a comprehensive electronic patient record. If care is to become preventive and anticipatory, patients must be constantly monitored for signs of incipient crises ('kept on the radar'). Again a comprehensive real-time record is a necessary foundation for such care.

Diagnosis will be fundamentally different too. The use of advanced information and communication technologies will permit tele-diagnosis and the centralisation of complex and expensive diagnostic services. At the same time, engineering advances will lead to lower-cost imaging and other diagnostic methods that can be used in the community and in the home.

The effect of technological change in general may well be to further accelerate some of the changes we are seeing already. It should be possible to do much more monitoring, diagnosis and treatment locally (including in the home) but there will be even more complex, specialised and expensive treatments available that we will be able to provide in only a few locations in a country the size of Scotland. In any event, we are sure that we need a national information technology system for our National Health Service. We set out later in the report what we think it should do.

The pace of change is likely to quicken and it will be important to plan for some of these changes. Integrated planning of service configuration, service design and workforce requirements will be necessary. The provision of a modern health service in Scotland will require new infrastructure (particularly information technology where the current position across the NHS in Scotland seems a long way short of best practice in other sectors), new thinking, new skills and the support structures needed to train clinical leaders. The future of healthcare will not be more of the same.

In recommending change, we need to have some degree of certainty that it will be sustainable and affordable. We believe that what we propose meets both criteria. Of course, as with any change programme, there is uncertainty and an absence of fully costed data. We are recommending new ways of delivering services and accordingly there are only limited data about cost effectiveness.

We asked Dr Andrew Walker, from Glasgow University's Centre for Biostatistics, to provide a commentary for us on the economics of our proposals. Dr Walker sounded a note of caution in suggesting that there was limited evidence of costs and benefits for changes of this magnitude and he pointed out that the studies which do exist might not generalise to other settings. He noted for example that the evidence on changes to the emergency care network was patchy.

But, on the other hand, he concludes that the shift away from acute care and towards preventative services and management of chronic diseases (which is central to our proposals), can improve the long term health of the population without additional spending, so long as the services involved are carefully selected. And he points out that chronic disease management can be cost effective but is unlikely to be cost saving.

Taken in the round, and notwithstanding the shortage of hard data, we expect the changes outlined in this report to be cost neutral for the whole NHS but that they will require more weight to be given to providing care in local communities in allocating the future increases in the health budget.

THE KEY ISSUES

The preceding section has defined the issues which this report needs to address. But we can be clearer still about what needs to be done and what our response should be.

One of the great benefits in doing this work during a period when the shape of our NHS was constantly in the media or under public scrutiny, is the opportunity it gave us to have a genuine dialogue with the public and with NHS staff. They framed 10 key questions to which we need to find an answer.

Key questions which define the future

1 **Can we keep services as local as possible?**

2 **What services will people have to travel to receive and why?**

3 **How can we provide safe and sustainable services that will support rural communities?**

4 **How can we get access to quicker treatment?**

5 **How can we reduce health inequalities?**

6 **How can we improve how the NHS is managed and how the money is spent?**

7 **How can we give the public and patients a voice in changing how we provide health services?**

8 **How can we integrate the key parts of the health service?**

9 **How can we empower front-line staff to improve service delivery?**

10 **How can we improve standards and drive up quality?**

In this section, we look at each of these in turn. We are confident that the answers can be found. If we are right, we believe it will help put the NHS in Scotland ahead of the pack and give Scotland a health service fit for the future.

1. CAN WE KEEP SERVICES AS LOCAL AS POSSIBLE?

We have been able to highlight three dominant and related developments in the Scottish population's need for healthcare. The first is the growth in the number of older people and in particular the number of relatively frail older people living at home. The second is the emergence of chronic disease as the main challenge facing the health service. The third is the growth in emergency hospital admissions. We are clear that tackling these three related challenges will require a shift in the balance of care, moving from disjointed, acute hospital centred care that tends to be reactive and geared towards the acute admissions, towards care that is integrated, co-ordinated and locally responsive.

It is important to be clear what we mean by local care. We see it as the delivery of safe, effective and sustainable services as close to the patient's home as possible. In some cases, that might be in the home; in others it might be in the GP surgery or in the local pharmacy or in the local hospital. The physical location of the care package has been less important to us than the principle about delivering care as locally as possible and delivering care that meets the patient's health care needs in a way that supports the patient's well-being and personal circumstances.

The overwhelming majority of people's health needs can and should be met locally. We start from a strong base in general practice. The patients' interaction with formal health care starts and ends in primary care for the vast majority (approximately 90%) of people. There are some who would have us believe that the NHS in Scotland is a highly centralised, super-specialised bureaucracy. That is far from accurate. It has been estimated that in Scotland around two hundred million 'health incidents' occur each year. Of these around only one in eight result in a contact with the formal health services (other than pharmacy). The vast bulk of 'health incidents' are dealt with by some form of self-care – resolved entirely by the individual concerned, involving a visit to the chemist or with the help of family of friends.

Inpatients represent an even smaller proportion of health care contacts. For example, the number of emergency inpatient admissions is about one fiftieth of the number of primary care contacts.

The same picture is reinforced when we look at the world from the perspective of chronic disease or long term conditions. Around a third of the population at any one time will be suffering from one or more long term conditions (e.g. diabetes, high blood pressure, heart failure, arthritis). The vast bulk of care for these conditions will be provided on a continuous day-to-day basis by patients themselves or their carers. Contact with health care professionals will represent only a very small proportion of the total 'care time'. For example a person with diabetes will spend on average 3 hours with a health care professional and will take care of themselves for the remaining 8757 hours in a year. (DoH, 2005)

Whichever way we look at it, care is provided in local settings already – whether by individuals themselves, their family, carers or in primary care. These simple numerical relationships between various forms of care in local settings and care delivered in hospital have profound implications both for understanding recent trends in health care activity and for guiding our attempts to redesign and improve health care. The 'pyramid of care', to which people often refer, represents not only a tally of different kinds of health care events but also stages in a patient's journey. A chronic condition dealt with largely by the patient with a minimal level of monitoring and supervision may flare up and require first of all primary care intervention and then perhaps admission to hospital. In this sense the implied patient journey is a journey of escalation.

A key aim of the health care system should be to prevent, as far as possible, the patient from progressing along this kind of journey – to prevent the escalation of the locus of care towards hospital. This, together with improving the patient's quality of life, is the aim of the various systems of chronic care management being developed around the world. If a patient with a long term condition is in the relatively stable position of being able to manage their illness with minimal support from formal health services, then the aim of the system should be to maintain their health by supporting patients to care for themselves and developing innovative educational and self-help material made available using new technology like digital TV. However, the reality is often the opposite. It is only when something has gone wrong, when there is an exacerbation of the underlying condition or some other form of acute crisis, that the health care system becomes involved. This has been described as the 'radar syndrome'. The patient appears on the radar only when something goes wrong, the specific problem is treated ('find it and fix it'), the patient is discharged and disappears from the radar screen until the next time.

If we are already 90% local, you may wonder why we need to change. The difference in numbers between one level of the system and another introduces a high level of gearing into the system. For example, a 1% increase in the effectiveness of self-care – enabling patients to deal themselves with an additional 1% of the health incidents they experience – could lead to a decline of 10-15% in primary care contacts. An even more powerful example relates to GP referral and emergency admission to hospital. Around 1 in 50 GP consultations results in an emergency inpatient admission. Thus 1000 GP consultations will result in 20 emergency inpatient admissions. If all GPs were able to refer only one fewer person in 1000 consultations (i.e. referring 19 rather than 20 individuals), it would produce a 5% reduction in GP referred emergency admissions. These high levels of gearing mean that relatively small changes at one level of the system can produce disproportionately large changes elsewhere.

This is the thinking that underlies our recommendations on the management of long term conditions. Long term conditions require ongoing care, limit the patient's quality of life, and are likely to last longer than one year. They are common in the Scottish population, more common in people living in deprived circumstances, more common in older people and, because Scotland's population is ageing, they will become even more prevalent in the future. If we do not continue to improve our management of long term conditions at a local level, demand on acute services will continue to increase and will never be met.

The evidence we have brought together shows that:

❯ Chronic disease is a vitally important health issue and is growing in importance
❯ Social circumstances affect the chance of you having a chronic disease
❯ A growing number of people have multiple chronic diseases which make their care particularly complex
❯ A small number of patients account for a disproportionate amount of health care use (especially hospital care)
❯ There is growing evidence that chronic disease can be better managed through
  – increased support for self care
  – strengthening and extending primary care
  – offering responsive specialist care
  – managing vulnerable cases by anticipating their needs.

We know there is already good practice in some parts of Scotland. We know too that there is a good deal to learn from work in Europe and the United States where health care systems are grappling with the same issues. We need to build on this and the effective management of long term conditions in the community is perhaps the biggest challenge for general practice based teams in the coming years. If we are not successful in stemming the steady trickle of people with locally manageable conditions into hospital beds, it will become a flood.

That is why we are recommending that each NHS Board, through its Community Health Partnerships, should introduce a systematic approach to managing long term conditions that will:

❯ Focus on the whole person and all their health needs – not a specific disease,
❯ Involve people in their own care,
❯ Provide care in the least intensive setting,
❯ Minimise unnecessary hospital visits and admissions,
❯ Be co-ordinated in Primary Care,
❯ Be provided by a multi-disciplinary team,
❯ Integrate generalist and specialist care,
❯ Integrate health and social care,
❯ Use a population approach to identify high risk patients,
❯ Use good information systems and intelligence to identify people with long term conditions and place them on a general practice based register with their appropriate consent/ authorisation,
❯ Use a structured approach to call and recall,
❯ Review care using evidence based protocols and guidelines,
❯ Focus on improving pharmaceutical care,
❯ Use information and communication technologies to support self management,
❯ Use community and voluntary resources to provide support for patients and carers.

The last of these points is important. One part of the whole system that is often overlooked is the contribution of patients themselves and their carers. And yet, some estimates suggest that over 80% of all medical symptoms are self-diagnosed and self-treated and Carers UK have calculated that the economic contribution of unpaid carers is equivalent to the entire budget of the NHS. In recognition of this, we recommend that the NHS in Scotland seeks to build on some of the success stories in Scotland (such as the Braveheart Project), and looks at what can be learned from the Department of Health's Expert Patient Project, with a view to developing a more systematic approach to self-management. We see this as having a particular relevance to managing long term conditions.

As part of the Patient Focus and Public Involvement Agenda, NHS Boards throughout Scotland are encouraged to bring a renewed focus to their relationship and to recognise the valuable contribution the voluntary sector can and does make to health care in Scotland. Partnership with the voluntary sector must be an inbuilt element of the development of Community Health Partnerships (CHPs). The voluntary sector presence in CHPs will encompass a range of roles including service provision, patient advocacy and involvement in service planning. In addition, we recommend that the Scottish Executive Health Department (SEHD) should fund and develop a Scottish long-term conditions alliance, to articulate patients' views across a wide range of conditions and to provide a range of educational materials. This should provide a way of meeting the aim of effective long-term condition management based on generic approaches, making patients more equal partners in their own care and encouraging self-help initiatives.

The required change from current practice to sustainable self-management programmes can be further facilitated by the introduction of appropriate technology. Recent evidence from work with people who had poorly controlled diabetes shows that the use of telemedicine (in this case, mobile phone technology) offers a cost-effective way to improve outcomes. This type of solution should be piloted in Scotland.

The new contract for community pharmacy in Scotland provides an unprecedented opportunity for the NHS to fully utilise the education and skills of this workforce as part of the solution to modernising NHS services and improving services to patients. It will support self care and provide direct access to pharmaceutical care services in local communities and this will be supported by specialist pharmaceutical care, when necessary, through managed clinical networks and community health partnerships.

Given that pharmacies are situated where the people live, work and shop in their local communities they have the potential to develop wider access to health care and advice. Some will have other members of the healthcare team co-located, for example chiropodists, nurses and dieticians, allowing greater flexibility and choice in where services are delivered. With this co-location, direct access to services such as managing long term conditions and minor injury care can be made available on the high street.

We know that people with long term conditions, and particularly older people with more than one long term condition, are more likely to be admitted to hospital, see a variety of providers, take a variety of prescription drugs etc. One study showed that people with four or more chronic conditions were 99 times more likely to have an unnecessary admission to hospital than someone without a chronic condition. We have also looked at work in England, Europe and the United States about the benefits of stratifying people according to risks of complications, hospital admissions etc. and co-ordinating the care of those identified as being at very high risk using case managers. There is some (as yet inconclusive) evidence of the benefits of care co-ordination. The emerging data suggests that the more thorough and comprehensive is the identification of the at risk populations, the better the results. This suggests that we need to:

› Invest in systems and methods to stratify according to risk,
› Trial and evaluate a number of approaches to care co-ordination or case management.

For us, this is what the local care of the future is really about. It is not about protecting the bricks and mortar of the local hospital. It is about preventing frail older people for whom hospital is an unwanted (and arguably sometimes unwarranted) disruption from being admitted and looking after them more effectively close to home.

The area of mental ill health is another example of where we think that the approach outlined above can be applied. Patients with such conditions need supporting and enabling community based services. The 'Doing Well by People with Depression' programme being rolled out by the Centre for Change and Innovation is a good example of what needs to be done systematically around the mental health agenda. The programme will:

› Build capacity for self-help to meet the needs of those with mild depressive disorders and to provide support through the pathway of care.
› Build capacity for psychological interventions in primary care to reduce pressures on secondary services.
› Improve assessment of symptoms and associated problems to ensure an agreed understanding of user need and the sequence of treatments and/or support.
› Improve access to a range of community based services and support.

We see Community Health Partnerships as delivery agents for shifting the balance of care. But we are conscious that they are new organisations and we believe that they need to focus on a few issues that will really make a difference. We have identified 4 priority areas for action by CHPs. They are as follows:

› support patients at home,
› prevent avoidable hospital admission,
› identify opportunities for more local diagnosis and treatment,
› enable appropriate discharge and rehabilitation.

For example, there is much that can be done with tele-health to enable care at as close to home as possible for patients with cancer or dementia. Care co-ordination can be used to keep children with complex needs out of hospital in much the same way as we advocate its use for older people. New technologies enable earlier diagnosis using modern scanners and along with the separation of testing from reporting, open up opportunities for more rapid access and shorter waiting times as well as enabling local care. Active discharge planning, in concert with social care providers, can see patients returned to local settings for rehabilitation with more follow up being diverted from hospital to primary care.

Having said all of that, we recognise, of course, that in order to deliver some elements of local care, new infrastructure, equipment and facilities may be required. The local hospital has a valuable role to play in delivering local care. We have identified a range of initiatives to enhance that role. For example, in planned (or elective) care, we recommend, an improved and localised hospital pre-admission process that involves streamlining of patients' care, direct access by primary care teams to investigations and diagnostic tests (with more of those tests being done locally and sent electronically for reading). We recommend a greater use of day surgery – much of which will be suitable for any properly equipped local hospital. We also recommend that post-operative follow up can be done more often in the local hospital, community hospital, GP practice or even over the telephone.

We are struck that some of this work could be shifted beyond the District General Hospital. The Community Hospital is an obvious "resource hub" in rural communities and can be a basis for many of the functions described above. Community facilities in urban Scotland, such as the Leith Medical Centre in Edinburgh, can provide a similar service for local communities. We suggest that these local services, which depend on the availability of technology and skills, should be made available locally in a community resource hub. We recommend that the Scottish Executive examines how the model of the 'urban community hospital' can be made more widely available, taking account of the scope to brigade together general practices to give access to modern facilities.

Recommended Action

Meeting the health care needs of older people with long term conditions is the biggest challenge for the NHS in Scotland. It requires a shift in the balance of care from episodic care to integrated, continuous care. To enable this shift:

> Each NHS Board, through its Community Health Partnerships (CHPs), should introduce a systematic approach to managing long term conditions in accordance with the principles set out in this report and with measurable outcome targets (set by The Scottish Executive) to demonstrate progress,

> All CHPs should prioritise the following actions:
> – supporting patients at home,
> – preventing inappropriate hospital admission,
> – identifying opportunities for more local diagnosis and treatment,
> – enabling appropriate discharge and rehabilitation,

> NHS Boards should establish Community Resource Hubs in community hospitals and in expanded primary care facilities to speed up access to routine diagnostic testing and treatment,

> NHS Boards should develop and promote a wider range of access points to health care, for example by working with community pharmacies to develop services that complement those provided in primary care.

In supporting the above,

> The Scottish Executive should initiate a modelling project to identify the group of patients with long term conditions most at risk of hospitalisation so that Boards can provide them with proactive, co-ordinated care,

> The Scottish Executive should work with NHS Boards to trial and evaluate a number of approaches to care co-ordination,

> The Scottish Executive should establish a national group, including patients, carers, the voluntary sector and health professionals to develop a supported approach to self-management (including development of new education programmes) and should fund and develop a Scottish long-term conditions alliance, to articulate patients' views,

> The Scottish Executive should work with NHS Boards to pilot self-management approaches supported by innovative information technology such as home monitoring equipment.
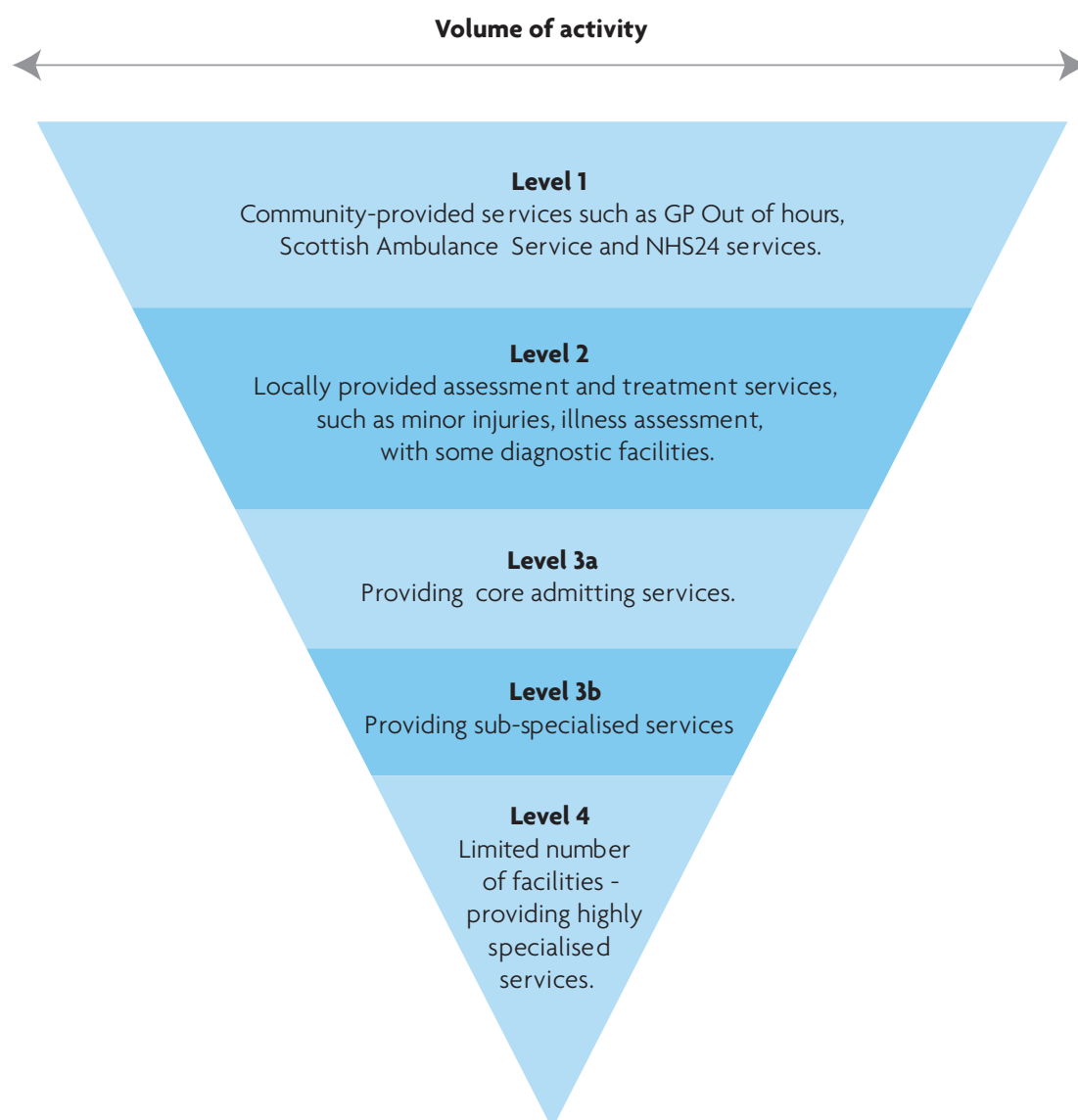
WHAT ABOUT URGENT LOCAL CARE?

We have also looked at the role of the local hospital in delivering unscheduled care. By "unscheduled care" we mean care which cannot reasonably be foreseen in advance of contact with the relevant health care professional, which can occur at any time and for which services must be provided 24 hours per day. You might think of it as care that is "urgent" in that it cannot wait for a routine appointment. This is one of the most difficult areas of our work. It is where the sustainability issues really bite hard and it was at the forefront of public concern about the loss of local services. Therefore, it is worthwhile to spend a bit of time looking in some detail at the issue.

Our research has demonstrated that there are a number of levels of demand for unscheduled care, shown in Figure 2 below. It is important to note that we are not suggesting that there is in any way a hierarchy. We would not expect patients to transfer frequently from level 1 to level 4, or to and from any point in between. The aim is to match the patient's need to the right level of care first time.

Figure 2
Levels of Unscheduled Care

Volume of activity

Level 1
Community-provided services such as GP Out of hours,
Scottish Ambulance Service and NHS24 services.

Level 2
Locally provided assessment and treatment services,
such as minor injuries, illness assessment,
with some diagnostic facilities.

Level 3a
Providing core admitting services.

Level 3b
Providing sub-specialised services

Level 4
Limited number
of facilities -
providing highly
specialised
services.

It is important to be clear about what services patients can expect at each of these levels, what competence they can expect the member of staff providing care to have and where we think the services can and should be safely provided. Our approach is to deliver care as locally as possible but we have to recognise that the constraints described earlier mean that we simply cannot go on in the same way. It is not sustainable and neither do we believe that it makes the best use of all the skills available in the clinical team. We need to extend the competence of the whole team and make the range of professional skills available to local facilities in more imaginative ways if we are to keep the bulk of services local. For example evidence suggests that it is unlikely that a 24/7/52 rota for a high-intensity speciality such as acute medicine, general surgery, or orthopaedics could be sustained with less than 8-10 doctors as a result of the need to secure EWTD compliance. Innovative networking solutions will therefore need to be found if these types of services are to be maintained in some areas. **But our approach must be to ask what can we deliver safely and sustainably in the local community and how can we maintain local services to the maximum extent.** It is better to maintain the large majority of the service locally through redesign than to have the service collapse completely because some aspect of it is unsustainable.

So, where does that leave us with this key issue of unscheduled care? It is worth examining the 4 levels proposed in a bit more detail.

Level 1 services are those currently provided on an assessment, diagnosis and treatment basis by GPs, pharmacy, the Scottish Ambulance Service, district and community nurses and NHS 24. These services will in future provide unscheduled care for the majority of contacts, especially for minor illness in the community. They will normally act as the first point of contact to the NHSScotland Unscheduled Care system and should be readily accessible locally to all. Although this report is about the long term, it has been conducted at a time when NHS 24 is under considerable scrutiny. We recognise that there are some problems that need to be resolved but we believe that NHS 24 is a valuable part of the unscheduled care system and can, with a more localised approach, contribute much to the future of the NHS.

Level 2 services can provide the majority (in the order of 70% on the basis of our analysis) of what members of the public would recognise as current A&E services. They can and should be capable of being delivered 24 hours per day, 7 days per week. They will be staffed by a mix of Nurse Practitioners, General Practitioners and Paramedics. They will be ideal locations for GP out of hours centres. They will have appropriate facilities for diagnostic testing and will be linked by tele-medicine to a 'hub' with Emergency consultants able to give advice. However, they will not admit emergency cases but rather stabilise and transfer where necessary. We can refer to these facilities as "Community Casualty Units". It is not for a national framework of this nature to specifically site each of the units that will deliver level 2 services but as a rule of thumb each current hospital offering A&E services should be able to sustain services for urgent care at level 2 at least. Some Community Hospitals will also be able to do this. A potentially generalisable model already exists in NHS Grampian which links many of the local Community Hospitals to Aberdeen Royal Infirmary.

Level 3 is where we provide assessment, diagnosis and treatment services for those patients likely to require medical and surgical admission, in what we might call "Emergency Units". The following services should normally be provided:

› General Surgical 24/7 receiving services;
› General Medical 24/7 receiving services (including provision for geriatric admissions);
› Orthopaedic surgery 24/7 receiving services;
› Anaesthetic services on a 24/7 basis, including general critical care services;
› Radiology services on a 24/7 basis.

Some sites will provide more specialised services (shown as level 3b in figure 2). These may include emergency services such as vascular surgery, urology, burns units and interventional cardiology. The key here will be to get patients who are likely to need these services to the appropriate site as quickly as possible. Those at the front end of urgent care (e.g. GPs and NHS 24) will have to route patients to these facilities. It is at level 3 that the constraints of the reduction in medical working hours really bite. Some estimates suggest that by 2009, junior doctors will be working 40% less hours than they were a few years ago. Given the need to concentrate resources in an extended working day (when activity is at its peak), and our previous reliance on junior doctors to deliver out of hours hospital care, there will be a few hospitals who currently offer 24 hour emergency admission who will not do so in the future. These will probably be in the central belt where access to alternative sites is less problematic. The Rural General Hospital will be at the centre of providing these services in rural areas. The precise configuration of emergency receiving and admission should be planned regionally.

Many level 3 services will be provided alongside level 2 with patients directed to the appropriate service at the point of entry. Hybrid models, working across the levels, may also be possible. For example, some hospitals may deal with urgent medical admissions but not provide emergency surgery. All hospitals with level 3 facilities will be expected to adopt safe and sustainable 'hospital at night' teams.

Level 4 services are those which can only be provided in a very limited number of locations in Scotland. These are services which are highly specialised, providing services for rare or particularly complex conditions and will include the following:

› Cardiac surgery;
› Thoracic surgery;
› Neurosurgery;
› Specialised critical care.

These services are required only rarely and our clear impression from our public discussions is that everyone understands and accepts the need to locate these services in a very limited number of locations.

Our work described above tells us that the majority of 'traditional' A&E activity can and should be delivered in local hospitals. It also tells us that it can only be sustained in those local hospitals by redesign. We are recommending a reprofiling of the current 'one size fits all' system where we squeeze a whole range of people, many of whom can be dealt with elsewhere, into busy hospital emergency departments. In its place we want to see a whole system approach to urgent care on the basis of our general principle of delivering care as locally as possible. The new system has GPs and nurse practitioners working alongside each other to maintain services in local hospitals. It uses technology to join up the system. It uses the key medical resources in a more focused way so that emergency specialists can concentrate on seeing the more complex cases. The central task for the professionals working in the system is to determine the level and speed of response required and then to get the patient directly to someone in the team equipped to deal with the problem.

The Scottish Ambulance Service (SAS) are also key players in the development of an integrated approach to emergency care. The Ambulance Service is currently working on the following developments:

> To enhance the skills of paramedics assigned to key communities, where this will have the effect of improving the medical resources available to patients locally, improve emergency response times, improve the standard of decision making underpinning hospital admissions, and keep the skills levels of paramedics up to date:

> To develop a specialist service to support high dependency transfers which includes the full and active participation of intensive care specialists and specialised nursing staff.

> To develop clearer guidelines for primary care practitioners about when accident and emergency transport for their patients is appropriate, and when (because there is little need for medical or care assistance during the journey) non emergency transport (whether from the service or from alternative providers) should be considered.

We believe this work has value and should be taken forward in the context of our wider proposals for unscheduled care.

This whole approach must form a basis for a system of urgent care which providers and the public alike can support. It is true that a relatively small number of people who might have had emergency surgery in one hospital may in the future have to travel a bit further. But the numbers involved are relatively small in comparison to those who will get their daily care needs met in a community setting.

Recommended Action

The current arrangements for unscheduled care do not always ensure that patients get access first time to the care they need and do not make the best use of the resources skills and expertise in the NHS.

To achieve the service improvement required and to maintain local services for urgent care each NHS Board should review its services to:

❯ match deployment of resources, skills and expertise to the types of demand for unscheduled care and getting patients first time to the level of care they require,

❯ develop capacity in primary care (i.e. at level 1) to handle most unscheduled care,

❯ develop community based facilities (community casualty units) staffed by multi-disciplinary teams to provide much of our urgent care needs 24 hours a day,

❯ develop an unscheduled care network linking community based facilities to emergency centres through tele-medicine.

In order to facilitate access and ensure an appropriate distribution of care across Scotland, all NHS Boards through their Regional Planning Groups should review over the next 12 months the configuration of the unscheduled care networks on a regional basis to:

❯ focus emergency admissions and surgery in emergency centres (i.e. at level 3 and above) to make best use of staff and resources,

❯ recognise the particular requirements of rural communities, and to

❯ take account of the capacity of the Scottish Ambulance Service to support the system of unscheduled care through enhancing paramedic skills and developing clear protocols for emergency transport and high dependency transport.

2. WHAT SERVICES WILL PEOPLE HAVE TO TRAVEL TO RECEIVE AND WHY?

One of the most vexing issues in the recent Scottish health debate is centralisation of services. It has polarised communities, caused confusion within front line professions and has often been portrayed as "hospital closure" or "down grading". Health Boards felt, reasonably, that they were doing their best to deliver modern responsive hospitals given their financial and service constraints, but somehow the debate, often fanned by local media, ignited around the "touch paper" issue of centralisation. Some commentators even suggested that we would end up with a single, massive hospital for all of Scotland, reducing the argument to the level of absurdity.

During our public consultation on this report, it became apparent that citizens and their representatives felt that the debate on centralisation of hospital services had been characterised by, "scaremongering", "paternalism" and lack of evidence by the medical profession whereas front line clinical staff believed, on the whole, that there were data supporting centralisation of certain services but that the majority of care could be delivered safely locally. Again, we see a common set of values which have become somewhat confused by the absence of true engagement by both sides in an environment which encourages open and rational discussion.

In order to inform our thinking and to test the issues around specialisation of highly complex care, the Advisory Group looked at two specific issues. We examined in detail, the current arrangements for delivering neurosurgery and highly specialised children's care (including paediatric intensive care).

Specialised services, by their nature, tend to be characterised by:

> highly specific workforce challenges as a result of small staff numbers, specialised training needs and, in some cases, the significant time demands of providing shared care or outreach services
> a relatively small volume of patients needing this service
> complex interdependencies, often with other specialised services, as a direct result of the severity and complexity of the conditions displayed by many patients
> strong links to research and innovative leading edge practice particularly in terms of technology dependent interventions and drug therapy
> significant financial implications in terms both of revenue and capital investment.

In both instances, the conclusion reached was that the most specialised aspects of care should be delivered on a national basis on fewer sites in order to maximise clinical standards (including co-location of inter-dependent services) and to recognise the workforce sustainability issues. For neurosurgery the recommendation is to move, over time to a networked approach from a single hub. For children's tertiary services a national network is also proposed with intensive care operating from two sites but as a single national service. Both pieces of work identified the need for a continuing national planning function within the Scottish Executive. They also adopted a methodology based around wide engagement, option appraisal and thorough evaluation that provides a model for further work of this nature.

Our discussions with the public suggest that the case for concentrating these highly specialised services is not disputed. The difficulties arise when there is a threat, in the public's view, to what they described to us as core services. At the heart of this question are two sets of issues. First, there is an argument that people should travel for services because there is a clinical benefit to be gained. Second, there is an argument that resource constraints (including the availability of trained workforce) mean that we can only provide high quality services in fewer locations.

In looking at the first set of issues, there are three concepts that need to be considered:

> Volume of work
> Continuing medical education
> Toleration of risk

VOLUME

We have done some new work to pull together the evidence on the relationship between volume (the number of procedures or patients with a certain condition treated by an individual or hospital) and outcome (e.g. side effects, complications of surgery, survival rates for cancer operations). This relationship has been used as something of a proxy for testing arguments for and against the specialisation or centralisation of services.

Our work lead us to conclude that there is now a core of studies of an adequate methodological quality to establish significant volume/outcome associations in certain complex high risk surgical procedures and more modest but clinically relevant effects in a range of more common procedures.

Across a range of procedures, there is variation in relationships between increasing volume and improved outcome (reduced mortality and/or improved recovery). For a condition that is not common, and relatively complex, the improvement tends to be greater and occurs over a relatively larger range; i.e. the more you do, the better you tend to get. For a more common, less complex condition, the improvement in outcome is relatively greater initially but tends to level off; i.e. there is a threshold of interventions that must be met but thereafter the benefits tend to diminish, relatively speaking. The pattern for many services lies between these ranges and the precise position is determined by a number of factors.

Figure 3 below shows this relationship. What it tells us is that there is a strong case for ensuring volume is maintained in complex cases and in a country the size of Scotland that can only be done by concentrating those procedures in a few locations. It tells us also, that for common procedures, clinicians (and their teams) need to undertake a minimum number to maintain their skills but thereafter there is no great clinical benefit in specialisation or need for it.

Figure 3: volume and outcome
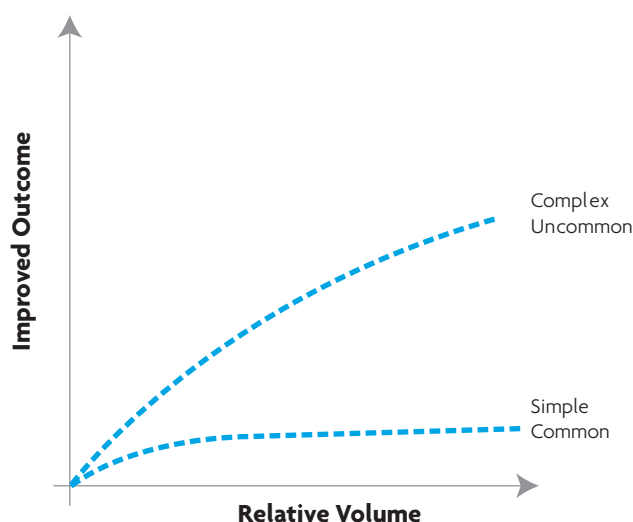
So, what are the services that might be represented in each of the lines in Figure 3? A number of studies have been done that look at either physician volume or hospital volume. Significant volume/outcome relationships tend to be found, for example, in a number of areas of surgery such as those shown in the specialised column of Table 2.

One of the problems is that many of the studies simply look at survival rates rather than other indicators of clinical quality. But nevertheless, there is good evidence that for a range of complex procedures, some of which are listed below, volume is relevant and we will put patients' quality of care, clinical outcomes and in extreme cases, survival at risk if we do not ensure that volume is sustained. We need to ensure that quality thresholds are maintained.

On the other hand, providing that arrangements are in place to access support in the event of rare complications, it is possible to identify a number of high volume, more routine procedures that can safely be carried out in many centres. These are the type of procedures for which the requirement to provide intensive care or high dependency facilities will be very rare indeed. The Audit Commission's basket of day case procedures, from which we draw the examples in the table below, provides one starting point for discussions between NHS Boards and the public.

Table 2

Examples of low volume/ highly specialised procedures provided appropriately from a specialised centre and of relatively common procedures likely to be more generally available.

Available in specialised centres	More generally available
Some Cancer surgery	Tonsillectomy
Coronary by-pass surgery	Cataract removal
Aeortic aneurysm surgery	Varicose veins
Cerebral aneurysm surgery	Inguinal hernia
Paediatric cardiac surgery	Knee Arthroscopy

TOLERATION OF RISK

It is the area between the two lines that remains problematic. For some disorders, even though the evidence is less abundant and the effect not so dramatic, the consequences may still be important. For example a reduction of a few per cent in mortality for myocardial infarction (heart attack) could be associated with the saving of many lives in Scotland. In general, it would be reasonable to suggest that there may be a very small extra risk (increased complications, slightly poorer outcomes) by keeping some treatments local. We do need to be completely honest about the information we have supporting this sort of statement, which, is frankly, not as clear or as potentially applicable to Scotland as it might be. We believe that a way ahead is to say that certain procedures should be available on fewer sites and we would strongly advise the public that they would benefit from travel to these "centres of excellence". The vast majority of routinely practiced operations and medical interventions can be performed in well supported local hospitals. This is a hypothesis which we should test prospectively through audit, data collection and evaluation to collect information which we can use to compare and contrast outcomes according to individual clinicians and hospitals workload, thus improving the quality of our own healthcare and contributing to the international debate on specialisation. The Scottish Executive should establish a task force drawn from the key players to examine this issue and to publish the results.

CONTINUING MEDICAL EDUCATION

As mentioned the statistics on outcome and volume are not complete and anyway are only part of the story. Many healthcare leaders would set more store in continuing medical education being the key to a high quality Scottish NHS. This is where the Royal Colleges have an absolutely central role. Through audit, training courses and innovative ways of ensuring that clinicians maintain the appropriate skill base, the Colleges have an important contribution to make to Scotland's Health.

We recommend that NHS Quality Improvement Scotland (NHS QIS) works with NHS Boards, the Colleges and other partners to establish meaningful audit data that will inform future decision making. The basis for this work should be to establish, across a range of procedures, the balance of clinical benefit and risk relating to the volume of clinical activity undertaken and the outcomes for patients.

SUSTAINABILITY

In this first set of considerations, issues of clinical risk have been relatively clear, if somewhat obscured by the absence of hard data. But we know there is a trade-off between volume and outcome, we know that for a number of procedures the risk of mortality outweighs the benefits of access. What we do not yet know is where we draw the lines. Issues are much less clear around the second set of factors. That is where a patient's need to travel for care is not linked to any clear evidence of clinical benefit but rather to resource or workforce constraints.

We need to be realistic here. The NHS does not come with a blank cheque. It consumes a considerable amount of the Scottish Executive budget and in common with the rest of the public sector, the NHS has a responsibility to search out best value and take decisions that get the best possible return for every public pound spent. We also have to be realistic about staffing. We can't just match the reduction in junior doctors hours with new doctors for example. Doctors take a long time to train and some of these issues are facing us now. The risks here are not so much about getting volume and clinical outcome out of balance. They are about ensuring that services for communities are safe, robust, affordable, properly staffed and delivered to national quality standards while at the same time maintaining and sustaining community links.

Sir John Temple in his 2002 report "Future Practice: A review of the Scottish Medical Workforce" described the core service issue as the delivery of 24 hour acute care, effective delivery of which would require both an increase in the number of doctors and a radical rethink of the way in which care is delivered. The Executive is taking action to deliver the former and this report should contribute to the latter.

We agree with Sir John that it is the challenge of providing 24 hour care that is most problematic. It is very difficult to take a single, national view on this issue. The constraints will vary across the country as will the challenges. But we think that there is a general framework that might guide NHS Boards in handling the issue and provide some clarity for the public about what it is the NHS in Scotland is trying to do.

We start, as always, at the local level. We recommend that NHS Boards should be maintaining and enhancing local services which:

› are provided on the basis of an extended working day, and
› involve overnight care for medically stable patients.

The concept of the extended day is to more closely match patients' waking hours. This approach can significantly reduce night time activity. It also enables more efficient use of scarce resource such as diagnostic equipment or operating theatres.

NHS Boards should only consider concentrating care on the grounds of resource or workforce constraints for services which are highly specialised and care for seriously ill patients 24 hours per day and where it can be demonstrated that service redesign will not achieve a sustainable outcome.

Recommended Action

1. Future decisions about the concentration of services on fewer sites should be:

(a) informed by evidence to be gathered by a task force formed by the Scottish Executive and including NHS Quality Improvement Scotland (NHS QIS), NHS Boards, clinicians, the colleges and patient representatives about the balance of clinical benefit and risk associated with varying volumes of clinical activity, and

(b) limited, on the grounds of resource or workforce constraints to services which:

› **are highly specialised and a clinical benefit can be demonstrated, or**
› **receive seriously ill patients 24 hours per day, or**
› **care for medically unstable patients throughout the night, and for which**
› **it can be demonstrated that service redesign will not achieve a sustainable outcome.**

2. The Scottish Executive should:

› **develop a continued national planning capability within the Health Department,**
› **take forward the detailed recommendations made on the future of neurosurgery and highly specialised children's care, and**
› **apply the planning methodology adopted for these services to other 'national services' as identified by the Advisory Group.**

3. HOW CAN WE PROVIDE SAFE AND SUSTAINABLE SERVICES THAT WILL SUPPORT RURAL COMMUNITIES?

Both of the preceding sets of work have a major impact in remote and rural Scotland. We established a specific action team on rural health in recognition of two main factors. First, we were conscious that something like one in five of Scotland's population lives in a rural area. Second, we were determined not to apply an urban model to rural needs.

Our proposals for remote and rural health care have 3 main strands:

› extended primary care,
› a resilient system of urgent care, and
› the rural general hospital.

At the forefront of our framework for rural health care is the enhancement and extension of primary care. We need to ensure that we maximise the services that can be safely made available in our rural towns and villages. That will mean an extended role for General Practitioners and for the other members of the rural healthcare team. Rural GPs value their generalist skills and in small remote practices GPs have developed extended skills to allow them to manage the early stages of severe sudden illness and trauma. This needs to continue and extend to other members of the team.

In rural localities serving larger populations there is a scope to develop GPs with a special interest (GPwSI) in specialties such as dermatology, ENT, ophthalmology, etc. This will help greatly in ensuring, for example, that pre-operative work and post-operative follow-up is done in the community. Developing enhanced roles for GPs in emergency medicine, minor surgery, palliative care and care of the elderly will be more appropriate for some localities. As well as their continuing generalist role, the GPwSI would be responsible for leading service development and ensuring that all clinicians in the locality are providing safe, effective and high quality services in their specified area. They would work closely with nurses and AHPs who are also developing enhanced roles in many of these areas and who can often undertake this lead role themselves.

In providing this extended primary care in rural communities the general practice will be a key resource. So too will be the community hospital. Patients cared for in community hospital beds will be those who cannot be cared for at home, but who do not require the expertise and/or the specialist diagnostic and treatment facilities of a more distant hospital.

Maintaining the accessibility of community hospitals to patients throughout Scotland is essential; with extended primary care provision as their fundamental function, particular services provided in different areas may and should vary. A recent stakeholder questionnaire (SEHD awaiting publication) shows that Community Hospitals provide a variety of services. In future, these could and should include pre-admission and routine testing, outpatient and specialist clinics, day surgery, convalescence and rehabilitation. Palliative care emerged as a widely provided service and there is clearly an important role for Community Hospitals in providing such care. There is a mistaken view of Community Hospitals as providers of long term stay for elderly people, but this need not and should not be the case in future.

Responses to the Community Hospital stakeholder questionnaire showed that a clear strength of current community hospitals is their encouragement of multi-professional working. Respondents made it clear that a shared vision for development of community hospitals involved their use as resource centres for the local extended primary care team, and indeed, the local community.

In their role as local resource centres, community hospitals could provide an ideal base for out-of-hours providers. Again, a multi-professional perspective could help to ensure the appropriate skill mix of out-of-hours teams. Access to urgent or unscheduled care was a major issue during our consultation meetings in rural Scotland. Many of the presentations of illness that occur out of hours can be very adequately dealt within the local community.

The main area of concern for rural communities is the retention of appropriate systems to cope with the small proportion of out of hours (OOH) activity that constitutes a genuine emergency. A resilient rural community would have the following in place:

> Immediate telephone access to emergency triage and dispatch.

> First responders; people drawn from the local community who were trained and supervised by the local health systems.

> Professional emergency response that was graded to the need. This would include nursing, paramedic and medical personnel.

> Access to diagnostic facilities where definitive diagnosis cannot be made at the incident site. Patients would be transferred to the nearest diagnostic centre capable of defining the condition and stabilising the patient. This may be a community hospital or a Rural General Hospital or, in extreme cases, a specialist trauma centre.

In establishing a system of unscheduled care appropriate to remote and rural Scotland, the difficulties of travel must be dealt with. Whilst road transport will remain the mainstay, this will need to be supported by a high quality air transport systems. We recommend that the Scottish Ambulance Service, NHS 24 and NHS Boards work collaboratively at a regional level to ensure that a resilient system for urgent care is in place.

The Rural General Hospital (RGH) will have an important part to play in that system. The role envisaged for the Rural General Hospital builds on that described by the West Highland Solutions Group in their report of October 2004. It described a model of acute health care based on the collaboration and joint working of staff in the Belford Hospital in Fort William and the Lorne and Islands Hospital in Oban. The model may have wider application, for example to the Islands hospitals and indeed to DGHs such as those in the Borders and Dumfries. We see the RGH as providing care in the following areas.:

> Emergency medical care: triage, diagnosis; resuscitation and stabilisation – treat where possible, transfer when necessary;
> Locally based routine elective care: diagnosis, treatment or transfer and follow up;
> Care for chronic illness: care of the elderly, stroke and diabetic care and renal dialysis.

Collaboration is key to ensuring that this model is effective. All rural general hospitals must have defined links (e.g. shared posts, shared rotas, etc) to each other and with larger hospitals. These larger hospitals, in collaboration with the rural general hospital, have the responsibility for ensuring that the bulk of the remote community's healthcare needs in both emergency and planned care are met.

A range of clinical and surgical skills will be required if most problems are to be dealt with on site. Skills must extend to first class resuscitation for those requiring transfer, especially with trauma. But the RGH cannot be sustained on trauma and acute illness alone and a range of planned services should be provided, maintaining local services and maintaining consultant skill levels. Each RGH should examine what level of elective service it can safely support using the basket of day case surgery as a starting point and looking at how that might be appropriately extended through Managed Clinical Networks.

But it will be just as important to be clear about the limits of the competence of the RGH as it will to have a suite of core procedures which can be safely delivered. Over time, we would expect to see a more definitive range of services emerge and the North of Scotland Regional Planning Group should act as a facilitator for developing that list of core services – given that some may only be sustainable with networked or visiting support from a larger hospital.

Our approach to rural health care will require a shift in the emphasis of clinical training and development. We believe that the distinctions between primary care staff and hospital based staff will (and should) become increasingly blurred. We may need a new type of general surgeon or we may need an 'integrated care physician'. There will be extended roles for the primary care team and community nurses too. This will need innovative approaches. Initial work with the Royal Colleges has been encouraging but the issues need more careful consideration. We recommend that NHS National Education Scotland (NES), in consultation with the Colleges and partnership groups, develop proposals for a new School for Rural Health Care to build on existing initiatives and develop world leading approaches to the development and training of the rural workforce.

Recommended Action

1. NHS Boards should deliver health care to rural communities that:

› **extends the role of primary care,**
› **develops with the Royal College of General Practitioners and other partners, an accredited programme for GPs and other practitioners with special interests, while sustaining capacity for generalist services in primary care (this recommendation applies in urban as well as rural Scotland),**
› **uses the community hospital as a base for extended services,**
› **has a resilient continuum of urgent care from first responders through to emergency transfer,**
› **extends the first responder training programme,**
› **recognises the contribution that can be made by rural general hospitals based on the model developed by the West Highland Solutions Group,**
› **develops networks of such hospitals.**

2. The North of Scotland Planning Group should take the lead in agreeing a list of core services for rural general hospitals along the following lines:

– **Emergency medical care – treat where possible, transfer when necessary;**
– **Locally based routine elective care: diagnosis, treatment or transfer and follow up;**
– **Care for chronic illness: care of the elderly, stroke and diabetic care and renal dialysis.**

3. NHS Boards, Regional Planning Groups, the Ambulance Service and NHS 24 develop an integrated emergency care system, including transport links.

4. NHS NES works with the Royal Colleges, NHS Boards and other partnership groups to develop training arrangements to ensure a steady supply of remote and rural practitioners and to work up proposals for a virtual School for Rural Health Care.

4 HOW CAN WE GET ACCESS TO QUICKER TREATMENT?

The Minister for Health's statement on 15 December – "Fair to all, Personal to each" signalled his continued commitment to reduce waiting times. In so doing, the Minister said he wanted to get rid of excessively long waits, make the service more focused on patients and extend choice. The National Framework will contribute to that strategy. Given the immediate public, political and media pressures, reducing waiting must be a priority for the NHS.

There is a debate that needs to take place about how the issue of waiting is targeted in the NHS. Internationally, there is clear evidence that speeding patient flow through the system can be delivered effectively in health care just as many other organisations in other sectors deliver quicker services to their customers. In England, much of the early success in reducing waiting has been credited to the National Patient Access Team. Consideration should be given to whether resources

for tackling waiting times should be centrally managed or devolved to Boards. We should learn from some of the successes in Scotland and elsewhere – building, for example, on the impact of patient focused booking.

In any event, tough targets and active management of resources will be required but important as it is to work harder, it is even more vital to work smarter. This section of our report proposes some means to do so.

One of the main threats to the smooth delivery of much elective care comes from the kind of emergency pressures which have already been outlined. Before a surgical procedure can be carried out a range of resources have to be brought together at the right time and the right place: surgical staff, nursing staff, anaesthetist, theatre time, beds. Remove any one of these components, because it is required for an emergency, and the operation has to be cancelled.

This is a further example of a situation where a whole system solution is required. Stresses in the provision of emergency care have knock-on effects for planned activity causing the frustration of cancellation and delay. To some extent the answer to providing better and quicker elective care lies in smoothing the mis-match between the variation in demand and supply of emergency care. But it also involves managing the demand for planned care as well as enhancing the supply, developing role enhancement and smarter working and streaming elective care away from emergency care, when it is feasible to do so.

In order to maximise capacity and reduce the impact of diverted resources to emergency care, we need to look at the separation or streaming of elective care. One of the major questions we face over the separation of scheduled and unscheduled care is how far the concept of separation (i.e. streaming) can be taken. Streaming is the separation of elective care from emergency pressures (through dedicated theatres, beds and staff) reducing cancellations, achieving a highly systematic and predictable workflow, and therefore improving the quality of service to patients.

Patient safety has to be at the forefront of any proposal that involves elective care being delivered at a distance from critical care back up. The Department of Health in England have carried out an initial analysis, to group elective procedures by prevalence of an associated critical care stay. This provides an indication, at a very high level, of what could safely be streamed in a facility which does not have critical care facilities readily accessible. The provisional results shows that around 90% of elective care requires a critical care stay in fewer than 1% of cases and so it should be possible to safely stream a large number of patients with appropriate standards and protocols.

Streaming of scheduled care will undoubtedly provide significant improvement in a range of key outcome indicators, for example, a predictable & increased workflow, reduction in cancellations, value for money, improved recruitment and retention, and most importantly, reduced waiting times for patients.

Streaming can be carried out on a local, regional or national basis. Locally, a hospital could be designated as elective care centre (a Diagnostic and Treatment Centre as they are often known) and used entirely for day surgery or short stay surgery (one – three days). Within a health board area, it may be possible to stream elective care across hospital sites, so that one hospital is designated as the primarily elective care hospital with an ability to deliver a streamlined service

uninterrupted by emergency admissions or cancellations. This might be across one or several specialties. Streaming also has great potential at the regional or national level. Regions of Scotland often have multiple adjacent hospitals performing unscheduled and scheduled care whilst travelling distances for the central belt are 30 minutes or less to a wide range of hospitals. Regional planning should enable capacity in demand across a wider population to be met by streaming hospitals for particular specialties or groups of specialties. Regional Centres for specific wait time services for elective work, for example orthopaedics, could be developed allowing GP's and patients access to all appropriate NHS facilities and expertise. This would also ensure the best use of existing NHS services and give choice at the point of contact.

Hospitals need to take a whole system view of the use of bed resources and design their elective processes around what is a predictable flow of emergency patient work. Similarly, Boards need to take a uniformly robust role in extending theatre utilisation and in managing variation in surgical throughput. The aim here is to get all up to the standard of the best.

A key to effecting shorter waiting times is the introduction, for certain common illnesses, of an early decision on treatment to predetermine management before the need for hospital attendance. Therefore, in addition to an increase in capacity, as we have mentioned previously, a shift in availability of diagnostic investigations, particularly ultrasound, CT and MRI scans to the primary care sector, is required to allow diagnosis before hospital attendance is required – i.e. to diagnose before considering hospital referral. We also need to extend the working day for both diagnosis and treatment to ensure fuller utilisation of resources.

If this action does not sufficiently meet the supply side pressures, NHSScotland should continue to explore options for targeted partnerships with private sector providers, including those from overseas, who might have the potential to bring in complete surgical teams for contracted periods to clear waiting time backlogs.

We do not think that it is sufficient to focus on the supply side of the equation. We need to do something about managing the demand for elective care. Experience from England suggests that by sharing up to the minute referral, waiting times and capacity information between primary and secondary care, waiting times can be reduced by reducing variation in referral patterns and redesigning services to provide new forms of capacity such as General Practitioner with Special Interest services, referral to nurse led services or referral of orthopaedics patients to physiotherapists.

The introduction of a shared referral management system adds value for both primary and secondary care. Primary care must maximise its contribution to the diagnostic process as well as treatment but referral management is not a purely administrative process. Referral information is the first step to collecting information on demand and to working within primary care and community services to finding alternatives. GP's should have the option of referral of patients to GP colleagues with a special-interest or to other health care professionals within primary care. This is an excellent opportunity for new community health partnerships to demonstrate a contribution to reducing waiting times. Referral management enables a more sophisticated single point of referral from GPs and other health care professionals within primary care; the referral management service arranges most appropriate appointment either within primary care or at an appropriate hospital. Referral management enables pathways to be developed, implemented and monitored. And booking can be added to the process, where appropriate, to

maximise co-ordination and to enable patient choice. There is also real benefit in applying this principle much wider than just 'local'. Regional Centres for specific, stubborn wait time services for elective work, such as orthopaedics, could be developed too.

Referral Information and Management Services are being piloted from April 2005 in Glasgow and Lothian as part of the CCI's Outpatients Programme. We recommend that it is introduced across Scotland building on the learning gained from the pilots.

Our analysis of how working smarter on elective care can contribute to reduced waiting also identified the need for action in three areas. Detailed recommendations are set out in the box below:

> Improving pre-admission processes,
> Streamlining the hospital component, and
> Identifying and rolling out best practice on discharge and after-care.

Recommended Action

In order to enable quicker access to planned care and to reduce waiting times, NHS Boards should:

1. Develop, through their Regional Planning Groups, proposals for a network of dedicated diagnostic and treatment centres which would undertake the majority of elective surgery.

2. Ensure that diagnostics and theatre facilities are actively utilised for an extended working day offering more efficient use of equipment and greater choice of appointment for patients.

3. Establish Referral Management Centres to develop new patient pathways, extend referral options and facilitate patient choice at the point of contact.

4. Take action in the following areas to further reduce waiting times:

> **adopt the "team diagnostics model which gives direct access to investigations where the primary care clinician is able to manage the patient in primary care,**
> **introduce nurse and AHP led pre-admission clinics, in advance of their elective operation so that certain tests and assessments can be carried out prior to the procedure. Pre-admission clinics can also plan the discharge of patients, agreeing with patients the level of community support required, and ensuring that that is notified to Primary Care and local authority colleagues well in advance of the operation date,**
> **manage out the variation in day surgery rates for an agreed 'basket' of procedures for which day surgery will become the norm,**
> **manage variation in length of stay through admission on the day of surgery and active discharge planning, and**
> **follow up only where there is clinical need and, where possible, in primary care.**

4. Pursue partnerships with independent sector providers as required.

5. The Scottish Executive should benchmark performance of NHS Boards (and individual hospitals) in delivering effective planned care and manage variation firmly and appropriately. It should also develop a delivery function that will draw on best practice across the world to further speed up patient access to services.

5. HOW CAN WE REDUCE HEALTH INEQUALITIES?

We know that absolute levels of health in Scotland compare poorly with Western Europe; but when the most affluent area is compared with the poorest area, the differences within Scotland in life expectancy and mortality are significant and widening (see figure 4 below). Our analysis suggests that while Scotland's health is improving, it is improving more slowly than any other Western European country and as a result Scotland is losing ground. It is likely that most of the improvement in life expectancy in Scotland is being enjoyed by people living in more affluent areas and those living in poorer areas are being left behind. For many Scots this relatively low life expectancy is associated with serious health problems which limit their capacity to lead effective lives. We need to tackle this problem and much is being done to promote health improvement – but in some communities access to these initiatives seems lacking and progress is slow.

Figure 4. Change in male life expectancy, 1991-2001, best and worst constituencies.
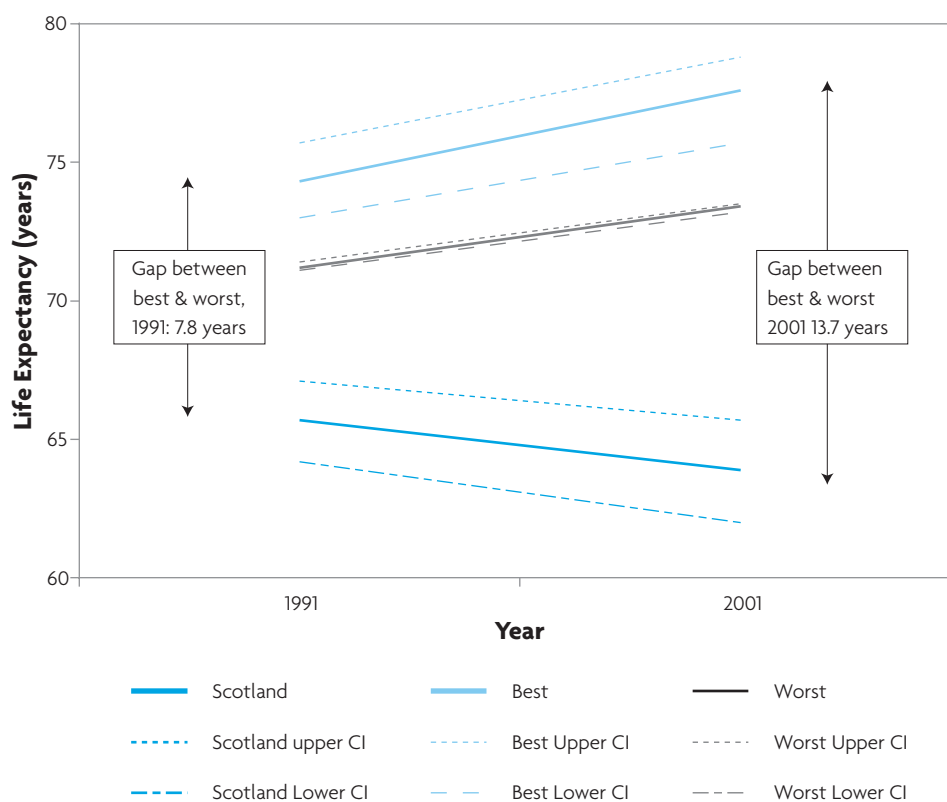
Three main reasons tend to be advanced as underlying health inequalities. The first is that the health of an individual is largely determined by the circumstances in which he or she lives. Poor health is associated with poverty, poor housing, low educational status, unemployment and a variety of other life circumstances. The second broad group of explanations relates to health related behaviours. Those who smoke, become obese through eating a poor diet or through lack of exercise, and those who drink alcohol in excessive quantities or abuse drugs have poor health. It seems reasonable to expect that persuading these individuals to change their behaviour will improve health. However, there is a link between life circumstances and health related behaviour and it is often the more affluent who are best able to adopt healthy lifestyles. Behaviour change projects may not, therefore, have the anticipated effects when used in deprived areas.

The third broad group of explanations for health inequalities relates to the influence of health services. That has been our focus.

There is clear evidence of the persistence of significant inequalities in utilisation by patients in disadvantaged groups and that failure to receive treatment significantly impacts on their health outcomes. An interesting study carried out in the West of Scotland timed consultation in GP surgeries. They found that average consultation length for affluent patients was around 1-2 minutes longer than for deprived patients. This reduced time available to deprived patients seeking advice from a GP is compounded by the fact that the deprived have more problems than affluent patients. Studies carried out show that patients from the lowest quintile of postcode sectors are more likely to present for medical care with several significant conditions than patients from the upper quintile. Deprived patients therefore seem to have more problems with less time available to them to have those problems dealt with. Furthermore, patients in deprived areas may be less willing to seek advice for their condition yet the evidence is that intervening early in a range of conditions improves outcome. We suggest therefore that the most appropriate place for the Health Service to begin to narrow the gap between rich and poor is through the systematic adoption of the principles of anticipatory care and preventive medicine. Resources should be selectively targeted to deprived areas to ensure that patients in these areas have enhanced opportunities to be seen and have their problems dealt with at an early stage.

Recommended Action

In order that health services contribute to closing health inequalities:

1. NHS Boards should invest in services to identify patients at risk to actively recruit them into intervention programmes and to follow them up to ensure that the process is effective.

2. The Scottish Executive and NHS Boards should target resources to enhance primary care capacity in deprived areas by expanding the numbers of people available to see patients and offer them adequate time to discuss their problems and to obtain treatment.

3. Future public health initiatives need to be evidence based and focus appropriately on those in less affluent communities.

6. HOW CAN WE IMPROVE HOW THE NHS IS MANAGED AND HOW THE MONEY IS SPENT?

This report is about systems not structures. Our remit does not extend to examining the number or boundaries of NHS Boards. But despite that fact, many people have offered views to us on this issue. The most frequently expressed view is that there are too many Boards. That is often accompanied by an actual or implied assertion that if we reduce the number of NHS Boards, it will solve all of our health problems.

What we have shown is that NHS Scotland has a number of issues to tackle that will require action regardless of the number of Boards. We also know that some of the challenges require a community based approach that Boards should delegate to their CHPs, that the organisation of acute hospital care needs the Boards to work collaboratively within regions and that for some services, such as neurosurgery, children's tertiary services and other highly specialised care, there needs to be a national approach to planning based on national networks of care.

In our report, we make a number of recommendations that place responsibilities on the three Regional Planning Groups. The Regional Planning groups are making progress with planning specialised services such as cancer (in co-operation with the Cancer Networks), paediatric services and specialised mental health services. All three are also embarked on reviews of acute service provision and scoping work around maternity services. But this report calls for a step change in that activity which needs to be properly funded, shifting resources from Boards to the Regional Planning Groups.

For example, in unscheduled care, we recommend that those facilities providing emergency admission should be planned regionally. In elective care, we recommend that the planning regions need to come together to plan and deliver the streaming of elective care (away from unscheduled care) and the diagnostic and treatment configuration required to support such an approach. We also suggest a regional approach to referral management giving patients a range of choices about how, where and when their referral is taken forward.

This will require a more systematic and better resourced approach to regional planning. We recommend that NHS Boards work collaboratively to establish enhanced Regional Planning Groups with a clear agenda sourced from this report and with demonstrable evidence of progress over the next 12 months. We also recommend that the accountability arrangements for NHS Boards should more clearly and specifically include assessment of the Boards' contribution to regional service delivery and that consideration should be given to appointing and incentivising senior leaders for Regional Groups.

Recent guidance to NHS Boards requires them to submit to the Scottish Executive by September 2005 a report on progress. That report should set out:

› priorities for regional planning (based on the National Framework),
› a timetable for action on these priorities, and
› the supporting processes for regional working, including shift of resources.

The role of Community Health Partnerships (CHPs), as a vehicle for shifting the balance of care advocated in this report, is of considerable importance. The CHPs are ideally placed to pull together the community based collaborative services between what we would currently call primary and secondary care teams. The overall purpose and focus for CHPs is as follows:

› support the improvement of the health of local communities
› provide service benefits for local people
› involve local people in decisions that affect the planning and delivery of health care and health services for their communities.

Given the importance of their role and the fact that CHPs are in their infancy, it will be important to ensure that they are equipped in terms of vision, aims, objectives, performance, governance and accountability. We recommend that NHS QIS develop a set of CHP quality indicators. This will provide a comprehensive framework, consistent with their contractual obligations, to set out for CHPs, their staff and the public the quality standards they are expected to meet and against which their performance will be assessed. In addition the Scottish Executive, working with QIS, should develop a methodology for accrediting CHPs against these standards, possibly based on that used for managed clinical networks. One of the factors which the quality indicators must address is the desired outcome of integration between primary and secondary care. That means that clinical leaders from primary care and from hospitals must be brought together as members of the CHPs to provide direction.

One of the outcomes of the accreditation process must be to evaluate the extent to which CHPs are able to take on financial delegation from NHS Boards. We are convinced that such delegation must take place. Budgets for developing integrated care solutions are currently tied up in hospital based services. Professor Donald Light, in some work he did for the National Framework about the obstacles to productive and integrated care, suggests that budget barriers such as this create "blocked incentives" which are in turn responsible for unnecessary referrals and admissions to hospital, clogged waiting lists, poor discharge etc. He suggests "collaborative contracting" as a possible solution.

We were struck that if we can get the collaborating parties working jointly in CHPs, (with delegated budgets within which they could re-invest savings), then we might be able to find shared incentives to deliver integrated care. In the NHS, the key collaborating parties are General Practitioners (as gatekeepers to the system) and Hospital Consultants. Both must be firmly embedded in the CHP structure. But for CHPs to be a success, so too must other clinical leaders.

It is imperative that clinicians have the right information to guide and support clinical care and full use needs to be made of the considerable amount of data currently being gathered about clinical activities as part of the Quality and Outcomes Framework of the new GP contract. This might include the presentation of meaningful comparative data, for instance in relation to deprivation or rurality, and could be invaluable in helping plan appropriate developments and changes to be made in service delivery. Clinical data from primary care (e.g. from the Quality and Outcomes Framework information) and secondary care (e.g. hospital referral and admission) needs to be made available to clinicians in order to allow an analysis of the mutual impact of service delivery change.

There should be scope too for this collaborative contracting approach to facilitate the more effective use of diagnostic services and for it to dovetail with the referral management approach mentioned earlier in this report. There is also potential for Managed Clinical Networks (MCNs) to put together collaborative bids for operational budgets aimed at improved integration. Over time, the CHP would become responsible for financing from its delegated budget all services provided for its community whether they are community based services or hospital based services. It would be responsible for waiting times and quality.

We recommend that as CHPs mature, and meet the quality standards referred to above, that we should pilot this approach in a number of CHPs. It will require clearly agreed outcome targets, tariffs to be set to enable appropriate budget shares to be assigned to the CHP and careful evaluation. But we believe it has the potential to incentivise integrated care.

We have given considerable thought to incentives and levers. We must find ways of making this change happen. Some of it is about different financial levers such as tariff based approaches that set a fixed price for a procedure and encourage providers to find more cost-effective ways of delivering the care or flush out variations in approach. These can be used within Boards or to assist with cross boundary flows of patients between Boards. For example, technological advance may enable diagnostic reporting to be provided out of hours in one area on behalf of another. The tariff would provide budget certainty for the exporting Board and the prospect of efficiency savings to be re-invested for the importing Board.

There are also financial levers within the contracts of clinical staff. It is essential, for example, that the renegotiation of the new GP contract takes cognisance of the service direction set out in this report.

But some of the levers are about leadership and operational management. NHS Scotland should refocus on delivering change. It needs a clear vision for the future, a few key priorities that everyone in the system understands and supports, clear accountability through NHS Boards, robust performance management and rewards linked to delivery of the priorities. Excellence and success should be rewarded for both clinical staff engaged in leading change and for operational management but the reward must be linked to the key priorities for service change.

Recommended Action

1. The Scottish Executive should recognise and support three levels of planning:
   › National – led by the Scottish Executive, working collaboratively with the 3 Regional Groups as the usual planning mechanism for highly specialised services that we should only deliver on one or two sites in Scotland.
   › Regional – led by the Regional Planning Groups, working collaboratively with Boards as the usual planning mechanism for acute hospital services.
   › Local – led by NHS Boards, working collaboratively with CHPs as the usual planning mechanism for delivering integrated care in local communities.

2. NHS Boards should reallocate and pool resources to ensure that Regional Planning is formalised with more staff allocated to it and with a clear agenda based on the priorities identified in this report.

3. The Scottish Executive should ensure that the contribution made to regional planning is more formally part of the delivery and accountability requirements for NHS Boards.

4. The Scottish Executive should develop fixed tariffs for a range of procedures to assist cross boundary working and to encourage cost effective service change.

5. CHPs should be the main vehicle for integrating care in local communities. In doing so they should:
   › ensure clinical leaders from primary and secondary care are engaged,
   › develop co-ordinated data across primary and secondary care,
   › work towards accreditation on the basis of standards to be developed by NHS QIS,
   › develop collaborative budgets across primary and secondary care, linking where appropriate with Managed Clinical Networks.

6. The Scottish Executive should explore options for aligning financial rewards and incentives to contributions to service improvement.

7 HOW CAN WE GIVE THE PUBLIC AND PATIENTS A VOICE IN CHANGING HOW WE PROVIDE HEALTH SERVICES?

The Scottish Parliament Health Committee in their 2005 report 'Reshaping the NHS?' comment that there is a clear difference in view between the public and the professionals and health boards. The Committee identify a "fault line" that has appeared between the view of NHS Boards and the public. They report that health boards have "frequently failed to convince the people they serve of the reasons for proposed changes".

The Committee report adds that "this is not to say, and the Committee does not, that every local campaign is right in all its assertions and that boards are not sometimes right to seek to overcome a desire to maintain cherished institutions in their current state. However, there is a

population perception that they have in many cases lost touch with the populations they serve" In many ways, the Health Committee's views reflect what the National Framework team heard when we consulted with the public. Admittedly, we can't claim that the people who came along to our meetings were in any way representative of the whole population but you just need to look at the strength of feeling in local communities over recent proposals from NHS Boards.

The Scottish Executive expects NHS Boards to take a pro-active and positive approach to public involvement on issues of potential service change. This is an important area for active ongoing public involvement and one where effective communication is essential. Its guidance makes clear that involving the public should not be seen as something that has to be done at the end of a process, but something that is part of an integrated process of communication and discussion; where communities, patients, public and NHS staff have opportunities to influence decision making. An inclusive process must be able to demonstrate that the NHS listens, is supportive and takes account of views and suggestions.

There is evidence of good practice in large parts of Scotland. For example, the open forum meetings we held with the public and which were so valuable to us in gathering public views were based on a model recommended to us by NHS Tayside and used successfully by them. But it is equally the case that the presentation of what the public view as a "take it or leave it" approach is not acceptable to the public and neither should it be.

We welcome the formation of the Scottish Health Council (SHC). It has the potential to be a powerful mechanism for holding the NHS to account for its performance in patient and public involvement activities.

The SHC will ensure that patients, the public and NHS Scotland have:

> national standards for a patient-focused NHS that involves the public in health services
> an independent method to check the performance of NHS Boards in delivering a patient-focused NHS that involves the public in health services
> the best possible information about how well NHS Boards are involving people in decisions about health services and what difference this is making
> a national source of information and advice on best practice in involving the public in health services and ensuring a patient-focused NHS
> effective ways to provide and obtain feedback on people's experiences of health services, with appropriate support services in place.

But it is one thing to enable public engagement in the development of the NHS and quite another to enable patient access to decision making about their own care. We must do both. To inform our thinking on the latter issue, one of the pieces of work we looked at was "The Patient of the Future" research project co-ordinated by the Picker Institute Europe.

Recommended Action

In order to give patients a genuine voice in the future of the health service:

1. NHS Boards should be asked to account for how they have achieved year on year improvements in the involvement of the public in the planning and delivery of NHS services and in the involvement of patients in decisions about their own health care.

2. On the basis of the evidence above and reflecting reports by the Scottish Health Council, the Scottish Executive should review its guidance on public consultation with a view to promoting best practice across NHS Boards and more particularly in moving public consultation to the front end of service change rather than as a last step.

This work summarised what patients wanted as follows;

"Patients want better access to healthcare, better communication with their doctors and greater participation in clinical decisions affecting their own healthcare."

In order to take part in those decisions the project found that "patients need information about diagnoses, treatment options,tests and prognoses... people want more opportunities for choice."

Much of the debate about choice in health services focuses on choice in access to elective services. This is an important area where choice can be exercised, with the potential to increase efficiency and reduce waiting times. This is, however, only one area of choice. There is also the possibility for patients and carers, supported by professionals and providers, to make choices across the whole range of health services. These include:

> Choice over whether, where and when to seek care;
> Choice of care or treatment offered, and involvement in decisions about their conditions/ illness or treatment;
> Choice in appointment date/ time;
> Choice of hospital / doctor.

Recommended Action

The Scottish Executive and NHS Boards should establish a clear policy about what patients in Scotland want in the way of choice. We recommend that it does so by developing:

› **values – choice is potentially a key value in thinking about the delivery of services and policy, both at a strategic and resource level and at the front-line. A service which is built around choice is likely to meet more what users want, and to have higher levels of satisfaction**
› **information – real choice requires good information which is available at the time when choice has to be made, and at the point of care.**
› **systems – health providers need to have the systems in place which are required to turn policies and strategies on choice into action, and to ensure that services reflect and offer the choices that patients and carers want.**

8. HOW CAN WE INTEGRATE THE KEY PARTS OF THE HEALTH SERVICE?

We have already rehearsed the potential role of Community health partnerships as a vehicle for integration. CHPs will be expected to:

› deliver services more innovatively and effectively by bringing together those who provide community based health and social care;
› shape services to meet local needs by directly influencing Health Board planning, priority setting and resource allocation;
› integrate health services, both within the community and with specialist services, underpinned by service redesign, clinical networks, and by appropriate contractual, financial and planning mechanisms;
› improve the health of local communities, tackle inequalities and promote policies that address poverty and deprivation by working within community planning frameworks;
› be the main NHS agent through which the Joint Future agenda is delivered in partnership with local authorities and the voluntary sector.

In doing so, CHPs will have to work closely with Managed Clinical Networks (MCNs) The concept of MCNs was formalised by the report of the Acute Services Review (June 1998), as a way of building on the collaborative working which was already common amongst clinicians. A wide range of MCNs is now in existence or under development at NHS Board, regional and national level, with demonstrable improvements in service delivery to their credit. This approach should continue, since MCNs have a number of functions to perform. They should continue to be the engine room of quality and clinical improvement and re-design. There is also a continuing need for the integration of services which MCNs bring about, not just within the NHS but across the boundary between the NHS and local authority services. The Networks providing this wider integration are generally referred to as 'Managed Care Networks'.

We think that the MCN model should be expanded, learning the lessons from those already accredited. In expanding the model, it will be important to recognise the trends identified earlier in this report which is to anticipate the provision of long term care to patients who may have a combination of diseases. The MCN of the future needs to be able to deal with the whole patient and not just a single disease.

One area where we identified the need to establish a number of inter-related MCNs is in relation to children's health. Our work on children's health care identified a strong need to work across existing boundaries and to strengthen access to specialist advice. The MCN approach is recommended here as a means to provide a nationally consistent service that works to agreed standards across boundaries between Boards and between providers (the latter is particularly important in light of some of the challenges around child protection etc).

We mention above the role of the CHP with regard to the joint future agenda. The Health Care system on its own cannot deliver the aspiration for more local care, more effective rehabilitation and discharge from hospital, better assessment and avoidance of emergency admission. Nor can it deliver improved quality of life, reduction in health inequalities and health improvement without the wider network of public services, the voluntary sector and other service providers. Integration is required here too. The most significant interface is with local authorities, and particularly with social work services.

The joint working agenda between health and social care for adults is usually referred to as "Joint Future" following the Scottish Executive report of the same name in 2000. Joint working and joint services have been given significant impetus by the Joint Future initiative. Good examples of joint services such as rapid response teams for adult people leaving hospital have now been rolled out in almost every partnership in Scotland. This reflects the fact that many people have complex needs – both health and social care – and joint working can mean a quicker and better response to assist individuals.

Community Health Partnerships (CHPs) offer the potential for a fresh exploration of partnership working and a channel through which services can be better co-ordinated and delivered, depending on local circumstances and decisions. The co-terminosity with Council boundaries should be a major step forward in harmonising services.

At the strategic level, the key mechanism for driving integration and health improvement is the Community Planning Partnership. The purpose of Community Planning Partnerships is to deliver co-ordination of local strategies of all key organisations in a local authority area, with full participation of community representatives and they are particularly well placed to deliver health improvement outcomes and to develop cross-agency strategies which address health inequalities.

Recommended Action

1. In order to further improve the integration of health care, we recommend that:
- **CHPs act as the means to bring together clinicians to develop clinical care pathways,**
- **The Scottish Executive continues to develop Managed Clinical Networks (including a new set of children's networks) and issues fresh guidance on MCNs that reflects learning from the successes to date,**
- **MCNs examine the opportunities to develop their role in commissioning services and in ensuring local delivery.**

2. In order to further improve the integration of health and social care, we recommend that:
- **CHPs engage fully in Community Planning Partnerships to explain their priorities, promote joint working and establish a role as a core vehicle for delivery of community planning priorities;**
- **NHS Boards further develop some of the good examples arising from around the country of shared NHS/Local Authority budgets and appointments;**
- **In developing new information and communications technologies, the Scottish Executive should pursue the need for an interface around shared information. A single means of identifying people would be a good start;**
- **The Scottish Executive needs to keep the arrangements for joint working under review to ensure that they continue to meet local health needs.**

Integration is not only about encouraging the various participants to work better together. There are other tools available. As we have discussed the concept of integration and looked at the successful transformation of other health care systems along these lines, one necessary component of a joined-up NHS has come up again and again. It was high on the wish list of clinicians, managers and even with members of the public. The need for a common information and communications technology (ICT) system that provides the 'glue' for an integrated NHS seems to be a universally accepted requirement.

Health systems throughout the world are developing ICT. That is because they believe it can help deliver better care (safer and of higher quality), more integrated care (irrespective of the location of that care) and more efficient care (more appropriate and less wasteful). Information systems should be able to support the three functions of assessment of need, care planning and co-ordination and evaluation of the quality of care.

The Team looked at the Computerised Patient Record System (CPRS) developed by the Veteran's Administration. The CPRS displays the patient record in a way that supports clinical decision making. It shows timely patient-centred information on its front page, including active problems, allergies, current medications, recent laboratory results, vital signs, hospitalisation details and outpatient history. The CPRS delivers an integrated record covering all aspects of patient care and treatment including:

- electronic order entry and management (i.e. the facility to order and manage requests for diagnostics),
- narrative notes entry (ideally this should be voice activated so the clinician can dictate notes directly into the system),
- laboratory results display,
- consultation requests,
- alerts of abnormal results.

Similarly, we were impressed by the data management system developed by the Mayo Clinic which has a strongly integrated research base. We need a system in Scotland that has at least the same level of functionality to these. We recommend that this should be a common and mandatory system across Scotland resulting over time in paper free processes. The electronic patient record and the Picture Archiving and Communications Systems (PACS) should be immediate priorities.

Electronic imaging, such as PACS can transform patients' experience of the care they receive as well as enabling clinicians using any sort of image to provide a much faster, more effective and straightforward service. The particular benefits will include:

- More effective care as clinicians and care teams work together in one or more locations (much easier to separate the capturing of the image from the reading of it – meaning the image can travel rather than the patient).
- Faster access to high quality medical imaging services and results.
- Reduced re-testing.
- Quicker discharge from hospital and better care planning resulting from easier access to images and test results.
- Fewer appointments and operations postponed because of non-availability of images.
- Images available 24 hours a day, seven days a week.
- Simultaneous image viewing across multiple sites and locations.
- More efficient use of facilities and staff.

We also see great potential, given Scotland's sparsity of population, for an extension of tele-medicine (including tele-education). Perhaps the most developed example of this is the emergency tele-medicine initiative based in Aberdeen Royal Infirmary. Our work on unscheduled care identified the Aberdeen programme as a template for how we will deliver unscheduled care in the future. The aim of the project was to establish a robust telecommunications infrastructure to be initially used to provide emergency care. The infrastructure is also available to deliver planned clinical care as well as education initiatives.

The challenge is now to move forward on the successful work undertaken to date. Service re-design utilising communications and information technology can improve efficiency in all areas of healthcare. However, such changes will only be maximised if they are co-ordinated at a supra-regional level. There is great potential to develop the existing regional telemedicine service into a national network. This would take the form of developing a central resource for telemedicine advice. In the first instance, the role of the Centre would be to extend the North of Scotland emergency care system to the whole of Scotland. The Centre would also research and evaluate the extent to which tele-medicine provides an appropriate and cost effective approach to the delivery of health care and health care education.

Recommended Action

A common information and communications technology system is essential if the NHS is to deliver the integrated continuous care required of it. In order to secure the technology required:

1. The Scottish Executive should completely re-focus its E-health strategy, taking account of best practice elsewhere and learning from developed systems. The new e-health strategy should be promoted by visible and high profile leadership.

2. The Scottish Executive should procure as soon as possible, and by 2008 at the latest, a single information technology system with the following key features:

- **An electronic health record available to all those who require it to provide patient care across the whole NHS**
- **Patient access to the record and the facility to update it**
- **Picture Archiving and Communications (PACS)**
- **Electronic prescribing**
- **Electronic booking**
- **Tele-health and tele-care.**

3. The Scottish Executive should establish a Tele-health Technology Resource Centre (TTRC), based in Aberdeen, to develop nationally applicable approaches to tele-health.

9. HOW CAN WE EMPOWER FRONT-LINE STAFF TO IMPROVE SERVICE DELIVERY?

Our engagement with frontline staff in preparing this report was extremely valuable. We were struck by the willingness of staff to contribute to service change and indeed the substantial amount of work that has gone on in our various workstreams has only been possible due to the willingness of several hundred staff to get involved.

The NHS in Scotland needs to build on that commitment. One way to start would be to identify clinical leads in each NHS Board, working collaboratively with colleagues within regions where appropriate, charged with driving forward the actions identified here as key to the future of the NHS in Scotland. So, we would have in each Board area, a senior clinician whose job it was to

provide clinical leadership on integration, or on quicker elective care or on public engagement and so on. It would be the job of that individual to work across the clinical community to develop support for service change.

We also need to build on the work of the Centre for Change and Innovation in identifying early adopters of change and equipping them to spread best practice. There has been a considerable amount of work done by CCI and by local systems to establish service change and to begin to embed it in the culture of the NHS in Scotland. It is now time to accelerate that process and to mainstream service change.

Our conclusions on what should be done to mainstream change and improvement draw on work done by Matrix consultants for the NHS Modernisation Agency (NHS Modernisation: Making it mainstream, 2003). It is grouped around three key issues:

❯ Strategic and policy requirements
  – clear links with the priorities within the national framework for service change,
  – putting service change and improvement as a standing item of the NHS Board agenda.

❯ workforce and skills development
  – developing in house capacity to deliver change and improvement,
  – providing training packages to develop the right skills (including leadership skills),
  – making change and improvement part of the responsibilities of clinical divisions,
  – making change and improvement part of individual staff's job descriptions.

❯ communications and partnership
  – constantly placing the patient at the centre of care,
  – recognise and reward achievements in service change,
  – ensure service change is evidence based and research results are promulgated.

There is also a need to bring together clinicians, managers, policy analysts and health service researchers so that we can ensure that health service change is underpinned by high quality research and data as well as ensuring that work is commissioned and evaluated in a way that is helpful to policy makers. The Department of Health in England is establishing the "National Institute for Learning, Skills and Innovation" with the following functions;

❯ foster and create a culture of innovation, life-long learning and patient involvement throughout the NHS,
❯ identify and develop best practice,
❯ turn best practice into practical outputs for the local NHS,
❯ support rapid dissemination and adoption, and
❯ provide access to world class knowledge.

The NHS in Scotland needs to do similar work bringing together clinicians and managers to support innovation, rapid adoption and spread of new ideas. A means should be found to enable that creative work to be done.

> **Recommended Action**
>
> **1. NHS Boards should take action to mainstream service change amongst frontline staff as described above.**
>
> **2. The Scottish Executive should develop a capacity to forge international partnerships for healthcare improvement as a means to bring together managers and clinicians on projects aimed at securing rapid change.**
>
> **3. The Scottish Executive should bring forward proposals for a leadership programme which has service improvement at its core.**

10. HOW CAN WE IMPROVE STANDARDS AND DRIVE UP QUALITY?

We believe that improved performance will be enabled by the service change described above. The models of care that are proposed have been carefully considered and intended to deliver patient centred care that is better, quicker, safer and closer. It is also intended to be sustainable for the long term and affordable too. It is possible to identify a number of general rules that should underpin the process of service change in order to ensure that it meets these key considerations.

We are confident that this change can lead to a better patient experience but in making the changes, NHS Boards must have regard to clinical governance and risk management. Issues of safety and quality are paramount. We cannot make changes, even if they are in accord with the general public's demands, unless we can guarantee that clinical risk can be managed. NHS Quality Improvement Scotland (QIS) have issued for consultation a set of draft standards for clinical governance and risk management. The draft standards make three high level statements which form the basis for QIS monitoring activity in this area. These are as follows:

› Patient care is safe and effective and based on available evidence.

› Health care is provided in partnership with patients, their carers and relatives, and the public, meeting their individual needs, preferences and choices and treating them with respect at all times.

› The public and NHS Scotland are confident about the safety and quality of NHS care.

The new models of care described in this report will require new ways of working. They will require role extension with nurses and other health professionals taking on roles that were once the sole domain of the doctor. In order to deliver integrated health care, particularly in rural areas, we will ask primary care teams to extend their remit and general physicians to care for a range of acute conditions. We will look for support from the Royal Colleges and other partners to take these changes forward. In doing so, we should have regard to the standards referred to above.

It would be remiss of us to fail to mention the excellent research base which Scotland has in life and biomedical sciences, with a potential to improve health and create wealth for the Nation. Although recognising the high quality of individual researchers and groups, we believe that there is an opportunity for further collaboration and integration in research and support the concepts put forward in Scottish Enterprise's proposal Scotland's Integrated Clinical Research Facilities.

The Scottish NHS has much to offer and much to learn. Partnership will always be mutually beneficial. We need to be prepared to raise our eyes beyond our often narrow horizon and to share our learning with others – particularly in the developing world. It is likely to be a two-way process. As Don Berwick said in a 2004 BMJ article:

"We will meet in developing countries a level of will, skill and constancy that may put ours to shame. We may well find ourselves not the teachers we thought we were but students of those who simply will not be stopped under circumstances that would have stopped us long ago".

We believe that there is an opportunity for Scotland's NHS to contribute to global health improvement and to establish partnerships with the developing world, and particularly with Africa, that involve two-way transactions. These will positively impact on institutions, as well as on individuals in both countries and at each site of engagement; providing a facility to absorb this new learning and channel it, where appropriate, into health policy, practice and systems that benefit both Scottish and African partners.

Recommended Action

In order to ensure that the high standard of care in Scotland is sustained and improved:

1. In developing new clinical standards, NHS QIS should reflect the increasing complexity of patients' conditions (e.g. the increasing prevalence of multiple diseases) and the delivery of health care by multi-disciplinary teams.

2. NHS Boards must demonstrate annually to the Scottish Executive how they have responded to QIS audits and reports and should be held to account for their performance in doing so.

3. NHS Boards should ensure that clinical governance arrangements require that continuous audit (such as the Scottish Audit of Surgical Mortality) is a key aspect of job plans.

4. The Scottish Executive should establish an international action plan to develop partnerships with African health care institutions with:
- **Mechanisms that allow regular staff exchanges**
- **Training programmes, in concert with Royal Colleges**
- **Promotion of interaction skill sharing.**

CONCLUSION

Changes in what patients need in the future from the NHS will require a shift in the balance of care. The ageing of the population, the growth of long term conditions and the continuing pressures on emergency beds can and must be dealt with by an integrated, whole system response that moves the NHS in Scotland from an organisation reacting to illness often by doctors in hospitals to an organisation working in partnership with patients to anticipate ill health and deal with it in a continuous manner through the efforts of the whole health care team.

The NHS in Scotland can meet that challenge by:

> **Building a new relationship of partnership and trust with the public aligned around the direction set in this report.**

> **Equipping frontline staff to design service change and to develop new roles and skills.**

> **Ensuring all staff are working to a shared vision with a sense of pride in what they are doing.**

> **Providing modern information and communications technology to improve access, quality and effectiveness.**

> **Maximising services in the community; delivering care that is as local as possible and as specialised as necessary.**

APPENDICES

APPENDIX 1. NATIONAL FRAMEWORK FOR SERVICE CHANGE. ADVISORY GROUP MEMBERS

Name	Designation
Professor David Kerr (Chair)	Rhodes Professor of Cancer Therapeutics & Clinical Pharmacology, Radcliffe Infirmary, Oxford
Peter Bates	Chair, Tayside NHS Board
Jae Ferguson	Chair, Mid Argyll Maternity Users Forum
Dr Roger Gibbins	Chief Executive, Highland NHS Board
Dr Lesley Holdsworth	Clinical Effectiveness Co-ordinator, Forth Valley NHS Board
Alexis Jay	Head of Social Work Services Inspectorate
Professor Nora Kearney	Professor of Cancer Care & Director of Cancer Care Research, University of Stirling
James Kennedy	Co-chair, Scottish Partnership Forum and Director of RCN Scotland
Professor Jillian Morrison	Professor of General Practice & Deputy Head of Undergraduate Medical School University of Glasgow
Professor Gillian Needham	Post Graduate Dean, NES North, NHS Education for Scotland
Lesley Summerhill	Director of Nursing & Patient Services, Tayside NHS Board
Dr Charles Swainson	Medical Director, Lothian NHs Board
Irene Sweeney	Chair, Scottish Pensioners Forum
Professor Graham Teasdale	President, Royal College of Physicians & Surgeons of Glasgow

APPENDIX 2. NATIONAL FRAMEWORK FOR SERVICE CHANGE. SUB-GROUP MEMBERS

CARE FOR CHILDREN

Linda De Caestecker, Anne Murphy, Anne-Marie Knox, Bronwen Cohen, Caroline Selkirk, David Cumming, George Youngson, Graham Bryce, Ian Bashford, Janice Grieve, Joan Telfer, Jonathan Best, Lindsay Wright, Jacqui Lunday, Malcolm Wright, Margaret Kinsella, Mags McGuire, Robert Stevenson, Sally Harkness, Shiona Mackie, Stewart Forsyth, Zoe Dunhill, Derek Feeley.

CARE IN LOCAL SETTINGS

Nora Kearney, Alexis Jay, Lesley Holdsworth, Sally Wyke, Warwick Shaw, Linda De Caestecker, Anne Hawkins, Jane Arroll, Erik Jespersen, Sandra Lawrenson, Alan McKeown, Sushee Dunn, Caroline Selkirk, Derek Feeley, Steve Kendrick.

Sub-streams

- **Children with Complex Needs.** Led by Caroline Selkirk working closely with Dr Patricia Jackson, chair of the Scottish Complex Needs Group, in consultation with key professsional groups.
- **People with Cancer.** Led by Nora Kearney in collaboration with patients, carers and health professionals from Ayrshire and Arran, the North East of Scotland with input from SCAN, the three Regional Cancer Networks and the voluntary sector.
- **Older People with Mental Ill Health.** Led by Alexis Jay and Anne Hawkins working primarily with health professionals in NHS Forth Valley and input from social care and the voluntary sector.

CARE OF OLDER PEOPLE

Lesley Holdsworth, Brian Williams, Margaret Hastings, David Sullivan, Colin Currie, Bill Gorman, Fiona Hird, Sandra Campbell, Bill Mutch, George Irving, Ken O'Neill, Irene Sweeney, Jillian Evans, Joanne Booth, Steve Kendrick.

LONG-TERM CONDITIONS

Jillian Morrison, Martin Hill, Jacqui Lunday, Una Macleod, Mini Mishra, Bill Mutch, Alison Strath, Jane Walker, Jimmy Hutchison, Paul Martin, Will Scott.

DIAGNOSTIC SERVICES

Gillian Needham, Peter Johnston, Pauline Ferguson, Lesley Forsyth, Elizabeth Robertson, Jocelyn Imrie, John Reid, Mike Cornbleet, Paul Duffy, Mike Lyon, Frank Carey, Michael Fuller, Carmen McAteer, Rosalind Skinner, Brian Dornan.

ELECTIVE CARE

Charles Swainson, Stephen Gallagher, George Barlow, Deb Den Herder, Ian Bashford, Dermot McKeown, Greg Murray, Mandy Yule, Judith Reid, Jill Young, David Finlayson, Una Lyon.

HEALTH INEQUALITIES

Irene Sweeney, Harry Burns, Nick Brown.

REMOTE & RURAL ACCESS

Roger Gibbins, Jae Ferguson, John Glennie, Sarah Taylor, Ian Donald, Annie Ingram, Malcolm Alexander, Sandra Pratt, Alan McKay, Erik Jespersen, David Godden, Evelyn Dykes, Michael Bews, Andrew Sim, Una Lyon.

SPECIALIST NEUROSCIENCES SERVICES

James Kennedy, Adam Bryson, Evelyn Teasdale, Elizabeth Preston, Robert McWilliam, David Mowle, Will Scott, James Steers, David Currie, Ian Bone, Annie Ingram, Hilary Mounfield, Karen Bruce, Andy Wynd, Lynn Myles, Jennifer Brown, Jim Miller, Martin Kirkpatrick, Ian Whittle, Uwe Spelmeyer, Graham Teasdale, Aileen Keel, Mark Hazelwood, Kenneth Lindsay, Callum Kerr, Myra Duncan.

SPECIALIST PAEDIATRIC SERVICES

Peter Bates, Lorraine Currie, Jackie Sansbury, George Youngson, Isabel McCallum, Robert Stevenson, Zoe Dunhill, Stewart Forsyth, Callum Kerr, Andrew Dunlop, Gwen Garner, George Farmer, Deirdre Evans, Ian Bashford, Morag Dorward, Margaret McGuire, Caroline Selkirk, Catriona Renfrew, Caroline Delahunty, Charles Clark, Morgan Jamieson, Myra Duncan.

UNSCHEDULED CARE

Lesley Summerhill, Andrew Marsden, Brian Robson, Jim Ferguson, Margaret Duffy, Christine McFarlane-Slack, Derek Bell, Mini Mishra, Theresa Fyffe, Sandra Campbell, Frances Elliot, Tom Beattie, David Heaney, Mike Sabin, Sonya Lam, Marilyn Barrett, Colin Briggs, Brian Dornan.

VOLUME & OUTCOMES

Graham Teasdale, Gordon Murray, Nick Brown.

SELF-CARE, CARERS, VOLUNTEERS & THE VOLUNTARY SECTOR

Bill Mutch, Bill Gorman, Jo Booth, Ken O'Neill, Fiona Collie, Helen Tyrrell, Fiona Hird, Janette Barry, Pat Begley, Morag Robertson, Sally Wyke, George Irving, Julie Haslett, Sebastian Fischer, Alison McGilvray, Will Scott, Steve Kendrick.

www.scotland.gov.uk or www.show.scot.nhs.uk/sehd/nationalframework

Astron B40206 05/05

Further copies are available from
Blackwell's Bookshop
53 South Bridge
Edinburgh
EH1 1YS

Telephone orders and enquiries
0131 622 8283 or 0131 622 8258

Fax orders
0131 557 8149

Email orders
business.edinburgh@blackwell.co.uk

w w w . s c o t l a n d . g o v . u k