Independent
Scrutiny Panels

Report by the Independent Scrutiny Panel on Revised Proposals by NHS Ayrshire & Arran for Accident and Emergency Services

CONTENTS

SECTION 1
INTRODUCTION

Each NHS Board in Scotland undoubtedly faces a number of challenges. These challenges include: developing services that meet the changing health needs of its population; promoting health and wellbeing, prevention, and self-management; meeting expectations in terms of clinical standards and national policy; fulfilling its obligations as a major employer; ensuring that all of its activities are well-managed, underpinned by robust planning and are implemented within financial constraints. As the first Independent Scrutiny Panel to be established in Scotland, we were mindful of these challenges, although our focus was on emergency services.

We considered what standard of work we should expect from the Board, and what questions we should ask of it. Our remit required us to assess whether the Board's revised proposals met a number of agreed criteria, but how were we to judge that? We decided to set the standards by simply asking ourselves: "If any reasonable person were reading these proposals what would they expect?"

The Panel believes it is reasonable for an NHS Board to:

- Set out clearly, with evidence, why and how things need to change
- Communicate its case in documents that are transparent and accessible
- Base its plans on estimates of likely numbers of patients, now and in the future
- Take into account the views and concerns of local people
- Consider all the options and show impartiality between them
- Take account of national policy, good practice guidance and the relevant evidence and present it in a balanced and neutral way
- When a claim is made about a service being unsustainable, or that an alternative way of doing things would be better, to be able to show the evidence base for that claim
- Produce figures that are robust and reliable within reasonable limits.

In addition to this, we felt that the burden of proof clearly rested with the Board, and that if they made a claim, then it was their responsibility to substantiate that claim. We felt it was particularly important that the Board could justify its case when its proposals involve reducing emergency services, because of the inevitable questions about patient safety, and because of public sensitivity to any such change.

The most immediate concern for the Panel is that the health service that emerges from this review should meet the needs of local people. Our work has left us convinced of the following:

First, **the general health of the population will not be fundamentally improved through the acute hospital sector alone**. Primary care, community services, and health promotion have better prospects of tackling fundamental problems such as

obesity, drug and alcohol addiction, mild-moderate mental health problems, and so on. However, the acute hospital, especially the A&E department, is currently the 'safety net' when these services are not available or fail in some way. This suggests that **emergency care services should not be changed significantly while community services are being built up**.

Second, in commenting on the Board's proposals, the Panel is not arguing that the current service is perfect, or that it should never change. It is suggesting that there are considerable strengths to the current system, notably in the quality of care provided. **Given the criteria set out in its remit, the Panel's view is that the Board has not made a convincing case for significant changes to emergency services**. Rather, there is the potential to build on the strengths of the current service through developments such as clinical decision units and the extension of minor injuries provision into the community, notably to outlying population centres.

The Panel is grateful to a wide range of people for their assistance in helping in to complete its task. Further detail about who they are is provided in the acknowledgements section at the end of this report.

SECTION 2
EXECUTIVE SUMMARY

1. INTRODUCTION

Each NHS Board in Scotland undoubtedly faces a number of challenges. The Panel was mindful of all of these challenges, although our focus was specifically on emergency services.

In our scrutiny of the Board's revised proposals for Accident and Emergency (A&E) services, we felt that the burden of proof clearly rested with the Board to substantiate its claims. We felt that it was particularly important that the Board could justify its case, when its proposals involve reducing emergency services, because of the inevitable questions about patient safety, and because of public sensitivity to any such change.

Our work has convinced us that the general health of the population will not be fundamentally improved through the acute hospital sector alone. Primary care, community services, and health promotion are also important, but emergency care services should not be changed significantly while community services etc are being built up.

The Panel is not arguing that the current service is perfect, or that it should never change. It is suggesting that there are considerable strengths to the current system, notably in the quality of care provided. Given the criteria set out in its remit, the Panel's view is that the Board has not made a convincing case for significant changes to emergency services. Rather, there is the potential to build on the strengths of the

current service through developments such as clinical decision units and the extension of minor injuries provision into the community, notably to outlying population centres.

2. REMIT OF THE PANEL

The task of the Panel was to bring to bear independent, expert, probing scrutiny on the revised service proposals from NHS Lanarkshire and NHS Ayrshire & Arran. The aim of this scrutiny was to provide assurance through commentary that the revised proposals:

- Are safe, sustainable, evidence-based and represent value for money
- Are robust, patient-centred and consistent with clinical best practice and national policy
- Take account of local circumstances and the views of individuals and communities affected
- And that all viable service options have been considered.

In order to carry out its task the Panel was required to:

- Take account of local circumstances and the views of individuals and communities affected by effectively engaging with local people, in liaison with the Scottish Health Council
- Provide a clear, comprehensive and accessible commentary on both sets of proposals in a form also suitable for publication
- And to complete this work by the turn of the year.

3. CASE FOR CHANGE

The Panel notes that several of the factors listed by the Board make the case for giving a higher priority to primary care, community services and health promotion. This includes pressures from demographic change, from epidemiology and from implementing national policy. However, giving a higher priority to these developments does not necessarily require a reduction in the level of emergency services (such as emergency surgery, intensive care and emergency medical services) currently provided at Ayr Hospital.

The case for change put forward by the Board did not allude to intensive care services, and only made passing mention of A&E services. It also did not discuss the quality of care currently offered at Ayr and Crosshouse Hospitals.

The Panel found nationally available data on the quality of care; this shows outcomes for patients treated at Ayr and Crosshouse hospitals. The Panel notes that both hospitals are providing good quality clinical care, which generally compares favourably with the national average and has shown no sign of deteriorating over time.

The Board quoted a number of documents to support its case. However, the Panel found recommendations from within these documents, and also found separate documents, that provided a different perspective, but were not quoted by the Board. It

appears to the Panel that the Board selected quotes and papers that supported its case, without reflecting others that provided a differing view.

Other elements of the Board's case for change were considered in the following sections under the relevant criteria.

4. SAFETY

The Panel examined the Board's evidence and claims on safety, notably the contents of the information pack. It found:

- Studies that questioned the safety of ambulance response times and distances tended to be overlooked or criticised when studies that suggested longer ambulance journeys were safe were quoted without comment.
- Studies introduced after the research literature search tended to be those that suggested ambulance response times did not affect mortality.
- Some references were either misquoted or factually correct quotes were given without context.
- Evidence was assumed to transfer from other countries and settings with no consideration for differences between health care systems, geography, type of injury, transport network, etc.
- Claims were made that could not be supported by the research evidence cited, notably on the safety of transfers of sick patients between two hospitals.
- Other claims were made with no supporting evidence offered.

The Panel believes that this raises a question about the credibility of the scores for safety in the option appraisal exercise.

5. SUSTAINABILITY

The Board makes the case that some of the main threats to sustainability relate to medical staffing issues. The Panel has obtained data from NHS Education for Scotland which shows the number of doctors who will complete their training in the next five years. While demand for trained doctors will continue to be high, supply is increasing as well and it is not obvious that the situation of a shortage of trained doctors over the last few years will continue indefinitely.

Other evidence on the sustainability of services simply restates pressures on existing services without establishing that the existing service cannot be changed to cope.

The case is made for a role for a surgical assessment unit. However, the Board has not established that this could not be developed at Ayr Hospital instead, potentially in combination with a medical assessment unit.

The Board made no projections of staffing numbers that would be required to help the existing service cope with pressures. The Panel considers that it is not possible to make sound planning decisions without these data.

6. CONSISTENT WITH CLINICAL BEST PRACTICE

A key problem with the evidence presented was that while the research literature search relating to A&E services was systematic, other studies were identified from the research literature by the Panel (e.g. in trauma surgery) which question how comprehensive and balanced a view of the research literature was presented. For example, while the Board has cited studies relating to severe trauma as part of its case for centralising this service, there are other studies (e.g. Margulies1, Sava2) that show no relationship between the number of operations a surgeon carries out and patient survival. Unless the Board has considered all of the available evidence it is unclear how it can reach an evidence-based view.

The evidence cited by the Board made the case for a medical assessment unit as a way of managing and directing emergency admissions; however, this could be compatible with the existing service at Ayr Hospital as an incremental service development and would not require any centralisation of services. The Board's submission did not make a case for separating elective and emergency care on the basis of better outcomes for patients.

The Board's second submission said that cardiac and stroke services should be centralised in Ayrshire because some patients are admitted to Ayr Hospital out-of-hours under the care of a general physician rather than a specialist. The evidence cited by the Board that this makes a difference to patient outcomes was weak.

The submission also made the case for centralisation of trauma surgery because this would lead to better outcomes. This may be the case for major trauma (Injury Severity Score >15) but this is only a small proportion of workload in this specialty and any change to the management of these cases could be achieved without significant change to existing services.

The case was made for having a single emergency surgery centre for Ayrshire based on a Royal College of Surgeons report that stated a population of 300,000 people was required. Having considered this report, it is the Panel's view that this figure was presented without being underpinned by a sound evidence base, and as such, it does not provide a convincing basis for centralising emergency services.

The evidence assembled by the Board placed considerable weight on documents from medical professional bodies but failed to consider the actual quality of care offered by Ayr Hospital (or Crosshouse Hospital). No estimates were made of current or future patient numbers affected by changes.

7. PATIENT-CENTRED

In terms of patient-centredness, the submission presented little useful information. The 2006 consultation on options for unscheduled care suggested that any reduction in the provision of A & E services at Ayr Hospital, for example, the provision of a service that was not consultant-led, would not be acceptable to a significant proportion of local people. However, this was not addressed.

In terms of accessibility, transport data were presented, but no attempt was made to apply them to the models of care making them difficult to interpret.

Some of the research evidence on patient-centeredness presented was factually correct but was quoted out of context which could give a misleading impression of the conclusions of the people carrying out the research. Other pieces of evidence seemed to have little relevance to Ayrshire.

8. CONSISTENT WITH NATIONAL POLICY

The Board argued in its submission that the existing service would not be consistent with national policy. The Panel believes that with incremental development of services this could be addressed. The Board has not made the case for why this is not possible. Models 4 and 4a appeared to the Panel to have a degree of "built-in obsolescence" in that decisions about what to include and – more particularly - to exclude could undermine their sustainability in the longer term.

The Cabinet Secretary has made clear that there is a presumption against centralisation and that any concentration of services must result in benefits to patients. The Panel's view, in light of the issues outlined above regarding safety, clinical best practice, patient-centredness and sustainability, is that the Board has not established that options involving centralisation of services would provide benefits to patients.

9. LOCAL CIRCUMSTANCES

The Cabinet Secretary specifically mentioned that in earlier work the Board had given insufficient consideration to geographical, local transport and ambulance infrastructure issues. The Panel found that these issues were still not adequately addressed in the Board's submissions.

10. ROBUSTNESS OF THE OPTIONS

Safety – in the Panel's view the Board has not made a convincing case for the safety of bypassing the nearest hospital in an ambulance and transferring sick patients from one hospital to another. Safety arguments would therefore favour the options that minimised these elements, namely models 4, 4a and 7.

Sustainability – the Panel's view is that the Board has not made a convincing case that existing services are unsustainable. However, the Panel recognises there will be increased staffing pressures and hence option 7, which requires the most additional staff, raises most concerns on this point.

Consistency with clinical best practice – in the Panel's view, the Board has not made the case for improved outcomes from sub-specialisation. The quality of existing clinical services provided from Ayr and Crosshouse are similar (and generally very good), so this would not help to pick between the options.

Patient-centred – the Board offered so little evidence on this criterion it was not easy for the Panel to comment. In terms of accessibility, people with minor injuries would be treated closer to home under options 1, 2 and 3 but this is principally because the Board decided other services would not see the same development of community-based services – it has not made a case why these should not be included in other options as well. Patients in South Ayrshire with more serious emergencies would find options 4, 4a and 7 more accessible. In terms of public acceptability, the opposition to plans in 2006 should have shown the Board that models 1, 2 and 3 are not likely to be acceptable to a sizeable proportion of their population. This was not acknowledged in the Board's submission.

National policy – the Board has argued in its submission that the existing service is incompatible with aspects of the Kerr Report – in their view models 1, 2 and 3, and (to a lesser extent) 5 and 6 do best on this criterion. However, the Panel's view is that Models 4 and 4a suffer from the Board's decision not to include service enhancements apart from extended A&E hours. As the Board concedes, Models 4, 4a and 7 would address the Cabinet Secretary's stated policy of a presumption against centralisation.

11. FINANCE

In contrast with the submission that the Panel received from NHS Lanarkshire, the first submission to the Panel from NHS Ayrshire & Arran did not include all of the relevant supporting financial papers. These papers were submitted to the Panel two months after the first submission. This delay hampered the ability of the Panel to scrutinise the costs associated with the models. The second submission to the Panel included significant increases in the costs of all models, and again, there was a delay in the submission of relevant supporting financial papers.

Only the most general explanation of what caused the increase between the two submissions was provided. Revised figures include sub-speciality costs but it is unclear how these were incorporated.

The relative costs of the options changed as a result of the revisions. Model 1 has increased by less than the other options thus making it look relatively cheaper. Model 7 has had a significant reduction in its capital costs.

There is a lack of explanation provided for assumptions on bed numbers under each of the models and apparent cost inconsistencies as well as lack of explanation on the staffing assumptions.

The Panel requested the Board to add an enhanced status quo option. The costs for this appear to be overstated.

The proposed service reconfigurations will have implications for the Scottish Ambulance Service and yet the associated costs do not appear to have been identified and included.

The Board has made little attempt to disaggregate the costs of different national and local policies. The Panel has counted four different sets of decisions driving costs and the Board has only disaggregated the baseline costs associated with the 2006 Review of Services

12. OPTION APPRAISAL

Contrary to normal practice in an option appraisal, none of the options represented a “do minimum” option. This would represent the minimum action required under the status quo to address pressures and constraints.

Options 4 and 4a, the status quo options, were portrayed as being deficient because they did not develop the roles of paramedics and nurses, did not include community casualty facilities and did not include a medical (or combined) assessment unit. However, the Board could have considered sub-options that included all of these things – they are not fundamentally incompatible with the status quo.

The basis for some of the numbers used in planning was unclear. In the Board’s first submission, analysis of A&E data at Ayr and Crosshouse Hospitals showed the Board regarded data on the number of cases coded red or orange (i.e. patients for immediate resuscitation or very urgent care) as being unreliable. It was stated that further work was being carried out and “This additional analysis will be included in the final submission to the Independent Scrutiny Panel.” This was not evident in the second submission. It seems difficult to plan the future of A&E services without reliable data about patient numbers.

The submissions made by the Board contained no explicit projections of patient, staff and bed numbers into the future. It seems difficult to plan the future of emergency services without these data.

The scoring and weighting of the options involved a number of decisions by the Board. The Board’s 2005 option appraisal of unscheduled care involved the need to redo scores once the total score for each option was announced. The Panel could see no evidence the Board had guarded against this happening again.

The information pack prepared by the Board for the scoring event had a number of deficiencies. The complexity of the information presented required health services research experience to interpret. Some studies were selected from the literature while others were not. Some quotes were selected from the reports while others were not. There was no discussion of whether studies from other countries applied in Ayrshire. There were few data on the quality of current services at Ayr and Crosshouse Hospitals.

A particular concern in the information pack was that for each model, the Board presented estimates of numbers of attendances at A&E department under each option. However, for each model the booklets did not estimate:

- The number of people who currently go to Ayr Hospital who would now bypass it in an ambulance in an emergency situation
- The number of transfers from Ayr to Crosshouse for people admitted to Ayr Hospital as an emergency and needing a service that is no longer provided there
- The number of transfers of people admitted for elective surgery to Ayr Hospital who would need to be transferred to Crosshouse for emergency surgery or level 3 intensive care

This may have reduced the extent to which people involved in scoring considered bypassing the nearest hospital in an ambulance and transferring sick patients from one hospital to another in an emergency situation.

The Board decided to separate the public from professionals (mainly managers and doctors) with the stated aim of avoiding any influence between groups. The Panel believes this left the public without access to advice that was independent of the Board. Although an independent facilitator hosted the meeting, he was not an expert in Scottish health services. The information pack circulated in advance was prepared by the Board and has been criticised elsewhere in this section.

It is clear that the hospital doctors who scored the options took a diametrically opposed view to the group that was predominantly composed of NHS managers, notably on the status quo options and model 7. Doctors rated these options highly but the group containing managers gave them low scores. The public, who participated in a separate group from the doctors, took the same view of the status quo options as the group that was predominantly NHS management.

The Board made decisions about how the scores of different groups were to be combined. This gave twice as much weight to the views of NHS managers as doctors. NHS managers who were also NHS Board members had as much say as the hospital doctors.

The Board wrongly included capital charges within its initial calculations of the net present value of future financial streams but subsequently amended and resubmitted figures to the Panel on the 21st December.

It appears that capital costs have not been discounted.

The results of the option appraisal were analysed to produce a single preferred option. This involved the Board making judgements about whether added cost of one option over another was justified by the added benefit. The Panel considers that the basis for these judgements is highly contentious.

The Board faces a choice from the option appraisal between models 4, 4a, 1, 3 and 6. The choice rests on the trade-off between costs and benefits, but key information is either difficult to find or to interpret. No attempt has been made to convert a “weighted benefit point” into a service or patient experience so it is unclear what practical benefit

is being purchased for extra money. Choosing a more expensive option also involves reducing funding or delaying other services and the benefits these would have produced should also be considered.

13. OPPORTUNITY COSTS

The term "opportunity cost" can be seen as a misnomer since it can be interpreted as meaning that if one service is funded then another service will never be funded. In fact, funding for the second service may be possible next year when further funds are available. The delay of a year is an opportunity cost, but it is very different to never getting the benefits of the service.

The choice of option from the A&E review has implications for the funds available for other services. The Board decided to rank these other services; it selected the services to be included, the choice of criteria, who was to be involved and the method used. The lack of involvement of the Ayrshire public in these decisions is perhaps surprising; greater transparency will be required than was presented in the submission to justify these decisions to local people.

The Board has recognised that the real issue here is when these service developments can be afforded – if a particular development does not receive funding this year then it could be scheduled for a future year. The Panel believes this would be a more constructive approach than questioning whether a service such as the proposed cancer unit at Ayr Hospital will or will not go ahead.

Several service developments relating to emergency services were included in the exercise. The Panel was surprised to see enhancements of ambulance services being treated as though they were optional. Community Casualty Facilities (CCF) at Cumnock and Girvan were also treated in this way, and it was not clear why, when the CCF at Irvine goes ahead under all models (except 4 and 4a).

14. TAKING ACCOUNT OF PEOPLE'S VIEWS

Part of the Panel's remit was "to provide assurance through commentary that the revised proposals…take account of local circumstances and the views of individuals and communities affected." The Panel itself was also tasked with taking "account of local circumstances and the views of individuals and communities affected by effectively engaging with local people, in liaison with the Scottish Health Council".

Between August 2005 and August 2006, NHS Ayrshire & Arran carried out formal consultation on options for emergency and unscheduled care, as part of its wider Review of Services project. In its Interim Comment in October 2007, the Panel indicated that it was unclear, at that stage, how the Board had taken account of public opinion expressed during its previous consultation process on Picture of Health, when developing its revised proposals. The Board subsequently provided a paper to the Panel setting out how it believed that it had taken account of public views.

The Panel held public meetings in the two areas within Ayrshire where Accident and Emergency services are currently provided i.e. Kilmarnock and Ayr. It also received 10 written submissions from local people. Views expressed at the meetings and in the submissions included the following themes:

- Unhappiness about the Panel's arrangements for the 2007 public meetings
- Unhappiness with the summary paper on the options prepared by the Board
- Concern about the impact of A & E options on other planned services
- Questions about the Panel's role
- Transport and geographical issues – concern about public transport across Ayrshire, particularly the most rural areas in the South, and about ambulance transfers to and between hospitals
- Support for maintaining the status quo or the 'status quo plus' – South Ayrshire
- Support for the Board's original proposals – North Ayrshire
- Negative perceptions of the Board and the process it has followed.

The Panel has taken these views into account in preparing this report.

SECTION 3
THE INDEPENDENT SCRUTINY PANEL

3.1 TASK AND TERMS OF REFERENCE

The task of the Panel was to bring to bear independent, expert, probing scrutiny on the revised service proposals from NHS Lanarkshire and NHS Ayrshire & Arran. The aim of this scrutiny was to provide assurance through commentary that the revised proposals:

- Are safe, sustainable, evidence-based and represent value for money
- Are robust, patient-centred and consistent with clinical best practice and national policy
- Take account of local circumstances and the views of individuals and communities affected
- And that all viable service options have been considered.

In order to carry out its task the Panel required to:

- Take account of local circumstances and the views of individuals and communities affected by effectively engaging with local people, in liaison with the Scottish Health Council
- Provide a clear, comprehensive and accessible commentary on both sets of proposals in a form also suitable for publication
- And to complete this work by the turn of the year.

3.2 PROCESS

The Panel Chair was announced on 25th July 2007. During August he met representatives of NHS Ayrshire & Arran to discuss the process which would follow. The remaining Panel members were appointed at the beginning of September.

It was estimated at the outset that Panel members would each spend a total of 15 days on work related to the revised service proposals from NHS Ayrshire & Arran, and that this would include: all meetings, visits, public engagement activities, scrutiny of submissions and report writing.

The Panel met regularly, generally once each week, following its first meeting on 5th September 2007.

NHS Ayrshire & Arran made three formal submissions to the Panel:

1. First submission containing its revised options, evidence and initial analysis – 28th September
2. Draft information pack for the Board's scoring events – 16th October. The Board subsequently sent the final version of the pack to the Panel at the same time it was sent to people attending the scoring event.

3. Second submission including option appraisal report – 7th December.

These submissions were supplemented by regular communication between the Panel and the Board throughout the process. The Chair and Chief Executive of the Board attended a Panel meeting on 17th October.

The Panel provided its Interim Comment to the Board on 18th October.

Panel members visited The Ayr Hospital on 25th October, enabling them to see the Accident and Emergency department and related areas of the hospital in operation, and to speak to frontline staff.

The Panel sought advice from the Scottish Health Council with regard to how it might engage with local people. During November, it held public meetings in Kilmarnock and Ayr (see section 15 for more detail). Written submissions to the Panel were invited through press releases, information packs and the website www.independentscrutinypanels.org.uk

The Panel published its Interim Report on 9th November.

Detailed financial information was submitted to the Panel on 29th November. Subsequently, the Panel's finance representative met with the Board's Director of Finance to discuss this.

As several MSPs had indicated that the date and time of the public meetings made it inconvenient for them to attend, a further meeting was held for MSPs at Holyrood on 12th December 2007. Dr Walker attended on behalf of the Panel.

The Panel prepared its final report during December, and this was sent to the Board and the Cabinet Secretary on 11th January 2008.

The Board is expected to consider the Panel's report at its meeting on 23rd January 2008, and thereafter to make its recommendation to the Cabinet Secretary for Health and Well-being.

3.3 CRITERIA AGAINST WHICH PROPOSALS HAVE BEEN ASSESSED

As part of an iterative process following the Panel's appointment, the following criteria definitions were agreed with the Board.

1. *Safety*

Any proposal should provide a safe service . Any clinical risks associated with the proposal should be assessed, managed and minimised so that the provision of the service should do no harm and aim to avoid preventable adverse events.

2. *Sustainability*

The proposal should facilitate both retention and recruitment of high calibre staff both now and in the future. This should consider doctor's rotas, training and accreditation alongside training issues for other staff groups e.g. Emergency Care Practitioners (ECPs).

The proposal should be able to accommodate changes in patterns of care and the changing needs of the population and should enable optimal and efficient deployment of all types of resources including staff, facilities and equipment.

3. *Quality / Consistent with Clinical Best Practice*

Care and treatment of service users should be clinically effective in terms of quality of health outcome for the service user. The proposal should fulfil the recommendations provided by professional clinical bodies and Royal Colleges.

4. *Patient Centeredness*

- Accessibility

The proposal should facilitate provision of A&E and unscheduled care services as close as possible to where services users are in need. Convenience of accessibility by public transport and the local road network for service users and their families should be considered.

- Acceptability

The proposal should also provide satisfaction and promote a positive experience for users of A&E and unscheduled care services.

- Availability

This should include patient satisfaction derived from the responsiveness of the service, for example taking account of waiting times ; treatment times; opening times; and the extent to which service is tailored to individual needs and preferences. The proposal should ensure appropriate pathways of care based on people's needs.

5. *Consistent with National Policy*

The proposals should be consistent with the principles of the Kerr report and developing national policy as described in 'Better Health, Better Care'. This includes the presumption against centralisation.

[1] *Safe is identified as one of six aims to address quality in health. It is defined by the committee as, "avoiding injuries to patients from the care that is intended to help them". "Crossing the Quality Chasm: A New Health System for the 21st Century" Committee of Quality of Health Care in America, Institute of Medicine. 2001*

[2] *Efficient is identified as one of six aims to address quality in health. It is defined as, "avoiding waste, including waste of equipment, supplies, ideas and energy". "Crossing the Quality Chasm: A New Health System for the 21st Century" Committee of Quality of Health Care in America, Institute of Medicine. 2001*

[3] *Patient-centred is identified as one of six aims to address quality in health. It is defined as, "providing care that is respectful of and responsive to individual patient preferences, needs and values and ensuring that patient values guide all clinical decisions". "Crossing the Quality Chasm: A New Health System for the 21st Century" Committee of Quality of Health Care in America, Institute of Medicine. 2001*

[4] *Timely is identified as one of six aims to address quality in health. It is defined as, "reducing waits and sometimes harmful delays for both those who receive and those who give care". "Crossing the Quality Chasm: A New Health System for the 21st Century" Committee of Quality of Health Care in America, Institute of Medicine. 2001*

SECTION 4
THE CASE FOR CHANGE

4.1 KEY POINTS

The Panel notes that several of the factors listed by the Board make the case for giving a higher priority to primary care, community services and health promotion. This includes pressures from demographic change, from epidemiology and from implementing national policy. However, giving a higher priority to these developments does not necessarily require a reduction in the level of emergency services (such as emergency surgery, intensive care and emergency medical services) currently provided at Ayr Hospital.

The case for change put forward by the Board did not allude to intensive care services, and only made passing mention of A&E services. It also did not discuss the quality of care currently offered at Ayr and Crosshouse Hospitals.

The Panel found nationally available data on the quality of care; this shows outcomes for patients treated at Ayr and Crosshouse hospitals. The Panel notes that both hospitals are providing good quality clinical care, which generally compares favourably with the national average and has shown no sign of deteriorating over time.

The Board quoted a number of documents to support its case. However, the Panel found recommendations from within these documents, and also found separate documents, that provided a different perspective, but were not quoted by the Board. It appears to the Panel that the Board selected quotes and papers that supported its case, without reflecting others that provided a differing view.

Other elements of the Board's case for change were considered in the following sections under the relevant criteria.

4.2 EVIDENCE PRESENTED

The Board's second formal submission to the Panel made the case for change in terms of:

1. Population changes
2. Epidemiology
3. Pressures on workforce, notably medical staff
4. Benefits to patients from concentrating work on fewer sites
5. National policy context

These factors were also covered in the Board's first submission to the Panel.

4.3 ASSESSMENT OF THE EVIDENCE

The Panel notes that several of the factors listed by the Board make the case for giving a higher priority to primary care, community services and health promotion. This includes pressures from demographic change, from epidemiology and from implementing national policy. The Panel recognises the health needs of people with long-term conditions and the case for developing services that address this issue. It acknowledges the Board has already made good progress in this direction, as the following data on spending per head of population show:

Board	All NHS	Community	Family Health	Both
Scotland	£1,503	£152	£411	£562
Greater Glasgow & Clyde	£1,612	£147	£436	£583
Ayrshire & Arran	£1,622	£162	£419	£581
Lanarkshire	£1,457	£166	£405	£571
Tayside	£1,550	£143	£410	£553
Forth Valley	£1,446	£131	£417	£548
Fife	£1,445	£143	£394	£537
Lothian	£1,347	£158	£373	£531
Grampian	£1,313	£111	£381	£492

NHS Ayrshire and Arran is already spending more than the national average for family health (such as GPs, community pharmacies, dentists, etc) and community services (such as nurses, health visitors etc). In this sample of eight NHS Boards (excluding the NHS Boards covering islands and rural areas) NHS Ayrshire and Arran comes second only to NHS Greater Glasgow and Clyde in terms of spending on community and family health services combined.

However, giving a higher priority to these developments is not an argument for considering withdrawing emergency services (such as emergency surgery, intensive care and emergency medical services) from The Ayr Hospital. The key issues appear to be workforce constraints, and the desire to concentrate services on a reduced number of hospital sites to improve outcomes for patients. The evidence presented by the Board relating to these pressures is considered in more detail in the section 6, Sustainability, and section 7, Consistent with Best Clinical Practice.

4.4 GENERAL COMMENTS

This section of the second submission was disappointing in several respects.

In terms of the emergency services that might be affected by the options for change considered later:

- The only time A&E features is in terms of rotas worked.
- Emergency surgery is considered but the case for change is made on the basis of unsubstantiated clinical opinion.
- Intensive care is not considered at all.
- Trauma surgery is considered but the case for change seems to be driven by a small minority of cases.

It seems remarkable that the distribution of potentially life-saving services across Ayrshire can be planned when there is little mention of them in the reasons for change. The Board emphasises the positives that it sees from its vision of future services, while giving less attention to the potential losses and the public concern this provokes. When the Panel heard views from the public in Ayrshire, there was some support for change to existing services, but at the Ayr meeting in particular the Panel heard a different perspective, defending the existing health services in the area and challenging the case for change.

The Board lists pressures but does not explain why these cannot be managed within the existing pattern of services. For example, on page 18 of the second submission it states the three-hour period to get the patient with a stroke assessed, scanned and treated cannot be easily achieved over two hospital sites but it does not describe what the difficulties are or what the options are for overcoming these. Similarly, even if it were accepted that there is a convincing case for specialisation of interventional cardiology, it may be possible for this to be implemented while keeping all other services at both hospitals in place. There is an assumption running through the case presented that the only solution to every pressure listed is to reduce emergency services at The Ayr Hospital.

The Board's case for change does not always link to the options developed. For example:

The second submission cites the BAEM[2] on page 17 as saying that to provide a safe, high quality A&E service around the clock, the following services should be available on site: intensive care, anaesthetics, acute medicine, general surgery, orthopaedic trauma, and so on. However, it then goes on to propose options that do not meet the BAEM requirement.

It is claimed in the second submission that the medical workforce is under pressure and the need is to shift expertise to the community, but some of the options involve increases in the numbers of hospital doctors.

It was disappointing that the Board failed to respond to points made by the Panel in its Interim Report such as the need to build up community services while acute services are still in place. This would support the case for incremental change to the status quo, bringing on community services and primary care while hospital-based emergency care was still in place.

It was not clear on what basis the reports and recommendations of professional groups were selected. The Board does not quote the 2004 Department of Health paper "Keeping The NHS Local: a New Direction of Travel". This document said, "The mindset that "biggest is best" that has underpinned many of the changes in the NHS in the last few decades, needs to change. The continued concentration of acute hospital services without sustaining local access to acute care runs the danger of making services increasingly remote from many local communities. With new resources now available, new evidence emerging that "small can work" and new models of care being developed, it is time to challenge the biggest is best philosophy." (page 3). It also says, "… there is evidence that centralising services into larger hospitals does not necessarily deliver the expected benefits. The link between volume and outcome for surgical procedures is often overestimated; the financial benefits often expected from such mergers do not always materialise; and access to services may be reduced, particularly for older and poorer people." (page 29). It was not clear why statements from one document that support the Board's case were quoted but others that were less supportive were not included.

There are two notable groups in Ayrshire who seem unconvinced by the Board's case for change:

i. Members of the public - at the public meetings that the Panel held in Ayrshire, a significant proportion of the views expressed on hospital services were in favour of the status quo or incremental development. Others wanted change, but mainly for the benefits in terms of improved primary care and community services.
ii. Hospital doctors who took part in the Board's option appraisal – in the scoring for the option appraisal, doctors from both Ayr and Crosshouse Hospitals placed model 7 first (full Emergency Care Facilities at Ayr and at Crosshouse) and the enhanced status quo second.

4.5 CURRENT DATA ON QUALITY OF CARE AT NHS AYRSHIRE & ARRAN ACUTE HOSPITALS

In its assessment of the evidence the Panel noted that the Board's "Case for Change" focused mainly on the problems with the existing hospital service. While recognising these are important, the Panel felt it was important to be reminded of the strengths of the existing service in terms of the quality of clinical care being delivered.

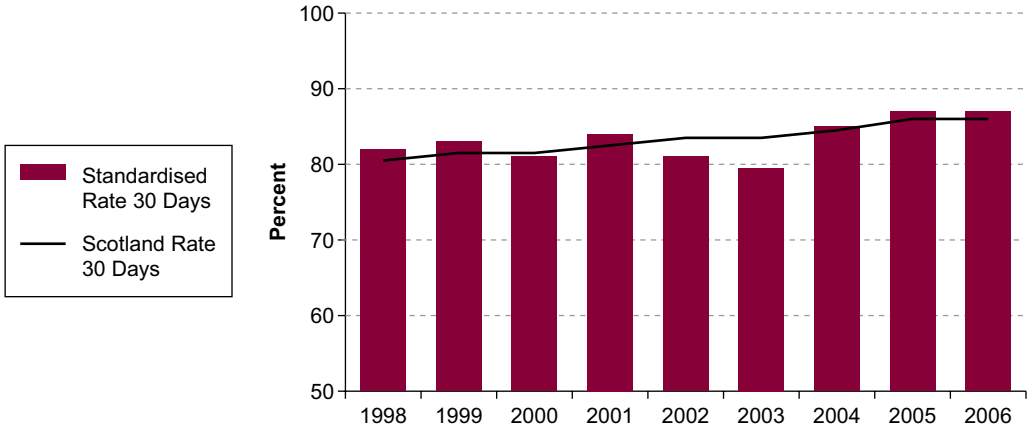
This section of the report assembles data on aspects of the quality of clinical care in Ayr and Crosshouse Hospitals with existing services. The aim of this section is not to show which of NHS Ayrshire & Arran's acute hospitals is "better", or to draw sweeping conclusions from one hospital or the other being slightly above or below the national average. Nor should it be read as implying that nothing should ever change in the acute sector. However, the Panel feels it is useful to be reminded that both hospitals are providing excellent quality clinical care, which generally compares favourably with the national average and shows no sign of deteriorating over time.

1. Survival 30 days after an acute myocardial infarction

Source: Scottish Clinical Indicators on the Web July 2007
(http://www.indicators.scot.nhs.uk/Trends_July_2007/AMI.html)

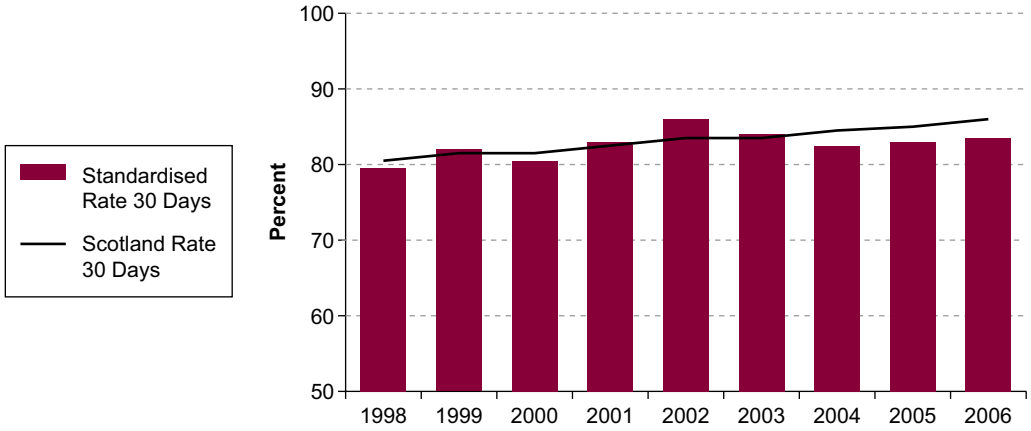
Acute Myocardial Infarction 30 days Survival in The Ayr Hospital

Percentage of patients surviving for 30 days after an emergency admission for AMI
Standardised rates with Scotland comparison - Years ending 30th June 1998 to 2006



	Year ending 30th June:								
The Ayr Hospital	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**
Patients	361	356	319	259	260	286	285	288	210
Survived 30 Days	300	294	260	216	213	225	242	251	181
Crude Rate 30 Days	83.1	82.6	81.5	83.4	81.9	78.7	84.9	87.2	86.2
Standardised Rate 30 Days	81.6	82.1	80.6	83.5	81.1	79.6	85.0	87.0	87.3

Acute Myocardial Infarction 30 days Survival in Crosshouse Hospital
Percentage of patients surviving for 30 days after an emergency admission for AMI
Standardised rates with Scotland comparison - Years ending 30th June 1998 to 2006



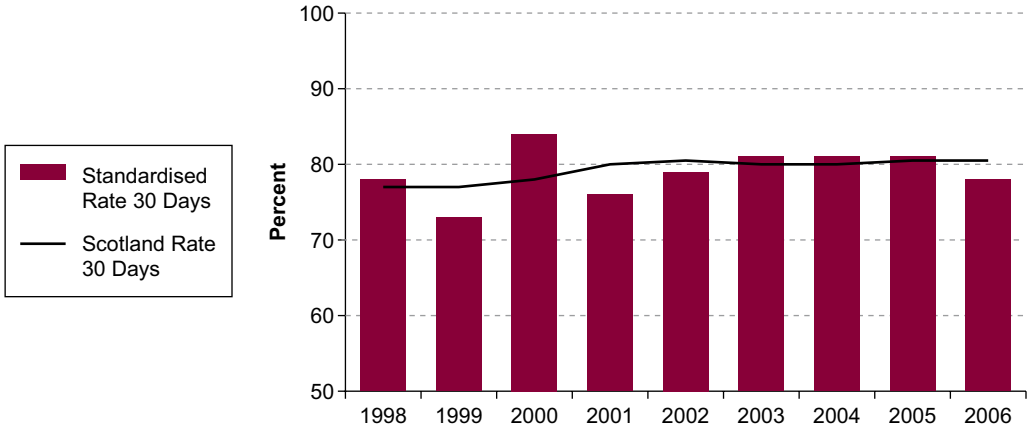
	Year ending 30th June:								
Crosshouse Hospital	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**
Patients	371	399	411	392	379	385	385	351	292
Survived 30 Days	300	326	335	331	327	325	318	293	243
Crude Rate 30 Days	80.9	81.7	81.5	84.4	86.3	84.4	82.6	83.5	83.2
Standardised Rate 30 Days	79.7	81.0	80.4	83.4	85.3	84.3	82.3	82.9	83.1

2. Survival 30 days after a stroke

Source: Source: Scottish Clinical Indicators on the Web July 2007 (http://www.indicators.scot.nhs.uk/Trends_July_2007/Stroke.html)

Stroke 30 days Survival in The Ayr Hospital

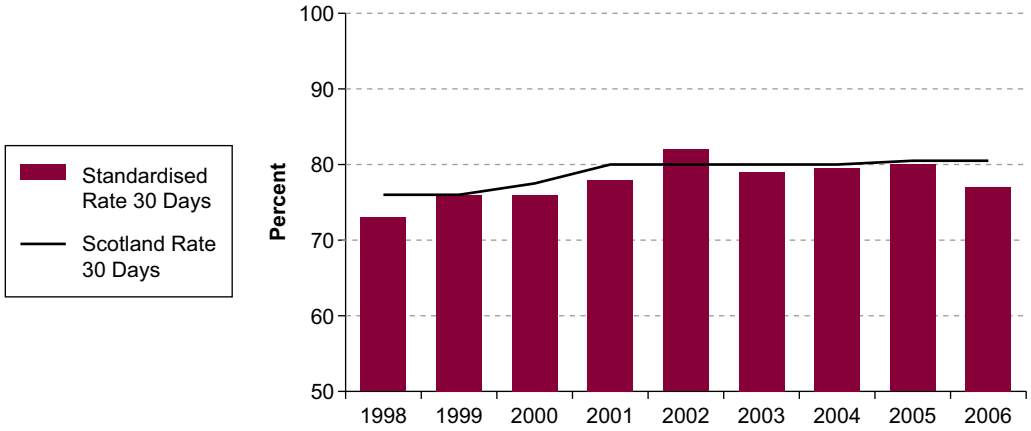
Percentage of patients surviving for 30 days after an emergency admission for Stroke
Standardised rates with Scotland comparison - Years ending 30th June 1998 to 2006



	Year ending 30th June:								
The Ayr Hospital	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**
Patients	344	343	353	336	327	324	334	318	323
Survived 30 Days	268	252	294	256	258	262	268	258	250
Crude Rate 30 Days	77.9	73.5	83.3	76.2	78.9	80.9	80.2	81.1	77.4
Standardised Rate 30 Days	77.5	72.8	82.6	76.3	78.8	80.8	81.1	81.6	77.5

Stroke 30 days Survival in Crosshouse Hospital

Percentage of patients surviving for 30 days after an emergency admission for Stroke
Standardised rates with Scotland comparison - Years ending 30th June 1998 to 2006



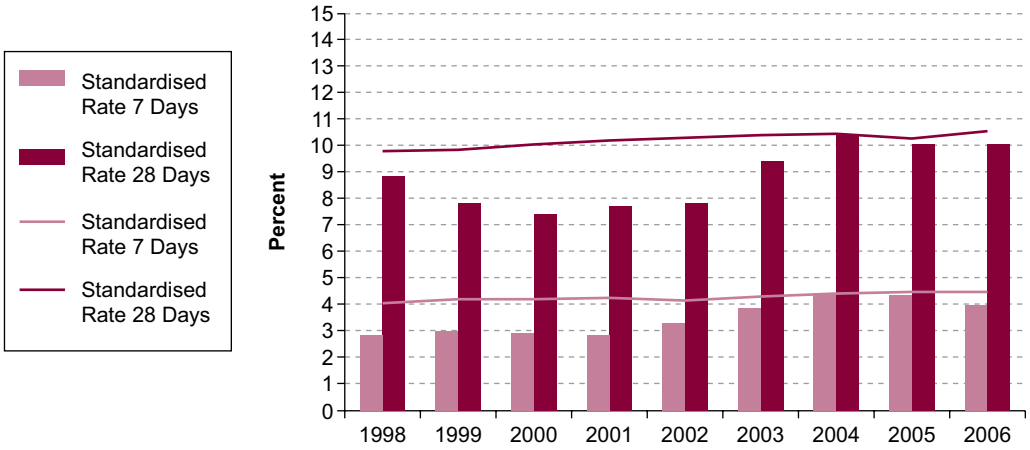
	Year ending 30th June:								
Crosshouse Hospital	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**
Patients	325	373	407	421	424	432	404	334	306
Survived 30 Days	239	288	314	334	352	343	323	270	240
Crude Rate 30 Days	73.5	77.2	77.1	79.3	83.0	79.4	80.0	80.8	78.4
Standardised Rate 30 Days	72.8	76.4	76.4	78.7	82.3	78.5	79.2	80.0	77.6

3. Emergency readmissions within 7 and 28 days of going home from a medical specialty

Source: Scottish Clinical Indicators on the Web July 2007
(http://www.indicators.scot.nhs.uk/Trends_July_2007/Medical.html)

Medical Readmissions in The Ayr Hospital

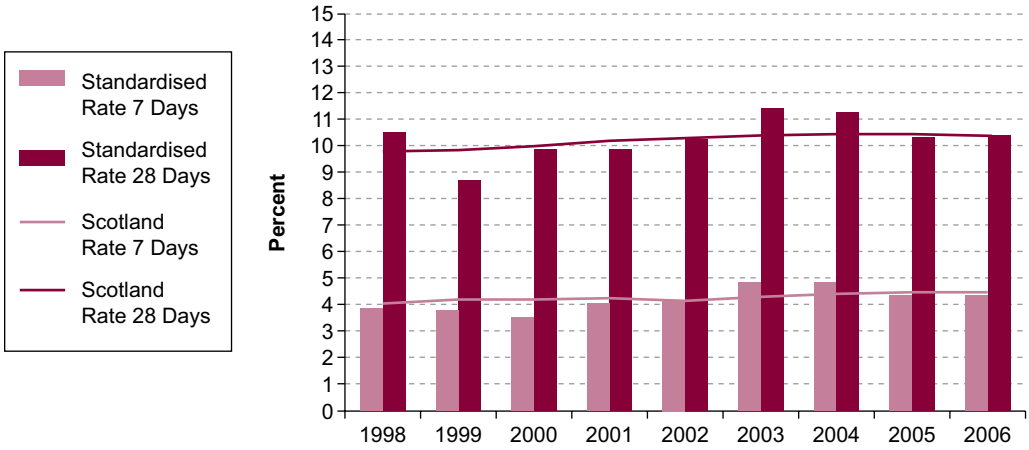
Emergency admission rates within 7 and 28 days of discharge from a medical specialty
Standardised rates with Scotland comparison - Years ending 30th June 1998 to 2006



	Year ending 30th June:								
The Ayr Hospital	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**
Medical discharges (7 days)	12,888	14,439	14,512	14,854	15,356	14,275	14,969	15,243	16,416
Emergency readmissions within 7 days	470	514	495	487	501	537	651	639	664
Crude Rate 7 Days	3.6	3.6	3.4	3.3	3.3	3.8	4.3	4.2	4.0
Standardised Rate 7 Days	2.8	3.0	2.9	2.8	3.1	3.8	4.4	4.2	4.0
Medical discharges (28 days)	12,821	14,365	14,443	14,804	15,282	14,189	14,890	15,176	16,352
Emergency readmissions within 28 days	1,140	1,297	1,237	1,304	1,246	1,310	1,554	1,526	1,642
Crude Rate 28 Days	8.9	9.0	8.6	8.8	8.2	9.2	10.4	10.1	10.0
Standardised Rate 28 Days	8.9	7.8	7.5	7.7	7.8	9.4	10.5	10.0	10.0

Medical Readmissions in Crosshouse Hospital

Emergency admission rates within 7 and 28 days of discharge from a medical specialty
Standardised rates with Scotland comparison - Years ending 30th June 1998 to 2006



	Year ending 30th June:								
Crosshouse Hospital	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**
Medical discharges (7 days)	12,035	12,756	13,749	15,064	15,875	15,967	16,553	16,032	16,747
Emergency readmissions within 7 days	548	554	555	675	729	884	922	770	836
Crude Rate 7 Days	4.6	4.3	4.0	4.5	4.6	5.5	5.6	4.8	5.0
Standardised Rate 7 Days	3.9	3.8	3.6	4.0	4.1	4.8	4.9	4.2	4.3
Medical discharges (28 days)	11,957	12,660	13,675	14,969	15,789	15,871	16,444	15,930	16,639
Emergency readmissions within 28 days	1,246	1,288	1,322	1,613	1,745	1,987	2,082	1,824	2,013
Crude Rate 28 Days	10.4	10.2	9.7	10.8	11.1	12.5	12.7	11.5	12.1
Standardised Rate 28 Days	10.4	9.1	8.8	9.9	10.1	11.1	11.2	10.2	10.5

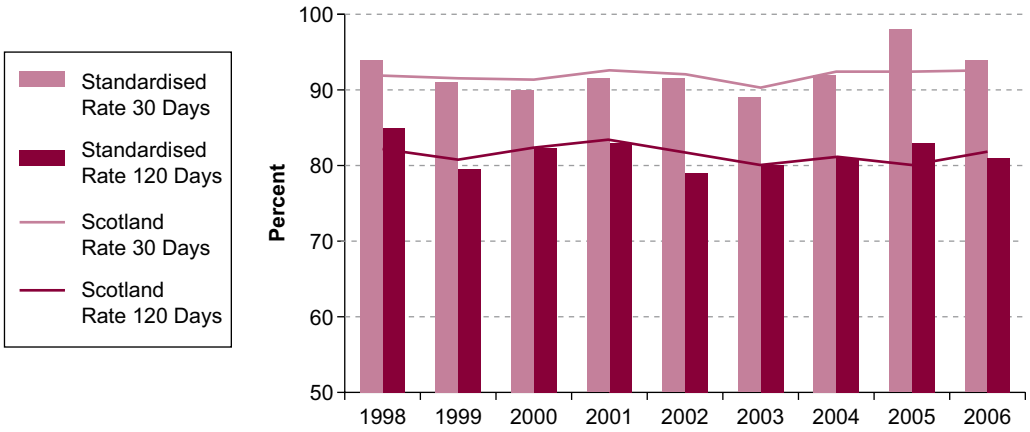
4. Survival 30 and 120 days after a hip fracture

Source: Scottish Clinical Indicators on the Web July 2007
(http://www.indicators.scot.nhs.uk/Trends_July_2007/Hip.html)

Hip Fracture 30 and 120 days Survival in The Ayr Hospital

Percentage of patients surviving for 30/120 days after an emergency admission for Hip Fracture

Standardised rates with Scotland comparison - Years ending 30th June 1998 to 2006

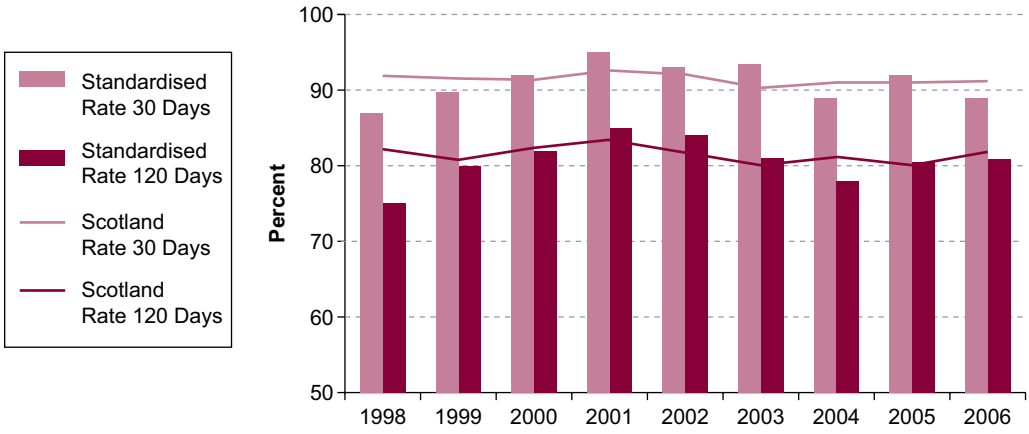


	Year ending 30th June:								
The Ayr Hospital	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**
Patients	172	193	217	181	179	174	191	201	187
Survived 30 Days	162	176	197	166	166	156	176	195	174
Crude Rate 30 Days	94.2	91.2	90.8	91.7	92.7	89.7	92.1	97.0	93.0
Standardised Rate 30 Days	94.2	90.6	90.0	91.6	91.7	89.3	91.8	97.1	93.3
Survived 120 Days	146	155	177	150	143	140	157	168	150
Crude Rate 120 Days	84.9	80.3	81.6	82.9	79.9	80.5	82.2	83.6	80.2
Standardised Rate 120 Days	85.0	79.4	80.2	82.8	78.1	80.0	81.5	83.7	80.7

Hip Fracture 30 and 120 days Survival in Crosshouse Hospital

Percentage of patients surviving for 30/120 days after an emergency admission for Hip Fracture

Standardised rates with Scotland comparison - Years ending 30th June 1998 to 2006

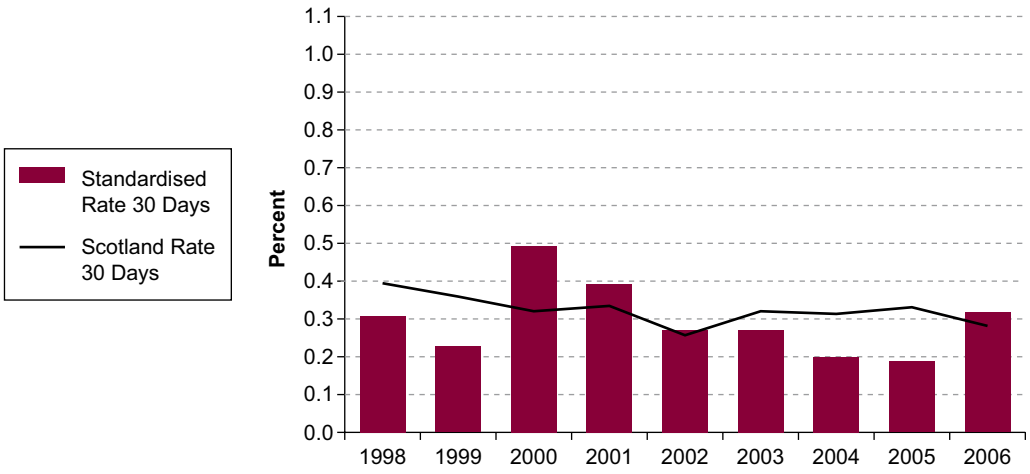


	Year ending 30th June:								
Crosshouse Hospital	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**
Patients	232	223	254	221	262	235	243	252	238
Survived 30 Days	204	200	235	212	249	220	216	233	213
Crude Rate 30 Days	87.9	89.7	92.5	95.9	95.0	93.6	88.9	92.5	89.5
Standardised Rate 30Days	87.4	89.8	92.5	95.7	94.7	93.3	89.0	92.2	89.0
Survived 120 Days	178	177	206	189	222	192	189	203	193
Crude Rate 120 Days	76.7	79.4	81.1	85.5	84.7	81.7	77.8	80.6	81.1
Standardised Rate 120 Days	75.9	79.7	81.4	85.2	84.3	81.3	78.3	80.4	80.2

5. Mortality within 30 days of selected planned operations

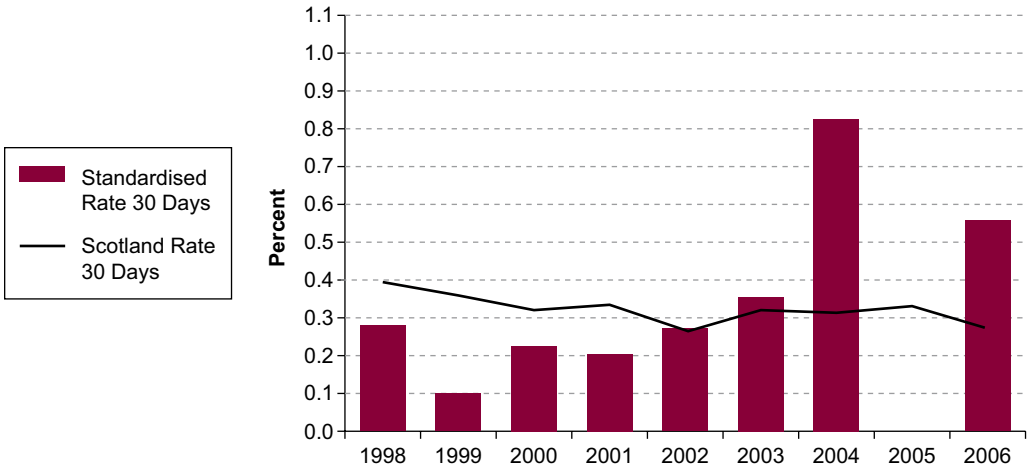
Source: Scottish Clinical Indicators on the Web July 2007
(http://www.indicators.scot.nhs.uk/Trends_July_2007/Planned.html)

Selected planned operations: Mortality within 30 days in The Ayr Hospital
Percentage of deaths within 30 days of surgery for patients undergoing a group of 12 operations on an elective basis
Standardised rates with Scotland comparison - Years ending 30th June 1998 to 2006



	Year ending 30th June:								
The Ayr Hospital	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**
Operations	2500	2702	2494	2522	2983	2994	3145	3490	3351
Deaths within 30 Days	8	6	11	9	7	7	6	6	9
Crude Rate 30 Days	0.32	0.22	0.44	0.36	0.23	0.23	0.19	0.17	0.27
Standardised Rate 30 Days	0.31	0.23	0.49	0.39	0.26	0.26	0.20	0.18	0.31

Selected planned operations: Mortality within 30 days in Crosshouse Hospital
Percentage of deaths within 30 days of surgery for patients undergoing a group of 12 operations on an elective basis
Standardised rates with Scotland comparison - Years ending 30th June 1998 to 2006



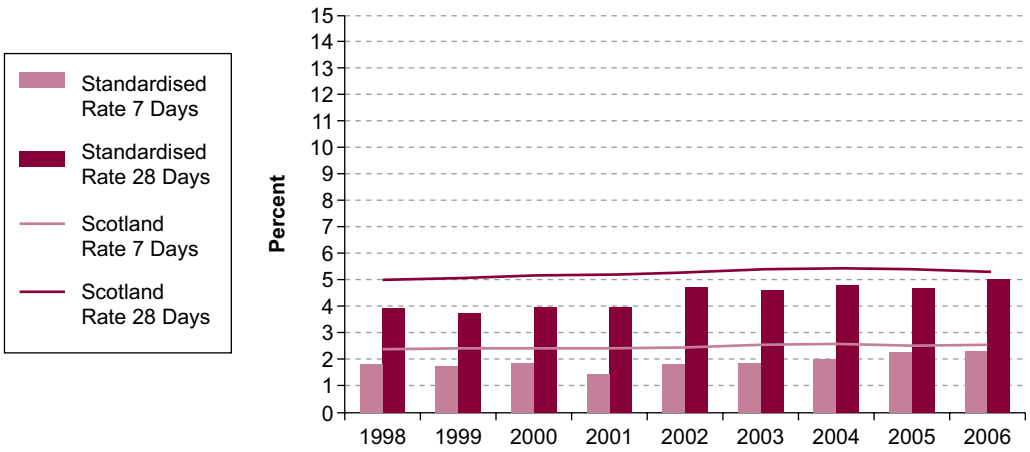
	Year ending 30th June:								
Crosshouse Hospital	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**
Operations	1894	1772	1518	1631	1625	1523	1463	1412	1581
Deaths within 30 Days	6	2	4	4	4	5	12	0	8
Crude Rate 30 Days	0.32	0.11	0.26	0.25	0.25	0.33	0.82	0.00	0.51
Standardised Rate 30 Days	0.28	0.10	0.22	0.21	0.28	0.35	0.81	0.00	0.55

6. Emergency readmissions within 7 and 28 days of discharge from a surgical specialty

Source: Scottish Clinical Indicators on the Web July 2007 (http://www.indicators.scot.nhs.uk/Trends_July_2007/Surgical.html)

Surgical Readmissions in The Ayr Hospital

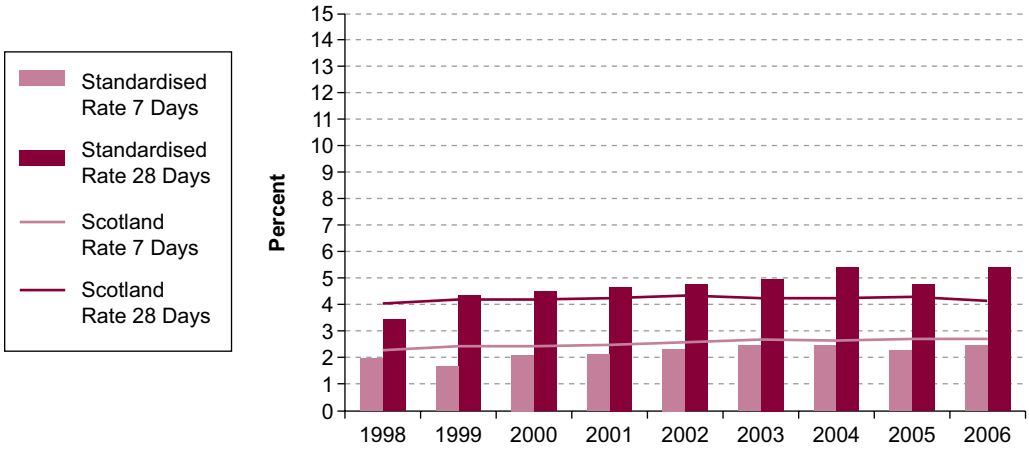
Emergency admission rates within 7 and 28 days of discharge from a surgical specialty
Standardised rates with Scotland comparison - Years ending 30th June 1998 to 2006



	Year ending 30th June:								
The Ayr Hospital	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**
Medical discharges (7 days)	18,360	19,214	18,402	18,715	15,674	14,486	15,388	15,775	15,314
Emergency readmissions within 7 days	316	319	332	300	300	279	307	324	319
Crude Rate 7 Days	1.7	1.7	1.8	1.6	1.9	1.9	2.0	2.1	2.1
Standardised Rate 7 Days	1.7	1.7	1.8	1.6	1.9	1.9	2.0	2.1	2.1
Medical discharges (28 days)	18,335	19,179	18,366	18,677	15,640	14,455	15,351	15,754	15,278
Emergency readmissions within 28 days	707	739	743	747	766	686	754	778	797
Crude Rate 28 Days	3.9	3.9	4.0	4.0	4.9	4.7	4.9	4.9	5.2
Standardised Rate 28 Days	3.9	3.8	3.9	3.9	4.7	4.6	4.8	4.8	5.0

Surgical Readmissions in Crosshouse Hospital

Emergency admission rates within 7 and 28 days of discharge from a surgical specialty
Standardised rates with Scotland comparison - Years ending 30th June 1998 to 2006



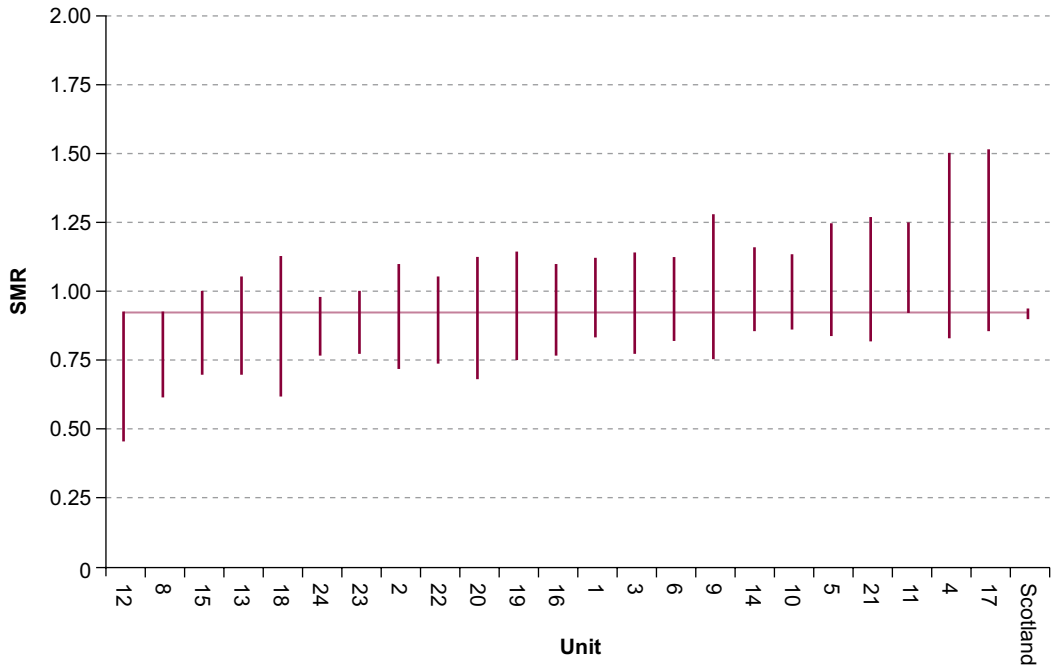
Year ending 30th June:

Crosshouse Hospital	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**
Medical discharges (7 days)	21,765	21,876	19,989	20,623	20,743	19,790	20,194	19,502	20,988
Emergency readmissions within 7 days	355	333	369	381	435	427	477	445	531
Crude Rate 7 Days	1.6	1.5	1.8	1.8	2.1	2.2	2.4	2.3	2.5
Standardised Rate 7 Days	1.9	1.7	2.0	2.0	2.3	2.3	2.4	2.3	2.6
Medical discharges (28 days)	21,719	21,833	19,941	20,574	20,685	19,742	20,150	19,457	20,948
Emergency readmissions within 28 days	761	781	827	884	940	941	1,071	957	1,107
Crude Rate 28 Days	3.5	3.6	4.1	4.3	4.5	4.8	5.3	4.9	5.3
Standardised Rate 28 Days	3.5	4.2	4.5	4.8	4.9	5.0	5.4	4.9	5.4

7. Mortality rates (SMRs) in intensive care unit

Source: Scottish Intensive Care Society Audit Group “Audit of Critical Care in Scotland 2005/2006”, page 39 (http://www.sicsag.scot.nhs.uk/Publications/Main.htm)

Figure 45 Case mix adjusted SMRs (APACHE II) in ICU and combined Units (2006)



Ayr and Crosshouse Hospitals are not separately identified in this graph but the Report comments, “The pattern of SMRs across Scotland is remarkably uniform. One unit has an SMR which is statistically lower than the Scottish mean. Another unit has been excluded from this table because of missing data. None of the units have an SMR which is statistically higher than the Scottish mean.” (page 39).

8. Various indicators of surgical performance

Source: NHS QIS "Surgical Profile NHS Ayrshire and Arran November 2006" (extracted from Executive Summary) http://www.indicators.scot.nhs.uk/SP_2006/Profiles.html

	Indicator	Markedly different from national average?	Appeared to be high for …
All surgical specialties	Deaths within 120 days of any elective admission to any surgical specialty	No	Crosshouse
	As above but where surgical procedure performed	No	Crosshouse
	Deaths within 120 days of any unscheduled admission to any surgical specialty	No	
	As above but where surgical procedure performed	No	Crosshouse
	Percentage of occasions where adverse event did NOT occur	No	Ayr (but this is a good thing, given the definition used)
	Percentage of occasions where adverse event contributed to death	No	
General & Vascular Surgery	Deaths within 120 days of any elective admission to general surgery	No	Crosshouse
	Deaths within 120 days of any unscheduled admissions to general surgery	No	
	Rate of deep vein thrombosis or pulmonary embolism within 90 days of admission	No	
	Rate of emergency readmission within 28 days of discharge from general surgery	No	
	Mortality within 120 days of elective admission for cholecystectomy surgery	No	
	Mortality within 120 days of unscheduled admission for cholecystectomy surgery	Appeared to be high in first quarter of 2005	
	Emergency readmission within 28 days of discharge following cholecystectomy	No	
	Mortality at 120 days following admission for abdominal aortic aneurysm surgery	No	
	Percentage of invasive breast cancers <2cm diameter treated with breast-conserving surgery	Appeared to be lower	
	Percentage of breast cancer patients who had a mastectomy given reconstructive surgery within a year	No	

Orthopaedic surgery	Deaths within 120 days of any elective admission to orthopaedic surgery	No	
	Deaths within 120 days of any unscheduled admission to orthopaedic surgery	No	
	Rate of deep vein thrombosis or pulmonary embolism within 90 days of admission	No	
	Rate of emergency readmission within 28 days of discharge from orthopaedic surgery	No	
	Mortality within 120 days of admission for hip fracture	No	
	Rate of deep vein thrombosis or pulmonary embolism within 90 days of admission for hip fracture	No	
	Rate of emergency readmission within 28 days of discharge following hip fracture	No	
	Mortality at 90 days following hip arthroplasty	No	
	Rate of (i) dislocation and (ii) infected prosthesis within 365 days of hip arthroplasty	No No	
	Rate of deep vein thrombosis or pulmonary embolism within 90 days of admission for hip arthroplasty	No	
	Mortality at 90 days following knee arthroplasty	No	
	Rate of (i) dislocation and (ii) infected prosthesis within 365 days of knee arthroplasty	No	
	Rate of deep vein thrombosis or pulmonary embolism within 90 days of admission for knee arthroplasty	No	

9. Waiting times in accident and emergency department

Source: Information and Statistics Division
http://www.isdscotland.org/isd/servlet/FileBuffer?namedFile=A_and_E_Core_Non_Core_Nov07.xls&pContentDispositionType=inline

Accident and Emergency: Attendances and performance against the 4-hour target from arrival to admission, discharge or transfer

	Jul-07			Aug-07			Sep-07		
Hospital/ A&E Site	**Total**	**A&E stay ≤ 4 hrs**	**Percentage**	**Total**	**A&E stay ≤ 4 hrs**	**Percentage**	**Total**	**A&E stay ≤ 4 hrs**	**Percentage**
The Ayr Hospital	3 678	3 496	95%	3 531	3 360	95%	3 286	3 173	97%
Crosshouse Hospital	5 414	5 290	98%	5 652	5 471	97%	5 499	5 410	98%
NHS Ayrshire & Arran	9 436	9 130	97%	9 534	9 182	96%	9 036	8 834	98%
All NHS Boards	**132 651**	**128 193**	**97%**	**135 482**	**130 485**	**96%**	**130 947**	**126 642**	**97%**

In summary, it should again be emphasised that in presenting these data the Panel is not inferring one hospital is better or worse than any other and it is not suggesting there are no pressures or case for change. The intention is simply to draw attention to the excellent work already being carried out in acute hospitals in the area, despite the pressures the Board describes.

[1] *ISD "Scottish Health Service Costs 2007" http://www.isdscotland.org/isd/costs-book.jsp?pContentID=3633&p_applic=CCC&p_service=Content.show&*

[2] *British Association of Emergency Medicine and The College of Emergency Medicine "Way Ahead 2005"*

SECTION 5
CRITERIA 1: SAFETY

5.1 KEY POINTS

The Panel examined the Board's evidence and claims on safety, notably the contents of the information pack. It found:

- Studies that questioned the safety of ambulance response times and distances tended to be overlooked or criticised when studies that suggested longer ambulance journeys were safe were quoted without comment.
- Studies introduced after the research literature search tended to be those that suggested ambulance response times did not affect mortality.
- Some references were either misquoted or factually correct quotes were given without context.
- Evidence was assumed to transfer from other countries and settings with no consideration for differences between health care systems, geography, type of injury, transport network, etc.
- Claims were made that could not be supported by the research evidence cited, notably on the safety of transfers of sick patients between two hospitals.
- Other claims were made with no supporting evidence offered.

The Panel believes that this raises a question about the credibility of the scores for safety in the option appraisal exercise.

5.2 AGREED DEFINITION

Any proposal should provide a safe service. Any clinical risks associated with the proposal should be assessed, managed and minimised so that the provision of the service should do no harm and aim to avoid preventable adverse events.

The Board interpreted this criterion in terms of the safety and risks of an ambulance bypassing a hospital in an emergency situation or of a patient being stabilised in one hospital and then moved to another hospital for definitive treatment (where the required service was not available in the first hospital). The Panel notes there may be some safety aspects to specialisation if it could be demonstrated that operative mortality rates are lower, for example.

5.3 EVIDENCE PRESENTED

Neither of the two formal submissions received from the Board had specific sections addressing the issue of safety. In the Board's first formal submission, the most explicit discussion of the issue was in a summary of research studies. The research literature was then included in the information pack, which consisted of a series of booklets for each model, distributed to people attending the scoring event that formed part of the option appraisal process.

5.4 ASSESSMENT OF THE EVIDENCE

The Panel was surprised that the Board's submissions did not address safety more explicitly. A theme from the public meetings held by the Panel (see section 15) was concern about transport, and the potential consequences of time taken to get a patient to appropriate care in an emergency, particularly in life-threatening situations.

Professional bodies and reports have emphasised that the safety of patients should be at the forefront of the redesign of services:

- The Kerr Report[1] - "Change, whether in clinical practice or service design, needs to be driven by safety ..." (page 31)
- Lord Darzi, in his interim report on health services in England[2] – "Safety should be the first priority of every NHS organisation" (page 43)
- Academy of Medical Royal Colleges[3] – the main driver for their substantial report was "To ensure that the main driver on any change should be the safety and quality of patient care" (page v). They also say, "Plans to redesign services which involve moving services from one site must be evidence based and not be fully implemented until replacement services are established and their safety audited. This will involve running services in tandem for some time and these extra costs must be factored into plans for reconfiguration." (page ix)

The Panel reviewed the studies included in the information pack that were said to relate to safety, and considered the claims that the Board had made in the booklets in the pack based on this evidence. The Panel's scrutiny focused on five claims made by the Board in its information pack:

1 – The Board's claim that there is no increased risk in transferring critically ill patients between hospital sites

In the booklet for Model 6, it is stated that: "The following evidence suggests that there is no increased risk associated with the transfer of critically ill patients between sites" (page 10). The following three studies are then quoted:

1. Fan et al[4] - who carried out a literature review but found "no published data available to draw conclusions" on the safety of transferring intubated and mechanically ventilated patients, to quote from the booklet.
2. Ligtenberg et al[5] - who studied transfers of patients to intensive care units and found "significant risks", according to the booklet.
3. Tilluckdharry et al[6] - who studied patients staying in the emergency department for 24 hours before being admitted to intensive care with patients transferred in less than 24 hours. The booklet says that the outcomes for the former group "were not better" than the latter. The relevance of this study is questionable since it refers to transfers within a hospital rather than between hospitals. The authors themselves say a larger study is required before firm conclusions could be drawn (the booklet did not report this).

In summary, of the three references cited in the booklet: one study found no helpful evidence either way, one study found "significant risks", and one study did not deal with inter-hospital transfers. In addition: the Academy of Medical Royal Colleges report, (cited above) found, "There are good data showing that transfer of seriously ill patients from one hospital to another is associated with a worse clinical outcome." (paragraph 1.3.1, page 5).

Stevenson et al[7] surveyed 247 UK emergency departments regarding the transfer of critically ill patients. They conclude, "The results of this study illustrate many inadequacies in these processes of care in UK EDs. It also highlights deficiencies in equipment provision, patient monitoring facilities, staff training, and transfer documentation." (page 797)

In the light of this, the claim in the booklet that "The following evidence suggests that there is no increased risk associated with the transfer of critically ill patients between sites" seems highly questionable.

2 – The Board's claim that ambulance response times and distance travelled in an ambulance do not affect outcomes

In the booklet for Model 6 it is stated that: "…the following evidence suggests that neither the ambulance response times nor the distance and time to travel would affect … outcomes." (page 8).

The three studies cited to support the safety of ambulance bypasses were as follows:

1. Improving ambulance response times to 8 minutes had not improved survival – referenced to a 2004 report[8] from the English National Audit Office (NAO).
2. Cases of moderate/severe trauma have the same mortality irrespective of distance travelled by ambulance – referenced to McGuffie et al[9].
3. For patients with a life-threatening illness being transferred in an ambulance, each 10km added 1% in absolute terms to the mortality rate – referenced to Nicholl et al. In the booklet the authors' acknowledgement that interpretation was "fraught with difficulties" was quoted. It was stated that no adjustment for ambulance response time had been made and this could be the cause of the results.

The Panel has a number of serious concerns about the evidence assembled.

First, given that McGuffie and Nicholl's studies had similar research designs, (as assessed by the Board) the criticism of Nicholl with no matching criticism of McGuffie seems unbalanced. Nicholl's self-criticism is quoted, but it is common practice for researchers to do this: many other papers cited in the pack also offer self-criticism but none of these were quoted in the information pack. Of all the research papers quoted in the information pack, Nicholl's study of mortality risks in ambulances is singled out for criticism, yet other studies have flaws that are arguably as bad or worse.

Nicholl's study is of several life-threatening conditions whereas McGuffie's study is confined to trauma, making Nicholl's study of more general importance but this was not pointed out in the information pack.

Second, it was noted that in the search of the research literature reported by the Board in September, two other studies relating to ambulance response to a cardiac arrest had been identified (Pell et al[11] , Lyon et al[12]). Neither of these studies appeared in the safety section. When these references were reviewed by the Panel both sets of authors emphasised the importance of rapid ambulance response times:

"Reducing ambulance response times to 5 minutes could almost double the survival rate for cardiac arrests not witnessed by ambulance crews." (Pell et al, page 1385)

"Survival to admission from OHCA is strongly influenced by response time and distance travelled to the scene. The geographical location of an arrest can potentially influence survival to admission." (Lyon et al, page 619)

Both studies were carried out in Scotland so the generalisability to Ayrshire should be high and no recent developments in treatment of cardiac arrest would invalidate the findings. It could be argued that Pell et al only had implications for where ambulances should be located to achieve rapid treatment at the scene of a cardiac arrest; however, that would also invalidate the NAO Report as a source because that was only about ambulance response times as well – either both studies should be included or both excluded. Therefore, there is no obvious reason why these studies, both of which emphasise the importance of ambulance response times, were not included. The Lyon et al study was included in the information pack, but under the heading of 'Accessibility' within the section on "patient-centeredness". It is not obvious why a safety study should have been included in that section.

Third, it was noted by the Panel that the National Audit Office report did not make the statement about the lack of impact of reductions in ambulance response times referenced to it. When the Panel queried this, the Board corrected an error in its submission by changing the citation to Turner et al . This report does say that setting an ambulance response time target of 8 minutes made no statistically significant impact on mortality; however, it also says that in the four English ambulance trusts studied the actual improvements in response time were "small and patchy" (page 1). Indeed they estimate the change to be less than one minute on average. The findings therefore are hardly of relevance to Ayrshire where an ambulance bypassing Ayr Hospital would take longer than this to get to Crosshouse.

Finally, the Turner et al study turned out to be the same research team and data set as the Nicholl et al study. They used similar methods in each paper but with different findings:

- In Turner et al a target for ambulance response times of 8 minutes was set but no impact on mortality was seen, probably because so little actual improvement in performance occurred

- In Nicholl et al, they used the data set they had assembled for the ambulance response time target study and simply looked at the relationship between distance travelled and risk of death – a statistically significant relationship was found.

Whilst the Board has chosen to quote the first study with approval and without commenting on the quality of the work, it has singled out the other study for criticism of its methods.

It is important to be clear about the way the research evidence on safety was handled in preparing the information pack, because this was the evidence base for the scores on this criterion in the option appraisal. The following table compares the studies the Board had identified at the time of the first submission to the Panel in September, the studies in the information pack in late October, and the Panel's assessment now that all the references have been studied:

Literature search	**Information Pack**	**Panel's Assessment**
Studies identified by the Board in September	Studies presented to the public and others	Chance to study all the references
Nicholl – life-threatening conditions, measurable increase in mortality	Nicholl – included but the only study in the Information pack that was criticised	Nicholl admits study is imperfect. Conclusions still valuable.
McGuffie – moderate and severe trauma, little risk	McGuffie – moderate and severe trauma, little risk	McGuffie's study is valuable, but the study design is the same as Nicholl (2-) and hence it has the same flaws
Pell – cardiac arrest, measurable increase in mortality	Not included	No stated reason for this
Lyon – cardiac arrest, time and distance matter	Included under 'Accessibility'	No stated reason for this
	NAO Report – ambulance response time reduction makes no difference to mortality	Quote not in this reference
		Turner et al study added by the Board – no impact of response time target on mortality because actual reduction achieved was very small

In September, the Board presented four studies, only one of which suggested ambulance response time or distance did not affect outcomes. This study was included in the information pack but of the other three studies only one was included and it was singled out for criticism (uniquely in the whole information pack). An additional reference was introduced, although this had not been identified from the research literature search. The balance swung from three studies out of four questioning safety, to only one study out of three questioning safety and that was criticised for its methods, despite the fact the same comments could have been made of the other two studies.

Between September and November, two studies which questioned safety were omitted from this section without explanation. One of these studies was moved to another section, without explanation. The Board introduced one other study without saying where it came from; this seemed to support the safety of longer ambulance times but on closer inspection that was not really what the study said.

The Board's approach to these studies could be perceived as selective, and underplaying evidence that would question the safety of greater ambulance response times and increased journey distance.

3 – The suggestion that if management of heart attacks were concentrated at Crosshouse fewer cases would be missed in A&E

The booklet for Model 6 states: "[T]he evidence below demonstrates that safer services for patients with myocardial infarction are generally associated with higher volume hospitals. The concentration of such activity at Crosshouse Hospital may reduce the likelihood of missed diagnoses." (page 13).

The only study cited to support this claim was that of Schull et al[14]. These researchers analysed missed cases of myocardial infarction in the province of Ontario, Canada in 2002-2003 compared to the number of cases seen by each hospital in total. The key finding is summarised in the following graph:

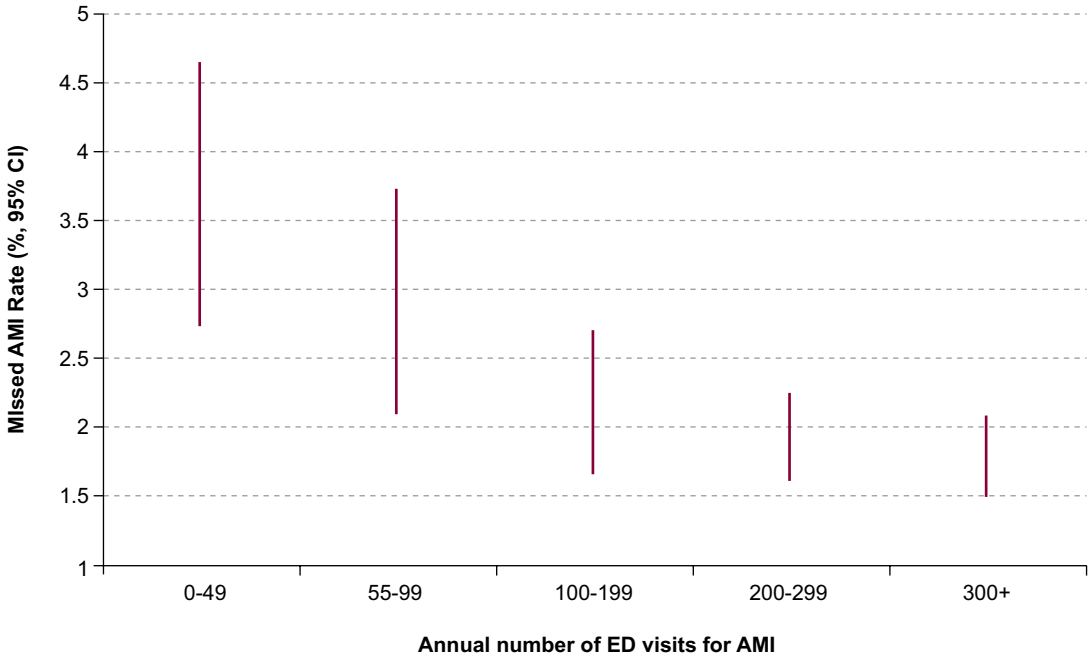


Figure. Rate of missed acute myocardial infraction according to the annual number of ED visits for acute myocardial infraction.

The booklet says: “This graph shows that hospitals with more than 300 visits per year by people who’ve had a heart attack have a lower tendency to miss heart attack patients when a patient visits the department.”

However, the research paper actually says: “The adjusted risk of missed acute myocardial infarction was significantly higher in EDs [emergency departments] with 0 to 49 (OR 2.0; 95% CI 1.5 to 2.7) or 50 to 99 (OR 1.6; 95% CI 1.1 to 2.3) annual acute myocardial infarction visits relative to those with 300 or more.” This means that the smallest hospitals miss the most cases, but once the hospital sees 100 cases per year there is no statistically significant reduction in the misdiagnosis rate after that.

How many patients do Ayr and Crosshouse Hospitals see per year? In 2006, the figures were 210 and 292 respectively[15], both comfortably in excess of 100 cases. The booklet did not mention this. According to Schull et al’s research, there would be no gain in terms of fewer missed diagnoses from moving all the cases to one site.

The booklet also did not make clear that the study was from Canada. This is important, as it raises the question of whether its findings generalise to Ayrshire – for example, no data were presented on misdiagnosis rates in Ayrshire hospitals, so it is not clear if this is a problem locally.

4 – The claim that if Crosshouse received all the sustained severe traumatic injuries it would result in lower mortality and disability

In the booklet for Model 6, it is stated that: “Under this model, all orthopaedic trauma in-patient services would be provided from Crosshouse Hospital. Crosshouse would therefore receive all patients who have sustained severe traumatic injuries, thereby increasing the likelihood of improved mortality and disability, as per the evidence below.” The research study by Demetriades et al[16] is then cited.

Demetriades et al found major trauma cases (Injury Severity Score >15) in America have lower mortality and disability rates if they are managed in trauma centres designated as Level I by the American College of Surgeons. They found that patients with major trauma injuries managed in level I facilities had lower mortality rates and residual disability than people treated in other hospitals.

The issue is: if major trauma cases from across Ayrshire were all sent to Crosshouse would that unit then have the same status as a level I trauma centre? From the American College of Surgeons’ website: “The Level I facility is a regional resource trauma center that is a tertiary care facility central to the trauma care system … Because of the large personnel and facility resources required for patient care, education, and research, most Level I trauma centres are university-based teaching hospitals.” [17]

The 2007 National Confidential Enquiry into Perioperative Deaths (NCEPOD) report[18] says, “The incidence of severe trauma, defined as an Injury Severity Score (ISS) of 16 or greater, is estimated to be four per million per week.” (page 14). Given a population

of 363,000 in Ayrshire & Arran, this would imply 1.5 cases per week or around 75 per year. An earlier version of the standards for a level I trauma centre had suggested a minimum of 240 such cases per annum were necessary.

This suggests that the claim that centralising major trauma at Crosshouse Hospital will lead to the benefits seen in the literature is unlikely as Crosshouse would still not be deemed a level I centre.

5 – The Board's claim that the emergency theatre at Ayr does not represent a safe long-term option

On page 11 of the booklet for Model 4, it is stated, "It should be noted that the emergency theatre at Ayr Hospital is not compliant with CEPOD requirements and does not represent a safe, long-term option for the delivery of emergency surgical services."

No evidence was presented to support this claim, and it seems to pre-judge the issue of whether emergency surgery should continue at Ayr Hospital. If the Board believes this, then it is not clear why options 4, 4a and 7 were presented.

[1] *Scottish Executive "Building a Health Service Fit for the Future" May 2005.*

[2] *Department of Health "Our NHS, Our Future" October 2007.*

[3] *Academy of Medical Royal Colleges "Acute Health Care Services – Report of a Working Party" September 2007.*

[4] *Fan et al 'Outcomes of interfacility critical care adult patient transport: a systematic review' Critical Care 2006; 10: R6-R12.*

[5] *Ligtenberg et al 'Quality of interhospital transport of critically ill patients: a prospective audit' Critical Care 2005; 9: R446-R451.*

[6] *Tilluckdharry et al 'Outcomes of critically ill patients based on duration of emergency department stay' American Journal of Emergency Medicine 2005; 23: 336-339.*

[7] *Stevenson et al 'Emergency department organisation of critical care transfers in the UK' Emergency Medicines Journal 2005; 22: 795-798.*

[8] *National Audit Office "Emergency Care in England" (2004).*

[9] *McGuffie et al 'Scottish urban versus rural trauma outcome study' Journal of Trauma 2005; 59: 632-638.*

[10] *Nicholl et al 'The relationship between distance to hospital and patient mortality in emergencies: an observational study' Emergency Medicine Journal 2007; 24: 665-668.*

[11] *Pell et al 'Effect of reducing ambulance response times on deaths from out of hospital cardiac arrest: cohort study' BMJ 2001; 322: 1385-1388.*

[12] *Lyon et al 'Surviving out of hospital cardiac arrest at home: a postcode lottery?' Emergency Medicine Journal 2004; 21: 619-624.*

[13] *Turner et al "The Costs and Benefits of Changing Ambulance Service Response Time Performance Standards" (Medical Care Research Unit, University of Sheffield, May 2006).*

[14] *Schull et al 'The risk of missed diagnosis of acute myocardial infarction associated with emergency department volume' Annals of Emergency Medicine 2006; 48: 647-655.*

[15] *CRAG Clinical Outcome Indicators http://www.indicators.scot.nhs.uk/Trends_July_2007/AMI.html*

[16] *Demetriades et al 'The effect of trauma centre designation and trauma volume on outcome in specific severe injuries' Annals of Surgery 2005; 242: 512-519.*

[17] *"Resources for Optimal Care of the Injured Patient 2006" http://www.facs.org/trauma/hospitallevels.pdf*

[18] *National Confidential Enquiry into Perioperative Deaths "Trauma: Who Cares?" (2007)*

SECTION 6
CRITERIA 2: SUSTAINABILITY

6.1 KEY POINTS

The Board makes the case that some of the main threats to sustainability relate to medical staffing issues. The Panel has obtained data from NHS Education for Scotland which shows the number of doctors who will complete their training in the next five years. While demand for trained doctors will continue to be high, supply is increasing as well and it is not obvious that the situation of a shortage of trained doctors over the last few years will continue indefinitely.

Other evidence on the sustainability of services simply restates pressures on existing services without establishing that the existing service cannot be changed to cope.

The case is made for a role for a surgical assessment unit. However, the Board has not established that this could not be developed at Ayr Hospital instead, potentially in combination with a medical assessment unit.

The Board made no projections of staffing numbers that would be required to help the existing service cope with pressures. The Panel considers that it is not possible to make sound planning decisions without these data.

6.2 AGREED DEFINITION

The proposal should facilitate both retention and recruitment of high calibre staff both now and in the future. This should consider doctors' rotas, training and accreditation alongside training issues for other staff groups e.g. Emergency Care Practitioners (ECPs).

The proposal should be able to accommodate changes in patterns of care and the changing needs of the population and should enable optimal and efficient deployment of all types of resources including staff, facilities and equipment .

6.3 EVIDENCE PRESENTED

The Panel reviewed the evidence the Board had submitted in its information pack for people attending the scoring event on the extent to which each option would meet the criterion of "sustainability".

There seemed to be two key differences between the models:

1. A variety of services would not be available under the status quo (or enhanced status quo). These included:

- Extended role paramedics (ERPs)
- Emergency care practitioners (ECPs)

No evidence was presented on why these could not be incorporated into the enhanced status quo. Indeed, the Panel understands that such staff already play a role in the existing service. The Board did not explain why it had decided these services would be 'frozen' at their existing level while other developments such as the community casualty units could not take place in addition to existing services. The Board has argued that this might undermine the volume of work seen in the consultant-led A&E units. The Panel does not accept this argument – the argument is that doctors need to see a minimum caseload to maintain their skills but it is unclear why the Board (or accreditation bodies) would want this to include work that could be carried out just as well by nurses. It is unclear what medical skills would be maintained as a result of seeing minor injuries, etc.

2. References were cited which suggested the quality of service could be improved if some services were centralised on one site in Ayrshire. The following issues were raised:

- Regarding the sustainability of in-patient services, the Senate of Surgery is cited as saying, "For most surgical specialties there is an inescapable need to provide complex elective and emergency in-patient surgical services in larger hospitals" (Information pack booklet for Model 4a, page 34). The Royal College of Surgeons is cited as saying, "Establishing a surgical assessment unit is a proven method of controlling admissions." (Information pack booklet for Model 4a, page 34).
- The submission then states, "Models 4 and 4a makes no recommendations for the extension of core hours; the development of a combined surgical and medical assessment unit at each site; or the separation of emergency and elective care." (Information pack booklet for Model 4a, page 34).
- Regarding sub-specialty care, the British Cardiac Society is quoted as saying various pressures "will result in a considerable increase in the workforce requirements in future." It is stated, "Under models 4 and 4a, the maintenance of Cardiology services at Ayr and Crosshouse Hospitals would result in the full impact of these factors being felt in Ayrshire and Arran." (Information pack booklet for Model 4a, page 35).

In addition, the Panel reviewed the evidence presented by the Board as part of its second submission on the need for change.

6.4 ASSESSMENT OF THE EVIDENCE

Assessment of the Evidence in the Board's information pack

The Panel has reviewed the evidence presented, and found that while it makes a case for a surgical admissions unit (which could be added to the existing service at Ayr Hospital in combination with a medical assessment unit), the other claims made are open to challenge. The Panel justifies this position as follows.

The Senate of Surgery report said: "The pressures of the New Deal, EWTD, the shortage of skilled surgical manpower and the requirement for High Dependency and Intensive Therapy Units mean that, for most surgical specialties, there is an inescapable

need to provide elective and emergency surgical services in larger hospitals ***for complex in-patients***." (page 2, emphasis added). The report made no attempt to define complex and neither does the Board's submission. Extremely complex surgery such as transplantation of kidneys and livers is already centralised in Scotland.

The Royal College of Surgeons stated the benefits of a surgical assessment unit and the Panel does not question these benefits. However, the case has not been made that a surgical assessment unit at Ayr Hospital is incompatible with the existing service.

The Panel acknowledges the pressures listed by the British Cardiac Society but simply restating these pressures does not mean the existing service at Ayr Hospital cannot cope with them.

It is disappointing that the Board has not made projections of future requirements at Ayr Hospital under the existing service to meet pressures such as those listed by the British Cardiac Society. Without knowing whether the increased number of doctors required is modest or large it makes it very difficult to judge the size of the problem, or to set this against the likely availability of cardiologists nationally.

Assessment of evidence presented by the Board under 'Need for Change'

The Board listed the pressures on the medical workforce such as meeting the European Working Time Directive and addressing "arduous rotas". The Panel notes parallels between the Board's view and that expressed in the Kerr Report : "workforce pressures will be the bottom line in determining how we are able to respond to these changes in demand" (page 34, paragraph 121).

The Panel repeats the view it expressed in its Interim Report that a considerable number of doctors will soon be completing their training and therefore in a position to apply for jobs as a consultant.

The Panel has obtained data from NHS Education for Scotland showing the number of doctors who will complete their training in Scotland and will be eligible to apply for a consultant post during each year to 2012:

Specialty	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**Total**
Emergency Medicine	4	11	21	19	28	19	**102**
Anaesthetics	55	33	40	69	28	73	**298**
Trauma & Orthopaedics	8	21	15	23	21	16	**104**
Clinical Radiology	32	19	18	21	27	37	**154**
General Surgery	12	22	16	21	13	16	**100**
Acute Medicine	0	0	0	9	7	0	**16**
Total each year	**112**	**114**	**116**	**165**	**130**	**161**	**774**

These figures need to be interpreted carefully. Just because a doctor completed their

training in Scotland does not mean they will automatically apply for consultant jobs here. Other doctors will reach retirement age or leave the profession. However, the same applies in reverse and English doctors may be attracted to Scotland by a range of factors, including perceptions about the strengths of the NHS in Scotland relative to England.

To put these figures in context, the number of whole-time equivalent consultants in Scotland in each of these specialties as at 30th June 2007 was:

Specialty	WTEs
Emergency Medicine	79
Anaesthetics	561
Trauma & Orthopaedics	172
Clinical Radiology	226
General Surgery	231

While demand for trained doctors will continue to be high, supply is increasing as well and it is not obvious that the situation of a shortage of trained doctors over the last few years will continue indefinitely.

Even if the Board's case is accepted, however, it is not clear why this is not then used as a constraint in designing the models of care to be considered in the option appraisal. For example, Model 6, the "preferred option" will require 9 additional consultants and 5 additional middle grades.

The Board claims that there is a need to develop new "extended role practitioners", but there is no analysis of the labour market for this type of staff. There is also no mention of the labour market for nursing staff, which is perhaps surprising given how integral they are to the provision of care.

The Board claimed anaesthetics may lose its accreditation but provided little evidence to support the credibility of this threat. The Board has presented estimates of the additional numbers of doctors required but neither submission attempted to justify the numbers presented and hence they could not be verified.

The Board also claims there will be workforce pressures resulting from changes in the demographic structure of the population. The same points were made by the Board in its first submission to the Panel. The Panel responded in its Interim Report in the following terms:

i. It was not clear that the trends were any worse than had been experienced in the

past decade; and

ii. The number of people working in the NHS in Ayrshire and Arran could be increased by a number of factors. Data on the increased supply of doctors trained in Scotland to work as consultants shows that it is possible for the supply of skilled staff to increase in the face of demographic trends.

Given that the Board's second submission simply restated its previous position, the Panel's view remains that the Board has not made the case for this being a driver for change in emergency services.

[1] *Efficient is identified as one of six aims to address quality in health. It is defined as, "avoiding waste, including waste of equipment, supplies, ideas and energy". "Crossing the Quality Chasm: A New Health System for the 21st Century" Committee of Quality of Health Care in America, Institute of Medicine. 2001*

[2] *Scottish Executive Health Department "Building a Health Service Fit for the Future" (2005)*

[3] *Supplied via the Chief Executive, NHS Education for Scotland.*

[4] *ISD Workforce Statistics http://www.isdscotland.org/isd/workforce-statistics.jsp?pContentID=1348&p_applic=CCC&p_service=Content.show&*

SECTION 7
CRITERIA 3: CONSISTENT WITH CLINICAL BEST PRACTICE

7.1 KEY POINTS

A key problem with the evidence presented was that while the research literature search relating to A&E services was systematic, other studies were identified from the research literature by the Panel (e.g. in trauma surgery) which question how comprehensive and balanced a view of the research literature was presented. For example, while the Board has cited studies relating to severe trauma as part of its case for centralising this service, there are other studies (e.g. Margulies[1], Sava[2]) that show no relationship between the number of operations a surgeon carries out and patient survival. Unless the Board has considered all of the available evidence it is unclear how it can reach an evidence-based view.

The evidence cited by the Board made the case for a medical assessment unit as a way of managing and directing emergency admissions; however, this could be compatible with the existing service at Ayr Hospital as an incremental service development and would not require any centralisation of services. The Board's submission did not make a case for separating elective and emergency care on the basis of better outcomes for patients.

The Board's second submission said that cardiac and stroke services should be centralised in Ayrshire because some patients are admitted to Ayr Hospital out-of-hours under the care of a general physician rather than a specialist. The evidence cited by the Board that this makes a difference to patient outcomes was weak.

The submission also made the case for centralisation of trauma surgery because this would lead to better outcomes. This may be the case for major trauma (Injury Severity Score >15) but this is only a small proportion of workload in this specialty and any change to the management of these cases could be achieved without significant change to existing services.

The case was made for having a single emergency surgery centre for Ayrshire based on a Royal College of Surgeons report that stated a population of 300,000 people was required. Having considered this report, it is the Panel's view that this figure was presented without being underpinned by a sound evidence base, and as such, it does not provide a convincing basis for centralising emergency services.

The evidence assembled by the Board placed considerable weight on documents from medical professional bodies but failed to consider the actual quality of care offered by Ayr Hospital (or Crosshouse Hospital). No estimates were made of current or future patient numbers affected by changes.

7.2 AGREED DEFINITION

Care and treatment of service users should be clinically effective in terms of quality of health outcome for the service user. The proposal should fulfil the recommendations provided by professional clinical bodies and Royal Colleges.

7.3 EVIDENCE PRESENTED

The Panel reviewed the evidence the Board had submitted in its information pack for people attending the scoring event on the extent to which each option would meet the criterion of "consistent with best clinical practice".

There seemed to be two key differences between the models:

1. A variety of services would either not be available or would not be developed under the status quo (or enhanced status quo). These included:

- Extended role paramedics (ERPs)
- Emergency care practitioners (ECPs)
- Integration with Ayrshire Doctors On Call (ADOC)
- A medical assessment unit (or a combined medical / surgical assessment unit)
- Direct admissions to beds in the specialty of care of the elderly

2. References were cited which suggested the quality of service could be improved if some services were centralised on one site in Ayrshire. The following issues were raised:

- Divide emergency and elective care (the submission cites work on acute medicine by a working party of the Royal College of Physicians in 2004). It is stated, "Models 4 and 4a … would deliver the least degree of separation of elective and emergency services." (Information pack booklet for Model 4a, page 23)
- Dedicated rotas so that whenever a patient was admitted they were seen by a specialist straight away and particularly for patients with cardiac disease and stroke. It is stated, "The evidence … highlights the benefits of an acute physician service to provide initial treatment and care of medical emergencies before onward transfer to sub-specialty care. Models 4 and 4a offer neither acute-physician led services nor dedicated rotas and therefore cannot offer these benefits." (Information pack booklet for Model 4a, page 22).
- Trauma surgery services under model 4a may not meet Royal College of Surgeons/ British Orthopaedic Association recommendations. (Information pack booklet for Model 4a, page 24).

The information pack also included a separate booklet containing the Centre for Reviews and Dissemination (CRD) review of studies of the relationship between volume of procedures and patient outcomes.

In addition, the Panel reviewed the evidence presented by the Board as part of its second submission on the need for change.

7.4 ASSESSMENT OF THE EVIDENCE

Evidence presented in the information pack

No evidence was presented on why the status quo could not be improved incrementally. The Board decided these services would be 'frozen' at their existing level while other developments such as the assessment unit could not take place in addition to existing services. No explanation was provided.

The Panel has reviewed the evidence that the Board cited on improvements to the quality of care if some services were centralised on one site. While it makes a case for a medical admissions unit (which could be added to the existing service at Ayr Hospital), the other claims made are open to challenge. The Panel justifies this position as follows:

The Board cites the Royal College of Physicians report to support its case and it certainly calls for the impact of emergency work on planned work to be recognised. It says, "We recommend that all trusts admitting acutely ill medical patients have a dedicated area where they can be managed. Current terminology is confused, and we recommend the term 'acute medicine unit' (AMU). In some hospitals this may be a combined multi-specialty unit for all acutely ill admissions." (paragraph 2.6, page 3). However, it does not call for emergency and elective services to be split over two sites, as some of the Board's models would propose.

The Board cited the research of Moore et al as evidence that admission under the care of a specialist is beneficial. This study, based in Liverpool, certainly makes a case for a medical assessment unit (Acute Medicines Unit). However, it is not obvious that it supports the case for admission under the care of a specialist. For example, it was found that as more patients were admitted under a specialist cardiologist the proportion that died increased. The Panel does not suggest there are no benefits to specialist management but the case is not demonstrated by these data.

The British Cardiac Society document states that patients managed by cardiologists have better outcomes, although no supporting evidence was cited. However, this is not the issue in Ayrshire: the problem is whether a patient admitted out-of-hours under the care of a consultant physician who is not a specialist will have a worse outcome. The Liverpool data (Moore et al) does not provide any evidence to address this. The BCS recommended, "We should now aim for a 'next working day' cardiological service for cardiac patients" (page 3).

In stroke care, the Board provided no evidence that an out-of-hours admission at Ayr Hospital with a stroke had a worse outcome than when a specialist on-call rota was available.

The third point made by the Board in its submission is that centralising trauma care may lead to better outcomes. The reference cited by the Royal College of Surgeons / British

Orthopaedic Association deals with severely injured trauma cases (Injury Severity Score >15). There may be a case for a review of the management of these patients taking a regional or national view on the issue. The incidence of such cases is thankfully rare and even if the care of such cases were altered it should not in itself threaten the sustainability of local trauma surgery services.

The Panel was unclear why the Board decided to include the York CRD review of volume and outcome studies in the information pack. This work was reviewed as part of the Kerr Report and the final report includes the following observations: "… in essence, the conclusion reached was that the bulk of research evidence was methodologically flawed and of little value in forming decisions about the planning of the delivery of health services." (page 135, paragraph 09). A few pages later, Kerr continues, "At the time of the York Review, methodological deficiencies in the evidence base meant that the studies had little if any relevance to health service planning." Elsewhere in the submission the Board quotes extensively from the Kerr Report and the Panel was not clear why, in the light of these comments, it still distributed the York CRD report as "evidence" for the public to consider.

The Panel was disappointed the Board did not report more data from Ayr Hospital to support its claims. For example the submission did not report how many trauma surgery patients seen at Ayr Hospital have an ISS>15, how many cardiac patients are admitted out-of-hours under the care of a generalist, how many stroke patients are in the same situation, and so on. (Apart from the present data the Board also did not provide projections of how it expects these figures to change in the future.) The Board made the case that outcomes for these patients could be improved but it is disappointing they did not analyse their own data to support their claims. Some information on the quality of current care provided is included in Section 4 of this report.

Assessment of evidence presented by the Board under 'Need for Change'

The pressures noted by the Board are in terms of:

i. Accident & Emergency
ii. Emergency surgery
iii. Trauma surgery
iv. Cardiology
v. Stroke

A key problem with the evidence presented was that while the research literature search relating to A&E services was systematic, there was no equivalent systematic search for trauma surgery, intensive care, stroke care, MI, and so on. References were cited which were not identified through the systematic search and the danger is that these are not representative of all the evidence available. For example, while the Board has cited studies relating to severe trauma as part of its case for centralising this service, there are other studies (e.g. Margulies[2], Sava[3]) that show no relationship between the number of operations a surgeon carries out and patient survival. Unless the Board has considered all the evidence it is unclear how it can reach an evidence-based view.

The following sections review the case made for each one.

i. Accident & Emergency – Only one reference was cited and this was the view of one clinician; the paper did not cite any research studies to support the case made[4].

ii. Emergency surgery – The case was based on a 2007 Royal College of Surgeons of England report[5] which says that the minimum catchment population for emergency surgery services should be 300,000 people. The Board's submission says: "Given that NHS Ayrshire and Arran serves a total population around 363,000, it can be concluded that, based on the guidance from the Royal College of Surgeons, emergency surgical services should only be provided from one site." (second submission, page 17).

   However, in 1998 professional opinion as expressed by the same Royal College of Surgeons of England was that the minimum catchment population for emergency surgical services was 450,000 to 500,000 people[6]. Had NHS Ayrshire and Arran acted on this earlier estimate then it would have stopped emergency surgery at local hospitals nearly a decade ago.

   It is not evident that these estimates have a sound basis, and it is questionable whether NHS Boards should simply accept them. Without a sound basis for this figure the Board's conclusion is not robust.

iii. Trauma surgery – The second submission says that there is an average of 2 trauma admissions to Ayr Hospital each day and 6 to Crosshouse. It is claimed that this is inadequate to maintain skills, but no evidence is offered to support this view. Regarding the small proportion of cases with critical injuries that represent an immediate risk to life, the second submission says: "if effective care is to be delivered to these patients the receiving hospital should admit more than 250 such cases per year" (page 17) and cites the 2001 study by Nathens et al[7] in support. In fact, Nathens et al did not discuss a threshold of 250 cases; they actually refer to a threshold of 650 cases of major trauma per annum[8]. It is not clear that any major trauma work should be carried out in Ayrshire hospitals if that is the accepted threshold.

   The submission also refers to the 2007 National Confidential Enquiry into Perioperative Deaths (NCEPOD) report "Trauma: Who Cares?", but this only looked at severe injury. NCEPOD say, "The incidence of severe trauma, defined as an Injury Severity Score (ISS) of 16 or greater, is estimated to be four per million per week." (page 14). Given a population of 363,000, this would imply 1.5 cases per week or around 75 per year. As the submission says the Ayrshire teams see 2 and 6 cases per day, we can work out that they see in the order of 2,900 cases per year, so the NCEPOD report relates to around 2.5% of trauma work.

   Apart from the self-criticisms of their work that Nathens et al offer in their research paper (not reported in the Board's submission), the Panel also has a concern about the generalisability of data from America, where distances from an incident to a trauma centre may be greater than in Ayrshire, traffic conditions are likely to differ (e.g. greater use of air ambulances), different levels of violent crime lead to different types of trauma, and so on.

Cardiology and Stroke – The second submission cites as evidence supporting the case for centralising services Alberti[9], Boyle[10], and the IPPR report[11]. However, Alberti and Boyle are the views of individual clinicians with no research evidence cited in support.

iv. Cardiology – the submission cites evidence that myocardial infarction (MI) patients do better if they are admitted under the care of a cardiologist. However, the Panel reviewed national data[12] which showed the survival rates 30 days after an acute MI for people treated at different Scottish hospitals: These suggest patients who have their acute MI treated at The Ayr Hospital do as well as the national average, if not better. The Panel feels it is important that any change should build on these local strengths.

v. Stroke – The Board says there are: "20-25 cases per month during day time working" (emphasis added to the original text) which it describes as a "very small number of patients". This would be about 240-300 per year. National data show that 629 stroke cases were managed in Ayrshire hospitals in 2006 and it is unclear why the submission does not make it clear that the total number of cases is more than double the number seen in day-time working.

The submission quotes Boyle as saying patients need to "go from paramedic, to specialist, to scan, to clot-busting drug within three hours of the stroke hitting" but it does not explain why this cannot be achieved with the current pattern of care – all it says is "this cannot be as easily achieved with dual as opposed to single site working". No data were provided on the proportion of patients achieving this level of care at present, either in Ayrshire or elsewhere in Scotland.

The Panel has reviewed national data[14] that show that Ayr Hospital has had survival rates following stroke above the national average in three of the previous four years. Again, any change to local services should recognise and build on these local achievements.

[1] *Moore et al 'Impact of specialist care on clinical outcomes for medical emergencies' Clinical Medicine 2006; 6: 286-293.*

[2] *Margulies et al 'Patient volume per surgeon does not predict survival in adult level I trauma centres' Journal of Trauma 2001; 50: 597-603.*

[3] *Sava et al 'Does volume matter? The effect of trauma surgeons' caseload on mortality' Journal of Trauma 2003; 54: 829-834.*

[4] *It is notable that the Kerr Report section on unscheduled care was similarly devoid of references to published research studies.*

[5] *Royal College of Surgeons of England "Delivering High-quality Surgical Services for the Future" (2006), page 28.*

[6] *Royal College of Surgeons of England "Provision of Acute General Hospital Services" (1998)*

[7] *Nathens et al 'Relationship between trauma centre volume and outcomes' JAMA 2001; 285: 1164-1171.*

[8] *"After adjusting for differences in injury severity, centers with total major trauma volume (ISS >15) in excess of 650 cases per year demonstrated measurable improvements in mortality and LOS."*

[9] *Alberti "Emergency Access: the Clinical Case for Change" (Department of Health 2006)*

[10] *Boyle "Mending Hearts and Brains: the Clinical Case for Change" (Department of Health 2007)*

[11] *Farrington-Davis et al "The Future Hospital: the Progressive Case for Change" (Institute for Public Policy Research, 2007*

[12] *http://www.indicators.scot.nhs.uk/Trends_July_2007/AMI.html*

[13] *http://www.indicators.scot.nhs.uk/Trends_July_2007/Stroke.html*

[14] *http://www.indicators.scot.nhs.uk/Trends_July_2007/Stroke.html*

SECTION 8
CRITERIA 4: PATIENT-CENTRED

8.1 KEY POINTS

In terms of patient-centredness, the submission presented little useful information. The 2006 consultation on options for unscheduled care suggested that any reduction in the provision of A & E services at Ayr Hospital, for example, the provision of a service that was not consultant-led, would not be acceptable to a significant proportion of local people. However, this was not addressed.

In terms of accessibility, transport data were presented, but no attempt was made to apply them to the models of care making them difficult to interpret.

Some of the research evidence on patient-centeredness presented was factually correct but was quoted out of context which could give a misleading impression of the conclusions of the people carrying out the research. Other pieces of evidence seemed to have little relevance to Ayrshire.

8.2 AGREED DEFINITION

- Accessibility

The proposal should facilitate provision of A&E and unscheduled care services as close as possible to where services users are in need. Convenience of accessibility by public transport and the local road network for service users and their families should be considered.

- Acceptability

The proposal should also provide satisfaction and promote a positive experience for users of A&E and unscheduled care services.

- Availability

This should include patient satisfaction derived from the responsiveness of the service, for example taking account of waiting times[1]; treatment times; opening times; and the extent to which service is tailored to individual needs and preferences. The proposal should ensure appropriate pathways of care based on people's needs.

8.3 EVIDENCE PRESENTED

The Panel reviewed the evidence the Board had submitted in its information pack for people attending the scoring event on the extent to which each option would meet the criterion of "patient-centeredness".

The evidence presented was included in the information pack for the scoring event of the option appraisal:

1. A variety of services would not be available under the status quo (or enhanced status quo). These included:

- Emergency care practitioners (ECPs)
- Community casualty facility (CCF) in Irvine

No explanation was given as to why the Irvine CCF would go ahead under certain models when the Cumnock CCF was not included in the option. No evidence was presented on why these could not be incorporated into the enhanced status quo. Indeed, the Panel understands that ECPs already play a role in the existing service. The Board did not explain why it had decided these services would be 'frozen' at their existing level.

2. In general the evidence in this section was presented with very little interpretation so it was unclear what arguments, if any, the Board felt these studies were supporting.

The following studies are presented under the heading 'Accessibility' and 'Transport by Ambulance' with no other comment:

(i) "Lyon et al presented data that indicated there is no difference in survival in relation to the distance between the place where someone experiences an out of hospital cardiac arrest and the hospital that they are taken to in an ambulance." (Information pack, booklet on Model 4a, page 36)

(ii) Sibbald et al "concluded that relocation from hospital to community is generally associated with improved access and is most cost-effective in remote and rural communities." (Information pack, booklet on Model 4a, page 36)

The following study was presented under the heading 'Availability' and 'GP sub-acute beds':

"Kelen et al (2001) found that the establishment of a 14 bedded acute care unit that was managed by the emergency department (within the same overall hospital site as the emergency department but described as 'considerably remote' from it), led to a significant reduction in overcrowding and ambulance diversion."

A separate booklet was also presented on transport to Ayr and Crosshouse Hospitals from within Ayrshire.

8.4 ASSESSMENT OF THE EVIDENCE

The Panel reviewed the evidence presented by the Board in its information pack and found it to be unclear and unhelpful, for the following reasons:

1. In the Interim Report the Panel noted, "The strong view of local people in 2005-6 seemed to be in support of the existing level of A & E services at Ayr Hospital." It is surprising that the sub-heading 'Acceptability' contained no reference to public opinion in 2006 regarding an A&E service that was not consultant-led.

2. The quote from the study by Lyon et al is factually correct but at odds with the authors' overall interpretation of their results. The conclusion from the research study was, "Survival to admission from OHCA [out-of-hospital cardiac arrest] is strongly influenced by response time and distance travelled to the scene. The geographical location of an arrest can potentially influence survival to admission. Measures should be taken to strategically position ambulance dispatch points and to task the nearest geographically available vehicle to attend an OHCA." Commenting on why they found no significant difference in survival, the authors say, "None of the variables examined significantly affected survival to hospital discharge; which is the most important outcome measure. As the percentage of patients surviving to hospital discharge was so low (3.9%), the study may not have been sufficiently powerful to detect factors influencing survival to discharge rate." (page 623) In other words, the study was not big enough to detect a difference even if one existed.

3. With regard to the study by Sibbald et al, the quote is factually accurate but lacks context. The authors also said: "Our findings suggest that the policy may be effective in improving access to specialist care for patients and reducing demand on acute hospitals. There is a risk, however, that the quality of care may decline and costs may increase."

4. The study by Kelen et al is from Baltimore, Maryland, and is located in a 900-bed teaching hospital. The aim of the unit was to relieve emergency department overcrowding by giving the department some control of "its own backdoor patient flow" (page 1096). The main problem being addressed was people attending the emergency department who left without being seen and the number of times ambulances were diverted because the emergency department could not cope. The unit was described as being: "completely within the auspices and management of the Department of Emergency Medicine and is staffed exclusively by ED personnel." (page 1096). It is unclear what conclusions the Board believes can be drawn from such a study for GP beds in Ayrshire. The setting, problem addressed and unit set-up do not seem to be representative of Ayrshire.

5. The inclusion of Ayrshire travel information in the transport booklet is welcome. However:

   (i) It only shows access to the nearest general hospital between 10.00 and 16.00 (in minutes)

   (ii) Little is said about access outside of these times – for example, the last direct bus service from Cumnock to Crosshouse is at 14.12

   (iii) It doesn't show the number of changes on public transport required to reach the destination or the punctuality and reliability of the service

   (iv) It doesn't show the impact of changes to hospital services in the different models on access. There is no narrative or explanation to help people interpret

the information. For example, it doesn't report how many people have to travel or how long it takes to get from South Ayrshire to Crosshouse (or from North Ayrshire to Ayr Hospital. There are no figures on how many people own cars in each area or information on what alternatives non-car owners have when public transport is unavailable.

[1] *Timely is identified as one of six aims to address quality in health. It is defined as, "reducing waits and sometimes harmful delays for both those who receive and those who give care". "Crossing the Quality Chasm: A New Health System for the 21st Century" Committee of Quality of Health Care in America, Institute of Medicine. 2001*

[2] *Lyon et al 'Surviving out of hospital cardiac arrest at home: a postcode lottery?' Emergency Medicine Journal 2004; 21: 619-624.*

[3] *Sibbald et al 'Shifting care from hospitals to the community: a review of the evidence on quality and efficiency' Journal of Health Services Research and Policy 2007; 12: 110-117.*

[4] *Kelen et al 'Effect of an emergency depart (ED) managed acute care unit on ED overcrowding and emergency medical services diversion' Academic Emergency Medicine 2001; 8: 1095-1100.*

SECTION 9
CRITERIA 5: CONSISTENT WITH NATIONAL POLICY

9.1 KEY POINTS

The Board argued in its submission that the existing service would not be consistent with national policy. The Panel believes that with incremental development of services this could be addressed. The Board has not made the case for why this is not possible. Models 4 and 4a appeared to the Panel to have a degree of "built-in obsolescence" in that decisions about what to include and – more particularly - to exclude could undermine their sustainability in the longer term.

The Cabinet Secretary has made clear that there is a presumption against centralisation and that any concentration of services must result in benefits to patients. The Panel's view, in light of the issues outlined above regarding safety, clinical best practice, patient-centredness and sustainability, is that the Board has not established that options involving centralisation of services would provide benefits to patients.

9.2 AGREED DEFINITION

The proposals should be consistent with the principles of the Kerr report and developing national policy as described in 'Better Health, Better Care'. This includes the presumption against centralisation.

9.3 EVIDENCE PRESENTED

The Board presented evidence on the consistency of their plans with national policy in two different ways. First, they discussed national policy in the section of their second submission on the need for change. Second, there was a more detailed discussion in the information packs for the scoring event. The evidence was presented there under a number of headings.

(i) Under the heading 'Community Services' the submission states the relevant policy is to improve access to care, including services provided by GPs, pharmacists, nurses and NHS24. It is argued, "While the maintenance of NHS ADOC and the continued provision of Extended Role Paramedics on a pilot basis within Model 4 and Model 4a can be seen to be in line with the type of community services endorsed by national policy, the lack of development in these areas and the lack of any community casualty facilities would be a barrier to improving access to unscheduled care services." (Information pack booklet for Model 4a, page 43)

(ii) Under the heading 'Patient Access Point', it is stated that national policy supports locally delivered assessment and treatment and that practitioners or GPs could deliver "the vast majority of treatments currently available in Accident and Emergency." (Information pack booklet for Model 4a, page 44)

It is argued, “Rather than pursuing the development of new roles in this area, Model 4 and 4a would see the continuation of the traditional Accident and Emergency Consultant-led service alongside the current Emergency Nurse Practitioner Service to meet the needs of patients who currently present at Ayr and Crosshouse Hospitals.”

The submission acknowledged: “[M]odels 4 and 4a would … clearly deliver the policy goal of a presumption against centralisation.” But it goes on to say, “the following policy aims would remain to be addressed:

- Reducing pressure on busy Accident and Emergency Departments, and
- Deploying medical staff so as to make the most of their skills and remain in accordance with the European Working Time Directive.”
- (Information pack booklet for Model 4a, page 44). These bullet points come from page 96 of the Kerr Report.

(iii) Under the heading ‘In-Patient Services’ it is stated that the Kerr Report argued that the rise in emergency admissions must be addressed. It is stated: “Models 4 and 4a would continue to receive, assess, treat and stream patients in the current manner and while working practices and systems may be changed to focus more on alternatives to admission, the infrastructure required to support this, as available in all other models, would not be in place.” (Information pack booklet for Model 4a, page 45)

Also under this heading it is stated that the Kerr Report argued for unscheduled and elective work to be “disengaged wherever possible to protect capacity in both”. (Information pack booklet for Model 4a, page 45). It is argued: “Models 4 and 4a would see the continuation of the current core emergency in-patient at Ayr and Crosshouse Hospitals, thereby offering no degree of separation of elective and unscheduled care, as required by this policy.” (Information pack booklet for Model 4a, page 45).

(iv) Finally, under the heading ‘Sub-Specialty Care’ the Kerr Report is cited as supporting sub-specialty care for less common conditions and that these require a large population to achieve a critical mass. It is argued that Model 4 “would not offer the concentration of activity, protected capacity or infrastructure necessary for the development of sub-specialty rotas within services such as Cardiology, Acute Stroke Medicine and Respiratory Medicine. Therefore while these services would continue to be available at both sites, the potential would exist for patients to be admitted under the care of a non-specialist at the point of emergency admission.” (Information pack booklet for Model 4a, page 46).

9.4 ASSESSMENT OF THE EVIDENCE

Evidence presented by the Board in the section 'Need for Change'

The second submission cites the Kerr Report[1] and "Better Health, Better Care" as drivers for change[2]. The Panel notes that Kerr also said, "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." (page vii).

The Panel notes the Cabinet Secretary's statement of 6th June[3] referred to a 'presumption against centralisation'. *Better Health*, Better Care states national policy on changes to hospital services as being to "protect local access to health care through a presumption against the centralisation of hospital services." It elaborates on this as follows:

> "[T]here will be a clear policy presumption against centralisation. That does not, of course, mean that there will never be an occasion when it makes sense to concentrate services. It does however mean that any such moves result in benefits for patients and be subject to meaningful consultation and independent scrutiny to ensure they are based on the best available evidence and give due weight to the views of local people." (page 5)

The document says that this reflects, in part, "public concern about the over centralisation of services, particularly in the provision of emergency care." (page 3).

Evidence presented by the Board in the Information Pack

In deciding that the status quo option would not contain any further service developments, models 4 and 4a seem likely not to be consistent with national policy. The Panel justifies this position as follows:

The Board states that services that can deal with A&E attendees outside of the hospital will not be developed under models 4 and 4a but it is not clear why it takes this position – certainly such service developments were not included in the model specification but the case for this was not clearly argued.

Similarly, in the case of changing the way emergency admissions are managed through the use of assessment units in hospitals – certainly under models 4 and 4a there is no such model at Ayr Hospital but it is not clear why the Board made this decision.

In terms of the disengagement of elective and unscheduled care, the Board assumes this is synonymous with taking emergency services away from one hospital site in Ayrshire. However, consultation of the same documents they cite in their information pack would reveal a range of possibilities, including assessment units, that would allow unscheduled care to be provided from both hospital sites.

Finally, the Panel has argued above that the case for sub-specialisation is not as strong or clear-cut as the Board portrays. Ayr Hospital is currently providing services with good outcomes for patients.

[1] *Scottish Executive Health Department "Building a Health Service Fit for the Future" (2005)*

[2] *While "Better Health, Better Care" was a discussion document, the topics that the Scottish Government invited discussion on did not include the presumption against centralisation.*

[3] *http://www.scottish.parliament.uk/business/officialReports/meetingsParliament/or-07/sor0606-02.htm#Col390*

SECTION 10
LOCAL CIRCUMSTANCES

In her statement to the Scottish Parliament on 6th June 2007, the Cabinet Secretary for Health and Well-being said: “First, I turn to why the decisions to close the A and E units at Ayr and Monklands were wrong. We have been consistent in our view that NHS Ayrshire and Arran’s Review of Services and NHS Lanarkshire’s Picture of Health review failed to address sufficiently the very real concerns of a significant proportion of their local populations about the centralisation of accident and emergency services. Many of those concerns were based not on an emotional attachment to bricks and mortar, as some have rather dismissively suggested, but on a level-headed analysis of particular local circumstances and the needs of communities now and in the future. There were concerns that the boards’ proposals would inhibit access to A and E services; **concerns, particularly in Ayrshire, that insufficient consideration was given to geographical, local transport and ambulance infrastructure issues**; and concerns, most notably in Lanarkshire, that the proposals would have meant diminished emergency care provision in some of the most deprived areas of Scotland, where people need it most.” (emphasis added - Official Report, columns 390-391).

As part of its remit the Panel was asked to comment on whether consideration had been given to these factors. The only evidence the Panel saw that this had played a role in the Board’s thinking was the inclusion of a booklet on transport within Ayrshire in the information pack for the option appraisal scoring event. We have commented on this in more detail under the criterion of ‘patient-centeredness’ but, at best, it reports access issues; it does nothing to address them.

The costs submitted to the Panel did not include costs of ambulance services, despite the Cabinet Secretary having specifically flagged this as an issue in her statement.

The Panel concludes that the Board has not fully addressed the local circumstances that the Cabinet Secretary asked to be taken into account.

SECTION 11
ROBUSTNESS OF THE OPTIONS

In the light of the Panel's comments on each of the criteria, it is possible to offer some broad views on the strengths and weaknesses of different groups of options. In offering these comments the Panel is mindful that in its remit it was not asked to select its preferred option.

For this purpose, the options were grouped as follows:

- Models 1, 2 and 3 – these options are characterised by the loss of consultant-led A&E at Ayr Hospital, loss of emergency surgical operating theatre, loss of trauma surgery, some loss of emergency medical beds and downgrading of intensive care. Community and primary care services would be developed and there would be an assessment unit at Ayr under Models 2 and 3.
- Models 4 and 4a – these options represent the existing service (Model 4) or the status quo with more A&E consultant presence (Model 4a)
- Models 5 and 6 – these options retain consultant-led A&E at Ayr but see the loss of emergency surgical theatre and trauma surgery, the downgrading of intensive care, and in Model 5 the total loss of emergency surgical beds. There would be a medical assessment unit under Model 5 and a medical-surgical assessment unit under Model 6.
- Model 7 – would see a full range of emergency services at both Ayr and Crosshouse with all services provided from both sites.

Safety – in the Panel's view the Board has not made a convincing case for the safety of bypassing the nearest hospital in an ambulance and transferring sick patients from one hospital to another. Safety arguments would therefore favour the options that minimised these elements, namely models 4, 4a and 7.

Sustainability – the Panel's view is that the Board has not made a convincing case that existing services are unsustainable. However, the Panel recognises there will be increased staffing pressures and hence option 7, which requires the most additional staff, raises most concerns on this point.

Consistency with best clinical practice – in the Panel's view, the Board has not made the case for improved outcomes from sub-specialisation. The quality of existing clinical services provided from Ayr and Crosshouse are similar (and generally very good), so this would not help to pick between the options.

Patient-centred – the Board offered so little evidence on this criterion it was not easy for the Panel to comment. In terms of accessibility, people with minor injuries would be treated closer to home under options 1, 2 and 3 but this is principally because the Board decided other services would not see the same development of community-based services – they have not made a case why these should not be included in other options as well. Patients in South Ayrshire with more serious emergencies would find options

4, 4a and 7 more accessible. In terms of public acceptability, the opposition to plans in 2006 should have shown the Board that models 1, 2 and 3 are not acceptable to a sizeable proportion of their population – the Panel was surprised to see the Board made no reference to this opposition.

National policy – the Board has argued in its submission that the existing service is incompatible with aspects of the Kerr Report – in their view models 1, 2 and 3, and (to a lesser extent) 5 and 6 do best on this criterion. However, the Panel's view is that Models 4 and 4a suffer from the Board's decision not to include service enhancements apart from extended A&E hours. As the Board concedes, Models 4, 4a and 7 would address the Cabinet Secretary's stated policy of a presumption against centralisation.

SECTION 12
FINANCE

12.1 KEY POINTS

In contrast with the submission that the Panel received from NHS Lanarkshire, the first submission to the Panel from NHS Ayrshire & Arran did not include all of the relevant supporting financial papers. These papers were submitted to the Panel two months after the first submission. This delay hampered the ability of the Panel to scrutinise the costs associated with the models. The second submission to the Panel included significant increases in the costs of all models, and again, there was a delay in the submission of relevant supporting financial papers.

Only the most general explanation of what caused the increase between the two submissions was provided. Revised figures include sub-speciality costs but it is unclear how these were incorporated.

The relative costs of the options changed as a result of the revisions. Model 1 has increased by less than the other options thus making it look relatively cheaper. Model 7 has had a significant reduction in its capital costs.

There is a lack of explanation provided for assumptions on bed numbers under each of the models and apparent cost inconsistencies as well as lack of explanation on the staffing assumptions.

The Panel requested the Board to add an enhanced status quo option. The costs for this appear to be overstated.

The proposed service reconfigurations will have implications for the Scottish Ambulance Service and yet the associated costs do not appear to have been identified and included.

The Board has made little attempt to disaggregate the costs of different national and local policies. The Panel has counted four different sets of decisions driving costs and the Board has only disaggregated the baseline costs associated with the 2006 Review of Services.

12.2 EVIDENCE PRESENTED

Increase in Costs from First Submission to Second Submission

In contrast with the submission that the Panel received from NHS Lanarkshire, the first submission to the Panel from NHS Ayrshire & Arran did not include all of the relevant supporting financial papers. These papers were submitted to the Panel two months after the first submission. This delay hampered the ability of the Panel to scrutinise the costs associated with the models. The second submission to the Panel included significant increases in the costs of all models, and again, there was a delay in the submission of relevant supporting financial papers.

Within the first submission to the Panel there was very limited financial information included. For each of the models, additional clinical staffing costs had been identified by the Board from those envisaged as being required to support the clinical modelling under a Review of Services in 2006. These revised profiles did not include the associated ambulance costs. Some scenarios required a different profile of capital investment and this was identified.

Given the costing approach taken by the Board, the Panel has not been in a position, nor would time have permitted, an extensive examination of the baseline. Therefore, the Panel can give no assurance that there are no double counts between the baseline and the additional incremental cost associated with each model. We understand that the Board's external auditors have been tasked with providing assurance on the robustness of the financial analysis. It is however the view of the Panel that the Board has generally been consistent in calculating the additional incremental cost associated with each scenario.

Scrutiny by the Panel was hampered by the two month delay in receiving from the Board the relevant financial papers which supported its first submission.

The problem was furthered compounded by receipt of the second submission on 7th December 2007. This indicated that, since the first submission, further work had been undertaken by the Board on workforce planning. This work had resulted in an increase from the initial projections and the total revised revenue costs associated with each model.

Table 1 below shows the scale of the movement in revenue costs from the first submission to the second submission and Table 2 shows the scale of movement in capital costs:

TABLE 1

	1st Submission £'000	**2nd Submission £'000**	**Movement (+/-) £'000**
Model 1	13,727	18,111	4,384
Model 2	16,134	22,877	6,743
Model 3	16,754	23,671	6,917
Model 4	0	0	0
Model 4a	-	705	705
Model 5	16,937	22,879	5,942
Model 6	17,754	23,819	6,065
Model 7	18,823	26,192	7,369

* both sets of figures include capital charges

TABLE 2

Model	1st Submission £'000	2nd Submission £'000	Movement (+/-) £'000
1	29,401	33,600	4,199
2	41,285	45,484	4,199
3	42,541	46,740	4,199
4	0	0	0
4a		0	0
5	42,541	46,740	4,199
6	45,287	49,486	4,199
7	45,287	29,562	(15,725)

12.3 ASSESSMENT OF THE EVIDENCE

CAPITAL

From the first submission to the second submission, the capital cost of model 7 has been reduced by £15,725,000. Whilst no explanation for the reduction was provided within the second submission, the Board subsequently provided an explanation as follows: "Model 7 envisages full emergency care facilities at both sites and therefore there would be no need for the sub acute beds at Ayr Hospital and given that Ayr Hospital would retain its current catchment population there would be no need to enhance critical care services at Crosshouse Hospital, nor provide a second CT scanner at Crosshouse Hospital."

REVENUE

Increase in Costs from the First Submission to the Second Submission

There was a very considerable increase in costs between the first and second submission with only the most general explanation of what caused this. Revised figures include sub-speciality costs but it is unclear how these have been incorporated into the model costs.

As discussed above, the second submission contained considerable revisions to the revenue and capital costs for all the models, seemingly stemming in part from changes to staffing costs. The revised workforce planning was based on the following assumptions:

- There should be no arduous rotas in Ayrshire and Arran and that, as a minimum all consultant rotas should be set at one in six;
- Staffing levels would be calculated based on ten Programmed Activities each week;
- There would be no change in the number of junior doctors.

No explanation was given of why these factors were not included in the first submission.

The relative costs of the models have changed as a result of the cost revisions. Model 1 has increased by less than the other options thus making it look relatively cheaper.

From Table 1 above, the cost of Model 1 has increased by £4,384,000 making it the smallest increase across all the models. Model 1 had the lowest cost of any option in the first submission, but the effect of the revisions within the second submission was to make the gap between Model 1 and the other models even bigger. The capital costs of Model 7 have been significantly reduced unlike the other models, which have all had increases in capital costs.

Bed Numbers

There is a lack of explanation provided for assumptions on bed numbers under each of the models and apparent cost inconsistencies as well as lack of explanation on the staffing assumptions.

No explanation has been given of bed numbers under each option. For example:

(i) 48 additional medical beds have been included in the 2006 Review of Services developments. It is unclear to the Panel why 10 additional medical beds are needed under Models 2, 3, 5 and 6 (page 77, first submission) when they are not needed in Models 1 and 7.

(ii) The need for 10 and 15 additional surgical beds in Models 3 and 6 respectively was not explained.

(iii) It is unclear why 10 additional surgical beds cost £486,000 (Model 3) but 15 additional beds cost £406,000 (Model 6) (page 77, first submission).

(iv) The basis for the costs of additional beds was unclear. From the first submission (page 77) the Panel deduces:

Model(s)		Total cost	Cost per bed
2,3,5,6	10 extra medical beds	£658,000	£65,800
2,3,5	20 MAU beds	£1,254,000	£62,700
2,3,5,6,7	10 fewer MAU beds	£495,000	£49,500
3	10 extra surgical beds	£486,000	£48,600
6	15 extra surgical beds	£406,000	£27,067
6,7	25 CAU beds	£1,367,000	£54,680

It is not clear what these figures include and how are they are justified.

Similar points can be made about staff numbers. Most models specify the need for additional staff but no detail was provided of how the additional numbers were estimated.

Enhanced Status Quo

The Panel requested the Board to add an enhanced status quo option. The costings for this appear to be overstated.

Models 5 and 6 require 4 additional A&E consultants, costing £492,000, to provide "peak hours (10am to 10pm)" consultant presence with on-call consultant cover from home (page 77, First submission), whereas exactly the same cover in Model 4a costs £705,000 (page 51, Second submission). It is unclear from the submission why, apparently the same service, costs so much more under the enhanced status quo.

Ambulance Service Costs

The proposed service reconfigurations will have implications for the Scottish Ambulance Service and yet the associated costs do not appear to have been identified and included.

Neither the first, nor the second submission, have included any information of the impact of the service proposals on the ambulance service. This contrasts with the submission that the Panel received from NHS Lanarkshire which included modelling undertaken by the Scottish Ambulance Service and which had been costed. During the Panel's public engagement much concern was expressed by the public about the transfer proposals. Some of the models will require more transfers than others. Given the lack of information provided, it is unclear how significant the costs would be and in turn the impact it might have on the total revenue impact of each model.

Mixing the Cost Implications of Different Policies

The Board acknowledged that the cost implications of several different policy decisions have been mixed in together in the figures provided:

"[I]t is clear that not all of the additional costs are a direct consequence of the Cabinet Secretary's commitment to maintain Accident and Emergency Services at both Ayr and Crosshouse Hospitals. Rather, the local refinement of sub-specialty costs and new, compelling evidence on the benefits of sub-specialty rotas has resulted in an increase to the original Review of Services baseline." (page 51, Second submission).

At a minimum, there are cost implications of:

(i) Service changes discussed in 2006 as part of the Review of Services but 'on hold'
(ii) The Board's need to revise plans for A&E services in light of their failure to produce an acceptable proposal in 2006
(iii) The Board's desire to reorganise services to take account of sub-specialisation

(iv) The Board's target of bringing consultants' rotas to a minimum of 1-in-6 and to do so based on 10 programmed activities per week and while employing no more junior doctors

There may be other policies that have driven costs that are not apparent from the very minimal level of explanation provided. It would have been helpful if the costs of these different decisions had been separated. The Board's costs do separate out the baseline (element (i) above) from (ii), (iii) and (iv), but it is not possible to separately distinguish between these other three elements.

SECTION 13
OPTION APPRAISAL

13.1 KEY POINTS

Contrary to normal practice in an option appraisal, none of the options represented a “do minimum” option. This would represent the minimum action required under the status quo to address pressures and constraints.

Options 4 and 4a, the status quo options, were portrayed as being deficient because they did not develop the roles of paramedics and nurses, did not include community casualty facilities and did not include a medical (or combined) assessment unit. However, the Board could have considered sub-options that included all of these things – they are not fundamentally incompatible with the status quo.

The basis for some of the numbers used in planning was unclear. In the Board’s first submission, analysis of A&E data at Ayr and Crosshouse Hospitals showed the Board regarded data on the number of cases coded red or orange (i.e. patients for immediate resuscitation or very urgent care) as being unreliable. It was stated that further work was being carried out and “This additional analysis will be included in the final submission to the Independent Scrutiny Panel.” This was not evident in the second submission. It seems difficult to plan the future of A&E services without reliable data about patient numbers.

The submissions made by the Board contained no explicit projections of patient, staff and bed numbers into the future. It seems difficult to plan the future of emergency services without these data.

The scoring and weighting of the options involved a number of decisions by the Board. The Board’s 2005 option appraisal of unscheduled care involved the need to redo scores once the total score for each option was announced. The Panel could see no evidence the Board had guarded against this happening again.

The information pack prepared by the Board for the scoring event had a number of deficiencies. The complexity of the information presented required health services research experience to interpret. Some studies were selected from the literature while others were not. Some quotes were selected from the reports while others were not. There was no discussion of whether studies from other countries applied in Ayrshire. There were few data on the quality of current services at Ayr and Crosshouse Hospitals.

A particular concern in the information pack was that for each model, the Board presented estimates of numbers of attendances at A&E department under each option. However, for each model the booklets did not estimate:

- The number of people who currently go to Ayr Hospital who would now bypass it in an ambulance in an emergency situation

- The number of transfers from Ayr to Crosshouse for people admitted to Ayr Hospital as an emergency and needing a service that is no longer provided there
- The number of transfers of people admitted for elective surgery to Ayr Hospital who would need to be transferred to Crosshouse for emergency surgery or level 3 intensive care

This may have reduced the extent to which people involved in scoring considered bypassing and transferring patients in an emergency situation.

The Board decided to separate the public from professionals (mainly managers and doctors) with the stated aim of avoiding any influence between groups. The Panel believes this left the public without access to advice that was independent of the Board. Although an independent facilitator hosted the meeting, he was not an expert in Scottish health services. The information pack circulated in advance was prepared by the Board and has been criticised elsewhere in this section.

It is clear that the hospital doctors who scored the options took a diametrically opposed view to the group that was predominantly composed of NHS managers, notably on the status quo options and model 7. Doctors rated these options highly but the group containing managers gave them low scores. The public, who participated in a separate group from the doctors, took the same view of the status quo options as the group that was predominantly NHS management.

The Board made decisions about how the scores of different groups were to be combined. This gave twice as much weight to the views of NHS managers as doctors. NHS managers who were also NHS Board members had as much say as the hospital doctors.

The Board wrongly included capital charges within its initial calculations of the net present value of future financial streams but subsequently amended and resubmitted figures to the Panel on the 21st December.

It appears that capital costs have not been discounted.

The results of the option appraisal were analysed to produce a single preferred option. This involved the Board making judgements about whether added cost of one option over another was justified by the added benefit. The Panel considers that the basis for these judgements is highly contentious.

The Board faces a choice from the option appraisal between models 4, 4a, 1, 3 and 6. The choice rests on the trade-off between costs and benefits, but key information is either difficult to find or to interpret. No attempt has been made to convert a “weighted benefit point” into a service or patient experience so it is unclear what practical benefit is being purchased for extra money. Choosing a more expensive option also involves reducing funding or delaying other services and the benefits these would have produced should also be considered.

13.2 THE APPROACH TAKEN

The approach used by the Board was to select a group of members of the public, clinicians and managers to weight and score the options. Separate events were held for the weighting and scoring, and within each of these stages, separate events were held for the public and for 'professionals' (managers and doctors).

The Board prepared an information pack for those attending the scoring event, which included definitions of criteria, descriptions of the models, summaries of research studies and recommendations from professional bodies (such as medical Royal Colleges). Some local data were provided in terms of accessibility and transport.

The Board then analysed the data from the events to produce weighted scores for each option to be compared to the cost in each case. Comparing options in terms of costs and weighted scores resulted in one option being selected as the "preferred option".

13.3 COMMENTS ON THE APPROACH TAKEN

The Panel's scrutiny of the option appraisal process has been divided into three sub-headings:

- The basic design of the appraisal
- The weighting and scoring events
- The analysis of the data

The Basic Design of the Option Appraisal

Options Selected

The Panel scrutinised the options the Board had submitted and has two related criticisms of the options selected:

The first criticism is that contrary to normal practice in an option appraisal, none of the options represented a "do minimum" option. This would represent the minimum action required under the status quo to address pressures and constraints.

The Panel asked the Board about this point and received the following e-mail reply from the Board's Medical Director on 24th December 2007:

"1, Of the options included in the option appraisal which do you regard as the "do minimum" and why?

NHS Ayrshire and Arran has not approached the process with a view to developing 'do minimum' options. Rather this effort has been about identifying the shape of the care delivery for the next 10-20 years and hence those involved have adopted a creative approach to planning that has seen the development of a wide range of options for the future configuration of acute services, of which the A&E Service is of course a key element. This is in line with the direction given by the Cabinet Secretary for us to develop a range of options along a continuum from just above a Community Casualty Facility to a full Emergency Care Facility service provision at Ayr.

It is hence difficult to identify within the options a 'do minimum' version. Taking a conventional approach to a definition of 'do minimum' Model 4 (the Status Quo) would probably represent the 'do minimum' option in terms of financial and resource investment as it essentially alters nothing in terms of present service delivery. However this is not a criterion that the Board will be invited to consider as they will be asked to take a view on each model in terms of its benefits (as determined from option appraisal); its risks (as determined through risk assessment); its affordability; its ability to meet the expectations of local population (from the ISP Report); and its ability to deliver the level of care and kind of attractive working environment our staff expect."

In acting in this way, the Board appears to have acted contrary to published guidance on how to conduct an option appraisal. For example, the HM Treasury guidance[1] says: "The 'do minimum' option should always be carried forward in the shortlist, to act as a check against more interventionist action." (paragraph 5.1, page 5). To remove any doubt, the guidance says the shortlist of options to be considered in detail in the option appraisal "must always include the 'do minimum' option." (paragraph 5.7, page 19).

The Board's explanation that model 4 represents the "do minimum" on the basis "it essentially alters nothing in terms of present service delivery" is misconceived – the "do minimum" would bring staffing and building up to minimum standards. The "do nothing" option (Model 4) could only possibly also be the "do minimum" if the pressures for change the Board described elsewhere in its submissions to the Panel were spurious.

At a Panel meeting on 17th October 2007, the Chairman of the NHS Board commented on the status quo option. His comments were recorded in the Panel meeting minutes as follows:

"Although the status quo is included within the proposed options, Prof. Stevely advised that the Board do not consider it to be a workable option, given a number of pressures including those on staffing caused by factors such as the European Working Time Directive. They see it instead as a marker against which the other options can be considered."

The Panel's view is that the Board has failed to explain why it did not include a "do minimum" option. It would not have prevented the Board from using a "creative approach" to adopting alternatives and would have been entirely compatible with the Cabinet Secretary's instructions.

The Panel's second criticism is related to this point. In scrutinising the information pack for the option appraisal scoring event the Panel found several references to the deficiencies of models 4 and 4a relative to other options – for example, options 4 and 4a were portrayed as being deficient because they did not develop the roles of paramedics and nurses, did not include community casualty facilities and did not include a medical (or combined) assessment unit. This is all factually correct but the Board could have considered sub-options that included all of these things – they are not fundamentally incompatible with the status quo.

Data presented
The basis for some of the numbers used in planning was unclear. In the Board's first submission, analysis of A&E data at Ayr and Crosshouse Hospitals (Table 5, page 14) showed the Board regarded data on the number of cases coded red or orange (i.e. patients for immediate resuscitation or very urgent care) as being unreliable. It was stated that further work was being carried out and "This additional analysis will be included in the final submission to the Independent Scrutiny Panel." (page 14). This was not evident in the second submission.

The Panel comments elsewhere on the lack of detail on staff numbers included in the options. The Board's response was that staff numbers had been included in the Information Pack for people attending the scoring event. Given that these are among the main determinants of the cost of each option, considerably more explanation would have been expected.

No estimates were given of current bed numbers by specialty or how these would change under each of the options. The Panel is unable to confirm that capacity at Crosshouse in particular would be adequate if a substantial proportion of the emergency work currently undertaken in Ayr were to transfer there e.g. under options 1, 2, 3 or 6.

Short-term, medium-term, long-term
In its second submission, the Board said, "On the basis that the Review of Services Project is designing healthcare services for the next 10 – 15 years, the associated planning must be underpinned by a clear understanding of the projected future structure of the local population." (page 15). No explanation was offered for the choice of 10-15 years as a time horizon – in the option appraisal costs and benefits were estimated over 40 years. It is unclear why there should be a discrepancy.

There was also no explanation of why the Board saw the need to report changes in the demographic structure of the population but did not convert these into estimates of the need for health care. The submissions made by the Board contained no explicit projections of patient, staff and bed numbers into the future. When forward projections were required in order to estimate future costs the assumptions appears to have been that once a model was established patient numbers, staff numbers and bed numbers do not change for the next 60 years. Given what the Board had reported about changes in local demographics this scenario is open to question.

The Panel appreciates that projecting patient numbers forward into the future is an inexact science. For example, it would be difficult to say what detailed model of emergency care will be like in 30 years. In general, however, the numbers lacked any time dimension at all. The Panel believes it would have been reasonable to expect short-term extrapolation of time trends combined with explicit assumptions about trends beyond this coupled with sensitivity analysis.

The Weighting and Scoring Events

The content and 'rules' for the scoring event
The Board has presented an account of the methods used but several things were not explained:

(i) A general account was given of which Board officers spoke at the event but no further detail was provided of what they said or what was discussed.
(ii) It was not reported whether people were scoring the models from their personal point-of-view, from the point-of-view of the community they were drawn from or from the point-of-view of the whole Ayrshire population.
(iii) No account was given of how the Board ensured problems encountered in 2005 were not repeated. The previous option appraisal of unscheduled care ran into problems after the scoring event when it was realised (amongst other problems):

- "Some members had scored the benefits of the status quo on present day performance and not on the medium to long term, despite taking a longer term perspective on the other options."
- "It emerged that some group members had found it difficult to treat each criterion as mutually exclusive when completing the scoring process. For example, if recruitment would be difficult this was reflected in the score against the 'recruitment and retention' criterion, but also erroneously, against 'clinical effectiveness' and 'appropriateness'."

As a result of these (and other) problems, "9 of the 24 group members chose to review and alter their original benefit scores."

The decision to separate public and professionals at the scoring event
The rationale for separating the public and professionals for the scoring event was unclear. In the second submission it was stated, "Separate events were held for the staff and the public to avoid any influence between the stakeholder groups." (page 24). Earlier, the Board claimed, "One of the key purposes of the Scoring Event is not only discuss the evidence presented but also to engage in informed discussion around the models …" (page 1, booklet titled "Important background information" circulated before Scoring Event). A more informed discussion may have resulted from having the public and clinicians mixed together.

The members of the public who attended were left dependent on three sources of information: (i) the information pack prepared by the Board, (ii) an invitation to contact the Board's project team to ask questions and (iii) presentations at the Event from Board officers. While they could address the independent facilitator of the event, this person was not an NHS expert.

The evidence presented in the information pack
In preparation for the scoring event, participants were sent an information pack summarising what the Board judged to be the relevant evidence. The Panel has commented on the evidence this pack contained elsewhere in this report.

The Panel has a number of concerns about the information pack including the following:

(i) The volume & complexity of information presented to non-specialists – to interpret the evidence the reader would require an understanding of case-control studies, confidence intervals, the generalisability of health services research evidence from America, hazard ratios, sensitivity and specificity, causality in non-randomised study designs, and so on.

(ii) The information pack included the Board's case for change, which may have influenced scores for the status quo options. The Panel has challenged this evidence. It was repeatedly emphasised that the status quo options would not involve any service improvements (apart from extended hours for the presence of A&E consultants), but it was not explained why these could not have been incorporated. The emphasis was on what the status quo could not do, rather than the possibilities.

(iii) While some topics covered by the booklet were subject to a systematic search of the research literature, other studies were identified from the research literature by the Panel (e.g. in trauma surgery), which questions how comprehensive and balanced a view of the research literature was presented.

(iv) For each model, the Board presented estimates of numbers of attendances at A&E department under each option. However, for each model the booklets did not estimate:

- The number of people who currently go to Ayr Hospital who would now bypass it in an ambulance in an emergency situation
- The number of transfers from Ayr to Crosshouse for people admitted to Ayr Hospital as an emergency and needing a service that is no longer provided there
- The number of transfers of people admitted for elective surgery to Ayr Hospital who would need to be transferred to Crosshouse for emergency surgery or level 3 intensive care

This may have reduced the extent to which people involved in scoring considered bypassing the nearest hospital in an ambulance and transferring sick patients from one hospital to another in an emergency situation.

(v) As described elsewhere in this report, the Panel considers that the Board's selection of studies and interpretation placed on them is contentious. Evidence from professional bodies (such as medical Royal Colleges) was cited but it was not made clear how these were selected – for example the 2005 BAEM report, which says that an emergency department must have emergency surgery and intensive care, was not cited.

(vi) The information pack admits "where [the evidence] does exist it is often not directly relevant" (booklet entitled Important background information", page 24) but the pack then cites studies carried out in Israel, Hong Kong, America, Australia, Sweden, Canada and the Netherlands without either making this clear when the study was presented or discussing the relevance of these studies to Ayrshire.

(vii) The data in the pack that related to Ayr & Crosshouse Hospital were for things like:

- Patient numbers attending A&E under each model
- Transport studies

The remainder requires extrapolation from research studies carried out in other settings for other purposes. No attempt was made to include opinions of the hospital doctors who would have to make each model work. No attempt was made to gather evidence from working examples of the models elsewhere in Scotland or the UK.

The Analysis of the Data

The way in which scores were combined
The second submission said, "The mean weights from the professional and public groups were given an equal contribution to the weighting for the base case analysis." (page 36) The submission also said, "The scores were then multiplied by the relevant criteria weight and the weighted benefit scores (WBS) from each group (public and professional) were aggregated with adjustment to ensure that the scores from each group were given equal influence."

It appears that the two groups were given equal weight. The numbers of people who scored the options is shown in the second column of the following table, and the final column shows the effect of giving each group an equal say in the final decision:

	People	Percentage of final say
Members of the public	27	50%
Professionals consisting of	43	50%
NHS managers	20	23%
From 'partner organisations'	7	8%
Clinician managers / other clinicians	6	7%
Crosshouse Hospital doctors	6	7%
The Ayr Hospital doctors	4	5%

It is notable that:

- Doctors working in the hospital most seriously affected by the changes got 5% of the final say on how each model scored.

- Hospital doctors (who would have to make the selected model work) got 12% of the final say on how each model was scored.
- NHS managers' views carried twice as much weight as those of hospital doctors.
- As 10 of the 20 NHS managers were also NHS Board members they had as much influence on the scores as hospital doctors.
- Each member of the public was given 60% more influence on the score than any professional.

As the analysis of the scores from the event showed, different groups took very different views, notably with regard to the status quo (models 4, 4a) and model 7:

Weighted Benefit Score	Public	Professionals (Ayr)	Professionals (Crosshouse)	Professionals (neither Ayr nor Crosshouse)
Highest	6	7	7	1
	3	4a	4a	3
	5	4	4	2
	1	6	1	6
	2	5	6	5
	7	3	5	7
	4a	1	3	4a
Lowest	4	2	2	4

Source: Second submission page 62 (public), page 85 (professional (Crosshouse)), page 88 (professional (Ayr)), page 91 (professional (neither Ayr nor Crosshouse))

The Board supplied a list of who attended the scoring events and this showed that all of the professionals from Ayr and Crosshouse were hospital consultants. The group of professionals from neither Ayr nor Crosshouse Hospitals included 20 NHS managers, 6 clinicians with management responsibilities and 7 managers from partner organisations (local councils plus Scottish Ambulance Service). It is notable that the public and the professional group dominated by managers took the same view of the status quo (and enhanced status quo), while hospital doctors, whether they were from Ayr or Crosshouse Hospitals, took a much more favourable view.

Calculation of Costs

The Board wrongly included capital charges within its initial Net Present Value (NPV) calculations but subsequently amended and resubmitted figures to the Panel on 21st December.

Capital charges reflect the opportunity cost of funds tied up in capital assets. The Green Book is clear that they should not be included in the decision whether or not to purchase the asset in the first place. Within the second submission, the Board had wrongly included the cost of capital within the NPV calculations. The Board subsequently notified the Panel of the error which it had made and resubmitted the NPV calculations on the 21st December.

A reducing discount rate has been applied over the life of the project which is consistent with the Green Book.

The Green Book does state that: "for projects with very long term impacts, over thirty years, a declining schedule of discount rates should be used rather than the standard discount rate. The Board has applied the standard 3.5% for years 0-30 and 3% for years 31-40."

The Panel requested a copy of the NPV calculations. It would appear that the capital costs have not been included in the discounting calculations. It is unclear what bearing the exclusion of capital costs will have on the calculated NPV for each model.

The identification of a preferred option
This section takes account of the Board's amended figures sent to the Panel on 21st December. As the Board rightly says, given the weighted scores and costs used, models 2, 5 and 7 drop out of the analysis at this stage, leaving models 1, 3, 4, 4a and 6. It states incorrectly that model 3 is dominated by model 1.
The comparison of the options remaining in the analysis is as follows:

Move from	to	Added cost	Added benefit	Added cost per additional unit of benefit
4	4a	£19,685,185	16.9 points	£1,164,804
4a	1	£432,608,928	52.2	£8,287,527
1	3	£137,589,460	0.5	£275,178,920
3	6	£735,598	9.1	£80,835
4a	6	£570,933,986	61.8	£9,238,414

The Board's analysis presented in the second submission was based on the presumption that the existing status quo, represented by model 4, gives 244 weighted benefit points for a cost of £5,811,094,538, at an average of £23,812,750 per point. Since funding is already available for this level of benefit, the Board claims, "[I]t can be presumed that the maximum willingness-to-pay for a benefit point is less than this level." (Addendum sent to Panel on 21st December 2007, page 3).

This is incorrect, as follows:

- First, the Board was never faced with a conscious decision to "purchase" 244 weighted benefit points for £5,811,094,538, and hence very little can be deduced about their willingness-to-pay for a point from the level of costs and benefits judged in 2007 for a service that has evolved incrementally over time.
- Second, even if the Board had made a conscious decision to pay this amount of money for this number of points, the fact they had decided to fund it would imply £23,812,750 per point could be argued to be the *minimum* willingness-to-pay, not the *maximum* as the Board claims. In this hypothetical situation the Board would be

willing to pay the £23,812,750 per point and may have been willing to pay more but options may not have been available at the time that would yield more benefit. It would only be the maximum willingness-to-pay if they had consciously faced another option that gave more points for more money at a higher average cost per point and rejected that option.

- Third, even if the Board had taken an explicit decision of this type and it were accepted that this represented the maximum willingness-to-pay for a point, the average willingness-to-pay for the first 244 weighted benefit points is no guide to marginal willingness-to-pay for one more point. The laws of diminishing marginal utility are basic economics, yet have not been recognised as applicable in this situation by the Board.

As the Board has no guide to its marginal willingness-to-pay for an additional weighted benefit point, the Board project team who prepared the submission cannot decide which model is preferred without using their personal value judgements – there is no "technical way" to decide. To make a considered choice, decision-makers would arguably need two key pieces of information:

- They would need to know what an additional weighted benefit point actually means in terms of service improvement and patient experiences. Is an additional weighted benefit point equivalent to 1,000 lives saved, 1 life saved or comfier seats in the A&E waiting area? No information is presented on this point. Unless the decision-maker knows that, they don't know what they are buying. All that was presented in the second submission was a table of marginal discounted lifetime net costs per weighted benefit point with no explanation or context.
- They would need to know what is being foregone in terms of benefits to the service and to patients from other services that might have their funding reduced or delayed if a particular option were chosen – this type of information is contained in the second submission (pages 47-48). However, it is very difficult to interpret this in the context of the decision analysis presented. For example, supposing the Board wanted to choose model 4a rather than model 6, as a purely hypothetical example – as Model 4a is cheaper than Model 6 the Board could afford to do more things from its list of other service developments. The issue is: would the benefits of these additional things outweigh any loss from picking 4a rather than 6? From the information presented in the second submission it is nearly impossible to say.

As currently presented, the option appraisal gives the impression that the only possibility is to select model 6, but this is not the case. However, the option appraisal does not present the information in a way that assists with making the decision.

[1] *HM Treasury "The Green Book – Appraisal and Evaluation in Central Government. Treasury Guidance" (2003)*

[2] *Pages 49-50 "NHS Ayrshire and Arran Review of Services: Unscheduled and Emergency Care Option Appraisal Final Report" (undated, but seemingly 2005)*

SECTION 14
OPPORTUNITY COSTS

14.1 KEY POINTS

The term “opportunity cost” can be seen as a misnomer since it can be interpreted as meaning that if one service is funded then another service will never be funded. In fact, funding for the second service may be possible next year when further funds are available. The delay of a year is an opportunity cost, but it is very different to never getting the benefits of the service.

The choice of option from the A&E review has implications for the funds available for other services. The Board decided to rank these other services; it selected the services to be included, the choice of criteria, who was to be involved and the method used. The lack of involvement of the Ayrshire public in these decisions is perhaps surprising; greater transparency will be required than was presented in the submission to justify these decisions to local people.

The Board has recognised that the real issue here is when these service developments can be afforded – if a particular development does not receive funding this year then it could be scheduled for a future year. The Panel believes this would be a more constructive approach than questioning whether a service such as the proposed cancer unit at Ayr Hospital will or will not go ahead.

Several service developments relating to emergency services were included in the exercise. The Panel was surprised to see enhancements of ambulance services being treated as though they were optional. Community Casualty Facilities (CCF) at Cumnock and Girvan were also treated in this way, and it was not clear why, when the CCF at Irvine goes ahead under all models (except 4 and 4a).

14.2 DEFINITION

The Panel and Board have used the term “opportunity cost” to refer to the other services the Board would like to develop but which are affected by the cost pressures in acute services. In economics, when money can be spent on either A or B and the decision is made to spend it on A, then B is called the opportunity cost.

The opportunity cost of the acute services work discussed so far in this report has been a subject of concern to the public of Ayrshire, who see the need for the development of community-based services.

The term “opportunity cost” can be seen as a misnomer since it can be interpreted as meaning that if one service is funded then another service will never be funded. In fact, funding for the second service may be possible next year when further funds are available. The delay of a year is an opportunity cost, but it is very different to never getting the benefits of the service.

14.3 EVIDENCE PRESENTED

The Board proposed a ranking exercise for the services it claimed were potential "opportunity costs" of acute sector pressures. The services the Board identified were assessed against the same criteria as derived from the remit of the Panel (see section 3). (The services were described by the Board in Appendix 5 of its second submission). The criteria were weighted by Board members at a seminar. The benefits of each service against the criteria were then assessed by e-mail by "Members of the Corporate Management Team and the Stakeholder Non-Executive Board Members" (page 45, second submission)

The weights the Board proposed were as follows:
Safe 11
Quality/Best Practice 12
Sustainability 15
Patient Centeredness 8
National Policy 4

The weighted benefit sores and costs of each option were presented in the second submission on pages 47-49, where the methods used were described. Of relevance to the Panel's work, the Board reports that in costing the development 'Investment in enhanced ambulance service infrastructure' it was reported, "Indicative costs for the original Review of Services have been included. However, the ambulance service is working on detailed costs for each of the models." (page 52, Second submission)

Finally, the Board commented on the position with regard to its total budget. The assumed increase in 2008/9 will be 3.2%, or £17 million. The Board estimates it is already facing at least £25 million of cost pressures. It also reports a requirement by the Scottish Government for all public bodies to achieve efficiency savings of 2.0%, which equates to £10.6m for NHS Ayrshire & Arran. The Board claim that to undertake developments from its "opportunity cost" list, additional efficiency savings above 2.0% will be required.

14.4 ASSESSMENT OF THE EVIDENCE

In its Interim Report on NHS Ayrshire's planning, the Panel made the following comments on the opportunity cost process:

"The Panel's expectations of the opportunity cost exercise are as follows:

- The over-riding principle is that the opportunity cost exercise should seek to minimise the impact on "frontline" services that are valued by patients.
- The Panel will want to be satisfied that the Board has reviewed all of its spending plans and taken every possible opportunity to make efficiency savings on every aspect of its budget.

- Once all such efficiencies have been exhausted, the Panel will look for evidence that the Board has identified and selected the service developments that have the minimum impact on patients recognised as being the most vulnerable
- The Panel will expect to receive a prompt, full and transparent report of the Board's method for reaching its conclusions."

In part because of the timing of the Board's budget for next year it has not been possible for the Board to address all of these expectations and the Panel recognises the difficulties involved.

The Panel welcomes the Board's comment in the second submission: "To address these financial pressures, whilst looking to make progress towards the strategic vision for the future delivery of healthcare services, an integrated, priority based and phased approach will be required. This must take full account of year-on-year cost pressures and service change and will require a detailed implementation plan, covering the phasing of both capital and revenue implications of the Review of Services developments, Mind Your Health proposals and opportunity cost developments. Delivery against this prioritised list will require a commitment to planned efficiency savings over the coming years." (page 54, Second submission)

This emphasises that the situation is one of when, not if, these services developments will be delivered. During public meetings we have encountered the view that if funding is not made available for some services this year, then they will never happen. The Panel believes the public would welcome an indication of the timing of each of these decisions rather than a yes or no decision on funding in the coming financial year.

The Panel has no comments to make on the way the Board selected criteria, weighted or scored the exercise, although it is perhaps surprising that the Ayrshire public were not involved at any stage of the exercise. The public may well wish to know on what basis the options were scored in this way – for example, they may query why investment in ambulance services is assessed as being less important than a new minimally invasive surgical unit.

In terms of the service developments included in the list, the Panel was surprised to see:

- Expansion of critical care at Ayr Hospital as an option since this seems to depend upon the outcome of the present exercise – under some options the critical care service at Ayr would stay as level 3 while under others it would be 2+. It is notable that no explanation of what this service development would involve was included in Appendix 5 of the Submission, where all the other developments were described.
- Creation of Community Casualty Facilities at Cumnock and Girvan – the Board has not explained why the CCF at Irvine was included in all the options (except 4 and 4a) while Cumnock and Girvan were not.
- Investment in enhanced ambulance service infrastructure – again, the level of investment required seems critically dependent on the option chosen for acute services.

It is absolutely right that the Board should retain a list of potential cost pressures but it is unclear what is to be gained by including service developments which are contingent upon the main decision.

In terms of making a decision, the information on the costs and scores of the acute service option and the “opportunity cost” service options could have been combined with the analysis underpinning the “preferred option” from the option appraisal. This could have set out the opportunity cost of moving from model 4 to 4a, the opportunity cost of moving from model 4a to model 1, and so on.

SECTION 15
TAKING ACCOUNT OF PEOPLE'S VIEWS

15.1 INTRODUCTION

Part of the Panel's remit was "to provide assurance through commentary that the revised proposals…take account of local circumstances and the views of individuals and communities affected." The Panel itself was also tasked with taking "account of local circumstances and the views of individuals and communities affected by effectively engaging with local people, in liaison with the Scottish Health Council".

15.2 PUBLIC CONSULTATION CARRIED OUT PREVIOUSLY BY NHS AYRSHIRE & ARRAN

Like other Health Boards, NHS Ayrshire & Arran has a statutory duty to ensure that patients and the public are involved in the planning and development of health services, as well as decisions that will affect the operation of those services[1]. A range of guidance exists about how Health Boards should consult with patients and the public on significant service change.

Between August and December 2005, NHS Ayrshire & Arran carried out a formal consultation on two options for emergency and unscheduled care, as part of its wider Review of Services project. The outcome of the consultation was considered by the Board at its meeting in April 2006. Also considered at that meeting was a paper which recommended a revised proposal, on the basis of professional advice that the two options that had been presented for consultation were not sustainable. The Board delayed its decision until a separate consultation on elective care and rehabilitative services was complete. In August 2006, it held 'outcome events' for the public and staff on the full package of proposals for these consultations. Feedback from the consultation, highlighting the recurring themes, was considered by the Board at its meeting in October 2006.

The Scottish Health Council, in its report published in November 2006, made a number of findings, including that: the Board's preliminary engagement work should have been more inclusive; the consultation should have included an option for basing emergency services at Ayr; in other respects the formal consultation was detailed and thorough; and **there was little public support in South Ayrshire for the Board's proposal**.[2]" (emphasis added).

In its Interim Comment in October 2007, the Panel indicated that it was unclear, at that stage, how the Board had taken account of public opinion expressed during its previous consultation process, when developing its revised proposals. The Board subsequently provided a paper to the Panel setting out how it believed that it had taken account of public views.

The Board set out “a number of key recurring themes” which had emerged during the previous consultation, and explained how it felt its shortlisted models had addressed these. For example, a major theme had been retention of two A & E departments in the area, and “All the shortlisted models retain accident and emergency services on both site”. Also, in relation to transport concerns “in South Ayrshire especially” regarding the increased cost and inconvenience of travelling to Crosshouse, particularly for older people and their carers, “any options that only offered care of the elderly sub-specialty care on a single site (84 options) were removed”. In response to previous concerns about not including the status quo as an option, the status quo, with enhanced hours was included.

Similar concerns to those expressed during the Board’s previous consultation, for example in relation to transport issues, were restated at the public meetings held by the Panel in November 2007 (see 15.4 below). Whichever option is chosen by the Board, it is clear that further work will require to be carried out to address, insofar as possible, these concerns, and to increase public confidence.

15.3 LIAISON WITH THE SCOTTISH HEALTH COUNCIL

The Panel was aware from the outset that any public engagement that it carried out would require to be limited in light of the very short timescale for completion of its work. Advice was sought from the Scottish Health Council about the approach that the Panel might take in this regard.

The Scottish Health Council acknowledged that the Panel’s engagement with the public would require to be limited, but made a number of helpful suggestions about what might be achievable and realistic within the timescale. The Director of the Scottish Health Council attended a Panel meeting to discuss these suggestions, which were broadly accepted by the Panel. Suggestions included:

- Establishing a website to disseminate information on the work of the Panel
- Writing to local newspapers to raise awareness of the Panel’s work and to invite written submissions from interested members of the public
- Writing to the local Public Partnership Forums to raise awareness of the Panel’s work and invite comments
- Making the Panel’s interim reports widely available
- Organising public meetings and advertising these in local media.

15.4 PUBLIC MEETINGS AND WRITTEN SUBMISSIONS

Public Meetings

In light of the advice that it had received from the Scottish Health Council, the Panel decided to hold public meetings in the two areas within Ayrshire where Accident and Emergency services are currently provided, namely, Kilmarnock and Ayr. The purpose of these meetings was to hear the views of local people and community groups on the Board’s revised proposals.

The meetings were advertised through a combination of public notices in local newspapers and press releases to local media. Information was also circulated by email to local groups, through, amongst others, the local Public Partnership Forums. This information included an invitation to community groups to get in touch with the Panel if they were interested in having a short speaking slot at the meeting.

Some people at the public meetings felt that advertising and communication about the public meetings could have been better, and that more people might have attended if there had been more notice given that the meetings were taking place.

Elected representatives (constituency and regional Members of the Scottish Parliament (MSPs) and Council leaders) were invited to attend a round-table discussion with the Panel held shortly before each of the public meetings. As several MSPs had indicated that the date and time of the public meetings made it inconvenient for them to attend, a further meeting was held for MSPs at Holyrood, which Dr Walker attended on behalf of the Panel.

The format for the public meetings was:

1. A short presentation by Dr Walker, Chair of the Panel, outlining the Panel's role and introducing a summary paper, which had been provided by NHS Ayrshire & Arran, on the options for service change.
2. Presentations by community groups
3. Open discussion session.

Meetings lasted for at least two-and-a-half hours and longer if those present required. A briefing paper about the Panel's role, and NHS Ayrshire & Arran's summary paper, was sent to people who had registered for the events in advance, and copies were also made available at the events.

Copies of the Panel's Interim Report were made available for people to collect on leaving the events.

The Scottish Health Service Centre provided event management and administration services on behalf of the Panel.

The BIG Partnership provided media support to the Panel.

Written Submissions

The Panel received 10 written submissions regarding the Board's proposals. These included:

- 4 submissions from individuals
- 1 submission from a community group
- 4 submissions from elected representatives (MSPs and local councillors)
- 1 submission from North Ayrshire Council Executive.

Views Expressed at the Public Meetings and in the Written Submissions

The Panel heard a number of recurring issues both at the public meetings, and in the written submissions. The most common themes are summarised as follows. A more detailed summary of views expressed at each of the public meetings is included at Appendix 2.

- Arrangements for the public meetings
  - Unhappiness about the number and location of Panel meetings e.g. some people argued that further meetings should have been arranged in the area covered by North Ayrshire Council
  - View that advertising, administration and communication about the meetings should have been better
  - "…*there was far too much to take in during such a short space of time*"

- Summary paper prepared by NHS Ayrshire & Arran
  - Unhappiness that certain information had not been included e.g. detailed information about staffing and costs
  - Belief that the paper was lengthy and complicated

- Impact of A & E Options on other planned services
  - Concern about whether proposed cancer centre and community casualty facilities will still go ahead
  - "…*extremely concerned that the commitment made by the Scottish Govemment to maintain Accident and Emergency services at both Crosshouse and Ayr Hospitals may jeopardise the development of a community casualty facility (CCF) at Ayrshire Central Hospital*"
  - Unhappiness about the present uncertainty around A&E services
  - Concern about potential impact on plans for Arran Hospital – "*unlike the mainland we have not had a new purpose built hospital for decades and now this is of utmost urgency as the facilities we have cannot cope*"

- Questions about the Panel and its role
  - Is the Panel really independent?
  - Will the Health Board listen to what the Panel says?
  - Why doesn't the Panel have to recommend a particular option?

- Transport and Geography
  - Division of views in Ayrshire about the Board's previous proposals – people in the North were generally happy with them but people in the South were angry

- Concern about need for investment in ambulance service – staff and vehicles
- Concern about public transport particularly for those living the most rural areas in South Ayrshire

- Views about the options
  - Support for the status quo or enhanced status quo
  - Support for the Board's previous proposals
  - Questions about how particular models would work in practice e.g. staffing at certain hours, qualifications and training of certain staff
  - Questions about costings and value for money

- The Health Board
  - Lack of confidence in the Board
  - Unhappiness at Board's previous option appraisal process – "…2 years ago the process adopted was seriously flawed"
  - Unhappiness with recent option appraisal process (Nov 07) – "I consider myself to be an intelligent individual but I was left confused by the reams and reams of facts & figures"

[1] *National Health Service Reform (Scotland) Act 2004, section 7*

[2] *A Report on NHS Ayrshire & Arran's Review of Services Consultations: 'Better, quicker, closer, safer health care' and 'The bigger picture for local health care' - November 2006. Scottish Health Council.*

APPENDICES

APPENDIX 1
PANEL MEMBERS AND SECRETARIAT

PANEL MEMBERS

Dr Andrew Walker	Senior Lecturer in Health Economics, University of Glasgow (Chair)
Mr Ian Anderson	Consultant in A & E Medicine, Victoria Infirmary, Glasgow
Mr Martyn Evans	Director, Scottish Consumer Council
Mrs Angela Scott	Head of the Chartered Institute of Public Finance and Accountancy in Scotland

PANEL SECRETARIAT

Ms Sandra McDougall	Secretariat Manager
Ms Rachel Howe	Secretariat Officer

APPENDIX 2
PUBLIC MEETINGS

DATE	LOCATION	VENUE	TIME	NUMBER OF ATTENDEES
26.11.07	Kilmarnock	The Park Hotel, Rugby Park, Kilmarnock	19.30 – 21.00	27
29.11.07	Ayr	Princess Royal Conference Centre, Ayr	19.30 – 21.00	60

KILMARNOCK

The following themes and points emerged during the open session:

The Panel's public meetings

- View that the meetings were poorly publicised – communication could have been better
- Unhappiness that a meeting had not been arranged in North Ayrshire

Summary paper prepared by the Board

- Belief that the paper is deficient as it does not give enough detail on issues like staffing or finance
- Suspicion that cost will determine what people get, and that it's "*an academic exercise if they can't give us the detail*"

Impact of A & E options on other planned services

- Questions over the new cancer centre at Ayr

Sub-specialisation

- Reference to findings in the National Confidential Inquiry – Patient Outcomes and Death – evidence re volumes and outcomes – and whether this will inform Panel's report

Questions about the Panel's role

- Why is the Panel looking at this but not recommending a particular option?

Division of views in Ayrshire regarding Board's previous proposals

- Belief that people in North Ayrshire and East Ayrshire were happy with the Board's previous proposals, but more weight was given to protestors in the South
- People in South Ayrshire are incandescent about the proposals – there are very strong views in Girvan and Ballantrae

Role of GPs

- Questions about the need for further training for GPs should option 1 be chosen
- GPs are trained to be GPs, not A & E doctors
- Some GPs have done training beyond general practice and could take on an enhanced role – however, the new training scheme means that doctors don't have the same opportunities that they used to, to get experience in different specialties.

AYR

The following themes and points emerged during the open session:

Board's summary paper

- Unhappiness that the Board's summary paper had not been sent to some people in advance of the Panel's meeting, as this was considered to be lengthy and complicated – it should not have been handed to people on entering
- When one woman registered for the meeting, she felt she had been discouraged from receiving a hard copy, and the length of the summary paper meant that it was costly to print
- The talk through the Board's paper by the Chair was too fast

The meeting

- Unhappiness that the meeting had not been advertised more – belief that this had resulted in only a fraction of the people who had taken part in previous events attending
- Unhappiness that there is no public meeting in N Ayrshire
- Criticised the way you opened meeting by reading from summary paper, but compliment you on the way you've conducted the rest of it
- Annoyed that so few people are here

Options

- Models 1 – 3 are inadequate – need status quo or enhanced status quo
- Don't care where people get the service, as long as it's a service that meets their needs
- "*There is good in what the Board proposed but it was lost in the mantra of 'we must have 2 A & Es in Ayrshire*'"
- Divided views from people who come from Ballantrae [one person at the meeting was in favour of the Board's original proposals, and another person was against them]
- Models 1 – 3 – who covers after 10pm?
- Better to have one full A & E, than two half-baked A & Es
- What happens if there is a major incident e.g. at the chemical plant in Dalry? Staff from Ayr Hospital would deal with this at the moment
- Concern that Prestwick Airport is a target for terrorists – need A & E at Ayr
- Need a consultant-led A & E – options 1 and 2 must be ruled out – the acute physician role is untried

- Want option 7, but failing that, on grounds of expense, want option 4 or 4A
- Why don't any of the case scenarios include children or teenagers?
- How long will it take for any changes to be put in place?

The Panel

- Concern about the independence of the Panel – are they just there to do what the Cabinet Secretary wants?
- Don't believe that the Panel will be able to influence the Health Board
- Happy that Panel is in place – like the Interim Report
- Don't see how you can do an informed report when there are so many elements still missing

Impact on services beyond A & E

- There's a lot of information that people have no idea about – we don't know what services we are being robbed of
- Disappointed that the community casualty facility in Girvan is not included in all models
- Concern about cancer services

Transport

- Concern about the need for investment in the ambulance service – where will ambulances and staff come from?
- What about the very rural areas of Ayrshire?
- "*The distance involved is a life and death issue*"
- It takes about 25 minutes if there are no traffic jams to get a sick person from Girvan to A & E at Ayr – but if they're a child it takes longer as paediatric services have been moved to Crosshouse
- When the Board moved paediatric services to Crosshouse, they gave the Scottish Ambulance Service money for a rapid response unit which turned out to be one man in a Ford Focus – that person can get to an accident within 8 minutes so the Health Board target is met – but they then have to wait on an ambulance to come to pick up the patient
- Crosshouse is no use if you're dead by the time you get there

Finance

- Why are there no costings for the status quo? Is the Board trying to pull the wool over our eyes?
- Where do non-medical management costs come into the figures? Why aren't these defined separately? Can you save money on management by pooling between hospitals?
- Cost-effectiveness – what is the value for money of each proposal?

Ayr Hospital

- I've suffered two heart attacks and the service at Ayr was first class – not keen on Crosshouse

The Health Board

- The previous consultation was nothing but a campaign to persuade us to accept the Board's proposals – it was totally biased
- Board are not trusted – should resign
- At seminar in Irvine, Board put most emphasis on clinical effectiveness – is that measurable? Can Board provide comparable data for each of the models to show any likely differences in this?
- Board were economical with the truth
- There's a problem about public confidence – it's the same Health Board who'll be making the decision

Geography of Ayrshire

- You must bear in mind what Nicola Sturgeon said – Monklands and Ayr are 'special cases' – Ayr is a special case because of the geography of the area

ACKNOWLEDGEMENTS

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2. The Panel Secretariat, for its support and assistance throughout this process
3. Ms Corinne O'Dowd, Researcher, University of Glasgow (Assistant to Dr Walker) for assistance in scrutinising the submissions to the Panel
4. The Scottish Health Service Centre Convention Management Service – for administration relating to the Panel's public meetings
5. Our media advisors, Gavin Cameron and Pamela Dodds, from the BIG Partnership
6. The Scottish Health Council for use of its office space
7. The Scottish Consumer Council for use of its meeting facilities and support from staff
8. The staff at Ayr Hospital who assisted in organising the Panel's visit and who shared their views with the Panel
9. The MSPs and local councillors who took part in our round-table discussions
10. NHS Education for Scotland for responding to our requests for workforce data
11. The Information and Statistics Division (ISD) of NHS Scotland for supplying data
12. Mr Alistair Brown and Mr Dan House for procedural advice