Public Audit Committee

3rd Report, 2012 (Session 4)

Cardiology Services

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Public Audit Committee

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CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remit and membership</td>
<td></td>
</tr>
<tr>
<td>Executive summary</td>
<td>1</td>
</tr>
<tr>
<td><strong>Main report</strong></td>
<td>2</td>
</tr>
<tr>
<td>Background</td>
<td>2</td>
</tr>
<tr>
<td>Committee consideration</td>
<td>3</td>
</tr>
<tr>
<td>Before diagnosis</td>
<td>5</td>
</tr>
<tr>
<td>Keep Well</td>
<td>5</td>
</tr>
<tr>
<td>Health practitioner and patient relationships</td>
<td>8</td>
</tr>
<tr>
<td>Diagnosis and treatment</td>
<td>11</td>
</tr>
<tr>
<td>Angioplasty times</td>
<td>12</td>
</tr>
<tr>
<td>Diagnostic testing</td>
<td>13</td>
</tr>
<tr>
<td>Aftercare and rehabilitation</td>
<td>13</td>
</tr>
<tr>
<td>Healthy eating and exercise</td>
<td>14</td>
</tr>
<tr>
<td>The role of the family</td>
<td>15</td>
</tr>
<tr>
<td>Heart failure nurses</td>
<td>16</td>
</tr>
<tr>
<td><strong>Annexe A: Extracts from the minutes of the Public Audit Committee</strong></td>
<td>17</td>
</tr>
<tr>
<td><strong>Annexe B: Oral evidence and associated written evidence</strong></td>
<td>18</td>
</tr>
</tbody>
</table>
Public Audit Committee

Remit and membership

Remit:

The remit of the Public Audit Committee is to consider and report on—

(a) any accounts laid before the Parliament;

(b) any report laid before or made to the Parliament by the Auditor General for Scotland; and

(c) any other document laid before the Parliament, or referred to it by the Parliamentary Bureau or by the Auditor General for Scotland, concerning financial control, accounting and auditing in relation to public expenditure.

(Standing Orders of the Scottish Parliament, Rule 6.7)

Membership:

George Adam (until 4 September 2012)
Colin Beattie
Willie Coffey
James Dornan (from 18 September 2012)
Iain Gray (Convener)
Mark Griffin
Colin Keir
Mary Scanlon (Deputy Convener)
Tavish Scott
Sandra White (from 4 September 2012)
Humza Yousaf (until 6 September 2012)

Committee Clerking Team:

Senior Assistant Clerk
Jane Williams

Assistant Clerk
Jason Nairn
EXECUTIVE SUMMARY

1. This report sets out the key recommendations of the Public Audit Committee in relation to access to Cardiology Services in Scotland by people from deprived communities and from ethnic minority communities.

2. The Committee welcomes the reduction in death rates from all types of heart disease over the last 10 years with most councils experiencing rates comparable with that of the rest of Europe. However in eight Scottish councils the rates of heart disease are the highest in Western Europe. These rates are also higher for men, some ethnic groups and for people living in deprived areas.

3. The Committee acknowledges the evidence it received that the Scottish Government’s national anticipatory care programme, called Keep Well, is the right approach to targeting health improvement in the most deprived communities. However, the Committee is concerned that the results from the Government’s evaluation of Keep Well will not be available until summer 2014. Given £11.3 million has been committed to this programme in 2011/12 and in 2012/13 the Committee has sought clarification from the Scottish Government about its plans for any interim evaluations prior to summer 2014.

4. The Committee has made a number of recommendations about the services which assist in reducing heart disease either by encouraging lifestyle changes or by reducing stress by providing financial, literacy or housing advice or mental health support. The Committee recommends that public bodies work more closely together to ensure that culturally appropriate services are available to those wishing to improve their lifestyle, and to support the provision of healthy food retail outlets in deprived communities. The Committee has also requested information from the Scottish Government as to how the Keep Well programme and the NHS include the families of patients in their aftercare and rehabilitation.

5. The Committee has also requested that the Scottish Government review whether GP numbers are adequate to meet the needs of patients in deprived communities and ethnic minority communities given their higher levels of comorbidity.
6. The Committee also comments on the data collected by the Scottish Government and NHS Boards, recommending that monitoring should be undertaken of the rates of the main cardiology procedures by different groups, particularly by patient socio-economic group and ethnicity.

MAIN REPORT

The Committee reports to the Parliament as follows—

7. This report sets out the Committee’s findings in relation to the report, Cardiology Services, which was published by the Auditor General for Scotland (AGS) on 23 February 2012.

BACKGROUND

8. Cardiology has the third highest spending of all medical specialties (after General Medicine and Geriatric Assessment) with spending increasing from £80 million (2002/03) to £146 million in 2010/11. In 2010/11, around £167 million was spent on cardiovascular drugs within the community with the highest amount (£43 million) spent on a statin, atorvastatin.

9. Coronary heart disease (CHD) is a preventable disease which killed over 8,000 people in Scotland in 2010 and is the second highest cause of death in Scotland after cancer. Death rates from all types of heart disease have reduced by around 40% over the last ten years. However rates of heart disease in Scotland are the highest in Western Europe, and are higher for men, some ethnic groups and people living in deprived areas.

10. Since 2009/10, following the introduction of the Better Heart Disease and Stroke Action Plan, the Scottish Government has had a national target to carry out an agreed number of cardiovascular health checks in the most deprived areas in Scotland where rates of heart disease and death are highest (Keep Well programme). In November 2011, the Scottish Government announced that £35 million will be spent on rolling out the Keep Well programme to all 40-64 year olds living in deprived communities. NHS Health Scotland has commissioned an evaluation of the impact of the programme between 2012 to 2015.

11. Whilst the Audit Scotland report focussed on cardiology services provided in hospitals, it also looked at some of the prevention work that takes place in the community. Audit Scotland reported that research had found that people in the most deprived areas were more likely to have a heart attack, less likely to reach hospital alive, and more likely to die during a heart attack, therefore reducing the opportunity to receive hospital treatment. Whilst there have been improvements in the outcomes for heart disease patients in Scotland with more effective treatment, reduced death rates, falling waiting times and people living longer after treatment,

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2 Cardiology Services, paragraphs 4 and 19.
3 Cardiology Services, paragraphs 1-2.
4 Cardiology Services, paragraphs 63-65.
the rates of disease and death are still higher in the most deprived areas of Scotland. Amongst the many factors which increase the risk of heart disease is ethnic background with rates of heart attack higher in South Asian men than the general population.⁵

12. The Committee welcomes the reduction in death rates from heart disease but is concerned that some parts of the community, such as those in deprived communities or from ethnic minority communities, continue to experience poorer health outcomes in relation to heart disease. The Committee therefore agreed to focus its evidence taking on access to cardiology services by people from deprived communities and from ethnic minority communities.

Committee consideration

13. At its meeting on 29 February 2012, the Committee received a briefing from the AGS on his report entitled Cardiology Services and agreed its approach to oral evidence taking at that meeting.

14. The Committee agreed at its meeting on 14 March 2012 to undertake three fact finding visits in Glasgow, each looking at different aspects of the pathway patients from deprived communities and from ethnic minority communities may follow to access cardiology services. These visits were held during the morning of 22 June 2012 and are summarised below:

Group 1. Chest Heart and Stroke Scotland (CHSS): Colin Beattie MSP, Mark Griffin MSP and Tavish Scott MSP met with patients and support staff to discuss their experiences of the patient pathway (before diagnosis, diagnosis and treatment, and aftercare and rehabilitation).

Group 2. Deep End Project and P3 group: Willie Coffey MSP, Iain Gray MSP and Colin Keir MSP met with Professor Graham Watt, Dr Susan Langridge and Dr Jim O'Neil of the Deep End project,⁶ to discuss the challenges facing GPs working to tackle heart disease in the most deprived communities in Scotland. GP experiences of the Keep Well programme were also discussed.

This group also considered questionnaire responses from the Patient Partnership in Practice (P3) group from the Royal College of General Practitioners in Scotland.

Group 3. Keep Well programme and South Asian Anticipatory Care pilot: Mary Scanlon MSP and Humza Yousaf MSP met with practice staff and a patient participating in the Scottish Government’s Keep Well

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⁵ Cardiology Services, paragraphs 2, 25, 56-57.
⁶ "General Practitioners at the Deep End" work in 100 general practices serving the most socio-economically deprived populations in Scotland. The activities of the group are supported by: the Royal College of General Practitioners (Scotland); the Scottish Government Health Department; the Glasgow Centre for Population Health; and General Practice and Primary Care at the University of Glasgow.
programme. The members also met support staff and a patient involved in the South Asian Anticipatory Care pilot.

15. The Committee then met in the afternoon of 22 June 2012 at Glasgow City Chambers and took oral evidence from:

- David Clark, Director and Nicola Cotter, Voices Scotland Lead, Chest, Heart and Stroke Scotland (CHSS);
- Andy Carver, Prevention and Care Adviser, and Lynda Blue, Health Care Professional Projects Manager, British Heart Foundation Scotland (BHFS);
- Dr David Murdoch, Consultant Cardiologist, and Dr Jennifer Armstrong, Medical Director, NHS Greater Glasgow and Clyde;
- Dr Alison McCallum, Director of Public Health and Public Policy, NHS Lothian;
- Lynne Ayton, Head of Operations (Regional and National Services), and Professor Keith Oldroyd, Director of Research and Development/Cardiologist, NHS National Waiting Times Centre;
- Dr Aileen Keel CBE, Deputy Chief Medical Officer, and Dr Barry Vallance, Consultant Cardiologist/Lead Clinician for Heart Disease Scotland, Scottish Government.

16. A copy of all the written and oral evidence provided to the Committee, as well as summary notes from the fact finding visits, can be found on the Committee's web page at:

http://www.scottish.parliament.uk/parliamentarybusiness/CurrentCommittees/50051.aspx

17. The Committee would like to thank all those who participated in the fact finding visits as well as those who gave evidence to the Committee. The Committee was especially appreciative of the time taken by patients and medical professionals to meet with members and to share their health care experiences.

18. This report does not comment on every issue raised in the AGS’s report or raised with the Committee during the fact finding visits or in oral evidence. Instead it focuses on the key issues on which the Committee wished to make specific recommendations or remarks. In addition, the Committee recognises that Audit Scotland will be publishing reports into health inequalities, and prescribing in general practice, later this year which may also comment on some of the issues raised in evidence.

19. Given the Committee’s focus on access to cardiology services by people from deprived communities and from ethnic minority communities, this report is split into the three key parts of the patient pathway:

- Before diagnosis
• Diagnosis and treatment
• Aftercare and rehabilitation

BEFORE DIAGNOSIS

20. In evidence the Committee heard that Scotland’s excessive rate of heart disease remains tightly focussed in eight of the 32 council areas. Outside of those areas, Scotland’s health record is comparable with that of the rest of Europe.\textsuperscript{7} Work by the Deep End project noted that 50% of people living in very deprived areas (the most deprived 15% of postcodes) are registered with 100 practices whilst the other 50% are registered with 700 other practices in Scotland.

21. In relation to the higher risk of heart disease in ethnic minority communities, the BHFS noted that there are differences in genetic makeup as well as differences in cultural and social practices between ethnic groups that might influence their risk of developing cardiovascular disease. However it also recognised that because large proportions of ethnic communities live in deprived parts of the country, it may be difficult to separate the impact of deprivation and ethnicity on premature mortality rates in these areas.\textsuperscript{8}

Keep Well

22. The Scottish Government’s Keep Well programme was developed as part of activity to tackle health inequalities in Scotland. Piloted in 2006, this anticipatory care programme was targeted on a large scale in disadvantaged areas across Scotland. Its core element, the Keep Well health check, was intended to identify individuals at particular risk of preventable serious ill-health, offering appropriate interventions and initiating monitoring and follow up.\textsuperscript{9} One measure of the activity undertaken by Keep Well is the HEAT\textsuperscript{10} target that “NHS Scotland should deliver 26,682 inequalities targeted cardiovascular heat checks across Scotland during 2011/12”. For the period of 1 April 2011 to 31 March 2012 47,766 health checks were delivered across Scotland.\textsuperscript{11}

23. In March 2010 the Scottish Government announced its intention to mainstream the Keep Well programme across NHS Scotland from April 2012. In 2011/12, the Keep Well programme was allocated £11.3 million as part of the Health Improvement and Health Inequalities level three programme budget with a similar level of funding assumed for 2012/13. This funding is then allocated to Health Boards according to a formula based on the Board’s share of the 15% of

\textsuperscript{8} British Heart Foundation Scotland written submission.
\textsuperscript{9} Keep Well programme update, written evidence from NHS Greater Glasgow and Clyde, paragraph 1.1
\textsuperscript{10} HEAT targets are a set of targets and measures that reflect Scottish Ministers’ priorities for the Health portfolio. HEAT stands for Health Improvement, Efficiency, Access and Treatment.
the most deprived SIMD\textsuperscript{12} data zones and the proportion of individuals who are income deprived.\textsuperscript{13}

24. Funding was also allocated within the Keep Well budget between 2009 and 2011 to assist in implementing both screening and treatment for anxiety and depression.\textsuperscript{14}

25. The Scottish Government’s March 2011 implementation guidance broadened the focus of the Keep Well programme to include:

- Individuals aged between 40 and 64 not already included in practice registers for stroke, diabetes or cardiovascular disease (CVD) disease and living in the most deprived geographical locations; and
- South Asian and Black and Afro-Caribbean ethnic subgroups and gypsy travellers; and
- offenders, homeless individuals, those affected by substance misuse; and
- carers.

26. During their visit to the Drumchapel West Centre in Glasgow, members learned that Keep Well health checks are delivered in NHS Greater Glasgow and Clyde principally through GP practices with the aim to extend the programme to all GP practices serving the most deprived communities by April 2013. GP practices are then supported by outreach workers as well as through partnerships with wider primary/social care services and community based organisations. Participating practices are required to demonstrate flexible engagement methods including contacting patients by letter, telephone, text and through outreach workers. This approach was successful in delivering health checks to between 10-15% of those most hard to reach patients at greatest risk of ill health.

27. In contrast, the South Asian Anticipatory Care project delivers Keep Well health checks, as well as other community engagement interventions, through bilingual specialist pharmacists and community outreach workers working closely with GP practices with high concentrations of South Asian patients registered within their practice.\textsuperscript{15} Members heard that this approach had delivered approximately 900 health checks from 2000 patients contacted (45%). The South Asian Anticipatory Care pilot explained that this success rate arose partly because South Asian patients appreciated being personally approached by respected pharmacists and outreach workers who spoke their language and understood their culture.

\textsuperscript{12} The Scottish Index of Multiple Deprivation (SIMD) identifies small area concentrations of multiple deprivation across all of Scotland in a consistent way. The SIMD ranks small areas (called datazones) from most deprived – ranked 1 – to least deprived – ranked 6,505 [Source: Scottish Government website at: http://www.scotland.gov.uk/Topics/Statistics/SIMD/]
\textsuperscript{13} SPICE briefing, page 2.
\textsuperscript{14} SPICE briefing, page 4.
\textsuperscript{15} NHS Greater Glasgow and Clyde: Keep Well Programme update, June 2012. sections 3-4.
28. Members learned that after patients had undergone a Keep Well health check, it was vital there were then good links between medical practitioners and other support services to provide assistance to those who would benefit from changes in their lifestyle. The Committee comments on some of these support services in more detail in the section entitled “aftercare and rehabilitation”.

29. Keep Well was established with the aim of building knowledge about the feasibility and challenges of delivering this project and the success of different approaches to engagement and service redesign, with a view to incorporating the lessons from pilots into subsequent waves of implementation. The Scottish Government explained that the clinical and non-clinical interventions used in Keep Well are designed to reduce an individual’s 10 year risk of cardiovascular disease.

30. The Scottish Government confirmed in evidence that the pilot stages – waves 1 and 2 – have been evaluated, and the shape of the roll-out has been based on that evaluation. It was also confirmed that during 2012-15, a series of interconnected studies will be undertaken to assess the impact of Keep Well including:

- An outcome analysis considering the impact of Keep Well on hospital discharges, mortality and prescribing of medication in key clinical conditions in Keep Well GP practices; and
- A local variability study (looking at different approaches to cardiovascular disease (CVD) prevention practice between Keep Well and non Keep Well clinics as well as comparing implementation practices between NHS Boards).

31. However other witnesses were unclear whether aspects of Keep Well had been successful, commenting that until the full evaluation is completed it is not clear which groups, from within the broad range of socially deprived areas, are taking up the checks.

32. NHS Greater Glasgow and Clyde questioned whether the initial evaluations of Keep Well had shown that it had impacted on mortality or narrowed the gap in mortality between more deprived and less deprived areas, observing that—

“After five years [of Keep Well in Glasgow], there was no difference in mortality between the keep well practices and the non-keep well practices.”

33. The Scottish Government explained that the full benefits of Keep Well have yet to be quantified (given it is designed to impact on an individual’s 10 year risk of CVD). It also acknowledged that it will be difficult to isolate the effect that any single public health intervention such as Keep Well may have. However the Scottish Government, along with other witnesses, was confident that targeting health improvement at the most deprived communities is the right approach to

16 SPICe briefing, page 4.
17 Scottish Government supplementary written submission.
tackling the burden of risk taking behaviour (such as smoking, drinking and poor diet).  

34. The Committee welcomes the plans to evaluate the outcomes of the national Keep Well programme and acknowledges the comments of the Scottish Government about the difficulties in evaluating health intervention programmes. However the Committee is concerned that the results from the series of studies will not be available until early summer 2014.

35. The Committee therefore seeks confirmation from the Scottish Government as to whether it will undertake any interim evaluation of the performance of the Keep Well programme in reducing the risk of CVD in those participating in the programme.

36. In addition, if heart disease in the most deprived areas or within ethnic minority communities is to be tackled successfully it is crucial that those at most risk of heart disease are targeted effectively and then attend a health check.

37. The Committee would therefore request further information from the Scottish Government as to how it will evaluate which approaches are most effective at delivering Keep Well health checks to people most at risk of heart disease. This is particularly the case given the range of approaches adopted by NHS Boards such as through GP practices, pharmacists and through the Community Orientated Primary Care approach adopted in Drumchapel.

**Health practitioner and patient relationships**

38. One of the issues which arose during the fact finding visits was that for lifestyle changes to be successful, it was important that time was spent with the patient exploring the health issues they were experiencing including the psychological stresses in their lives. Both GPs and patients felt that this was not easily achieved during a standard GP consultation. Members heard that a double appointment or meeting with a nurse or outreach worker for 40-45 minutes was more effective in tackling comorbidity which is more prevalent in severely deprived areas and then encouraging subsequent lifestyle change.

39. Members learned from GPs that there are challenges in providing time with patients when working in the most deprived areas where patient needs are complex. This combined with the higher demand for services could result in GP stress (resulting in less effective relationships with patients).

40. Patients also appreciated having a personal relationship with their medical professional and having time to explore their health issues. This was echoed by evidence from NHS Lothian who stressed the importance of continuity of care and

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20 Scottish Government supplementary written evidence.
21 This approach to health care delivery combines epidemiological and health improvement interventions with the clinical care of individual patients.
22 This term is used to refer to either the presence of one or more disorders (or diseases) in addition to a primary disease or disorder, or the effect of such additional disorders or diseases.
developing personal relationships as the key to success when working with Gypsy Traveller populations, the homeless and offenders.\textsuperscript{23}

41. Members also learned that there was now a need for GPs to be provided with broader skills to allow them to engage with the patients who present. This was particularly the case with patients who did not recognise their symptoms as being of concern or have low expectations of good health. In evidence NHS Lothian commented that one of the ways it is seeking to address this issue is by training health professionals to better understand the different ways patients may present symptoms by using techniques such as teach back. This technique enables the patient to participate more actively because they teach their symptoms and their recommended treatment back to the health professional.\textsuperscript{24} This approach was particularly helpful with the 20% of the population who have numeracy and literacy problems.

42. A more generalist approach was also highlighted as being increasingly important in hospitals where specialist services for treatment of patients with comorbidities can mean that the focus is on the most significant of their health issues. NHS Greater Glasgow and Clyde explained that one approach they are currently considering to address this is having joined-up cardiovascular clinics and diabetic clinics in hospitals.\textsuperscript{25}

43. Treating comorbidities also posed challenges for medical practices where connections and good communication with a wider range of community support services are important in treating all the issues which impact on the health of the patient. In Drumchapel these connections included links to money advice centres, literacy and numeracy programmes and housing support which can help to address some of the causes of stress and depression. This support can then help improve patients’ mental health which in turn enables them to make lifestyle changes to improve their physical health.

44. The Committee acknowledges that Scotland has a higher ratio of GPs to people compared with every other UK country and welcomes the recognition of the additional needs of patients in areas of deprivation through the Scottish Government funding of GPs for the provision of core services.\textsuperscript{26} However the Committee heard that this did not necessarily provide higher GP levels in deprived communities where there is a higher level of comorbidity.\textsuperscript{27}

45. In light of this concern, the Committee would request that the Scottish Government review whether GP numbers are adequate to meet the needs of patients in deprived communities and ethnic minority communities.

46. The Committee also recognises that community health professionals such as GPs are important in delivering anticipatory care to those who are at greatest risk of ill health. In that regard the longer consultation time provided by Keep Well checks is beneficial particularly when working with patients with complex needs.

\textsuperscript{26} Scottish Government supplementary written submission.
\textsuperscript{27} Fact Finding visit summary note – GPs at the Deep End.
47. However for consultations to be effective, GPs and other medical professionals must have good relationships with their patients, including recognising the range of ways that patients can present with their symptoms.

48. The Committee would therefore request clarification from the Scottish Government as to how it is supporting training of GPs and other medical professionals to work effectively with patients with comorbidity whom require a wide range of health and social care support. This is essential to ensure the patient’s journey can be followed, with timely and good links maintained with other departments such as social work and secondary care.

49. The Committee also welcomes the partnership approach between medical professionals and other support services. This approach provides an opportunity for all the mental and physical health needs of patients to be addressed in their local community. However as Committee members learned during their fact finding visits, it can be a complex and time consuming challenge for GPs and patients to identify and then access each community support service.

50. The Committee therefore recommends that NHS Boards work with local authorities and GPs to identify all the community support services available in each medical practice area so that patients may be more quickly supported to make lifestyle changes following Keep Well health checks.

Education

51. During the fact finding visits the members learned that there can be a low expectation of good health by patients from deprived communities and from ethnic minority communities, with some patients normalising pain or disguising it from GPs. In addition, patients highlighted that they may not recognise the symptoms of ill health, for example confusing a heart attack for indigestion.

52. In addition, patients who lead chaotic lifestyles, who are experiencing a number of challenges in their lives (such as stress or depression) or who are caring for others may consider that their health concerns are not a priority. Chest, Heart and Stroke Scotland (CHSS) identified that men were twice as likely as females to wait to seek help for the first time following an incident of sudden acute pain (instead of seeking medical assistance when they began to feel unwell).

53. In evidence CHSS highlighted the importance of raising community awareness of the signs and symptoms of heart problems, as well as encouraging others to also promote education and development. In that regard they highlighted their work with the Scottish Ambulance Service and British Heart Foundation Scotland (BHFS) to raise awareness of the symptoms of a heart attack.

54. The Committee was concerned to learn of the sometimes fatalistic attitude of patients from deprived communities and from ethnic communities towards their health. This resulted in symptoms going unrecognised or being considered as not significant until a serious incident forced the patient to seek emergency treatment.

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28 Chest, Heart and Stroke Scotland written submission.
This is both more costly to the NHS and may result in a poorer outcome for the patient.

55. The Committee welcomes the work undertaken by CHSS, BHFS and the Scottish Ambulance Service to raise awareness of the signs and symptoms of heart problems. The Committee would however request specific information from the Scottish Government as to how it proposes to address the attitude within deprived communities and ethnic minority communities that poor health is to be expected.

**DIAGNOSIS AND TREATMENT**

56. Audit Scotland reported that in examining the rates of some treatments by NHS Boards, its analysis had shown that relatively fewer of these treatments are being carried out for people in deprived areas than would be expected – from over 20% less treatments than would be expected in the most deprived area to over 60% more treatments than would be expected in the least deprived. This was based on analysis of age, sex and levels of disease (using CHD death rates) in different social economic communities, and then comparing the expected rate of revascularisation with the actual rate.

57. The witnesses all agreed that once people from deprived areas get into the care system they are just as likely to receive the treatment they need. CHSS and BHFS explained that—

"there is no evidence that once they hit the NHS, people from deprived areas get a less good service....the fact is that they tend to hit the NHS in poorer health, with more comorbidities and are more likely to arrive in emergency situations. Sometimes the revascularisation procedure cannot be undertaken or the patient has died before it can be undertaken."

58. This explanation was reiterated by the Scottish Government officials who observed that people from deprived areas have a higher incidence of heart disease which might suggest that they should have access to routine revascularisation more often than they do. However, as they are also likely to put off seeking medical assistance, less likely to reach hospital alive and more likely to die during a heart attack, the opportunity to receive hospital treatment is reduced.

59. The Scottish Government also explained that Coronary Heart Disease (CHD) related mortality rates in the most deprived areas have been cut faster than elsewhere over the last decade (2001-2010). Mortality rates among all deprivation quintiles have reduced but that the reduction of 34.1%, in the age-sex CHD

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29 Cardiology Services, paragraph 55 and exhibit 8.
30 This procedure restores blood flow to the heart, and includes angioplasty and coronary artery bypass graft surgery. Source: Cardiology Services, Appendix 1.
31 Scottish Government written submission.
33 Scottish Government supplementary written submission.
mortality rate among the most deprived category, has been almost double the 18.1% reduction observed in the least deprived category.\footnote{Scottish Government written submission.}

60. The Committee welcomes the reduction in the CHD mortality rate especially in relation to those from the most deprived areas. The Committee would however endorse the AGS recommendation that the Scottish Government and NHS Boards should monitor the rates of the main cardiology procedures by different groups, particularly by patient socio-economic group and ethnicity to ensure that all patients have appropriate and timely treatment.

61. In considering the use of mortality data as a proxy measure of need, and therefore treatment rates in different socio-economic groups, the Committee agreed that it was unhelpful that the data used did not lend itself to clear interpretation. In relation to data quality, the Committee notes the comments in the AGS report that “the NHS needs to improve how it monitors activity, costs, quality and performance to assess value for money”.\footnote{Cardiology Services, main heading page 35.}

62. The Scottish Government confirmed that a small number of key quality indicators have been agreed which act as standards across Boards and which should enable monitoring of the performance of NHS Boards in relation to their performance in providing cardiology services.

63. The Committee welcomes the provision of indicators which will enable performance monitoring across NHS Boards. The Committee, however, requests clarification as to whether these indicators will also enable better analysis of the value for money of cardiology services as well as the patterns of access and the treatment received by different socio-economic and ethnic groups.

**Angioplasty times**

64. The AGS reported that some patients with a severe heart attack are unable to receive the most effective treatment – primary percutaneous coronary intervention (PCI) – due to where they live, such as patients over 40 minutes travel time from the nearest regional centre providing treatment. In evidence to the Committee, the Scottish Government confirmed that the Scottish intercollegiate guidelines network (SIGN) is currently reviewing whether target times should be extended to take into account more recent evidence that suggests that the time from diagnosis to a primary PCI could be extended from 90 to 120 minutes.\footnote{Cardiology Services, paragraphs 47-52.}

65. Another factor limiting the number of patients who might receive primary PCI is whether there are appropriate staffing levels at hospitals to be able to provide the treatment. In that regard NHS Highland is the only regional centre unable to provide PCI out of hours due to insufficient numbers of staff.\footnote{Scottish Parliament Public Audit Committee. Official Report, 22 June 2012, Col 737-738.}

66. The Committee welcomes the consideration being given to extending the treatment time for primary PCI which, if appropriate, will enable greater numbers of
patients with a severe heart attack to be treated quickly. Nevertheless, in order for NHS Highland patients to fully benefit from any treatment time extension for primary PCI, NHS Highland has to be able to provide a primary PCI service out of hours.

67. The Committee seeks information as to how the Scottish Government is working with NHS Highland to address this issue.

Diagnostic testing

68. One of the key messages from the AGS report was that there is scope to make efficiency savings of at least £4.4 million in a number of areas such as using less expensive tests\(^{38}\), and reducing the length of stay in hospital. In that regard the AGS recommended that NHS Boards should review the range of tests provided locally for patients with heart disease and explore the potential efficiencies to be gained by non-invasive tests. As an example the AGS noted that if the number of standard angiography procedures was reduced by 10-15% in the Boards with higher rates of this procedure by providing more CT coronary angiography, efficiency savings of £500,000-£800,000 could be made across Scotland.\(^{39}\)

69. In evidence to the Committee, the NHS Waiting Times Centre also highlighted their concerns regarding the continued performance of angiography alone in hospitals that have no ability to assess the significance of any disease that they identify or to perform angioplasty as a single follow on procedure if that is indicated as necessary. This, they indicated, resulted in patients frequently having to undergo a second procedure in an interventional centre with additional cost, inconvenience and risk.\(^{40}\)

70. The Committee notes the evidence from NHS Greater Glasgow and Clyde that it is to undertake a clinical services review to look at how services are being delivered and to consider the balance and range of services provided beyond 2015.\(^{41}\)

71. However given the concerns in the AGS report and expressed by the NHS Waiting Times Centre about appropriate diagnostic testing, the Committee requests information from the Scottish Government as to how it will support NHS Boards to review their testing services to ensure they provide value for money and avoid unnecessary additional testing of patients.

AFTERCARE AND REHABILITATION

72. In evidence the Committee heard that in studying the huge reductions in heart disease mortality, academics had concluded that just over 50% of that reduction was because of improved lifestyle, improved management of risk factors by primary care and the work to prevent reoccurrences that takes place after

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\(^{38}\) These tests are used to diagnose heart conditions and assess any damage to the heart.  
\(^{39}\) Cardiology Services, paragraph 72.  
someone has a heart attack or heart condition diagnosed. Just over 50% of the reduction is a result of improvements in care in hospital.42

73. During the fact finding visits, the Committee learned that the more successful aftercare programmes are supported by the whole range of professionals – clinical support, physiotherapy, psychology, pharmacies and dieticians – to give people medical and lifestyle advice on how to recover their health.

74. Support groups played a vital role in building up patients’ confidence but also assisting families to know what lifestyle changes the patients have to implement to recover fully.

Healthy eating and exercise

75. The Scottish Government explained that overeating, lack of physical activity, lack of availability of fresh and affordable food and loss of cooking skills have contributed towards increasingly high levels of obesity and heart disease. These concerns were echoed during the fact finding visits undertaken by the Committee where members found that cookery lessons and nutritional advice was particularly appreciated by patients and those making lifestyle changes after a Keep Well health check or living with a heart condition.

76. The Committee also heard evidence of how support services also require to be “culturally competent” so that all people can engage and adopt lifestyle changes. Some examples include the provision of women only gym sessions and providing cookery lessons for South Asian women which focus on cooking healthy Asian food.

77. In order to address the issues of poor availability of healthy foods in deprived communities, the Committee heard that the Scottish Government is working with Scottish Grocers Federation to improve access to fruit and vegetables.43 The Scottish Government also explained that one of the approaches it is pursuing in new guidance is the provision, where possible, of retail outlets within hospitals offering fresh fruit and vegetables at reasonable prices. This can then be accessed by people coming to hospital particularly from more deprived communities because they are high users of secondary care as well as their families, and hospital staff.44

78. The Committee agrees with witnesses that if those at risk of poor health in deprived areas or from ethnic minority communities are to remain motivated to change their lifestyle it is crucial that they have access to affordable fresh fruit and vegetables as an easy alternative to high fat cheap fast foods. This is especially challenging when local retailers are reluctant to sell healthy affordable food.

79. The Committee notes the work of the Scottish Government, through the Scottish Grocers Federation and through guidance, which seeks to increase the availability of fresh fruit and vegetables in deprived communities.

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80. **The Committee recommends that the Scottish Government, NHS Boards and local authorities work together to support the provision of healthy food retail outlets in deprived communities (through licencing and business support) and to identify opportunities for other types of public sector premises to provide healthy and affordable food.**

81. **The Committee requests further information from the Scottish Government on how it intends to improve the clarity of nutritional information on packaging to assist people to make healthy food choices.**

82. **The Committee also recommends that NHS Boards and local authorities work together to provide culturally appropriate leisure opportunities, health services and cookery classes, to ensure that there are opportunities for all patients to improve their lifestyle.**

The role of the family

83. CHSS stressed the importance of working with families, especially women as they were often the drivers for change in the lifestyles of those affected by heart disease. They noted that for three out of four men, the main influence on encouraging healthy lifestyle choices was advice from spouses and other family members.\(^\text{45}\)

84. Members also heard that women in the South Asian community who had undergone Keep Well health checks themselves were important in encouraging male family members and the wider community to also undergo health checks. They also acted as good health “ambassadors” driving lifestyle change in their own families and community through their actions such as cooking healthy Asian food or participating in exercise classes.

85. BHFS highlighted their hearty lives community work focussing on active families and healthy children, addressing obesity not just in children but in whole families.\(^\text{46}\) CHSS commented that it would helpful to see families across Scotland being invited to the phase 3 cardiac rehabilitation that is provided by the NHS, as that is the stage at which family members can have a big impact through encouraging people to change their lifestyle.\(^\text{47}\)

86. The Committee agrees with the witnesses that families provide important support and encouragement in rehabilitating patients but also in successfully achieving lifestyle changes following a health check.

87. **The Committee would therefore welcome further information from the Scottish Government as to how the Keep Well programme helps families to encourage and support family members who require to change their lifestyle following a health check.**

\(^\text{45}\) Chest, Heart and Stroke Scotland written submission.


88. The Committee also requests information from the Scottish Government on how the NHS involves families in the cardiac rehabilitation of family members.

Heart failure nurses

89. CHSS explained that some 235,000 people are now living with heart disease as a long-term condition. These patients receive care in the community through voluntary sector and charities as well as heart failure nurses. The AGS reported evidence from the BHFS that these nurses can save an estimated £1826 per patient realised through reduced hospital readmissions. However their numbers reduced from 51 whole time equivalents (WTE) across Scotland in 2008 to 46.85 WTE in 2011.

90. The Scottish Government commented that although these posts were originally provided through BHFS, NHS Boards have now made these posts full-time and part of their staff complement. In addition the Scottish Government has provided £150,000 to support the establishment of a national heart failure education programme, which is based on the stroke training and awareness resources (STARS). This additional funding will expand the number of trained healthcare professionals who can deliver heart failure services and increase capacity in that area.

91. The Committee welcomes the funding for a national heart failure education programme as well as confirmation that the NHS now partially funds heart failure nurse posts. The Committee would however request clarification of:

- the future plans for heart failure nurses across Scotland; and
- the outcomes expected to be delivered (and by when) from the additional £150,000 funding for a heart failure education programme.

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49 Cardiology Services, paragraph 45.
50 Cardiology Services, paragraph 43.
ANNEXE A: EXTRACTS FROM THE MINUTES OF THE PUBLIC AUDIT COMMITTEE

3rd Meeting, 2012 (Session 4), Wednesday 29 February 2012

Section 23 report - Cardiology services: The Committee took evidence on the Auditor General for Scotland's report entitled "Cardiology services" from—

Mr Robert Black, Auditor General for Scotland;
Angela Canning, Assistant Director; and
Jillian Matthew, Project Manager, Performance Audit Group, Audit Scotland.

Consideration of approach - Cardiology services (in private): The Committee considered its approach to the Auditor General for Scotland's report entitled "Cardiology services". The Committee agreed to invite voluntary organisations, NHS Boards and the Scottish Government to give oral evidence to the Committee on this report, at a future meeting.

7th Meeting, 2012 (Session 4), Wednesday 9 May 2012

Work programme (in private): The Committee considered and agreed arrangements for its Committee meeting and fact finding visits in Glasgow, on 22 June 2012, in relation to the joint Auditor General for Scotland and Accounts Commission report entitled Cardiology services.

11th Meeting, 2012 (Session 4), Wednesday 22 June 2012

Section 23 report - Cardiology services: The Committee considered the outcomes from the fact finding visits with stakeholders held before the start of the meeting.

Section 23 report - Cardiology services: The Committee took evidence on the Auditor General for Scotland's report entitled "Cardiology services" from—

David Clark, Director, and Nicola Cotter, Voices Scotland Lead, Chest, Heart and Stroke Scotland;
Andy Carver, Prevention and Care Adviser, and Lynda Blue, Service Development Manager, British Heart Foundation Scotland;
Dr David Murdoch, Consultant Cardiologist, and Dr Jennifer Armstrong, Medical Director, NHS Greater Glasgow and Clyde;
Dr Alison McCallum, Director of Public Health and Public Policy, NHS Lothian;
Lynne Ayton, Head of Operations (Regional and National Services), and Professor Keith Oldroyd, Director of Research and Development/Cardiologist, NHS National Waiting Times Centre;
Dr Aileen Keel CBE, Deputy Chief Medical Officer, and Dr Barry Vallance, Consultant Cardiologist/Lead Clinician for Heart Disease Scotland, Scottish Government.

Consideration of approach - Cardiology services (in private): The Committee considered the evidence received and agreed to consider a draft report, in private, at a future meeting.

12th Meeting, 2012 (Session 4), Wednesday 12 September 2012

Section 23 report - Cardiology services (in private): The Committee considered and agreed a draft report on the Auditor General for Scotland report entitled "Cardiology services", subject to changes to be agreed by correspondence, and agreed arrangements for its publication.
ANNEXE B: ORAL EVIDENCE AND ASSOCIATED WRITTEN EVIDENCE

Please note that all oral evidence and associated written evidence is published electronically only, and can be accessed via the Public Audit Committee’s webpages, at:

http://www.scottish.parliament.uk/parliamentarybusiness/CurrentCommittees/29860.aspx

3rd Meeting, 2012 (Session 4), Wednesday 29 February 2012

ORAL EVIDENCE

Robert Black, Auditor General for Scotland.
Angela Canning, Assistant Director; and
Jillian Matthew, Project Manager, Performance Audit Group, Audit Scotland.

11th Meeting, 2012 (Session 4), Wednesday 22 June 2012

WRITTEN EVIDENCE

British Heart Foundation Scotland (221KB pdf)
Chest, Heart and Stroke Scotland (204KB pdf)
Scottish Government (258KB pdf)

ORAL EVIDENCE

David Clark, Director, and Nicola Cotter, Voices Scotland Lead, Chest, Heart and Stroke Scotland;
Andy Carver, Prevention and Care Adviser, and Lynda Blue, Service Development Manager, British Heart Foundation Scotland;
Dr David Murdoch, Consultant Cardiologist, and Dr Jennifer Armstrong, Medical Director, NHS Greater Glasgow and Clyde;
Dr Alison McCallum, Director of Public Health and Public Policy, NHS Lothian;
Lynne Ayton, Head of Operations (Regional and National Services), and Professor Keith Oldroyd, Director of Research and Development/Cardiologist, NHS National Waiting Times Centre;
Dr Aileen Keel CBE, Deputy Chief Medical Officer, and Dr Barry Vallance, Consultant Cardiologist/Lead Clinician for Heart Disease Scotland, Scottish Government.

SUPPLEMENTARY WRITTEN EVIDENCE

NHS Greater Glasgow and Clyde (480KB pdf)
NHS Greater Glasgow and Clyde – Keep Well briefing (157KB pdf)
Scottish Government – further submission (274KB pdf)
SPICe briefing note – Keep Well (105KB pdf)
Fact finding visit summary note - Chest, Heart and Stroke Scotland (132KB pdf)
Fact finding visit summary note - GPs at the Deep End (140KB pdf)
Fact finding visit summary note - Keep Well (164KB pdf)
Members who would like a printed copy of this *Numbered Report* to be forwarded to them should give notice at the Document Supply Centre.