Quality Improvement in NHSScotland - an Independent Evaluation of the Impact of NHS Quality Improvement Scotland

Volume I - Summary Findings
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Executive Summary

Background and methodology

NHS Quality Improvement Scotland (NHS QIS) was established in 2003 following the merger of five individual organisations. Though some work has been conducted on evaluating discrete elements of NHS QIS activity, no organisation-wide evaluation of NHS QIS impact had been carried out prior to this study.

This study seeks to evaluate the impact of NHS QIS both as a whole and in representative areas of its activity. The evaluation was carried out between September and December 2006 and was conducted using a series of semi-structured interviews at three levels of NHSScotland personnel: senior management in NHSScotland Boards (chief executives, medical directors and nursing directors, and chairs), practising clinicians and closely associated managers ("practitioners"), and senior members of the Academy of the Royal Colleges and Faculties in Scotland. Instruments used in the senior management and Academy interviews focused on impact, and also sought views on NHS QIS role and perception, priorities, quality of output and value. Practitioner interviews focused on impact with additional opportunities to rate technical aspects of outputs.

Evaluations of impact at all levels centred on perceived changes in knowledge, both individual and organisational, changes in policy or practice, and reported changes in patient outcomes.

Key findings

Role and perception

- NHS QIS is seen predominantly as a standards and assessment body; its role in practice development and the production of evidence-based guidance is less well recognised at the senior management level of NHSScotland.
- This central role of NHS QIS is seen as valuable, though the administrative burden of reviews has also been highlighted.
- Although there are good levels of satisfaction that NHS QIS communicates its priorities, they do not appear to be well understood among senior management.
- The most frequent unprompted responses regarding what NHS QIS priorities should be were patient safety and clinical governance.
- Interaction with NHS QIS was rated as very valuable or valuable by 85% of senior managers in this research.
**Impact**

- 60% of senior managers and 55% of practitioners reported an increase in professional knowledge as a result of NHS QIS initiatives.

- 72% of senior managers and 65% of practitioners reported a change in policy or practice as a result of NHS QIS initiatives.

- 62% of senior managers and 65% of practitioners reported a belief in improved patient outcomes as a result of NHS QIS initiatives.

**NHS QIS activities**

- Reviews of Board performance and development of standards was rated as *valuable* or *very valuable* by 79% and 83% respectively by senior managers. In many cases the peer review process of local reviews in itself, as opposed to the documentary output, was seen as valuable.

- Other NHS QIS activities, including development of health technology assessments, patient safety work, and production of evidence notes received ratings of between 36% and 55% for *valuable* or *very valuable*.

**NHS QIS output quality**

- 90% of senior managers rated NHS QIS evidence-based guidance as *good* or *very good*.

- 78% of senior managers rated NHS QIS overall product development as *good* or *very good*.

- In rating specific outputs of NHS QIS, between 60% and 80% of practitioners rated technical quality, understandability, suitability of format, effectiveness and practicality as *good* or *very good*.

- Practitioners rated publicity and promotion and follow-up from NHS QIS less favourably with 50% and 24% respectively rating these items *good* or *very good*.
Summary

NHS QIS work is seen as valuable and necessary though respondents are mindful of the workload caused by the peer review process of Board performance. Though no longitudinal data or directly comparable data from other sources are available, the authors take the view that this research provides strong evidence of the positive impact of NHS QIS in terms of increases in professional knowledge, changes in policy and practice, and reported changes in patient outcomes. Overall, there is a perception that NHS QIS products and activities are of high quality and value to the health service.
Members of the Academy of the Royal Colleges and Faculties in Scotland

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Introduction

Background

1 NHS Quality Improvement Scotland (NHS QIS) was established in 2003 following the merger of five individual organisations. These were the Clinical Resource and Audit Group (CRAG), Clinical Standards Board for Scotland (CSBS), Health Technology Board for Scotland (HTBS), Nursing and Midwifery Practice Development Unit (NMPDU) and Scottish Health Advisory Service (SHAS). Subsequently, the Scottish Intercollegiate Guidelines Network (SIGN) became part of NHS QIS in 2005. The declared purpose of NHS QIS is to improve the quality of healthcare in Scotland by delivering on five key functions:

- providing advice and guidance on effective clinical practice
- setting clinical and non-clinical standards of care
- reviewing and monitoring NHS services
- supporting staff in improving services
- promoting patient safety and implementation of clinical governance.

2 Though some work has already been conducted on evaluating discrete elements of NHS QIS activity, no organisation-wide evaluation of NHS QIS impact had been carried out prior to this study. Three years after the merger it was timely to undertake such an evaluation both to assess the overall impact of the new organisation and the relative effectiveness of its various activities. Additionally, the relative cost effectiveness of NHS QIS initiatives can be considered in the future using data from this research, though at this point no formal analysis of these elements has been possible.

The sample of Boards from which the views of a wider range of staff will be gathered have been chosen to reflect the range of responsibilities and circumstances across NHSScotland such as size, teaching/non-teaching, territorial/special, and rurality and remoteness.

A literature review of impact evaluation is presented in Volume II of this report (available on the NHS QIS website: www.nhshealthquality.org) and examines in detail key attributes for successful intervention of discrete quality outputs. No directly comparable research was found relating to organisation-wide impacts. Summary key findings are presented in the Literature Review section of this volume.
Objectives

3 The broad objectives of the current study are as follows:

1. To measure whether, and in what ways, NHS QIS is leading to improvement in the quality of healthcare and health outcomes in Scotland.
2. To assess the effectiveness of the ways with which NHS QIS develops its “products”. The term “products” refers to the broad range of interventions and outputs of the organisation and includes all interactions of NHS QIS with the wider NHS in Scotland.
3. To assess the effectiveness of the dissemination of NHS QIS products. Note that the remit did not include a detailed cost effectiveness component nor an explicit value for money review at this stage.
4. To assess whether, in totality, the approach of NHS QIS to quality improvement is effective in achieving its objectives.
5. To identify ways in which NHS QIS can develop its strategy and deploy its resources, with a view to increasing impact.

This report focuses specifically on objectives 1, 3, 4 and 5 above. Objective 2 is the subject of continuing research. The project is managed by a steering group, consisting of NHS QIS Board members and staff of NHS QIS, representatives from other Boards and other relevant organisations, as shown below.

<table>
<thead>
<tr>
<th>Member</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mr N Sharp</td>
<td>Board Member (Chair), NHS QIS</td>
</tr>
<tr>
<td>Mr R Carey</td>
<td>Chief Executive, NHS Grampian</td>
</tr>
<tr>
<td>Dr F Elliot</td>
<td>Medical Director, NHS Fife</td>
</tr>
<tr>
<td>Mr M Evans</td>
<td>Board Member, NHS QIS</td>
</tr>
<tr>
<td>Mrs P Fyfe</td>
<td>Head of IT (Project Manager), NHS QIS</td>
</tr>
<tr>
<td>Dr H Kohli</td>
<td>Medical Advisor, NHS QIS</td>
</tr>
<tr>
<td>Ms E Lewis</td>
<td>Director of Planning and Resource Management, NHS QIS</td>
</tr>
<tr>
<td>Mrs E E Muir</td>
<td>Nursing Director, NHS 24</td>
</tr>
<tr>
<td>Dr D Steel</td>
<td>Chief Executive, NHS QIS</td>
</tr>
<tr>
<td>Dr K Sutherland</td>
<td>Senior Research Associate, Judge Business School, University of Cambridge</td>
</tr>
<tr>
<td>Ms J Warner</td>
<td>Director of Performance Assessment and Practice Development, NHS QIS</td>
</tr>
<tr>
<td>Mrs C Whipps</td>
<td>Board Member, NHS QIS</td>
</tr>
</tbody>
</table>

Methodology

4 The challenge for the team was to develop a robust study design that recognised which NHS QIS audiences and outputs were to be assessed. At the outset, advice was taken from the steering group and it was agreed that it was important to canvas the views of key
NHS personnel across all Boards in Scotland about their perceptions, value and utilisation of NHS QIS and its range of activities and outputs. It was also evident that the study would have to focus on reported views on outcomes rather than measurement of direct outcomes. The views and experiences of patients and the general public were seen as significant, though it was recognised that a different approach would be needed to reliably identify and assess these views. At this stage, therefore, research with patients and public has been deferred, but may form a second element of the research at a later date.

5 Following a scoping phase and literature review (see Volume II of this report) and a range of semi-structured interviews with key NHS QIS staff to build sensitivity and familiarise the research team, primary research instruments were designed to assess NHS QIS impact, both at the individual NHS QIS output/product level, and at an organisation-wide level in Boards. Full details of the methodology, research instruments, scope and products evaluated may be found in Volume II. In brief, all Boards have been included in the scope, with five Boards receiving a more in-depth focus. Sources for the research embraced three levels of the organisation – senior management (chief executives, medical directors and nursing directors, chairs of some Boards; 48 interviews), practising clinicians, including doctors, nurses and midwives, and clinical managers (90 interviews), and senior members of the Academy of the Royal Colleges and Faculties in Scotland (10 interviews). Semi-structured interviews were also conducted with seven staff at the Scottish Executive Health Department (SEHD). Additionally, it should be pointed out that many participants in the senior management interviews were clinicians themselves, though currently in management roles.

6 Instruments used in conducting the research with senior management of Boards covered a wide range of issues: the role and perception of NHS QIS, NHS QIS priorities, and the quality and value of NHS QIS products and general activities. Interviews conducted with practising clinicians focused more closely on those specific outputs of NHS QIS relevant to the practitioners’ field, with ratings sought for technical quality, understandability, format, quality, practicality, publicity and promotion. All responses were entered into the analysis software package SPSS. We have also included in the report direct quotes from interviews. These have been selected to either demonstrate contrasting views, or to underline specific points. It should be understood that their purpose is entirely qualitative and illustrative. Quotes are drawn from senior managers only in the section relating to senior management responses, and from clinicians in the section relating to practitioner responses.

7 Twelve documentary outputs of NHS QIS (referred to as “products” in this report) were selected for impact evaluation at both senior management and clinician level and are shown in the table below.
They included three national overviews and local reviews, one health technology assessment, three SIGN guidelines, one health indicators report, two examples of standards (clinical and non-clinical) and two best practice statements. Additionally, preliminary work has been carried out on two NHS QIS non-documentary processes: the accreditation of managed clinical networks and the managed network of clinical governance and risk management leads.

The documentary outputs were selected to reflect the range of NHS QIS activities and fell into a number of themes: clinical governance and patient safety (CG & PS), child health (CH), mental health (MH), older people (OP), and primary and community healthcare (PCHC).

<table>
<thead>
<tr>
<th>Document</th>
<th>Theme</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HTA Report 7 – May 2005</td>
<td>CG &amp; PS</td>
<td>The provision of alcohol-based products to improve compliance with hand hygiene</td>
</tr>
<tr>
<td>National overview and local reports – May 2005</td>
<td>CG &amp; PS</td>
<td>Healthcare associated infection (HAI); infection control in NHSScotland</td>
</tr>
<tr>
<td>Best practice statement – June 2004</td>
<td>CG &amp; PS</td>
<td>Urinary catheterisation &amp; catheter care</td>
</tr>
<tr>
<td>National overview – September 2005</td>
<td>CG &amp; PS</td>
<td>Anaesthesia – care before, during and after anaesthesia</td>
</tr>
<tr>
<td>Health indicators report – December 2004</td>
<td>CH</td>
<td>A focus on children &amp; leaflet understanding the 2004 health indicators report – a focus on children</td>
</tr>
<tr>
<td>SIGN Guideline 81</td>
<td>CH</td>
<td>Diagnosis and management of epilepsies in children and young people</td>
</tr>
<tr>
<td>Clinical standards – March 2005</td>
<td>CH</td>
<td>Maternity services</td>
</tr>
<tr>
<td>National overview and local reports – June 2004</td>
<td>MH</td>
<td>Schizophrenia</td>
</tr>
<tr>
<td>SIGN Guideline 86</td>
<td>OP</td>
<td>Management of patients with dementia</td>
</tr>
<tr>
<td>Best practice statement – November 2005</td>
<td>PCHC</td>
<td>Continence – adults with urinary dysfunction</td>
</tr>
<tr>
<td>Standards – August 2004</td>
<td>PCHC</td>
<td>The provision of safe and effective primary medical services out-of-hours</td>
</tr>
<tr>
<td>SIGN Guideline 79</td>
<td>PCHC</td>
<td>Management of urinary incontinence in primary care</td>
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</table>

This research has been conducted by Human Reliability, in association with the Health Services Research Unit of Aberdeen University. We would like to acknowledge the dedication and commitment of all participants. Interviews were carried out in confidence, and it was clear to the research team that the study has been welcomed by NHSScotland.
Literature Review

9 This section presents the summary of the key findings from the literature review. The full review is contained in Volume II of this report.

- Independent objective evaluation of healthcare organisations is quite rare. Many organisations conduct evaluations of specific products or interventions, but little effort is put in to the evaluation of the organisations themselves.

**Implication for NHS QIS:** There is no existing structure or framework for organisational evaluation, therefore, new assessment instruments will have to be developed which capitalise on the knowledge gained from existing evaluations of products and interventions.

- Evaluation is a valuable process to: determine how resources should be efficiently allocated; improve patients’, practitioners’ and managers’ knowledge about services and treatments available; and to measure the impact of the public health organisation on the community it serves.

**Implication for NHS QIS:** In order to determine the success of NHS QIS, evaluation must evaluate organisational factors within NHS QIS, as well as the impact of NHS QIS products and interventions on healthcare in Scotland. This dimension will be picked up in subsequent work in order to complete the picture.

- It is essential that interventions are carefully planned to ensure that recommendations are realistic and that they take into account the needs and limitations of all stakeholders.

**Implication for NHS QIS:** The careful planning of interventions plus stakeholder consultation are key factors in ensuring successful implementation.

- Passive dissemination of information is largely ineffective in ensuring understanding of and compliance with evaluation or intervention recommendations. Instead, interactive methods (for example, reminders, audit and feedback, interactive educational workshops, etc.) should be used to engage the target audience and promote implementation of the intervention.

**Implication for NHS QIS:** The dissemination of information must be carefully planned to ensure that the target audiences receive and understand the information, and to ensure implementation of the intervention.
• There are many barriers to the implementation of interventions, such as the fact that much professional clinical knowledge is based upon opinion and observation, and thus the findings of evidence-based medicine are generally not seen as valid to practice.

**Implication for NHS QIS:** Interventions must be presented and promoted in a manner that recognises and attempts to overcome these barriers, such as the use of opinion leaders to promote interventions.

• Nurses, carers, families and the community play a key role in the success and sustainability of interventions, and thus should be engaged in the development process of new interventions to ensure their needs are met and that their boundaries are considered, and to increase feelings of “ownership” of the interventions.

**Implication for NHS QIS:** It is widely recognised that it is difficult to sustain interventions once the information has been disseminated to the target audience. However, if the target audience has been involved in the development of the intervention, the sense of “ownership” will encourage them to promote use of the intervention in the long term.
Findings

10 The following section presents core findings from the research. The sources for this work are two fold: initial interviews with NHS QIS liaison co-ordinators and NHS QIS staff to assess product distribution and dissemination, and responses from semi-structured interviews with senior managers and practitioners within Boards and senior members of the Academy. The instruments used in the interviews with senior managers incorporated a wider range of issues than those applied to practitioners, and for this reason we present the results of these in discrete sections; comparative data are also presented where possible in the Discussion section of this report.

As an overview point, it should be noted that our findings include findings relating to the penetration or distribution through the health service of NHS QIS products, covered under the section on product dissemination, and also their effectiveness in terms of targeting and fitness for purpose.

Senior management responses

11 Semi-structured interviews were conducted with chief executives, medical directors and nursing directors across NHSScotland. Additionally, four chairs were interviewed in Boards which were selected for an in-depth review, and seven senior-level interviews also carried out at the SEHD. Research instruments covered NHS QIS role and its perception by respondents, NHS QIS priorities, NHS QIS activities, and NHS QIS impact assessment.

In some cases, senior posts in Boards were unfilled at the time of the research, or difficulties in scheduling prevented interviews being carried out. Nevertheless, overall participation in the study at senior management level was:

<table>
<thead>
<tr>
<th>Role</th>
<th>Participation</th>
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<tbody>
<tr>
<td>Chief executive</td>
<td>89% (16 interviews)</td>
</tr>
<tr>
<td>Medical director</td>
<td>83% (14 interviews)</td>
</tr>
<tr>
<td>Nursing director</td>
<td>72% (14 interviews)</td>
</tr>
<tr>
<td>Chair (in-depth review Boards only)</td>
<td>100% (4 interviews)</td>
</tr>
</tbody>
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Senior managers’ perceptions of NHS QIS role, profile and activity

12 All respondents viewed the primary role of NHS QIS as “inspection” or “assessment”. Most respondents also cited “quality
improvement” and many “supporting good practice”. Some also cited “patient safety” and “clinical governance”.

It is clear that at this level of NHSScotland management and structure, the primary role of NHS QIS is perceived as being standard setting and performance assessment and that other elements of NHS QIS activity and responsibility have a lower profile in the eyes of the respondents. In this context, interview forms were analysed in order to arrive at an overall appreciation of the value of NHS QIS to the respondents and their organisation. Figure 1 below illustrates the results of this analysis.

**Figure 1**
QIS Perceptions - NHSS Senior Management
Total sample % (n=48)

<table>
<thead>
<tr>
<th>Rating</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valuable</td>
<td>80%</td>
</tr>
<tr>
<td>Neutral</td>
<td>20%</td>
</tr>
<tr>
<td>Burdensome</td>
<td>0%</td>
</tr>
</tbody>
</table>

*NHS QIS is a definite improvement on the previous situation where there were five different groups.*

*NHS QIS is still very much five separate groups. It is not recognised as a single organisation.*

*NHS QIS is unique compared to other healthcare organisations. It has enormous potential. There are very few other healthcare organisations with a system like NHS QIS.*

*(Interview responses from NHS Board senior managers)*

13 Most respondents believed the role and action of NHS QIS to be of value, and only a small number believed that the disadvantages of the assessment and review process outweighed the benefits. It should be noted that this finding is not intended to imply an unmixed view of NHS QIS activity – no respondent was unaware of the scale of the administrative tasks associated with NHS QIS and their demands on the organisation. Figure 2 below illustrates the perception of NHS QIS by the different target groups for this phase of the research. There are no significant differences in these data.

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1 Throughout this report, the following conventions have been applied: *most* – 75% to 100% of respondents; *many* – 50% to 74% of respondents; *some* – 25% to 49% of respondents; *a small number* – below 25% of respondents.
NHS QIS are well regarded and are doing a difficult job well.

NHS QIS are accepted as needed, although not necessarily welcomed due to the large amount of work involved.

NHS QIS is regarded as a force for improvement rather than just an inspectorate.

(Interview responses from NHS Board senior managers)

![Figure 2](image.png)

Most respondents believed that assessment and review were the appropriate roles for NHS QIS to adopt, though, once again, the administrative load associated with reviews was frequently cited.

Though NHS QIS is seen by many respondents as fulfilling its role either very well or well, most respondents were aware of ways in which NHS QIS was not as effective as it could/should be. In particular, some respondents were especially concerned that the review methodology focused on processes rather than outcomes and a small number of respondents emphasised the importance of making local reviews of Board performance less burdensome and bureaucratic.

The visits can be very bureaucratic and process driven. There is a danger that genuine work is lost or gets bogged down because staff are concentrating on ticking boxes for the reviews.

NHS QIS gives healthcare organisations an opportunity to reflect on their own performance and areas they may not otherwise look at.

(Interview responses from NHS Board senior managers)

Some respondents would also like to see NHS QIS taking more account of differences between Boards – a response that emerged particularly from small Boards, geographically diverse Boards, and also from large urban Boards. A small number of respondents also
identified a need for clearer benchmarks for performance assessment, more precise or prescriptive guidance from NHS QIS, and better alignment with clinicians’ priorities.

NHS QIS is not flexible in applying standards at a local level, but then I’m not sure that they should be flexible.

The workload associated with NHS QIS can be somewhat overwhelming for smaller Boards. However, I’m not sure what the solution is. How can we assess people against standards without this level of workload? You can’t have different standards for people just because they live in a smaller Board.

There is a lack of understanding of the complexity of the larger Boards.

(Interview responses from NHS Board senior managers)

17  NHS QIS has a good level of success in ensuring that health professionals understand its role and priorities. Figure 3 below illustrates this, though some respondents believed that NHS QIS should raise its profile and disseminate its work more effectively. The further involvement of additional stakeholders, most notably clinicians, was suggested by a small number of respondents.

![Figure 3](image)

Is QIS effective in ensuring that health professionals understand their role and priorities? (n=47) % s

Positive and negative aspects of NHS QIS activity

18  Positive perceptions of NHS QIS activities mostly centred on local reviews. Many respondents welcomed local reviews and believed that NHS QIS was successful in engaging with Boards in Scotland. Some valued NHS QIS for its help with quality improvement through local reviews. Some respondents particularly valued the strong evidence base employed by NHS QIS, and a small number
valued the best practice statements and other clinical guidance produced by NHS QIS.

**19** Negative perceptions of NHS QIS centred on the administrative load often referred to as a “burden” associated with the review process, with some respondents highlighting the time-consuming nature of the process, and a small number of respondents mentioning the inflexibility they perceived in the standards adopted by NHS QIS. In addition, one respondent at senior level was critical of a perceived lack of focus on nursing generally at NHS QIS, and was also critical of the leadership structure of NHS QIS in this context. The issue of timing of feedback was also mentioned with the need for review feedback to be iterative, dynamic and of immediate relevance.

**Role and perception - summary points**

**20** NHS QIS is seen predominantly as a standards and assessment body: its role in practice development and the production of evidence-based guidance is less well recognised at the senior management level of NHSScotland.

This central role of NHS QIS is seen as valuable, though the administrative burden of reviews has also been highlighted. Most respondents believe that NHS QIS carries out its role well or very well.

*The relationship between NHS QIS and its target audiences is challenging and helpful, but not cosy, which is important to ensure that standards are met.*

*(Interview responses from NHS Board senior managers)*
NHS QIS priorities and responsiveness to the service

21 Not all senior management had a clear idea of NHS QIS priorities, as illustrated in Figure 4 below. Of those who did believe that the priorities of NHS QIS were understood, most respondents believed the priorities to be correct – though medical directors and nursing directors were more confident that NHS QIS priorities were correct than chief executives. Additionally, many respondents believed that a clearer understanding of NHS QIS priorities would be helpful to them.

Staff at the ground level don’t fully know how NHS QIS works or why it does what it does. It needs to refresh this image and ensure that people know the purpose of NHS QIS.

Healthcare staff need more detailed information about what NHS QIS do so that they can ask for assistance.

There is lots of good work being done by NHS QIS.

(Interview responses from NHS Board senior managers)

Areas mentioned for NHS QIS prioritisation by respondents were patient safety (12 responses), clinical governance and risk management (12 responses), primary care (10 responses), mental health (8 responses) and healthcare acquired infections (5 responses).

22

![Figure 4](image)

Do you have a clear idea of QIS priorities?
(n=48) %s

- CEO
- Medical Director
- Nursing Director
- Chair
Standards and inspection are all very well but how does it affect health of people in Scotland? A “true” Quality Improvement body should focus on patient safety.

It is good that NHS QIS has such a broad remit, but it could be more targeted at priority and risk for the public.

(Interview responses from NHS Board senior managers)

23 Many of the respondents had raised issues with NHS QIS in the past, and, of these, most felt that NHS QIS had responded well. Further evidence of the involvement and engagement of NHS QIS with the wider health service in Scotland is provided by the finding that many respondents had been consulted by NHS QIS at some point in the past two years, and that most respondents described NHS QIS as supportive and professional. Figure 5 below illustrates the perceived value of the interaction of the respondent with NHS QIS.

Figure 5
Value of Interaction with QIS Rated
Total sample (n=48) %s

NHS QIS are thorough and professional.

Very helpful people at NHS QIS. Very approachable and pleasant.

Occasionally visits don’t go so well. A lot depends on the attitude of the leader of the NHS QIS team.

(Interview responses from NHS Board senior managers)

Priorities and responsiveness – summary points

24 NHS QIS priorities are not well understood in the wider health service, and many respondents expressed a desire for further information.

Senior managers believe that NHS QIS should focus increasingly on patient safety, clinical governance and primary care.
The interaction of senior managers with NHS QIS is seen as valuable by more than 80% of respondents.

**Perceived value of NHS QIS activities**

25 Respondents were asked to rate a number of NHS QIS activities in terms of the *value* of the activity and its *quality*. Results for each of these datasets are detailed fully in Volume II of this report. Figure 6 below indicates the overall value of NHS QIS activities, and Figure 7 summarises the overall quality of NHS QIS activities.

![Figure 6](image)

**Figure 6**
QIS activities value ratings
*Rank order - % rating "valuable" or "very valuable" (n=48)*

![Figure 7](image)

**Figure 7**
QIS activities quality ratings
*Rank order - % rating "good" or "very good" (n=48)*

See Glossary of Terms for definitions of NHS QIS activities.

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2 Note: Figure 6 relates to specific outputs or products of NHS QIS, Figure 7 to more general activities.
Understanding NHS QIS impact in terms of changes in knowledge and behaviour

The approach used in this research

26 The impact of any NHS QIS initiative can be most usefully understood as a way of changing behaviour in order to improve patient outcomes. Research in the area of knowledge and behaviour change shows that this relationship is highly complex. Changes in knowledge do not automatically lead to a simple adoption of new behaviours and similarly behaviour change can precede knowledge change. The relationship is not linear and many factors influence change including context and individual orientation. Patient outcomes themselves are usually difficult to assess, since data are frequently not gathered or not available in the specific form needed for research of this type. For the purposes of this review and as a learning device, the research team adopted a simple approach to assessing reported change based upon three key elements seen as sequential in improving health quality – change in knowledge, change in policy or practice, and a resulting change in patient outcome. As will be further discussed below, this model is less than perfect and was used essentially as a learning tool in this research. Questions here derived valuable information of the perception of NHS QIS activity and perceived impact on outcomes. We did not collect outcome data per se but rather focused on the linkages reported by informants between outputs, policy and practice. Additionally, it should be pointed out that many interventions will require a period of time to take effect; in this sense, the current research may have been conservative in assessing change.

As a final point in this regard, it is recognised that some respondents will have been involved in the product development process of NHS QIS as consultants. By implication, this may mean that no new knowledge was presented to them in NHS QIS outputs, but that practice or policies may nevertheless have changed.

27 In this research, we addressed both general issues of knowledge change and practice or policy change and patient outcome change, and also sought detailed information from respondents with regard to the twelve specific documentary outputs and the two NHS QIS processes. It should be understood, however, that managers at the most senior level of Boards frequently did not, nor should be expected to, understand the operational specifics of NHS QIS output impact at the detailed level of practitioners.

28 While questions regarding changed knowledge or changed policy or practice yield clear answers generally, questions with regard to change to patient outcome were more difficult for respondents to address. In many cases, there was a general assumption that
conforming to best practice or clinical standards, for example, should lead to changed outcomes for patients – indeed, that is the very purpose of evidence-informed practice. Though this assumption is not unreasonable, detailed supporting data in the area of patient outcome are difficult to obtain.

**Changes in knowledge, policy or practice and patient outcome**

29 Figure 8 below illustrates changes in respondents’ professional knowledge. 48% of respondents at this level reported that NHS QIS activity had resulted in an increase in professional knowledge. Changes in organisational knowledge, as reported by senior management, are illustrated in Figure 9, and are, as seen, a somewhat higher level.

![Figure 8](image1)

**Increase in Respondent's Knowledge**

*Total sample (n=48) %s*

- **Yes**: 20%
- **No**: 40%
- **Don't know**: 20%
- **No response**: 40%

![Figure 9](image2)

**Increase in Organisational Knowledge**

*Total sample (n=48) %s*

- **Yes**: 60%
- **No**: 20%
- **Don't know**: 20%
- **No response**: 40%
We have seen improvements in awareness of risk and also improvements in communication as a result of NHS QIS interventions.

Best practice statements have made staff more aware of issues and have prompted them to examine their practices.

(Interview responses from NHS Board senior managers)

30 Changed organisational policies or practices are illustrated in Figure 10. More than 70% of those senior managers sampled in Boards believe that NHS QIS activity has resulted in changed policy or practice. In general, these changes centred around the review process and the changes necessary within a Board to conform to standards.

![Figure 10](image)

Feedback from reports can influence practice but I’m not sure to what extent.

The peer reviews have resulted in lots of small changes.

Some standards have been very bureaucratic but very helpful at the same time.

(Interview responses from NHS Board senior managers)

31 Figure 11 illustrates respondents’ views of changed patient outcomes, with just over 60% of respondents believing that these have occurred as a result of NHS QIS activity. It should be noted that 22% of respondents did not know or were unable to offer an opinion as to changed patient outcomes and as indicated above, we did not directly assess these ourselves.
Patient outcomes have been improving anyway, not directly because of NHS QIS.

NHS QIS has helped to raise awareness of patient risk, which will inevitably result in changes in patient outcomes.

(Interview responses from NHS Board senior managers)

32 Full details of senior management assessments of individual NHS QIS product impacts are provided in Volume II of this report. Mean product impact assessments are presented in Figure 12 below. Note that in some cases, respondents were not aware of a particular product and were, therefore, excluded from impact assessment calculations.

NHS QIS initiatives: barriers and drivers to changing practice

33 Respondents were asked to consider what characteristics of NHS QIS activities could be seen as positive (drivers) or negative (barriers) to effective intervention or improvement. Where respondents expressed clear views, drivers were seen as:
• NHS QIS actively seeks input from Boards (22 responses)
• NHS QIS actively seeks input from clinicians (14 responses)
• NHS QIS maintains good communications with Boards (14 responses)
• clarity and relevance of topic selection (10 responses)
• credibility of clinicians involved in peer review (9 responses)
• having local champions following reviews (5 responses).

Barriers were seen as:

• lack of resource in Boards (18 responses)
• lack of perceived importance of NHS QIS outputs (17 responses)
• inflexibility in standards (6 responses)
• lack of practicality of NHS QIS advice (5 responses).

A small number of respondents commented that though lack of resource is often cited by their staff as a key barrier to implementing change in practice, they viewed this as sometimes incorrect and felt that changes could be effected by different work methods rather than by the injection of resource. Additional commentary on barriers to NHS QIS activity can be found in the Discussion section.

Local ownership, staff working alongside NHS QIS, clinical involvement in developing standards and relevance to patient care – these are all drivers for successful interventions.

Any assumption that “one size fits all” will be a barrier to successful implementation of an intervention.

Too much similar information from different organisations [in the same field] can be a barrier.

A successful intervention should meet the needs of the end user and should provide sustainable solutions.

(Interview responses from NHS Board senior managers)

**Impact evaluation – summary points**

34 Senior managers’ views of NHS QIS impact, both generally and product-by-product, are positive. No comparative judgements are possible at this point, but organisational knowledge change, practice or policy changes and patient outcome evaluations are in the range 60%–70% (Figures 9–11). Mean product impact assessments are in the range 40%–50% (Figure 12). It is also recognised that some interventions will require a period of time to take effect.

Key drivers of successful NHS QIS interventions are: input from local Board personnel and clinicians; good communications;
relevance of topic selection; and credibility of clinicians involved in local reviews.

Barriers to successful interventions were seen as: resource, both financial and human; lack of perceived importance of the initiative; and inflexibility in the interpretation of standards.

The quality of NHS QIS standards is very high. They are driving forward issues that might otherwise be ignored.

NHS QIS needs to deal more directly with clinicians, rather than just senior management.

(Interview responses from NHS Board senior managers)
Practitioner\(^3\) responses

Staff sampled

35 In the five Boards selected for in-depth review, interviews were conducted with staff more closely involved in delivering healthcare directly to patients. A total of 90 interviews were conducted in five Boards within the staff categories illustrated in Figure 13. As can be seen, doctors and nursing staff represented the bulk of those interviewed in this phase of the research.

![Figure 13](image)

Each of the documentary outputs of NHS QIS used in this impact evaluation fell into a defined theme:

- Clinical governance and patient safety
- Child health
- Mental health
- Older people
- Primary and community healthcare

Impact evaluation

37 As for senior managers, practitioners in this section were asked to evaluate changes in knowledge, practice or policy, and patient outcomes as directly resulting from or influenced by NHS QIS activities. Figures 14, 15 and 16 below summarise practitioners’ responses. As may be seen, positive responses were 49\%, 67\% and 53\% respectively.

\(^3\) Practitioner refers throughout this report to practising clinicians and managers with direct clinical responsibilities such as infection control.
Figure 14
Increased Professional Knowledge
(n=90) %s

Figure 15
Changed Practice or Policy
(n=90) %s

Figure 16
Changed Outcomes for Patients
(n=90) %s
**Product ratings**

Practitioners were also asked to rate NHS QIS products for a number of key characteristics:

- Technical quality
- Understandability or accessibility
- Format
- Quality of advice
- Practicality
- Publicity and promotion
- Follow-up

Results for each of these characteristics are presented in Volume II of this report and summarised for pooled products below in Figure 17. Characteristics were rated well by practitioners, with most responses being very good or good. Follow-up, however, was rated more poorly than any of the other characteristics.

![Figure 17: Practitioner Ratings of QIS Outputs](chart)

*Figure 17*

Practitioner Ratings of QIS Outputs

(\(n=90, \%s\))

- Technical quality
- Understandability/accessibility
- Suitability of format
- Effectiveness of advice
- Practicality
- Publicity and promotion
- Follow-up from QIS

Legend:
- very good
- good
- average
- poor
- very poor
- no response/ no knowledge/not applicable
Qualitative findings

39 In these interviews, the research team employed a semi-structured approach, which yielded a rich qualitative data stream, as well as the quantifiable data already presented. In addition to discussing grouped products such as SIGN guidelines, we also considered two natural clusters of products: those relating to HAI initiatives and those relating to incontinence. In presenting findings in this way, we have consciously summed over certain categories of products. For example, in considering initiatives on healthcare acquired infections, researchers found that perceptions of HTA Report 7 and the peer review of HAI were very closely linked and recalled by respondents. The same was true of SIGN Guideline 79 and the two best practice statements relating to incontinence.

National overviews and local reviews

40 Discussions with practitioners uncovered a range of views of the local review process seen from the perspective of the clinician. It should also be noted that, though the local report was formally the subject considered in interviews, the peer review process was consistently referred to by respondents. Overall, 67% of respondents believed that the local reviews had resulted in a change of knowledge, 78% of respondents reported a change in practice or policy and 67% a change in patient outcome. Once again, it must be emphasised that respondents are expressing their belief in changed patient outcomes, and were rarely able to offer hard data.

41 There was a strong view amongst respondents that the review process is necessary and is legitimately desired by both government and public. Against this must be balanced the demands often cited as “burden of the review” – and this is especially high in small Boards where, if a set of reviews focuses on one clinical area, the same clinicians are involved in the entire set. It is in these areas that the perception of bureaucracy is most vivid. In the case of local reviews, this view represents the most critical commentary encountered by the research team. More positively, in a further example, a respondent described how the local review had resulted, in:

- the employment of a further consultant to augment the team
- an increase in bed availability for patients
- the purchase of new equipment for monitoring patients
- the creation of a new recovery suite for patients.
Although we haven’t measured any changes, the education pack [prepared by the local Board] is widely used by staff as it gives good guidelines in how to recognise the condition.

The entire process seemed over-critical and bureaucratic, and there was nothing new in the work surrounding the review process. However, the review did bring coherence and formality to the area, it established policies and a formal risk-management structure.

(Interview responses from NHS Board clinicians)

**SIGN guidelines**

42 SIGN guidelines were universally perceived as robust, credible, of a high technical standard, and free from “political” agendas. Not surprisingly, since SIGN relates specifically to evidence-based practice, most respondents reported a change in their level of professional knowledge. Practice and policy were reported to have been altered by many respondents, and patient outcomes were also believed to have been affected by many respondents. Impact of SIGN guidelines, despite some confusion with regard to the status of a SIGN guideline when compared to a standard, was marked. In one setting, all practices in the area had been benchmarked against SIGN guidelines, resulting in changes throughout the setting. In particular, it was reported that patients in this setting are now seen within the more stringent timescales suggested by SIGN. In a second example, SIGN was described as a genuine catalyst to improvement, which was especially helpful to the medical team when considering complex rather than routine cases. In terms of changed patient outcomes, respondents described:

- changes in patient handling and scheduling
- a major change in use of equipment for diagnosis, which is both clinically more favoured and more cost effective in the long term.

SIGN 86 was very well written and very useful. It pulled together different strands of information into a condensed, manageable format. However, there was some conflicting advice with similar guidelines from other organisations such as NICE.

(Interview responses from NHS Board clinicians)

**Best practice statements**

43 Both of these documents relate to incontinence and urinary care and affect both hospital and primary care settings. 50% of respondents reported an increase in their level of professional knowledge, though some referred to other voices in the field, including the continence team at the Royal College of Nursing and
the Association of Continence Advisors. In contrast to this figure of 50% change in knowledge, 79% of respondents described a change in policy or practice and 71% reported their belief in changed patient outcomes as a result of these interventions.

By itself, this best practice statement didn’t have much of an impact on knowledge, but it would have been part of a larger body of work.

These kinds of documents are generally helpful, but are not used daily.

People are generally not aware of these documents at ground level. They’re used mostly as reference guides and as sources for presentations or talks. Maybe senior members or new students and newly qualified nurses would be more aware of the documents.

(Interview responses from NHS Board clinicians)

Health indicators report – a focus on children

Of the five interviews conducted which related to the health indicators report, only two respondents reported a change in knowledge or practice and policy. Changed patient outcomes were reported by one respondent. Though in one Board, policies with regard to sexual health had been affected, nothing new was seen in the document by staff interviewed.

This report had an abysmal launch and sank without a trace. It wasn’t presented in a way that the public could understand. It had no effect on patient outcomes due to the poor development, lack of consultation and poor launch of the program.

This report made a difference indirectly by changing the focus of attention and knowledge of professionals.

This report worked well because it complemented other work in the same area. It added value to existing thinking. However, there was a lack of context and it came somewhat out of the blue. There should have been more dialogue beforehand to discuss the topics that needed to be covered.

(Interview responses from NHS Board clinicians)

Standards

Two standards were considered within the scope of this research: clinical standards for maternity services, and standards for the safe and effective provision of out-of-hours care. 73% of respondents reported that professional knowledge had been increased. 87%
reported changes in policy or practice, leading to 73% of respondents reporting a belief in changed patient outcomes. A number of comments were made by respondents:

- Policies were changed and training and documentation needs highlighted especially.
- The approach to maternity standards may have been over-comprehensive, with some key messages lost in the volume of data.
- The approach to the area was too formative and needed more prescriptive advice.

The standards on out-of-hours care caused me to reflect on practice in the service and to identify gaps. It acted as a catalyst in getting “practice” written down, which was helpful for the service and identified actions that were required. There were a number of small changes made as a result.

The standards on maternity services didn’t contain anything new, but they did provide a benchmark for improvement which was handy.

NHS QIS should reduce the number of areas they look at in order to get quicker feedback to the Boards.

There needs to be a partnership between NHS QIS and the Boards. NHS QIS need to produce guidelines and standards which are applicable and easy to use. The Boards then have to ensure they do their best to implement these.

(Interview responses from NHS Board clinicians)

**HAI initiatives**

46 Two of the NHS QIS outputs evaluated were in the field of healthcare acquired infections: local reviews and national overview of HAI, and a health technology assessment, HTA Report 7, on the use of alcohol-based products. Respondents in this area reported that the field of HAI is especially crowded. Of the many voices heard, NHS QIS and Health Protection Scotland were reported by respondents to be the most forceful and useful. These respondents, who were lead infection control nurses, doctors and scientific specialists, reported that the documentation contained little that was genuinely new to professionals in the field – only 17% of respondents reported an increase in professional knowledge. In contrast, however, 44% of respondents reported a change in policy or practice, and 50% reported a belief in changed outcomes for patients.

47 In a landscape populated by many players, it is clearly important, but not unproblematic, to establish and isolate the contribution made by NHS QIS initiatives. Respondents were not without
criticism of NHS QIS and lamented the amount of effort and time expended in preparing and conducting the review; nevertheless, the existence of the standards themselves and the evidence on which these were based was widely respected, as were the format for clinical governance and the work programmes for infection control nurses. Throughout this research, the team encountered a healthy, critical view of technical aspects of the NHS QIS outputs, reflecting the diversity of professional opinions and revealing the seriousness with which recipients consider NHS QIS products. In this field, a small number of respondents expressed considered, scientific criticisms of NHS QIS guidance, for example, while still working towards compliance or conformity with standards.

Because I've worked as an Infection Control Nurse for almost thirty years, there was no new information there for me. Maybe it would have more impact on a newer member of staff. However, it was very comprehensive and it did cover all of the necessary areas.

We had already been using alcohol-based products for a long time before this document was published, so it didn’t have much of an impact.

(Interview responses from NHS Board clinicians)

**Incontinence initiatives**

48 The two best practice statements evaluated during this research, together with SIGN Guideline 79, deal with incontinence. Taken together, they may be viewed as part of a coherent cluster of interventions, and were viewed as such by respondents interviewed. Though two respondents reported no particular impact on their professional knowledge, they described the three outputs as bringing coherence to the area, and how they had served as significant aids to improving practice in their Board. The documents had been used to:

- train all nurses and district nurses in the Board
- update all GPs
- set up a dedicated clinic
- form a basis for two audits
- structure two new treatment pathways by a multidisciplinary team.

One respondent commented that these interventions would have affected “many patients”, in both community and residential settings, throughout the Board.

49 In contrast, respondents in another Board reported that practice within that Board was already at a very high standard and that the
documents were used more as reference guides than as catalysts for improvement.

The SIGN guidelines are most valuable and are better than the NICE guidelines. SIGN are totally professional and focus on clinical outcomes.

(Interview responses from NHS Board clinicians)

**Practitioner responses – summary points**

50 Of the 90 practitioners taking part in this survey, 49% reported a change in professional knowledge, 67% reported a change in policy or practice, and 53% reported improvement in patient outcomes.

Technical quality, accessibility, format, and other key indicators of NHS QIS product quality were rated good or very good by the majority of practitioners interviewed with the exception of publicity and follow-up from NHS QIS where up to 12% practitioners evaluated these as poor.

We also describe a number of qualitative findings which support the success of individual NHS QIS initiatives. Of these the most powerful effects were achieved in the field of incontinence through the concerted action of several interventions.
Members of the Academy of the Royal Colleges and Faculties in Scotland

Introduction

51 To gain further insight into the views of practising clinicians, we conducted a series of ten semi-structured interviews with senior members of the Academy of the Royal Colleges and Faculties in Scotland. These covered the areas of surgery, medicine, anaesthesia, general practice, pathology, mental health and occupational health.

52 In each of these interviews, we covered the areas of NHS QIS role and perception, NHS QIS impact and, following earlier discussions with senior managers and practitioners in Boards, the process of peer review. It was also our aim to seek the opinions of respondents with regard to a vision for NHS QIS and its future role. Levels of interaction with NHS QIS varied considerably – from no appreciable involvement in one case, to lengthy interaction where some respondents had formed part of standards or review teams. In general and as can be seen below, responses from these senior clinicians closely followed those from senior managers at local Board level.

Role and perception of NHS QIS

53 The perception of NHS QIS was very largely focused on two major areas of its work: the development and review of performance against standards, and SIGN. Other functions of NHS QIS, such as the production of health technology assessments and evidence notes, were mentioned by two respondents. Since SIGN is relatively recent in forming part of NHS QIS, it would be fair to say that NHS QIS is perceived by members of the Academy as a body responsible for setting and reviewing standards. Where respondents had had the experience of the development of standards, the review of their department or specialty against standards, or the role of a reviewer on behalf of NHS QIS, respondents perceived a genuine benefit from the process in terms of development of professional knowledge, changed policy or practice, and a belief in changed patient outcomes. This was described with examples of change by five interviewees.

54 All five respondents in this category were also aware of the additional administrative work needed as part of this process - a workload especially high in areas which are inspected or assessed regularly, such as mental health. Within this subset of respondents, the value of standards and their review outweighed the administrative load and was thus welcomed overall.
All respondents further described the perception of NHS QIS in two ways: as an arm of government, carrying out policies set by the SEHD, and as a body with genuine impact on clinical areas. Respondents in this sample viewed the former role as dominant, even where the role of NHS QIS in advancing clinical practice was perceived and appreciated.

NHS QIS priorities were not well understood. As well as a perceived lack of publicity and communication from NHS QIS, two respondents commented on a lack of transparency in selecting work programmes. One respondent commented on the need for a balanced approach to prioritisation involving “top-down” policy-setting from senior clinicians and the SEHD, and also a “bottom-up” approach involving genuine consultation of practising doctors, nurses and lay people.

One respondent had had no recent interaction with NHS QIS and would not normally wish to consult NHS QIS for anything relating to his department or clinical practice. Two respondents described a general lack of visibility of NHS QIS in primary care. Though considerable financial and intellectual input from NHS QIS was described in the area of practice accreditation, the role of NHS QIS in primary care was felt to be somewhat weak and nebulous.

**NHS QIS impact**

Not all respondents in this round of interviews were able to comment on NHS QIS impact, having had no recent experience in their professional areas. As described above, where respondents had had an involvement in standards or reviews, their perception was that knowledge, policy or practice, and patient outcomes had been affected favourably by the process. It should be pointed out, however, that in all cases, patient outcomes were not measured directly.

Two respondents described how the focus of NHS QIS, in their experience, had been on the patient journey in its widest sense. This stands in contrast to the traditional focus of specialties and colleges, which can often be necessarily narrow or limited. The respondents viewed this in a positive light and welcomed the multidisciplinary aspect of the NHS QIS approach. In one case, a major shift in practice and effectiveness within the discipline as a result of NHS QIS interaction was described and welcomed.

Six respondents commented on the high quality of the documentary outputs from NHS QIS. Specifically mentioned were health technology assessments, SIGN guidelines and local reports.
Comments on the peer review process

Respondents who had been involved in local reviews or the setting of standards, whilst feeling that the process was valuable and had impacted on clinical practice, highlighted a number of difficult issues or suggestions for the peer review process. These are described below.

Without exception, respondents believe the peer review process to be the appropriate methodology for maintaining and raising standards of care in NHSScotland. It was pointed out that only “peers” will have sufficient professional knowledge with which to judge and comment on the achievements or challenges at local level, and that, although reviewers may be drawn predominantly from the teaching hospitals or the “central belt” of NHSScotland, this was entirely appropriate, since it is to be expected that the highest standards of practice would, therefore, be adopted or recommended.

Whilst upholding this view, respondents were not unaware of some problematic issues. In particular, it was notable that the peer reviewers selected may sometimes not be the very best people for all local reviews, and there was a perception expressed by three respondents that they may have been sometimes recruited for reasons of convenience or expediency - and that this would devalue the process in the eyes of the local Boards.

One respondent expressed a strong belief that local reviews frequently missed the opportunity to highlight, absorb and disseminate excellent practice. This is, in part, a result of the checking process, where areas of good practice are “ticked off” or taken as read, and the review team’s focus is on unmet standards or weaker areas in the local Board. The respondent felt, however, that learning from excellent practice was a vital role for NHS QIS, enabling NHS QIS to motivate and praise local Boards, and to share examples of excellence throughout NHSScotland.

Six respondents described a key weakness of the current review process as being a lack of follow-up from NHS QIS. Clearly, resources at NHS QIS, peer reviewer, and local Board level are sometimes not available, and a number of suggestions were made by respondents as to how this process may be improved. These were:

- local Board audits should be closely integrated with NHS QIS reviews to create a follow-up process. NHS QIS should be informed and should report on key measures.
- follow-up at local level could be carried out by sampling a restricted set of key measures, either in all Boards or through random sampling if resources will not allow full coverage.
- follow-up reviews could be triggered where poor practice is highlighted elsewhere.
• “mini themes” could be chosen, especially where the existence of known bottlenecks hold back wider improvements.

**Academy interviews – summary points**

NHS QIS is seen as a valuable agency with a potentially strong role to play in developing clinical practice by all except two respondents. Two other respondents believed that this role had not yet been fully developed by NHS QIS, and that a joined-up approach was necessary, involving all directorates of NHS QIS.

Three respondents expressed the need for NHS QIS to win the "hearts and minds" of clinicians, and to become a force for genuine aid and support on a day-to-day level for doctors and nurses at the forefront of practice.

Peer review of local Board performance was approved in principle by all respondents. Respondents also emphasised the importance of the personnel chosen to take part in peer review and the necessity for the review to focus and disseminate examples of excellence to the wider service.
NHS QIS Product Dissemination

67 At the beginning of this study, brief semi-structured interviews were conducted with NHS QIS staff to investigate how and to whom NHS QIS documentary products are targeted. These interviews intended to establish the “reach” of NHS QIS products, the effectiveness of their targeting and whether they are “fit for purpose”. It seems that there is no clear method of disseminating the products to target audiences. In most cases, the documents are sent to a wide distribution list, often containing hundreds of names, in a “shotgun” approach.

68 The twelve products identified for this study were also examined to determine whether the document gives a clear indication of who should use information contained within, and how they should use it. It should be noted that, of all of the documentary products examined, the Boards are only required to conform to standards documents. Other documents, such as SIGN guidelines and best practice statements are intended as guidelines and are not mandatory, nor do they offer timescales or sanctions to promote compliance. The results were as follows:

- **SIGN guidelines**: state specifically who the documents are targeted at and give explicit guidelines to follow.
- **Best practice statements and standards**: state generally who the documents are targeted at and give explicit guidelines to follow.
- **National overviews and local reports, health technology assessments and health indicators report**: these are aimed at a variety of audiences including the general public and thus do not state who the documents are targeted at and do not give directions or guidelines as to how the Board might use the information contained.

This means that, although best practice statements and standards give explicit guidelines for use, they are not directly targeted at specific individuals within the Board. It is less apparent what messages the Boards should take from the national overviews, local reports, health technology assessments and health indicators reports, i.e., if, for example, they should be used to inform policy or practice.

69 If documents are not clearly targeted at specific individuals, and do not contain specific guidelines on how the document should be used, then there is a real danger that:

- The relevant individual within a Board or hospital department may not be included on the distribution list, and may not receive the document. This can result in the individual being unaware of new information or guidelines in a specific healthcare area or the
individual may feel dissatisfied that they didn’t receive a copy of the document themselves, and only heard about it through the grapevine.

- The individual may be bombarded with documents that are not directly relevant to them, resulting in some or all documents from that source being discarded. This can have an adverse effect on the perception of the usefulness of NHS QIS documents. If the individual constantly receives documents that are not relevant or useful, simply because he/she is on a general distribution list, then there is a danger that genuinely helpful reports or guidelines may be discarded as irrelevant or useless, i.e., it might not stand out from the abundance of information coming from NHS QIS.

- The document may be targeted at and received by the correct individual but if it does not contain guidelines as to how that individual should use the document, then it may also be deemed irrelevant or useless and discarded.

70 The literature review (see Volume II of this report) reported that passive dissemination of information is largely ineffective in ensuring understanding of and compliance with evaluation or intervention recommendations. To ensure that this does not happen, the documents should be targeted at the relevant individuals within the NHS and should contain clear guidelines as to how that individual can use the documents. It should be noted that, internationally, comments have been made on the difficulty of getting organisations to yield and to maintain the information contained in documents such as guidelines and reports.

**Product dissemination – summary points**

71 There seems to be no clear method for dissemination of NHS QIS outputs. They are frequently widely distributed throughout the service rather than targeted at relevant individuals.

SIGN guidelines, clinical standards and best practice statements offer clear guidelines for use, but other outputs are non-specific and do not contain a clear call to action.
Discussion

Role and perception of NHS QIS

72  As an organisation, NHS QIS is both relatively young and the product of mergers of predecessor organisations. Responses from the wider NHS in Scotland have shown that the predominant perception of NHS QIS is of a body responsible for setting and monitoring standards through the process of local reviews. Responses gained during this research have indicated considerable support and respect for NHS QIS in this area – a perception which may be capitalised upon in developing and promoting the other pivotal roles for NHS QIS.

73  Though there is an absence of what might be termed “brand awareness” with regard to NHS QIS, the benefits of increasing the awareness of professions in the field with regard to NHS QIS roles must be carefully weighed against the costs of the exercise. Many respondents, however, discussed the need for a public body with an identifiable responsibility for quality improvement, patient safety or monitoring in healthcare. The research team formed the view that developing an identifiable brand is central to raising the profile and impact of NHS QIS.

NHS QIS priorities

74  NHS QIS priorities were not well understood by respondents, though there was a general view expressed that the priorities would be expected to have been aligned with national priorities for NHSScotland, as set by the Scottish Executive. A small number of respondents felt that the transparency of topic selection at NHS QIS was in need of improvement, or at least publicity.

75  Whatever the work plan and objectives set internally by NHS QIS, senior level interviews at the SEHD revealed that NHS QIS activities can be altered by events within the Department and within the political process. A number of factors in these areas materially affect NHS QIS. Questions raised in the Scottish Parliament relating to health issues are often passed to NHS QIS for comment or activity. In some cases, this may be a legitimate and publicly-desirable process, as was reported by one respondent to be the case for NHS QIS’ work in the field of HAI. At other times, however, initiatives originating in Parliament are not well aligned with clinical priorities, and, though important to some, may derail other activities.

76  A similar process can occur where NHS QIS activity is affected by working parties within the SEHD, or by clinicians in Boards, where
special interests are suggested or are passed to NHS QIS with recommendations for further work. Once again, this may have the effect of derailing more coherently-acquired priorities.

NHS QIS activities

Local reviews

77 A number of Boards commented upon the focus of NHS QIS in review as being upon process rather than outcome – as might be expected for any quality organisation. Though a focus on outcome alone is not generally viewed as a coherent methodology for quality assurance, the issue bears further consideration. This is especially so where a Board may fail to meet certain process standards, but where outcome measures are good or acceptable.

78 The methodology employed by NHS QIS in conducting the reviews has been described as formative rather than summative, and is based on peer review rather than review by an external inspectorate or registration body. The most critical subject discussed in this context was the issue of enforcement – how can NHS QIS ensure that standards are met? As it stands, the pressure to comply with standards comes from two areas: the innate professionalism of staff concerned and from the peer review process. Though NHS QIS has no powers to enforce and no punitive options open to it where Boards are underperforming in particular areas, the methodology adopted by NHS QIS can be seen to have led to positive outcomes in local Boards, despite an apparent lack of "teeth". Whatever the formal status of NHS QIS, the fact that it is an independent and external body carries great weight with Boards, with professionals, and, arguably, with the public. Nevertheless, the authors believe that this issue is worthy of further research and recommend additional, more focused discussions with senior managers from Boards and with members of the SEHD.

Peer pressure can be helpful to push/drive standards and efforts.

Some standards and activities do not give enough guidance or support.

The reviews can be somewhat subjective.

(Interview responses from NHS Board clinicians)

79 Two major points were raised with regard to the actual process of review. Firstly, a number of Boards believed that their own unique situations should be taken into account by NHS QIS during reviews. This applied, not only to the smaller or remote Boards, but also to large urban Boards and geographically diverse Boards. In the case
of the small remote Boards, the research team believes that issues surrounding process and outcome were most important to the respondents. Secondly, a number of respondents raised the issue of feedback by NHS QIS: there may be a lengthy time-lag between the end of the review and its publication. During this period, many Boards will have adjusted policy or practice to meet standards which were not met during the review process, and will feel some level of disappointment when, having made those changes, a public document is released describing the unmet standards. Though only one Board described the negative effects in terms of adverse local publicity following the publication of the review, it is believed that the issue of rank ordering and publicity is a critical factor to many in senior management.

80 The process of review would also benefit from further consideration of duplication of effort and “bureaucracy”, by which is meant the level of administrative work and paperwork which must be done for reviews.

81 Additionally, there is sometimes a disconnect between verbal feedback given to local Boards at the end of the review, and written feedback as part of the publication process. Though it is understandable that peer reviewers will place more emphasis on the positive aspects of the Board’s work in face-to-face meetings, the more disappointing written feedback has lead to some negative perceptions.

While NHS QIS generates a huge workload, I can see the benefit of it and I feel it is necessary. It drives safety, which is the ultimate goal. It also means that staff feel safer in their roles because there are definite documented standards to adhere to.

Too much time and effort is put into preparing self-assessment forms. NHS QIS should do a further check rather than a follow-up visit to reduce the amount of work required. Maybe they could build in an additional process.

Sometimes NHS QIS does not demonstrate sufficient flexibility in criteria for smaller Boards to implement standards. They don’t take into account the size of the Board, etc.

(interview responses from NHS board clinicians)

82 A number of respondents were concerned that historically, NHS QIS seems to have focused most closely on acute settings, rather than primary or community care. This is especially important when it is considered that a large proportion of patient care takes place outside of acute settings, and this situation clearly bears further examination.

83 A small number of respondents raised a sensitive issue relating to the quality of peer reviewers and the training and briefing they may receive. A criticism that has been advanced in this area is that the
very best people in the field are not always used in the review processes; that reviewers may be biased in their views according to their background, perhaps in the central belt of the country, or perhaps from acute settings; and that the level of training that they receive is inadequate as far as it relates to the review process as opposed to the clinical area under review.

84 A general view expressed by some respondents was that reviews could be more focused in recommendations to Boards. This desire for an increase in “sharpness” was seen in responses from both Boards and members of the SEHD, and reflects a perceived need for more precise, prescriptive advice at Board level, and a desire for clearer assessment and measurement at SEHD level.

Standards and clinical guidance

85 As has been demonstrated in this research, in many cases, respondents reported no change in their level of professional knowledge, though policy or practice and patient outcome may have been altered. It is important at this point to recognise that the knowledge embodied in these outputs may well not be “new” in the sense that clinicians were aware of it, but that its formulation into a coherent whole, as exemplified by clinical standards or SIGN guidelines, brings a new quality to the knowledge. This may stimulate clinicians to use such documents as reference sources or as true catalysts for change. The lack of apparent newness to the knowledge is, therefore, not an entirely fair view, and the research team believes that the impact assessments of knowledge are, therefore, conservative.

86 In discussions with practising clinicians, NHS QIS staff and the wider community of health professionals, the issue of the origin and development of standards and clinical guidelines was addressed. If NHS QIS is to develop a standard or a guideline, for example, a small number of respondents commented that there must be a compelling reason for this activity – not only from the perspective of community need, but also from the perspective of organisational efficiency. If a standard or a clinical guideline already exists and is close to suitability for the NHSScotland environment, then it is arguable that the role of NHS QIS should be to audit, modify and approve the pre-existing work, from whatever its source, rather than to develop it from scratch. Some health professionals have expressed their support for the concept of a national or international clearing house for knowledge of this sort, where discrete packages of knowledge may be shared or licensed.
Impact evaluation

Though impact evaluation for specific documents or initiatives is sometimes carried out, it is less common for studies of whole healthcare organisations to be undertaken unless there is a crisis (for example hospital inquiries) or other service reconfigurations under way. We did not identify any directly comparable study where the impact of a quality organisation on healthcare may provide comparative data. (We are aware of a recent in-house evaluation of the impact of the NHS Service Delivery and Organisation Research & Development Programme, but this has not yet been published.) Nor have we any longitudinal or “before and after data”, or external controls. In practical terms, this means that in assessing the impact of NHS QIS, value judgements must be formed in isolation and our evidence is based exclusively on a targeted group of end-users’ perceptions of impact rather than hard outcome measures. The data collection and analysis, however, are independent of NHS QIS and thus represent dispassionate yet valuable stakeholder perspectives. It is the view of the research team that these data are encouraging for NHS QIS activities, but that a similar exercise must be frequently repeated or extended in its range in order to form a longitudinal assessment of NHS QIS work.

Figure 18 below summarises changes in knowledge, changes in policy or practice, and changes in patient outcomes, comparing senior managers with practitioners in NHSScotland. As can be seen in this summary view, both senior managers and practitioners view NHS QIS initiatives and impacts positively. A 53% impact on estimated patient outcomes is the minimum estimated level of impact found in this study.

![Figure 18](image-url)
**Implications for NHS QIS**

There are a number of issues raised in this report that will merit further consideration and more detailed work. Many of these have been described already in the text of this document, but the research team would further highlight the following areas:

- **The role of NHS QIS**: how NHS QIS work programmes should be selected, and how to ensure that these are coherent externally (that is, with SEHD and NHSScotland objectives) and internally (that is, how to mobilise the various divisions of NHS QIS to act in accord for maximum effectiveness). Within this, there is the further issue of transparency and methodology of NHS QIS priority and topic selection.

- **Peer review process**: it is the view of the authors that the peer review process works well and is welcomed as a review methodology by the majority of stakeholders. Nevertheless, the issue of “enforcement” has been raised and deserves further consideration. The present research has not been able to probe in sufficient depth the key drivers of positive change as stimulated at Board level during review. Though we have doubt about the consequences, both culturally and practically, around the issue of “formal” inspection, enforcement and stricture, a fuller understanding of the detailed mechanism of quality improvement during and following review, together with its limitations and organisational costs, is necessary.

- **Source and resource**: as described, there are issues of duplication of effort in health sector research and development that apply to NHS QIS work programmes; where original work is carried out by NHS QIS, it needs to be clear that potential sources for product development are not being replicated unnecessarily. These issues are not insignificant in an organisation where resource for changing priorities is often under pressure.

- **The effect of NHS QIS on NHSScotland safety culture**: all NHS QIS interventions and outputs, and arguably the very existence of a quality body, confer the ability of NHS QIS to affect NHS organisational culture. In view of the current and appropriate focus on patient safety as a starting point for quality improvement, NHS QIS needs to consider how best to use its resource and activities to nurture a growing safety climate. Findings of previous research in NHSScotland (the recent reporting culture survey, for example) suggest that cultural change is best effected by practical activity, rather than by aspirational statements; in this way, and because of the practical programmes which characterise its work, NHS QIS may have a genuine opportunity to bring about lasting developments.
# Glossary of Terms

<table>
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<tr>
<th>Term</th>
<th>Definition</th>
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<tr>
<td><strong>best practice statements</strong></td>
<td>Statements of best practice focus on specific aspects of care. They are usually developed after wide consultation, taking into account a broad range of views from health professionals.</td>
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<tr>
<td><strong>clinical governance</strong></td>
<td>A framework through which NHS organisations are accountable for both continuously improving the quality of their services, and safeguarding high standards of care, by creating an environment in which excellence in clinical care will flourish. Management of clinical risk at an organisational level is an important aspect of clinical governance. Clinical risk management recognises that risk can arise at many points in a patient’s journey, and that aspects of how organisations are managed can systematically influence the degree of risk.</td>
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<tr>
<td><strong>clinical guidelines</strong></td>
<td>Systematically developed statements which help in deciding how to treat particular conditions.</td>
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<tr>
<td><strong>clinical outcome (health) indicators</strong></td>
<td>Each year NHS QIS publishes a set of Scotland-wide clinical indicators focusing on a range of health and healthcare-related topics. An indicator is a measure that provides a picture about a specific aspect of health/healthcare (including clinical outcomes) at a particular time.</td>
</tr>
<tr>
<td><strong>clinical standards</strong></td>
<td>Standards are statements of levels of performance that patients should expect from NHSScotland. They are based on evidence relating to clinical practice, feasibility and service provision that is responsive to patients’ needs and views. They cover the key issues relating to the provision of safe, effective and patient-focused care and treatment.</td>
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<tr>
<td>evidence notes</td>
<td>Evidence notes are short summaries which highlight key issues for health service planners and practitioners and direct them to robust sources of evidence (or lack of evidence) on a particular topic or clinical area which is believed important for NHSScotland. They are used to inform decision making by health planners.</td>
</tr>
<tr>
<td>evidence-based medicine</td>
<td>Evidence-based clinical practice is an approach to decision making in which the clinician uses the best evidence available, in consultation with the patient, to decide upon the option which suits that patient best.</td>
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<tr>
<td>health technology assessments</td>
<td>Health technology assessments (HTA) consider the medical, social, ethical and economic implications of the development, diffusion and use of health technology, considering clinical effectiveness, cost effectiveness, patient views and organisational issues.</td>
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<tr>
<td>managed clinical networks</td>
<td>A formally organised network of clinicians. The main function is to audit performance on the basis of standards and guidelines, with the aim of improving healthcare across a wide geographic area, or for specific conditions.</td>
</tr>
<tr>
<td>national overview and local reports</td>
<td>Following assessment of performance against the standards by NHS QIS, a local report is produced for each organisation. The findings are summarised in a national overview.</td>
</tr>
<tr>
<td>NHS QIS advice</td>
<td>Conclusions/recommendations/evidence-based recommendations made by NHS QIS, about any aspect of healthcare including technologies, medicines, devices, clinical procedures, and healthcare settings. Boards and health professionals are expected to take account of such advice when making decisions about services for patients.</td>
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<td>term</td>
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<td>peer review</td>
<td>Review of a service by those with expertise and experience in that service, either as a provider, user or carer, but who are not involved in its provision in the area under review. In the NHS QIS approach, all members of a review team are equal. Peer review is also referred to as local or Board review.</td>
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<tr>
<td>performance assessment</td>
<td>The method used within NHSScotland to measure the performance of Boards against agreed indicators.</td>
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<tr>
<td>risk management</td>
<td>A systematic approach to the management of risk, staff and patient/client/user safety, to reducing loss of life, financial loss, loss of staff availability, loss of availability of buildings or equipment, or loss of reputation.</td>
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