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## **Deliverable 6. Health Care Quality Strategies in Europe**

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## **1.0 INTRODUCTION**

The objectives of the MARQuIS project (Methods of Assessing Response to Quality Improvement Strategies), are to research and compare different quality improvement policies and strategies in health care systems across the member states of the European Union, and to consider their potential use when patients cross borders to receive health care. This research will enable an evaluation to be made of the need for, and development of formal quality procedures at EU level for primary and secondary care services.

This report presents the findings from a survey of quality improvement policies and strategies in health care systems of the European Union, conducted for the first phase of the MARQuIS project. The survey was completed by 68 key experts in quality improvement from 24 EU member states and it represents their views and accounts of quality improvement policies and strategies in their health care systems.

This survey provides for the first time a comparative overview of the development of policies and strategies for quality improvement in healthcare across the European Union, and the findings may have significant implications for future policy and research.

## **2.0 EXECUTIVE SUMMARY**

This survey of national quality improvement policies and strategies in health care systems was completed by 68 key experts in quality improvement across 24 member states. The experts came from a range of professional backgrounds in health care and occupied a variety of roles in policy making, academia and research, health care management, quality societies, quality consultancy, and clinical practice.

The findings from this survey can be summarised as follows ;

### ***Differences in national and regional contexts***

The data suggests that in many member states, quality improvement policies and strategies are developed both at subnational or regional, and at a national level, and there is considerable variation between regions in some member states, particularly in the different ways that quality is measured and evaluated, in different regional and national government priorities, and in differences in resourcing and support for implementation. These differences mean there is a need for caution both in describing member states' approaches to quality improvement in healthcare and in making international comparisons.

### ***Quality improvement: a national or international policy issue?***

The survey suggests that the development of quality improvement policies has taken place primarily within member states, and the most important drivers of policy have been governments, professional organisations such as medical and scientific societies, and media coverage. International influences such as ISQua, and the European Commission and policy development in other member states were reported as having been less important drivers for policy development, suggesting that quality improvement policies and strategies have been predominantly seen as national issues to date.

### ***The dominant role of governments in quality improvement***

In this survey national governments emerged as the key players in developing quality improvement policies, setting quality standards and targets, and providing guidance and support to organisations on implementation. Patient and service user

organisations were reported as having the least influence on the development of quality improvement policy, even though patient orientation and patient involvement emerged as one of the most important quality improvement priorities for governments.

Although governments were reported as being the key leaders in most aspects of quality improvement, a lack of political leadership and strategic planning in quality improvement was also cited in this survey as a key barrier to progress. It might be argued that concentrating responsibility for quality improvement in government agencies or departments which are also responsible for a wide range of issues such as funding and financing may create some conflicts of interest, and mean that quality improvement policies and strategies receive less attention than they merit.

### ***Common priorities for governments***

Respondents identified a number of common priorities for governments for the future development of quality improvement, including a policy focus on patient safety, patient involvement, the development of quality systems, and the evaluation or assessment of quality improvement systems.

### ***Policy documents***

In most member states, respondents identified a policy document from government which set out its approach to quality improvement in healthcare (indeed, many respondents identified more than one document). Their content was more likely to cover issues such as systems, structures and targets, and less likely to cover matters such as training, support and resources for quality improvement.

### ***The legal status of quality improvement policies***

Having a statutory legal requirement to implement quality improvement strategies for healthcare systems and organisations was reported as being an important incentive for supporting progress in the development of quality improvement initiatives. The implementation and development of quality policies may therefore be at a more advanced stage in member states who have such a legal requirement, and who have had a legal requirement in place for a substantial period of time. The minority of member states who have not yet enacted legislation to require healthcare systems and

organisations to put quality improvement policies and strategies in place may wish to consider the experience of those member states which have done so.

### ***Education and training in quality improvement***

Education and training in quality improvement emerge in this survey both as important components in the development of quality improvement, and as areas where the lack of provision or effective support is seen as a barrier to progress. Education and training in quality improvement is far from being generally provided either at an undergraduate or postgraduate or continuing professional development level.

### ***Leadership***

Research indicates that progress in quality improvement requires strong, engaged and informed professional leadership, but such leadership capacity can only be developed if healthcare professionals have access to and make use of appropriate training and development in healthcare quality improvement, and the survey suggests that such training is often not available in many healthcare organisations.

### ***The mandatory use of quality improvement policies and strategies***

Although most member states have some form of legal, statutory requirement for quality improvement in healthcare systems and organisations, the extent to which specific quality improvement systems or approaches are required or mandated varies considerably. The data suggests wide variation in the voluntary and mandatory coverage of different quality improvement policies and strategies across sectors, potentially leading to varying levels of progress and coverage in implementation.

### ***Implementing quality improvement***

Although there is a clear commitment to quality improvement at a policy level in most member states, there is considerable scope for progress in making a reality of such policies at the level of healthcare organisations. Even in countries with relatively well established policies on quality improvement, many healthcare organisations lack fundamental components of an effective quality improvement function such as a QI plan for the organisation, an organised programme of QI projects, training and dedicated resources, follow-up and monitoring of quality improvement projects, and monitoring of quality across departments and services.

### ***Information and evaluation***

The survey suggests that while there are systems in place for the evaluation of quality improvement, they are largely internal to organisations and data about the progress of quality improvement is not widely shared or available to other stakeholders such as patients and service users. Information from external assessments of quality was reported as being more available to professional organisations, members of the public and service user groups.

While some information on quality improvement is being shared between health care organisations within and between member states, this happens mainly through conferences and workshops, or in reports and documents. Open days, practical guides and toolkits, and special quality events are less frequently used to share information on quality between health care organisations. Exploring more diverse means of disseminating information within and across borders might be valuable.

Information about the quality of health care is not, according to this survey, being routinely or systematically collected by member states who access health services by agreement from another member state. In the 12 member states reporting that they accessed health services in another member state by prior agreement, only one reported having some form of quality evaluation process in place.

### ***Achievements in quality improvement***

Respondents descriptions of the achievements of quality improvement were largely focused on the establishment of improvement systems and infrastructure rather than on their impact on healthcare quality.

### ***What facilitates or hinders progress ?***

The common factors seen as supporting the implementation of quality improvement were professional involvement and commitment, the provision of training, the existence of a mandatory or legal requirement for quality improvement, and the existence of a QI infrastructure of staff, resources, lead individuals, projects and so on. The main barriers to quality improvement were seen as a lack of funding, an absence of leadership and strategic planning, a lack of incentives, cultural and professional barriers, and a lack of training and support.

### ***The impact of quality improvement on the quality of care and patient outcomes***

Overall, the survey suggested that quality improvement policies and strategies were having a marked though variable impact on the quality of care and on patient outcomes. The introduction of clinical guidelines and the use of performance indicators were seen as having had the greatest impact on the quality of care, while patient safety systems like risk management and incident reporting and systems for getting and using patients views were felt to have had rather less direct impact on the quality of care. Some moderate improvements were reported, particularly on the dimensions of staff orientation and patient centredness.

Our findings suggest that the use of clear targets for quality improvement; the provision of resources and support for quality improvement; the existence of a quality improvement “infrastructure” (management arrangements, projects, monitoring and evaluation); and the use of incentives to reward quality improvement are all positively associated with improvements in patient care.

Our survey provides some limited but useful evidence that quality improvement policies and strategies are having an important though moderate impact on the quality of care and on patient outcomes, and points to some of the actions at a policy and system level which seem to be associated with these impacts. While this data must be interpreted with caution, it supports the contention that investing in quality improvement policies and strategies is worthwhile and provides policymakers and other stakeholders with some important indications of “what works”.

### 3.0 METHOD

The survey began with a literature review covering quality improvement strategies in member states of the European Union (see deliverable one, 30<sup>th</sup> April 2005). A framework for the analysis of quality policies and strategies, and a survey questionnaire were then developed (see deliverable two, 30<sup>th</sup> May 2005). The questionnaire was sent to members of the MARQuIS team for comment and recommendations, and amended accordingly. The questionnaire reflected the substantive areas of enquiry into quality improvement policies and strategies identified in the analysis framework (see questionnaire, Appendix A). The topics covered in the questionnaire are summarised in Table 1.

**Table 1**

**Topics covered in the questionnaire**

<b>Section of the survey questionnaire</b>	<b>Topics covered</b>
Demographic data (respondents)	Roles in the health care system, professional backgrounds, knowledge of quality improvement policies (areas of the health care system)
Environment and policy context	National/regional development of QI policies, national or regional responses, regional variation in QI policies, influences on QI policy
Goals and values	Legal requirements for QI, quality policy documents, governmental priorities, quality standards, national quality improvement targets, achievements in QI
Resources	National quality societies, guidance and support for QI, leading organisations, education and training
Mandatory / voluntary requirements (hospital, primary care, mental health)	Performance indicators, clinical practice guidelines, accreditation schemes, internal audit of clinical standards, organisational quality management programmes, patient satisfaction surveys, patient safety systems
Implementation of QI strategies (hospital, primary care)	Staff training and performance reviews, leadership training, quality improvement plans, internal quality reviews, committees for quality improvement, senior directors for QI, dedicated finance, information systems, quality improvement projects, auditing of QI projects, committees for infection control, reporting systems, clear responsibilities, QI in laboratories,

	maintenance of equipment. Incentives to implement QI. Factors that support/prevent QI.
Information and evaluation	Internal and external systems to evaluate QI, access to information from internal and external assessments, sharing information within and across borders, cross-border care arrangements and cross-border evaluations of quality
Outcomes and impact of QI strategies	Impact of performance indicators, clinical practice guidelines, accreditation schemes, quality management programmes, patient satisfaction surveys, patient safety systems. Levels of improvement in clinical effectiveness, efficiency, staff orientation, responsive governance, safety, patient-centredness

### 3.1 Recruitment of participants

Key experts in quality improvement were identified in all 25 EU members states, with specialist knowledge of secondary care services, primary care services, or mental health services. They were identified from a range of sources including the ISQua membership list; contacts already established within the MARQuIS team; authors of substantive works on comparative health policy e.g. the Healthcare in Transition Reports for the European Observatory, and country-specific journal articles; websites e.g. international MOH websites, the EQUiP website, the IHSUMMIT.com website (International Health Summit 2004), the website of the European Healthcare Management Association; and by using Google, Ingenta and Info.com search engines. The survey was based on the principle that information on health care from secondary sources should be supplemented wherever possible by primary sources and experts, who can give a contextual insight into the development of policy measures and the impact of reform at performance level (Kroneman and Van der Zee 1997).

174 key experts in quality improvement were approached with information about the MARQuIS project and an invitation to complete a questionnaire on national quality policies and strategies for the survey. A snowballing strategy was implemented to increase the sample size and to attract participants from a wide range of backgrounds.

### 3.2 Data collection

The data collection process was conducted by e-mail. Questionnaires were distributed to 103 participants. The data was collected over a 6 month period from 13<sup>th</sup> June to 14<sup>th</sup> November 2005, and 68 completed questionnaires were returned. The data for questionnaire distribution and completion is given in Table 2.

**Table 2**  
**Questionnaire distribution and completion**

<b>Approached</b>	<b>Agreed</b>	<b>Declined</b>	<b>Not replied</b>	<b>Questionnaires returned</b>
174	103 (59%)	19 (11 %)	52 (30 %)	68 (66 % of 103 distributed)

Any problems with the data collection process were documented by participants and these are summarised in Appendix B1.

### 3.3 The sample

#### 3.3.1 The number of participants and the coverage of member states

The total number of participants in the survey was 68, and they represented 24 member states. The member states represented, (and the number of participants from each), were Austria (3), Belgium (3), Cyprus (1), The Czech Republic (2), Denmark (3), Estonia (6), Finland (2), France (3), Germany (2), Greece (1), Hungary (2), Ireland (2), Italy (5), Lithuania (2), Luxembourg (2), Malta (2), The Netherlands (2), Poland (3), Portugal (3), Slovakia (4), Slovenia (3), Spain (4), Sweden (3), and the UK (5).

#### 3.3.2 The roles of participants

The sample included key experts with roles in policy making, academia and research, health care management, quality societies, quality consultancy, and clinical practice. Respondents were invited to state their current role or involvement in their health care system. Some reported having more than one role.

**Table 3****The current roles of participants**

(n=68 respondents)

<b>Current role in their health care system</b>	<b>% (n) of responses</b>
Academic, health services researcher or policy analyst	47 (32)
Policy maker or government official	28 (19)
Manager or executive in a health care organisation	21 (14)
Quality consultant	21 (14)
Clinician or health care practitioner	15 (10)
Other role *	38 (26)

\* *Other roles included medical director (insurance), insurance expert, quality project leader, project director, quality auditor, accreditation surveyor or director, member / leader / chairperson of a professional society, member of an ethics committee, director / president of a voluntary organisation.*

## 3.3.3 The professional backgrounds of participants

Respondents were invited to state their professional background. Some reported having a background in more than one healthcare-related profession.

**Table 4****The professional backgrounds of participants**

(n=68 respondents)

<b>Professional backgrounds</b>	<b>% (n) of responses</b>
Health Care Management	68 (46)
Medicine	66 (45)
Nursing	15 (10)
Other background *	35 (24)

\* *Other professional backgrounds included quality consultancy, public health, paediatric specialist, pharmacy, psychology, microbiology, medical informatics, social work, risk management, health research, health economics, pedagogy and androgogy, sociology, pharmacology, medical laboratory technology.*

### 3.3.4 Knowledge of quality improvement policies and strategies in health care services

Respondents were invited to state their knowledge of quality improvement policies and strategies in different areas of their health care system. Some reported having knowledge of quality improvement policies and strategies in more than one area of their health care system.

**Table 5**

**Knowledge of quality improvement policies and strategies in health care services**  
(n=68 respondents)

<b>Knowledge of quality improvement policies and strategies in health care services</b>	<b>% (n) of responses</b>
Hospital services	97 (66)
Primary care services	75 (51)
Mental health services	41 (28)
Other services *	37 (25)

*\* The 'other services' mentioned in this section included ambulatory care, public health, laboratory services, pharmacy services, dialysis services, diagnostic clinics, radiology, counselling services, HIV services, long term care, homecare and palliative services, dentistry, preventive services, neurological trauma services, outpatient clinics, disability services, environmental health, medical transport, medico-social institutions, rehabilitation, social services.*

## 3.4 Data analysis

### 3.4.1 Quantitative data

Quantitative data was entered into SPSS (Statistical Package for the Social Sciences).

The quantitative data was analysed using three approaches :

- A descriptive frequency analysis of the responses for each variable for the EU (covering responses from 68 participants across 24 member states).

When a topic was covered by a series of questions in sequence, only the affirmative responses from the first question in the series were taken forward to subsequent questions.

➤ The comparative analysis of the modal responses for each variable by country. When differences of opinion were identified in country-specific responses, the modal value was taken as the final score for each member state. When a modal value for a response could not be identified, the result was recorded as ‘no consensus’.

➤ The application of the Spearman correlation coefficient, one-tailed test; or a Mann Whitney U Test on two independent samples, to identify statistically significant relationships between policy initiatives and processes, and the impact and outcomes of quality improvement strategies.

### 3.4.2 Qualitative data

Qualitative data was subjected to thematic and categorical analysis. The most frequently occurring themes were prioritised according to the number of member states reporting them.

## **3.5 The strengths and weaknesses of the research**

The collection of quantitative and qualitative data for this survey has provided opportunities to describe and compare the current stage of development of quality improvement policies and strategies in 24 member states. The qualitative elements have provided an insight into and explanations of some of the quantitative findings, and the whole dataset has brought together a broad range of perspectives from member states. Overall, this survey brings together for the first time in a comparable and analytic form, data on quality improvement policies and strategies in member states.

The data provides an essential reference point for future work packages in the MARQuIS research agenda, and acts as an important and accessible resource which can be updated. By identifying statistically significant relationships between quality improvement processes and quality improvement outcomes, the survey represents the opinion of key experts on ‘what is working well’ in relation to the improvement of health care services in secondary and primary care. The research has also supported networking and provided opportunities for a range of stakeholders to debate quality improvement within and across borders of EU member states. There is also a great deal of valuable supplementary information covering all 24 member states contained in Appendices C-E of this report e.g. the titles of quality policy documents, national

societies for quality in health care, and the names and work of leading organisations in quality improvement.

The weaknesses of this research include the difficulties encountered in allowing for differences in context between health care systems, differences of opinion in the responses from key experts from the same member state, and incomplete coverage of all 25 member states. Some member states are also better represented than others in terms of the number of key experts providing data, and there may also be some biases in the interpretation of 'quality' terminology.

*A full discussion of the strengths and weaknesses of the research is provided in Appendix B2.*

## **FINDINGS**

### **CHAPTER 4 : Environment and Policy Context**

#### **4.1 The development of quality improvement policies and strategies**

Quality improvement policies and strategies in member states can be developed at national level or at a regional level, or from the combined, coordinated or distinctive efforts of national and regional governments. Respondents were invited to indicate the national or regional context of policy development for quality improvement in their health care system. Similar numbers of respondents reported the development of quality policies at national level and at combined national and regional levels.

**Table 6**

#### **The national / regional development of quality improvement policies**

(n=68 respondents)

<b>The basis of policy development</b>	<b>Responses % (n)</b>
National level	44 (30)
Regional / subnational level	10 (7)
National and regional levels	46 (31)

#### **4.2 The national / regional development of quality improvement policies and strategies by member state**

When the modal values of responses were calculated in each member state, the participants reported that quality improvement policies were developed on a national level in 10 member states (42% of the member states in the survey). Participants reported that quality policies were developed at regional or sub-national level, or at a combined regional and national level in 13 member states (54% of the member states in the survey). There was no consensus on the national/regional basis of the development of quality improvement policy in one member state.

**Table 7****The national/regional development of quality improvement policies and strategies across member states**

(n=24 member states, modal value scores)

<b>The national/regional basis of quality policy development</b>	<b>Member states</b>
Quality improvement policies reported as being developed and set at national level to cover the whole country	Cyprus, Estonia, France, Greece, Hungary, Lithuania, Luxembourg, Poland, Portugal, Slovakia
Quality improvement policies reported as being developed and set at regional or sub-national level, or at a combined national and regional level	Austria, Belgium, Czech Republic, Denmark, Finland, Germany, Ireland, Italy, The Netherlands, Slovenia, Spain, Sweden, UK
No consensus	Malta

**4.3 The national/regional basis of responses to the survey**

In view of the differences in national and regional development of quality improvement policies, in this survey it was acknowledged that some participants would be responding on the basis of their knowledge of quality improvement policy at a national level and that others would be responding on the basis of their knowledge at regional level. Participants were invited to state the perspective from which they approached the survey and whether this was national or regional. Those responding on a regional basis were asked to specify the region of their country to which their answers applied. The basis of the responses for each country are given in Table 8.

**Table 8****The national and regional basis of the responses for each member state.**

(n= 68 respondents, 24 member states)

<b>The basis of responses</b>	<b>Member States</b>
Responses for a country are based entirely on knowledge of quality policy at a national level with no regionally-based responses	Austria, Cyprus, Czech Republic, Estonia, France, Germany, Greece, Hungary, Ireland, Lithuania, Luxembourg, Malta, Portugal, Slovakia  73% (n=50 responses)

Some responses are based on knowledge of quality policy at a national level, and some are based on knowledge of quality policy at regional level (regions covered in brackets)	Belgium (Flemish, Walloon, Communauté Française, Brussels, Wallonia) Denmark (Aarhus County) Finland (South Finland) Italy (Regione Marche, Lombardia, Trentino-Alto Adige) The Netherlands (Amsterdam) Poland (Malopolska, Lodzkie) Slovenia Spain (Catalonia) Sweden (Joenkoepping, Stockholm) UK (North West England, Scotland)  27% (n=18 responses)
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This variation in the basis of responses will need to be taken into account when interpreting the findings of the survey, which are presented as an aggregated ‘country view’, within which there may be regional variations in approaches.

#### 4.4 Regional variation in quality improvement policies and strategies

Quality improvement policies and strategies were reported as varying to some degree between regions in 21 member states (87% of the member states in the survey). The extent of the reported regional variation in quality improvement policies and strategies in each member state is given in Table 9.

**Table 9**

**The extent of the variation in quality improvement policies and strategies between regions in member states**

(n=68 respondents, 24 member states)

<b>Variation reported in quality improvement policies and strategies between regions</b>	<b>Responses % (n)</b>	<b>Member states within each category (mean scores)</b>
A great deal of variation	23 (16)	Belgium, Ireland, Italy, Spain, Sweden
A moderate amount of variation	32 (22)	Austria, Denmark, Finland, France, Germany, Portugal, UK
A small amount of variation	16 (11)	Cyprus, Czech Republic, Estonia, Lithuania, Malta, The Netherlands, Poland, Slovakia, Slovenia
No variation	28 (19)	Greece, Hungary, Luxembourg

#### **4.5 The nature of the variation in regional quality improvement policies and strategies**

Respondents were invited to describe the main differences in quality policies and strategies across regions in their country. The qualitative data was subjected to a thematic and categorical analysis. The key regional differences to emerge were :

- different approaches to measuring and evaluating quality (12 member states)
- differences in focus and priorities across regions / between national and regional levels (10 member states)
- different approaches to interpreting and implementing national policies at regional level (8 member states)
- different organisational approaches to implementing policies within regions (5 member states)
- differences in access to resources to support quality improvement (5 member states)
- differences in professional motivation, training and competence (4 member states)

At least one member state also reported differences in the quality of leadership in QI across regions; in levels of achievement and progress; and in levels of policy coverage across and within regions.

#### **4.6 The factors that have been most influential in the development of quality improvement policies and strategies**

Respondents were asked to identify the most important and least important influences on the development of quality improvement policies and strategies in their countries. Taking the percentages of responses across 24 member states and combining the responses in the ‘very important’ and ‘fairly important’ categories, the factors most frequently cited as important in influencing quality improvement were the work of professional organisations e.g. medical and scientific societies (79%), the policies and priorities of current governments (75%), media coverage of quality issues in healthcare (69%), and the work of national or regional quality task forces or working groups (68%). Less influence was attributed to patient and service user organisations, the policies and initiatives of the European Commission, and the activities of ISQua.

**Table 10****The level of importance given to influences on the development of quality improvement policies and strategies.**

(n=68 respondents)

<b>Influences on the development of quality improvement policies</b>	<b>Very important % (n)</b>	<b>Fairly important % (n)</b>	<b>Not very important % (n)</b>	<b>Not at all important % (n)</b>	<b>Don't know % (n)</b>
Professional organisations, medical and scientific societies	28 (19)	51 (35)	15 (10)	3 (2)	3 (2)
Policies and priorities of the current government	54 (37)	21 (14)	15 (10)	7 (5)	3 (2)
Media coverage of quality issues or problems in healthcare	25 (17)	44 (30)	25 (17)	3 (2)	3 (2)
National / regional quality task force / working group	35 (24)	33 (22)	19 (13)	10 (7)	3 (2)
Provider organisations e.g. hospitals, primary care providers	22 (15)	44 (30)	24 (16)	7 (5)	3 (2)
Public opinion about the quality of healthcare	19 (13)	44 (30)	25 (17)	7 (5)	5 (3)
Development of quality improvement policies in other EU countries	21 (14)	38 (26)	29 (20)	9 (6)	3 (2)
Patient and service user organisations	7 (5)	43 (29)	40 (27)	7 (5)	3 (2)
Policies and initiatives of the European Commission	10 (7)	22 (15)	53 (36)	12 (8)	3 (2)
Activities of the International Society for Quality in Healthcare (ISQua)	4 (3)	25 (17)	44 (30)	24 (16)	3 (2)

Respondents were invited to list any additional factors (other than those covered in Table 10) that had influence on the development of quality improvement policies and strategies in their health care system. The qualitative data was subjected to a thematic and categorical analysis, and the following emerged as important additional influences on QI :

- strong leadership, personal commitment and ‘having the right people’ on process improvement teams (5 member states)
- the activities of the World Health Organisation, JCI, and influences from the US and Canada (4 member states)

Political pressure at parliamentary level and having a democratic government were also thought to have an influence on quality policy development, as were market forces, financial incentives, finance management, patient choice, increased transparency, legislation on patient’s rights, the priorities of public insurers, peer pressure and levels of professional training.

## FINDINGS

### CHAPTER 5 : Goals and Values

#### 5.1. The legal status of quality improvement policies and strategies

78% (n=53) of the 68 respondents reported the existence of a legal requirement for health care organisations to have quality improvement policies and strategies. 22% (n=15) reported that there was no legal requirement.

**Table 11**

#### The legal requirement for organisations to have quality improvement policies and strategies in health care

(n=68 respondents)

There is a legal requirement % (n)	There is no legal requirement % (n)	Don't know % (n)
78 (53)	22 (15)	0

#### 5.2 The legal requirement to have quality improvement policies and strategies, by member state

When the modal values of responses were calculated in each member state, the participants reported a legal or statutory requirement for health care organisations to have quality improvement policies and strategies in 18 member states (75 % of the member states in the survey).

**Table 12**

#### Member states reporting a legal requirement for health care organisations to have quality improvement strategies

(n=24 member states, modal value scores)

Member states reported as having a legal or statutory requirement for health care organisations to have quality improvement policies and strategies	Austria, Belgium, Cyprus, Estonia, France, Germany, Greece, Hungary, Italy, Lithuania, Luxembourg, The Netherlands, Portugal, Slovakia, Slovenia, Spain, Sweden, UK
Member states reported as not having a legal or statutory requirement for health care organisations to have quality improvement policies/ strategies	Czech Republic, Denmark, Finland, Ireland, Poland
No clear consensus	Malta

### **5.3 The number of years for which member states have had a legal or statutory requirement for health care organisations to have quality improvement policies and strategies**

Participants were invited to state the year in which the legal or statutory requirement to have quality improvement policies and strategies in health care organisations was first introduced in their country. Taking the data from the 53 respondents who reported having a legal requirement (see section 5.1), 36 % (n=19) reported that it had been in place for between 5 and 10 years, and 26 % (n=14) reported that it had been in place for over 10 years. 21% (n=11) reported having a legal requirement for less than 2 years.

**Table 13**

**The number of years that a legal requirement has been in place for organisations to have quality improvement policies and strategies**

(n= 53 respondents reporting a legal requirement)

<b>Number of years the legal requirement has been in place</b>	<b>% (n) of respondents</b>
Over 10 years	26 (14)
5-10 years	36 (19)
2-5 years	6 (3)
under 2 years	21 (11)
Don't know	11 (6)

### **5.4 The length of time a legal requirement to have quality improvement policies and strategies has been in place, by member state**

In the 18 member states who demonstrated a consensus based on modal value scores about the existence of a legal requirement (see section 5.2), most member states reported that it had been in place for between 5 and 10 years.

**Table 14**

**The number of years for which a legal or statutory requirement for health care organisations to have quality improvement policies and strategies has been in place by member state**

(n=18 member states, modal value scores)

Number of years in place	Member States
Over 10 years	Germany, Portugal, Spain
5-10 years	Belgium, France, Italy, Lithuania, Luxembourg, The Netherlands, Slovenia, UK
2-5 years	Cyprus
Under 2 years	Austria, Greece, Slovakia
No clear consensus	Estonia, Hungary, Sweden

### 5.5 The health care organisations to which the legal or statutory requirement to have quality improvement policies and strategies applies.

Taking the data from the 53 respondents who reported the existence of a legal requirement for health care organisations to have quality improvement policies and strategies (see section 5.1), 98% (n=52) reported that the legal requirement applied to hospital services; 77% (n=41) reported that it applied to primary care services, and 72% (n=38) reported that it applied to mental health services. 45% (n=24) reported that it also applied to other services.

**Table 15**

#### The application of a legal or statutory requirement to have quality improvement policies and strategies across health care organisations

(n= 53 respondents reporting a legal requirement )

Health care organisation	Legal requirement applies % (n)	Legal requirement does not apply % (n)	Don't know % (n)
<b>Hospital</b>	98 (52)	2 (1)	0
<b>Primary Care</b>	77 (41)	23 (12)	0
<b>Mental Health</b>	72 (38)	28 (15)	0
<b>Other services*</b>	45 (24)	53 (28)	2 (1)

\* Examples given of 'other services' included legal requirements for quality improvement in some member states applying to specialist colleges, hospices and care homes for the elderly, private clinics, outpatient departments.

In some member states legal requirements were indicated as being disease/care/profession/service-specific rather than organisation-specific e.g. applying to some care programmes; the accreditation / licensing of health professionals, medical specialties, laboratories, radiology and pharmacy services, continuing medical education; district nursing; registration of performance

*indicators; licensing of medical care supplies; ambulance services; ambulatory care; rehabilitation; health insurance companies; dentistry.*

### **5.6 The health care sectors to which the legal or statutory requirement to have quality improvement policies and strategies applies.**

Taking the data from the 53 respondents who reported the existence of a legal requirement for health care organisations to have quality improvement policies and strategies (see section 5.1), 95% (n=50) reported that the legal requirement applied to all or some public sector services; 81% (n=43) reported that it applied to all or some private sector services; and 71% (n=38) reported that it applied to all or some not-for-profit sector services.

**Table 16**

#### **The application of a legal requirement to have quality improvement policies and strategies across the public, not-for-profit and private health care sectors**

(n= 53 respondents reporting a legal requirement)

<b>Health care sector</b>	<b>Applies to all % (n)</b>	<b>Applies to some % (n)</b>	<b>Applies to none % (n)</b>	<b>Don't know (%) (n)</b>
Public sector (government or state owned) health care organisations	89 (47)	6 (3)	2 (1)	3 (2)
Private sector, for-profit, commercial health care organisations	66 (35)	15 (8)	9 (5)	9 (5)
Not-for-profit sector (independent or voluntary) health care organisations	58 (31)	13 (7)	15 (8)	13 (7)

### **5.7 Written policies on quality improvement in health care, published in a report or document**

66% (n=45) of the 68 respondents reported having a document giving policy guidance on quality improvement; 25% (n=17) reported not having this type of document, and 9% (n=6) did not know whether a document existed.

**Table 17****The availability of a quality improvement policy report or document**

(n=68 respondents)

<b>There is a quality improvement policy document</b> % (n)	<b>There is no quality improvement policy document</b> % (n)	<b>Don't know</b> % (n)
66 (45)	25 (17)	9 (6)

**5.8 The availability of a quality improvement policy report or document by member state**

When the modal values of responses were calculated in each member state, the participants reported the availability of a document giving policy guidance on quality improvement in 15 member states (62 % of the member states in the survey). A number of different documents were cited by the participants within each member state. The titles of these documents are provided in Appendix C.

**Table 18****The availability of a published policy document on quality improvement in health care, across member states**

(n=24 member states, modal value scores)

Member states who reported having a written policy document to provide guidance on quality improvement policies and strategies in health care	Austria, Cyprus, Czech Republic, Denmark, Estonia, France, Germany, Greece, Ireland, Italy, The Netherlands, Poland, Slovakia, Sweden, UK
Member states who reported the absence of a written policy document to provide guidance on quality improvement policies and strategies in health care	Hungary*, Luxembourg*, Portugal*
No clear consensus	Belgium, Finland*, Lithuania*, Malta*, Slovenia*, Spain*

*\* Although the modal value scores for these member states (\*) suggested that there was no QI document, document titles were provided by some participants from these member states, and these have been included in the document list in Appendix C.*

**5.9 The topics covered in policy documents on quality improvement**

Respondents were invited to indicate which of the following topics appeared in any of the national policy documents that they were aware of. Taking the data from the 45

respondents who reported having access to a quality improvement policy document (see section 5.7), an analysis was made of the inclusion of a range of quality improvement topics. The data reflects the availability of information on a specific topic in any of the many documents cited without focusing on any one specific document for each member state.

The data from the 45 respondents who had access to a document on quality improvement policy, suggests that the topics most frequently covered are systems for monitoring and measuring the progress of quality improvement, the definition of terms, setting national targets, and systems for asking patients and the public for their views on quality. The topics reported as least likely to be included are the provision of resources for quality improvement, and the provision of training and support for healthcare organisations to achieve quality improvement.

**Table 19**

**The coverage of topics in EU quality improvement policy documents**

(n= 45 respondents who reported having access to a quality improvement policy document)

<b>Topics in a policy document on quality improvement</b>	<b>Topic is included % (n)</b>	<b>Topic is not included % (n)</b>	<b>Don't know % (n)</b>
Systems for monitoring and measuring progress of QI	82 (37)	13 (6)	4 (2)
Definition of terms e.g. what is meant by QI	78 (35)	18 (8)	4 (2)
Setting national targets for QI	73 (33)	27 (12)	0
Systems for asking patients and the public for their on quality in healthcare	73 (33)	25 (11)	2 (1)
Setting national standards for quality	71 (32)	27 (12)	2 (1)
Systems for dealing with adverse events, problems and complaints from patients	62 (28)	36 (16)	2 (1)
Systems for professional regulation and monitoring professional performance	56 (25)	42 (19)	2 (1)
Setting standards for professional education/ training	53 (24)	38 (17)	9 (4)
Provision of training/support for healthcare organisations on QI	44 (20)	56 (25)	0
Provision of resources for QI	40 (18)	56 (25)	4 (2)

### **5.10 The most important priorities for quality improvement for governments across member states**

Respondents were invited to list what they saw as their government's three most important priorities for quality improvement within their own health care systems. The qualitative data was subjected to a thematic and categorical analysis. The key priorities of governments for quality improvement across the member states were reported as :

- the development of quality standards and guidelines (18 member states)
- patient safety / orientation / involvement (16 member states)
- improving the assessment / evaluation of QI (9 member states)
- improving information and reporting systems (8 member states)
- achieving value for money (7 member states)
- improving QA and QM systems (6 member states)
- establishing accreditation systems in hospitals (5 member states)
- increasing professional competence / involvement in QI (5 member states)
- reducing waiting lists and waiting times (5 member states)
- improving transparency and accountability (5 member states)
- greater equality of access to services (3 member states)

At least one member state also reported the following priorities : achieving continuity of care across sectors, coordinating policy at national and regional levels, staff safety, meeting quality improvement targets, reducing hospital acquired infections and increasing the involvement of health insurance systems in quality issues.

### **5.11 Setting quality standards or minimum quality requirements**

79% (n=54) of the 68 respondents reported having defined quality standards for health care organisations to meet or achieve; 19% (n=13) reported not having defined quality standards, and 2% (n=1) did not know whether there were any defined quality standards set.

**Table 20**

**The setting of clearly defined quality standards for health care organisations to meet or achieve**

(n=68 respondents)

<b>There are defined quality standards</b> <b>% (n)</b>	<b>There are no defined quality standards</b> <b>% (n)</b>	<b>Don't know</b> <b>% (n)</b>
79 (54)	19 (13)	2 (1)

**5.12 Setting quality standards or minimum quality requirements, by member state**

When the modal values of responses were calculated in each member state, participants reported that there were clearly defined written quality standards that health care organisations were expected to meet or achieve in 18 of the member states (75% of the member states in the sample).

**Table 21**

**Coverage of defined written quality standards, by member state**

(n=24 member states, modal value scores)

Member states who reported having clearly defined written quality standards / minimum quality requirements for health care organisations to achieve	Belgium, Cyprus, Czech Republic, Denmark, Estonia, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, The Netherlands, Poland, Portugal, Slovakia, Spain, UK
Member states who reported the absence of clearly defined written quality standards / minimum quality requirements for health care organisations to achieve	Austria, Finland, Slovenia, Sweden
No clear consensus	Lithuania, Malta

**5.13 Organisations responsible for setting quality standards**

Data from this survey suggests that quality standards can be set by the MOH, non-governmental organisations, professional organisations or by provider organisations, in various combinations across member states. Taking the data from the 54 respondents who reported defined quality standards for their health care systems (see section 5.11), an analysis was made of the organisations reported as responsible for

setting these standards. The data suggests that ministries of health and government departments have the greatest level of involvement in setting quality standards (85% of responses), followed by professional organisations (41% of responses), and non-governmental organisations (35% of responses). Provider organisations were reported as having the least amount of involvement in setting quality standards (20% of responses).

**Table 22**

**Organisations setting quality standards for health care organisations**

(n=54 respondents who reported having quality standards for health care organisations)

<b>Organisations setting quality standards</b>	<b>Yes % (n)</b>	<b>No % (n)</b>
Ministry of Health or other government department / agency at national or regional level	85 (46)	15 (8)
Professional organisations e.g. medical and scientific societies	41 (22)	59 (32)
Non-governmental independent organisations at national or regional level e.g. for accreditation	35 (19)	65 (35)
Provider organisations e.g. hospital associations	20 (11)	80 (43)
Other organisations	7 (4)	93 (50)

**5.14 Organisations responsible for setting quality standards, by member state**

In the 18 member states who demonstrated a consensus based on modal value scores about the existence of quality standards (see section 5.12), there was consensus that ministries of health set quality standards in all 18 member states; non-governmental organisations set quality standards in 8 member states, professional organisations set quality standards in 2 member states, and provider organisations set quality standards in 2 member states.

**Table 23****Responsibility for setting quality standards, by member state**

(n=18 member states, modal value scores)

<b>Organisation setting quality standards</b>	<b>Member states confirming the setting of quality standards by this organisation</b>
Ministry of Health or other government department /agency at national or regional level	Belgium, Cyprus, Czech Republic, Denmark, Estonia, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, The Netherlands, Poland, Portugal, Slovakia, Spain, UK
Non-governmental independent organisations at national or regional level e.g. for accreditation	Czech Republic, Denmark, France, Luxembourg, The Netherlands, Poland, Portugal, Slovakia
Professional organisations e.g. medical and scientific societies	Portugal, UK
Provider organisations e.g. hospital associations	Germany, The Netherlands

**5.15 The areas of the health care system to which quality standards apply**

Taking the data from the 54 respondents who reported defined quality standards for their health care systems (see section 5.11), an analysis was made of the application of quality standards across health care systems. Quality standards were reported as applying mainly to hospital services (98% of responses), followed by mental health services (72% of responses), and primary care services (72% of responses).

**Table 24****Application of quality standards across health care organisations**

(n=54 respondents who reported defined quality standards for their health care organisations)

<b>Area of the health care system</b>	<b>Quality standards apply % (n)</b>	<b>Quality standards do not apply % (n)</b>	<b>Don't know % (n)</b>
Hospital	98 (53)	2 (1)	0
Mental health	72 (39)	24 (13)	4 (2)
Primary care	72 (39)	28 (15)	0
Other services*	50 (27)	50 (27)	0

*\*Examples given of 'other services' included nursing homes and long term care institutions, organisations providing palliative care, preventive health care, disability*

*services, outpatients, ambulatory care, drug rehabilitation, blood transfusion, dental care, social care, family consultation, ambulance, home hospital, pharmacy and laboratory services; district nursing, service providers from the private sector, and disease-specific care networks.*

### 5.16 Setting targets for quality improvement

68% (n=46) of the 68 respondents reported that targets for quality improvement were set for their health care system; 28% (n=19) reported that targets were not being set, and 4% (n=3) did not know whether targets were being set.

**Table 25**

#### The setting of quality improvement targets

(n=68 respondents)

<b>Targets are set for quality improvement % (n)</b>	<b>Targets are not set for quality improvement % (n)</b>	<b>Don't know % (n)</b>
68 (46)	28 (19)	4 (3)

### 5.17 Setting targets for quality improvement, by member state

When the modal values of responses were calculated in each member state, participants reported that their government had set explicit national targets for quality improvement in 16 member states (67% of the member states in the sample).

**Table 26**

#### Coverage of national targets for quality improvement across member states

(n=24 member states, modal value scores)

Member states who reported having national targets for quality improvement	Cyprus, Denmark, Estonia, France, Greece, Hungary, Italy, Lithuania, Luxembourg, Malta, The Netherlands, Poland, Portugal, Slovakia, Spain, UK
Member states who reported the absence of national targets for quality improvement	Austria, Finland, Sweden
No clear consensus	Belgium, Czech Republic, Germany, Ireland, Slovenia

### 5.18 The focus of quality improvement targets

Respondents were invited to indicate which quality improvement targets were relevant to their health care system from a list of commonly known targets. Taking the data from the 46 respondents who reported having quality improvement targets for their health care system (see section 5.16), an analysis was made of the inclusion of a range of targets.

The data from the 46 respondents who reported targets for quality improvement in their health care system suggests that the most frequently set targets for quality improvement in healthcare are those to control hospital infection rates (78%) and access times for elective surgery (56%). The use of clinically effective therapies (41%) and the reduction of adverse events (39%) were the least frequently mentioned targets.

**Table 27**

#### **Targets for quality improvement**

(n= 46 respondents who reported having targets for quality improvement in their health care system)

<b>Targets for quality improvement</b>	<b>Target is included</b>	<b>Target is not included</b>	<b>Don't know</b>
	<b>% (n)</b>	<b>% (n)</b>	<b>% (n)</b>
Control of hospital infection rates	78 (36)	20 (9)	2 (1)
Access times for elective surgery	56 (26)	35 (16)	9 (4)
Patient satisfaction	54 (25)	41 (19)	4 (2)
Waiting times in accident and emergency	43 (20)	52 (24)	4 (2)
Use of clinically effective therapies	41 (19)	48 (22)	11 (5)
Reducing adverse events	39 (18)	46 (21)	15 (7)
Other targets	39 (18)	61 (28)	0

Respondents were also given the opportunity to comment qualitatively on any other targets that were specific to their health care system. The range and diversity of the quality improvement targets that are being implemented across member states is reflected in the qualitative data on 'other targets' in Table 28.

**Table 28****Additional quality improvement targets by member state**

Monitoring / Evaluation	Publicising quality data (Denmark) Targets for evaluation (France) Safe reporting systems (Luxembourg) Security of prescriptions (Luxembourg) Monitoring adverse effects of drugs (Spain)
Performance-related	Extending accreditation (Denmark, France, Lithuania) Performance excellence / process improvement (Denmark, France, Lithuania) Reducing bedsores (Italy) Reducing hospital suicides (Italy) Safety of radiology services (Luxembourg) Reducing costs (Luxembourg) Risk management (Luxembourg)
Training / education	Services leadership training (Portugal)
Service use / access	Limiting the length of hospital stays (Estonia) Developing networks of care (France) Access to ambulance services (Hungary) Referral / screening/ treatment for cancer patients (Hungary, Luxembourg) Lower waiting times in paediatrics (Luxembourg) Completion of a new hospital building by 2007 (Malta) Faster processing of insurance claims (Spain) Orthopaedic surgery targets (Spain) Cataract surgery targets (Spain)
Public-health targets	Public health surveillance / health education (France, Luxembourg) Reducing falls (Italy) Pain relief programme (Luxembourg) Reducing antibiotic use (Luxembourg) Reducing mortality / incidence of disease (Lithuania)
Information systems	Improving medical records (France)

**5.19 Major achievements in quality improvement**

Respondents were invited to reflect on the three most important achievements in quality improvement in their health care system within the past three years. The qualitative data was subjected to thematic and categorical analysis. The most frequently cited achievements in quality improvement were :

- establishing national accreditation or quality assurance systems (17 member states)
- establishing a national society for quality in healthcare (13 member states)
- extending patient choice / patient rights / patient safety (13 member states)
- improving the training/ education / assessment of professionals (12 member states)
- expanding voluntary quality improvement activities (6 member states)
- improving information and data collection systems (6 member states )
- setting minimum quality standards for providers (6 member states)
- implementing clinical pathways and practice guidelines (5 member states)
- establishing safer reporting systems (5 member states)
- improving public health systems (5 member states)
- establishing national performance indicator programmes (4 member states)
- improving access to services and waiting times (3 member states)

At least two member states also reported the following achievements in quality improvement in their health care systems : widening recognition of the issue of quality in healthcare, increased auditing of hospitals, more emphasis on risk management, better controls on the prescription of drugs, primary care reform, and a clearer legal framework within which quality improvement can be implemented.

## FINDINGS

### CHAPTER 6 : Resources for Quality Improvement

#### 6.1 A national society for quality in health care

54% (n=37) of the 68 respondents reported that there was a national society for quality in healthcare in their member state. 43% (n=29) reported that there was no society for quality in healthcare, and 3% (n=2) did not know if there was a national society for quality in healthcare.

**Table 29**

#### The existence of a national society for quality in healthcare

(n=68 respondents)

There is a national society for quality % (n)	There is no national society for quality % (n)	Don't know % (n)
54 (37)	43 (29)	3 (2)

#### 6.2 National societies for quality in health care, by member state

When the modal values of responses were calculated in each member state, participants reported a national society for quality in health care in 12 member states (50% of the member states in this sample). Participants were invited to name their national society for quality in health care and to estimate the number of society members. The titles of these national societies for quality in health care and their membership numbers are given in Appendix D.

**Table 30**

#### The existence of a national society for quality in health care in member states

(n=24 member states, modal value scores)

Member states who reported having a national society for quality in health care	Austria, Czech Republic, Denmark, Finland, France, Germany, Greece, Ireland, Italy, The Netherlands, Poland, Spain
Member states who reported the absence of a national society for quality in health care	Belgium*, Cyprus, Estonia, Hungary*, Malta, Portugal, Slovakia*, Slovenia, Sweden*, UK
No clear consensus	Lithuania*, Luxembourg*

*\* Although the modal value scores for these member states (\*) suggested that there was no national society for quality in health care, details about national quality societies were provided by some participants from these member states, and these have been included in the list of national quality societies in Appendix D.*

### 6.3 Levels of awareness about national societies for quality in health care

Respondents were invited to estimate the level of awareness among health care organisations of the work of their national society for quality in health care. Taking the data from the 37 respondents who reported having a national society (see section 6.1), and when the responses in the ‘well known to all’ and ‘well known to most’ categories were combined, 68% (n=25) reported that it was well known to all or most organisations. 27% (n=10) reported that it was well known to a few organisations but that awareness was increasing, and 5% (n=2) reported a very low level of awareness of the work of their national society.

**Table 31**

#### Levels of awareness about a national society in health care

(n=37 respondents who reported having a national society for quality)

Levels of awareness about a national quality society	Responses
	% (n)
It is well known to all organisations	38 (14)
It is well known to most but not all organisations	30 (11)
It is well known to a few organisations, but gradually becoming known to more	27 (10)
Very few organisations know about it	5 (2)

### 6.4 The sources and coverage of guidance and support with quality improvement strategies for health care organisations

Health care organisations were reported as receiving support and guidance for quality improvement from a number of sources, including ministries of health and other government departments or agencies at national or regional level, non-governmental independent organisations at national or regional level, professional organisations, universities, provider organisations, and commercial consultancies. Respondents were invited to estimate the coverage of the support received by health care organisations from all these different sources.

When the responses in the categories ‘working with all’ and ‘working with many’ health care organisations were combined, participants reported that the most extensive coverage of support and guidance to health care organisations came from ministries of

health (54% of responses). The coverage of support from professional organisations, non-governmental independent organisations, provider organisations, commercial organisations and universities, were reported as less extensive (more likely to be ‘working with some’ and ‘working with a few’ health care organisations).

**Table 32**

**Reported sources and coverage of guidance and support with quality improvement strategies for health care organisations**

(n=68 respondents)

Organisations providing support with quality improvement	Coverage of guidance and support with quality improvement strategies					
	Working with all/most % (n)	Working with many % (n)	Working with some % (n)	Working with a few % (n)	Working with none % (n)	Don't know % (n)
MOH or other government department /agency at national or regional level	38 (26)	16 (11)	22 (15)	10 (7)	8 (5)	6 (4)
Professional organisations e.g. medical and scientific societies	10 (7)	29 (20)	28 (19)	22 (15)	2 (1)	9 (6)
Non-governmental, independent organisations at national or regional level	13 (9)	16 (11)	24 (16)	22 (15)	10 (7)	15 (10)
Provider organisations e.g. hospital associations	7 (5)	19 (13)	22 (15)	13 (9)	18 (12)	21 (14)
Commercial management consultancy firms	7 (5)	13 (9)	37 (25)	25 (17)	10 (7)	7 (5)
Universities	4 (3)	3 (2)	34 (23)	35 (24)	12 (8)	12 (8)

**6.5 Naming and describing the work of key organisations who lead activities in quality improvement.**

Participants were invited to name and describe the work of three key organisations leading activities in quality improvement within their health care system. A diverse range of organisations were reported within each member state and the information is presented in Appendix E.

**6.6 The inclusion of quality improvement issues in professional training and in continuing professional education**

Respondents were asked to estimate the availability of education in quality improvement issues to undergraduate and postgraduate health care students in their health care system. When the data for students from ‘all’, and ‘most’ health care professions was combined, access to training and education in quality issues was reported as being more widely available to postgraduate students than to undergraduates. 41% of participants reported this type of education being available to postgraduate students from all or most health care professions, and 25% reported it being available to undergraduates. 6% reported it being unavailable to postgraduate students, and 21% reported it being unavailable to undergraduates.

**Table 33**

**The inclusion of quality improvement issues in professional training and continuing professional education**

(n=68 respondents)

<b>Education in quality issues for health care students</b>									
UG = undergraduate training, PG = postgraduate continuing education for students from all/most/some/no health care professions									
UG all % (n)	UG most % (n)	UG some % (n)	UG none % (n)	UG don't know % (n)	PG all % (n)	PG most % (n)	PG some % (n)	PG none % (n)	PG don't know % (n)
18(12)	7 (5)	47(32)	21(14)	7 (5)	16(11)	25(17)	44(30)	6 (4)	9 (6)

## **6.7 Other resources available for health care organisations to support quality improvement**

Respondents were invited to describe any resources (in addition to those already covered in this chapter) that were available to support health care organisations to improve quality within their health care system. The qualitative data was subjected to a thematic and categorical analysis. Participants reported that the following additional resources for quality improvement were available to them :

- national, inter-regional, European and international networking (5 member states)
- support from the international community (4 member states)
- staff with specific training in quality issues (3 member states)
- access to additional funding / training from non-profit organisations and patient organisations (3 member states)
- internet resources (2 member states)
- specific national funding of quality projects (2 member states)
- annual conferences (2 member states)

At least one member state also reported the availability of specific programmes to improve specialist services, a nominated senior executive for quality, and systems for sharing quality tools between health care sectors as additional resources available to support quality improvement.

## FINDINGS

### CHAPTER SEVEN : The mandatory use of quality improvement policies and strategies

#### 7.1 The mandatory use of quality improvement policies and strategies in hospital services

Respondents were invited to indicate the mandatory use of a range of quality improvement policies and strategies across hospital services in their health care system, and to confirm the status of these policies and strategies as ‘required’ or ‘voluntary’.

Patient safety systems, clinical guidelines, accreditation programmes, auditing of standards, and quality management were reported as being more likely to be implemented on a voluntary basis in hospitals, while the monitoring of patients views was more likely to be required or mandatory. The ‘required’ and ‘voluntary’ use of performance indicators were reported as having very similar levels of coverage.

**Table 34**

#### The mandatory use of quality improvement policies and strategies in hospital services

(n=68 respondents)

<b>Quality improvement policy and strategy in hospitals</b>	<b>Required in hospitals % (n)</b>	<b>Voluntary in hospitals % (n)</b>	<b>Not applicable / don't know % (n)</b>
Systems for getting the views of patients e.g. satisfaction surveys, monitoring complaints	50 (34)	43 (29)	7 (5)
Performance indicators or measures	47 (32)	46 (31)	7 (5)
Patient safety systems e.g. incident reporting, risk management	44 (30)	47 (32)	9 (6)

Clinical guidelines, practice guidelines	40 (27)	54 (37)	6 (4)
Accreditation schemes and programmes	27 (18)	54 (37)	19 (13)
Audit, internal assessment of clinical standards	25 (17)	63 (43)	12 (8)
Organisational quality management programmes e.g. TQM	22 (15)	66 (45)	12 (8)

## **7.2 The mandatory use of quality improvement policies and strategies in primary care services**

Respondents were invited to indicate the mandatory use of a range of quality improvement policies and strategies across primary care services in their health care system, and to confirm the status of these policies and strategies as required or voluntary.

All the quality improvement policies and strategies were reported as more likely to be implemented on a voluntary basis in primary care services. A larger percentage of 'don't know' answers was noted in comparison to the data provided on hospitals (Table 34), and this was particularly the case for the coverage and status of accreditation programmes and the application of quality management in primary care services.

### **Table 35**

#### **The mandatory use of quality improvement policies and strategies in primary care services**

(n=68 respondents )

<b>Quality improvement policy and strategy in primary care</b>	<b>Required in primary care % (n)</b>	<b>Voluntary in primary care % (n)</b>	<b>Not applicable / don't know % (n)</b>
Patient safety systems e.g. incident reporting, risk management	28 (19)	43 (29)	29 (20)
Systems for getting the views of patients e.g. satisfaction surveys, monitoring complaints	26 (18)	49 (33)	25 (17)
Clinical guidelines, practice guidelines	24 (16)	54 (37)	22 (15)
Performance indicators or measures	22 (15)	53 (36)	25 (17)
Accreditation schemes and programmes	20 (14)	40 (27)	40 (27)
Audit, internal assessment of clinical standards	15 (10)	54 (37)	31 (21)
Organisational quality management programmes e.g. TQM	9 (6)	53 (36)	38 (26)

### **7.3 The mandatory use of quality improvement policies and strategies in mental health services**

Respondents were invited to indicate the mandatory use of a range of quality improvement policies and strategies across mental health services in their health care system, and to confirm the status of these policies and strategies as required or voluntary.

Most quality improvement policies and strategies cited were reported as more likely to be implemented on a voluntary basis in mental health services. Similarly to the data on primary care (Table 35), a larger percentage of 'don't know' answers was noted in comparison to the data provided on hospitals (Table 34), and this was particularly the

case for the coverage and status of accreditation programmes in mental health services.

**Table 36**

**The mandatory use of quality improvement policies and strategies in mental health services**

(n=68 respondents)

<b>Quality improvement policy and strategy in primary care</b>	<b>Required % (n)</b>	<b>Voluntary % (n)</b>	<b>Not applicable / don't know % (n)</b>
Systems for getting the views of patients e.g. satisfaction surveys, monitoring complaints	32 (22)	41 (28)	27 (18)
Patient safety systems e.g. incident reporting, risk management	32 (22)	37 (25)	31 (21)
Performance indicators or measures	28 (19)	41 (28)	31 (21)
Clinical guidelines, practice guidelines	23 (16)	50 (34)	26 (18)
Accreditation schemes and programmes	24 (16)	38 (26)	38 (26)
Audit, internal assessment of clinical standards	16 (11)	53 (36)	31 (21)
Organisational quality management programmes e.g. TQM	13 (9)	55 (37)	32 (22)

## FINDINGS

### CHAPTER 8 : Implementing quality improvement policies and strategies in the hospital and primary care sectors

#### 8.1 The coverage of measures to support the implementation of quality improvement policies and strategies in the hospital sector

Respondents were invited to indicate the coverage of various measures to support the implementation of quality improvement strategies in the hospital sector. The measures of support reported as being most widely available to ‘all or most’ and ‘many’ hospitals’ were committees for the control of infection (82% of responses), quality improvement in laboratories (76% of responses) and measures to maintain clinical equipment (72% of responses). The measures of support reported as least likely to be available to ‘all or most’ hospitals and ‘many’ hospitals were quality improvement projects (22% of responses), systems for the audit and follow up of quality improvement projects (13% of responses), and dedicated finance for quality improvement projects (10% of responses).

**Table 37**

#### The coverage of measures to support the implementation of quality improvement policies and strategies in the hospital sector

(n=68 respondents)

Measure of support	In all or most hospitals % (n)	In many hospitals % (n)	In some hospitals % (n)	In a few hospitals % (n)	In none % (n)	Don't know % (n)
Committee for infection control	57 (39)	25 (17)	13 (9)	2 (1)	0	3 (2)
Systems for QI in laboratories	38 (26)	38 (26)	12(8)	4 (3)	0	7 (5)
Regular maintenance of clinical equipment	40 (27)	32 (22)	9 (6)	10 (7)	2 (1)	7 (5)
Committee for QI	21 (14)	31 (21)	18 (12)	23 (16)	3 (2)	4 (3)
Reporting systems for quality problems such as adverse incidents or events	28 (19)	18 (12)	19 (13)	25 (17)	6 (4)	4 (3)

Staff training in quality improvement	9 (6)	32 (22)	35 (24)	19 (13)	0	4 (3)
Clear responsibilities for clinical performance	24 (16)	16 (11)	16 (11)	25 (17)	12 (8)	7 (5)
Director or leader of QI at a senior level in the organisation	7 (5)	28 (19)	24 (16)	34 (23)	4 (3)	3 (2)
A QI plan for the organisation	7 (5)	24 (16)	31 (21)	29 (20)	2 (1)	7 (5)
Information systems to provide data on quality of care	9 (6)	19 (13)	22 (15)	35 (24)	9 (6)	6 (4)
Regular staff performance reviews	13 (9)	13 (9)	24 (16)	36 (24)	7 (5)	7 (5)
Training for leadership in QI	4 (3)	21(14)	38 (26)	22 (15)	9 (6)	6 (4)
Regular internal quality reviews of departments or parts of the organisation	6 (4)	18 (12)	37 (25)	28 (19)	7 (5)	4 (3)
An organised programme of QI projects	9 (6)	13 (9)	32 (22)	35 (24)	4 (3)	6 (4)
Systematic follow-up and re-auditing of QI projects	4 (3)	9 (6)	22 (15)	44 (30)	15(10)	6 (4)
Dedicated finance / budget for QI	4 (3)	6 (4)	19 (13)	48 (33)	15(10)	7 (5)

## 8.2 The coverage of incentives to encourage hospitals to implement quality improvement policies and strategies

Respondents were invited to indicate the coverage of incentives to support the implementation of quality improvement strategies in the hospital sector. The need to comply with legal requirements was the most frequently reported incentive for ‘all or most’ and ‘many’ hospitals to implement quality improvement policies and strategies (72% of responses), followed by quality awards (20% of responses). Financial

rewards were reported as having least coverage as an incentive to improve quality in the hospital sector (11% of responses).

**Table 38**

**The coverage of incentives to encourage hospitals to implement quality improvement policies and strategies**

(n=68 respondents)

Incentives to implement QI policies and strategies	For all/most hospitals	For many hospitals	For some hospitals	For a few hospitals	For none	Don't know
	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)
The need to comply with legal requirements	63 (43)	9 (6)	7 (5)	4 (3)	9 (6)	7 (5)
Quality awards or certificates for organisations who provide good quality care	13 (9)	7 (5)	24 (16)	32 (22)	19 (13)	4 (3)
Financial rewards for organisations who provide good quality care	7 (5)	4 (3)	13 (9)	6 (4)	63 (43)	6 (4)

**8.3 The coverage of measures to support the implementation of quality improvement policies and strategies in the primary care sector**

Respondents were invited to indicate the coverage of various measures to support the implementation of quality improvement strategies in the primary care sector. The measures of support reported as being most widely available to 'all or most' primary care organisations and 'many' primary care organisations, were measures to improve the quality of laboratory services (44% of responses), measures to maintain equipment (40% of responses), and the clarification of lines of responsibility (22% of responses). The measures of support reported as least likely to be available to 'all or most' primary care organisations, and 'many' primary care organisations, were internal performance reviews (7% of responses), dedicated finance for quality improvement

(7% of responses), and a structured quality improvement plan (4% of responses). A higher percentage of ‘don’t know’ responses were noted in this section in comparison to the data on measures to support the implementation of quality improvement strategies in the hospital sector (section 8.1).

**Table 39**

**The coverage of measures to support the implementation of quality improvement policies and strategies in the primary care sector**

(n=68 respondents )

<b>Measure of support</b>	<b>In all or most primary care orgs. % (n)</b>	<b>In many primary care orgs. % (n)</b>	<b>In some primary care orgs. % (n)</b>	<b>In a few primary care orgs. % (n)</b>	<b>In none % (n)</b>	<b>Don't know % (n)</b>
Systems for QI in laboratories	31 (21)	13 (9)	15 (10)	6 (4)	9 (6)	26 (18)
Regular maintenance of clinical equipment	25 (17)	15 (10)	15 (10)	16 (11)	6 (4)	23 (16)
Clear responsibilities for clinical performance	12 (8)	10 (7)	12 (8)	16 (11)	25 (17)	25 (17)
Committee for QI	7 (5)	12 (8)	7 (5)	32 (22)	19 (13)	22 (15)
Committee for infection control	4 (3)	13 (9)	10 (7)	19 (13)	30 (20)	24 (16)
Reporting systems for quality problems such as adverse incidents or events	7 (5)	9 (6)	10 (7)	25 (17)	25 (17)	24 (16)
Staff training in quality improvement	3 (2)	13 (9)	24 (16)	31 (21)	10 (7)	19 (13)
Information systems to provide data on quality of care	7 (5)	7 (5)	12 (8)	32 (22)	21 (14)	21 (14)
Regular staff performance reviews	4 (3)	9 (6)	15 (10)	35 (24)	16 (11)	21 (14)

An organised programme of QI projects	0	12 (8)	9 (6)	42 (29)	16 (11)	21 (14)
Training for leadership in QI	0	12 (8)	20 (14)	31 (21)	16 (11)	21 (14)
Systematic follow-up and re-auditing of QI projects	1 (1)	10 (7)	9 (6)	34 (23)	25 (17)	21 (14)
Director or leader of QI at a senior level in the organisation	2 (1)	7 (5)	13(9)	29 (20)	27 (18)	22 (15)
Regular internal quality reviews of departments or parts of the organisation	1 (1)	6 (4)	18 (12)	32 (22)	22 (15)	21 (14)
Dedicated finance / budget for QI	3 (2)	4 (3)	10 (7)	21 (14)	41 (28)	21 (14)
A QI plan for the organisation	0	4 (3)	27 (18)	32 (22)	16 (11)	21 (14)

#### **8.4 The coverage of incentives to encourage primary care organisations to implement quality improvement policies and strategies**

Respondents were invited to indicate the coverage of incentives to support the implementation of quality improvement strategies in the primary care sector. The need to comply with legal requirements was the most frequently reported incentive for ‘all or most’ and ‘many’ primary care organisations to implement quality improvement policies and strategies (54% of responses), followed by quality awards and certificates (16% of responses). Financial rewards were reported as having least coverage as incentives to improve quality in the primary care sector (12% of responses). A higher percentage of ‘don’t know’ responses were noted in this section in comparison to the data on incentives for the hospital sector (section 8.2).

**Table 40****The coverage of incentives to encourage primary care organisations to implement quality improvement policies and strategies**

(n=68 respondents)

<b>Incentives to implement QI policies and strategies</b>	<b>For all or most primary care orgs. % (n)</b>	<b>For many primary care orgs. % (n)</b>	<b>For some primary care orgs. % (n)</b>	<b>For a few primary care orgs. % (n)</b>	<b>For none % (n)</b>	<b>Don't know % (n)</b>
The need to comply with legal requirements	51 (35)	3 (2)	0	6 (4)	18 (12)	22 (15)
Quality awards or certificates for organisations who provide good quality care	10 (7)	6 (4)	13 (9)	22 (15)	28 (19)	21 (14)
Financial rewards for organisations who provide good quality care	9 (6)	3 (2)	10 (7)	15 (10)	44 (30)	19 (13)

**8.5 The factors that support the implementation of quality improvement policies and strategies in health care systems**

Respondents were invited to describe the three most important factors that have helped and supported the implementation of quality improvement policies and strategies in their health care system. The qualitative data was subjected to a thematic and categorical analysis. Participants reported that the most important factors to support quality improvement were :

- professional involvement, training and initiatives (16 member states)
- a legal requirement to implement QI (15 member states)
- public demand, expectations and involvement (12 member states)
- quality improvement projects e.g. accreditation, licensing, awards, QA, circles and forums, quality committees, improvement centres (10 member states)
- political interest (9 member states)

- harmonisation of policy across the EU / progress in other member states / international guidelines (7 member states)
- a national strategy for QI (7 member states)
- a national society for quality (6 member states)
- financial incentives to implement QI (6 member states)
- strong leadership (5 member states)
- data on clinical performance (5 member states)
- having clear and explicit QI policies (4 member states)
- managerial education (3 member states)
- market forces and competition (3 member states)
- recognition from medical societies (3 member states)

Respondents from at least one member state also reported that the development of QI was supported by a sustained effort to build on the success of existing projects, media coverage, case law, the involvement of health insurers and consultancies, and local accountability. Developing positive and collaborative relationships between stakeholders, and having non-punitive approaches to monitoring quality were also cited as supporting factors. Quality improvement was also reported as being motivated by organisational reform and the modernisation of infrastructure and buildings.

### **8.6 The factors that prevent progress in implementing quality improvement policies and strategies**

Respondents were invited to describe the three main factors that have prevented progress in implementing quality improvement policies and strategies in their health care system. The qualitative data was subjected to a thematic and categorical analysis. Participants reported that the main factors that had prevented progress in quality improvement were :

- under-funding (17 member states)
- lack of political leadership and strategic planning (15 member states)
- lack of incentives / confused incentives / low motivation (12 member states)
- cultural barriers e.g. professional, bureaucratic (11 member states)
- lack of professional training / education (10 member states)

- under-staffing / time issues / neglect of staff interests (10 member states)
- inadequate management and governance structures (9 member states)
- lack of clarity in standards, accountability, controls and priorities (5 member states)
- weak public pressure (5 member states)
- punitive and negative approaches to monitoring quality / errors (5 member states)
- lack of coordination / networking at organisational, local and regional levels (5 member states)
- political change and transition (4 member states)
- lack of, and fear of transparency (4 member states)
- inadequate / uncoordinated data on quality (4 member states)

Respondents from at least one member state also reported that progress in developing QI was prevented by the speed and volume of health care reform, by not having a coordinating national agency or task force; by a shortage of trained specialists in QI, a shortage of IT resources, and unstable health insurance systems. Other reported barriers to progress were a lack of guidance at an international level, outdated legislation, centralised bureaucratic administration systems, the over-use of target-driven approaches to quality improvement, the inability to translate policy rhetoric into practice, negative media reporting and the implementation of unsustainable or partial solutions.

## **FINDINGS**

### **CHAPTER NINE : Information and Evaluation**

#### **9.1. Internal systems to assess and evaluate quality improvement policies and strategies within health care organisations**

Respondents were invited to describe the internal systems that are in place (inside health care organisations) to assess and evaluate quality improvement policies and strategies. The qualitative data was subjected to a thematic and categorical analysis. Participants reported that the following internal systems were in place to assess and evaluate quality improvement :

- quality committees or steering groups for inspection / accreditation / infection control / haemovigilance / sterilisation of equipment (9 member states)
- audits (9 member states)
- self-assessment (8 member states)
- notification of indicator scores (7 member states)
- patient satisfaction surveys / complaints monitoring (6 member states)
- benchmarking projects (4 member states)
- peer-review / visitatie / reviews by national experts (4 member states)
- management / performance reviews (4 member states)
- incident reporting systems (3 member states)

Respondents from at least one member state also reported that the internal assessment and evaluation of quality improvement policies and strategies involved the production of quality improvement plans or a plan & control cycle; the use of budget variance analysis; internal enquiries into adverse events, and the mandatory production of annual / quarterly reports. Internal assessment was also in some member states reported as including supervision by quality councils, internal group meetings, mandatory professional supervision, and surveys of professionals and managers.

#### **9.2 Access to the information derived from the internal assessment and evaluation of quality improvement policies and strategies within health care organisations**

Respondents were invited to indicate who would have access to the information that is derived from the internal assessment and evaluation of quality improvement policies and strategies within health care organisations. 71% (n=48) of the 68 respondents reported that the information would be available to senior executives of the organisation, 47% (n=32) reported that it would be available to all departments within the organisation, and 26% (n=18) reported that it would be available to external organisations and agencies.

**Table 41**

**Reported access to the information derived from the internal assessment and evaluation of quality improvement policies and strategies within health care organisations**

(n= 68 respondents)

<b>Access to information generated from internal assessment and evaluation of quality improvement for.....</b>	<b>Information is available</b>	<b>Information is not available</b>	<b>Not applicable / don't know</b>
	<b>% (n)</b>	<b>% (n)</b>	<b>% (n)</b>
Senior executives of the organisation	71 (48)	19 (13)	10 (7)
All departments within the organisation	47 (32)	40 (27)	13 (9)
External organisations and agencies	26 (18)	62 (42)	12 (8)

**9.3 External systems (outside health care organisations) to assess and evaluate quality improvement policies and strategies**

Respondents were invited to describe the external systems that are in place (outside health care organisations) to assess and evaluate quality improvement policies and strategies. The qualitative data was subjected to a thematic and categorical analysis. Participants reported that the following external systems were in place to assess and evaluate quality improvement :

- accreditation / licensing / certification (13 member states)
- supervision and evaluation at MOH / national government / regional government level (9 member states)
- audits (9 member states)
- ISO standards (8 member states)

- indicator projects (6 member states)
- benchmarking e.g. of care processes, prescription behaviour, diagnostic categories, transplants (5 member states)
- EFQM (5 member states)
- national awards and contests (4 member states)
- external laboratory testing / haemovigilance (3 member states)
- commercial agencies and consultancies (3 member states)

Respondents from at least one member state also reported external assessments being carried out by patient organisations, by a National Project, Institute or Commission, a National Health Fund, and health insurance companies. Surveys of the quality of services were also reported as being undertaken by the JCI, and by Strategic Health Authorities. Other processes reported to monitor quality externally were Six Sigma, external peer review and counselling, mystery patients, and inspections of medical training.

#### **9.4 Access to the information derived from the external assessment of quality improvement policies and strategies in health care organisations**

Respondents were invited to indicate who would have access to the information that is derived from the external assessment and evaluation of quality improvement policies and strategies. 43% (n=29) of the 68 respondents reported that the information would be available to professional organisations, 37% (n=25) reported that it would be available to members of the public and service user groups, and 35% (n=24) reported that it would be available to hospital associations. Information from the external assessment an evaluation of quality improvement policies and strategies was reported as being less accessible to quality consultancies, other organisations providing similar services, non-governmental independent organisations, and universities.

**Table 42****Reported access to the information generated from the external assessment and evaluation of quality improvement strategies**

(n= 68 respondents)

<b>Access to information derived from the external assessment and evaluation of quality improvement for .....</b>	<b>Information is available</b>	<b>Information is not available</b>	<b>Not applicable / don't know</b>
	<b>% (n)</b>	<b>% (n)</b>	<b>% (n)</b>
Professional organisations e.g. medical, scientific societies	43 (29)	47 (32)	10 (7)
Members of the public / service user groups	37 (25)	53 (36)	10 (7)
Hospital associations	35 (24)	55 (37)	10 (7)
Quality consultancies	30 (20)	60 (41)	10 (7)
Other organisations providing similar services	30 (19)	60 (37)	10 (7)
Non-governmental, independent organisations	27 (18)	63 (43)	10 (7)
Universities	22 (15)	68 (46)	10 (7)

**9.5 Sharing information about quality improvement between health care organisations within member states**

Respondents were invited to indicate how much information and learning about quality improvement was being shared between health care organisations within their own health care system. 47% (n=32) of the 68 respondents reported that some information on quality improvement was being shared between health care organisations in their health care system, and 35% (n=24) reported that a little information was being shared.

**Table 43****The reported amount of information being shared about quality improvement between health care organisations within member states**

(n=68 respondents)

<b>The amount of information on quality improvement being shared between health care organisations within member states</b>	<b>Responses</b>
	<b>% (n)</b>
A great deal of information is being shared	10 (7)
Some information is being shared	47 (32)
A little information is being shared	35 (24)
No information is being shared	8 (5)

## 9.6 Methods of sharing information about quality improvement between health care organisations within member states

Respondents were invited to indicate the methods by which information on quality improvement was being shared between health care organisations within their health care systems. Conferences and workshops were the most frequently reported method of sharing information about quality improvement between health care organisations (88% of responses), followed by reports or documents (65% of responses). Open days and special quality events were reported as being the least likely method of sharing information about quality improvement between organisations (35% of responses).

**Table 44**

### Methods of sharing information about quality improvement between health care organisations within member states

(n=68 respondents)

Methods of sharing information on quality improvement between health care organisations	Information is shared % (n)	Information is not shared % (n)
At conferences / workshops	88 (60)	12 (8)
In reports or documents	65 (44)	35 (24)
Through collaboratives on quality projects	59 (40)	41 (28)
Through websites	57 (39)	43 (29)
In practical guides to quality improvement or tool kits	44 (30)	56 (38)
At open days and special quality events	35 (24)	65 (44)

*\* Other reported methods of sharing information between health care organisations within member states included participating in the activities of quality organisations / networks e.g. HOPE, STAKES; shared pilot projects, committees for co-ordinating quality activities across regions, consortia or locally-based interest groups, participating in competitions for quality awards and benchmarking exercises, holding unofficial meetings or discussions between representatives of different health care organisations (sharing experiences), organisational networks or quality advice networks, using an intranet portal within the health care system, professional organisations sharing information across organisations, cross-assessment between health centres and health care teams e.g. using MoniQuor from IQS; external professional training courses, regular QI sections in leading journals.*

### **9.7 Sharing information about quality improvement with other EU member states**

Respondents were invited to indicate how much information and learning about quality improvement was being shared with other EU member states. 44% (n=30) of the 68 respondents reported that a little information on quality improvement was being shared between health care organisations in their health care system, and 40% (n=27) reported that some information was being shared.

**Table 45**

#### **The reported amount of information shared about quality improvement with other EU member states**

(n=68 respondents)

<b>The amount of information on quality improvement being shared with other EU member states</b>	<b>Responses % (n)</b>
A great deal of information is being shared	7 (5)
Some information is being shared	40 (27)
A little information is being shared	44 (30)
No information is being shared	7 (5)
Don't know	2 (1)

### **9.8 Methods of sharing information about quality improvement with other EU member states**

Respondents were invited to indicate the methods by which information on quality improvement was being shared with other EU member states. Conferences and workshops were the most frequently reported method of sharing information about quality improvement with other EU member states (85% of responses), followed by collaboratives on quality projects (53% of responses). Practical guides and tool kits were reported as being the least likely method of sharing information about quality improvement with other EU member states (13% of responses).

**Table 46**

#### **Methods of sharing information about quality improvement with other EU member states**

(n=68 respondents)

Methods of sharing information on quality improvement between member states	Information is shared	Information is not shared	Don't know/ not applicable
	% (n)	% (n)	% (n)
At conferences / workshops	85 (58)	10 (7)	5 (3)
Through collaboratives on quality projects	53 (36)	44 (30)	3 (2)
In reports or documents	46 (31)	51 (35)	3 (2)
Through websites	41 (28)	54 (37)	5 (3)
At open days and special quality events	23 (16)	73 (50)	3 (2)
In practical guides to quality improvement, or tool kits	13 (9)	84 (57)	3 (2)

*\* Other reported methods of sharing information on quality improvement between member states included international professional networks, exchange visits e.g. the HOPE exchange programme, comparative performance indicator projects (e.g. in the Nordic countries), participation in OECD and WHO indicator projects, European study tours for senior clinician-managers, personal contacts, EC funded research projects, participation in international surveys, sharing information through the work of ESQH, organising translation of important documents and publishing in leading international journals.*

### **9.9 The cross-border provision of health care services by prior agreement with other EU member states**

Respondents were invited to report on any cross-border arrangements in place to access health services from another EU member state, by prior agreement e.g. for elective surgery or for specialist treatment. They were also asked to report the types of care that their patients had access to in other member states, and any arrangements that were in place to assess and evaluate the quality of health care services provided by other member states. 12 member states (50 % of the member states in the sample) reported that patients were accessing health care by prior agreement in another member state. Only one member state reported that specific arrangements were in place to assess and evaluate the quality of cross-border care.

The cross-border arrangements, the types of care involved and any arrangements for the assessment and evaluation of the quality of cross-border care are given in Table 47.

**Table 47**

**Reported cross-border care agreements, types of care and the assessment of the quality of services received in other member states.** (n=12 member states who reported having access to health care across borders by prior agreement )

<b>Patient's member state of origin</b>	<b>Member state providing health care by prior agreement</b>	<b>Type of care provided</b>	<b>Arrangements to monitor the quality of cross-border care</b>
<b>Austria</b>	Various European Centres of reference	Specialist treatment	None
<b>Denmark</b>	Germany	Radiotherapy (breast cancer) Elective surgery Specialist treatment	Danish oncologists visit to check equipment / practice guidelines
	France	Specialist treatment	None
	UK	Specialist treatment	None
	Sweden	Elective surgery Specialist treatment	None
<b>Estonia</b>	Germany	Elective surgery	None
	Finland	Elective surgery Specialist treatment	None
	EU – wide search	No fixed list Services not available in Estonia	None
<b>Ireland</b>	UK	Elective surgery	None
<b>Italy</b>	EU- wide search	No fixed list Services not available in Italy	None
<b>Luxembourg</b>	France	Burns treatments, liver transplants	None
	Germany		None
	Belgium		None
<b>Malta</b>	UK	Complex oncology surgery Complex tertiary care	None
	Italy	Transplant surgery and organ donation	Professional networks / recommendations / follow up in Malta
<b>Portugal</b>	UK	Specialised treatments / technologies	None
	France		None
	Spain	Elective surgery	None
<b>Slovenia</b>	Austria	Radiotherapy	None
	Italy		None
	UK	Complex cardiac surgery	None
	Slovakia		None
<b>Spain</b>	UK	Services not available in Spain	None
	France		None
	Germany		None
<b>Sweden</b>	A few member states	Cancer treatment	None
<b>UK</b>	France	Hip replacements	None

## FINDINGS

### CHAPTER TEN : The outcomes and impact of quality improvement policies and strategies

#### 10.1 The impact of quality improvement policies and strategies

Respondents were asked to rate different quality improvement policies and strategies, in terms of their level of impact on the quality of health care services. When the data from the ‘major’ and moderate’ impact categories were combined, the quality improvement strategy reported as having the most impact on improving the quality of health services was the introduction of clinical practice guidelines (57% of respondents). Performance indicators were reported as having a major/moderate impact on quality improvement by 53% of respondents, and accreditation schemes by 49% of respondents. Patient safety systems were reported as having the least impact on quality improvement (44% of respondents), but the highest percentage of ‘don’t know’ responses were also recorded for patient safety systems (15% of responses).

**Table 48**

#### The reported impact of different quality improvement policies and strategies on improving health care services

(n=68 respondents)

Quality improvement policy / strategy	Level of impact on improving the quality of health services				
	Major impact % (n)	Moderate impact % (n)	Limited impact	Little / no impact	Don't know
Clinical guidelines, practice guidelines	22 (15)	35 (24)	31 (21)	8 (5)	4 (3)
Performance indicators or measures	25 (17)	28 (19)	25 (17)	13 (9)	9 (6)
Accreditation schemes and programmes, audit	18 (12)	31 (21)	26 (18)	16 (11)	9 (6)
Quality management of organisations	20 (14)	25 (17)	25 (17)	21 (14)	9 (6)
Systems for getting the views of patients e.g. satisfaction surveys, monitoring complaints	16 (11)	34 (23)	37 (25)	6 (4)	7 (5)
Patient safety systems e.g. incident reporting, risk management	22 (15)	22 (15)	28 (19)	13 (9)	15 (10)

**10.2 Levels of improvement achieved in relation to the framework for quality improvement outcomes recommended by the WHO (Arah et al; 2003)**

Respondents were invited to report on the levels of improvement in health care services in their country, due to quality improvement strategies. The question was asked in relation to the framework set by the WHO for improving the quality of health care services (Arah et al; 2003). This framework is structured around improving clinical effectiveness, efficiency, staff orientation, responsive governance, safety, and patient-centredness.

When the responses in the ‘major’ and moderate’ level of improvement were combined, 36% of respondents reported improvement in staff orientation, and 35% of respondents reported an similar level of improvement in patient-centredness, due to quality improvement policies and strategies. Responsive governance was reported as the area of least improvement (22 % of responses). A high percentage of ‘don’t know’ responses were noted throughout this dataset.

**Table 49**

**Levels of improvement achieved due to quality improvement policies and strategies (n=68 respondents)**

Quality improvement outcome defined by the WHO	Level of improvement due to quality improvement policies and strategies					
	Major	Moderate	Limited	Little or no	Has got worse	Don't know
	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)
Staff orientation	9 (6)	27 (19)	6 (4)	15 (10)	6 (4)	37 (25)
Patient centredness	9 (6)	26 (18)	10 (7)	15 (10)	6 (4)	34 (23)
Safety	10 (7)	21 (14)	12 (8)	16 (11)	0	41 (28)
Clinical effectiveness	6 (4)	22 (15)	21 (14)	4 (3)	2 (1)	46 (31)
Efficiency	4 (3)	22 (15)	19 (13)	9 (6)	3 (2)	43 (29)
Responsive governance	7 (5)	15 (10)	10 (7)	16 (11)	3 (2)	48 (33)

## **10.3 CORRELATION DATA**

### **10.3.1 Relationships between quality improvement processes and outcomes**

The data on the reported impact of different quality improvement policies and strategies on improving health care services (Table 48), and the data on the reported levels of improvement in the key areas defined by the WHO due to QI policies and strategies (Table 49), was tested for statistically significant correlations with data on quality improvement processes ( $p = < 0.01$ ), using a Spearman one tailed bivariate correlation, or a Mann Whitney U Test on two independent samples (SPSS programme). The findings are presented in tables in Appendix F (Tables F1-F7 give correlations for the impact of quality improvement strategies); and in Appendix G (Tables G1–G5 give correlations for the levels of improvement resulting from quality improvement strategies). A summary of the findings is given below.

### **10.3.2 The supports and processes that increase the impact of quality improvement strategies (performance indicators, clinical practice guidelines, accreditation, quality management, patient surveys and patient safety systems).**

#### ***Performance Indicators***

Performance Indicators were reported as having a greater impact as a quality improvement strategy when the following supports and processes were in place :

- legal requirements for QI policies in mental health services ( $p=0.004$ )
- setting targets for a health care system ( $p=0.001$ )
- the requirement to measure performance indicators in hospitals ( $p=0.005$ ), in primary care services ( $p=0.002$ ), and in mental health services ( $p=0.006$ )
- having information systems in hospitals providing data on the quality of care ( $p=0.007$ )
- having an organised programme of QI projects in hospitals ( $p=0.008$ ), and in primary care ( $p=0.0001$ )
- having a committee for infection control in hospitals ( $p=0.008$ )
- having incident reporting systems in hospitals ( $p=0.009$ )
- having a committee for quality improvement in primary care ( $p=0.006$ )
- having a director or a leader for QI at senior level in primary care ( $p=0.009$ )
- having a dedicated budget for QI in primary care ( $p=0.001$ )

- auditing and follow up of QI projects in primary care (p=0.006)
- financial rewards for QI in hospitals (p=0.007), and in primary care (p=0.009)
- the need to comply with legal requirements for QI in primary care (p=0.001)

### ***Clinical Practice Guidelines***

Clinical Practice Guidelines were reported as having a greater impact as a quality improvement strategy when the following supports and processes were in place :

- having targets for patient satisfaction set for the health care system (p=0.009)
- receiving support and guidance with QI from universities (p=0.0001)
- undergraduate training and education in QI (p=0.002)
- having a programme of QI projects in hospitals (p=0.003), and in primary care (p=0.008)
- auditing QI projects in hospitals (p=0.002)

### ***Accreditation Systems***

Accreditation Systems were reported as having a greater impact as a quality improvement strategy when the following supports and processes were in place :

- having quality standards set for the health care system (p=0.009)
- having a national society for quality in health care (p=0.001)
- training in QI for hospital staff (p=0.0001)
- having a committee for QI in hospitals (p=0.005)
- having a programme of QI projects in hospitals (p=0.0001), and in primary care (p=0.002)
- auditing QI projects in hospitals (p=0.002)
- having a QI plan in primary care (p=0.009)
- having regular internal quality reviews in primary care (p=0.003)
- having information systems in primary care providing data on the quality of care (p=0.001)

### ***Quality Management***

Quality Management Systems were reported as having a greater impact as a quality improvement strategy when the following supports and processes were in place :

- targets for infection control in hospitals (p=0.0001)
- receiving support and guidance from non-governmental organisations (p=0.004), universities (p=0.0001), and provider organisations (p=0.004)
- undergraduate training and education in QI (p=0.003)
- training in QI for hospital staff (p=0.0001)
- leadership training in QI for hospital staff (p=0.007), and for primary care staff (p=0.003)
- having a quality improvement plan in hospitals (p=0.004), and in primary care (p=0.001)
- having a dedicated budget for QI in hospitals (p=0.001)
- having information systems providing data on the quality of care in hospitals (p=0.007), and in primary care (p=0.001)
- having an organised programme of QI projects in hospitals (p= 0.009), and in primary care (p=0.006)
- auditing QI projects in hospitals (p=0.003)

### ***Patient Surveys***

Patient surveys and systems for monitoring complaints were reported as having a greater impact as a quality improvement strategy when the following supports and processes were in place :

- targets for waiting times for elective surgery set for the health care system (p=0.007)
- receiving support and guidance from universities (p=0.001)
- undergraduate training and education in QI (p=0.001)
- having information systems providing data on the quality of care in hospitals (p=0.004)
- auditing QI projects in hospitals (p=0.001), and in primary care (p=0.004)
- training in QI for staff in primary care (p=0.006)
- having a quality improvement plan in primary care (p=0.003)
- having an organised programme of QI projects in primary care (p=0.0001)
- having clear responsibilities for clinical performance in primary care (p=0.004)

### ***Patient Safety Systems***

Patient Safety Systems were reported as having a greater impact as a quality improvement strategy when the following supports and processes were in place :

- receiving support and guidance from universities (p=0.001)
- undergraduate training and education (p=0.009), and postgraduate training and education in QI (p=0.004)
- the requirement to measure performance indicators in hospitals (p=0.004), and in mental health services (p=0.007)
- the requirement to have patient safety systems in hospitals (p=0.007)
- having a programme of QI projects in hospitals (p=0.005)
- having incident reporting systems in hospitals (p=0.0001) and in primary care (p=0.001)
- having financial rewards for QI in hospitals (p=0.005) and in primary care (p=0.007)

### **10.3.3 Aggregating the data on the impact of quality improvement strategies**

When the data for the impact of quality improvement strategies (covering performance indicators, clinical practice guidelines, accreditation, quality management, patient surveys and patient safety systems) was aggregated into a single mean score, the overall impact of these strategies correlated with the following supports and processes :

- setting targets for waiting times in accident and emergency (p=0.006)
- setting targets for infection control in hospitals (p=0.004)
- setting targets for patient satisfaction (p=0.007)
- receiving support and guidance from universities (p=0.0001), and from provider organisations (p=0.003)
- undergraduate training and education (p=0.001), and postgraduate training and education in QI (p=0.005)
- training in QI for hospital staff (p = 0.0001) and primary care staff (p=0.007)
- leadership training for QI in hospitals and primary care (p=0.007)
- having a quality improvement plan in hospitals (p=0.004), and in primary care (p=0.0001)

- having regular internal quality reviews in hospitals (p=0.004)
- having a dedicated budget for QI in hospitals (p=0.003), and in primary care (p=0.006)
- having information systems providing data on the quality of care in hospitals (p=0.0001) and in primary care (p=0.001)
- having a programme of QI projects in hospitals (p=0.0001) and in primary care (p=0.0001)
- auditing QI projects in hospitals (p=0.0001) and in primary care (p=0.0001)
- having a committee for infection control in hospitals (p=0.008)
- regular staff performance reviews in primary care (p=0.008)
- having clear responsibilities for clinical performance in primary care (p=0.001)
- maintaining equipment in primary care (p=0.008)
- financial rewards for QI in hospitals (p=0.003), and in primary care (p=0.003)

**10.3.4 SUMMARY : the supports and processes that increase the overall impact of quality improvement strategies (covering performance indicators, clinical practice guidelines, accreditation, quality management, patient surveys and patient safety systems).**

The data from this survey and the statistically significant relationships identified between quality improvement supports / processes and the impact of quality improvement strategies suggest that :

## **Goals and Values**

The impact of quality improvement strategies may be greater when specific goals are set for the health care system. In this study the most significant goals were target-setting for waiting times in accident and emergency departments, for the control of infection rates in hospitals, and for patient satisfaction.

## **Resources**

The impact of quality improvement strategies may be greater when health care organisations receive support and guidance from universities and from provider organisations. Undergraduate and postgraduate training in quality improvement may also increase the impact of quality improvement strategies.

## **Measures to Support QI within health care organisations**

### ***Hospitals***

The impact of quality improvement strategies in hospitals may be greater when staff have access to training in quality improvement and to leadership training. The impact of quality improvement strategies may be greater in hospitals who have a quality improvement plan, an organised programme of QI projects, procedures for auditing and follow-up of QI projects, regular internal quality reviews, information systems providing data on the quality of care, and a committee for infection control. Having a dedicated budget for QI and financial rewards for QI may also increase the impact of quality improvement strategies in hospitals.

### ***Primary Care***

The impact of quality improvement strategies in primary care may be greater when staff have access to training in quality improvement and to leadership training, and there are regular staff performance reviews and clear lines of responsibility for clinical performance. The impact of quality improvement strategies may be greater in primary care organisations who have a quality improvement plan, an organised programme of QI projects, procedures for auditing and follow-up of QI projects, information systems providing data on the quality of care, and equipment that is well-maintained. Having a dedicated budget for quality improvement and financial rewards for quality improvement may also increase the impact of quality improvement strategies in primary care.

### 10.3.5

**The supports and processes that correlate with improvements in service quality defined within the WHO framework for quality improvement (2003); (clinical effectiveness, efficiency, staff orientation, responsive governance, safety, and patient-centredness).**

#### *Improvements in clinical effectiveness*

Improvements in clinical effectiveness were reported as more likely when the following supports and structures were in place :

- targets for waiting times in accident and emergency departments (p=0.008)
- undergraduate training and education (p=0.006), and postgraduate training and education in QI (p=0.003)
- a programme of QI projects in hospitals (p=0.009)
- auditing of QI projects in hospitals (p=0.007)
- financial rewards for QI in hospitals (p=0.009)
- the amount of information on quality improvement shared with other health care organisations within a member state (p=0.0001)

#### *Improvements in efficiency*

Improvements in efficiency were reported as more likely when the following supports and structures were in place :

- postgraduate training and education in QI (p=0.002)
- financial rewards for QI in hospitals (p=0.002)
- the amount of information on quality improvement shared with other health care organisations within a member state (p=0.0001)

#### *Improvements in staff orientation*

Improvements in staff orientation were reported as more likely when the following supports and structures were in place :

- support and guidance from professional organisations (p=0.006), and from universities (p=0.003)

- training in QI for hospital staff (p=0.0001), and for primary care staff (p=0.008)
- dedicated budget for QI in hospitals (p=0.0001)
- information systems providing data on the quality of care in hospitals (p=0.004)
- auditing of QI projects in hospitals (p=0.001)
- a quality improvement plan in primary care (p=0.006)
- the amount of information on quality improvement shared with other health care organisations within a member state (p=0.0001)

### ***Improvements in responsive governance***

Improvements in responsive governance were reported as more likely when the following supports and structures were in place :

- support and guidance from the Ministry of Health (p=0.001), from professional organisations (p=0.0001), and from universities (p=0.002)
- training in QI for hospital staff (p=0.0001)
- leadership training in QI in hospitals (p=0.003), and in primary care (p=0.008)
- regular internal quality reviews in hospitals (p=0.001)
- a director or leader for QI at senior level in hospitals (p=0.006)
- a programme of QI projects in hospitals (p=0.001), and in primary care (p=0.003)
- auditing of QI projects in hospitals (p=0.001) and in primary care (p=0.005)
- clear responsibilities for clinical performance in hospitals (p=0.003)
- a quality improvement plan in primary care (p=0.005)
- the amount of information on quality improvement shared with other EU member states (p=0.001)

### ***Improvements in safety***

Improvements in safety were reported as more likely when the following supports and structures were in place :

- targets for waiting time in accident and emergency departments (p=0.006)

- support and guidance from professional organisations (p=0.009), and from commercial consultancies (p=0.005)
- postgraduate training and education in QI (p=0.001)
- training in QI for hospital staff (p=0.002)
- a dedicated budget for QI in hospitals (p=0.001)
- information systems to provide data on the quality of care in hospitals (p=0.007)
- a programme of QI projects in hospitals (p= 0.0001)
- auditing and follow-up of QI projects in hospitals (p=0.003)
- the amount of information on quality improvement shared with other health care organisations within a member state (p=0.007)

### ***Improvements in patient-centredness***

Improvements in patient-centredness were reported as more likely when the following supports and structures were in place :

- support and guidance from universities (p=0.009)
- postgraduate training and education in QI (p=0.004)
- training in QI for hospital staff (p=0.004), and for primary care staff (p=0.006)
- regular staff performance reviews in hospitals (p=0.005), and in primary care (p=0.003)
- leadership training in QI for hospital staff (p=0.006)
- a dedicated budget for QI in hospitals (p = 0.0001)
- information systems providing data on the quality of care in hospitals (p=0.003)
- a programme of QI projects in hospitals (p=0.001)
- auditing of QI projects in hospitals (p=0.001)
- clear responsibilities for clinical performance in hospitals (p=0.009)
- a quality improvement plan in primary care (p=0.002)
- the amount of information on quality improvement shared with other health care organisations within a member state (p = 0.0001)
- the amount of information on quality improvement shared with other EU member states (p=0.008)

### **10.3.6 Aggregating the data on levels of quality improvement**

When the data for levels of quality improvement (covering clinical effectiveness, efficiency, staff orientation, responsive governance, safety, and patient-centredness) was aggregated into a single mean score, the overall level of improvement in service quality correlated with the following supports and processes :

- targets for waiting times in accident and emergency (p=0.004)
- support and guidance from universities (p=0.002)
- postgraduate training and education in QI (p=0.008)
- training in QI for hospital staff (p = 0.0001), and for primary care staff (p=0.007)
- leadership training in QI for hospital staff (p=0.005)
- a dedicated budget for QI in hospitals (p = 0.0001)
- information systems providing data on the quality of care in hospitals (p=0.003)
- a programme of QI projects in hospitals (p=0.001)
- auditing of QI projects in hospitals (p=0.001)
- clear responsibilities for clinical performance in hospitals (p=0.009)
- a quality improvement plan for primary care (p=0.004)
- the amount of information on quality improvement shared with other health care organisations within a member state (p = 0.0001)
- the amount of information on quality improvement shared with other EU member states (p=0.008)

### **10.3.7 SUMMARY : the supports and processes that increase overall levels of quality improvement (covering clinical effectiveness, efficiency, staff orientation, responsive governance, safety, and patient-centredness)**

The data from this survey and the statistically significant relationships identified between quality improvement supports / processes and increased levels of quality improvement suggest that :

## **Goals and Values**

Levels of quality improvement may be greater when specific goals are set for a health care system. In this study the most significant goal for increasing levels of quality improvement was target-setting for waiting times in accident and emergency departments.

## **Resources**

Levels of quality improvement may be greater when health care organisations receive support and guidance from universities. Postgraduate training in quality improvement may also have a positive effect on quality improvement.

## **Measures to support QI within health care organisations**

### ***Hospitals***

Levels of quality improvement in hospitals may be greater when staff have access to training in quality improvement and to leadership training, and where there are clear lines of responsibility for clinical performance. Levels of quality improvement may be greater in hospitals who have an organised programme of QI projects, procedures for auditing and follow-up of QI projects, and information systems providing data on the quality of care. Having a dedicated budget for QI may also increase levels of quality improvement in hospitals.

### ***Primary Care***

Levels of quality improvement in primary care may be greater when staff have access to training in quality improvement and when a quality improvement plan is implemented.

## **Sharing Information about QI**

Levels of quality improvement may be greater when information about QI is shared between health care organisations within a member state, and when information about QI is shared with other member states.

## **CHAPTER ELEVEN**

### **11.0 Discussion of the findings and policy implications**

This section summarises the key findings from the research, and draws together those findings to identify and discuss a number of policy implications for a range of stakeholders in healthcare quality improvement.

#### ***11.1 Differences in national and regional contexts***

The data suggests that in many member states, quality improvement policies and strategies are developed both at subnational or regional, and at a national level, and there is considerable variation between regions in some member states, particularly in the different ways that quality is measured and evaluated, in different regional and national government priorities, and in differences in resourcing and support for implementation. These differences mean there is a need for caution both in describing member states' approaches to quality improvement in healthcare and in making international comparisons. They also mean that any consideration of the benefits of greater harmonisation in quality improvement across member states needs to take into account the degree to which such harmonisation exists within some member states.

#### ***11.2 Quality improvement: a national or international policy issue?***

The survey suggests that the development of quality improvement policies has taken place primarily within member states, and the most important drivers of policy have been governments, professional organisations such as medical and scientific societies, and media coverage. International influences such as ISQua, and the European Commission and policy development in other member states were reported as having been less important drivers for policy development, suggesting that quality improvement policies and strategies have been predominantly seen as national issues to date. This may have implications for the way in which the benefits of any policy convergence are perceived, and it reflects the current position in which healthcare provision is wholly within the competency of each member state, although health services, healthcare professionals and patients increasingly cross national borders (Cucic 2000).

### ***11.3 The dominant role of governments in quality improvement***

In this survey national governments emerged as the key players in developing quality improvement policies, setting quality standards and targets, and providing guidance and support to organisations on implementation. This reflects the major role that national governments largely play in healthcare funding and provision in member states. However, it was notable that patient and service user organisations were reported as having the least influence on the development of quality improvement policy, even though patient orientation and patient involvement emerged as one of the most important future quality improvement priorities for governments. It might be argued that the predominance of governments and the health professions means it is more difficult for patient and user groups to have their voices heard, and to play their part in shaping quality improvement policies and strategies. This might mean that those policies and strategies and the quality improvement activities they lead reflect a professional and provider based view of what constitutes high quality care.

In most member states, respondents identified a policy document from government which set out its approach to quality improvement in healthcare (indeed, many respondents identified more than one document). The existence of such documents was a further demonstration of the key role governments have played in the development of quality improvement, though it should be noted that their content was more likely to cover issues such as systems, structures and targets, and less likely to tackle matters such as training, support and resources for quality improvement.

Respondents identified a number of common priorities for governments for the future development of quality improvement, including policy focus on patient safety, patient involvement, the development of quality systems, and the evaluation or assessment of quality improvement systems.

Although governments were reported as being the key leaders in most aspects of quality improvement, it was notable that a lack of political leadership and strategic planning in quality improvement was also cited in this survey as a key barrier to progress, and that other common barriers such as the absence of quality incentives, lack of funding for quality improvement and absence of professional training and education in quality improvement fall partly or largely to governments to tackle in

most member states. It might be argued that concentrating responsibility for quality improvement in government agencies or departments which are also responsible for a wide range of issues such as funding and financing may create some conflicts of interest, and mean that quality improvement policies and strategies receive less attention than they merit.

#### ***11.4 The legal status of quality improvement in healthcare***

The existence of a statutory legal requirement to implement quality improvement strategies for healthcare systems and organisations was reported as being an important incentive for supporting progress in the development of quality improvement initiatives. The implementation and development of quality policies may therefore be at a more advanced stage in member states who have such a legal requirement, and who have had a legal requirement in place for a substantial period of time. The survey suggests that a legal requirement to have quality improvement in healthcare organisations exists in most member states, that on average this requirement has been in place for between 5-10 years. However, it suggests that such requirements often do not apply to all healthcare providers – they mostly affect hospital services and health services in the public sector. The minority of member states who have not yet enacted legislation to require healthcare systems and organisations to put quality improvement policies and strategies in place may wish to consider the experience of those member states which have done so.

#### ***11.5 Education and training in quality improvement***

Education and training in quality improvement emerge in this survey both as important components in the development of quality improvement, and as areas where the lack of provision or effective support is seen as a barrier to progress. There is a place for quality improvement training in the education and clinical development of healthcare professionals, and our survey suggests that this is far from being generally provided either at an undergraduate or postgraduate or continuing professional development level. While some member states have begun to reform undergraduate curricula and postgraduate training provision to introduce issues of quality, patient safety, and improvement techniques, such training is far from commonplace.

Research indicates that progress in quality improvement requires strong, engaged and informed professional leadership, but such leadership capacity can only be developed

if healthcare professionals have access to and make use of appropriate training and development in healthcare quality improvement, and the survey suggests that such training is often not available in many healthcare organisations.

### ***11.6 The mandatory use of quality improvement policies and strategies***

Although most member states have some form of legal, statutory requirement for quality improvement in healthcare systems and organisations, the extent to which specific quality improvement systems or approaches are required or mandated varies considerably. We found that while the use of performance indicators and patient surveys are commonly mandated particularly in the hospital sector, most quality systems were voluntary in nature – in other words healthcare organisations chose whether or not to adopt them or participate. Regardless of the reported priority given by governments to developing quality standards and guidelines, initiatives such as the development of clinical guidelines, accreditation schemes, auditing of standards, and quality management are reported as largely voluntary and applicable mainly to hospital services.

The data suggests wide variation in the voluntary and mandatory coverage of different quality improvement policies and strategies across sectors, potentially leading to varying levels of progress and coverage in implementation.

### ***11.7 Implementing quality improvement***

We found that the quality improvement systems most commonly reported as being in place in most healthcare organisations are those which have been more traditionally seen as necessary and have been longest established in most member states, such as committees for infection control, quality improvement programmes in laboratories and procedures to maintain clinical equipment. However, according to this survey, healthcare organisations are much less likely to have in place organised programmes of quality improvement projects, systems for the audit and follow-up of quality improvement projects, and dedicated finance and resources to support quality improvement. The findings suggests that although there is a clear commitment to quality improvement at a policy level in most member states, there is considerable scope for progress in making a reality of such policies at the level of healthcare organisations. It was noted earlier that the guidance provided by governments on

quality improvement tends not to address issues such as resources, training and support. Our survey suggests that even in countries with relatively well established policies on quality improvement, many healthcare organisations lack fundamental components of an effective quality improvement function such as a QI plan for the organisation, an organised programme of QI projects, training and dedicated resources, follow-up and monitoring of quality improvement projects, and monitoring of quality across departments and services.

### ***11.8 Information and evaluation***

The survey suggests that while there are systems in place for the evaluation of quality improvement, they are largely internal to organisations and data about the progress of quality improvement is not widely shared or available to other stakeholders such as patients and service users. The internal systems most frequently reported as being in place to assess and evaluate quality improvement within health care organisations were quality committees or steering groups for inspection, accreditation, or specific quality issues; audits, and self-assessment procedures, and the information from these assessments was reported as being most widely available to senior executives and departments within organisations, but least likely to be available to external organisations and agencies.

The external systems most frequently reported as being in place to assess and evaluate quality improvement were accreditation, licensing or certification; audits, and supervision and evaluation at national or regional level; and the information from these assessment was reported as being more available to professional organisations, members of the public and service user groups.

The data from the survey suggests that while some information on quality improvement is being shared between health care organisations within and between member states, this happens mainly through conferences and workshops, or in reports and documents. Open days, practical guides and toolkits, and special quality events are less frequently used to share information on quality between health care organisations. Exploring more diverse means of disseminating information within and across borders might be valuable.

Information about the quality of health care is not, according to this survey, being routinely or systematically collected by member states who access health services by agreement from another member state. In the 12 member states reporting that they accessed health services in another member state by prior agreement, only one reported having some form of quality evaluation process in place.

### ***11.9 Achievements in quality improvement, and what facilitates or hinders progress***

Respondents descriptions of the achievements of quality improvement were largely focused on the establishment of improvement systems and infrastructure rather than on their impact on healthcare quality. For example, they cited the creation of national accreditation or quality assurance systems, the establishment of a national society for quality, and the extension of patient safety and patient involvement as important achievements.

The common factors seen as supporting the implementation of quality improvement were professional involvement and commitment, the provision of training, the existence of a mandatory or legal requirement for quality improvement, and the existence of a QI infrastructure of staff, resources, lead individuals, projects and so on. The main barriers to quality improvement were seen as a lack of funding, an absence of leadership and strategic planning, a lack of incentives, cultural and professional barriers, and a lack of training and support.

### ***11.10 The impact of quality improvement on the quality of care and patient outcomes***

Overall, the survey suggested that quality improvement policies and strategies were having a marked though variable impact on the quality of care and on patient outcomes. The introduction of clinical guidelines and the use of performance indicators were seen as having had the greatest impact on the quality of care, while patient safety systems like risk management and incident reporting and systems for getting and using patients views were felt to have had rather less direct impact on the quality of care.

Respondents rated the effect of quality improvement on health services across the six dimensions of the WHO framework (Arah et al 2003) – clinical effectiveness,

efficiency, staff orientation, responsive governance, safety, and patient-centredness. They reported moderate improvements particularly on the dimensions of staff orientation and patient centredness.

It is known to be difficult to make meaningful connections between quality improvement systems in healthcare organisations and any measured changes in quality or patient outcomes. The causal relationship is complex, and quality improvement policies and strategies are only one of many concurrent factors which can influence such outcomes and lead to change. However, this survey has allowed us to look across the countries of the European Union and explore the connections between the existence of quality improvement policies and strategies and experts' views on their impact on healthcare quality and patient outcomes. Our findings provide an insight into “what works” in quality improvement based on the opinions of our respondents. While the results are complex, they suggest that the use of clear targets for quality improvement; the provision of resources and support for quality improvement; the existence of a quality improvement “infrastructure” (management arrangements, projects, monitoring and evaluation); and the use of incentives to reward quality improvement are all positively associated with improvements in patient care.

### ***11.11 Looking forward: policy implications***

This survey provides for the first time a comparative overview of the development of policies and strategies for quality improvement in healthcare across the European Union, and the findings may have significant implications for future policy and research.

Policy related to healthcare systems, funding and provision are primarily determined at a national level in EU member states, and that national focus is reflected in the development of policies and strategies related to quality improvement. National level drivers – such as public concern, media interest, professional associations – have been predominantly responsible for governments embarking on reforms which are designed to make healthcare services safer, to assure quality, and to make healthcare providers more accountable. While the experience of other countries has clearly been of some value and influence in shaping reforms in many member states, there has not been any

explicit attempt to link or coordinate policy in this area or to promote cooperation and learning between and across countries. International drivers – such as the flow of patients and healthcare services and professionals across national borders, and the activities of the European Commission and international agencies or organisations – have not been important influences in this area to date.

Having said that, those nationally initiated reforms already demonstrate some degree of policy convergence, in that the policy instruments, structures and mechanisms put in place by governments show some immediate similarities, in areas such as the widespread adoption of legal or statutory requirements for healthcare organisations to put quality improvement systems in place, the development of specific mechanisms such as accreditation programmes, and the recent policy priority accorded to patient safety in many member states. But such convergence is unlikely to result in coordinated quality improvement systems, or comparable and interchangeable quality standards, unless it is more deliberately encouraged and managed.

Among the EU member states, the rate of progress in healthcare quality improvement varies considerably. In broad terms, we can identify three groups of countries – the “well established” who have been active in this area at a governmental level for five or more years, and have relatively mature and well established quality improvement policies and strategies in place; the “recent adopters” who have generally established policies and strategies in the last five years or less and who are still developing their approaches; and the “slow starters” who may have made some moves in the area of quality improvement but who lack a coherent programme of government policy in this area. There is undoubtedly an opportunity for member states from these different groups to work together to transfer learning and to benefit from experience elsewhere. Such actions would probably both promote the overall rate of progress in healthcare quality improvement across the European Union, and support the process of convergence referred to above.

It should however be borne in mind that even in countries where quality improvement is “well established”, the rate of policy development may exceed the pace of implementation at healthcare organisations. From our survey, it seems likely that many healthcare organisations, even in the more advanced member states, still lack

fundamental systems and processes for healthcare quality improvement. While the later work packages in the MARQuIS project will provide more detailed and quantified data on the progress at a hospital level, our survey certainly suggests that while governmental action to establish policies and strategies for healthcare quality improvement may be necessary, they may not be sufficient in themselves to drive implementation throughout the healthcare system.

Finally, our survey provides some limited but useful evidence that quality improvement policies and strategies are having an important though moderate impact on the quality of care and on patient outcomes, and points to some of the actions at a policy and system level which seem to be associated with these impacts. While this data must be interpreted with caution, it supports the contention that investing in quality improvement policies and strategies is worthwhile and provides policymakers and other stakeholders with some important indications of “what works”.

## APPENDIX A : Survey Questionnaire

### MARQuIS A SURVEY OF QUALITY IMPROVEMENT POLICIES AND STRATEGIES IN EU HEALTHCARE SYSTEMS

This survey represents the first phase of an international European Commission Funded Research Project, 'Methods for Assessing Response to Quality Improvement Strategies' (MARQuIS, contract 513712), led by the Avedis Donabedian Foundation, Barcelona. The objectives of the study are to research and compare different quality improvement strategies in health care systems across the EU, and their potential use in health services when patients move across borders to obtain care. This research should provide the basis to assess the need for, and development of formal quality procedures at EU level, for primary and secondary care institutions.

The first phase of the research aims to identify, compare and assess the formal adoption by EU member states of different quality strategies at a national level. A questionnaire has been developed by Dr. Eileen Spencer (Research Associate) and Professor Kieran Walshe (Project Officer), at the Centre for Public Policy and Management, at the Manchester Business School, University of Manchester, UK. The purpose of the questionnaire is to conduct a policy analysis of existing quality strategies and it is being distributed to key experts in all 25 EU member states.

Terminology : the term 'quality improvement policies and strategies' is used throughout this questionnaire. This brings together quality assurance, quality control and quality management approaches to improving health care systems under the broad term of 'quality improvement'.

If there are some questions that you cannot answer : please select a 'don't know' response, or leave the section blank.

Comments about the questionnaire : If you wish to add a comment about the questionnaire or the process of completing it, there is space to do this on the final page. We will welcome your views and comments.

Completing and returning the questionnaire

The questionnaire can be saved and completed as a word document. It should take 30–40 minutes of your time to complete. When you have finished, please save your work as a word document and send it to us as an e-mail attachment.

Please return the completed questionnaire to :

**Dr. Eileen Spencer** on [espencer@dom01.mbs.ac.uk](mailto:espencer@dom01.mbs.ac.uk)

Please complete and return it by : Friday 1<sup>st</sup> July 2005

Thank you. The information you give will be of great value in determining the current status of quality improvement policies and strategies in European health care systems.

**SECTION 1 : YOUR ROLE IN THE HEALTH CARE SYSTEM**

This section is about your role, experience and involvement in the health care system

**1.1 What is your current role or involvement in the health care system in your country? Please type X in the left hand box for all the answers that apply to you :**

	Policy maker, government official
	Academic, health services researcher, policy analyst
	Manager / executive in a health care organisation
	Clinician or health care practitioner working in a health care organisation (please also state your profession in the left hand box)

**Do you have any other role in the health care system ?**

**Please describe any other role here :**

.....  
 .....  
 .....

**1.2 Do you have a professional background in any of the following :**

**Please type X in the left hand box for all the answers that apply to you :**

	Medicine
	Nursing
	Health Care Management

**Do you have a background in any other health profession e.g. therapy or pharmacy ? Please tell us which profession here :**

.....  
 .....  
 .....

**1.3 Do you have knowledge of quality improvement policies and strategies in any of these health care services in your country ? Please type X in the left hand box for all the answers that apply to you**

	Hospital services
	Primary care services
	Mental health services

**Do you have knowledge of quality improvement in any other health care services? Please tell us which health care services here :**

.....  
 .....

**SECTION 2 : ENVIRONMENT / POLICY CONTEXT**

This section is about the way that quality improvement policies and strategies are developed in your country

**2.1 How are quality improvement policies and strategies for health care developed in your country? Please type X in one of the left hand boxes**

	a) They are mainly developed and set at a national level to cover the whole country
	b) They are mainly developed and set at a regional or sub-national level, varying from region to region
	c) They are developed at a national AND a regional level

**If you answered b)** choose the region or sub-national area that you know most about, and answer the questionnaire with that region in mind. Please tell us here which region of the country your answers apply to :

.....

**If you answered c)** please tell us whether you are answering the questionnaire from a national or a regional perspective, and if regional, which region your answers apply to:

.....

**2.2 How much do quality improvement policies and strategies vary from region to region in your country? Please type X in one of the left hand boxes**

	Quality improvement policies and strategies vary a great deal between regions
	There is a moderate amount of variation in quality improvement policies and strategies between regions
	There is a small amount of variation in quality improvement policies and strategies between regions
	There is no variation in quality improvement policies and strategies between regions

**If quality improvement policies and strategies vary from region to region in your country, please describe how they vary and what the main differences are.....**

**2.3 What have been the most important influences on the development of quality improvement policies and strategies in the health care system in your country?  
For each influence please tell us how important it is by typing X in one of the 'level of importance' columns**

**LEVELS OF IMPORTANCE**

<b>INFLUENCES ON QUALITY IMPROVEMENT POLICIES AND STRATEGIES IN YOUR COUNTRY</b>	<b>Very important</b>	<b>Fairly important</b>	<b>Not very important</b>	<b>Not at all important</b>
Development of quality improvement policies in other EU countries				
Policies and initiatives of the European Commission				
Activities of the International Society for Quality in Healthcare (ISQua)				
Policies and priorities of the current government				
Public opinion about the quality of health care				
Media coverage of quality issues or problems in health care				
Patient and service user organisations				
Professional organisations e.g. medical or scientific societies				
A national or regional quality task force or working group				
Provider organisations e.g. hospitals, primary care providers				

Please use this box to tell us about any other influences on quality improvement policies and strategies or to add a comment.....

**SECTION 3 : GOALS AND VALUES**

This section is about the policy framework, quality improvement priorities, and the quality standards and targets of your health care system.

3.1 Is there a legal / statutory requirement for health care organisations to have quality improvement policies and strategies? Please type X in one of the left hand boxes

	<b>Yes</b>
	<b>No</b>
	<b>Don't know</b>

3.2 If 'yes', when was this legal requirement first introduced ?  
 .....(year)

3.3. If 'yes', to which health care organisations does this legal requirement apply? Please type X in the left hand box for all the answers that apply

	Hospital services
	Primary care services
	Mental health services

**Does the legal requirement to have quality improvement policies and strategies apply to any other health care organisations?**

**Please tell us which organisations here :**

.....  
 .....

3.4 Which types of health care organisation does the statutory requirement to have quality improvement policies or strategies apply to ? For each type of health care organisation, please type X in one of the right hand boxes

	<b>The statutory requirement applies to all organisations /services</b>	<b>The statutory requirement applies to some organisations /services</b>	<b>The statutory requirement does not apply to any organisations /services</b>
Public sector (government or state owned) health care organisations			
Not-for-profit sector (independent, voluntary) health care organisations			

Private sector, for profit, commercial health care organisations			
--	--	--	--

**3.5 Does the government have a written policy on quality improvement in health care published in a current report or document?  
Please type X in one of the left hand boxes**

	<b>Yes</b>
	<b>No</b>
	<b>Don't know</b>

**3.6 If 'yes', please give us the title (s) of the document / documents here :**

.....  
.....  
.....  
.....  
.....

**3.7 If 'yes', does the government's quality improvement policy document (s) cover the following topics ? For each topic, please type X for yes or no**

<b>TOPICS</b>	<b>YES</b>	<b>NO</b>
Setting national standards for quality		
Setting national targets for quality improvement		
Definition of terms e.g. what is meant by quality improvement		
Provision of resources for quality improvement		
Systems for monitoring and measuring the progress of quality improvement		
Provision of training and support for healthcare organisations on quality improvement		
Systems for professional regulation and monitoring professional performance		
Setting standards for professional education and training		
Systems for asking patients and the public for their views on quality in healthcare		
Systems for dealing with adverse events, problems, and complaints from patients		

**3.8 What are the government’s most important priorities for quality improvement ? Please list up to three in the box.**

1.	
2.	
3.	

**3.9 Are there clearly defined, written quality standards that health care organisations are expected or required to meet or achieve e.g. accreditation standards, or minimum quality requirements ? Please type X in one of the left hand boxes**

	Yes
	No
	Don’t know

**3.10 If ‘yes’, which organisations or agencies are mainly responsible for setting these quality standards? Please type X in the left hand box for each type of organisation or agency responsible for setting quality standards and please give the title of the organisation / agency**

	QUALITY STANDARDS SET BY.....	TITLE OF ORGANISATION / AGENCY
	Ministry of Health or other government department / agency at national or regional level	
	Non-governmental independent organisations at national or regional level e.g. for accreditation	

	Professional organisations e.g. medical and scientific societies	
	Provider organisations e.g. hospital associations	
	Other ....	

**3.11 For which areas of the health care system do these quality standards apply?  
Please type X in the left hand box for all the answers that apply**

	Hospital services
	Primary care services
	Mental health services

**Do these quality standards apply to any other health care services?  
Please tell us which services here :**

.....  
.....

**3.12 Has the government or other agency set explicit national targets for quality improvement ? Please type X in one of the left hand boxes**

	<b>Yes</b>
	<b>No</b>
	<b>Don't know</b>

**3.13 If 'yes', are there targets in the following areas ?  
For each area, please type X for yes or no, and comment if you wish to**

	<b>YES</b>	<b>NO</b>	<b>COMMENT</b>
Access times for elective surgery			
Waiting times in accident and emergency			
Control of hospital infection rates			
Use of clinically effective therapies			
Patient satisfaction			
Reducing adverse events			

**Are there any other targets for quality improvement in your health care system ?  
Please tell us about them here :**

.....  
 .....  
 .....  
 .....

**3.14 What have been the major achievements of quality improvement policies and strategies in your country over the past 3 years ? Please describe up to three achievements in the box.**

1.	
2.	
3.	

**SECTION 4 : RESOURCES**

This section is about the resources that are available to support and implement quality improvement strategies in your health care system.

**4.1 Is there a national society for quality in health care ? Please type X in one of the left hand boxes**

	<b>Yes</b>
	<b>No</b>
	<b>Don't know</b>

**4.2 If 'yes' please tell us :**

- a) the name of the society

.....

b) membership (approximate number)  
 .....

**4.3 How well known is this national society ? Please type X in one of the left hand boxes**

	It is well known to all organisations
	It is well known to most but not all organisations
	It is well known to a few organisations but it is gradually becoming known to more organisations
	Very few organisations know about it

**4.4 Who provides guidance and support to health care organisations on quality improvement policies and strategies and what is the extent of their work with health care organisations ?**

**For each type of guidance organisation please indicate the extent of their work by typing X in one of the ‘extent of work’ columns**

	<b>EXTENT OF WORK ON QUALITY IMPROVEMENT WITH HEALTH CARE ORGANISATIONS</b>				
	<b>Working with all/most</b>	<b>Working with many</b>	<b>Working with some</b>	<b>Working with a few</b>	<b>Working with none</b>
Ministry of health or other government department / agency at national or regional level					
Non-governmental, independent organisations at national or regional level					
Professional organisations e.g. medical and scientific societies					
Universities					
Provider organisations e.g. hospital associations					
Commercial management consultancy firms					

**4.5 Please name and describe the work of up to three organisations in your country that are leading activities on quality improvement in health care. Please use the box for your answer**

1.	
2.	
3.	

**4.6 Are quality improvement issues included in professional training programmes and in continuing professional education ? Please type X in the column that applies**

	<b>For all health care professions</b>	<b>For most health care professions</b>	<b>For some health care professions</b>	<b>Not at all</b>
Quality issues are included in health professional undergraduate training programmes				
Quality issues are included in postgraduate programmes of continuing education for health professionals				

**4.7 Are there any other resources that health care organisations have available to support quality improvement ? Please use the box for your answer**

--

**SECTION 5 : COVERAGE OF QUALITY IMPROVEMENT POLICIES AND STRATEGIES**

This section is about the types and coverage of quality improvement policies and strategies in health service organisations

**5.1 This question is about the types and coverage of quality improvement policies and strategies in hospital, primary care and mental health service organisations**

**‘Required’ means that health service organisations must have these quality improvement policies and strategies**

**‘Voluntary’ means that health service organisations can choose whether they have these quality improvement policies and strategies**

**Please type X in each column that applies**

	Required in hospitals	Voluntary in hospitals	Required in primary care services	Voluntary in primary care services	Required in mental health services	Voluntary in mental health services
Performance indicators or measures						
Clinical guidelines, practice guidelines						
Accreditation schemes and programmes						
Audit, internal assessment of clinical standards						
Organisational quality management programmes e.g. TQM						
Systems for getting the views of patients e.g. satisfaction surveys, monitoring complaints						
Patient safety systems e.g. incident reporting, risk management						

**SECTION 6 : IMPLEMENTATION**

This section is about the measures which support and prevent progress in quality improvement.

**Please note that Question 6.1 applies to HOSPITALS ONLY**

**6.1 Do HOSPITALS have measures available to support the implementation of quality improvement strategies ? For each available measure to support quality improvement, please indicate the coverage across THE HOSPITAL SECTOR , by typing X in the column that applies**

	COVERAGE ACROSS THE HOSPITAL SECTOR				
	In all or most hospitals	In many hospitals	In some hospitals	In a few hospitals	In none
Staff training in quality improvement					
Regular staff performance reviews					
Training for leadership in quality improvement					
A quality improvement plan for the organisation					
Regular internal quality reviews of departments or parts of the organisation					
Committee for quality improvement					
Director or leader of quality improvement at a senior level in the organisation					
Dedicated finance / budget for quality improvement					
Information systems to provide data on quality of care					
An organised programme of quality improvement projects					
Systematic follow-up and re-auditing of quality improvement projects					
Committee for infection control					
Reporting systems for quality problems such as adverse incidents or events					
Clear responsibilities for clinical performance					
Systems for quality improvement in laboratories					
Regular maintenance of clinical equipment					

Please note that Question 6.2 applies to HOSPITALS ONLY

**6.2 What incentives exist to encourage HOSPITALS to implement quality improvement policies and strategies ? For each incentive to implement quality improvement, please indicate the coverage across THE HOSPITAL SECTOR, by typing X in the column that applies**

	COVERAGE ACROSS THE HOSPITAL SECTOR				
	For all or most hospitals	For many hospitals	For some hospitals	For a few hospitals	For none
Financial rewards for organisations who provide good quality care					
Quality awards or certificates for organisations who provide good quality care					
The need to comply with legal requirements					

Please note that Question 6.3 applies to PRIMARY CARE ONLY

**6.3 Do PRIMARY CARE organisations have measures available to support the implementation of quality improvement strategies ? For each available measure to support quality improvement, please indicate the coverage across the PRIMARY CARE SECTOR, by typing X in the column that applies**

	COVERAGE ACROSS THE PRIMARY CARE SECTOR				
	In all or most primary care organisations	In many primary care organisations	In some primary care organisations	In a few primary care organisations	In none
Staff training in quality improvement					
Regular staff performance reviews					
Training for leadership in quality improvement					
A quality improvement plan for the organisation					
Regular internal quality reviews of departments or parts of the organisation					
Committee for quality improvement					

Director or leader of quality improvement at a senior level in the organisation					
Dedicated finance / budget for quality improvement					
Information systems to provide data on quality of care					
An organised programme of quality improvement projects					
Systematic follow-up and re-auditing of quality improvement projects					
Committee for infection control					
Reporting systems for quality problems such as adverse incidents or events					
Clear responsibilities for clinical performance					
Systems for quality improvement in laboratories					
Regular maintenance of clinical equipment					

**Please note that Question 6.4 applies to PRIMARY CARE ONLY**

**6.4 What incentives exist to encourage PRIMARY CARE organisations to implement quality improvement policies and strategies ? For each incentive to implement quality improvement, please indicate the coverage across the PRIMARY CARE SECTOR, by typing X in the column that applies**

	<b>COVERAGE ACROSS THE PRIMARY CARE SECTOR</b>				
	<b>For all or most primary care organisations</b>	<b>For many primary care organisations</b>	<b>For some primary care organisations</b>	<b>For a few primary care organisations</b>	<b>For none</b>
Financial rewards for organisations who provide good quality care					
Quality awards or certificates for organisations who provide good quality care					
The need to comply with legal requirements					

**6.5 What are the 3 most important factors that have helped and supported the implementation of quality improvement policies and strategies in your health care system ? Please use the box for your answer**

1.
2.
3.

**6.6 What are the 3 main factors that have prevented progress in implementing quality improvement strategies in your health care system ? Please use the box for your answer**

1.
2.
3.

**SECTION 7 : INFORMATION AND EVALUATION**

This section is about the assessment and evaluation of quality improvement policies and strategies, and the ways that information about quality improvement is shared within and across European Union borders.

**7.1 What internal systems are in place (inside health care organisations) to assess and evaluate quality improvement policies and strategies?**

**Please use the box for your answer**

**7.2 Who has access to the information that comes from assessing and evaluating quality improvement internally within health care organisations ?**

**Please type X in the left hand box for all the answers that apply**

	All departments within the organisation
	Senior executives of the organisation
	External organisations and agencies

**7.3 What external systems are in place (outside health care organisations) to assess and evaluate quality improvement strategies ? Please use the box for your answer**

**7.4 Who has access to the information that comes from the external assessment and evaluation of quality improvement ? Please type X in the left hand box for all the answers that apply**

	Other organisations providing similar services
	Members of the public / service user groups
	Non-governmental, independent organisations
	Professional Organisations e.g. medical, scientific societies
	Hospital Associations
	Quality Consultancies
	Universities

**7.5 How much sharing of information and learning about quality improvement is happening between health care organisations within your country? Please type X in one of the left hand boxes**

	A great deal of information is being shared
	Some information is being shared
	A little information is being shared
	No information is being shared

**7.6 How is information about quality improvement being shared between health care organisations within your country? Please type X in the left hand box for all the answers that apply**

	<b>In reports or documents</b>
	<b>In practical guides to quality improvement or tool kits</b>
	<b>At conferences / workshops</b>
	<b>Through collaboratives on quality projects</b>
	<b>At open days and special quality events</b>
	<b>Through websites</b>

**Please tell us about any other methods of sharing information on quality improvement between health care organisations within your own country here :**  
 .....  
 .....

**7.7 Is information and learning about quality improvement being shared with other countries in the European Union ? Please type X in one of the left hand boxes**

	A great deal of information is being shared
	Some information is being shared
	A little information is being shared
	No information is being shared

**7.8 How is information about quality improvement being shared with other countries in the European Union? Please type X in the left hand box for all the answers that apply**

	<b>In reports or documents</b>
	<b>In practical guides to quality improvement or tool kits</b>
	<b>At conferences / workshops</b>
	<b>Through collaboratives on quality projects</b>
	<b>At open days and special quality events</b>
	<b>Through websites</b>

**Please tell us about any other methods of sharing information on quality improvement with other countries in the European Union here:**

.....  
.....  
.....  
.....  
.....

**7.9 Do other countries in the European Union provide health care services by prior agreement to patients from your country, for example for elective surgery or specialist treatment ? Please complete the table below to tell us which countries are providing you with services by agreement, and what type of services they provide :**

<b>COUNTRIES PROVIDING YOU WITH ELECTIVE HEALTH CARE SERVICES BY PRIOR AGREEMENT</b>	<b>TYPES OF SERVICES PROVIDED</b>

**7.10 When patients from your country use health care services in another European country by prior agreement, for example for elective surgery or specialist treatment, do you have systems in place to monitor the quality of the services that your patients will receive in other health care systems ?**

Please type X in one of the left hand boxes.

	<b>Yes</b>
	<b>No</b>
	<b>Don't know</b>

**7.11** If 'yes', please describe how the quality of the services that your patients receive in other European countries is assessed and evaluated. Please use the box for your answer.

### **SECTION 8 : OUTCOMES / IMPACT**

This section is about the impact of quality improvement policies and strategies on health care systems

**8.1** This question is about the impact of different quality improvement policies and strategies on improving health care services in your country. Please type X in the column that applies

	<b>Major impact on improving the quality of health services</b>	<b>Moderate impact on improving the quality of health services</b>	<b>Limited impact on improving the quality of health services</b>	<b>Little or no impact on improving the quality of health services</b>
Performance indicators or measures				
Clinical guidelines, practice guidelines				
Accreditation schemes and programmes, audit				
Quality management of organisations				

Systems for getting the views of patients e.g. satisfaction surveys, monitoring complaints				
Patient safety systems e.g. incident reporting, risk management				

**8.2 This question is about the outcomes from quality improvement policies and strategies. Please tell us if quality improvement policies and strategies have achieved the following outcomes in your health care system by typing X in one of the left hand boxes. Please provide any evidence you have for your answer.**

**CLINICAL EFFECTIVENESS** : appropriately and competently delivering clinical care or services in line with the current state of knowledge, and achieving desired outcomes for all patients likely to benefit most e.g. by applying evidence-based practice

	<b>Level of improvement due to quality improvement policies and strategies</b>	<b>Evidence to support your answer</b>
	Major improvement	
	Moderate improvement	
	Limited improvement	
	Little or no improvement	
	Has got worse	
	Don't know	

**EFFICIENCY** : the optimal use of inputs to yield maximum outputs, given available resources e.g. by making best use of resources, the maximum use of available technology to provide best possible care, having efficient staffing ratios

	<b>Level of improvement due to quality improvement policies and strategies</b>	<b>Evidence to support your answer</b>
	Major improvement	
	Moderate improvement	
	Limited improvement	
	Little or no improvement	
	Has got worse	
	Don't know	

**STAFF ORIENTATION** : staff are appropriately qualified to deliver patient care, have the opportunity for continued learning and training, work in positively enabling conditions, and are satisfied with their work

	<b>Level of improvement due to quality improvement policies and strategies</b>	<b>Evidence to support your answer</b>
	Major improvement	
	Moderate improvement	
	Limited improvement	
	Little or no improvement	
	Has got worse	
	Don't know	

**RESPONSIVE GOVERNANCE** : the service is responsive to community needs, ensuring continuity and co-ordination of care, promoting health, being innovative, and providing care to all citizens irrespective of racial, physical, cultural, social, demographic or economic characteristics

	<b>Level of improvement due to quality improvement policies and strategies</b>	<b>Evidence to support your answer</b>
	Major improvement	
	Moderate improvement	
	Limited improvement	
	Little or no improvement	
	Has got worse	
	Don't know	

**SAFETY** : having the appropriate structure, and using care delivery processes that measurably prevent or reduce harm or risk to patients, to health care providers (professionals) and the environment

	<b>Level of improvement due to quality improvement policies and strategies</b>	<b>Evidence to support your answer</b>
	Major improvement	
	Moderate improvement	
	Limited improvement	
	Little or no improvement	
	Has got worse	
	Don't know	

**PATIENT-CENTREDNESS** : patients are placed at the centre of care and service delivery by paying attention to their needs and the needs of their families, their expectations, autonomy, support needs, communication needs, confidentiality, dignity, choice of service provider, and the desire for prompt and timely care.

	<b>Level of improvement due to quality improvement policies and strategies</b>	<b>Evidence to support your answer</b>
	Major improvement	
	Moderate improvement	
	Limited improvement	
	Little or no improvement	
	Has got worse	
	Don't know	

**Thank you for completing this questionnaire. We will value your contribution.**

**Please indicate whether you wish your name to be acknowledged in the report on the survey by typing X in one of the left hand boxes :**

	Yes, I wish my name to be in the MARQuIS survey report
	No, I do not wish my name to be in the MARQuIS survey report

**NOW PLEASE SAVE YOUR WORK AS A WORD FILE AND SEND IT AS AN ATTACHMENT TO :**

Eileen Spencer on [espencer@dom01.mbs.ac.uk](mailto:espencer@dom01.mbs.ac.uk)

**If you wish to comment on the questionnaire please use the following page :**

## **FEEDBACK ON THE QUESTIONNAIRE**

**Please tell us what you thought of this questionnaire e.g. do you have any comments on :**

- the length of time it took to complete it
  
- any words or phrases that were difficult to understand
  
- any questions that were difficult to answer
  
- the format and structure of the questionnaire
  
- any sources that you consulted
  
- receiving/ sending the questionnaire by e-mail
  
- any other comment

**THANK YOU VERY MUCH FOR YOUR TIME**

## **APPENDIX B EVALUATION OF THE RESEARCH PROCESS**

### **B 1 : FEEDBACK FROM RESPONDENTS ON THE RESEARCH PROCESS**

Respondents were asked to complete the feedback sheet provided at the end of the questionnaire (see Appendix A).

#### **1) Length of time taken to complete the questionnaire**

39 comments were received in this section. The minimum amount of time taken to complete the questionnaire was reported as 40 minutes, and the maximum time 8 hours. The average amount of time taken to complete the questionnaire was 103 minutes. Two respondents said that the amount of time taken was 'optimal' or 'satisfactory' ; 16 said that the questionnaire was 'too long'; and 3 said that it took longer than the 30-40 minutes suggested in the covering letter. Two respondents felt that the length of the questionnaire had been too long to complete accurately.

#### **2) Word or phrases that were difficult to understand**

26 comments were received in this section. Nine said that they had not come across any words or phrases that they did not understand. Seventeen respondents drew attention to words or phrases that were difficult to understand. Difficult words or phrases included :

'Quality improvement' : which could be taken to mean almost any aspect of patient care and a narrower use of the concept would have been better

'Quality policy' : not clearly and operationally defined

'Reduction of waiting time': which is not always consistent with improved patient care (question 3.13)

'Influences' on the development of quality improvement policies (question 2.3)

'Prevented progress' in implementing quality improvement strategies (question 6.6)

'External systems' in place to assess and evaluate quality improvement strategies (question 7.3)

Concepts of 'health care organisations' in primary care

Sections 2 and 8 of the questionnaire were highlighted as containing difficult phrases.

Some questions were noted as being too subjective and open to interpretation. Some of the English was ambiguous and could be interpreted in many different ways.

Three respondents said that differences in health care systems made it difficult to understand the context of some questions, and they sometimes did not apply to national circumstances. One respondent highlighted the need to define and operationalise terms more clearly due to this variation in national contexts.

### **3) Questions that were difficult to answer**

28 comments were received in this section. Three respondents said that there were no questions that were too difficult to answer. Twenty-five respondents said that they found some questions difficult. The questions identified as problematic were :

Question 1.1 : current role in the health service - no 'consultant' option

Question 3.3 : application of legal requirement to health care organisations – does this mean the first legal incentive, or the current legal situation?

Question 3.9 : defined written quality standards – difficult to answer when they only address private practice

Question 3.11 : the application of quality standards in the health care system – primary care services are run privately, but also delivered by public hospitals

Question 5.1 : 'do not exist' option was missing, also open to interpretation

Questions 6.3 and 6.4 were too similar to 6.1 and 6.2 ('departments' are rare in primary care in most countries)

Questions 7.2.-7.8 : sharing information between health care organisations, and between member states

Question 7.4 was not clear : access to the information from external assessment – does this mean who makes use of the access that the public have to information?

Questions 8.1 and 8.2 : the outcomes and impact of different quality improvement strategies; not clear what is meant by 'outcomes' and how to differentiate between major, moderate and limited improvement, or how can this be measured; almost impossible to answer 8.2 at any level; it is impossible to answer properly, without knowing of studies that demonstrate direct cause and effect; the definition of what might be the impact of QI is a 'life-long research project' ; responsive governance is a very broad topic and evidence on any of these issues can be mixed (positive and negative).

Questions about safety – there are no systems to guarantee this nationally

Some questions were difficult to answer because a high level of overview was expected, and very lengthy answers could have been required to cover all policy initiatives. Questions did not allow for concomitant policy initiatives.

Knowledge in some areas was also limited (e.g. about education and training, about one health care sector when working in another, or when an initiative didn't apply in a specific national context).

It was difficult to answer some questions objectively, and subjective judgements were made based on selected attention to available evidence.

Differences between health care systems makes it difficult to answer some questions and therefore the outcome of the survey must be in doubt on a European level

#### **4) Format and structure**

22 comments were received in this section. Nine respondents described the format and structure as either 'excellent', 'satisfactory', 'good', or 'OK'; two described the format as 'clear and simple'; two described it as 'accessible' or 'easy to handle'. Nine respondents had difficulty with the format and structure of the questionnaire. The main problems were :

Lack of space for free commentary

Tables difficult to complete

Too much narrative

Lack of focus

Lack of introduction to key areas

Dauntingly long and off-putting

Format does not look good : inconsistent formatting , and formatting not designed for electronic completion e.g. '.....'

A single sheet for every health care context would have been clearer

### **5) Sources that were consulted**

12 comments were received in this section. Respondents reported having consulted various sources to assist with the completion of the questionnaire, e.g. websites for ministries and boards of health, social security system data, local reports, official documents and published evidence, their own research materials, hospital directors, health insurance funds, and ESQH

### **6) Receiving / sending the questionnaire by e-mail**

17 comments were received in this section. All were positive about the use of e-mail to administer data collection, describing it as 'OK', 'good', 'excellent', 'no problem', 'the best way', 'very useful' and ' a good way for quick communication'.

### **7) Other comments**

11 comments were made in this section. Some respondents used the space to raise issues such as the need to have a validated questionnaire; the potential subjective nature of the responses and the over-use of open text questions; the failure to include some health care sectors such as home care services, nursing homes, and dentistry; potential problems with aggregation of the results; and the length and complexity of the exercise.

Four respondents expressed their interest in and broad support for the research e.g. they were 'looking forward to getting the feedback from the survey'; wishing they could 'continue' with the discussion; grateful 'for the opportunity to participate'; and encouraging the research group to 'keep up the good work'.

## **APPENDIX B 2 : COMMENTARY ON THE RESEARCH PROCESS**

### **The strengths of this research**

The collection of quantitative and qualitative data for this survey has provided opportunities to describe and compare the current stage of development of quality improvement policies and strategies in 24 member states. The qualitative data elements have provided insight into and explanations of some of the quantitative findings, and the whole dataset has brought together a broad range of perspectives from member states. Overall, this survey brings together for the first time in a comparable and analytic form, data on quality improvement policies and strategies in member states.

The data provides an essential reference point for future work packages in the MARQuIS research agenda, and acts as an important and accessible resource which can be updated. By identifying statistically significant relationships between quality improvement processes and quality improvement outcomes, the survey represents the opinion of key experts on ‘what works well’ in relation to the improvement of health care services in secondary and primary care. The research has also supported networking and provided opportunities for a range of stakeholders to debate quality improvement within and across borders of EU member states.

### **The weaknesses of the research**

#### ***Differences in context between health care systems***

The difficulties inherent in conducting comparative policy surveys are well known and this study was not immune from them. Efforts were made to allow for differences in social, political and cultural context and environment in each country, by the inclusion of questions that allowed these differences to be declared e.g. in national and regional policy initiatives, in the national and/or regional perspectives of respondents, and in different national priorities for improving health care systems. Being aware of these differences has been beneficial in interpreting the data in a qualitative context, but the differences have presented problems for the analysis of quantitative data for the sample overall, and in the interpretation of the results.

Differences in national context also emerged as a key problem for respondents in completing the questionnaire, when specific questions may not have applied to their health care system and became difficult to understand and difficult to answer (see ‘Feedback from respondents on the research process’, Appendix B1).

### ***Differences in responses between experts within a member state***

Differences in responses occurred between experts within countries, and this was accommodated to some degree by taking the modal value of the quantitative answers given within a country. Although this was considered the most appropriate measure in this context, modal values are not ideal in the sense that they can only give an approximation of agreement, and cannot reflect the true extent of agreement or disagreement on any particular issue, and the results will always be challenged by those who gave alternative responses. The authors therefore consider that although the country-specific data provides an interesting comparative picture, the modal values upon which it is based make it the least reliable data from this survey.

### ***Incomplete coverage of member states***

Every endeavour was made to include all 25 member states of the European Union in the research, but one member state did not yield any data. In this sense therefore, by only covering 24 member states the study gives an incomplete picture of quality improvement policies and strategies in the European Union.

### ***Sample biases***

The survey did not meet the initial target of five respondents from each member state, due to the variable response received to invitations. Differences in the number of respondents from each country could have biased the results from overall frequency analyses taken from the 68 respondents e.g. some countries had up to five or six respondents, while others were represented by only one or two. Some countries are therefore better represented than others in this survey.

The sample for this survey may be biased to some extent due to the selective targeting of key experts based on value-based definitions of 'expertise'. The definition of an 'expert' is drawn from experience, contact with others, or knowledge of their work or publication record in the field of quality improvement. An element of subjectivity was essential in order to select individuals who were most aware of developments in quality improvement and who could answer the questionnaire confidently.

Every effort was made to approach respondents from a number of roles and occupations relating to health care provision, in order to include a range of perspectives from practitioners through to policy-makers. Although the final sample

represented a broad cross-section of expertise and knowledge, the majority had roles and backgrounds in academia, medicine, or health care management, and their knowledge was predominantly of quality improvement in hospital services. This sample profile will need to be taken into account when interpreting the results of the survey.

***Biases in the interpretation of 'quality'***

For the purposes of this survey, the definition of 'quality improvement policies and strategies' brought together quality assurance, quality control and quality management approaches under the broad term of 'quality improvement'. This broad approach was adopted to maintain a consistent focus on the purpose of the survey which was to investigate 'quality improvement' strategies at the level of national policy; to maintain a consistent approach to the wording of questions, and to allow respondents to consider their answers in the context of a range of quality improvement strategies operating within their health care systems. It is acknowledged however that differences of opinion on the meaning and terminology of 'quality improvement' or what counts as a 'quality improvement strategy' could still have biased the results of this survey.

## **APPENDIX C : The titles of policy documents providing guidance on quality improvement policies and strategies, by member state**

### **Austria**

- 1) Arztegesetz 1998
- 2) Gesundheitsreformgesetz 2005
- 3) Gesetz zur Qualität von Gesundheitsleistungen 2005 (GQG)
- 4) Gesundheitstelematikgesetz 2005
- 5) Gesundheitsqualitätsgesetz 179 [www.bmgf.gv.at](http://www.bmgf.gv.at)

### **Cyprus**

- 1) Plan for the Introduction of Quality Assurance
- 2) Risk Management of Government Health Care Services

### **Czech Republic**

- 1) Methodical Guide : Accreditation of Hospitals (official journal of the MOH)
- 2) Guidelines for primary care see [www.cls.cz](http://www.cls.cz)
- 3) Efficient Health Care System which Respects Human Dignity : [www.mzcr.cz/data/c1216/lib/summary\\_english.pdf](http://www.mzcr.cz/data/c1216/lib/summary_english.pdf)
- 4) National Accreditation Standards for Hospitals : manual and methodology
- 5) National Policy of Quality in Healthcare

### **Denmark**

- 1) National Strategy on Quality Improvement in Health Care 2002-2006, National Board of Health, [www.sst.dk/upload/ns\\_strategy\\_001.pdf](http://www.sst.dk/upload/ns_strategy_001.pdf) , also in English
- 2) Patient First, 'Strategi for det behandlende sundhedsvaesen' – strategy for health care, Ministry of Health Care and Interior, Dec 2003, (in Danish) [www.ims.dk](http://www.ims.dk)
- 3) A vision for an open and transparent health care system, 2003, (in Danish)
- 4) Law on patient safety in health care 2003, (in Danish)
- 5) 'Debatoplæg – et åbent og gennemsigtigt sundhedsvaesen', Ministry of Health Care and Interior 2003 ([www.ims.dk](http://www.ims.dk)) - policy paper on transparency
- 6) 'Aftale om Strukturreform', Ministry of Health Care and Interior, 2004 - the basis of major reform of national, regional and local government, including future roles in healthcare. Will take effect from 2007. [www.ims.dk](http://www.ims.dk)

### **Estonia**

- 1) Estonian Health Policy 1997
- 2) Requirements for health care services quality assurance
- 3) Act for the Organisation of Health Care Services
- 4) Regulation of the Ministry of Social Affairs of 15 December 2004, No. 28, 'Requirements for quality assurance of health care services'

### **Finland**

Quality Management in Social Welfare and Health Care for the 21<sup>st</sup> Century

## **France**

- 1) Ordonnance portant reforme du systeme de sante No 96-346, April 24, 1996
- 2) Decret No 97-311, April 7, 1997
- 3) Accreditation manual : two versions, 1999 and 2004
- 4) Loi concernant les droits de la personne malade ou handicapee, March 2002
- 5) Loi portant reforme de l'assurance maladie, July 2004
- 6) Loi de sante publique, July 2004
- 7) Implementation of professional practice assessment, 2005

## **Germany**

- 1) Social Code V (SGB V), Sozialgesetzbuch, Section 9 : Quality Assurance of Health Care Provision (Sicherung der Qualitat der Leistungserbringung) with sections on
  - Evaluation of diagnostic treatments and methods (s 135)
  - Promotion of quality by the Association of Statutory Health Insurance Physicians (s136)
  - Quality assurance in accredited hospitals (s 137)
  - New remedies (s 138)
  - Quality assurance for medical aids (s 139)
- 2) 'Goals for a consistent quality strategy in the health care system – resolution by the 72<sup>nd</sup> Health Ministers Conference, June 9/10 1999 in Trier  
[www.g-ba.de/cms/front\\_content](http://www.g-ba.de/cms/front_content)

## **Greece**

- 1) Quality and Safety of Health Services and the National Information System – Draft Legislation

## **Hungary**

- 1) The Health Care Act CLIV (1997) on health, making the operation of internal QA systems obligatory for all health care institutions

## **Ireland**

- 1) National Health Strategy – Quality & Fairness, A Health System for You; DOH and Children, 2001

## **Italy**

- 1) National Law DLN 502 (1992) and 517 (1993) : disciplines and principles of providing health services
- 2) National laws 502, 1992 and 14/1/97
- 3) Regional Law N31 (1997)
- 4) Ministry of Health Decree 1997
- 5) National Law DLN 229 (1998)
- 6) Regional law 17/6/02
- 7) Piano Sanitario Regionale 1998-2000, and Piano Sanitario Regionale 2003-2006  
[www.ars.marche.it](http://www.ars.marche.it)

- 8) National Plan for Healthcare, 2003-2005
- 9) Regional DGN VII/12446 (2003) Three year programme to implement quality policies and strategies in health care organisations
- 10) National and regional Health Plans
- 11) Regulations on CME
- 12) Regulation on Patient's Charters
- 13) Document of the Committee on Risk Management appointed by the MOH
- 14) Document of the Committee on Waiting Times appointed by the Minister of Health

### **Lithuania**

- 1) Order of the Minister of Health 10/6/1998 Nr 571 ' Concerning Regulations on Local Medical Audit'
- 2) The Lithuanian Health Programme 1998
- 3) Order of the Minister of Health 9/4/2004, Nr V-642 ' Concerning approval of HC quality assurance programme for 2005-2010

### **Luxembourg**

- 1) Quality policy is featured in many different documents from the Health Ministry
- 2) Social Insurance companies and Hospitals have written quality programmes and assessments

### **Malta**

Health Vision 2000 – A National Health Policy, Department of Health Policy and Planning

### **Netherlands**

- 1) Law on Quality in Health Care Organizations, 1996
- 2) Three documents recently published (Project Sneller Beter). The ministry publishes regular reviews (quality letters) and new initiatives
- 3) Parliamentary documents e.g. [www.minvws.nl/images/2340727\\_tcm10-17457.pdf](http://www.minvws.nl/images/2340727_tcm10-17457.pdf)
- 4) State of Health Care 2003 : [www.igz.nl/standaard.php?pagid=20](http://www.igz.nl/standaard.php?pagid=20)

### **Poland**

- 1) National Health Programme (2004-2013) Narodowy program Zdrowia na Lata
- 2) National Centre for Quality Monitoring in Medical Care (works under the MOH)

### **Portugal**

- 1) Sistema Portugues da Qualidade na Saude SNS21
- 2) Planos de Actividades do Instituto da Qualidade em Saude (IQS)

### **Slovakia**

- 1) There is a requirement in law, but no special document for policy improvement. Some paragraphs in the law for health care servants
- 2) 578/2004 Z.z. On healthcare providers, medical workers, professional organisations in the health service, and on the amendment and supplementing of certain laws

3) The documents is currently being prepared by the MOH

### **Slovenia**

1) Guidelines for the Development of Quality in Healthcare in the Republic of Slovenia, to be published at the end of 2005

### **Spain**

1) Plan de Calidad

2) Ley 41 /2002, 14 November, Reguladora de la Autonomia del paciente

3) R.D. 1087/2003, De Estructura Organica del Ministerio de Sanidad y Consumo

4) Ley 16/2003, 28 May, De Cohesion y Calidad del Sistema Nacional de Salud

### **Sweden**

1) SOSFS 1996 : 24, to be replaced by a new document in July 2005

2) Socialstyrelsen, National Board of Health and Welfare

### **UK**

1) In Scotland, various documents published by NHS QIS, relating to condition-specific standards (available to patients and professionals), clinical governance, risk management, outputs from England & Wales

2) DOH 'Standards for Better Health'

3) The NHS Plan

4) Standards for Better Health

5) Quality and Outcomes Framework

6) National Service Frameworks

7) Seminal policy papers e.g. 'An organisation with a memory'

## **APPENDIX D : National societies for quality in health care, by member state (some membership numbers given)**

### **Austria**

- 1) OBIG, Osterreichisches Bundesinstitut fur gesundheitswesen
- 2) OQUAST, Osterr Gesellschaft fur QS und Standardisierung medizinischdiagnostischer Untersuchungen
- 3) A new National Institute for Quality in Healthcare is being established

### **Belgium**

- 1) No 'national' society but a national council for promotion of quality : chooses topics for national QI activities, composed of trade unions, universities, scientific societies and government representatives
- 2) Local or regional societies : SSMG (primary care scientific society); CEBAM (centre for evidence-based medicine); FMMCSF (Federation des Maisons Medicales, membership of 69 local primary care teams in Brussels and Walloon)

### **Czech Republic**

- 1) Czech Society for Quality in Healthcare; members include MOH, professional organisations, patient organisations, regional associations, associations of nurses, insurance companies, has a Centre for Healthcare Quality (membership 50)

### **Denmark**

- 1) DSKS, Dansk selskab for kvalitet i Sundhedsvaesnet, Danish Society for Quality in the Healthcare System, (membership 600-700)

### **Finland**

Laatukeskus : The Excellence of Finland / health care  
(non-governmental foundation; membership approx. 80, plus 2-3 large hospitals)  
[www.laatukeskus.fi](http://www.laatukeskus.fi)

### **France**

- 1) AFGRIS – specialists in risk management
- 2) SOFGRTS – specialists in risk management
- 3) SOFESTEC –previous role in evaluation and quality
- 4) AFNOR has a health section

### **Germany**

- 1) Gesellschaft fur Qualitätsmanagement in der Gesundheitsversorgung e.V. GQMG, German Society for Quality Management in Health Care, (membership 700)
- 2) Gesellschaft fur Qualitätsmanagement in der Medizin, (membership 1000)

### **Greece**

- 1) National Standards Organisation, ELOT, (membership 120)

## **Hungary**

General quality societies with health care working groups :

- 1) Magyar Minoseg Tarsasag, Hungarian Quality Society
- 2) European Organisation for Quality (EOQ) Hungarian Group

## **Ireland**

- 1) Irish Society for Quality & Safety in Healthcare, (membership 500-600)

## **Italy**

- 1) Societa Italiana per la Qualita del l'Assistenza (SIQuAS) – Italian Society for Quality in Healthcare, (membership 300-500) [www.siquas.it](http://www.siquas.it)
- 2) VRQ, (membership 400)

## **Lithuania**

- 1) Lithuanian Association for Health Care Quality, (membership 50)

## **Luxembourg**

- 1) CIPIQS : Collaboration Internationale, des Praticiens et Intervenants en Quality Sante; has members from Belgium, France, Switzerland, 75 members who can be individuals or institutions; annual congress meeting, includes some primary care members, supported by MOH

## **Netherlands**

- 1) NVKZ, (membership 600)
- 2) Dutch Institute for Healthcare Improvement, CBO [www.cbo.nl](http://www.cbo.nl)

## **Poland**

- 1) Polish Association for Quality Promotion in Healthcare, (membership 700)

## **Slovakia**

- 1) NIKI : National Institute for Quality and Innovation

## **Spain**

- 1) Sociedad Espanola de Calidad Asistencial. Spanish Society for Health Care Quality (1000 associates, multidisciplinary : clinicians, managers, methodologists, researchers)

## **Sweden**

- 1) Swedish Forum on Quality of Care (part of ISQua)

## **UK**

- 1) In Scotland, NHS Quality Improvement Scotland, (membership 140)

**APPENDIX E : Lead organisations in quality improvement, and their work,  
by member state**

**Austria**

<b>Organisation</b>	<b>Work in quality improvement</b>
OBIG	
Forum Q : Informationszentrum für Qualitätsmanagement im Gesundheitswesen	Supported by the Ministry for Health and Women, gives information and support to hospitals www.forumq.at
OQMED : Osterreichische gesellschaft für Qualitätssicherung und Qualitätsmanagement in der Medizin	
OQUASTA (MOH)	Quality service for laboratories only
Institute für Pflege-und Gesundheitssystemforschung, University of Linz	National coordinator of AUQIP (International Quality Indicator Project), supports participating hospitals

**Belgium**

<b>Organisation</b>	<b>Work in quality improvement</b>
Two Scientific Societies of General practice (Societe Scientifique de Medecine Generale, Wetenschappelijke Vereniging voor Vlaamse huisartsen)	Organise activities (CME, quality circles, QI projects)
Colleges of specialists	Define quality indicators and registration of quality activities
Federal Ministry of Public Health	Risk Management Projects
Mutualites Chretiennes (insurers)	Exploratory Accreditation test
Reseau Sante Louvain (University hospitals network)	Benchmarking MRSA contamination rates

**Cyprus**

<b>Organisation</b>	<b>Work in quality improvement</b>
Ministry of Health	
State Laboratory	
Nursing Directorate	

**Czech Republic**

<b>Organisation</b>	<b>Work in quality improvement</b>
Joint Accreditation Committee of the Czech Republic	
National Accreditation Centre for Clinical Laboratories	

Centre for Healthcare Quality	
Spojena akreditacni Komise	Hospital and LTC facilities, accreditation, educational activities
Czech Society for Quality in Healthcare	Educational activities
MOH	Financial support for QI

## Denmark

Organisation	Work in quality improvement
National Indicator Project	For 7 diagnostic conditions, data collected from all patients having hospital treatment, audits performed locally and regionally
Good Medical Department	Involving half of all medical departments nationally, voluntary participation in 3 consecutive cross-sectional studies, data on generic indicators, assessing and benchmarking the quality of care
DSKS (Danish Society for Quality in the Healthcare System)	9 <sup>th</sup> European Forum on Quality Improvement 2004, to strengthen QI
National Board of Health	Setting standards and rules (professional authorisation, national strategy for QI, patient safety standards) Regulatory, advisory and oversight government agency
Danish Medical Society	Coordinator of the individual medical societies
Danish Society of Nursing Science	Supporting the National Board of Health and the projects with content
The national quality projects	Consortia formed between central actors with specific aims concerning QI – now fusing into ‘The Danish Model’
The Association of Danish regions (hospital owners)	

## Estonia

Organisation	Work in quality improvement
Professional organisations e.g. society of surgeons and others	Have had some success in quality improvement Develop guidelines in collaboration with the Estonian Health Insurance Fund, arrange certification of health professionals
The Commission of Professional Societies	Evaluates the knowledge of specialists after 5 years practice
The Institute of Health Care, Medical Faculty, University of Estonia	Provide a quality curriculum for students and lecturers act as the main consultants on quality for HC institutions

Society of Radiologists	Setting quality standards for radiological services
Society of Laboratory Medicine	Established the LabQuality system
The Medicum	A primary care supplier led by Kalev Karu
Ministry of Health	Setting quality requirements, helping health care providers to prepare a quality manual of written instructions, leading role in health projects
Hospital Association	Leading role in organising training of staff in quality issues (previously the HOPE project)
Commercial management consultancy firms	Training, consultation, projects
University of Tartu, Faculty of Medicine	Working through professional societies with the university clinics and other providers, providing training and education for health professionals, conducting research into quality
Ministry of Social Affairs together with the Healthcare Board	Provide guidance for quality improvement e.g. a manual for development of quality systems in healthcare organisations

### **Finland**

FinOHTA	Health Technology Assessment
Stakes	Measuring patient experience
Excellence of Finland	
Tampere University Hospital	
National Agency of Medicines and the Centre for Pharmacotherapy Development	
Finnish Medical Society Duodecim	Provides current care guidelines

### **France**

<b>Organisation</b>	<b>Work in quality improvement</b>
Haute Autorite en Sante	Runs the accreditation process; promotes QI in organisations (documents, projects etc); develops methods to conduct improvements; sets guidelines and standards Has a prominent institutional role
CECQA Bordeaux	Benchmarks data from regional hospitals; measures and compares patient satisfaction; runs evaluations on specific subjects among regional hospitals
ENSP (National School of Public Health) at Rennes	Teaching quality improvement for hospital managers and head nurses;

	training professionals on quality methods; developing networks and consultancies at international level (e.g. Marocco)
SOFGRES – AFGRIS	
Some regional initiatives e.g. Bordeaux, Lille	Offer services and support
Consultancy firms / experts	Offer QI services

### Germany

Organisation	Work in quality improvement
Institute for Quality and Efficiency in Healthcare (IQWiG)	The scientific evaluation of the use, quality and efficiency of services nationally, including the evaluation of treatment guidelines, making recommendations on structured treatment programmes, evaluation of pharmaceutical use and non-pharmaceutical interventions, and the publication of patient information
Gemeinsamer Bundesausschuss (G-BA) (Federal Joint Committee of doctors, health insurance companies and patients)	Assessment of new methods of medical examination and treatment (based on EBM), especially important in ambulatory care, where all new treatment methods must be evaluated in terms of benefit and efficiency before it can be paid for from health insurance funds. Issues directives governing quality assurance in the ambulatory, inpatient and cross-sector spheres
Institut für Qualität und Wirtschaftlichkeit in der Medizin	
Ärztliches Zentrum für Qualität in der Medizin	
Gemeinsamer Bundesausschuss	

### Greece

Organisation	Work in quality improvement
National School of Public Health Dept of Health Services Management	

### Hungary

Organisation	Work in quality improvement
MOH	Decides on the main topics that should be improved. Releases guidelines, methods

	of clinical audit, how to develop EBM guidelines, quality standards for hospitals, guidelines for QI activities, HACCP for healthcare, arrangements with different expert groups for special programmes (e.g. developing patient satisfaction questionnaire, review and update of quality standards)
Two Universities : 1) Semmelweis Univ., Health Services Management Training Centre 2) Debrecen Univ; School of Public Health	Develop and organise special courses for quality management; participate as experts in the MOH and National Health Insurance Fund programmes
Commercial for profit consultancy firms	The providers pay for getting help from them and there are several

## Ireland

<b>Organisation</b>	<b>Work in quality improvement</b>
Irish Society for Quality & Safety in Healthcare	A not-for-profit, charitable NGO. Dedicated to improving the quality & safety of healthcare and support professional development through education and research; to provide a network for those working in or interested in healthcare quality, to share information
Irish Health Services Accreditation Board (IHSAB)	An independent organisation established under a statutory instrument (SI). To establish, continuously review and operate an accreditation scheme for the Irish health system within a QI framework. Operates the Acute Care Accreditation Scheme and has recently completed the Palliative Care Accreditation Scheme, and the Residential Care Accreditation Scheme is near completion
Mental Health Commission	An independent statutory body established under the Mental Health Act 2001. A statutory obligation to promote quality in the delivery of MH services, to promote the interests of patients, and to protect the interests of persons involuntarily admitted under the Mental Health Act 2001

## Italy

Organisation	Work in quality improvement
National Agency for Regional Health Services (Agenzia per I servizi sanitari regionali)	Organises groups of experts from different regions on specific topics e.g. accreditation, risk management, clinical indicators. Produces documents and tools
Regional agencies (ASR Marche, ASR Emilia-Romagna)	Focus on the education of professionals, develop plans and tools, support activities
SIQuAS – a scientific society  Italian Society for Quality in Health care, an interdisciplinary scientific society	Organises courses, meetings, consensus conferences Research, validation and spread models, tools techniques, methods for planning, organising, evaluating and improving HC quality It has 7 research lines : 1) external peer evaluation by ISO, accreditation, EFQM 2) clinical pathways 3) safety and risk management 4) education for quality 5) partnership with citizens 6) clinical indicators 7) Quality in complex systems and functions of quality staff in the Trust Networking and scientific development
Joint Commission International	Contracted to accredit hospitals in the Lombardia Region
Private consultants in ISO	Certification networking
SIN : Italian Society of Nephrology	
Azienda Provinciale per I Servizi Sanitari (Trento)	Has first level recognition for EFQM, a major hospital has been accredited by JCI; promoting a network with 6 other health trusts to spread EFQM across the health care service
VRQ	Promotion and dissemination of quality culture
CEFPAS-QUOS project	CQI project in 72 Sicilian hospitals on technical, managerial and perceived quality; benchmarking

## Lithuania

Organisation	Work in quality improvement
State health care Accreditation Agency	Regular assessment of meeting the requirements set by the MOH
State medical audit inspection	Inspect health care organisations acting on information from MOH, other officials or citizens
ISO office in Vilnius	
Ministry of Healthcare	

Governmental Health Care Accreditation Services (under MOH)	
Medical Audit Inspection (under MOH)	

### **Luxembourg**

<b>Organisation</b>	<b>Work in quality improvement</b>
Union des Caisses de Maladie (Social Insurance)	Work with academics to develop quality programmes for hospitals; pay for the quality programmes; involved in the development of legal texts with the MOH on standards, leader of QI, defined patient safety
Entente des Hopitaux Luxembourgeois	Negotiate with Social Insurance on the quality programmes and support the hospitals; select experts to make quality assessments
Centre de Recherche Public Sante	Proposes standards and indicators for quality programmes to the Social Insurance and the Entente, participate in assessment, prepares legal texts with MOH

### **Malta**

Malta College of General Practitioners	Continuous medical education programme
Malta Family Medicine Department	To begin organising a specialisation course for Family Medicine
Malta Association of Public Health Medicine	To start organising specialisation postgraduate training programme

### **Netherlands**

<b>Organisation</b>	<b>Work in quality improvement</b>
Rijnstate Hospital, Arnhem	Award winner
OLV Hospital, Amsterdam	A high ranking in surveys
Dutch Institute for Healthcare Improvement (CBO) <a href="http://www.cbo.nl">www.cbo.nl</a>	
Dutch Institute of Accreditation Hospitals (NIAZ) <a href="http://www.niaz.nl">www.niaz.nl</a>	
Order of medical specialists <a href="http://orde.artsennet.nl/themes/1272733914/home=1">orde.artsennet.nl/themes/1272733914/home=1</a>	

### **Poland**

<b>Organisation</b>	<b>Work in quality improvement</b>
National Centre for Quality Assurance	
Polish Association for Quality Promotion in Healthcare	A not for profit NGO founded in 1993 by medical professionals, 700 members. Organises international conferences, co-

	developed the accreditation system, co-developed JCI standards, provides education and training, performs HTA, conducts patient satisfaction surveys, support European Accreditation Forum, member of ISQuA and ESQH
College of Family Physicians	
National Centre for Quality Assessment in Healthcare (NCQA) www.cmj.org.pl	The central health government department , brought into existence by the MOH in 1994, to inspire and support actions aimed at improving the quality of health services. The main tasks include standardisation of procedures through elaboration of national guidelines in medical procedures; adaptation and implementation of QI projects; consultation, inspiration and coordination of QA programmes; providing training; monitoring quality indicators; the IDOI project for QI; accreditation, and conferences

### Portugal

Organisation	Work in quality improvement
Instituto da qualidade na saude, Ministry of Health	Joint venture with the Kings Fund for hospital accreditation Project to improve the administrative processing of patients Moniquor self evaluation system for primary care
Medical Association Orem dos Enfermeiros	Support and sponsor QI projects
Pharmaceutical Association Ordem dos Farmaceuticos	Supports and develops an accreditation system for laboratories and pharmacies

### Slovakia

Organisation	Work in quality improvement
National Institute for Quality and Innovation (Status nascendi)	Developing
Association of Private Physicians	Introducing simplified ISO standards into primary care
Slovak Medical Chamber	
Most Hospitals	Assigning a staff member as quality coordinator
Hospitals Association of Slovakia	

## Slovenia

Organisation	Work in quality improvement
Medical Chamber of Slovenia National project 'Quality of Healthcare in Slovenia', Medical Chamber of Slovenia	Quality indicators
MOH	Preparation of legislation on quality and safety and national policy on quality and safety; setting up an accreditation system; sentinel events reporting; a manual for clinical pathways development; education and training; financing some research on
Commercial Consultancy	Helping to develop quality systems in healthcare organisations according to ISO 9001 : 2000

## Spain

Organisation	Work in quality improvement
Sociedad Espanola de Calidad Asistencial	
Agencia de Calidad del Ministerio de Sanidad	
Agencias de calidad en comunidades autonomas	
Fundacion Avedis Donabedian	
Quality Agencies or Departments in each Autonomous Community	

## Sweden

Organisation	Work in quality improvement
Socialstyrelsen, National Board of Health and Welfare	Legislation, national statistics, governance
SKL, Swedish Federation of Regions and Municipalities Swedish Association of Local Authorities and Regions, <a href="http://www.skl.se">www.skl.se</a>	For providers, inspire and support hospitals, primary care and the regions to work with QI Health care division works on creating awareness of quality gaps Demonstrating results through helping HC organisations to improve Supporting leaders in improvement work Total transformation of health care systems
LOF, the regions patient insurance	Patient safety issues
Qulturum – the improvement centre in Joenkoping County Council, <a href="http://www.qulturum.com">www.qulturum.com</a>	Provides support for participation in the Pursuing Perfection project (international collaboration), with outstanding results Support for county councils in their

	improvement work
Memeologen –improvement network of Vaesterbotten County Council	Provides support for the transformation work in that county council, and also supports some other councils

## UK

Organisation	Work in quality improvement
NHS QIS <a href="http://www.nhshealthquality.org">www.nhshealthquality.org</a> (in Scotland)	
Pricewaterhouse Coopers (in Scotland)	Development of governance framework (NHS 24) to support and monitor performance, allowing for development of new standards, targets and corporate objectives Piloting of standards action planning workshops using Groupsystems technology to improve areas where standards are not met (12, Scotland) Working with over 50 % of NHS boards in Scotland
King's Fund	
Picker Institute	
Health and Social Care Quality Centre	
Healthcare Commission	Assesses an organisation's achievement of national core and developmental standards. Reviews issues of concern e.g. cleanliness, child protection, maternity services, A&E. Targeted inspections and investigations of poorly performing organisations
National Patient Safety Agency	To harness systematic learning from safety incidents and service failures in the NHS; collects and analyses information locally from organisations, staff, patients and carers, and puts preventive measures in place. Identifies risks, works on solutions, specifies national goals and tracks progress
NHS Modernisation Agency (now the Institute for Learning, Skills and Innovation)	Being set up to integrate, promote and support innovation, learning, leadership and improvement. To develop, disseminate and commercialise innovative work in the NHS and provide expert support materials to help teams and organisations. The Agency has led QI programmes in A&E waiting times, improving patient flows, management of queues and appointment systems, patient feedback

**APPENDIX F**

**STATISTICALLY SIGNIFICANT CORRELATIONS BETWEEN QI PROCESSES AND THE IMPACT OF QI STRATEGIES**

**Table F1**

**Correlations between quality improvement process variables, and the impact of quality improvement strategies**

(Mann Whitney U Test,  $p < 0.01$ ).

	Performance indicators	Clinical practice guidelines	Accreditation / audit	Quality management	Patient surveys, monitoring complaints	Patient safety systems	AGGREGATE impact of all QI strategies
Legal requirement for QI (mental health)	$z = -2.88$ $p = 0.004$						
Quality standards set for health care organisations			$z = -2.61$ $p = 0.009$				
Targets set for the health care system	$z = -3.22$ $p = 0.001$						
Targets set for waiting times for elective surgery					$z = -2.68$ $p = 0.007$		
Targets set for waiting times in accident and emergency departments							$z = -2.75$ $p = 0.006$
Targets for control of hospital infection rates				$z = -3.58$ $p = 0.0001$			$z = -2.85$ $p = 0.004$
Targets for patient satisfaction		$z = -2.62$ $p = 0.009$					$z = -2.71$ $p = 0.007$

**Table F2**

**Correlations between quality improvement process variables, and the impact of quality improvement strategies**

**(Spearman Correlation, one tailed test; Mann Whitney U Test;  $p < 0.01$ ).**

	Performance indicators	Clinical practice guidelines	Accreditation / audit	Quality management	Patient surveys, monitoring complaints	Patient safety systems	AGGREGATE impact of all QI strategies
Having a national society for quality in health care			$z = -3.30$ $p = 0.001$				
Support and guidance from non-governmental organisations				coefficient 0.35 $p = 0.004$			
Support and guidance from universities		<b>coefficient 0.44</b> <b><math>p = 0.0001</math></b>		<b>coefficient 0.45</b> <b><math>p = 0.0001</math></b>	coefficient 0.42 $p = 0.001$	coefficient 0.43 $p = 0.001$	<b>coefficient 0.51</b> <b><math>p = 0.0001</math></b>
Support and guidance from provider organisations				coefficient 0.36 $p = 0.004$			coefficient 0.38 $p = 0.003$
Undergraduate training and education in QI		coefficient 0.37 $p = 0.002$		coefficient 0.34 $p = 0.003$	coefficient 0.38 $p = 0.001$	coefficient 0.31 $p = 0.009$	coefficient 0.38 $p = 0.001$
Postgraduate training and education in QI						coefficient 0.36 $p = 0.004$	coefficient 0.33 $p = 0.005$

**Table F3**

**Correlations between quality improvement process variables, and the impact of quality improvement strategies**

**(Mann Whitney U Test;  $p < 0.01$ ).**

	<b>Performance indicators</b>	<b>Clinical practice guidelines</b>	<b>Accreditation / audit</b>	<b>Quality management</b>	<b>Patient surveys, monitoring complaints</b>	<b>Patient safety systems</b>
<b>Required use of performance indicators (hospitals )</b>	$z = -2.79$ $p = 0.005$					$z = -2.85$ $p = 0.004$
<b>Required use of performance indicators (primary care services)</b>	$z = -3.07$ $p = 0.002$					
<b>Required use of performance indicators (mental health services)</b>	$z = -2.76$ $p = 0.006$					$z = -2.76$ $p = 0.007$
<b>Required use of patient safety systems (hospitals)</b>						$z = -2.69$ $p = 0.007$

**Table F4 HOSPITAL DATA ONLY**

Correlations between quality improvement process variables for hospital services, and the impact of quality improvement strategies (Spearman Correlation, one tailed test,  $p < 0.01$ ).

	Performance indicators	Clinical practice guidelines	Accreditation / audit	Quality management	Patient surveys, monitor complaints	Patient safety systems	AGGREGATE impact of all QI strategies
Staff training in QI			<b>coefficient 0.44 p = 0.0001</b>	<b>coefficient 0.53 p = 0.0001</b>			<b>coefficient 0.43 p = 0.0001</b>
Leadership training in QI				coefficient 0.31 p = 0.007			coefficient 0.31 p = 0.007
Quality improvement plan				coefficient 0.34 p = 0.004			coefficient 0.33 p = 0.004
Regular internal quality reviews							coefficient 0.33 p = 0.004
Committee for QI			coefficient 0.33 p = 0.005				
Dedicated finance / budget for QI				coefficient 0.38 p = 0.001			coefficient 0.34 p = 0.003
Information systems providing data on quality of care	coefficient 0.32 p = 0.007			coefficient 0.31 p = 0.007	coefficient 0.34 p = 0.004		<b>coefficient 0.44 p = 0.0001</b>
Programme of QI projects	coefficient 0.31 p = 0.008	coefficient 0.34 p = 0.003	<b>coefficient 0.42 p = 0.0001</b>	coefficient 0.30 p = 0.009		coefficient 0.34 p = 0.005	<b>coefficient 0.48 p = 0.0001</b>
Auditing and follow up of QI projects		coefficient 0.37 p = 0.002	coefficient 0.36 p = 0.002	coefficient 0.34 p = 0.003	coefficient 0.39 p = 0.001		<b>coefficient 0.50 p = 0.0001</b>
Committee for infection control	coefficient 0.30 p = 0.008						coefficient 0.30 p = 0.008
Incident reporting systems	coefficient 0.30 p = 0.009					<b>coefficient 0.47 p = 0.0001</b>	

**Table F5 PRIMARY CARE DATA ONLY**

Correlations between quality improvement process variables for primary care services, and the impact of quality improvement strategies (Spearman Correlation, one tailed test,  $p < 0.01$ ).

	Performance indicators	Clinical practice guidelines	Accreditation / audit	Quality management	Patient surveys, monitor complaints	Patient safety systems	AGGREGATE :impact of all QI strategies
Staff training in QI					coefficient 0.34 p = 0.006		coefficient 0.33 p = 0.007
Regular staff performance reviews							coefficient 0.33 p = 0.008
Leadership training in QI				coefficient 0.38 p = 0.003			coefficient 0.32 p = 0.008
Quality improvement plan			coefficient 0.33 p = 0.009	coefficient 0.44 p = 0.001	coefficient 0.38 p = 0.003		<b>coefficient 0.46 p = 0.0001</b>
Regular internal quality reviews			coefficient 0.38 p = 0.003				
Committee for QI	coefficient 0.36 p = 0.006						
Director, leader for QI	coefficient 0.33 p = 0.009						
Dedicated budget for QI	coefficient 0.43 p = 0.001						coefficient 0.34 p = 0.006
Information systems providing data on quality of care			coefficient 0.43 p = 0.001	coefficient 0.42 p = 0.001			coefficient 0.43 p = 0.001
Programme of QI projects	<b>coefficient 0.46 p = 0.0001</b>	coefficient 0.33 p = 0.008	coefficient 0.39 p = 0.002	coefficient 0.35 p = 0.006	<b>coefficient 0.49 p = 0.0001</b>		<b>coefficient 0.55 p = 0.0001</b>
Auditing of QI projects	coefficient 0.35 p = 0.006				coefficient 0.35 p = 0.004		<b>coefficient 0.44 p = 0.0001</b>
Incident reporting systems						coefficient 0.44 p = 0.001	
Clear responsibilities for clinical performance					coefficient 0.37 p = 0.004		coefficient 0.42 p = 0.001
Maintaining equipment							Coef 0.33, p=0.008

**Table F6**

**HOSPITAL DATA ONLY**

**Correlations between the incentives offered to hospitals to improve the quality of services, and the impact of quality improvement strategies (Spearman Correlation, one tailed test,  $p < 0.01$ ).**

	<b>Performance indicators</b>	<b>Clinical practice guidelines</b>	<b>Accreditation / audit</b>	<b>Quality management</b>	<b>Patient surveys, monitor complaints</b>	<b>Patient safety systems</b>	<b>AGGREGATE :impact of all QI strategies</b>
<b>Financial rewards for QI</b>	coefficient 0.31 p = 0.007					coefficient 0.34 p = 0.005	coefficient 0.34 p = 0.003

**Table F7**

**PRIMARY CARE DATA ONLY**

**Correlations between the incentives offered to primary care to improve the quality of services, and the impact of quality improvement strategies (Spearman Correlation, one tailed test,  $p < 0.01$ ).**

	<b>Performance indicators</b>	<b>Clinical practice guidelines</b>	<b>Accreditation / audit</b>	<b>Quality management</b>	<b>Patient surveys, monitor complaints</b>	<b>Patient safety systems</b>	<b>AGGREGATE :impact of all QI strategies</b>
<b>Financial rewards for QI</b>	coefficient 0.33 p = 0.009					coefficient 0.35 p = 0.007	coefficient 0.36 p = 0.003
<b>The need to comply with a legal requirement for QI</b>	coefficient 0.43 p = 0.001						

APPENDIX G

STATISTICALLY SIGNIFICANT CORRELATIONS BETWEEN QI PROCESSES AND IMPROVEMENTS IN SERVICE QUALITY

Table G1

Correlations between quality improvement process variables, and improvements in clinical effectiveness, efficiency, staff orientation, responsive governance, safety, and patient centredness (Spearman Correlation, one-tailed test; Mann Whitney U Test;  $p < 0.01$ ).

	Clinical effectiveness	Efficiency	Staff orientation	Responsive governance	Safety	Patient centredness	AGGREGATE variable for all indicators of QI
Targets for waiting times in Accident and Emergency departments	$z = -2.80$ $p = 0.008$				$z = -2.80$ $p = 0.006$		$z = -2.86$ $p = 0.004$
Support and guidance from Ministries of Health				coefficient 0.53 $p = 0.001$			
Support and guidance of professional organisations			coefficient 0.38 $p = 0.006$	<b>coefficient 0.55</b> <b><math>p = 0.0001</math></b>	coefficient 0.37 $p = 0.009$		
Support and guidance from universities			coefficient 0.41 $p = 0.003$	coefficient 0.48 $p = 0.002$		coefficient 0.35 $p = 0.009$	coefficient 0.41 $p = 0.002$
Support and guidance from commercial consultancies					coefficient 0.40 $p = 0.005$		
Undergraduate training and education in QI	coefficient 0.42 $p = 0.006$						
Postgraduate training and education in QI	coefficient 0.45 $p = 0.003$	coefficient 0.46 $p = 0.002$			coefficient 0.47 $p = 0.001$	coefficient 0.39 $p = 0.004$	coefficient 0.34 $p = 0.008$

**Table G2 HOSPITAL DATA ONLY**

**Correlations between quality improvement process variables for hospital services, and improvements in clinical effectiveness, efficiency, staff orientation, responsive governance, safety and patient-centredness (Spearman Correlation, one tailed test,  $p < 0.01$ ).**

	Clinical effectiveness	Efficiency	Staff orientation	Responsive governance	Safety	Patient centredness	AGGREGATE variable for all indicators of QI
<b>Staff training in QI</b>			<b>coefficient 0.51 p= 0.0001</b>	<b>coefficient 0.54 p = 0.0001</b>	coefficient 0.45 p = 0.002	coefficient 0.39 p = 0.004	<b>coefficient 0.49 p = 0.0001</b>
<b>Regular staff performance reviews</b>						coefficient 0.38 p = 0.005	
<b>Leadership training in QI</b>				coefficient 0.45 p = 0.003		coefficient 0.37 p = 0.006	coefficient 0.35 p = 0.005
<b>Regular internal quality reviews</b>				coefficient 0.50 p = 0.001			
<b>Director/leader for QI, senior level</b>				coefficient 0.41 p = 0.006			
<b>Dedicated budget for QI</b>			<b>coefficient 0.49 p = 0.0001</b>		coefficient 0.50 p = 0.001	<b>coefficient 0.48 p = 0.0001</b>	<b>coefficient 0.48 p = 0.0001</b>
<b>Information systems providing data on quality of care</b>			coefficient 0.40 p = 0.004		coefficient 0.38 p = 0.007	coefficient 0.41 p = 0.003	coefficient 0.37 p = 0.003
<b>Programme of QI projects</b>	coefficient 0.38 p = 0.009			coefficient 0.51 p = 0.001	<b>coefficient 0.50 p = 0.0001</b>	coefficient 0.47 p = 0.001	coefficient 0.42 p = 0.001
<b>Auditing and follow up of QI projects</b>	coefficient 0.40 p = 0.007		coefficient 0.46 p = 0.001	coefficient 0.49 p = 0.001	coefficient 0.43 p = 0.003	coefficient 0.45 p = 0.001	coefficient 0.41 p = 0.001
<b>Clear responsibilities for clinical performance</b>				coefficient 0.45 p = 0.003		coefficient 0.35 p = 0.009	coefficient 0.33 p = 0.009

**Table G3**

**PRIMARY CARE DATA ONLY**

Correlations between quality improvement process variables for primary care services, and improvements in clinical effectiveness, efficiency, staff orientation, responsive governance, safety and patient-centredness (Spearman Correlation, one tailed test,  $p < 0.01$ ).

Correlations are positive unless indicated (negative correlation).

	Clinical effectiveness	Efficiency	Staff orientation	Responsive governance	Safety	Patient centredness	AGGREGATE variable for all indicators of QI
Staff training in QI			coefficient 0.39 p = 0.008			coefficient 0.40 p = 0.006	coefficient 0.35 p = 0.007
Regular staff performance reviews						coefficient 0.42 p = 0.003	
Leadership training in QI				coefficient 0.43 p = 0.008			
Quality improvement plan			coefficient 0.41 p = 0.006	coefficient 0.46 p = 0.005		coefficient 0.45 p = 0.002	coefficient 0.38 p = 0.004
Programme of QI projects				coefficient 0.48 p = 0.003			
Auditing and follow up of QI projects				coefficient 0.46 p = 0.005			

**Table G4**

**HOSPITAL DATA ONLY**

**Correlations between the incentives offered to hospitals to improve the quality of services, and improvements in clinical effectiveness, efficiency, staff orientation, responsive governance, safety, patient centredness (Spearman Correlation, one tailed test,  $p < 0.01$ ).**

	<b>Clinical effectiveness</b>	<b>Efficiency</b>	<b>Staff orientation</b>	<b>Responsive governance</b>	<b>Safety</b>	<b>Patient centredness</b>
<b>Financial rewards for QI</b>	coefficient 0.39 p = 0.009	coefficient 0.44 p = 0.002				

**Table G5**

**Correlations between the amount of information about quality improvement being shared within borders and across borders, and improvements in clinical effectiveness, efficiency, staff orientation, responsive governance, safety, patient centredness (Spearman Correlation, one tailed test,  $p < 0.01$ ).**

	<b>Clinical effectiveness</b>	<b>Efficiency</b>	<b>Staff orientation</b>	<b>Responsive governance</b>	<b>Safety</b>	<b>Patient centredness</b>	<b>AGGREGATE variable for all indicators of QI</b>
<b>The amount of information on QI shared between health care organisations within member states</b>	coefficient 0.58 p = 0.0001	coefficient 0.59 p = 0.0001	coefficient 0.52 p = 0.0001		coefficient 0.38 p = 0.007	coefficient 0.56 p = 0.0001	coefficient 0.58 p = 0.0001
<b>The amount of information on QI shared with other member states</b>				coefficient 0.50 p = 0.001		coefficient 0.35 p = 0.008	coefficient 0.33 p = 0.008



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