

# Implementation of the 4th Joint Societies' Task Force Guidelines on Cardiovascular Disease Prevention in Clinical Practice

*Evaluating implementation across  
13 European countries*

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## Introduction

The Guidelines of the 4<sup>th</sup> Joint Societies Task Force on Cardiovascular Disease Prevention in Clinical Practice (4<sup>th</sup> JTF)\* were issued in 2007, summarising and evaluating available evidence on reducing the incidence of atherosclerotic events arising from coronary heart disease, cerebrovascular disease and peripheral arterial disease. The purpose of the guidelines is to assist physicians in selecting the best strategies for managing cardiovascular disease. They are an important agreed protocol across countries and professionals that have the ultimate aim of improving outcomes from the disease. The value of these guidelines depends on the extent to which they are used by physicians in daily practice. Introducing the guidelines, the 4<sup>th</sup> JTF authors stressed that ‘implementation programmes for new guidelines form an important component of the dissemination of knowledge’.<sup>1</sup>

Transferring guidelines from paper into practice has proven to be frustrating for the many who endeavour to standardise the management of cardiovascular disease across Europe. The EUROASPIRE I, II and III surveys, which audited the practice of preventive cardiology in patients with coronary heart disease over a decade, illustrated that patients were not being managed to the standards set by the ESC guidelines and that limited attention was given to prevention in patients with established heart disease. Evidence of the need for more effective lifestyle management was compelling: blood pressure management remained stubbornly unchanged, and lipid targets were not achieved in almost half of patients. Other studies report disappointing levels of guideline observance among physicians; they are often unaware of recommendations given in guidelines and, even when they are, many fail to consistently apply them in treating patients.<sup>2-3</sup> Commonly cited barriers to guideline adherence among physicians include lack of time during consultations, financial constraints and lack of confidence in patients’ motivation to comply. Physicians also find that guideline documents are difficult to translate into practice.

To address the gap between publication of guidelines and their use in practice, the ESC at a European level organises presentations at conferences for its member national societies and key opinion leaders. It works at a political level to promote the prevention agenda and to directly influence EU health policy, leading, for example, to the EU Commission endorsement of the European Heart Health Charter. However, such efforts must be paralleled by concerted strategies at a national level to realise implementation in the front line. The 4<sup>th</sup> JTF urged national societies to develop implementation programmes, starting with the translation of

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\* The 4<sup>th</sup> Joint Task Force comprised Ian Graham (EACPR), Dan Atar (ESC), Knut Borch-Johnson (EASD/IDF Europe), Gudrun Boysen (EUSI), Gunilla Burrell (ISBM), Renata Cifkova (ESH), Jean Dallongeville, Guy de Backer (ESC), Shah Ebrahim (ESC), Bjorn Gjelsvik (ESGP/FM/Wonca), Christoff Hermann-Lingen (ISBM), Arno W Hoes (ESGP/FM/Wonca), Steve Humphries (ESC), Mike Knapton (EHN), Joep Perk (EACPR), Sylvia G Priori (ESC), Kalevi Pyorala (ESC), Zeljko Reiner (EAS), Luis Ruilope (ESC), Susana Sans-Mendes (ESC), Wilma Scholte Op Reimer (ESC council on CV Nursing), Peter Weissberg (EHN), David Wood (ESC), John Yarnell (EACPR) and Jose Luis Zamorano (ESC/CPG).

guidelines to the local language and their adaptation to the national context. It recommended that the guidelines issued by the 4<sup>th</sup> JTF be regarded as a framework from which national guidance 'to suit local political, economic, social, and medical circumstances' would be developed. The recalibration of the SCORE risk assessment charts to reflect mortality and risk factor distributions in individual countries as part of this adaptation was emphasised.

The 4<sup>th</sup> JTF saw as vital the establishment a multidisciplinary alliance of experts from national professional organisations to oversee the adaptation and to drive implementation. It was necessary that alliances would have the support of national health authorities and work with other sectors such as the medical education and business communities to advance their aims.

Other recommendations included:

- An information and education programme aimed at practising doctors that would include an audit of practices and feedback. The development of supplementary materials to the guidelines, specifically electronic versions for use in hand-held devices, such as PDAs, and of A4 sheet versions of risk algorithms and treatment recommendations.
- A population health approach addressing lifestyle risk factors in general.
- A public information campaign explaining the concept of multiple risk assessment and treatment and intervention thresholds, as well as describing how risk can be reduced.

**Current Report:** This report was completed on behalf of the Prevention Implementation Committee (PIC) of the European Association of Cardiovascular Prevention and Rehabilitation (EACPR), the prevention and rehabilitation-focused association of the European Society of Cardiology (ESC), to assess where and to what extent these measures have been pursued in different European countries. Acknowledging differing structures, traditions, enablers and constraints across European countries, the study sought to evaluate progress in implementation, focusing on guideline implementation structures, processes and outcomes. It is hoped that the insights gained will provide guidance to the EACPR about how best to achieve gains in promoting implementation, as well as informing the 5<sup>th</sup> JTF in its current work of updating the guidelines.

## References

1. Graham, I., et al., *European guidelines on cardiovascular disease prevention in clinical practice: full text. Fourth Joint Task Force of the European Society of Cardiology and other societies on cardiovascular disease prevention in clinical practice (constituted by representatives of nine societies and by invited experts)*. Eur J Cardiovasc Prev Rehabil, 2007. **14 Suppl 2**: p. S1-113.
2. Heidrich, J., et al., *Knowledge and perception of guidelines and secondary prevention of coronary heart disease among general practitioners and internists. Results from a physician survey in Germany*. Eur J Cardiovasc Prev Rehabil, 2005. **12(6)**: p. 521-9.
3. Esselink, A.C., A.M. de Ruiter, and M.C. Daniels, *Application of NHG guidelines in patients referred for stable chest pain syndromes*. Neth Heart J, 2010. **18(4)**: p. 178-82.

## Methods

### Country selection

The aim of this project was to benchmark countries in Europe in terms of their progress in implementation of the 4<sup>th</sup> JTF Guidelines on the Prevention of Cardiovascular Disease in Clinical Practice. Countries were selected to illustrate the variety of enablers and barriers to applying the guidelines in practice and to maximise potential to generalise the findings. The aim was not to randomly select countries in a 'representative' manner but rather to identify those countries from which most can be learned about the early success or otherwise of rolling out implementation. The countries selected were Estonia, France, Germany, Ireland, Italy, the Netherlands, Norway, Poland, Romania, Russia, Spain, Sweden and the United Kingdom.

### Study population

The project was based on in-depth interviews with key personnel in each country. The study population comprised the National Coordinator(s) for CVD Prevention and representatives of the key organisations active in cardiovascular disease prevention at a national level from each of the selected countries. These organisations were identified as the cardiac society, the heart foundation(s), the ministry of health and the health service agency/inspectorate, in countries where such agencies exist. Our aim was to interview at a minimum one national coordinator and one representative from each of the organisations for each country. The interview target was 55: 13 national coordinators, 13 cardiac societies, 12 heart foundations (Poland does not have a heart foundation), 13 ministries of health, and 4 national health service agencies/inspectorates (Ireland, the Netherlands, Poland and the United Kingdom). Some countries have two national coordinators (Germany, Ireland, Italy, the Netherlands, Romania and Norway) and some countries have more than one heart foundation (Italy, the Netherlands, Sweden and the United Kingdom).

### Research methods

#### *Participant selection*

A list of the names and e-mail addresses of the national coordinators and contacts in the countries' national cardiac societies and heart foundations was provided by the EACPR, as well as the name of one individual each from a health ministry and from a health service agency. Contact was initially made with the people on this list. Representatives of health ministries and health service agencies/inspectorates (apart from those provided by the EACPR) were identified with the assistance of other study participants.

All were contacted by the research team with a protocol describing the study, alongside a letter of invitation from the president of the EACPR and the chair of its Prevention Implementation Committee (see Appendix A). Non-responders were contacted again after three weeks with a reminder. Arrangements for interview, in person, by telephone or by Skype, were made with contacts who agreed to participate.

On the premise that an interview in English might be a barrier to the participation of some individuals, a short self-completion questionnaire was developed that included the main questions covered in the interview. Those who did not respond to the reminder e-mail were e-mailed a third and final time towards the end of the study. The questionnaire (in English) was attached to this message and an offer to have it translated into the recipient's own language was also made should they be willing to complete it, or have others complete it,

### ***Interviews***

A country profile of 3–4 pages based on available national documentation was prepared in advance of the meetings to guide specific interview questions. This allowed clarification of specific actions in each country to be explored. The country profile included sections on the population's CVD and associated risk factor situation; the status of the European Heart Health Charter and 4<sup>th</sup> JTF guideline implementation; the country profile in CVD prevention as represented in the Euro Consumer Heart Index and EuroHeart Work Package 5 reports (where relevant); information on CVD prevention in primary and second care; and details on national CVD prevention policy and strategies as well as a description of the national health system. While a set of basic questions on progress in implementation and prevention strategy was drawn up, interviews were semi-structured to allow flexibility in following up responses and comments made by participants.

Interviews were mostly face-to-face, with a small number conducted by telephone or Skype. Interviews were conducted in English and were recorded with the permission of the participant. The duration was 18–128 (average 45) minutes.

### ***Analysis***

Detailed interview notes were analysed to identify themes and the data were coded accordingly. Data were collated to produce a summary for each country. Summaries were sent to participants, who were requested to review the material and to correct any errors or omissions in the summary.



## Results

### Response rate

The following is the response from the efforts made to elicit participation in the study. In a number of cases, individual interviewees represented more than one perspective; for example, a national coordinator might speak also on behalf of the national cardiac society. Details of such dual representations are shown in the country summaries.

**National coordinators:** 19 national coordinators were contacted and 14 of these, from 13 countries, were interviewed – one from each country, apart from Germany, where two national coordinators were interviewed.

**Cardiac societies:** 31 cardiac society representatives were contacted, resulting in 9 interviews from 9 countries – one each from Estonia, France, Germany, Ireland, Italy, the Netherlands, Poland, Spain and Sweden. An interview with the president of the Russian Society of Cardiologists was set up; however, he was unavoidably not available on the day arranged. The Norwegian Society of Cardiology declined to take part, and there was no response from the cardiac societies of Romania and the United Kingdom.

**Heart foundations:** 26 heart foundation representatives were contacted, resulting in 11 interviews from 10 countries – one each from France, Germany, Ireland the Netherlands, Norway, Romania, Russia, Spain, Sweden and the United Kingdom and two from Italy. Poland did not have a heart foundation at the time. Two heart foundations in Sweden declined to take part as they had no role in guideline implementation. There was no response from the Estonian Heart Association.

**Health ministries:** 24 representatives of health ministries were approached, yielding 6 interviews and 2 completed questionnaires from 8 countries – representatives from Estonia, Ireland, the Netherlands, Norway, Sweden and the United Kingdom were interviewed, while the Polish and Romanian representatives completed a questionnaire. An interview with a representative of the Russian ministry was set up; however, she was not available on the day arranged. Representatives of the Spanish and German ministries referred us to the national cardiac societies. The French ministry contact did not feel competent to talk about guidelines. There was no response from the Italian ministry.

**Health service agencies/inspectors:** 3 representatives of health service agencies or inspectorates were contacted and interviewed – from Ireland, the Netherlands and the United Kingdom. It was not possible to contact a representative from Poland.

Detailed summaries integrating the interviews for each country can be found in Appendix B.

## Discussion

A diversity of approaches to implementation of the guidelines emerges when the summaries for each country are examined. While implementation strategies include components that are followed consistently across countries, local constraints – health system structure, culture, population health status – have a determining effect on how implementation proceeds and to some extent also define what is possible.

Overall, a positive attitude exists towards the concept of having a uniform set of guidelines in operation across Europe. A need to improve efforts in the prevention and management of cardiovascular disease both at a clinical and a population level was acknowledged, and the guidelines were seen as having an important contribution to this endeavour. It was recognised that guidelines already have been significant in improving physician performance and patient care. Participants were also satisfied with the scope, credibility and evidence base of 4<sup>th</sup> JTF guidelines. Whatever weaknesses were perceived in guidelines – in the concept, in their development, or in the content – guidelines to advise on practice and on wider application to population health were welcomed both by physicians and organisations working in the area of cardiovascular disease prevention.

## Implementation status

Ten of the 13 exemplar countries in this study were using the ESC guidelines on prevention at a national level, although there was considerable variation in the details of implementation. We identified 3 broad approaches: (1) *adoption* as the national guidelines with local adaptation, mainly the adjustment of risk charts to national data (Italy, Poland, Romania, Russia and Spain); (2) *incorporation* into national guidelines along with guidelines from other sources (Estonia, Germany and the Netherlands); (3) *co-existence* with national guidelines developed by the health authorities (Sweden and France). It is worth noting that the Estonian, German and Dutch national guidelines have incorporated the 3<sup>rd</sup> JTF guidelines because the national guidelines were developed concurrently with the work of the 4<sup>th</sup> JTF. Lags between ESC and national guidelines are likely to occur as countries set their own timetables for updates according to their needs. A revision of the Dutch guidance incorporating the guidelines of the 4<sup>th</sup> JTF was in review at the time of writing; Estonia plans to adapt the 5<sup>th</sup> JTF guidelines as national guidelines when they are released.

The three remaining countries not accounted for here are Ireland, Norway and the United Kingdom. In Ireland the 4<sup>th</sup> JTF guidelines had been endorsed and were used by many doctors, and the intention now is to adopt the 5<sup>th</sup> JTF guidelines as the national guidelines. The roll-out of the guidelines in Norway stalled over the issue of recalibrating the SCORE charts to reflect Norwegian mortality data, and plans to implement the guidelines were overtaken by a government initiative to develop national guidelines that were more appropriate to Norwegian needs and conditions. In the United Kingdom, national guidelines had been developed both by the joint efforts of professional societies (the Joint British Societies, which include the British Society of Cardiology) and by national agencies; in that context, there was no imperative to introduce the 4<sup>th</sup> JTF guidelines.

## Multidisciplinary alliances

The 4<sup>th</sup> JTF recommended as a first step to implementation the formation in each country of a multidisciplinary alliance of experts from national professional societies if such an alliance did not already exist. In those countries where ESC or ESC-based guidelines are the main ones in operation, such coalitions of interest had already been formed in Estonia, the Netherlands and Poland, prompted by the publication of the 3<sup>rd</sup> JTF guidelines; in Spain, a guidelines alliance has existed since 2000; in Germany, an existing alliance for prevention took responsibility for developing national guidelines; the alliances in Ireland and Russia came together around the 4<sup>th</sup> JTF guidelines; and the Romanian alliance was formed after the 4<sup>th</sup> JTF guidelines had been translated and endorsed. The alliance established in the Netherlands limited its task to developing national guidelines, and a much broader platform group had taken up the larger task of improving the care of cardiovascular patients in that country.

These alliances were clearly useful in bringing together different professional societies for the purposes of agreeing a local version, and with that in mind, similar alliances had been established by health authorities in several countries in developing their own national guidelines. The buy-in from professional societies has been important, especially as their participation created a route to influence member health professionals in daily practice. Professional societies participating in these alliances have subsequently played a significant role in dissemination, publishing the guidelines in their journals – publication in the national cardiac society journal was usual – and presenting the guidelines at meetings and conferences. In Romania, for example, a concerted effort was made by the cardiac society to engage with GPs and to promote the use of the risk calculator among them. Evidence of ongoing projects to raise awareness of the guidelines was scant, however, and the success of these efforts in changing habitual practices, especially among GPs, was unknown – many participants believed that ignorance of the guidelines or failure to apply them was common among practitioners.

The absence of multidisciplinary alliances in France, Italy and Sweden was not seen as a barrier to implementation by participants from these countries. In France and Sweden, national guidelines take precedence over the ESC guidelines and in this state of co-existence, it might well be inappropriate for a separate body to seek to promote its guidelines within the same health system.

### ***Health authority support***

Effective as these alliances might be, without the participation of health authorities, or at least their active support, alliances lack the necessary authority for the systematic implementation of prevention guidelines throughout national health systems. Strong leadership on cardiovascular disease within the health system can have an enormous positive impact – in England, where a ‘Heart Tsar’ has been in position for several years, cardiovascular disease is no longer the main killer. The presence of health authorities or agencies in the implementation of the 4<sup>th</sup> JTF guidelines was observed at some level in a number of countries. In Spain, the health ministry established and funded the alliance for implementation; in Estonia, the guidelines were approved and are supported by the health insurance fund; and in Ireland, the health ministry is represented on the alliance. In France, Norway, Sweden and the United Kingdom, agencies reporting to the health ministry initiated and oversaw the development of national guidelines, distinct from those issued by the ESC. Health authorities

have the supreme power in implementation when payment of service providers is tied to guideline adherence as in Estonia and the United Kingdom, and in the Netherlands, too, when and if the new payment structure for prevention in primary care is taken up. It was noted, for example, that in the United Kingdom adherence to the NICE guideline was high among GPs because it was tied to remuneration. Among those countries where the ESC guidelines were the main guidelines in use, active health authority support for guideline implementation was not apparent - for instance in Germany, Italy, Poland, Romania or Russia.

Health authorities may support only or mainly those guidelines that they have mandated, so those that develop separate national guidelines promote those guidelines, perhaps to the exclusion of ESC guidelines, as has occurred in Norway and the United Kingdom. Where the ESC guidelines co-exist with national guidelines, it is likely that physicians will adhere to treatment thresholds set in national guidelines when these differ from ESC recommendations because insurers reimburse treatment on the basis of national guideline thresholds. This is the case in France, where the national guidelines have priority and those issued by the ESC are used mainly by cardiologists. Such regulation obliges physicians to follow national guidelines regardless of their judgement - for example, when pharmacological intervention might be appropriate for some patients below the threshold. In Sweden, where national, regional and local guidelines operate alongside the ESC guidelines, it seems that the latter fill a gap as they address more directly an audience of medical professionals. The Swedish cardiovascular prevention guideline is part of an all-encompassing cardiac care guideline, which is targeted chiefly at decision-makers. In this context, while the national guidelines take precedence, the ESC guidelines serve as a useful reference.

Participation of health authorities in the implementation process does not represent an unqualified commitment to cardiovascular disease prevention, and countervailing agendas operate in other quarters at the political level. Study participants noted factors that influenced government, such as ideological beliefs in personal responsibility for lifestyle (the Netherlands); reluctance or perhaps inability to commit funding to support prevention activities (the ending of support for screening services in Ireland, Norway and Romania); an unstated imperative to maintain the revenues accruing from taxes on tobacco and alcohol (France); and the vested interests of the tobacco, agriculture and food industries operating in national parliaments (France and Germany). The difficulties researchers for this study encountered in identifying officials responsible for CVD management and prevention in health ministries, even when assisted by other national participants, and in the low level of participation by those individuals when identified, suggested a substantial lack of focus on prevention of CVD at a political level.

In many countries surveyed, health care was heavily devolved to regional administrations that have responsibility for the realisation of policy in day-to-day health care practice. This added another tier of complication to implementation efforts and demands the multiplication of relationships with local bureaucracies if alliances are to operate at a regional level in these countries. To complicate matters further, in some of these countries, there was no official with specific responsibility for cardiovascular disease management appointed at regional administrative level, so identifying the official with whom to engage became a challenge in itself for an implementation group. It was a major objective of the alliance in Spain to set up

partnerships with regional health ministries, but little other evidence of links being established with regional administrations emerged from our interviews.

### ***Participation from other sectors***

In addition to advising that implementation alliances seek the support of health authorities, the 4<sup>th</sup> JTF advised that they should form relationships outside the health sector with those sectors that have a stake in implementation endeavours, in particular the medical education and business sectors. It was not apparent that such links had been established, apart from in Ireland, where the alliance was planning to involve the medical colleges in the implementation process. Industry, specifically tobacco and food, was overwhelmingly seen as an obstacle to disease prevention endeavours. In addition, criticism was levelled at the influence of the pharmaceutical industry upon the setting of priorities in prevention and guiding them in favour of pharmacological treatment.

## **Evaluation**

An implementation process is likely to remain an exercise in distribution unless the adherence of practitioners to the guidelines in daily practice is assessed. The extent to which practice was evaluated varied in the countries we examined. Evaluation mechanisms were most apparent in countries where guidelines formally underpin practice within the health system or where payment is tied to guideline adherence, as in France, the Netherlands, Estonia, Sweden and the United Kingdom. In these countries, state agencies or insurance funds have a monitoring function. However, this is not without exception - in Norway and Spain, where health ministries had formally supported the national guidelines, monitoring of adherence had not been undertaken.

Agencies of state and insurance funds monitor only national guidelines. Where ESC guidelines coexist with separate national guidelines – France and Sweden – and in countries where ESC-based guidelines are the principal guidelines in use but health authority support for guidelines was more muted – Germany, Ireland, Italy, Poland, Romania and Russia – no evaluation of adherence had been conducted. It seems beyond the resources of implementation alliances or cardiac societies to conduct audits of practitioner behaviour, which suggests that they need support to embark on any such endeavour. Notably, the Estonian Society of Cardiology, together with the National Audit Office, had conducted an audit of GP screening for CVD risk factors and follow-up with hypertensive patients. Where state agencies do not lend that support, there may be a role for the ESC to provide support, as a way to close the loop of issuing guidelines, implementing them in practice, and auditing their implementation.

## **Reaching practitioners**

Building a mechanism to evaluate practitioner adherence might serve to motivate doctors to engage in prevention. Feedback is an important device for changing behaviour and the ability to benchmark their performance against their peers would highlight where physicians need to improve their practices. Several participants expressed dissatisfaction at the emphasis in healthcare on reacting to the acute disease to the detriment of pursuing prevention in daily practice. This focus begins in a practitioner's medical training and continues in the career paths that mould physicians. The attitudes of physicians both in primary and secondary care

may undervalue prevention, and it was acknowledged that the process of changing the professional practices of doctors would be slow. The shift to supporting patients in changing behaviour poses a challenge to doctors familiar with diagnosing disease and prescribing medication, and they may lack of confidence in their ability to be effective in the area of lifestyle change. Are financial incentives the answer to changing physician orientation towards prevention? Mixed feelings were expressed by participants on this question. Some believed that progress was contingent on remuneration of physicians for their prevention practices. Others viewed prevention as the professional responsibility of physicians, where financial incentivisation should not be necessary.

## **Guideline challenges**

The process of implementation may be hampered to some extent by the unwieldy nature of the guidelines, and some participants felt that improving the quality of the document was key to implementation. The more user-friendly the guidelines, the more they would be used. The complaint was made repeatedly in interviews that the guidelines were too long and too dense for practitioners to reference and memorise, and particularly impractical for 10-minute patient consultations. It was also felt that technical discourse of the guidelines doesn't equip doctors with the types of messages that are meaningful to the general public and that can be conveyed patients during consultations.

Guideline fatigue was a factor cited by many participants as an impediment to physicians embracing the guidelines. This is particularly an experience of general practitioners, who encounter the full range of medical conditions in their work and are expected to be abreast of the guidelines on all. The situation is exacerbated by continuous updating so that no sooner have doctors become familiar with a set of a guidelines that they have to revise their knowledge with a new set. While it was acknowledged that revision of guidelines is unavoidable in the light of new evidence, the necessity of such frequent revisions was questioned. In this deluge of multiple and ever-changing guidelines, doctors feel overwhelmed.

Fatigue is aggravated by conflicts between guidelines issued by different societies and the tendency of different societies to emphasise the particular risk factor that is their concern. The 2009 ESH guidelines on hypertension, and their inconsistency with the prevention guidelines, were mentioned in this context. Particularly irksome were inconsistent guidelines issued by the same organisation. Such conflicts were seen to undermine the credibility of experts and impede acceptance of the guidelines among practitioners. It was felt that conflicting recommendations offered an easy excuse to practitioners to make subjective decisions, and participants felt that one target figure should be set by all for each risk factor.

It was widely suggested that the guidelines needed to give greater priority to the reduction of lifestyle risk factors and to acknowledge that treatment alone will not achieve desired reductions in cardiovascular risk. There was some concern that the emphasis on treatment was a result of the influence of pharmaceutical companies on the decisions made by guideline committees, although it was accepted the tendency to favour approaches that are underpinned by evidence-based research is normal among scientists. Additionally, many participants felt that the guidelines should extend beyond high-risk patients to address

cardiovascular prevention at the population level, and that the ultimate aim must be to maintain and increase cardiovascular health for the majority of people at low risk.

Participants from several countries expressed misgivings about the reliability of the SCORE risk charts. They cited such weaknesses as the inability of the tool to identify total risk in younger individuals with substantial lifestyle and clinical risk factors; the potential to unnecessarily medicalise the care of healthy older people; and the overestimation of risk in low-risk populations. The usefulness of the message derived from risk calculation on a patient's total risk was questioned. In addition, the inability to estimate morbidity risk was also seen as a drawback and it was felt that this might be more meaningful to patients.

SCORE has not been adopted in all countries that use the ESC guidelines. The French Society of Cardiology encountered strenuous resistance to the tool from other professional societies and did not continue efforts to promote it. Italy developed its own risk assessment tool within the framework of its national disease prevention plan.

## **Role of the ESC**

The authors of the 4<sup>th</sup> JTF acknowledged that both the full guidelines and the executive summary were too long for routine use, and it was suggested that national societies develop quick-reference, single-page sheets and electronic versions of the guidelines. In Ireland, a reference sheet is being developed by the national prevention group. While several interviewees proposed that such quick-reference-type formats would be very useful, many suggested that the ESC should produce them. The work involved, as well as the financial costs, no doubt discourage national groups from undertaking such projects. The French Society of Cardiology relied on sponsorship of a pharmaceutical company to publish a French version of the 2008 ESC compendium, while the cost of a French version of the 2010 ESC compendium proved to be prohibitive. Some interviewees proposed that implementation endeavours would be aided by making the pocket version freely available on the ESC website, since they have been in circulation for three years. National groups may need more support and guidance from the ESC if they are to undertake the task of producing accessible versions of the guidelines for their local audiences.

Developing regional versions of SCORE has proven to be another stumbling block to implementation. In Norway, it was reported that SCORE was not progressed because the cardiac society did not receive timely support from the ESC to recalibrate the SCORE charts using Norwegian data. Participants from Russia reported a similar problem. These experiences highlight that while the ESC focuses its efforts on delivery of guidelines, countries clearly struggle with the dissemination requirements that ensue. Furthermore, rightly or wrongly, they expect that the ESC should support regional activities to develop resources such as SCORE. Some rebalancing of the ESC focus may be warranted, so that some of the effort dedicated to improving guidelines might be redirected at getting them into practice.

It is worth considering in this context suggestions made by participants on the adaptation of the guidelines. It was suggested that a basic European version of the guidelines be produced that would facilitate and standardise national adaptations and elaborations. It was also

proposed that a methodology for adapting guidelines be described by the next joint task force to guide national task forces in these endeavours.

Several participants suggested not only more user-friendly and usable guidelines for practitioners, but also that ESC should address prevention at a population level and develop guidelines for the general public. Should the ESC seek to widen its brief? Other participants felt the ESC should maintain a more limited role as provider of the scientific underpinning of national health strategies. And this would seem to have been how the 4<sup>th</sup> JTF perceived the ESC role, while it acknowledged the need for population health strategies, it indicated that this was a political responsibility: “[the guidelines] should be complemented by national and European public health strategies aimed at whole populations in a co-ordinated and comprehensive effort to reduce the enormous burden of CVD that afflicts European populations.”



## Recommendations

### Considerations for the ESC

One of the strongest messages that emerged from feedback was that more is expected of the ESC by those that look to it to take a lead in prevention. In particular, they asked the ESC to produce simpler guidelines that can be used in practice, concrete advice that can be passed on to patients, and guidelines for the population. Clearly there is a need for more material to supplement the ESC's main offering, but where does the ESC responsibility for this end and that of the national societies begin? It is arguable whether the requirements of different countries will vary to such an extent that national societies should play the major role in producing local adaptations. Such work can be demanding of time and money – producing a one-page reference sheet for doctors is probably affordable, but collateral such as user-friendly publications complete with colour and illustrations are higher cost. Once produced, the material must be distributed to its audience. As noted earlier, a first step would be to provide the pocket guidelines for download free of charge once a reasonable period of time has elapsed so that all physicians would at least have access to a usable set of guidelines. It would be useful also for the ESC to consider whether developing a 'skeletal' set of guidelines and providing enhanced support for national groups to adapt these guidelines to local needs might meet the requirements of both sides.

The issue is broader than guidelines, however. The ESC must also consider its role in providing further support to countries on implementation as a whole. It is not clear that the resources and the skills required to back up a wide-ranging implementation strategy can easily be accessed at a national level. Several of the elements of the recommended implementation package were not achieved. For example, many countries had not made a start in the evaluation of progress in guideline implementation, promotion of the guidelines had not been an ongoing project, and success at securing the support of health authorities was variable. While the 4<sup>th</sup> JTF outlined the rational steps that needed to be taken, there was no follow through with national societies and alliances, and merely handing over ideas to others was not proven to be an effective strategy for getting those ideas put into practice. By shifting its focus from producing the best guidelines based on the latest evidence to doing more work with national groups on implementing the guidelines, the ESC might well gain more in terms of improving cardiovascular disease outcomes. A measure such as bringing national coordinators and stakeholder representatives together for the purposes of formulating practical strategies would help in developing the support networks that activists at a national level need. If the ESC supported even small-scale audits, feedback from these might act as a catalyst to health ministries to play a greater role in implementation.

Another matter to reflect on, related to the publication of guidelines for the general public, is whether the ESC ought to widen its brief and concern itself with the prevention of cardiovascular disease at population level. The position of the ESC to date has been to address its message to physicians and leave responsibility for communicating to the public to health authorities and non-government organisations. It may be increasingly hard to resist the pull towards a wider population brief, however. The imperative of disease prevention has gained

currency in health ministries across Europe and, however slowly they may be to take concrete steps in this regard, focussing narrowly on the acute disease may soon be out of step with political mindsets.

## **Considerations on the guidelines**

Different versions of the guidelines are needed to meet the requirements of practitioners in different contexts. While the full version and executive summary remain important documents for those who want access to the scientific basis of recommendations, a demand exists for more flexible formats: a 1-page reference with algorithms for diagnosis and decision-making; computer-based decision support systems; an accessible version that is easy for practitioners to digest. There is also a need to provide physicians with guidance written in the language and including the concepts that they can use with their patients, such as the advice for patients to walk 10,000 steps a day. Providing such material might also encourage physicians to counsel patients in lifestyle change.

The next guidelines task force must decide whether to shift the balance in recommendations towards addressing lifestyle risk factors in addition to pharmacological interventions. This might increase the challenge of guideline adherence among physicians who prefer the traditional role of prescribing medication and who are hesitant to engage in lifestyle counselling, yet there was substantial support for this rebalancing among participants. On a related point, the task force should consider whether to broaden the remit of guidelines beyond high-risk patients to take account of prevention in the population.

A concerted effort must be made to standardise guidelines across scientific societies. A single set of targets for all risk factors would remove one source of frustration for practitioners and remove one source of inconsistency in treatment.

## **Considerations for stakeholders**

Many of the barriers to implementation of the guidelines are structural: the organisation of health systems and the contracts under which practitioners operate serve to impede changes in practice. It is critical for national coordinators to gain the active support of health authorities to overcome these barriers. To this end, national coordinators must make greater efforts to identify the key personnel within ministries that have the power to make a difference and to endeavour to secure their support. They might look for guidance to other organisations that have had success in securing ministry support for tackling other diseases. Such work is demanding, so it is equally critical for cardiac societies to appoint national coordinators who are able and willing to undertake it.

Efforts need to be made to focus physicians more on prevention. Physician training, starting in undergraduate education, emphasises the treatment and curing of disease, and the career paths that most physicians follow subsequently reinforce that orientation. The task of prompting physicians to engage more in prevention and to counsel patients in lifestyle change is considerable. In this context, the merit of linking practitioner payment to prevention must be considered, and whether implementation alliances should press for this in their engagements with health authorities. The concept of working with patients to gain their buy-

in should also be pursued, to agree plans with them on adhering to medication regimes and lifestyle improvement.

## Summary Recommendations

1. **In relation to the ESC**, the organisation should consider the following:
  - i. Redefining where to assign responsibilities in the guideline implementation process between the European organisation and the national alliances.
  - ii. Changing the relative emphasis in its activities from the regular updating of guidelines in favour of driving the implementation of these guidelines.
  - iii. Increasing its efforts to work with national alliances, both individually and as a group, in developing implementation strategies.
  - iv. Providing more resource support to national alliances to ensure that key components of guideline implementation, such as auditing practice, are achieved.
  - v. Widening its brief to address cardiovascular prevention at population level.
2. **In relation to the guidelines**, the ESC should consider the following:
  - i. Developing a variety of guideline formats for use by practitioners in different contexts, with emphasis on greater simplicity and flexibility.
  - ii. Providing practitioners with guidance that uses the language and concepts accessible to a public audience that they can communicate to patients.
  - iii. Rebalancing guideline recommendations towards addressing lifestyle risk factors in addition to pharmacological treatment.
  - iv. Broadening the scope of the guidelines beyond high-risk patients to include prevention in the population.
  - v. Standardising guidelines across scientific societies so all recommend the same targets.
3. **National cardiac societies** should appoint national coordinators who have the skill and commitment to undertake a key role in driving implementation.
4. **National coordinators** should work to secure the support of key personnel within health ministries, with the aim of gaining the active involvement of health ministries in guideline implementation.
5. **Implementation alliances** should consider whether to endorse the linking of practitioner payment to prevention actions and whether to recommend this to national health authorities.
6. **Stakeholders as a whole** should consider:
  - i. Focussing physicians more on prevention, starting from training and throughout their careers.

- ii. Gaining the active participation and commitment of patients in the management of their cardiovascular disease.