Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive

Implementation of Sudden Cardiac Death (SCD) Task Force Report (2006) Recommendations

Continuing to Reduce the Risk: First Progress Report

March 2008

CONTENTS

ACKNOWLEDGEMENTS

The HSE is implementing the report. The National Hospitals Office Ambulance Service, Population Health and the National Communications Unit have played a major role within the HSE in the implementation. The Sudden Cardiac Death Implementation Steering Group also acknowledges the cooperation and work to date of the following organisations:

- Pre Hospital Emergency Care Council (PHECC)
- Irish Heart Foundation
- Dublin Fire Brigade
- Croí (West of Ireland Cardiology Foundation)
- UCD Centre for Immediate Care Services (MERIT Project)
- Central Statistics Office (CSO)
- Irish Red Cross
- Order of Malta Ireland
- St John Ambulance Brigade of Ireland
- Irish Medicines Board
- Irish Association of Emergency Medicine
- Coroners Society of Ireland
- SCD in the Young Support Group
- Mater Heart House
- Inherited Cardiovascular Diseases Unit, Tallaght/St James's Hospitals
- Cardiac Risk in the Young (CRY) Ireland
- Communities across Ireland developing first responder programmes.

MESSAGE FROM THE CHAIRPERSON

Following the launch of *Reducing the Risk: A Strategic Approach. The Report of the Task Force on Sudden Cardiac Death* by the Tánaiste and Minister for Health and Children, Mary Harney in March 2006, the Health Service Executive set about coordinating the implementation of the recommendations in conjunction with partner agencies. The resulting Steering Group and subgroups comprise many of the original SCD Task Force members in order to maintain continuity with the work of the Task Force.

I am pleased to report that progress has been made especially in the area of improving first response to a cardiac event with the launch of a guide for communities and groups, the planning of a structure for coordinating first response and improved resuscitation training around the country, spatial analysis of current ambulance provision resulting in clarity on priority locations for development, initiation of co-responder pilot programmes and the finalising of Cardiac First Response Report (CFRR) which will inform the National Out of Hospital Cardiac Arrest Register instigated in late 2007.

The area of risk assessment continues to be studied and currently we are reviewing the best approach in conjunction with Irish Sports Council, Irish Heart Foundation and Irish College of General Practitioners. Follow up of family members has been started in two family screening clinics in Dublin and this work is much appreciated.

In the next phase we have much to do – ensuring CPR skills development especially in a sustainable way with schools, workplaces and the wider community, promoting awareness of symptoms of heart attack as well as how to alert the emergency services, advancing the use of the new AED signage, working with other statutory agencies in addressing co-response and importantly improving our knowledge through surveillance and research of SCD. To achieve this effectively the continued support of many Government departments, the Health Service Executive and the wider community is essential.

Implementing the recommendations of the Task Force demands work and engagement from many individuals and organisations. I would like to thank the members of the Implementation Steering Group and its subgroups who give unstintingly of their time and enthusiasm and particularly to Dr Brian Maurer, Chair of the Task Force, who is a tremendous guide and support to me and the Steering Group. I am especially appreciative of Brendan Cavanagh, project coordinator, to whom no task is too big.

Lastly, much gratitude and appreciation goes to the many people around the country who volunteer their time and expertise to reduce the risk of sudden cardiac death to their fellow man through training in CPR and AED use as well as assisting with first responder programme development.

Dr Siobhan Jennings
Chairperson,
SCD Implementation Steering Group

CHAPTER 1

INTRODUCTION

Sudden Cardiac Death (SCD) is defined as death due to natural causes within an hour of the onset of symptoms, in the absence of any other cause, and assumed to have a cardiac cause. There are approximately 5,000 SCDs in Ireland annually. The majority of SCDs occur from late middle age onwards as a result of coronary heart disease. Over the past few years there has been increasing awareness of sudden death in young adults, including sudden deaths in high profile athletes. The reasons for SCD in younger people include pre-existing cardiac abnormalities, infection, trauma and drugs.

In the autumn of 2004, the Minister for Health and Children established the Task Force on Sudden Cardiac Death (SCD). The Task Force reviewed the current literature on the extent of the problem and the evidenced based approaches to reducing SCD in the community. Also wide consultation with experts, organisations and individuals was conducted and over 80 written submissions were received.

The SCD report *Reducing the Risk: A Strategic Approach* was launched in March 2006 by the Tánaiste and Minister for Health and Children. The Health Service Executive (HSE) was charged with overseeing the implementation of the report over time in association with other agencies.

CHAPTER 2

IMPLEMENTATION STRUCTURE

A multi-agency Steering Group, comprising the HSE, the Irish Heart Foundation (IHF) and the Pre-Hospital Emergency Care Council (PHECC), was formed under the chairmanship of Dr Siobhan Jennings, Consultant in Public Health Medicine, Population Health Directorate, HSE to progress the 75 recommendations in the report in the following areas:

- Detection and assessment of those at high risk of Sudden Cardiac Death
- Systematic assessment of those engaged in sports and exercise
- Reducing time to response
- Surveillance and audit.

A project coordinator was employed to progress the work of the Steering Group and working groups were set up in the areas of a) First Responder development, b) Development of a risk assessment instrument for use by those engaged in sports and exercise, c) Reducing time to informing families and d) Communications. Membership of these groups was multi-disciplinary and multi-agency (see **Appendix 1**).

Although the HSE has overall responsibility for implementing the report recommendations, it is recognised that other organisations, both statutory and non statutory, have an important role to play.

CHAPTER 3

RESOURCING THE IMPLEMENTATION OF THE SCD REPORT

These organisations and individuals have contributed sizeably to the implementation to date.

In 2005, while the Task Force report was being drafted, the Department of Health and Children (DOH&C) allocated ongoing funding of €300,000 to begin the process of the report's implementation. This resource was utilised to appoint a project coordinator and to fund, in partnership with PHECC, the MERIT project in three of the former health board areas.

In 2006, following a HSE internal bidding process, a once off allocation of €70,000 was approved by Strategic Planning Reform and Innovation (SPRI) for training and protocol development in the area of risk assessment.

In 2007, a proposal to the Department of Health and Children was successful with €750,000 allocated for improving first response to a cardiac event in the community. This budget was allocated to the National Hospitals Office (NHO) Directorate (Ambulance Services) to coordinate and improve statutory and voluntary response as well as increase community resuscitation training. Due to the cost containment measures implemented in the latter half of 2007, progress on delivering on these initiatives has been delayed.

CHAPTER 4

PROGRESS OF SCD REPORT RECOMMENDATIONS

While the 75 recommendations in the SCD report are outlined in four chapters, they span a wide range of areas both within the health sector and importantly in many other sectors such as education, sports and technology. The timeframe was laid out as immediate (48 recommendations with initiation before the end of 2006), medium term (22 recommendations to be completed by end of 2008) and long term implementation (5 recommendations to be completed by end of 2010).

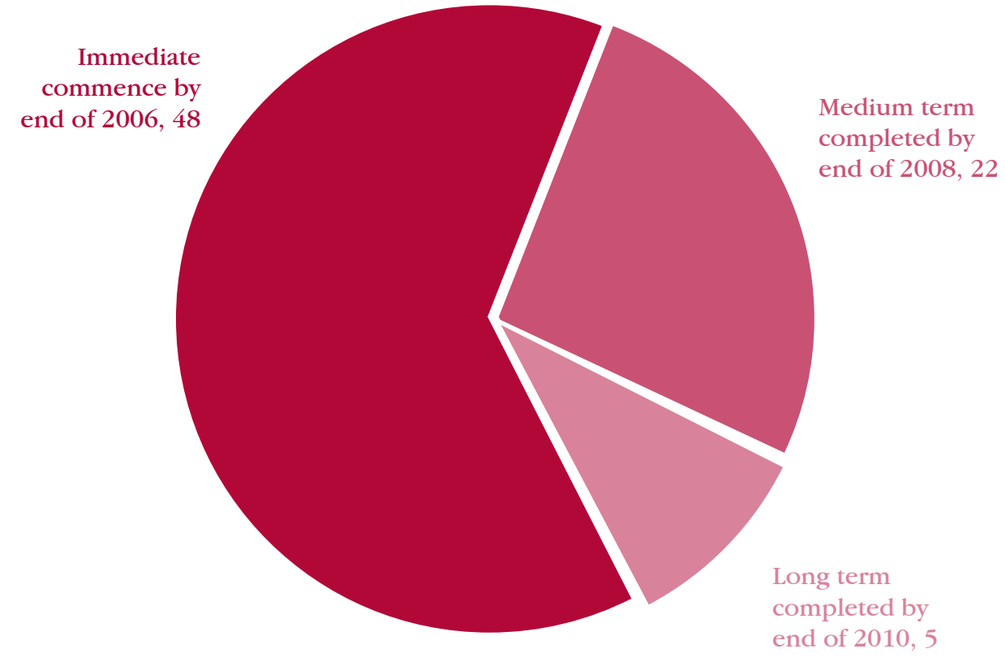

Chart 1: SCD Report recommendation implementation timeframes

The Implementation Steering Group gave priority to the 48 recommendations of immediate importance. The process to address all of the immediate recommendations has commenced.

Appendix 3 lists all the SCD Task Force Report recommendations and their current status – **C**ompleted, **B**eing actioned, or **P**ending action.

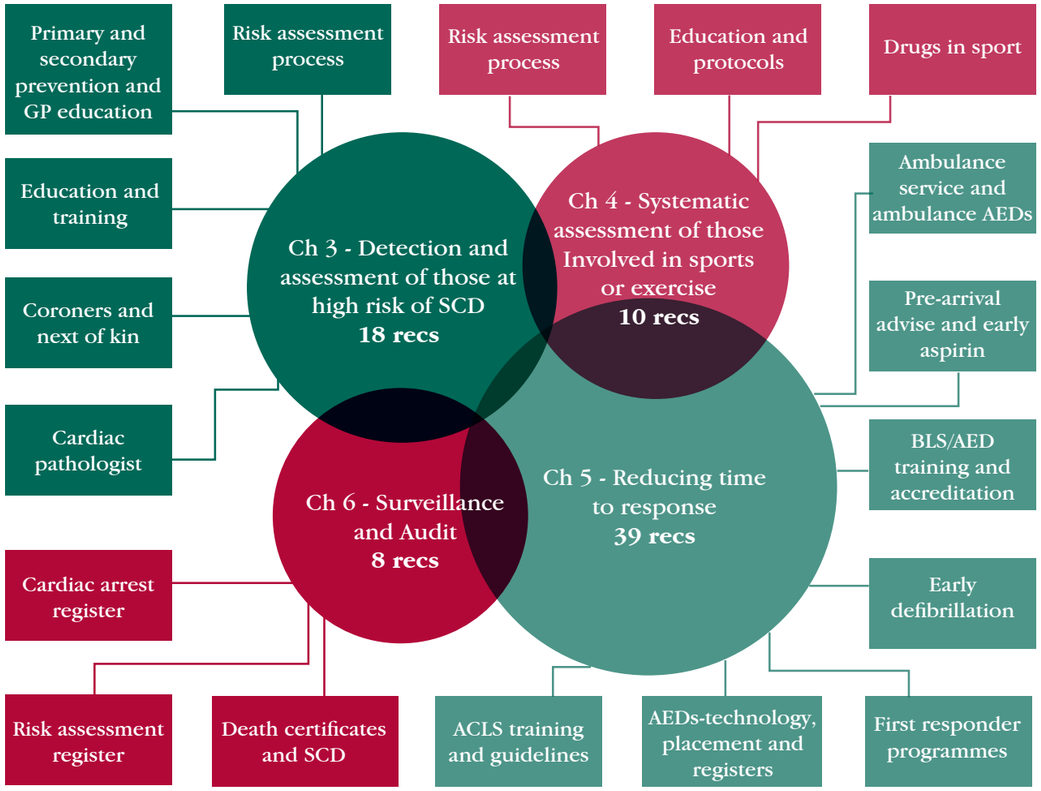

Figure 1: Recommendations of the SCD Report – chapters and areas

The following sections outline four chapters of the report that deal with the recommendations giving progress in the broad areas related to each chapter.

4.1 Detection and assessment of those at high risk of SCD

All eleven immediate recommendations are in the process of being implemented. A further seven are for either medium or long term implementation. The work in this section is being done by a number of the SCD sub groups.

4.1.1 Primary and secondary prevention strategies to prevent CHD

Ireland: Take Heart, the audit report of progress in implementation of the 1999 cardiovascular strategy *Building Healthier Hearts, The Report of the Cardiovascular Health Strategy Group,* was launched in September 2007. The audit report outlined key achievements and remaining areas for further action which include extension of the secondary prevention programme and structuring primary prevention. The Department of Health and Children has formed a Cardiovascular Health Policy Group (Chair: Prof Hannah McGee) which has been asked to develop a policy framework for cardiovascular health, including stroke. The CEO of the HSE has announced an Expert Advisory Group (EAG) for cardiovascular health, the details of which are currently being finalised.

4.1.2 Notification to families and General Practitioners

Currently there is a delay of up to seven months in establishing that a death is a sudden cardiac death. The factors in the delay are that the toxicology report may take six months and the post-mortem may involve detailed pathological study. These factors were discussed in detail with the representative of the Coroners' Society of Ireland. The main feature in reducing time was found to be to expedite the toxicology screen so that the sample was dealt with in a matter of days rather than weeks or months. This has been advocated.

Discussion on the steps to improving the notification to families also led to clarity on how this can be achieved in an environment where there are both medical and legal coroners. A draft protocol on informing families has been developed with the Coroners' representative. This will be finalised and presented to the Coroners' Society of Ireland in early 2008.

4.1.3 Assessment of first degree family members of SCDs under 40 years

Risk assessment is outlined in the next section (4.2). A meeting was held with representation from Consultant Cardiologists in December 2006 to discuss the capacity and resource needed to respond to people who require follow up. An assessment of need for specialist services across the country will be developed in 2008.

In the interim, two SCD family screening clinics have been established in Dublin with voluntary funding: a) Family Heart Screening Clinic, Mater Heart House Dublin – launched in February 2007 and b) Inherited Cardiovascular Diseases Unit, Tallaght/St James's Hospitals – launched in June 2007.

4.1.4 National education of symptoms that indicate increased risk of SCD

To assist individuals and groups interested in further information, the SCD Task Force Report, which contains much information on the symptoms of SCD, has been placed on the HSE website. Also an article on SCD was published in Health Matters, the HSE staff newsletter, in summer 2007. In October 2007, a press release on the implementation of the recommendations was issued with subsequent radio and print media activity. Further, considerable work has been done by the Irish Heart Foundation in conducting radio interviews and disseminating the messages from the SCD Task Force Report.

Awareness raising programmes on a number of areas such as symptoms of a heart attack, recognising a cardiac arrest and how to contact the emergency medical services are planned for 2008. The synergy between these messages and emphasising the beneficial effect of exercise will be important.

4.1.5 BLS/AED training to family members of those who have suffered a cardiac event

Many cardiac rehabilitation units in hospitals offer basic life support (BLS) training to families whose family member has suffered a cardiac event. This is not uniform practice around the country and to achieve this recommendation will require consultation with cardiac rehabilitation and hospital representatives throughout all HSE areas.

4.1.6 Appointment of a specialist cardiac pathologist

Recommendation 3.14 of the SCD Report is long term and discusses the need for the appointment of at least two cardiac pathologists in Ireland. In 2008, the SCD Implementation Steering Group will begin to explore the issues in appointing a cardiac pathologist.

4.2 Systematic assessment of those engaged in sports and exercise

Most of the work on the ten recommendations in this section is led by the SCD Risk Assessment in Sports and Exercise Sub Group.

4.2.1 Risk assessment (in sports and exercise)

Risk assessment (in sports and exercise) has been discussed by the sub group and has involved dialogue with GPs, Cardiologists, the Irish Sports Council and a number of sporting organisations. Preliminary work has been done looking at the key areas of personal history of a heart condition, family history of SCD (or death for which no cause was found) in those under 40 years, and a warning about the dangers of using performance enhancing and illicit drugs. There is still further work required to ensure that the risk assessment process minimises unnecessary testing of those wishing to participate in sports or exercise.

Members of the SCD Risk Assessment in Sports and Exercise Sub Group have also had input into other sporting organisation questionnaires such as the GAA risk assessment questionnaire, recommended for use by GAA clubs throughout Ireland.

As well as developing a questionnaire, the GAA has initiated a study of over 400 inter country footballers and hurlers, involving physical examination, electrocardiogram (ECG) and echocardiogram (ECHO) testing. The FAI has also developed a cardiac screening questionnaire (six questions) for their players.

4.2.2 Protocol for GP risk assessment

The SCD Risk Assessment in Sports and Exercise Sub Group has developed educational material on cardiac conditions that cause SCD and a draft protocol for GPs undertaking risk assessment. This will be further discussed with the Irish College of General Practitioners (ICGP) for use in GP education programmes.

4.3 Reducing time to response

The 39 recommendations, in chapter 5 of the SCD Task Force, constitute more than half the recommendations in the report and are being progressed through the Ambulance and First Responder Sub Group.

4.3.1 Structuring First Response in Ireland - appointment of pre-hospital community first responder coordinators

Positions have been created for one national pre-hospital community first responder coordinator and four area pre-hospital community first responder coordinators. Six pre-hospital resuscitation training officer positions have also been created to assist in the training for priority first responder programmes and community based health care professionals. Recruitment packages have been prepared and it is hoped that these positions will be filled in 2008.

4.3.2 Development of a guide for those wishing to establish first responder programmes

A Cardiac First Responder guide has been developed to give information and advice for those planning to set up First Responder programmes. This guide will be launched in March 2008.

4.3.3 Training for GPs in pre hospital emergency cardiac care and AED use, and the supply of AEDs to GP practices (priority sites)

The UCD Medical Emergency Responders Integration and Training (MERIT) project has been funded through PHECC and the HSE. To date this programme has delivered over 300 Automated External Defibrillators (AEDs) to GP practices and trained GPs and practice nurses in immediate response to cardiac and trauma events throughout most of the country.

4.3.4 Initiation of ‘uniformed’ first responder projects – Gardai and Fire Services

Garda First Responder pilot projects commenced in Kilkenny (Dec 2006) and Blanchardstown (June 2007). In 2007 the Fire Service in the midlands also began acting as ‘uniformed’ first responders with four stations in Laois and one in Westmeath co-responding with the HSE Ambulance Service. More stations in Laois and Westmeath are expected to join in 2008.

4.3.5 Development of education and training standards by PHECC

PHECC has developed education and training standards across six levels of response from cardiac first responder to advanced paramedic for progressive implementation between 2007 and 2010.

4.3.6 National signage for AEDs

PHECC established that there was no common European AED signage. Consequently the British Resuscitation Council was consulted on usage of their signage which applies across Great Britain and Northern Ireland. At the end of 2007, PHECC agreed with the SCD Implementation Steering Group to establish the British Resuscitation Council standard as the national AED signage in Ireland (see figure 2). This signage will be promoted in 2008.

Figure 2: AED signage for Ireland

4.3.7 AED standard to ensure most appropriate device for responder

An AED standard was developed by UCD Centre for Immediate Care Services and PHECC, with input from the HSE Ambulance Service, Irish Medicines Board and the Electro Technical Council of Ireland, to guide buyers of AEDs in selecting the best AED for their purpose. Expected release of this document, *AED National Pre-Hospital Standards*, is March 2008.

4.3.8 Review of legal situation to protect first responders from litigation

The Law Reform Commission (LRC) has reviewed the present legal situation in relation to potential litigation against responders and has made a provisional recommendation to the Attorney General that there should be an act to protect Good Samaritans and volunteer rescuers. LRC has produced a consultation paper inviting comment by 31 March 2008. www.lawreform.ie

In the interim, insurance is available to organisations and communities, and at least one insurance company is offering inexpensive individual first responder liability insurance linked to the responder's CPR/AED certificate expiry date.

4.3.9 Closer integration between statutory and voluntary ambulance services

In January 2008, the HSE Ambulance Service met with the voluntary ambulance services to discuss matters of mutual interest and to build relationships. Further meetings are planned this year and it is envisioned that with the appointment of area pre-hospital first responder coordinators that integration between the statutory and voluntary ambulance services can be further developed.

4.3.10 AED/Customer register and responsibility of vendor/purchaser registration

Taking cognisance of work already done on AED registers in various HSE areas, such as the midlands and the west of Ireland, the national pre-hospital first responder coordinator, once appointed, will be tasked with progressing this area with the assistance of the four area pre-hospital first responder coordinators.

4.4 Surveillance and Audit

The eight recommendations in chapter 6 are being progressed through the various sub groups and the SCD Implementation steering group.

4.4.1 Use of the term SCD on death certificates and refinements to data reporting

During 2007, discussions were held with coroners, pathologists and the Central Statistics Office (CSO) to agree on acceptance of the term 'Sudden Cardiac Death' on death certificates.

Preliminary work on CSO electronic death certificate data (January to June 2007) raised the question of whether current death certification can be made to be more useful for reporting processes. This work is ongoing.

4.4.2 Surveillance of SCD

A study looking at 2005 post mortem data was carried out by Dr Valerie Morris and Dr Joseph Galvin of Connolly Hospital, Blanchardstown. This study set out to establish the causes of SCD among young people under 35 years of age in Ireland in 2005 by retrospective post-mortem analysis.

The study looked at a range of ages (for under 35 years) and found that the most common findings at post-mortem for the cause of death in 15 to 34 year olds (adults) were:

- hypertrophic cardiomyopathy (24%)
- coronary artery disease (17%)
- left ventricular hypertrophy without cardiomyopathy (17%)
- Sudden Arrhythmic Death Syndrome (SADS) - sudden, unexpected death occurring in the absence of any identifiable abnormality on post-mortem - (19%).

Further surveillance work is planned for 2008.

4.4.3 Development of an Out of Hospital Cardiac Arrest register

A project was started in 2007 to develop a national Out of Hospital Cardiac Arrest register. The project has involvement of HSE, PHECC and NUI Galway using the cardiac first response report (CFRR) produced by PHECC for reporting cardiac arrests and resuscitation attempts by the ambulance service, GPs and other responders.

The register presently covers the north west area of HSE West and it is hoped to have national coverage by 2010.

4.4.4 Development of standards for ambulance response times

Spatial analysis was initiated by the HSE in the North West and funded by PHECC. This research used HSE ambulance response time data to analyse demand and guide deployment of ambulance resources, minimising response times and maximising the effectiveness of response. This research will continue in other areas during 2008 and will contribute to the development of standards for ambulance response times.

4.4.5 Establishment and maintenance of a national risk assessment register

There are currently two voluntary funded family cardiac screening centres in Ireland where records of families at risk are kept. Development of a national risk assessment register will require informed consent of those families at risk and protocols to deal with data protection and privacy issues. This work will progress in 2008.

4.5 Communication and the media

It is important that the public is aware of:

- symptoms of an acute coronary syndrome (heart attack or unstable angina)
- signs of an individual in cardiac arrest
- how and when to contact the emergency medical service (ph 112 or 999)
- the use of cardiopulmonary resuscitation (CPR) techniques and an automated external defibrillator (AED) to reduce the risk of an SCD.

The SCD Implementation Steering Group and the Irish Heart Foundation have been involved in some public awareness as outlined in section 4.1.4. In 2008 the HSE will work on a public information campaign to recognise the symptoms of an acute coronary. syndrome (heart attack or unstable angina) and the signs of an individual in cardiac arrest, and to contact the emergency medical service in either instance by phoning 112 or 999.

The media has shown interest in SCD and AED issues. Some newspaper articles over the past couple of years related to SCD and the Task Force recommendations are outlined in **Appendix 2**.

CHAPTER 5

MEETINGS WITH STAKEHOLDERS

In the course of implementing the recommendations, members of the SCD Implementation Steering Group met with a number of stakeholders in 2007 and early 2008.

5.1 Voluntary community organisations

Meetings were held with community first responder groups in Roscommon (DARA group) and Wicklow/ Kildare to discuss their concerns regarding support for voluntary community first responder groups.

Discussions were held with Muintir Na Tíre (Cork) concerning the organisation of a 'Good Samaritan Day' in March 2007 to encourage rural communities to be involved in first responder programmes.

Several meetings were held with Croí (West of Ireland Cardiology Foundation) to discuss their lifeline CPR and AED project and for Croí to receive an update of the SCD recommendation implementation.

5.2 Cardiac screening centres for families

Meetings were held with the existing family cardiac screening centres (both established with voluntary funding):

- Family Heart Screening Clinic, Mater Heart House Dublin
- Inherited Cardiovascular Diseases Unit, Tallaght / St James's Hospitals.

These meetings were to establish how these centres were run, who was eligible for screening and the capacity of the centres.

5.3 Statutory authorities

Meetings were held with some of the major government bodies to progress the recommendations:

- Civil Defence in Roscrea - to discuss possibility of Civil Defence direct involvement in community first responder schemes
- Irish Medicines Board – to discuss registration of AEDs and procedures for reporting of incidents and recalls
- Department of Education – to discuss CPR training in transition year and getting CPR training into the school curriculum
- Department of Health and Children – to discuss funding and ways to encourage priority first responder programmes
- Dublin Fire Brigade (Ambulance Service) – to discuss development of the guide for first responders and the support that Dublin Fire Brigade currently give to communities.

5.4 Other groups

A meeting was held with representatives of the Irish Red Cross to discuss the development of the guide for first responders and to raise the concept of voluntary ambulance services, such as the Irish Red Cross, being used as 'intermediaries' between the statutory ambulance service and community first responder groups.

Several meetings were held with the SCD in the Young Support Group to discuss the group's concerns about screening and risk assessment, the extent of CPR training and the placement of AEDs. Meetings were also used to update the group on the progress of implementing the SCD Report recommendations.

CHAPTER 6

NEXT PHASE AND CHALLENGES TO THE IMPLEMENTATION

6.1 Ensuring Cross Departmental commitment within Government

The SCD Task Force Report challenges the whole community to improve our response to a sudden cardiac death most notably in the area of First Response. This requires 'joined up' thinking and cooperation at national and local level.

At national level, government departments have an important part to play - the Department of Education in contributing to CPR skills in the community by including Basic Life Support training into the school curriculum for transition year students, the Department of the Environment, Heritage and Local Government in promoting co-response to a cardiac event, the Department of Justice and the Coroners' Society of Ireland in promoting earlier notifications of families uniformly across the country and importantly the Department of Health and Children in advocation, leading and coordinating intergovernmental actions be they legislative, fiscal or resource changes.

6.2 Acknowledging the challenges and prioritisation within the HSE

Significant challenges to achieving the implementation of the SCD Task Force recommendations are both obtaining the necessary resources and ensuring follow through within the HSE at a time of major transformation and budgetary restraint in order to:

- support the continuing development of the statutory ambulance service
- assist priority locations and facilities to establish first responder programmes
- support provision of AEDs and basic life support training to in HSE health facilities
- assist in establishing cardiac risk assessment centres
- help establish surveillance and audit registers and systems.

6.3 Ensuring cooperation and commitment of other organisations

Many of the recommendations are dependent on cooperation and commitment of other statutory organisations, such as, the Irish Sports Council, the Irish Medicines Board, CSO and PHECC. These organisations have their own priorities and budget limitations. Non-statutory organisations, such as those listed in the acknowledgments section also have a large role to play in implementing many of the recommendations. Working in partnership is crucial to success.

6.4 Achieving a clear and balanced message for the public

Education is needed around the symptoms of an acute coronary syndrome (ACS) and the signs of a cardiac arrest and to contact the emergency medical service (tel 112 or 999) in such situations. Education is also needed on the symptoms of those at increased risk of SCD. However, with the knowledge that our population is becoming increasingly obese and mindful of the impact of obesity on health, it is incumbent on us to ensure that the message given promotes healthy exercise.

6.5 Legislation requirements for recommendation implementation

It is important that the work of the Law Reform Commission in reviewing the need for legislation (a Good Samaritan Act) to protect volunteer rescuers is supported and the need for any other legislation is researched.

APPENDIX

Membership of SCD Implementation Steering Group and sub groups

Lead Person: Dr Siobhan Jennings, Consultant in Public Health Medicine, Population Health Directorate, HSE

Project Coordinator: Brendan Cavanagh, HSE/IHF (email: brendan.cavanagh@hse.ie)

Project Team:

SCD Implementation Steering Group

Dr Siobhan Jennings (Chair)	HSE Population Health
Frank McClintock	HSE Ambulance Service
Dr Geoff King	PHECC
Dr Brian Maurer	Irish Heart Foundation
Michael O'Shea	Irish Heart Foundation
Dr Joe Galvin	Cardiologist, Irish Cardiac Society
Angela Fitzgerald	HSE National Hospitals Office
Brendan Cavanagh	SCD Strategy Project Coordinator

SCD Ambulance and First Responder Sub Group

Frank McClintock (Chair)	HSE Ambulance
Dr Geoff King	PHECC
Sarah Cain	IHF
Dr Peter Wright	HSE West Public Health
Macartan Hughes	National Ambulance Training School
Brendan Cavanagh	SCD Strategy Project Coordinator

SCD Risk Assessment (Sports and Exercise) Sub Group

Dr Joe Galvin (Chair)	Cardiologist, Irish Cardiac Society
Marian Kiernan	HSE Dublin / North East
Brendan Cavanagh	SCD Strategy Project Coordinator
Dr Carl Vaughan	Cardiologist, Irish Sports Council
Dr Brian Maurer	Irish Heart Foundation
Dr Michael Griffin	ICGP

SCD Coroners, Pathologists and the CSO Sub Group

Dr Siobhan Jennings (Chair)	HSE Population Health
Dr Brian Maurer	Irish Heart Foundation
Dr Joe Galvin	Cardiologist, Irish Cardiac Society
Dr Denis Cussack	Coroners Society of Ireland
Dr Brian Farrell	Coroners Society of Ireland
Dr Conor O'Keane	Faculty of Pathology
Joseph Keating	Central Statistics Office
Brendan Cavanagh	SCD Strategy Project Coordinator

SCD Communications and the Media Sub Group

Dr Siobhan Jennings (Chair)	HSE Population Health
Fidelma Browne	HSE Communications
Caroline Curren	Irish Heart Foundation
Imelda O'Neill	HSE Health Promotion
Dr Mary Morrissey	HSE Health Intelligence
Brendan Cavanagh	SCD Strategy Project Coordinator

Newspaper articles re SCD, CPR and AEDs

3 March 2006 - Irish Times, Cardiac taskforce rules out mass screening

SCD Task Force stating that there was insufficient evidence to support implementation of mass screening due to tests not being sufficiently sensitive or specific, however risk assessment of those involved in exercise or sports is recommended.

9 June 2006 - Irish Times, Mothers tell of 'hell' after sudden cardiac death

Delay in informing families of SCD and lack of a dedicated screening centre.

31 Oct 2006 - Irish Times, Calls for short haul flights to carry defibrillators

A Dáil Committee recommending to Department of Transport and the Irish Aviation Authority that all short haul flights be obliged to carry the same medical equipment as long haul flights, including automated external defibrillators.

6 Nov 2006 - Irish Daily Mail, Gyms must be equipped for cardiac risk, says TD

Labour party TD calling on local authorities to ensure that gyms and sports amenities are equipped with defibrillators.

31 Jan 2007 - Irish Times, Focus on sudden cardiac death

GAA initiatives including a cardiac questionnaire for all players over 14 years, full cardiac screening of 400 county players and assistance in getting defibrillators for all clubs.

1 Feb 2007 - Tuam Herald, Groundbreaking initiative boosts lifesaving in the West

Croí (West of Ireland Cardiology Foundation) Lifeline Project assisting community groups, shopping centres, hotels and regional airports in getting AEDs and AED/CPR training and sourcing personal insurance cover for those trained.

6 Feb 2007 - Star, Clinic test for SADS

Opening of The Family Heart Screening Clinic, beside the Mater Hospital that will provide free checks for immediate family members who have lost loved ones to Sudden Adult Death Syndrome (SADS).

9 September 2007 - Irish Mail on Sunday, Boy of 13 is fifth sudden death

Death of a thirteen year old, who had been born with a heart defect, who collapsed while training with his GAA football team. This death followed the death of a ten year old who also collapsed while GAA training plus deaths of another three youths who died in that past week

10 September 2007 - Irish Times, Rapid access to defibrillators important

Importance of rapid access to defibrillator to treat lethal arrhythmia – ventricular fibrillation. Also that young people need to exercise and that long term mortality from stopping exercise is a lot greater than the mortality from a condition that is rare.

SCD Report Recommendations

The recommendations, relevant chapter names (areas), implementation timeframes and current status are all outlined in the table in this appendix. The 75 recommendations have been prioritised into immediate, medium and long term implementation time frames:

- **Immediate I** – to commence before the end of 2006 (48 recommendations)
- **Medium term M** – to be completed by end of 2008 (22 recommendations)
- **Long term L** – achievable by the end of the year 2010 (5 recommendations)

Current status of each recommendation has been listed (ticked) as either:
C for Completed; **B** for Being actioned; or **P** for Pending action.

Chapter 3 – Detection and assessment of those at high risk of SCD

Rec No.	Time frame	Recommendation	Status C	Status B	Status P
3.1	L	Primary prevention strategies to prevent CHD should continue to be developed and implemented.		✓	
3.2	I	Secondary prevention programmes, including cardiac rehabilitation services and primary care based secondary prevention programmes, should continue to be developed in order to provide access for all patients.		✓	
3.3	I	Family members of those who have suffered a cardiac event should be offered basic life support (BLS) and automated external defibrillator (AED) training.		✓	
3.4	I	Information and continuing education on risk assessment for SCD should be made available to general practitioners.		✓	
3.5	M	As outlined in the Primary Care Strategy, GPs should have improved access to diagnostic facilities and other secondary care services for their patients.			✓
3.6	I	A national education campaign to raise awareness of the symptoms which indicate increased risk of SCD should be developed and implemented.		✓	
3.7	M	An education programme for all personnel involved in the immediate and post-event management of SCD should be developed and implemented.			✓
3.8	M	Training of personnel in the management of SCD should include a module on appropriate psychological support.			✓
3.9	I	Following certification of SCD in individuals less than 40 years of age, the Coroner should notify the next of kin and the patient's GP of a potential increased risk of SCD in first degree relatives.		✓	
3.10	I	The Coroner and all medical professionals involved should encourage the next of kin to communicate this information to other first degree relatives as appropriate, and risk assessment of each relative should ensue.		✓	

Rec No.	Time frame	Recommendation	Status C	B	P
3.11	I	Protocols should be formalised for informing GPs and families of the results of post-mortems and the implications for families in terms of risk assessment.		✓	
3.12	I	In cases of SCD, pathology reports should be forwarded to the GP as soon as possible in order to avoid delays in notifying family members who may be at risk.		✓	
3.13	M	Guidelines for the conduct of a post-mortem in SADS cases should be developed as has already been done for Sudden Infant Death Syndrome (SIDS).			✓
3.14	L	When a post-mortem examination fails to determine the cause of SCD in a person under the age of 40 years, a further examination of the heart should be undertaken by a pathologist with cardiac sub-speciality training, in a specialist referral centre. This will necessitate the appointment of at least two cardiac pathologists in Ireland.			✓
3.15	I	There is insufficient evidence to support the implementation of a mass population screening programme for SCD. The first degree relatives of those who died of SCD under 40 years of age are the priority group for risk assessment.	✓		
3.16	I	In cases of SCD under the age of 40, initial assessment of first degree family members should be by the GP with referral to a regional cardiology centre for investigation when indicated.		✓	
3.17	I	All cases of possible cardiomyopathy or channelopathy identified in a regional centre should be assessed by a cardiologist with expertise in these conditions. Supra-regional centres should be identified for assessment and treatment of children with a family history of SCD.		✓	
3.18	M	As access to a geneticist is an integral part of the service, regional and supra-regional cardiac referral centre should have a link with the National Centre for Medical Genetics at Our Lady's Hospital, Crumlin for testing for known cardiomyopathy and channelopathy genes.			✓

Chapter 4 – Systematic assessment of those involved in sports and exercise

Rec No.	Time frame	Recommendation	Status C	B	P
4.1	I	Those with a history of heart problems or other major illness are advised to speak to their doctor before starting an exercise programme. Otherwise leisure activities such as walking, swimming or tennis do not require any formal pre-participation assessment (See R 4.2). Anyone feeling any pain or discomfort during exercise is advised to seek advice about exercising safely from their doctor or exercise specialist.		✓	
4.2	I	Those over the age of 14 years who engage in recreational activity without joining a club or organisation should be encouraged to self-administer a risk assessment questionnaire (see R 4.5) and to seek advice from the GP if the questionnaire is positive.		✓	
4.3	I	Individuals over the age of 14 years who wish to join a sports club, gym or other sports facility but not involved in national, provincial or county level sports, should be offered a pre-participation questionnaire. Informed consent to risk assessment should be sought. Those with a positive questionnaire should be advised to contact their GP.		✓	
4.4	I	Following assessment by the GP, those with family histories of SCD, cardiac symptoms and/or abnormal cardiac examination should be referred to a cardiologist for further assessment.		✓	
4.5	M	A protocol for risk assessment should be agreed by the major sports and sports medicine organisations, and the Irish Cardiac Society and Irish College of General Practitioners under the aegis of the Irish Sports Council, for those who wish to join a sports club, gym or other sports facility but are not involved in national, provincial or county level sports. The protocol should include methods for obtaining informed consent, a model questionnaire and procedures for its administration and referral for medical assessment if indicated, as well as guidelines on physical examination and diagnostic tests, including referral to cardiac and specialist centres if required.Centre for Medical Genetics at Our Lady's Hospital, Crumlin for testing for known cardiomyopathy and channelopathy genes.		✓	
4.6	M	A protocol for risk assessment should be agreed by the major sports and sports medicine organisations, and the Irish Cardiac Society and Irish College of General Practitioners under the aegis of the Irish Sports Council, for those involved in moderate or vigorous intensity sports at national, provincial or county level. (The protocol in R 4.5 should apply to those engaged in low intensity sports at this level.) The protocol should include methods for obtaining informed consent, a model questionnaire and procedures for its administration and guidelines on physical examination for all athletes at this level and on further tests and referral to cardiac and specialist centres if required.		✓	
4.7	M	The Irish Sports Council should support the development and delivery of training courses for sports and medical personnel, including general practitioners, on the implementation of protocols for risk assessment of athletes.		✓	
4.8	L	Multi-sectoral strategies are required to achieve safe participation in sports and exercise. Education programmes should emphasise the dangers of using performance enhancing, recreational and other drugs.		✓	
4.9	I	Pre-participation assessment should explore the use of performance enhancing and illicit drugs.		✓	
4.10	I	If sudden cardiac death occurs in an athlete, risk assessment should be offered to training colleagues and team members.			✓

Chapter 5 – Reducing time to response

Rec No.	Time frame	Recommendation	Status C	Status B	Status P
5.1	I	The Task Force welcomes the establishment of the Health Service Executive National Ambulance Service and recommends that it should lead a national education programme on contacting the EMS		✓	
5.2	M	Signage on all emergency vehicles should include "In an emergency phone 999 or 112" analogous to the Garda Síochána confidential telephone number on Garda Síochána vehicles.			✓
5.3	I	Regardless of their purpose, all ambulances should carry an AED. The drivers of all such vehicles should be trained in BLS and AED use.	✓		
5.4	I	The recommendations in the Ambulance Service Communications Review (2005) concerning the function and role of communication centres should be implemented expeditiously.		✓	
5.5	M	All providers of pre-hospital emergency care who are contacted by the public should provide pre-arrival advice including telephone-assisted CPR according to a national standard.		✓	
5.6	I	The early administration of aspirin should be encouraged if chest pain, not collapse, is the problem and acute coronary syndrome is thought to be the cause.		√	
5.7	M	The respective roles of the statutory and voluntary organisations in BLS/AED training should be agreed and operationalised to maximise benefit to the public.		✓	
5.8	M	Irish standards for BLS and AED courses and trainers should be published by PHECC. Statutory, voluntary and private training providers should be accredited according to these standards.		✓	
5.9	I	The following training initiatives should be prioritised: ■ BLS/AED training is essential for all health care professionals ■ BLS/AED for family members of those who have suffered a non-fatal cardiac event or are at high risk of SCD ■ AED training should be a requirement for occupational first aid certification ■ first responders linked to the EMS ■ BLS/AED training should be included in the curriculum for primary and secondary schools.		✓	
5.10	M	Responsibility for accreditation and monitoring of all BLS/AED training and the maintenance of training records should be assigned to PHECC.		✓	
5.11	L	Access to defibrillation should be optimised to meet European recommendations. [out of hospital – within 5 mins of call / in hospital within 3 mins of collapse]. The challenges in meeting the ESC targets should be identified and addressed, recognising that it will take some years to achieve this.		✓	
5.12	M	Closer integration should be encouraged between the statutory and the voluntary ambulance and emergency services		✓	
5.13	I-L	In establishing first responder programmes, priority should be given to programmes, geographic locations and facilities identified as having the greatest need. All such programmes should be coordinated by the HSE Ambulance Service, with best practice guidance from PHECC.		✓	
5.14	I	First responder programmes must include standardised quality assurance / quality improvement structures (see Section 5.6.8).		✓	

Rec No.	Time frame	Recommendation	Status C	Status B	Status P
5.15	I	All AEDs and trained personnel available to voluntary aide organisations should be immediately integrated within first responder programmes associated with the statutory ambulance services.		✓	
5.16	M	First responder programmes outside the voluntary aid organisations should be integrated where appropriate with the statutory ambulance service.		✓	
5.17	I	Community first responder coordinators should be appointed in each ambulance service region to coordinate all programmes. A standard job specification should be agreed for such posts.		✓	
5.18	I-M	All community-based health personnel, particularly health professionals, should be trained to manage a cardiac event. All community health facilities, including general practice premises should be equipped to deal with such an emergency. This includes the provision and maintenance of an AED.		✓	
5.19	I-M	A tiered response system should prioritise the training and equipping of rapidly deployable 'uniformed responders' such as: ■ full time fire services in urban communities ■ retained fire services in rural communities ■ the evaluation of the pilot programme of Garda patrol car-based AEDs should be concluded prior to such programmes being implemented nationally ■ auxiliary and voluntary providers ■ security personnel at large shopping centres / sports grounds / public amenities, and ■ local first responder programmes should facilitate participation by off-duty trained health services and uniformed personnel.		✓	
5.20	I-M	All priority facilities should be encouraged to provide first responder programmes and consideration should be given to requiring this on a statutory basis.		✓	
5.21	I	Management of other site specific locations should be advised of the potential benefits of implementing programmes e.g. leisure centres, sports clubs (GAA, golf courses etc).		✓	
5.22	I	A template should be developed urgently for the provision of local information and advice to communities, councils, organisations, etc. who wish to establish first responder programmes in their area.			
5.23	M	Appropriate support should be available for responders to receive 'critical incident stress debriefing' following a resuscitation attempt.		✓	
5.24	I	The HSE ambulance service should be required to establish structural links to first responder programmes.		✓	
5.25	I-M	A technology assessment should be conducted of devices currently in place and those proposed, to ensure the most appropriate device is in place for the specific setting.		✓	

Rec No.	Time frame	Recommendation	Status C	B	P
5.26	I-L	AEDs should be placed in facilities where the incidence of cardiac arrest is high, including: ■ inpatient health facilities ■ GP surgeries and primary care facilities ■ airports, shopping centres, major sports venues and golf courses, bus/ rail terminals, ferries/ferry terminals, concert and conference venues ■ universities and colleges ■ gyms and fitness clubs, and ■ other venues for major public events		✓	
5.27	M	National signage for AEDs should be agreed and used in all locations.		✓	
5.28	I	Individuals and organisations who purchase an AED should be informed by the vendor about procedures to ensure that the AED is maintained in a state of operational readiness.			✓
5.29	I	A designated person in each location where an AED is housed should ensure that clear roles and lines of responsibility are identified, maintenance schedules are observed and recorded, and regular checks / refurbishment of consumables are performed.		✓	
5.30	I-M	Responsibility for the establishment and maintenance of a devices / customer register should be assigned to the IMB. This should include a system for recording adverse events associated with the use of AEDs.		✓	
5.31	I-M	Vendors should register the sale of each AED to a national register. Manufacturers and vendors must notify the IMB in the event of a product recall or requirement to provide technical information to AED owners.		✓	
5.32	M	An AED purchaser should be required to provide the following information at the time of purchase: ■ a registration form with all contact details for submission to a central register ■ a training form stating that the purchaser understands the responsibility that owning an AED brings and a recommendation that they complete a BLS / AED training course, and ■ a community response form notifying their local EMS station that they have an AED and specifying whether they wish to become ■ part of an integrated community response programme, have a limited role in such a response programme or have no role in such a programme.			✓
5.33	I	The standardised form developed by PHECC should be used to report sudden cardiac events, including data on AED use. Those involved in first responder programmes should record this information as an integral part of each programme's procedures.		✓	
5.34	I	The legal situation should be reviewed to protect rescuers from litigation. The HSE should review other aspects of insurance requirements for first responders.		✓	
5.35	I	PHECC in consultation with HIQA should develop and implement a national programme of audit of emergency cardiac response.			✓
5.36	M	Advanced cardiac life support (ACLS) training should be readily accessible to all appropriate health professionals, including those who work in a community setting.		✓	

Rec No.	Time frame	Recommendation	Status C	B	P
5.37	I	After contacting the healthcare system (ambulance service, GP services or Emergency Department) patients with suspected AMI should: ■ have access to a defibrillation within ten minutes ■ be offered aspirin within 20 minutes (if appropriate) ■ have a completed assessment of suitability for reperfusion therapy within 30 minutes, and ■ have access to thrombolysis (if appropriate) within 60 minutes.		✓	
5.38	I-M	Timely reperfusion therapy for patients with AMI should involve: ■ pre-hospital thrombolysis via GP services or advanced paramedic units of the ambulance service where hospital assessment for reperfusion is unlikely within 30 minutes or hospital provision of reperfusion is unlikely within 90 minutes of the patient contacting the health services; the medium term target is for patients to receive reperfusion therapy within 60 minutes of making contact, ■ fast-tracking within Emergency Departments where patients are brought by ambulance or self-present, and ■ if possible primary angioplasty.		✓	
5.39	M	Best practice guidelines for the management of cardiac arrest survivors during the post-resuscitation phase should be developed and implemented.			✓

Chapter 6 – Surveillance and audit

Rec No.	Time frame	Recommendation	Status C	B	P
6.1	I	The use of terms such as 'sudden cardiac death' should be permitted when completing a death certificate, supported by information on the underlying cause. The Central Statistics Office (CSO) should discuss refinements to the data reported by pathologists and coroners with their professional organisations, to provide more accurate estimates of SCD.		✓	
6.2	I-L	An information campaign will be required to inform medical practitioners about the modification of methods of completing death certificates.		✓	
6.3	I	Pathologists performing autopsies in cases of SCD due to non-coronary causes should complete standard forms.		✓	
6.4	M	A central national risk assessment register should be established and maintained at the NCMG to support follow-up of those assessed, to provide epidemiological information on conditions associated with increased risk of SCD, and to support the planning and evaluation of services.			✓
6.5	I-M	PHECC should build on work already under way to establish a register of witnessed cardiac arrest and attempted resuscitation. This should include collecting data, using the Utstein template, from the EMS, GPs, other health personnel and uniformed responders, and those participating in first responder programmes. Data on cardiac arrests & resuscitation in the hospital setting should also be returned to PHECC.		✓	
6.6	M	PHECC and the IMB should discuss registration procedures so as to minimise the burden on emergency responders in reporting to the cardiac arrest register (Rec 6.5) and to the AED (and adverse events) register (Rec 5.30)		✓	
6.7	I-M	Standards for response time by the ambulance service appropriate to urgency and seriousness of clinical condition should be established by PHECC.		✓	
6.8	L	The Health Information and Quality Authority (HIQA) should report regularly on the adequacy of surveillance of SCD and of the information systems for risk assessment, resuscitation, training and use of AEDs.			✓

Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive