Croí MyAction-
A Community Based Cardiovascular Disease Prevention Programme
Ireland

Which 'life stage' for CVDs prevention targets the intervention?

Adulthood. This intervention is aimed at individuals and their partners/ family members at very high cardiovascular risk.

Short description of the intervention:

Croí MyAction is a 12-16 week intensive cardiovascular disease (CVD) prevention programme. This programme is a gold standard intensive risk factor management and lifestyle modification programme driven by specific protocols designed to achieve the latest ESC Guidelines (Perk et al., 2012). High-risk individuals defined as those with SCORE (Systematic Coronary Risk Evaluation) of ≥5% or type-2 diabetes were referred to the programme through a series of pathways which include general practice and hospital departments such as cardiology, stroke, and endocrinology. Subsequently, the programme was expanded to include patients with stroke/TIA (Transient Ischemic Attack) and coronary heart disease (CHD). Established in 2009, this flagship community-based prevention model has reached over 1100 individuals.

The key components are: lifestyle modification (smoking cessation, healthy food choices, and physical activity); medical risk factor management (blood pressure, lipids, and glucose); and the prescription of cardio protective medication where appropriate. The programme is co-ordinated by a multidisciplinary team (MDT) which includes a nurse specialist, dietitian and a physiotherapist/exercise specialist supported by a physician. An important principle of the programme is involvement of the partner, as risk factors cluster in families due to shared lifestyles such as smoking and poor diet, and healthy lifestyle change is easier to achieve if the family changes together.

At initial assessment (IA), patients and partners are seen as couples, but individually assessed by each MDT member for: smoking habit (breath CO); diet (diet history, food habit questionnaire, and Mediterranean diet score); weight and height, Body Mass Index (BMI), and waist circumference; physical activity levels (7-day physical activity recall) and functional capacity (Chester Step test); psychosocial measures (anxiety, depression and quality of life); blood pressure (BP), fasting lipids, and glucose; and use of cardio protective medications. The 16-week programme includes individualised follow-up, a weekly educational workshop and supervised exercise session. There is also a weekly MDT meeting to review lifestyle, risk factor and therapeutic goals including medication prescription as appropriate. The programme is flexible, offering individuals the choice of attending during the day or in the evening.

Was the design of the intervention appropriate and built upon relevant data, theory, context, evidence, previous practice including pilot studies?

The Croí MyAction programme was developed in response to the need to develop an effective model of prevention for individuals at high multifactorial risk. High risk approaches to cardiovascular disease prevention in Ireland have traditionally targeted those with established disease. However, there are many asymptomatic individuals with multiple risk factors whose risk is similar to those who have overt heart disease but go unrecognised. In Ireland, 2 studies, SLAN a National Health and Lifestyle Survey (Morgan et al, 2008) and 'Heart Smart' a West of Ireland

Community Based Prevention Programme, (Gibson 2008) both identified alarmingly high levels of CVD risk factors among our population over 40 years of age.
It is well established that up to 90% of CVD is preventable through modification of risk factors such as smoking, high blood pressure, high cholesterol, physical inactivity, and obesity (Yusuf et al, 2004). In response to the high levels of these risk factors in the Irish population, Croí, a registered Irish heart and stroke charity, established the provision of MyAction as the first cardiovascular prevention programme of its kind to be offered in Ireland.
The MyAction model was developed by Imperial College London and has its strong evidence base in the EUROACTION study (Wood et al, 2008), which demonstrated that an intensive nurse-led programme can achieve effective and substantial lowering of CVD risk factors in high risk groups of patients compared with usual care. This programme has been shown to be clinically effective, cost effective and cost saving. An economic analysis shows that every £1 invested in MyAction generates on average £6 in benefits over the lifetime of the patient (Matrix 2014).

Did the design thoroughly describe the practice in terms of purpose, SMART objectives, methods?

Please see above sections. To summarise, increased CVD risk patients and their family members/partners were invited to participate in a 16-week programme consisting of a professional multidisciplinary lifestyle intervention, with appropriate risk factor and therapeutic management in a community setting. Smoking, dietary habits, physical activity levels, waist circumference and body mass index, and medical risk factors were measured at initial assessment, at end of programme and at 1 year follow up.

How is this example of good practice funded?

Funding is by the non-governmental organisation (Croí, a registered Irish Heart and Stroke charity) with early support from the local publically funded health service. However, due to budget constraints this support was discontinued early in year 2, and since that time the programme has been funded entirely by Croí through its fundraising activities and philanthropic support.

What is/was the level of implementation of your example of good practice?

The Croí Myaction programme was implemented at a regional level in the West of Ireland in a community based setting.

What are the main aim and the main objectives of your example of good practice?

MyAction aims to:

- Provide an evidence based, high quality prevention programme which will reduce cardiovascular risk factors such as cholesterol, blood pressure, smoking, inactivity and central obesity in those most at risk
- Demonstrate the effectiveness of applying an integrated approach to cardiovascular health management in a community-based setting.

Please give a description of the problem the good practice example wants to tackle:

In Ireland, diseases of the circulatory system are the leading cause of death with high CVD mortality rates compared to European averages. The mortality rate caused by CVD is 25/100,000 per year in Ireland compared to 18/100,000 per year across the EU15 countries (DOHC, 2010). Risk factors for CVD are high with rising levels of obesity and diabetes, being observed in recent years (Morgan et al, 2008). It is predicted that by 2020, the number of adults with chronic diseases, such as diabetes, hypertension, coronary heart disease (CHD) and chronic obstructive pulmonary disease will increase by about 40% in Ireland (DOHC, 2013).
While risk factor management has improved, European-wide data suggest that usual care of high risk patients in general practice is suboptimal (Kotseva et al, 2010). Although many previous trials had demonstrated that control

of individual risk factors could improve outcomes, there was a need to develop a single integrated programme aimed at modifying multiple risk factors. The EUROACTION trial, conducted across 8 European countries demonstrated that a nurse led intensive programme resulted in effective and substantial lowering of CVD risk factors in a high risk group of patients (Wood et al, 2008). Following EUROACTION, the MyAction programme which is community based, was developed in Imperial College London in the UK (Connolly et al, 2011).

Is your example of good practice embedded in a broader national/regional/ local policy or action plan?

Yes. Croí MyAction is the first cardiovascular prevention programme of its kind in Ireland and is delivering to the recommendations of the National Cardiovascular Health Strategy (DOHC, 2010). The programme's unique principles and protocols align to the Healthy Ireland framework for improved health and wellbeing (DOHC, 2013).

Implementation of your example of good practice is/was:

Continuous (integrated in the system) – Croí MyAction is now 5 years in existence

Target group(s):

Croí MyAction adopts an integrated approach to care and targets high-risk individuals as defined by the European Guidelines on CVD prevention (Perk et al., 2012). High-risk individuals include patients with a: SCORE (Systematic Coronary Risk Evaluation) $\geq$5%, type-2 diabetes, stroke/TIA (Transient Ischemic Attack) are referred to the programme through a series of pathways which include general practice and hospital departments such as cardiology, stroke, and endocrinology.

During implementation, did specific actions were taken to address the equity dimensions?

To ensure that the programme was equitable, the programme was delivered in a community setting, easily accessible by public transport and with ample parking. It was provided free of charge, to ensure cost was not a barrier. A flexible approach to programme delivery was adopted whereby it was delivered at various times during the day and in the evening. All eligible referrals were invited to attend, regardless of religion, gender, or nationality, with patients from urban and rural locations being equally represented.

In design, did relevant dimensions of equity were adequately taken into consideration and targeted?

The programme targeted both males and females equally, resulting in a 52.3% programme uptake by males. There was specific focus on recruiting individuals from the lower socioeconomic groups, which are known to be a high risk of CVD. This involved working in collaboration with relevant representative organisations and inviting groups to come and meet the MyAction multidisciplinary team, view the programme and the setting with the aim of encouraging uptake.

Which vulnerable social groups were targeted?

The programme targeted members of the Travelling community, the farming community, the homeless and those living in social isolation and in deprived areas of the region.

Did the intervention have a comprehensive approach to health promotion addressing all relevant determinants?

The Croí MyAction programme adopts the settings-based approach to health promotion and is underpinned by values such as empowerment, public participation, equity and partnership. It is actively empowering people and communities through its individualised behavioural change approach to lifestyle modification. It is family-centred, actively involving patients' partners and other family members. By locating the programme in the heart of the

community it is more accessible to those who most need it, removing the barrier of having to attend the doctor's clinic or hospital.
The settings approach facilitates health promotion interventions to focus more on the broader determinants of health rather than simply addressing individual and/or population behavioural risk factors. In this context, the findings of the Croí MyAction programme have translated into a number of proposals which have been presented to the HSE (Health Service Executive) Department of Health, Minister for Health and other agencies with the aim of influencing and shaping National governance and policy around the delivery of CVD prevention. Overall, the Croí MyAction programme provides an integrated and cohesive mechanism for addressing multiple health issues and their determinants.

Was an effective partnership in place?

Partnership and cross sectional work is exemplified in the Croí MyAction programme at a number of levels. The programme is a collaboration between the voluntary sector – Croí, and an academic institution - Imperial College London, and through its unique integrated approach to prevention, is working in partnership with key stakeholders including, general practice, hospital departments, and community groups.
Was the intervention aligned with a policy plan at the local, national, institutional and international level? (
Croí MyAction is the first cardiovascular prevention programme of its kind in Ireland and is delivering to the recommendations of the National Cardiovascular Health Strategy (DOHC,2010). It is contributing to the Healthy Ireland framework for improved health and wellbeing (DOHC,2013) and the Preventing Chronic Disease Framework (Jennings 2014). Furthermore, Croí MyAction aligns to the European Society of Cardiology's Prevention Guidelines (Perk et al., 2012), which endorses the nurse co-ordinated multidisciplinary approach to prevention.

Was the intervention implemented equitably, i.e. proportional to needs?

The Croí MyAction programme was implemented equitably. For example, it implements uniform rules for eligibility (i.e. inclusion and exclusion criteria) and is free to all participants regardless of their socio-economic status. The programme gives special attention to certain disadvantaged groups e.g. Travelling community and ensures the programme meets their individual needs. Croí MyAction is the first cardiovascular prevention programme of its kind in Ireland and is based in the Croí Heart & Stroke Centre in Galway. In this context, a roll-out of the programme nationally would ensure equal access to individuals from different geographic locations.

Were potential burdens, including harm, of the intervention for the target population addressed?

There was no potential burden/harm identified from this intervention.

Were the intervention's objectives and strategy transparent to the target population and stakeholders involved?

The intervention's objectives and strategy were transparent to the target population and stakeholders involved. Information on the intervention's objectives and strategy were disseminated via written and oral communications. Patients and other stakeholders received information packs on the programme outlining the intervention and goals.

Did the evaluation results achieve the stated goals and objectives?

Year on year this nurse-led, multidisciplinary programme has achieved outstanding and measurable improvements in cardiovascular health which have been widely published, including the European Journal of Preventive Cardiology (Gibson et. al 2014) and the British Journal of Cardiology (Gibson 2013).The evaluation results at five years are demonstrating that Croí MyAction is achieving its stated goals and objectives. Adherence to the

programme was high, with 530 (77%) participants and 258 (73.7%) partners having completed the programme, with 1-year data being obtained from 391 (86%) patients and 185 (60.7%) partners.

There were statistically significant improvements in both lifestyle (body mass index, waist circumference, physical activity, Mediterranean diet score, fish, fruit, and vegetable consumption, smoking cessation rates), psychosocial (anxiety and depression scales and quality of life indices), and medical risk factors (blood pressure, lipid and glycaemic targets) between baseline and end of programme, with these improvements being sustained at 1-year follow up. Precise details are available in peer reviewed journals and most recently in the 5 year report – see summary table below

A 5-year summary of the key programme outcomes has just been published and is available from http://www.nipc.ie/research.html

5 YEARS OF POSITIVE PATIENT OUTCOMES — A Report Prepared by the National Institute for Preventive Cardiology

Executive Summary

Croí has developed nationally recognised expertise in cardiovascular disease prevention, through the delivery of the European Society of Cardiology (ESC) endorsed MyAction Programme. The Croí MyAction Programme is a gold standard intensive risk factor management and lifestyle modification programme driven by specific protocols designed to achieve the latest ESC Guidelines. MyAction targets high-risk individuals - i.e. those at high risk of heart attack, stroke, and diabetes - with a 12-16 week intervention and 1-year follow-up. Established in 2009, this flagship community-based prevention model has reached over 1,100 individuals. Year on year this nurse-led, multidisciplinary programme has achieved outstanding and measurable improvements in cardiovascular health which have been widely published, including the *European Journal of Preventive Cardiology*[1] and the *British Journal of Cardiology*.[2] This report provides a 5-year summary of the key programme outcomes since its inception in 2009.

What has been achieved over a 5-year period?	Outcome	Impact on CVD Risk
	Smoking quit rate of 51%	50% reduction in CVD events [3]
	Greater adherence to the cardio-protective Mediterranean Diet, with an increase in 4.5 units being observed	9% reduction in total mortality, CVD mortality and cancer [4]
	Increase in physical activity targets from 13% to 52%	20-30% reduction in cardiovascular events [5]
	Improved aerobic fitness of 1.5 MET's	15-25% reduction in all-cause mortality [6,7,8]
	Increase in achievement of blood pressure targets from 55% to 73%, with a mean reduction of 8.6 mmHg (systolic) and 3.7 mmHg (diastolic) being observed	20% reduction in risk of CHD [9] 35% reduction in risk of Stroke [9]
	Increase in achievement of cholesterol targets from 39% to 70%, with a mean reduction in Total Cholesterol of 0.73mmol/L and LDL Cholesterol of 0.62mmol/L being observed	15% reduction in CVD mortality and non-fatal myocardial infarction [10]

CVD, cardiovascular disease; CHD, coronary heart disease; MET, metabolic equivalent

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Did the intervention a defined and appropriate evaluation framework assessing structure, processes and outcomes?

The intervention had a defined evaluation framework that involved conducting regular programme audits and monitoring of outcomes to ensure the programme was being delivered to an established protocol and guidelines. By assessing each aspect of the programme's performance against key performance indicators, this allowed for reshaping of the implementation plan accordingly. Details of tools used are described in Gibson (2014) and in the report http://www.nipc.ie/research.html

The intervention has been assessed for efficiency. A recent economic analysis demonstrates that Croí MyAction is cost-effective compared to usual care and represents an efficient use of resources; every €1 invested in Croí MyAction generates on average €8 in benefits. The Incremental Cost Effectiveness Ratio (ICER) was strongly dominant and a health care cost analysis in 617 participants generated €817,356 in savings. Benefits generated by the programme exceed its costs by €7,784 per participant. Moreover, an economic analysis of the same MyAction protocol applied to a culturally diverse and socially deprived population in London similarly found this integrated model of preventive care to be clinically-effective, cost-effective and cost-saving. The full report for the findings from the economic analysis of Croí MyAction can be found at: http://www.nipc.ie/research.html

Did the intervention have any information /monitoring systems in place to regularly deliver data aligned with evaluation and reporting needs?

On a yearly basis there was a formal analysis of outcomes to ensure the stated objectives were being met. These outcomes were compared to the MyAction programme in the UK and the EuroAction study (Wood et al, 2008), upon which the principles of the MyAction programme are based. An external audit, which examined each aspect of programme delivery including a professional competency assessment, was conducted by Imperial College London on an annual basis. There was an established protocol for data collection, with data being stored on a secure database hosted by Imperial College London.

Who did the evaluation?

In conjunction with an external party

Specifically, what has been measured / evaluated?

The process evaluation included monitoring of:

- Programme uptake and retention rates
- Outcomes which were based initially on the primary endpoints for lifestyle, risk factor, and therapeutic goals as recommended by the ESC 2007 Prevention Guidelines and more recently on the ESC 2012 Prevention Guidelines
- Participant feedback through completion of an anonymous evaluation form

Evaluation of outcomes took place at end of programme (16 weeks) and at 1 year follow up. Outcomes at each time frame were measured using standardised equipment, validated questionnaires and data collection tools. For example physical activity levels were assessed using the '7 day physical activity recall questionnaire' and a functional capacity test. Data collected was stored on a secure database hosted by Imperial College London.

What are the main results/conclusions/recommendations from the evaluation?

The programme is successfully recruiting individuals at high cardiovascular risk. Since Croí MyAction commenced in 2009 over 1,194 patients have been referred, with 71% (n=846) of these patients being eligible for the programme. As of January 2014 – 691 patients were invited to attend end of programme assessment, of which 77% attended (n=530), and 455 were invited to attend 1 year assessment of which 86% attended (n=391). As the programme only accepts patients at highest cardiovascular risk, those who are at low to moderate risk and do not meet the inclusion criteria (n=348) are sign-posted to other Croí health and lifestyle programmes

Results show statistically significant improvements in both lifestyle (body mass index, waist circumference, physical activity, Mediterranean diet score, fish, fruit, and vegetable consumption, smoking cessation rates), psychosocial (anxiety and depression scales and quality of life indices), and medical risk factors (blood pressure, lipid and glycaemic targets) between baseline and end of programme, with these improvements being sustained at 1-year follow up. For a full report on results please see a recently published five year report of patient outcomes which can be found at: http://www.nipc.ie/research.html

The following recommendations have been made as a result of conducting this evaluation:

- Croí MyAction has proven to be clinically effective, cost effective and cost saving and therefore should be considered as a chronic disease model of care.
- Manage CVD as a single family of diseases - Croí MyAction demonstrates the effectiveness of applying an integrated approach to CVD prevention and health service planners should therefore consider Croí MyAction as a chronic disease management model which could integrate the care of all those at high CVD risk (multiple risk factors, vascular disease, heart disease, TIA and type-2 diabetes).

- Promote healthy lifestyle as a focus of CVD preventive efforts - Recognising that cardiovascular risk is driven by poor dietary habits, physical inactivity and smoking, the focus of preventive efforts should be on promoting healthy lifestyle habits to address total cardiovascular risk. This requires the wider expertise of a team of multidisciplinary health care professionals including nursing, dietetics, physical activity, medicine and psychology.
- Train health care providers to address complex lifestyle behaviours - Addressing and managing complex lifestyle behaviours require expertise. Health care professionals should be trained and equipped with the skills to apply effective behavioural strategies in improving self-efficacy, promoting self-management and enhancing motivation.
- Deliver community-based CVD prevention programmes - CVD prevention programmes should be delivered in community settings that adopt flexible approaches in allowing easy access to those most at risk particularly vulnerable and deprived groups. This approach has proven to be very successful in the MyAction programme as demonstrated by the high uptake and retention rates.
- Promote early diagnosis and access to treatment for those at risk of CVD -Despite the global acceleration of CVD, many patients go undiagnosed and untreated. There is compelling evidence to show that even among those with established disease there are treatment gaps. There is a need to examine the wider role of other health care professionals such as pharmacists, nurses and patients organisations in the early identification of individuals at risk and to support general practice in ensuring that these patients are managed appropriately.
- Implement data monitoring and auditing of CVD risk factors on a national level in Ireland- Croí MyAction reports across a wide spectrum of CVD health outcomes. However there is a real need to develop intelligence in relation to data monitoring and auditing of CVD risk factor prevalence and management across the island of Ireland. Not only will this help assess progress in terms of achievement of best practice

Is the evaluation report available, preferably in English or at least an English summary?

A 5 year report of patient outcomes is available to download from http://www.nipc.ie/research.html
Outcomes have also been published in the European Journal of Preventive Cardiology, with the reference as follows: Gibson I , Flaherty G, Cormican S, Jones J, Kerins C, Walsh AM, Costello, C, Windle J, Connolly S, Crowley J. (2014) Translating guidelines to practice - findings from a multidisciplinary preventive cardiology programme in the west of Ireland, *European Journal of Preventive Cardiology* , Vol. 21 (3) 366-376.

Was there a follow-up (describe how) or is any follow-up evaluation planned in the future?

The evaluation included a 1 year follow-up, recognising that long-term maintenance of lifestyle modification is key to the success of any prevention programme. There are also plans in place to apply for funding to assess the outcomes of Croí MyAction in a randomised control trial and to conduct further longitudinal follow up at 5 years.

Who implemented the intervention?

The intervention is being implemented by Croí, a registered Irish heart and stroke charity, with a strong commitment to prevention. In 2009, Croí commissioned the MyAction programme, developed by Imperial College London. MyAction is implemented by a multidisciplinary team which includes a nurse specialist, dietician, physiotherapist and a medical officer.

What core activities are/have been implemented?

To achieve the objectives of the intervention, the Croí MyAction programme is based on an established protocol, with defined outcomes and key performance indicators. All members of the multidisciplinary team receive standardised training and mentorship with built in competency assessments to ensure a quality assured programme is delivered. There are also standardised operational procedures in place to ensure quality and consistency in programme delivery.

Was the intervention designed and implemented in consultation with the target population?

The Croí MyAction programme was based on the evaluation of a pilot MyAction programme in the UK, where the target population played an active role in both the design and implementation of the programme. As part of the Croí MyAction programme, there is on-going evaluation and participant feedback, which has shaped the development of this programme.

Did the intervention achieve meaningful participation among the intended target population?

Croí MyAction is successfully recruiting patients at high cardiovascular risk. These patients presented with multiple cardiovascular risk factors, endorsing the programmes multidisciplinary specialist approach in tackling smoking, diet, physical activity, psychological and medical risk factors, within families all in one setting.
Since Croí MyAction commenced in 2009 over 1,194 patients have been referred, with 71% (n=846) of these patients being eligible for the programme. The programme employs specific evidence-based interventions that are known to increase uptake and retention and as result these rates have remained consistently high over the five year period. Central to this has been the delivery of the programme in the heart of the community, thus making it more accessible to those who most need it, removing the barrier of having to attend the doctor's clinic or hospital.

Did the intervention develop strengths, resources and autonomy in the target population(s)?

The Croí MyAction programme is actively empowering people and communities through its individualised behavioural change approach to lifestyle modification. This behavioural change approach includes the use of motivational interviewing and brief intervention techniques along with SMART goal setting. To promote the concept of self-care all participants are given a personal record card to help track their progress. A family-centred, approach is adopted, recognising that families tend to share risk factors and people are more likely to succeed in behaviour change if the entire family are embracing change together.

Was the target population/s defined on the basis of needs assessment including strengths and other characteristics?

The target population were selected based on the population needs, which were determined by surveys on the prevalence of risk factors in Ireland (Morgan et al, 2008) along with National recommendations through our Cardiovascular Health Strategy (DOHC, 2010). The eligibility criteria for Croí MyAction were based on the European Guidelines and included patients >40 years of age at very high risk of CVD (SCORE ≥10%), patients with newly diagnosed type 2 diabetes with two other risk factors (smoking, hypertension, or dyslipidaemia) and ischaemic stroke and TIA patients. As it was not feasible to target all high risk, patients with known Coronary Heart Disease (CHD) were excluded if they previously attended a cardiac rehabilitation service.

Was the engagement of intermediaries/multipliers used to promote the meaningful participation of the target population?

Meaningful participation of the target population was achieved through a multifaceted approach to recruitment. This involved engaging with clinician's in developing a standardised referral pathway that was easy to use in everyday clinical practice. In consultation with key referral sources (General Practice and Hospital), an educational tool kit was developed to help clinicians identify the target population and utilisation of this tool kit was demonstrated at various continuous professional development meetings. By recognising the referral sources as key stakeholders from the outset and byinvolving them in developing the recruitment plan, this resulted in stronger engagement, with subsequenthigh referral ratesbeing achieved. To target the population directly a recruitment strategy using social marketing, local media and promotional materials was established. Recognising that the target group included the socially disadvantaged, materials were designed to be culturally sensitive and appropriate to literacy levels.

Is the continuation of the intervention ensured through institutional ownership that guarantees funding and human resources and/or mainstreamed?

Yes, there is a strong commitment to support this programme by Croí. It has been incorporated into the organisation's strategic plan for the next 3 years and it is currently being funded through fundraising activities and philanthropic support. However to ensure its long terms stability, the programme has become embedded in a number of research activities and is the learning platform for a newly established MSc in Preventive Cardiology.

Is there a broad support for the intervention amongst those who implement it?

The multidisciplinary team who deliver this intervention are extremely committed and have been involved at all stages of programme development from programme planning, implementation and evaluation.

Is there a broad support for the intervention amongst the intended target populations?

There has been huge support for the Croí MyAction intervention among the target population and this is reflected in the high uptake rates at 88% and programme retention rates at 77%. An impressive 86% of participants return for follow-up at 1 year. These results compare favourably to other CVD prevention programmes e.g. cardiac rehabilitation where uptake rates average at 44% (NICE 2013).

Did the intervention include an adequate estimation of the human resources, material and budget requirements in clear relation with committed tasks?

Croí MyAction is founded on a solid business case with clear resource requirements. There was a project management plan, which outlined budget, timescales and expected outcomes and this was essential to ensuring that the programme was delivered in a cost effective and efficient manner.

Were sources of funding specified in regards to stability and commitment?

Resource allocation was carefully planned in accordance with the business case. Initially there a was funding commitment for the delivery of a pilot Croí MyAction for 3 years from local health service public funds. However, due to budget constraints this funding was discontinued in year 2 and since then programme has been funded by Croí through its fundraising activities and philanthropic support. To ensure stability and commitment going forward the programme has been embedded in a number of research and education activities and forms part of the organisations strategic plan for the next 3 years.

Were organisational structures clearly defined and described?

The organisational structure is very clearly defined. There are regular update meetings between the team delivering the programme and the CEO. Progress reports are submitted on a monthly basis to the board of directors who have responsibility for the overall governance of the organisation. Clinical governance is provided by a Medical Director and each staff member has a clear job description outlining roles and responsibilities.

Is the potential impact on the population targeted assessed (if scaled up)?

This has been previously assessed as part of a PhD research project 3 years ago (available on request from contact – see end of document).

Are there specific knowledge transfer strategies in place (evidence into practice)?

Croí MyAction demonstrates that it is possible to implement the ESC prevention guidelines into everyday clinical practice, therefore transferring this knowledge, through building capacity is a key priority. In achieving this Croí has formed a unique academic collaboration with the National University of Ireland, Galway in establishing

postgraduate courses and a new entity known as the 'National Institute for Preventive Cardiology' (NIPC). The mission of the NIPC is to provide leadership through discovery, training and applied programmes (e.g. Croí MyAction) to prevent and control cardiovascular disease for all, promote healthier living, raise standards of preventive cardiology practice, and prepare leaders to advance preventive healthcare in Ireland. In addition, to promote the learning from Croí MyAction, the outcomes have been widely disseminated at multiple National, European and International health care professional conferences with over thirty oral/posters presentations being made.

Is there available an analysis of requirements for eventual scaling up such as foreseen barriers and facilitators?

Yes this readily available for both Ireland and the UK.

What were, in your opinion, the pre-conditions for success? Were there any facilitating factors?

There were a number of key factors that contributed to the success of Croí MyAction:

- The multidisciplinary approach adopted ensured patients had the opportunity to meet multiple specially trained health care professionals to help them address the complex behaviours that influence lifestyle change.
- The partnership and cross sectional work between the key stakeholders was essential to achieving successful integrated care.
- Having a project management plan, with established processes, timelines and targets ensured the programme was implemented in an effective way, resulting in positive patient outcomes and cost savings.
- Having an established programme protocol, based on evidence based guidelines, with defined outcomes and key performance indicators was critical to achieving the implementation of a high quality programme.
- The social interaction from the group based component of the programme was an important factor in contributing to the improvements in psychosocial and quality of life indices.
- As improvements in medical and lifestyle risk factors and psychosocial health were observed among both patients and partners, this reflects the importance of adopting a family based approach to prevention, as successful lifestyle change is more likely if the entire family are embracing lifestyle change together.
- Delivering the programme in the community ensured it accessibility to the target population, especially the lower socioeconomic groups.

What were, in your opinion, the main lessons to be learned?

- Translating best practice, evidence-based guidelines into everyday clinical practice is possible, however it is dependent on having a rigorous ongoing monitoring, reporting and evaluation system in place.
- In considering staff, it is critically important to have a highly motivated, skilled multidisciplinary team with built in administrative and programme management support.
- Identify potential barriers to implementation as early as possible, as these can impact on effective implementation.
- To widen the learning from this programme and in ensuring long-term sustainability, it is important to build the capacity of health care professionals through ongoing education, training and research.

- Adopting a protocol driven, evidence-based, outcome focused approach is essential to making learning transferable. The learning's from Croí MyAction have already led to the development of other community based programmes which are addressing the increasing adverse lifestyle trends of obesity, physical inactivity and type 2 diabetes.
- Croí MyAction has proven to be clinically effective, cost effective and cost saving and thus should be considered as a chronic disease model of care.

Web page related to the intervention

http://www.nipc.ie/research.html

References to the most important articles or reports on the intervention

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