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DETERMINANTS OF SUCCESSFUL IMPLEMENTATION OF SELECTIVE PREVENTION OF CARDIO-METABOLIC DISEASES ACROSS EUROPE

JA2015 - GPSD [705038]

START DATE: 01/05/2015
END DATE: 31/07/2018
DURATION: 36 month(s)
CURRENT STATUS: Finalised
PROGRAMME TITLE: 3rd Health Programme (2014-2020)
PROGRAMME PRIORITY: -
CALL: Call for Proposals for Projects 2014
TOPIC: Innovation to prevent and manage chronic diseases
EC CONTRIBUTION: 854112 EUR

KEYWORDS: Cardiovascular Diseases, Cardiovascular Diseases, Chronic Renal Failure, Diabetes Mellitus, Feasibility, Ischaemic heart disease, Selective Prevention, Stroke

PORTFOLIO: Antimicrobial resistance, Cross-border care, Health systems expenditure, Health systems organisation, Health technology assessment, Health
Project abstract

The SPIM EU project aims at contributing to the reduction of cardio-metabolic morbidity and mortality in EU Member States by establishing the feasibility of implementing innovative selective prevention actions in primary care. In addition, the SPIM EU project will provide a toolbox for tailoring selective prevention actions in all EU Member States. The evidence based guideline of the Dutch College of General Practitioners represents an innovative approach for efficiently implementing selective prevention by a stepwise identification process of persons at high risk in the general population. However, successful implementation of this approach in EU Member States with different health care systems calls for tailoring of this action. The SPIM EU project includes five Work Packages (WP4-WP8), in addition to three horizontal Work Packages. WP4 includes the mapping of existing selective prevention programs in all EU Member States, and their strengths and weaknesses. In WP5 a systematic literature review will be conducted to summarize the knowledge from the literature about facilitating and hampering factors in implementing selective prevention programs and to identify determinants of their uptake and compliance. WP6 includes a survey among primary health care professionals and a sample of the general population in five EU Member States [SWE, DNK, NLD, CZE, GRE] to gain more insight into the task perceptions and attitudes towards selective prevention actions. In WP7 the results of WP4-WP6 will be collated and synthesized into tailored designs for implementing selective prevention actions (inspired by the Dutch guideline) in the five fore-mentioned EU Member States with the aim to test their feasibility. The feasibility tests are the core element of WP8. This will result in a toolbox of measures to tailor the implementation of selective prevention actions in all EU Member States taking their respective social, cultural, political and health care system contexts into account.

Summary of context, overall objectives, strategic, relevance and contribution of the action

The SPIMEU project aims at contributing to the reduction of cardio-metabolic morbidity and mortality in EU Member States by establishing the feasibility of implementing innovative evidence based selective prevention actions in five EU Member States representing various health care systems (Table 1). In addition, the SPIMEU project will provide a toolbox for tailoring selective prevention actions in all EU Member States. This toolbox will provide elements and factors important for a successful implementation of selective prevention programs, including elements to identify persons with a high risk for cardio-metabolic diseases. The EU Member States can select and use the elements that fit into their own health care organization.

The SPIMEU project includes five Work Packages (WP4-WP8, in addition to
three horizontal Work Packages (WP1-WP3 for coordination, dissemination and evaluation)). The objectives of the study are:

1. To identify models of implementation of selective prevention for cardio-metabolic diseases which are currently being practiced in all 28 EU Member States and to systematically analyse their strengths and weaknesses (WP4)
2. To systematically review the existing evidence on determinants of uptake and compliance with selective prevention actions (WP5)
3. To assess the attitude of both health care professionals and the general population in five EU Member States towards selective prevention actions in general and the acceptability and feasibility of an innovative implementation strategy of selective prevention (WP6)
4. To design a generic stepwise program for identifying people at high risk for cardio-metabolic diseases, that can be tailored to the country-specific context in five EU Member States, based on the results of WP4-6 and based on the Dutch guideline “Prevention consultation Cardio-metabolic risk assessment” (PC CMR) (WP7)
5. To test the feasibility of implementing the programs (designed in WP7) in five EU Member States with regards to their acceptance and participation rate (WP8)
6. To create a toolbox to support tailoring of selective prevention programs to the national context in EU Member States (WP2)

Table 1: Characteristics of health care systems and primary care in the countries participating in the SPIM EU project

<table>
<thead>
<tr>
<th>Country</th>
<th>Type of health care system</th>
<th>Level of primary care orientation</th>
<th>Level of gatekeeping</th>
</tr>
</thead>
<tbody>
<tr>
<td>Czech Republic</td>
<td>Transitional</td>
<td>Medium</td>
<td>No</td>
</tr>
<tr>
<td>Denmark</td>
<td>NHS</td>
<td>High</td>
<td>No</td>
</tr>
<tr>
<td>Greece</td>
<td>NHS</td>
<td>Low</td>
<td>No</td>
</tr>
<tr>
<td>Sweden</td>
<td>NHS</td>
<td>Medium Partial</td>
<td>Yes</td>
</tr>
<tr>
<td>The Netherlands</td>
<td>SHI</td>
<td>High Full</td>
<td>Yes</td>
</tr>
</tbody>
</table>

* Transitional: former Semashko (Soviet) system
NHS: national health service based system
SHI: social health insurance based system

** Based on the Primary Health Care Activity Monitor database ()

The SPIMEU project represents an action under thematic priority 1 of the Work Programme 2014 of the EC Public Health Programme: “Promoting health, preventing diseases and fostering supportive environments for healthy lifestyles taking into account the ‘health in all policies’ principle”. Theme 2.1.1.1. specifically addresses to make “use of the potential of innovation for the prevention and management of major chronic diseases (diabetes, cardiovascular diseases...)”.

According to the Work Programme 2014, the projects’ objectives “...should put
more emphasis on new approaches to prevention of major chronic diseases, including linking prevention to healthcare interventions, with an emphasis on groups most at risk”. The objective

Methods and means

The SPIMEU project will include various methods to reach its objectives. The following methods are used:

- Project management methodology and tools for project coordination (WP1)
- Publication and communication technologies for disseminating the results of the SPIMEU project, including a Toolbox (WP2)
- Process evaluation methodology (WP3)
- Analyses of existing selective prevention programmes and their strengths and weaknesses (quantitative and qualitative analyses; WP4)
- Systematic literature review methodology, including design of a sensitive and specific search strategy, selection of relevant publications (partly) by two independent experts, use of bibliographic databases [a.o. PubMed/MedLine, Embase] (WP5)
- Survey methodology (sampling of a representative population, statistical analyses, non-response analysis) (WP6)
- Consensus meetings (WP2 and WP7)
- Feasibility study methodology including quantitative and qualitative analyses (WP8).

Work performed during the reporting period

The project started in May 2015 and until October 2016 (months 1-18) the following activities were carried out:

WP2 – dissemination of SPIMEU
- A project website (www.spimeu.org) was developed.
- Project leaflets were made in English, Dutch, Swedish, Greek, Czech and Danish.
- Project leaflets were distributed by the project partners at (inter)national conferences
- A project Twitter account was started (#SPIMEU)
- SPIMEU was represented at the WONCA Conference of 2015 in Istanbul to contact experts and professionals for WP4
- A workshop and an oral presentation, targeting other academics and policy makers, was hosted at WONCA conference in June, 2016 in Copenhagen
- The SPIMEU project was presented in the round table: “European research
projects and Primary Health Care” of the 6th Panhellenic Conference of Social Medicine” entitled: “Social inequalities and Public Health” that was held in Athens, October 2016. The conference addressed to current and former ministers, representatives of local governments, members of policy leadership of the Ministry of health, responsible of sector health, parliamentary parties, as well as, health care professionals and students of medicine.

- Two newsletters were published on the website as well as the project Twitter account.
- A detailed action plan for the dissemination strategy for SPIMEU news and preliminary results was developed and approved by the project steering committee.

WP3 – Evaluation of SPIMEU
- An evaluation plan was developed and approved by the project steering committee. The steps in the evaluation plan were performed according to plan.

WP4 – Overview of current selection prevention program activities in the EU
- A questionnaire was sent to experts in all EU Member States in order to make a database with characteristics of selective prevention programs in EU Member States
- A list of selective prevention programs in all EU Member States available has been produced.
- The relation between the (content) of currently available selective prevention programs in different countries and the organisation of primary care, or budget spent on health care, is presented in a manuscript submitted to a peer-reviewed journal. Based on the scattered results, with no association between the availability of a program or the organisation within a country, we were not able to provide a ‘best practice’. Yet, implementation of selective prevention programs seems feasible, is currently happening, irrespective the organization structure of health care and the role of primary care therein. The impact of the different programs within different structures has not been studied. This might be informative to study this in detail as well.

WP5 – Systematic review
- A protocol was written for a systematic literature review about the existing evidence on determinants of uptake and compliance with selective prevention actions
- The final search revealed 30 articles regarding attitudes of professionals and 50 articles regarding the attitudes of the population.
- The results were summarized in two publications in peer-reviewed journals; Barriers and facilitators to participation in a health check for cardiometabolic diseases in primary care: A systematic review. Eur J Prev Cardiol. 2018 Aug;25(12):1326-1340

WP6 – attitude of professionals and the population
• A questionnaire to determine the attitude of professionals regarding selective prevention programs has been sent to GPs in the five member states of the partners of SPIMEU; i.e. Czech republic, Denmark, Greece, Sweden and The Netherlands.
• In the five partner countries, GPs were recruited to participate in the second part of WP6, distributing a questionnaire to eligible patients.
• A questionnaire to determine the attitude of professionals regarding selective prevention programs has been sent to GPs in the five member states of the partners of SPIMEU; i.e. Czech republic, Denmark, Greece, Sweden and The Netherlands.

The main output achieved so far and their potential impact and use by target group (including benefits)

Work package 4 – Characteristics of current European SPIs
In WP4 we conducted a study into the characteristics and organizational aspects of SPIs in the EU. To this end, we identified 19 SPIs that are currently implemented in 16 EU countries. Among the 19 identified SPIs, several common denominators stood out. In terms of structure, the majority of SPIs focused on people between the age of 40 and 55. The initiative typically included a combination of questionnaires, laboratory tests, physical examinations, treatment, and follow-up. In terms of setting, the identified SPIs were often implemented in countries with strong primary care sectors. Further, most of the identified initiatives were designed and implemented by two or three key stakeholders, typically including primary health care providers, public health organizations, and/or policy makers. The funding that sustained these programs, came often from a variety of sources (though this information was only available for a third of the identified programs).

Work package 5 – Patient and GP uptake of SPIs: Barriers and facilitators
In WP5, we focused on identifying common barriers and facilitators of patient and GP uptake of, and compliance with SPIs in European primary care systems. We conducted two systematic literature reviews into the barriers and facilitators as they related to GPs and patients. We structured the results of our review as they relate to GPs into five categories; Structural; Organizational; Professional; Social; GP attitude. In total 28 studies were included in the review.

In the review of barriers and facilitators as they relate to patients, we similarly organized the evidence into three distinct categories: Characteristics; Attitude; Practical reasons. In total, 39 studies were included in the review.

Work package 6 – Patient and GP attitudes towards SPIs
On the basis of the results generated in WP5, we conducted two studies. In Study 1, we surveyed 575 GPs, recruited evenly across the primary care
sectors in the five SPIMEU countries. The survey focused on GP demographics and attitudes towards CMD prevention. The central aim providing an up-to-date overview of the current practice of, and GP attitudes towards, selective prevention of CMD in primary care. In Study 2, we aimed to complement the findings from Study 1 by investigating the willingness of patients to participate in preventive CMD-health check.
We found that most GPs perceived selective prevention as a useful tool to combat the spread of CMD. However, our results also showed that less than half of participating GPs actually employed selective prevention measures regularly, and less than a quarter had implemented a protocol to this end. In other words, there was a clear discrepancy between GPs’ attitudes to selective prevention of CMD and their actions. This may be due to various practical barriers, such as those identified in WP5.
The results from Study 2 suggested broad patient support for preventive care in general practice and willingness to participate in health checks of this nature. Nonetheless, certain subgroups of the participant population were less likely to attend a health check, and several of these groups represented people who most certainly would benefit from a health check (e.g. smokers, overweight people).
Taken together these results were on one hand encouraging as they indicate broad endorsement of selective prevention from both GP and patient populations. However, our results also highlighted factors that appear to inhibit the practice of selective prevention as well as its positive reception by patients. For example, in spite of majority patient support for selective CMD prevention, some of the most at-risk populations (e.g. smokers) were also among the least willing to attend a health check. This suggests the need for interventions that perhaps target on hard-to-reach populations. Similarly, while GPs in general agreed with the utility of selective preventio

Achieved outcomes compared to the expected outcomes

The outcomes were as planned.

List of all publications in international peer reviewed journals

WP4:
• Hollander M, de Waard AM, Korevaar JC, Carlsson AC, Lionis C, Seifert B, Kral N, Agapi A, Søndergaard J, Sønderlund AL, de Wit NJ, Schellevis FG; SPIMEU Project Group.No “one size fits all” or “sine qua non” for selective cardiometabolic prevention programmes in Europe. Submitted

WP5:
• Wändell PE, de Waard AM, Holzmann MJ, Gornitzki C, Lionis C, de Wit N, Søndergaard J, Sønderlund AL, Kral N, Seifert B, Korevaar JC,
Dissemination and evaluation activities carried out so far and their major results

Dissemination
A website, Twitter-account, project leaflet and newsletters have been created. The website is updated on a regular basis. Presentations were given at (inter)national conferences, and the toolbox was developed. Results have been
discussed during an invitational conference with the target group as mentioned in the proposal; policy makers, professionals and researchers. The toolbox will be brought under attention via (inter)national publication, the website, and tweets. Moreover, all partners will be ambassadors for the toolbox and bring it under attention in their own country and if feasible in other countries. The results were and will be actively distributed among various stakeholders and stakeholder organisations, like EUROPREV network, EFPC (European Forum for Primary Care), WHO European Observatory for Health Systems and Policies, EGPRN (European General Practice Research Network), EUPHA (European Public Health Association), EPHA (European Public Health Alliance). Importantly, results will be made publicly available via the toolbox and website.

Moreover, the SPIMEU group has created a proposal to carry on with the results of the current SPIMEU proposal via a COST Action study (PRimary care: DEfining its role in CArdiovascular Disease risk management, PReDECADE Proposal Reference OC-2018-1-22852). If the proposal is rewarded, this is a good opportunity for further dissemination of the current results.

In addition, all results and articles, including a PhD thesis, will be actively distributed among the experts of WP7.

Evaluation:
At regular interval progress reports were completed by each partner revealing the current-state-of the art, all partners completed all progress report as requested.

At the last partner meeting, 19 June 2018 in Utrecht, we reflected on the entire SPIM process. For this reflection we discussed the following questions:
• When you look back at the process within your own work package, what has worked very well and would you like to share with the others?
• When you look back at the process within your own work package, what would you do differently next time, and how would you tackle it?
• When you look back at the process between work packages, what has worked very well and would you like to share with the others?
• When you look back at the process between work packages, what would you do differently next time, and how would you tackle it?
• Do you have feedback for work package 1?
• Are there processes that you would do differently next time?
Anyone has written his/her answer on a post-it, thereafter we discussed the questions together.

In general everyone was very satisfied with the process and proud of the amount of work that was achieved in 3 years!

During the reflection session the following points were mentioned as process points that went very well in this SPIMEU project:
• WP 1 was well coordinated and in charge
• Chairman gave the opportunity to everyone to give his/her opinion
• Proud of the collaboration between all partners
  o Quick responses via e-mail
  o Quick responses on manuscripts
  o Supportive and positive feedback
  o the good atmosphere during partner meetings
The improvement points that emerged from the reflection session where:
• Start with an overview of current activities in each country. In this project we did not start with it. Therefore it took a while before every partner understood the situation/context of the other partner countries.
• Less strict time schedule/ less tight time planning
• Involve experts more frequently between WPs meetings
• More emphasis on dissemination from the beginning
• Better general communication, for example more frequent Skype meetings
• It was not always clear, for everyone, who was in charge of a specific task
More discussion on harmonisation of data collection was needed
Work Package 1: Project coordination
Start month: 1
End month: 36
Work Package Leader: NIVEL

NIVEL (participant 1 and coordinator of the SPIM EU project) will take responsibility for the timely delivery of all deliverables and will secure the quality of the outputs and the consistency with the specific objectives. NIVEL (participant 1) will have the overall responsibility for coordinating the SPIM EU project, in close cooperation with Julius (participant 2). For the coordination of the project a steering committee will be established, which will act as management team for the SPIM EU project (task 1.1).

Task 1.1: Steering committee and consortium agreement (NIVEL)
A steering committee will be established consisting of the SPIM EU project coordinator, a representative of each project participant (preferably the WP leader), and a member of NIVEL’s management team. The steering committee will meet 6 times during the project to monitor the progress of the project, and to discuss budgetary issues, milestones and deliverables. Minutes of the meetings will be made. A first task of the steering committee will be to reach consensus about a consortium agreement to be signed by all partners involved in the SPIM EU project. The consortium agreement includes articles about e.g. responsibilities of the partners and the steering committee, (co-)authorship, and rules how to cope with potential conflicts or disagreements. Possible conflicts that cannot be solved otherwise will be decided upon by the steering committee.

Task 1.2: Logbook of activities (NIVEL and WP leaders)
On the password protected part of the website (task 2.1) for each WP a log file will be created. This log file contains actual information on all important decisions taken during the work in each WP. Each WP leader will be responsible for keeping these log files up to date. The WP leader will provide a progress report for the WP at each steering committee meeting on the basis of this log file. Moreover, the log file can also be accessed by the internal evaluator for evaluation purposes (see WP3).

Task 1.3: Project meetings (NIVEL)
The coordinator will be responsible for organising the meetings of the steering committee, the kick-off meeting (to be held in Luxemburg) and the final meeting with representatives of all SPIM EU project participants. For these meetings, the DG SanCo project officer will be invited. During the kick-off meeting the aims and outline of the project will be discussed with attention for the planned roles and activities of all partners. Agreement will be reached on boundaries of the project, uniformity of definitions, internal communication, potential dissemination strategies, authorship of publications and financial and administrative affairs.
Task 1.4: Reporting and contact point (NIVEL)
The coordinator will be responsible for regular contacts with CHAFEA and DG SanCo, and for the interim and final report about the progress of the project, including the financial reports. If necessary, NIVEL will provide support to the other participants of the SPIM EU project in preparing their financial reports.

Work Package 2: Dissemination
Start month: 1
End month: 36
Work Package Leader: SDU

The activities in this Work Package will be coordinated by SDU (participant 4), with support and input from NIVEL and Julius.
The WP2 activities focus on the dissemination of the SPIM EU project results to the relevant stakeholders (see paragraph 3). These include citizens in EU Member States, health care professionals involved in preventive activities, and health policy makers engaged in prevention. These three different target groups need to be addressed in different ways, by different communication methods, and different information products. To ensure effective dissemination, a dissemination plan will be prepared (task 2.1), to be adopted by the steering committee of the SPIM EU project. This dissemination plan will guide all activities during the SPIM EU project aimed at distributing the project results.

Task 2.1: Dissemination plan (Julius)
A dissemination plan will be prepared which will describe all activities to be undertaken to promote the SPIM EU project, to share the outcomes with relevant stakeholders and with public authorities. For each dissemination activity, the plan will describe the target group, how they will be reached, and the timing of the activity within the project. The dissemination plan also includes a plan for publications from the project using various media (Internet [website], social media, scientific journals, professional journals, presentations at conferences and stakeholder meetings when appropriate). Special attention will be paid to the sustainability of the results by specifically addressing those stakeholders who are expected to profit from the results of the SPIM EU project, e.g. national colleges of general practitioners. Especially the toolbox (see task 2.4) will be an important element for dissemination as the use of this toolbox is expected to contribute to a successful implementation of selective prevention programs. At all dissemination activities the visibility of EU co-funding will be taken into account.

Task 2.2: Project website (NIVEL)
A project website will be established and maintained with a public and a password protected part. The public part will contain public information about the project and contact details of the partners. The protected part will only be accessible for the project partners and is meant to facilitate the communication between partners, as archive of project documents and databases, documents related to project meetings, and official reports (see also WP1, task 1.2).
Task 2.3: Project leaflet (SDU)
A project leaflet will be prepared describing the project, its objectives and activities, and the partners involved. This leaflet will be used for promotion of the project at conferences and meetings where relevant. Also, this leaflet will be used by primary care professionals when implementing the feasibility studies (see WP8).

Task 2.4: Toolbox (SDU)
On the basis of the results of WP4, WP5, WP6 and WP8 a toolbox will be created to support tailoring of selective prevention programs to the national context in EU Member States. This toolbox will contain a synthesis of all insights gained - from the literature (WP4); - from the strengths and weaknesses of existing selective prevention programs (WP5); - from the results of the surveys among the general population and primary care professionals (WP6), and - from the feasibility studies of implementing a selective prevention program (WP8).
This toolbox will be a core deliverable of the SPIM EU project. SDU (participant 4) will be responsible for creating this toolbox, which will be an ongoing activity during the SPIM EU project. The final version of the toolbox will be adopted by the steering committee of the SPIM EU project, thereby ensuring consensus among all project participants.

Work Package 3: Evaluation of the project implementation
Start month: 1
End month: 36
Work Package Leader: UMC UTRECHT

The evaluation of the SPIM EU project will be carried out by the Julius Center for Health Sciences as Work Package leader of WP3. To avoid conflicts of interests, the department of Public Health of the Julius Center will carry out the evaluation. In all other Work Packages, the Department of General Practice will be involved.
The evaluator will be responsible for evaluating the progress and effects of the SPIM EU project by using its own observations and input from other partners. The evaluator will join all steering committee meetings and the kick-off and final project meeting. The evaluation results will be described in an interim and a final report to the EC. An evaluation plan will guide all evaluation activities undertaken in the SPIM EU project (see task 3.1).

Task 3.1: Evaluation plan
The evaluator will create an evaluation plan focusing on process, output and outcomes. The plan will include:
- inferring conclusions from the logbook (see task 1.2);
listing countable output on process, output and outcome indicators (see paragraph 2.2), deliverables and milestones reached (on time or delayed);
- systematic critical scrutiny of all outputs from each Work Package and ensuring appropriateness of quality and relevance;
- undertaking systematic evaluation among partners about the attainment of goals. The evaluation plan will be presented, to be adopted by the Steering Committee. The evaluation plan includes a description of the methods for the evaluation, indicators, and measures of verification. The starting point for the evaluation is the description of the Work Packages, the deliverables and milestones, and the project planning.

Task 3.2: Evaluation
To carry out its evaluation activities, the evaluator will participate in the meetings of the steering committee (see WP1, task 1.1), and will have access to the protected part of the project website (see WP2, task 2.2). During each steering committee meeting, the evaluator will be invited to share its observations on the progress of the SPIM EU project, and – if necessary – immediate actions can be proposed and discussed. On the protected part of the SPIM EU website, log files on the progress of all WPs will be created, and will be made accessible for the evaluator in order to monitor and evaluate the progress of the project.

Task 3.3: Evaluation reports
The evaluator will write an interim and final report on the evaluation of the project, including progress, outcomes, and dissemination of the results. This report will be presented at the final project meeting (see WP1, milestone 1.3).

Work Package 4: Mapping existing selective prevention programs
Start month: 1
End month: 24
Work Package Leader: NIVEL

An EU wide inventory of existing models and programs for selective prevention of cardio-metabolic diseases, and a systematic analysis of their strengths and weaknesses will be carried out with support of national contact points. Coordinators of identified selective prevention programs will be invited to complete a short questionnaire on the programs in order to obtain standardized information on the existing selective prevention programs.

Task 4.1: Development of questionnaire (NIVEL)
A questionnaire will be drafted to systematically collect data about the characteristics, and success and failure factors of existing selective prevention programs in EU Member States. When possible, existing, validated instruments will be included in this questionnaire. The questionnaire will be tested by all SPIM EU project participants by completing the questionnaire for one existing selective
prevention program in their respective country. The final version of the questionnaire will be converted to an online questionnaire. The length of the questionnaire should allow completion in maximally 15 minutes.

Task 4.2: Identifying selective prevention programs (NIVEL)
To identify existing selective prevention programs for cardio-metabolic diseases, national experts in all EU Member States will be identified and contacted. Each participant in the SPIM EU project will seek for national experts in 5-6 EU Member States. Existing networks (see paragraph 14 for Collaborating stakeholders) will be approached to identify national experts. They will be invited to submit a list of selective prevention programs in their respective country, including the contact details. Inclusion criteria for selective prevention programs include: national or regional coverage, formalised well established program, aimed at identifying persons at high risk for cardio-metabolic diseases among persons without any known disease or risk factor.

Task 4.3: Data collection and reporting (NIVEL)
Coordinators of all identified selective prevention programs in EU Member States will be invited to complete the online questionnaire (see task 4.1). A database will be generated which will allow the statistical analyses of the quantitative data and qualitative analyses of the qualitative data. A final report will be made, and a manuscript summarizing the results, to be submitted as article in a scientific journal.

Work Package 5: Literature review
Start month: 1
End month: 18
Work Package Leader: KI

In this Work Package, a systematic literature review will be performed to provide insight into the existing knowledge and evidence regarding determinants of uptake and compliance with selective prevention programs (focusing on healthy persons at potential high risk). This includes determinants of uptake of and compliance with selective prevention programs by health professionals as well as by the target group in the population. A distinction will be made between determinants of short-term and long-term compliance and participation. The literature review will complement the existing review of Koopmans et al (2012b) on determinants of non-compliance. The methodology of the systematic literature review will be based on guidelines of the Cochrane...
Collaboration and the EPOC (Cochrane Effective Practice and Organisation of Care Group) and will include a quality assessment of the publications included in the review. Bibliographic databases as PubMed (Medline), CINAHL and EMBASE will be used to search for relevant publications with an identical search strategy. If possible, meta-analyses will be carried out to quantify the impact of determinants on uptake and compliance. The literature review will be reported as a manuscript to be submitted to a scientific journal. Moreover, the results of the review will be included in the knowledge synthesis (see WP7). KI will carry out the literature review; the review protocol will be submitted to the steering committee for approval. Other SPIM EU participants will participate in the selection and data extraction of relevant publications.

Task 5.1: Develop protocol for systematic literature review
Task 5.2: Selection of relevant publications and data extraction
Task 5.3: Analysis and reporting

Work Package 6: Acceptability of selective prevention actions
Start month: 7
End month: 21
Work Package Leader: UMC UTRECHT

To assess the attitude towards selective prevention of both the target group and health care professionals and the target group two surveys will be conducted in the five EU Member States of the project participants:
a) among primary health care professionals: attitudes towards selective prevention, actual involvement in selective prevention, facilitating and hampering factors for implementation in their practice
b) among a sample of the target population for selective prevention which will be patients of the practices of the primary health care professionals (participants in survey a).

A) Survey among professionals
In this survey we will assess the attitude and experience with programs for selective prevention among primary care physicians in each of the five participating EU countries (SWE, DNK, NLD, CZE, GRE). The aim of this survey is to get an overview of key determinants of success, of potential obstacles and to identify cultural or system factors that need to be taken into account when tailoring selective prevention programs. These factors will finally be included in the tool box
see WP2).

Task 6.1 Development of the questionnaire (M7-M12)
Based on experiences in other international studies we consider the following four themes of paramount importance to be included in the questionnaire:
- Knowledge among professionals of preventive programs and their potential benefit;
- Involvement in preventive programs in clinical practice;
- Attitude towards prevention in general and towards participation in prevention programs specifically;
- System and context related determinants of success and failure of implementation of preventive programs in primary care practice (practice related factors, financial factors, workload).
The questionnaire will be designed around these themes. The WP leader will perform a literature review to identify the detailed determinants on each of these four themes as reported in the scientific literature. The draft questionnaire will be developed around these themes. This draft will be reviewed and discussed with the SPIM EU project participants. Based on their comments the questionnaire will be converted into a prefinal format. The prefinal questionnaire will be pilot tested by 5 primary care physicians in each country represented in the SPIM EU project. Based on the evaluation the questionnaire will be put in a final format and converted to an online version.

Task 6.2: Data collection
The survey will be internet based, which will facilitate efficient data handling. It will be translated into the national languages for optimal understanding. In each of the five countries represented by the SPIM EU participants a random sample of 250 primary care physicians will be drawn using data and membership lists from national colleges, research networks or other primary care physicians’ organisations. An invitational letter will be sent to the selected physicians by the respective representative in the SPIM EU project on behalf of the SPIM EU consortium. In this letter the aims of the SPIM EU project will be explained, participation requested and a link to the website with the online questionnaire be provided. Non-responders will be reminded after 4 and 8 weeks.

Task 6.3: Data analysis and reporting
Based on experience with international surveys in primary care across Europe we expect a response rate of 40%. In total we will have 100 respondent per country (total N=500), which will be an adequate sample to analyse the key questions and establish differences between countries. The data will be collected online and analysed by the WP leader. Results will be reported in frequency tables, differences will be assessed and reported with significance level. A final report and scientific publication will be written by the WP leader together with the other SPIM EU participants.

B) Population survey
This survey aims at identifying the attitude of the general population in the countries represented
Work Package 7: Design of tailored selective prevention actions
Start month: 19
End month: 24
Work Package Leader: CUNI

The design of a generic stepwise program for identifying people at high risk for cardio-metabolic diseases and the tailoring of this design to the country-specific contexts in five EU Member States will be established during a 1-day consensus workshop of representatives from the SPIM EU participants and a group of 5 internationally respected experts in the field of selective prevention of cardio-metabolic diseases. The group of experts will include expertise in cardiology, public health, and prevention.

In preparation of this workshop, the WP leader (CUNI) will provide a synthesis of the results obtained in WP4, WP5 and WP6, with the focus on possible measures to be taken for a successful implementation of a selective prevention program in the primary health care setting. These measures cover factors at different levels:

a) structural factors related to the role of primary care in the health care system (gatekeeper role, list system, accessibility, remuneration of preventive services);
b) factors related to the attitude and (perceived) tasks of primary care professionals;
c) social, cultural and ethical factors at the level of the population related to the acceptability of being approached for preventive actions and of being recommended to change lifestyle and/or starting preventive medication.

This synthesis of knowledge will be used as a basis for the discussions during the consensus workshop (to be organised in M22, and which will be led by the WP leader).

Task 7.1: Prepare knowledge synthesis on the basis of the results of WP4, WP5 and WP6
Task 7.2: Organise and lead 1-day consensus workshop

Work Package 8: Feasibility studies of selective prevention actions
Start month: 22
End month: 34
Work Package Leader: UOC

Design and protocol for the feasibility studies
A feasibility study will be carried out in primary care practices from five European Member States (Sweden, Denmark, the Netherlands, Czech Republic and Greece).
The implementation of the selective prevention program for the feasibility study will be tailored to the context in each country, which is the result of WP7. The implementation will be tested in a feasibility study in five EU Member States for which a study protocol will be developed and approved by the SPIM EU steering committee before the start of the feasibility study.

Participants
For establishing the feasibility of tailored selective prevention programs, in each Member State a maximum of ten (10) primary care practices will be invited to participate. The selection of practices will be based on criteria to ensure that different practice settings are represented (public/private, solo/group, different urbanisation levels). Professionals (i.e. primary care physicians and nurses) working in each setting/practice will be invited to participate, and in each practice a random sample of 20 persons attending each practice will be recruited out of the group of persons attending who are deemed to be eligible for the selective prevention program, on the basis of the information available in their medical record.

Training
A one-day training workshop will be organised in each participating EU Member State to inform the participating primary care professionals about the selective prevention program (tailored to the national context) and the feasibility study. The training will include the implementation of the selective prevention program in the practice, and the collection of data to establish the feasibility. It will also emphasize aspects such as recruitment criteria for eligibility (i.e. selection for prevention on the basis of previous medical history, other risk factors recorded in the records), as well as accuracy in data collection.

Outcome measures and measurements
The feasibility of the implementation of the tailored selective prevention programme includes the acceptability by the professionals and the participants, and the actual participation and compliance with the program. The feasibility of the program will be established by questionnaires, to be filled in by the participating professionals (primary care physicians and nurses) and by the invited participants.

Questions for professionals regard the feasibility of implementing the selective prevention program in their practice, the time estimated and allocated to implement the program, the disciplines involved, and whether they consider the program as an important element of their services. An additional item will focus on eliciting preferences on integrating selective prevention actions in the usual standard of care provided. To ensure sustainability, the aforementioned feasibility questions will address both short- and long-term implementation.

Questions for participants will include the acceptability of being invited for establishing a risk profile, as well as experiences with its content. The actual participation rate (number of respondents in different phases of the selective prevention program) will be measured by a careful administration in each practice. The compliance with the program will be established by a questionnaire to all invited participants to measure to what extent participants completed the selective prevention program and to what extent they consider the program as useful, as
relevant for their health status, whether they intend to undertake risk reducing actions and what barriers they experience in understanding such actions. The Theory of Planned Behaviour as it has been utilised in previous studies (Lionis et al, 2014) will guide towards the development of the questionnaire.

Analyses
The feasibility of the tailored selective prevention program will be established first for each Member State separately. In addition, an overall analysis
COORDINATOR

STICHTING NEDERLANDS INSTITUUT VOOR ONDERZOEK VAN DE GEZONDHEIDSZORG (NIVEL)

OTTERSTRAAT 118-124
3500 BN UTRECHT
1568
Netherlands
WEBSITE: http://www.nivel.nl

Project leader contact
Name: SCHELLEVIS Francois
Email: f.schellevis@nivel.nl
Phone:

PARTNERS

PANEPISTIMIO KRITIS
Street: UNIVERSITY CAMPUS VOUTES
City: 70013 HERAKLION
Country: Greece
Website: http://www.nivel.nl

PANEPISTIMIO KRITIS
Street: UNIVERSITY CAMPUS VOUTES
City: 70013 HERAKLION
Country: Greece
Website: http://www.nivel.nl

PANEPISTIMIO KRITIS
Street: UNIVERSITY CAMPUS VOUTES
City: 70013 HERAKLION
Country: Greece
Website: http://www.nivel.nl
PANEPISTIMIO KRITIS
Street: UNIVERSITY CAMPUS VOUTES
City: 70013 HERAKLION
Country: Greece
Website: http://www.nivel.nl

UNIVERSITAIR MEDISCH CENTRUM UTRECHT
Street: HEIDELBERGLAAN 100
City: 3584 CX UTRECHT
85500
Country: Netherlands
Website: http://www.nivel.nl

UNIVERZITA KARLOVA
Street: Ovocny trh 5
City: 11636 PRAHA 1
Country: Czech Republic
Website: http://www.nivel.nl
SYDDANSK UNIVERSITET
Street: CAMPUSVEJ 55
City: 5230 ODENSE M
Country: Denmark
Website: http://www.nivel.nl

KAROLINSKA INSTITUTET
Street: Nobels Vag 5
City: 17177 STOCKHOLM
Country: Sweden
Website: http://www.nivel.nl
Final report (layman version)
SDU
DETERMINANTS OF SUCCESSFUL IMPLEMENTATION OF SELECTIVE PREVENTION OF CARDIO-METABOLIC DISEASES ACROSS EUROPE (SPIM EU)
Expected on: 01/08/2018
Short version of the final report, written for the interested public

Interim report to CHAFEA
NIVEL
DETERMINANTS OF SUCCESSFUL IMPLEMENTATION OF SELECTIVE PREVENTION OF CARDIO-METABOLIC DISEASES ACROSS EUROPE (SPIM EU)
Expected on: 01/01/2017
Report on the activities carried out, milestones and results achieved in the first half of the project

Final report to CHAFEA
NIVEL
DETERMINANTS OF SUCCESSFUL IMPLEMENTATION OF SELECTIVE PREVENTION OF CARDIO-METABOLIC DISEASES ACROSS EUROPE (SPIM EU)
Expected on: 01/08/2018
Report on the project implementation and the results achieved

Project leaflet
SDU
DETERMINANTS OF SUCCESSFUL IMPLEMENTATION OF SELECTIVE PREVENTION OF CARDIO-METABOLIC DISEASES ACROSS EUROPE (SPIM EU)
Expected on: 01/08/2015
A leaflet to promote the project

Final evaluation report
UMC UTRECHT
DETERMINANTS OF SUCCESSFUL IMPLEMENTATION OF SELECTIVE PREVENTION OF CARDIO-METABOLIC DISEASES ACROSS EUROPE (SPIM EU)
Expected on: 01/08/2018
The evaluator will write an interim and final report on the evaluation of the
project, including progress, outcomes, and dissemination of the results. This report will be presented at the final project meeting (see WP1, milestone 1.3).

**Project website**

NIVEL
DETERMINANTS OF SUCCESSFUL IMPLEMENTATION OF SELECTIVE PREVENTION OF CARDIO-METABOLIC DISEASES ACROSS EUROPE (SPIM EU)
Published on: 11/10/2018
Project website realized

**Tool box**

SDU
DETERMINANTS OF SUCCESSFUL IMPLEMENTATION OF SELECTIVE PREVENTION OF CARDIO-METABOLIC DISEASES ACROSS EUROPE (SPIM EU)
Published on: 11/10/2018
A tool box to tailor selective prevention programs

**Report on characteristics of existing selective prevention programs**

NIVEL
DETERMINANTS OF SUCCESSFUL IMPLEMENTATION OF SELECTIVE PREVENTION OF CARDIO-METABOLIC DISEASES ACROSS EUROPE (SPIM EU)
Published on: 11/10/2018
Report and manuscript to be submitted to scientific journal

**Scientific paper reporting results**

UMC UTRECHT
DETERMINANTS OF SUCCESSFUL IMPLEMENTATION OF SELECTIVE PREVENTION OF CARDIO-METABOLIC DISEASES ACROSS EUROPE (SPIM EU)
Published on: 11/10/2018
Report and manuscript to be submitted about survey among professionals

**Scientific paper reporting results (2)**

UMC UTRECHT
DETERMINANTS OF SUCCESSFUL IMPLEMENTATION OF SELECTIVE PREVENTION OF CARDIO-METABOLIC DISEASES ACROSS EUROPE (SPIM EU)
Published on: 11/10/2018
Report and manuscript to be submitted about survey among population

Report of consensus workshop
CUNI
DETERMINANTS OF SUCCESSFUL IMPLEMENTATION OF SELECTIVE PREVENTION OF CARDIO-METABOLIC DISEASES ACROSS EUROPE (SPIM EU)
Published on: 11/10/2018
Report on the outcome of the consensus workshop

Protocol for implementing feasibility studies
UOC
DETERMINANTS OF SUCCESSFUL IMPLEMENTATION OF SELECTIVE PREVENTION OF CARDIO-METABOLIC DISEASES ACROSS EUROPE (SPIM EU)
Published on: 11/10/2018
Preparation of feasibility studies in five EU Member States

Database of feasibility studies in five EU Member States completed
UOC
DETERMINANTS OF SUCCESSFUL IMPLEMENTATION OF SELECTIVE PREVENTION OF CARDIO-METABOLIC DISEASES ACROSS EUROPE (SPIM EU)
Published on: 11/10/2018
Implementation of feasibility studies in five EU Member States

Final report on feasibility studies
UOC
DETERMINANTS OF SUCCESSFUL IMPLEMENTATION OF SELECTIVE PREVENTION OF CARDIO-METABOLIC DISEASES ACROSS EUROPE (SPIM EU)
Published on: 11/10/2018
Final report on feasibility studies

Knowledge synthesis for consensus workshop
CUNI
DETERMINANTS OF SUCCESSFUL IMPLEMENTATION OF SELECTIVE PREVENTION OF CARDIO-METABOLIC DISEASES ACROSS EUROPE (SPIM EU)
Published on: 15/06/2017
Report as a basis for the consensus workshop
Interim evaluation report
UMC UTRECHT
DETERMINANTS OF SUCCESSFUL IMPLEMENTATION OF SELECTIVE PREVENTION OF CARDIO-METABOLIC DISEASES ACROSS EUROPE (SPIM EU)
Published on: 17/03/2017
To carry out its evaluation activities, the evaluator will participate in the meetings of the steering committee (see WP1, task 1.1), and will have access to the protected part of the project website (see WP2, task 2.2). During each steering committee meeting, the evaluator will be invited to share its observations on the progress of the SPIM EU project, and – if necessary – immediate actions can be proposed and discussed. On the protected part of the SPIM EU website, log files on the progress of all WPs will be created, and will be made accessible for the evaluator in order to monitor and evaluate the progress of the project.

Report of systematic literature review
KI
DETERMINANTS OF SUCCESSFUL IMPLEMENTATION OF SELECTIVE PREVENTION OF CARDIO-METABOLIC DISEASES ACROSS EUROPE (SPIM EU)
Published on: 17/03/2017
Report and journal article manuscript on systematic literature review

List of selective prevention programs in EU Member States
NIVEL
DETERMINANTS OF SUCCESSFUL IMPLEMENTATION OF SELECTIVE PREVENTION OF CARDIO-METABOLIC DISEASES ACROSS EUROPE (SPIM EU)
Published on: 01/03/2017
List of existing selective prevention programs incl. contact persons covering all EU Member States

Validated questionnaire for the population
UMC UTRECHT
DETERMINANTS OF SUCCESSFUL IMPLEMENTATION OF SELECTIVE PREVENTION OF CARDIO-METABOLIC DISEASES ACROSS EUROPE (SPIM EU)
Published on: 15/12/2016
Questionnaire developed and pilot tested
Validated questionnaire for professionals
UMC UTRECHT
DETERMINANTS OF SUCCESSFUL IMPLEMENTATION OF SELECTIVE PREVENTION OF CARDIO-METABOLIC DISEASES ACROSS EUROPE (SPIM EU)
Published on: 07/10/2016
Questionnaire developed and pilot tested

Protocol for systematic literature review
KI
DETERMINANTS OF SUCCESSFUL IMPLEMENTATION OF SELECTIVE PREVENTION OF CARDIO-METABOLIC DISEASES ACROSS EUROPE (SPIM EU)
Published on: 23/09/2016
Protocol submitted for approval by steering committee

Evaluation plan
UMC UTRECHT
DETERMINANTS OF SUCCESSFUL IMPLEMENTATION OF SELECTIVE PREVENTION OF CARDIO-METABOLIC DISEASES ACROSS EUROPE (SPIM EU)
Published on: 06/01/2016
The evaluator will create an evaluation plan focusing on process, output and outcomes. The plan will include: - inferring conclusions from the logbook (see task 1.2); - listing countable output on process, output and outcome indicators (see paragraph 2.2), deliverables and milestones reached (on time or delayed); - systematic critical scrutiny of all outputs from each Work Package and ensuring appropriateness of quality and relevance; - undertaking systematic evaluation among partners about the attainment of goals. The evaluation plan will be presented, to be adopted by the Steering Committee. The evaluation plan includes a description of the methods for the evaluation, indicators, and measures of verification. The starting point for the evaluation is the description of the Work Packages, the deliverables and milestones, and the project planning.

Questionnaire
NIVEL
DETERMINANTS OF SUCCESSFUL IMPLEMENTATION OF SELECTIVE PREVENTION OF CARDIO-METABOLIC DISEASES ACROSS EUROPE (SPIM EU)
Published on: 06/01/2016
Questionnaire validated and pilot tested