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## Innovative Prevention Strategies for type 2 Diabetes in South Asians

### Living in Europe

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Innovative Prevention Strategies for type 2 Diabetes in South Asians Living in Europe

JA2015 - GPSD [705038]

| START DATE: | 01/09/2015 |
| END DATE:   | 31/08/2018 |
| 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: | 636500 EUR |
| KEYWORDS: | Prevention Of Type 2 Diabetes, South Asian Populations Living In Europe, Targeted Health Promotion Strategies |
| PORTFOLIO: | Physical Activity |
Project abstract

South Asians populations living in Europe have an extremely high risk of type 2 diabetes (T2D). More than 5 million people of South Asian origin live in Europe. Half of this population is likely to develop T2D. Moreover, its onset will be at a younger age and it will be more detrimental to cardiovascular health than in European origin populations. Consequently, the need to halt the T2D epidemic among these populations is a priority in many Member States. The evidence base for effective prevention in these groups is limited, but growing. A small number of recently conducted trials have given important insights into how to reduce the T2D risk of these groups, starting with people with pre-diabetes. Overall, the effectiveness of these behavioural interventions has been modest, and seems to be lower than observed in European origin populations. The aim of the proposed project, InPreSD-SA, is to build on the findings of these recent trials in order to accelerate knowledge production and the process of implementation of research findings by bringing together European experts in this field. The focus will be dietary behaviour. We plan to conduct in-depth analyses of the findings from these trials and other interventions studies with particular focus on the behavioural strategies employed. Our analysis will include consideration of the role of the environment in supporting healthy behaviour. Furthermore, we will critically evaluate dietary goals employed in current behavioural interventions, for different subgroups of the population. The findings from these analyses will specify HOW to support South Asian people in the uptake and maintenance of a healthy diet and WHAT to focus on. InPreSD-SA will be a coordinated effort to target the excessive risk for T2D in South Asian populations in Europe. The results will considerably advance our ability to address this major health challenge.

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

In Europe, type 2 diabetes mellitus (T2D) is one of the biggest public health challenges, with over 32 million people living with the condition and a further 6 million unaware that they are living with it. This figure is set to increase by 25% by 2030. Overweight/obesity and the underlying energy-balance related behaviours, in particular diet and physical activity, are important modifiable risk factors for T2D. Strategies to prevent T2D have focused on promoting behavioural changes among people with overweight/obesity or pre-diabetes, aimed at weight loss. This consists of an intensive one-on-one or small-group programme (6-12 months), with a dietary and physical activity component. Five Randomized Controlled Trials (RCT) conducted in Finland, USA, China, Japan and India that evaluated this approach have documented up to 60% reduction in T2D incidence.

Ethnic minority populations in Europe are particularly affected by T2D
compared to the European-origin population. Not only do they develop T2D at a younger age, they also have higher morbidity and mortality from T2D and its complications. Particularly South Asian (SA) individuals (i.e. of Indian, Pakistani and Bangladeshi ancestry) experience an extremely high risk of T2D, up to 6 times than that in European origin populations. Over 5 million people of SA background live in Europe. Adequate actions for prevention of T2D among SA are therefore imperative. Previous research has shown that the abovementioned intensive lifestyle interventions, if adapted specifically for SA communities, may be effective in producing changes which can help prevent the onset of T2D. However, the overall effectiveness seems to be low for SA populations. Therefore, EuroDHYAN was initiated to accelerate knowledge production for prevention of T2D in SA populations in Europe and the process of implementation of research findings. The actual implementation of preventive interventions was beyond the scope of the project. We undertook a multi-centre, mixed-methods project involving collaborators from University of Amsterdam, University of Oslo, Norwegian Centre for Migrant and Minority Health Research, University of Glasgow and the University of Edinburgh. This work has built on existing evidence. First, by identifying what strategies appear to work, and what has not been so successful, and second, from this evidence by selecting promising elements to develop and test. To this end, the project aimed at delivering recommendations as to
1. How to support SA populations in Europe in the uptake and maintenance of healthy diet and physical activity pattern, in an acceptable and effective way?
2. Which dietary and physical activity components should be targeted in recommendations for these populations in order to reduce their high risk of T2D.

To achieve this, the specific objectives of the EuroDHYAN project were to:
1. Obtain an in-depth insight into existing health promotion strategies (WP 4).
2. Validate the health promotion strategies identified by WP4 by testing their acceptability, reach and effectiveness in an intervention setting (WP 5).
3. Identify specific dietary and physical activity components that influence the high risk of T2D in SA origin people living in Europe (WP 6).
4. Draft recommendations for health promotion strategies to prevent T2D that are acceptable and effective in South Asian origin populations living in Europe (WP 7).

Strategic relevance and contribution to the EU Health Programme: Our proposal fits the objectives of the third EU Health Programme, more specifically priority 2.1.1.1 in the work plan 2014. The overall aim of the Programme (2014-2020) is to improve the health of EU citizens and reduce health inequalities. We have contributed to this goal by establishing the effectiveness of intensive lifestyle intervention aimed at SA origin EU citizens with a high risk of T2D. As these populations are the main contributor to the expected burden of T2D, prevention of T2D in t
Methods and means

EuroDHYAN used a multi-method approach to conduct in-depth analyses and experimental evaluations of the promising elements from existing interventions studies, with particular focus on the behavioural strategies employed, and the role of the environment in supporting healthy behaviour. Furthermore, we critically evaluated dietary goals employed in current interventions, and prospectively investigated the lipid metabolism as a possible novel target for different subgroups of the population. The findings from these analyses specify HOW to support South Asian people in the uptake and maintenance of a healthy diet and WHAT to focus on.

Work performed during the reporting period

The project activities were implemented through seven workpackages (WP): WP1-3 consisted of activities related to the project management, dissemination and evaluation.

In WP4 we increased our understanding of the strategies that have been used to promote behavioural change in individuals of SA origin. We have evaluated their effectiveness on the basis of an individual patient data meta-analyses, including available trials (worldwide). Additionally, we carried out a narrative review and interviews among researchers, to identify the intervention elements that contribute to their effectiveness. We identified two entry points for optimisation of current interventions, and carried out small-scale pilots in WP5.

In WP5 we carried out one small scale pilot (in Amsterdam) related to the use of traditional dance (Bollywood) as a means to promote physical activity in a culturally appropriate way, in particular in women, and one (in Edinburgh) on the use of text messaging to increase the intervention’s overall intensity in a cost effective way. We carried out focusgroups in Oslo and Amsterdam to explore the applicability of these interventions in another context.

In WP6, we started with a systematic review to identify current recommendations regarding dietary behaviour and physical activity for SA populations. In addition, we explored whether these are appropriate by empirically investing the relevance of a number of existing and novel goals, based on data from the Amsterdam HELIUS study.

In WP7, using the methodology of realist evaluation, we integrated the findings of WP4-6 in order to draw conclusions and formulate recommendations.
The main output achieved so far and their potential impact and use by target group (including benefits)

1. What have we learnt on the effectiveness of intensive lifestyle intervention in SA populations from a critical review of available knowledge (WP4)?
   a) The number of relevant studies is limited: a systematic search for scientific literature regarding the effectiveness of intervention strategies to bring behavioural change, in particular diet and physical activity, for prevention T2D among SA adults, resulted in the identification of only 18 interventions studies (Europe, India, New Zealand, USA).
   b) An individual participant data meta-analysis of six RCTs carried out in Europe and India, (about 1,800 participants), revealed that the intensive lifestyle intervention in those with high risk of DM produced a 35% (CI 19-49%) relative reduction in DM incidence. This effect was consistent across those living in Europe and those in India. This result thus indicates that this type of interventions is effective in SA populations. The fact that individual studies showed less effect is likely due to a lack of power.
   c) Within the 14 studies identified for inclusion in the narrative review, there was a wide variation in study design, including the age ranges, settings, and cultural adaptations. As a result, we could not identify clear patterns for relatively novel elements associated with successful interventions, although some characteristics previously identified in the literature were corroborated (e.g. intensity of the intervention).
   d) From in-depth interviews with eight researchers/project leaders from five studies carried out in Europe emerged four key factors for success: ‘approaching the community in the right way’, ‘the intervention as a space for social relations’, ‘support from public authorities’, and ‘being reflexive and flexible’. Two themes emerged as challenges: ‘struggling with time’ and ‘overemphasising cultural differences’.

2. How to increase the effect of this type of interventions in SA populations (WP5)?
   a) From the Bollywood dancing pilot, and related focusgroups, we concluded that Bollywood Dance has the potential to promote physical activity in SA communities, at least those living in the Netherlands and Norway, in particular in women: the women felt attached to Bollywood dancing, that they were willing and able to participate in the 10-week intervention, that they appreciated the intervention, and that the intervention increased the level of PA of the participating women.
   b) From the text-messaging pilot, we concluded that lifestyle text-messaging is an acceptable strategy for T2D prevention for women of Pakistani origin living in Scotland and potentially to other SA populations in Europe. Participants showed a strong preference towards messages that were worded in supportive non-judgmental tone (as opposed to messages worded in a didactical and critical tone) and messages that focused on the needs of an
individual to whom the messages were addressed (as opposed to focusing on the individual’s obligations towards family and community).

3. Should we adapt current dietary and physical activity goals to SA populations? (WP6)
   a) A systematic review, including 18 intervention studies and four guidelines, showed that existing guidelines are not supported by evidence on their specific effectiveness for prevention of T2D in SA populations.
   b) We have evaluated the role of two elements of current guidelines, using data from the Amsterdam HELIUS study. These analyses, first, suggest that higher intakes of fruit and vegetables may prevent T2D in SA populations. Second, as a dietary pattern high in sugar and saturated fat was not associated with T2D, avoiding this pattern is not likely to reduce the increased risk T2D in South Asians.
   c) We have evaluated the role of dietary and physical activity goals that are not included in current guidelines, using data from the Amsterdam HELIUS study:
      - Grip strength: We found lower levels of grip strength in SA as compared with Dutch participants.

Achieved outcomes compared to the expected outcomes

Based on a systematic appraisal of the success and quality of the fully implemented EuroDHYAN project (summative evaluation, embedded in WP7):

There was consensus among EuroDHYAN members and those of the advisory board as well as the external reviewers that the main aims of the EuroDHYAN project have been met fully or partially, in particular within what was possible with the evidence available.

The key strengths identified included: use of a multimethod approach to collect and analyse the evidence including developmental work (as part of WP5) that allow the formulation of new insights on what strategies might be acceptable and potentially effective for SA communities in promoting healthy lifestyle and T2D prevention.

The key limitation identified related to the available evidence in the literature being limited and heterogeneous which made it difficult to conduct secondary analyses (e.g., a meta-analyses of the effective strategies to prevent T2D in South Asians) and formulate recommendations based on these secondary analyses. Nevertheless, the meta-analyses was an important contribution, in terms of recognising that the current interventions might be more effective than it had been thought at the beginning of the project. Another limitation was related to the fact the project did not obtain insights into how to improve broader environmental conditions/influences for SA populations in order to further
strengthen the individual-based interventions.

Several unintended outcomes of the EuroDHYAN project were also identified, in particular by the team members. First, the results of the extended Individual Patient Data (IPD) meta-analysis performed as part of WP4 indicated a positive effect of current interventions, which was an unexpected but positive outcome. Second, the collaboration with the US and Indian partners in the advisory board was an unintended (but very welcome) outcome. Third, through engaging with South Asian communities and health care professionals (healthcare workers/researchers), interesting feedback emerged in relation to the interaction with academics when conducting academic research. The key feedback was that the academics were perceived to dip in and out of the relationships with the communities and professionals involved in the field, in a manner which is not sustainable. People’s time and expertise is not felt to be valued and communities are left not directly befitting from the academic research they took part in. This feedback should be taken into account in advance of any subsequent projects, to allow ways of building sustainable ongoing relationships to be developed in a meaningful way.

**Dissemination and evaluation activities carried out so far and their major results**

Efforts have been made to disseminate and publicise the EuroDHYAN project. The EuroDHYAN website can be found through www.eurodhyan.eu. It captures all deliverables and the logo from the EuroDHYAN project. Links to other partners and projects are provided. A leaflet has been developed for the EuroDHYAN project and can be found on the website. The website will be available for at least another three years. This allows us to distribute the scientific papers that will be published in the years to come.

The EuroDHYAN project was presented at 8 important health conferences, For example, the Conference on Migrants and Health actions funded under the Health Programme 2008-2013 and 2014-2020, May 12-13, 2016 in Lisbon. Recordings of the video presentations are being made available at the EQUI-HEALTH Website: http://equi-health.eea.iom.int

Several workshops have been given. For example, “Successful cultural adaptation of strategies to prevent Type 2 Diabetes in South Asians” in Oslo, Norway at the EUPHA’s 6th European Conference on Migrant and Ethnic Minority Health at June 23, 2016. The abstract of the Workshop was published in the abstract book at the EUPHA website: http://eupha-
5 dissemination meetings were held to present and discuss key findings and implications of the various Workpackages of the EuroDHYAN project. For example, a Round Table Meeting was organized on “Innovative Prevention Strategies for type 2 Diabetes in South Asians Living in Europe (EuroDHYAN)” at 16th May 2018 in the UK, Edinburgh, UK at the International Conference Centre; and Prof Karien Stronks discussed the key results of EuroDHYAN with representatives from other EU-funded projects and key stakeholders (e.g. policy makers and NGOs) at the Dissemination Meeting from the International Diabetes Federation European Region (IDF Europe), 24 September 2018, Brussels.

So far, 5 scientific papers have been published in peer reviewed journals

Another 9 papers (international journals) have been submitted or are in preparation.

Based on the key message for policy and practice, three goals for the dissemination activities have been identified. For each of these the target audience, and defined a strategy to put this dissemination goal into practices was identified. The related activities have partly been carried out, and will continue in the near future.
Work package

Work Package 1: WP1 Management of the project

Start month: 1
End month: 36
Work Package Leader: AMC

WP1 will comprise the coordination task to promote and ensure integrated and timely progress of the project. For this purpose, this WP will set up a communication and feedback structure, apply a quality control infrastructure, prepare and organise progress meetings (including those with Chafea/CHANTE representatives), coordinate timely reporting of content, deliverables and finance, and generally support the MC and WPs. Additionally, WP1 will be responsible for the ethical requirements, to ensure compliance with ethical principles and with contractual obligations.

Task 1.1: support overall running of project. The WP leader will:
1.1.1 before the start of project, develop a binding consortium agreement;
1.1.2 during the project, monitor/ guide the progress within individual WPs;
1.1.3 during the project, stimulate the progress of by integrating measures, such as promoting collaboration between WPs, exchange with third parties.

Task 1.2: coordinate financial management. The WP leader will:
1.2.1 at the start of the project, communicate rules for financial administration and management, and ensure their implementation by WP leaders;
1.2.2 during the project, monitor and where needed improve the financial management by WP leaders;
1.2.3 during and at the end of the project, acquire all information and documents, and prepare interim and final financial reports for CHAFEA

Task 1.3: set up and run structure for communication. The WP leader will
1.3.1 prepare a structure for external communication;
1.3.2 develop and operate a structure for internal communication, aimed to monitor progress of each WP, provide support and resolve problems;
1.3.3 organize and chair six meetings with MC and AB.

Task 1.4: Communicate and report to CHAFEA. The WP leader will
1.4.1 Invite representatives of CHAFEA for MC meetings/closing conference;
1.4.2 Communicate with CHAFEA about proposals for substantial change;
1.4.3 Prepare one interim report and one final report to CHAFEA;
1.4.4 Respond timely to requests of CHAFEA for further information.

Task 1.5: Fulfill ethical requirements
1.5.1 gather national/local ethical approvals including informed consent and information sheets if necessary
1.5.2 develop a policy and strategy plan for data/privacy protection.

Work Package 2: WP2 Dissemination

Start month: 1
End month: 36  
Work Package Leader: AMC

The findings of this project will have far-reaching relevance beyond the partners directly involved in this project. Disseminating and exploiting the newly generated knowledge on innovative and targeted health promotion strategies to prevent T2D prevention amongst South Asians living in Europe is therefore a key project objective and will form the basis for this WP. In order to maximize the impact of our findings, all partners will participate in this WP, which will be led by the Coordinator. Dissemination will include multiple communication strategies, including:
- Project website (see: project management)
- Project reports, including layman version (see: deliverables)
- Publications in scientific journals: Publication in the most relevant peer-reviewed scientific journals, in the field of public health, health promotion, nutrition, policy, metabolic diseases etc. In our scientific publication policy we will grant Open access to all scientific publications to ensure the widest dissemination of peer-reviewed published results among the scientific community.
- Presentations at local, national and international conferences
- Dedicated symposium: we will organise a conference dedicated to the project, e.g. as part of the European Public Health Conference in 2017.
- Consortia, networks and institutes: we will promote the wider translation and implementation of insights and research results in public health and clinical practice through the participation of the project leaders and several principal investigators involved in relevant consortia, networks and institutes.

A full dissemination plan will be developed in the first months of the project, and updated during the project. This will at least contain the following elements:
- Key stakeholders (e.g. health promotion professionals, policy-makers)
- Key messages (what content will be disseminated to what target audience)
- Dissemination methods
- Timing of dissemination
- Key responsibilities.

Possible activities per target group are listed below:
Scientific community: Scientific papers, Conference Talks, Presentation at dedicated workshop/conference, Dissemination through existing contacts/networks
Practice (Policy makers and health professionals): Publications in journals for professionals, Presentation at dedicated workshop/conference, Fact sheets and press releases, Dissemination through existing local and international contacts/networks
Target groups: Fact sheets and press releases, Lay media, Dissemination through existing local contacts/networks.

The dissemination to the scientific community will take place at worldwide level and the focus of the dissemination to practice will be concentrated at the EU level. Finally the dissemination to the target groups will be directed towards the large communities in the countries of the project partners (the Netherlands, the United Kingdom and Norway). In addition, we intend to provide our support to contacts/local actors in other countries to reach relevant target groups in their own
Work Package 3: WP3 Evaluation of project activities

Start month: 1
End month: 36
Work Package Leader: AMC

This WP is co-led by UEDIN and AMC.

The evaluation will consist of two parts:
1. The formative part of the evaluation aims to assess the project activities, with a view to improve the work in progress and increase the likelihood that the project will be successful. We will focus on two aspects, i.e. the implementation of the activities, and the progress made in the project. Key evaluation points are the milestones and the deliverables specified in the individual WPs.
2. The summative part of the evaluation, which is led by the WP3 co-leader UEDIN, aims to assess the quality and impact of the fully implemented project, and to verify if the project has reached its stated goals. The ultimate aim of this evaluation of to assess whether we have succeeded in our aim of developing recommendations for behavioural health promotion strategies, to prevent T2D in South Asians. If this aim has not completely been realised, we will analyse what the obstacles had been, and how they can be met in future project. This summative part of the evaluation will be included as a separate step in WP7 (aimed at the synthesis of the findings of WP4-6). Within WP7 we will carry out internal evaluations within the Consortium as well as organize discussions with members of the Advisory Board (which includes Chafea/SANTE representatives) and other experts in the field for this evaluation.

Work Package 4: WP4 In-depth analysis of existing interventions

Start month: 1
End month: 15
Work Package Leader: OUS

The work in this WP will consist of several steps leading to a better understanding of the acceptability and effectiveness of current intervention strategies.

Task 4.1 Identify and acquire input (data and information) from lifestyle studies among South Asian migrants. The WP leaders aim:

4.1.1 To identify relevant studies from the medical literature and through project partners

4.1.2 To invite the study leaders

4.1.3 To collect the information and data from identifies studies (possibly embedded within tasks 4.2 and 4.3.

Task 4.2 Quantitative analysis of promising elements and contextual effects. With contributions from all partners, in particular AMC and UEd. The WP leaders will:
4.2.1 Collect and pool data from the DHIAAN and PODOSA to trials
4.2.2 Analyse differences in effectiveness across subgroups and contexts
4.2.3 Draft a scientific publication.

Task 4.3 Qualitative evaluation of intervention elements from focus group and interview data. With contributions from all partners, the WP leaders will:

4.3.1. Organise focus group discussions and in-depth interviews with expert and lay target groups
4.3.2. Transcribe and analyse the data
4.3.3 Draft a scientific publication.

Task 4.4 Report. With contributions from all partners, the WP leaders will:

4.4.1. Make a synthesis of findings
4.4.2. Draft a report on acceptability and effectiveness, with recommendations on specific intervention elements.

Please note that the partners OUS and UiO co-lead this WP. This is not formally indicated as the system only allowed for selection of a single partner as Lead Beneficiary.

Work Package 5: WP5 Validation of strategies to optimize existing health promotion strategies

Start month: 16
End month: 33
Work Package Leader: AMC

The following tasks will be carried out as part of the work in this WP:

Task 5.1 Identify promising behavioural elements and targets in environment. With input from the project participants, the WP leader will:
5.1.1 Analyse the evidence from WP4 and the existing literature
5.1.2. Carry out expert consultations.

Task 5.2 To carry out validation studies. Coordinated by the WP leader, the project participants will:
5.2.1 Design experiments/validation studies
5.2.2 Analyse the output of the studies.

Task 5.3 Critical evaluation of the potential. With input from the project participants, the WP leader will:
5.3.1. Organise focus groups with experts, professionals and members of the target populations
5.3.2. Evaluate the evidence

Task 5.4 Interpret and final report findings. With input from the project participants, the WP leader will:
5.4.1 Draft a scientific paper on effective strategies to optimize health promotion among South Asians
5.4.2 Draft a final report
Work Package 6: WP6 Evaluating current dietary goals and novel targets
Start month: 1
End month: 24
Work Package Leader: AMC

The work in this WP can be split into several tasks.
Task 6.1 Assessment of current goals. With input from the project participants, the WP leaders will:
6.1.1 Identification of all current goals from the DHIAAN and PODOSA interventions and from the literature
6.1.2 Analysis of the appropriateness and effectiveness of current goals (from review of the literature, analysis of process data on prevalence of underlying behaviours and the implementation of goals in relation to the effects)
6.1.3 Synthesis evidence and reporting
Task 6.2 Assessment of novel entry points: cohort study of lipid intake. The WP leaders will:
6.2.1 Select eligible subcohort from HELIUS-Dietary Patterns population
6.2.2 Carry out data linkage to identify new cases
6.2.3 Statistical analyses of the association between lipid intake and T2D
6.2.4 Interpretation and reporting of the findings
Task 6.3 Assessment of novel entry points Case-cohort study of lipotoxicity markers and incident T2D. The WP leaders will:
6.2.1 Select eligible lipotoxicity reference cohort from total HELIUS population
6.2.2 Carry out data linkage to identify new cases
6.2.3 Statistical analyses of the association between lipotoxicity markers and T2D
6.2.4 Interpretation and reporting of the findings.

Please note that the partners AMC and UNIVERSITY OF GLASGOW co-lead this WP. This is not formally indicated as the system only allowed for selection of a single partner as Lead Beneficiary.

Work Package 7: WP7 Developing recommendations
Start month: 25
End month: 36
Work Package Leader: UEDIN

The work in WP6 can be split into two main tasks:
Task 1. Integration of findings of individual WPs
This will be done by reviewing and synthesizing the results of the activities in action lines 1 and 2. Specific attention will be given in this integrative process to a) differences in findings for subgroups of the South Asian populations, e.g. by country of origin or risk of T2D (normal weight versus overweight/obese); and b) the generalisability of the findings to different cross-cultural settings within Europe.
Task 2. Translating knowledge into recommendations for preventive strategies
These recommendations will specify WHICH dietary goals are appropriate targets.
for these populations if we aim for a reduction of their T2D risk, and HOW these groups can be supported in the uptake and maintenance. In the development, specific attention will be given to differentiation across subgroups and the applicability of these recommendations to other European countries with relatively large populations of South Asian origin.

Task 3 The third task, the Summative evaluation, is described further under WP3.
## COORDINATOR

Academisch Medisch Centrum bij de Universiteit van Amsterdam (AMC)

MEIBERGDREEF 9  
1100DD AMSTERDAM  
Netherlands  
WEBSITE: [http://www.amc.nl](http://www.amc.nl)

## PARTNERS

**THE UNIVERSITY OF EDINBURGH**  
Street: OLD COLLEGE, SOUTH BRIDGE  
City: EH8 9YL EDINBURGH  
Country: United Kingdom  
Website: [http://www.amc.nl](http://www.amc.nl)

**THE UNIVERSITY OF EDINBURGH**  
Street: OLD COLLEGE, SOUTH BRIDGE  
City: EH8 9YL EDINBURGH  
Country: United Kingdom  
Website: [http://www.amc.nl](http://www.amc.nl)

**THE UNIVERSITY OF EDINBURGH**  
Street: OLD COLLEGE, SOUTH BRIDGE  
City: EH8 9YL EDINBURGH  
Country: United Kingdom  
Website: [http://www.amc.nl](http://www.amc.nl)

**UNIVERSITY OF GLASGOW**  
Street: University Avenue  
City: G12 8QQ GLASGOW
MD.4 Layman version of the final report
AMC
Innovative Prevention Strategies for type 2 Diabetes in South Asians Living in Europe (InPreSD-SA)
Published on: 10/12/2018
A short version of the final report, written for the general public.

MD.1 Periodic report
AMC
Innovative Prevention Strategies for type 2 Diabetes in South Asians Living in Europe (InPreSD-SA)
Published on: 10/12/2018
Report on activities, milestones halfway through the project (M18), including the interim evaluation (MS24). Available deliverables will be attached as annexes.

MD.2 Final report
AMC
Innovative Prevention Strategies for type 2 Diabetes in South Asians Living in Europe (InPreSD-SA)
Published on: 10/12/2018
Report evaluating the project implementation and results achieved, including the final evaluation (MS23). The practical work for the summative evaluation by UEDIN will be embedded in WP7. Relevant deliverables will be attached as annexes.

D4.1 Draft scientific paper on differential effectiveness population subgroups
OUS
Innovative Prevention Strategies for type 2 Diabetes in South Asians Living in Europe (InPreSD-SA)
Published on: 10/12/2018
Tables and textual interpretations of the analyses concerning the differential effects across groups, e.g. by age, gender and socioeconomic groups. (Note: dissemination level CO until publication.)
D4.2 Draft scientific paper on experiences of participants and professionals
OUS
Innovative Prevention Strategies for type 2 Diabetes in South Asians Living in Europe (InPreSD-SA)
Published on: 10/12/2018
Paper on the qualitative evaluation of the intervention and the acceptability/perceived effectiveness of its specific elements. (Note dissemination level CO until publication.)

D4.3 Final report intervention elements
OUS
Innovative Prevention Strategies for type 2 Diabetes in South Asians Living in Europe (InPreSD-SA)
Published on: 10/12/2018
Reports on synthesis of evidence from the review of existing studies and the qualitative data.

D5.1 Draft scientific paper on effective strategies to optimize health promotion among South Asians
AMC
Innovative Prevention Strategies for type 2 Diabetes in South Asians Living in Europe (InPreSD-SA)
Published on: 10/12/2018
Report on the identification, analysis of the potential of different strategies to optimize health promotion efforts for T2D prevention among South Asians. (Note: dissemination level CO until publication.)

D5.2 Final report effective strategies
AMC
Innovative Prevention Strategies for type 2 Diabetes in South Asians Living in Europe (InPreSD-SA)
Published on: 10/12/2018
Report on the synthesis of the evidence evaluation of the different strategies to optimize health promotion.
D6.1 Draft scientific paper on effectiveness of current dietary goals
AMC
Innovative Prevention Strategies for type 2 Diabetes in South Asians Living in Europe (InPreSD-SA)
Published on: 10/12/2018
Draft scientific paper on the prevalence of behaviour underlying current dietary goals and the appropriateness of the goals. (Note: dissemination level CO until publication.)

D6.2 Draft scientific paper(s) on lipid intake and lipotoxicity markers
AMC
Innovative Prevention Strategies for type 2 Diabetes in South Asians Living in Europe (InPreSD-SA)
Published on: 10/12/2018
Draft scientific paper on the association of lipid intake and ensuing lipotoxicity with the high risk of T2D among South Asian origin populations. (Note: dissemination level CO until publication.)

D6.3 Final report current dietary goals and novel targets
AMC
Innovative Prevention Strategies for type 2 Diabetes in South Asians Living in Europe (InPreSD-SA)
Published on: 10/12/2018
Report on the association between the current dietary goals and novel targets with the risk of T2D. The focus in the latter lies on lipid intake and lipotoxicity markers.

D7.1 Recommendations for health promotion to prevent T2D among South Asians
UEDIN
Innovative Prevention Strategies for type 2 Diabetes in South Asians Living in Europe (InPreSD-SA)
Published on: 10/12/2018
Comprehensive summary of the evidence and recommendations for health promotion to prevent T2D among South Asians.
promotion, with a focus on diet, among South Asians

D2.1 Report on the dedicated project symposium
AMC
Innovative Prevention Strategies for type 2 Diabetes in South Asians Living in Europe (InPreSD-SA)
Published on: 12/06/2017
A summary report of the presentations and discussions during the planned dedicated project symposium at EUPHA 2017.

MD.5 Website
AMC
Innovative Prevention Strategies for type 2 Diabetes in South Asians Living in Europe (InPreSD-SA)
Published on: 14/07/2016
A project website with general information (aims, design) and the latest news (e.g. new findings, presentations given at conferences).

MD.3 Leaflet
AMC
Innovative Prevention Strategies for type 2 Diabetes in South Asians Living in Europe (InPreSD-SA)
Published on: 21/06/2016
A leaflet to promote the project.