

## Summary for publication (per 25-4-2017)

### Summary of context, overall objectives, strategic relevance and contribution of the action to the health programme

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

Background: South Asian populations living in Europe have an extremely high risk of type 2 diabetes. More than 5 million people of South Asian origin, (i.e. of Indian, Pakistani, Bangladeshi, Bhutani, Sri Lankan or Nepali ancestry) -who migrated directly or through other routes- live in Europe. Half of this population is likely to develop type 2 diabetes. Moreover, the onset of diabetes occurs at younger ages and lower body weights in South Asians than white Europeans, and the associated adverse cardiovascular and microvascular consequences of the disease are greater. Consequently, the need to halt this epidemic among these populations is a public health priority in many European countries in order to achieve longer healthy life and avoid increase of health care costs.

The evidence base for effective prevention in South Asians is still limited. A small number of recently conducted lifestyle intervention trials have given important insights into how to reduce type 2 diabetes risk in South Asians with pre-diabetes. Overall, their effectiveness seems to be lower than observed in European origin populations.

Overall aim: The aim of EuroDHYAN is to build on the findings of these recent trials to accelerate knowledge production and the process of implementation of research findings. Ultimately, EuroDHYAN will develop targeted recommendations on how to support South Asian populations in the uptake and maintenance of healthy lifestyle behaviours to prevent diabetes and which specific elements to focus on.

Implications: EuroDHYAN will be a coordinated effort from researchers in three countries to target the excessive risk for type 2 diabetes in South Asian populations in Europe. The results will considerably advance our ability to address this major health challenge.

### Methods and means

EuroDHYAN uses 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 evaluate dietary goals employed in current interventions, and prospectively investigate the lipid metabolism as a possible novel target 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.

### Work performed during the reporting period

Project started on 1<sup>st</sup> of September 2015 and will be finalized at 31 august 2018. Until so far a leaflet, a website, the study protocols for all Work Packages have been developed. A project symposium has been organized and a report on potential intervention elements to optimize strategies for prevention of T2D among South Asians living in Europe has been written. In addition, three draft scientific papers have been developed within Work packages 4 and 6. Two developmental studies in which potential intervention elements will be developed and tested in small-scale pilots in the second half of 2017 were generated. The first periodic report is planned and expected at 30<sup>th</sup> of April 2017.

### **The main outputs achieved so far and their potential impact and use by the target group (including benefits)**

EuroDHYAN will develop, implement and evaluate innovative health promoting strategies for South Asian populations living in Europe.

So far three draft scientific papers are in preparation, including: 1) “Effectiveness of dietary and physical activity interventions to reduce the risk of type 2 diabetes in South Asians living in Europe, across population subgroups: Individual participant data meta-analysis of European randomized controlled trials identified in a systematic review”; 2) “Dietary and physical activity strategies to prevent type 2 diabetes in South Asian adults: a systematic review protocol; and 3) “Dietary and physical activity strategies to prevent type 2 diabetes in South Asian adults: a systematic review” The insights provided input for the identification of knowledge gaps and potential opportunities to develop, implement and evaluate new strategies for the prevention of T2D in SA populations. The draft papers will be elaborated for dissemination to a broader audience through peer reviewed scientific journals.

Based on these knowledge two study protocols in which potential intervention elements will be developed and tested in small-scale pilots have been generated: Study 1: an enhanced physical activity component, which is gender- and culturally appropriate. Study 2: a lifestyle messaging components to increase the overall intensity of the intervention in a cost effective deliverable way.

The EuroDHYAN project will result in basic scientific knowledge on the mechanisms behind the high risk of T2D in South Asian origin populations, as well as on the effect of novel preventive interventions. The findings obtained from these observational and experimental studies will be translated into recommendations for prevention of T2D in South Asians.

Findings from this project will thus contribute to the evidence base for effective preventive interventions in South Asians. The project will, thus, provide the necessary basis for empowering society to reduce the high burden of diabetes, one of the major chronic disease, in large subpopulations in Europe, which might also have a positive impact on health care costs and help reduce health inequalities.

### **Achieved outcomes compared to the expected outcomes**

Not applicable yet

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

Efforts have been made to disseminate and publicise the EuroDHYAN project.

A leaflet and a dedicated website have been developed for the EuroDHYAN project. The website and the leaflet can be found on: [www.eurodhyan.eu](http://www.eurodhyan.eu)

The EuroDHYAN project was presented at several important health conferences including 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>

A workshop on “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 has been given. The abstract of the Workshop was published in the abstract

book at the EUPHA website: <http://eupha-migranthealthconference.com/>

A conceptual paper for the EuroDHYAN study “Dietary and physical activity recommendations to prevent type 2 diabetes in South Asian adults: a systematic review” has been accepted for publication in PLOS One and the results paper has been submitted for publication in the International Journal of Environmental Research and Public Health.

### **Conclusions and options for future use**

Not applicable yet

### **Open Keywords**

Type 2 diabetes, Migrants, South Asians, Cultural adaptation, Healthy lifestyle, Behaviour

### **Images attached to the Summary for publication**

Workshop in Oslo, Norway at the EUPHA’s 6th European Conference on Migrant and Ethnic Minority Health at June 23, 2016



## Successful cultural adaptation of strategies to prevent Type 2 Diabetes in South Asians

**An inspirational discussion about  
promising ideas to improve and test  
interventions**

- Presentations of initial study findings on Type 2 Diabetes prevention in South Asians living in Europe
- Discussion on HOW to support South Asians in the uptake and maintenance of a healthy lifestyle

**WORKSHOP: TMW 2 (SEMINAR)**

**Thursday 23-06-2016: 12.00 – 13.30h; Room N040.013**

