Chapter 4

EPODE for the Promotion of Health Equity

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1. From EPODE European Network to the EPODE for the Promotion of Health Equity project

In 2008, EPODE (Ensemble, prévenons l'obésité des enfants) received the support of the European Directorate-General for Health and Consumers (DG SANCO) for the implementation of the **EPODE European Network project** (EEN, Grant Agreement 2007 327, www.epode-european-network.com, 2008-2011). The EEN project aimed at facilitating the implementation of community-based interventions using the EPODE methodology. The outcomes of this project have been published in a book of recommendations for preventing obesity. This book is available on the Internet. This document gathers important contributions from 4 associated university teams (VU-Amsterdam, Gent, Zaragoza, Lille 2), the EPODE International Advisory Board, and collaborating partners from multiple sectors and disciplines including the coordination units of on-going EPODE programmes in France (EPODE), Belgium (VIASANO), Spain (THAO), Greece (PAIDEIATROFI), the Netherlands (JOGG) and Romania (SETS). Over the last 3 years, the EEN has been successful in institutionalising and reinforcing

the scientific, political and resource basis of European EPODE dynamics, reaching now more than 350 European towns and being the largest community-based childhood obesity prevention initiative.

While this deployment is promised to continue through regular EPODE European coordination activities managed by Proteines, the agency founder of the EPODE methodology, the EEN grant with the European Commission has come to its term. The positive outcomes of the EEN project, which has been a tool to favor discussion across sectors, programmes and disciplines to enrich EPODE implementation at European level, lead today EEN partners to **support the continuation of the collaboration with the European institutions**.

Proteines, with the support of its EEN associated partners, its private partners and others, submited a **European project** to the **2011 Call for proposals** for projects of the Directorate-General for Health and Consumers. The nature of EPODE goals and objectives and the current challenges and priorities widely documented in the scientific literature, in the public health programmes at Member States and European levels and via experiences in the field, have guided Proteines and its associated partners to prepare a project addressing **Call No. 3: "Reducing health inequalities: preparation for action plans and structural funds projects".** This chapter specifies the objectives, organisation and activities of this application called **EPODE for the Promotion of Health Equity** (EPHE, Grant Agreement 2011 12 09).

2. The EPODE for the Promotion of Health Equity project

2.1. Objectives

EPHE builds on **the EPODE methodology** and on **the outcomes from the EEN book of recommendations** to create synergies within the EU research framework programme and to favor multiplier effects and sustainability. EPHE aimed to analyse, from 2012 to 2015:

- the added value of the implementation of the EPODE methodology for the reduction of socio-economic inequalities in health-related diet and physical activity behaviours of families with children aged 6 to 12 living in 7 different European communities;
- opportunities to sustain the implementation of EPHE best practices in other EU regions and Member States (MS) via EU structural funds focusing on the replicability and transferability at a larger scale of those to leverage the experience to develop action plans by MS and to make use of structural funds for the promotion of health equity.

EPHE works at community level in key settings to develop integrated action locally.

2.2. Target

EPHE targets the whole community **focusing on most deprived families with children aged 6 to 9**. Studies show investment in early years is one of the greatest potentials to reduce health inequalities within a generation. An important secondary target group in the EPODE methodology is the wide variety of local stakeholders, who can initiate micro-changes within the ecological niche of children and their families through local initiatives fostering better and balanced eating habits and greater physical activity in everyday life (parents, schools directors and teachers, social workers, leisure centres educators, infancy professionals, media, municipal services, etc.). These stakeholders are also particularly targeted in the EPHE project. Doing so, the EPHE target segmentation strategy fits into the second EU health programme putting "emphasis on improving the health condition of children and young people and promoting a healthy lifestyle and a culture of prevention amongst them".

2.3. Territory

Poor average levels of health are more likely to be observed in vulnerable and socially excluded groups, which may be related to risk factors such as poor housing, poor nutrition and health related conditions, access to health care, discrimination. These populations should therefore require particular attention in the implementation of actions in the field. The priority was therefore to include communities located in European regions and Member States where the premature mortality exceeds 20% of the EU average and to include as well communities with different socio-economic profiles.

The EPHE project focuses on **7 pilot communities** presenting mixed populations per se in terms of socio-economic indicators, but also socio-economic disparities across the European regions selected. Additionally, communities have been selected in 7 different countries having (or interested in implementing) an EPODE-like programme on their territory, which represents a key, concrete and medium-term opportunity for the dissemination of EPHE findings to other communities and Member States.

2.4. EPHE's Organisation framework

2.4.1. *EPHE's Central Coordination Team*

Managed by Proteines, which developed the EPODE methodology in 2003, the **EPHE Central Coordination Team** was in charge of establishing the framework of the project, ensuring the good implementation of the pilot study and surveys, and coordinating events and meetings throughout the course of the project. In this regard, and based on the EPODE link principles, EPHE was structured around two boards: a scientific board and an operational board (Figure 1).

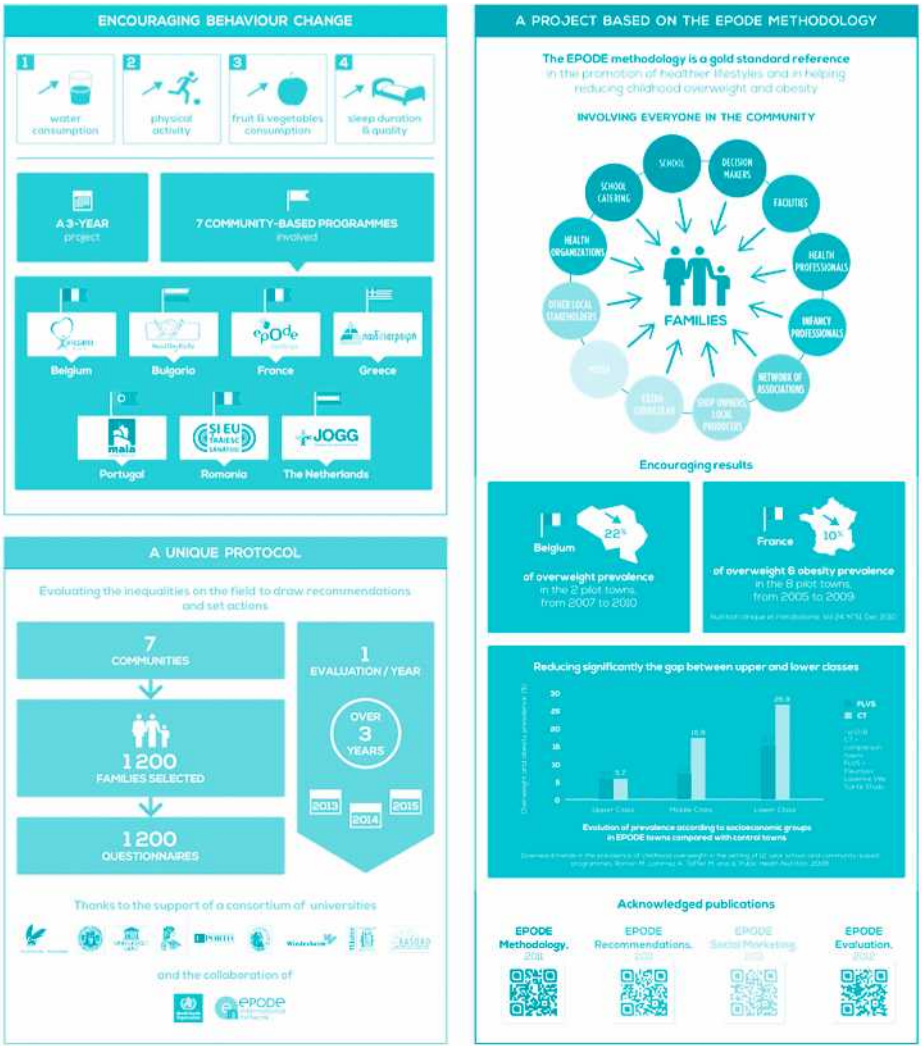

Figure 1: Infographic presenting the EPHE project, in a nutshell.

2.4.2. *EPHE's Scientific Advisory Board*

The EPHE Scientific Advisory Board is composed of 1 expert from each of the 7 countries and from the EPHE collaborating partners. The SAB is in charge of:

- designing, as agreed upon, an intervention evaluation framework for a common protocol for data collection and review across communities;
- monitoring the Evaluation Data Analysis, the survey on health-related diet and physical activity inequalities according to social economic status (SES) indicators ;
- discuss and exchange with the Operational Advisory Board on the feasibility of the evaluation's implementation and follow-up.

These national academics provide the national teams with a scientific support, thus accrediting their message and actions. They also take part in the evaluation protocol development that was led by VUA (Free University of Amsterdam). In this way, they analyse and transpose it through economic and cultural context, which can differ amongst countries. They validate translation of questionnaires, and check the integrity of transposed messages. Finally, they have access to national data, which allows them to publish project results.

Members:

Free University of Amsterdam – The EMGO Institute for Health and Care Research (EMGO +) is an interfaculty research institute of the VU University Medical Center and the VU University Amsterdam where researchers from three faculties (the VU University Medical Center, the Faculty of Psychology and Education, and the Department of Health Sciences from the Faculty of Earth and Life Sciences) have joined forces to further improve public and occupational health, primary care, rehabilitation and long-term care, by means of multi- and interdisciplinary research.

BASORD – Promotes healthy nutrition, informs the general public, including the disadvantaged population, on the problems of adult and childhood obesity and has created a network of nutrition and obesity specialists targeting health inequalities. It collaborates with IASO for the organisation of SCOPE courses in Bulgaria, and is a partner of EU projects such as DiOGenes and DIETS. It has strong relations with the main Bulgarian mass media, and the Bulgarian Radio is an official partner of our campaigns.

University of Ghent – A research niche with a multidisciplinary scope within the Department of Public Health uniting expertise from medicine, biomedical and nutrition sciences, epidemiology, public health, health economy and local politics. Involved in EU projects: HELENA, IDEFICS, EEN project and the EU FP7 « ToyBox ». This multidisciplinary research platform has a unique potential for groundbreaking research in obesity prevention.

Directorate-General of Health in Portugal – The Platform Against Obesity is a Division of the Portuguese Directorate-General of Health (DGS). The mission is to create conditions for the rise and sustainability of effective approaches in the prevention and control of obesity in Portugal. Since January 2011, the Platform coordinates the WHO European action network on Obesity & Inequalities to increase the knowledge about socio-economic inequalities and obesity in the European region. DGS also runs national observational studies related to food security.

University of Windesheim – A research centre for prevention of overweight in Zwolle (OPOZ), whose main aim is to support and carry out research in developing, implementing and evaluating Zwolle's Healthy City programme. The city of Zwolle is the first EPODE-like city (JOGG-city) in the Netherlands. A key aspect in the research team of Zwolle is the strong collaboration with professionals in the area of obesity prevention and management, including the community health services and the municipal council.

University of Zaragoza – GENUD is a consolidate research group involved in several European financed projects regarding lifestyles, social inequalities, growth and development in children and adolescents. GENUD has experience in social marketing, key element due to the strategies used for the reduction of health inequalities. GENUD published 155 international papers in the last 5 years and coordinated the HELENA project. Currently, GENUD is also participating in projects such as IDEFICS, EPODE, ToyBox, etc.

University of Porto – FCNAUP is the only Portuguese public university completely dedicated to Human Nutrition. FCNAUP has one of the highest publication rates at the University of Porto by PhD holders FTE (full time equivalents). The Faculty has an excellent record of participation in EU funded research projects in the area of public health and nutrition, such as: ANEMOS, TRUSTINFOOD, ENHR II, DAFNE, PRO CHILDREN, PRO GREENS.

2.4.3. *EPHE's Operational Board*

The Operational Board was composed of representatives of each of the 7 programmes undertaken by the participating countries. These representatives generally were the national coordinators of the CBPs, and are experienced in managing people implementing the programme on a local level; some of them combined these two functions, and handled the national coordination and local project leadership at the same time. The main role of the Operational Board was to be the link between what the Scientific Advisory Board decided on theoretical level and what was expected in practice from the local project managers. The SAB provided a scientific background to the coordinators, whose role was to ensure the good implementation of the programme. They were in charge of developing innovative training, coaching and empowerment methods from national to local actors, involving them in the planning processes, and trusting them with sufficient flexibility to adapt actions to local context. Additionally, particular attention was given to the creation of messages and actions solution-oriented and designed to motivate positive behaviour changes, without stigmatising any culture or people.

Members

EPODE Flanders Lys – This is the cradle of the EPODE methodology. Located in the North of France, the Community of Towns Flanders Lys, is where the methodology was developed and evaluated for the first time, and where it was proved effective. The EPODE Flanders Lys programme was represented by two local project leaders within the EPHE Operational Board.

VIASANO – Viasano is the Belgian adaptation of the French EPODE methodology. Viasano is active in 16 Belgian towns from all the Belgian regions. The original methodology has been adapted to some Belgian particularities such as the multilingual character of the country, which led to a multilingual expert committee, and campaigns in 2 different languages (French and Dutch). Viasano is managed by Protein Health Communication in Brussels, an affiliate of Proteines, which is the main partner of

the EPHE project. Viasano was represented within the Operational Board by its two national coordinators.

PAIDEIATROFI – Is the Greek adaptation of the EPODE methodology. The programme was launched in 2008 with 5 pilot towns; 14 towns are currently implementing it locally. The Paideiatrofi messages are based on scientific recommendations and regularly enriched by field experience and good practice sharing. Nostus Communication & Events manages the programme's national coordination. Paideiatrofi was represented within the Operational Board by its two national coordinators.

SETS – PRAIS Foundation initiated, in March 2011, for a 5-year period, the national movement "I'm living healthy, too!". SETS is active in 6 districts in the city of Bucharest. SETS was represented within the Operational Board by its two national coordinators.

HEALTHY KIDS – In Bulgaria, this long-term sustainable project is implemented in 2 regions of Sofia, the capital of the country. It aims at promoting healthy lifestyle in primary schools. Through education, communication and motivational techniques, the project focuses on children between 7 and 13 years of age, as well as their parents and teachers. The Healthy Kids project was represented by its national coordinator.

MAIA – In Portugal, this initially school-based interventions wanted to scale up these initiatives to the community level and use the EPHE project to benefit from the exchange of best practices from the EPHE operational Board.

JOGG – The JOGG programme is an EPODE methodology-based programme. One of its pilot cities, Zwolle, is a very experienced town in the prevention of childhood obesity. Since 2010, the town has been implementing the EPODE methodology, counting on the active collaboration of all local stakeholders from education, healthcare, business, sports, housing, welfare and mass media to make healthy eating and exercise easy and attractive for everyone. The local project leader of Zwolle represented the town in the Operational Board; she's also a trainer on the national JOGG programme.

3. EPHE's methods and means

3.1. EPHE's evaluation framework

The main objective of the EPHE project was to evaluate the added value of community-based programmes (CBPs), based on the EPODE methodology, in reducing health inequalities linked to diet and physical activity.

The EPHE interventions focused on 4 themes:

- the promotion of water consumption;
- the promotion of an active lifestyle;
- the promotion of fruit and vegetables consumption;
- the promotion of an adequate sleeping behaviour.

To achieve those objectives, the EPHE Operational Board had the support of two background studies:

- a literature review led by the University of Zaragoza to identify levers used in previous publications/projects to reach out deprived population;
- an evaluation baseline to identify main priorities to be integrated by each of the CBPs in their EPHE interventions strategies.

With respect to the EPHE's framework and its main objective, the evaluation protocol assessed indicators related to the behavioural changes on the 4 themes in order to establish wether or not there are differences, and the potential impact of CBPs' interventions on its reduction. The SES, the household food security[1] and the parental body perception were also assessed, for descriptive purpose only.

Based on these outcomes, each CBPs from the EPHE Operational Board tailored its interventions plan in order to have a greater impact on low SES in each community.

Study Design

This was a prospective two-year follow-up study. It assessed the change of energy balance-related behaviours of children and their determinants, within the family environment, and its sustainability over time according to their SES.

The three evaluation periods were held as follow (Figure 2):

- May-June 2013: Evaluation Baseline;
- May-June 2014: Evaluation of EPHE Outcomes;
- May-June 2015: Evaluation of EPHE Sustainability.

For two years, the same families were followed and their energy balance-related behaviours and determinants measured three times.

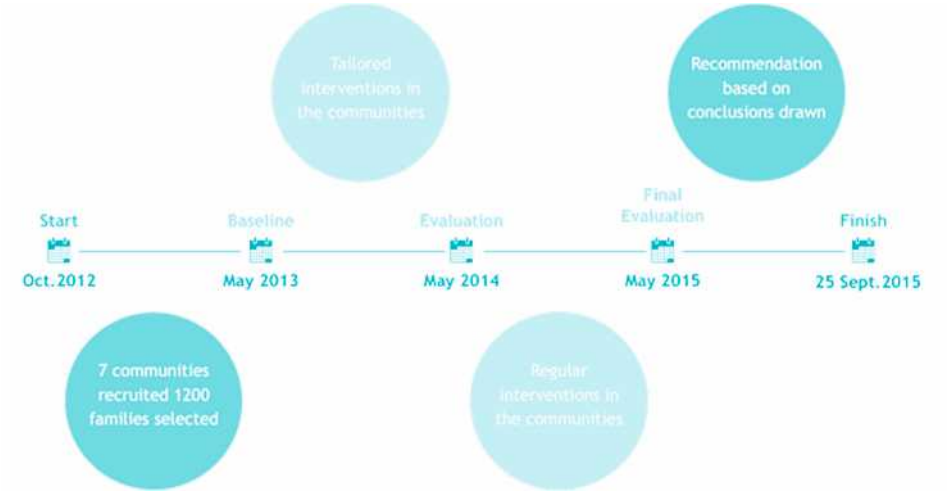

Figure 2: The timeline of the EPHE project.

1. World Food Summit (1996) definition: *"when all people at all times have access to sufficient, safe, nutritious food to maintain a healthy and active life"*. The term refers here to the availability of sufficient food in the household.

3.2. Methods

3.2.1. *Self-reported parental questionnaire*

Parents were asked to anonymously answer a questionnaire with regard to:

- the family's SES and the household's food security level;,
- their children's energy balance-related behaviours;
- their perception of a healthy body.

Designed to measure the aforementioned determinants, and conducted by a 2-year prospective follow-up, the questionnaire helped assess the behavioural changes, which reflect the EPHE's interventions.

The average time to fulfil the questionnaire was around 45 minutes.

3.2.2. *Development and analysis of the parental self-administrated questionnaire*

The EPHE parental questionnaire was developed using validated items from other questionnaires. The assessment of the energy balance-related behaviours and determinants was carried out using items from other European studies (PRO-GREENS, ENERGY) that have been assessing similar determinants. In addition, translations of these questionnaires into several languages –amongst which those necessary to our study– were made and validated.

Similar methods followed regarding the items for the SES assessment, based on those used in large European socio-economic surveys. Concerning the household food security levels, a short version of a respective questionnaire was obtained, although developed for American citizens. However, this does not limit the capacity of our questionnaire to detect the level of food security of European households.

The questionnaire was translated in every language, respective to the participant countries and back-translated into English. It was mandatory for all participant communities to use the same version layout and format of questions. All versions are available on the website.

If we consider the EPHE project in terms of timing, we can define the role of the coordinators as following:

3.3. Preparatory phase

November 2012–January 2013 - In each of the 7 represented countries, an intervention community (for a 24-month period) was selected in collaboration with the Scientific Advisory Board.

In each intervention community, the local authorities had to commit to the EPHE project and mandate a local civil servant with cross-disciplinary skills to coordinate the community's health equity promotion project. This person would be managed

by the national coordinator in order to generate peer-to-peer dynamics and social multiplier effects that would increase the outreach and sustainability of the intervention. Over the two-year study, each community benefited from a financial support for direct costs associated with the organisation of actions.

3.4. Sensitisation and mobilisation phase

February 2013–May 2013 - Once the community was selected and the local authorities had designated their local project manager, the EPHE population and the rest of the community had to be informed and motivated about the project. National coordinators, together with local project managers, had to decide upon tools to empower data collection and the involvement of different actors (school directors, teachers, parents, children, etc.). The role of the Operational Board was to propose a number of motivation tools for the different target groups:

- Directors: Being part of a European project was proven an important incentive for school directors. It gave a good image of the schools and showed that the directors were socially committed. Besides, at the end of this project, all the pupils benefited from the results of the project. An extra motivation was the organisation of a big show at school at the end of the project;
- Teachers: They benefited from activities organised in their class during the EPHE project. The children learnt about healthy habits and the teachers were supported by the local Viasano team. The Operational Board also proposed to invite the teachers to a dinner.
- Parents: To motivate the parents to fill in the evaluation questionnaires, the Operational Board proposed to give them a coupon (to buy fruit, vegetables, diner at the school restaurant, etc.) when collecting the questionnaires.
- Children: In order to motivate the children to insist with their parents on filling in the questionnaires, the Operational Board proposed to give them a nice gadget when they returned their questionnaire.

3.5. Evaluation No. 1

May 2013–June 2013 - For this first evaluation period, the role of the Operational Board was to supervise the distribution and the collection of the questionnaires as well as the follow-up and anonymity process. The questionnaires along with envelopes were delivered to the teachers, so that they could pass them on to the children in their classes, who would consequently bring them home to their parents. Each questionnaire had a numeral code printed on every page. A list had to be created containing each number together with the name of the child to whom the number had been assigned. This was a crucial step for the whole course of evaluations to be accurate.

After the parents filled out the questionnaires, they had to seal them up in the provided envelope, as to ensure confidentiality. The children then returned them to their teacher. At that moment, the teacher had to note down how many questionnaires

out of those disseminated had been returned. Finally, the local project managers collected them at each school. The National Coordination Teams (NCTs) would then collect the communities' data and mail the original documents to the Free University of Amsterdam, which is the central point of the data analysis, and every NCT would keep at least one hard copy of each document, for safety reasons.

3.6. EPHE intervention period

September 2013–May 2014 – Starting from September 2013, community-based interventions were organised by local EPODE teams in the selected communities, targeting the whole community and focusing on the most deprived families. The coordinators of the Operational Board were responsible for keeping these activities on the right track. The Operational Board insisted on the importance of starting from regular recurrent EPODE or EPODE-like activities to then adapting them to the EPHE framework. Next to these activities, a number of specific EPHE interventions were organised. These interventions focused on 4 main topics:

- fruit and vegetables consumption;
- water consumption;
- the quality and quantity of sleep;
- the promotion of physical activity.

The role of the national coordinators was to arrange an action plan in agreement with the local project managers in order to assure regular activities all along the "EPHE year". The challenge was to organise activities on community level in association with different local actors, especially targeting the EPHE population and the deprived populations. During the intervention period, this action plan had to be regularly completed with relevant activities within the town in order to keep track of the interventions that could induce behaviour change.

National coordinators created action sheets about their best activities to engage with other coordinators and share experiences and best practices across the EPHE network.

3.7. Evaluation No. 2

May 2014–June 2014 - A second period of motivation and sensitisation preceded this second evaluation. The coordinators together with the local project managers incentivized the partakers through motivating activities based on the four topics just before the evaluation, and a number of motivation tools. This second evaluation established the changes in the behaviour of the selected families in comparison to the baseline.

3.8. Regular EPODE(-like) activities

During this second period, regular EPODE or EPODE-like activities within the community would be organised, similar to those carried out before the EPHE project started.

The role of the Operational Board was to keep working with the selected communities to ensure the political willingness over the year. The aim was to make sure that the population would not forget about the project in order to assure a good response rate during the last evaluation too. The objective of this period was to analyse whether the behaviour changes induced by the EPHE interventions within the EPHE population would be maintained by mere presence of general EPODE activities within the community.

3.9. Evaluation No. 3

Eventually, the most important responsibility of the Operational Board was to motivate the EPHE population to fill in the questionnaire one last time, which was expected to be a rather difficult task. Since the activities preceding this evaluation were not as remarkable as during the EPHE intervention period, people could have forgotten about the EPHE project and be lose interest in the results. The coordinators had to reframe the project without stigmatising anyone and demonstrate the importance of this final revaluation and results for the population.

The objective of this third evaluation period was to establish whether the changes in the energy balance-related behaviour of the selected children and their families – observed during the second evaluation after a period of intensive interventions– had been maintained after one year.

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