

## **MACEDONIAN PHYSICAL ACTIVITY PROFILE – ASSESSMENT AND MONITORING, PREVALENCE, RESEARCH AND POLICY**

*(Preliminary communication)*

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### **Abstract**

*The first Macedonian physical activity country card is created in response to the urgent call for action to prevent physical inactivity pandemic in the Republic of Macedonia as well as worldwide related to increased non-communicable diseases morbidity and mortality. The aim was to contribute for promoting physical activity at population level. Macedonian profile put together a set of prevalence of physical activities in adults aged over 15 years, socio-demographic indicators, national research, surveillance and policy. This country card as advocacy tool will help governments, researchers, and society to determine which are our needs and opportunities to improve health through the promotion of physical activity.*

### **Keywords:**

*Country card, prevalence of physical inactivity, research, public health policy, non-communicable diseases, socio-demographic indicators, socio-demographic indicators, physical inactivity, health, adults over 15 years, boys, girls, population, percentage, curriculums*

### **INTRODUCTION**

Physical inactivity is one of the leading risk factors for non-communicable diseases (NCDs) and it is in the focus of global health priority. In 2012, at the time of the Olympic and Paralympics Games in London, the Lancet published a Series on the prevalence of physical activity worldwide (Lee, Shiroma, Lobelo, Puska, Blair, Katzmarzyk, 2012). Together with the publication of the Lancet Series, in 2012 was created “The Lancet Physical Activity Observatory” as a Council of the International Society of Physical Activity and Health (ISPAH). The Global Observatory for Physical Activity is a global organization consisting of physical activity researchers, epidemiologists, public health policy makers and practitioners producing information and knowledge on the topic of physical activity and health.

Numerous scientific results of surveillance showed that 35% of adults and 80% of adolescents around the world do not reach recommended levels for daily physical activity (Lee et al., 2012). It is time for urgent call for action and efforts to reduce pandemic proportion of physical inactivity in high and low and middle-income countries. Several interventions, within and outside the health sector are known to be effective at increasing physical activity in the population.

The Lancet Observatory prepared a list of indicators used for country cards about physical activity. The main objective was to prepare country cards on the status of

physical activity in each country worldwide with summarized country’s general data, specific research data, common surveillance, policy and program development for physical activity and health. The national evidence for physical activity prevalence of the population in the Republic of Macedonia is the base for future physical activity strategy, program and action plans that the government, communities and families can implement to prevent and promote health (Simovska-Jarevska, Martinovski, Pavlova, Nikolovska-Nedelkoska, & Manceski, 2013; Simovska, 2007).

The contacts in each country were developed using information from existing physical activity regional networks such as HEPA (Health-Enhancing Physical Activity) European network.

The next priority goals of the “Lancet Physical Activity Observatory”, drawn up on the basis of situation analysis of physical inactivity in the world, by 2016 are:

1. To reduce the global prevalence of physical inactivity in adults from 31% to 28%.

The prevalence of physical inactivity in adults in Republic of Macedonia was 64%, in 2013 (Simovska et al., 2013);

2. To increase the prevalence of physically active adolescents from 21% to 24%. In Republic of Macedonia, the prevalence of physical activity in young adolescents was 52.5%, in 2012 (Simovska et al., 2012).

3. To reduce by 10% the proportions of coronary

heart disease, type 2 diabetes, cancer and other main NCDs associated to physical inactivity worldwide;

4. To increase by 10% the proportion of peer-reviewed scientific publications on physical activity in low and middle-income countries among the total number of publications in the world.

The physical activity country cards as advocacy tools will help governments, researchers, and society to determine which are our needs and opportunities to improve health through the promotion of physical activity.

The first aim of our research was to assess and monitor the physical activity plan and programme, research, physical activity surveillance, policy and health on population level in Republic of Macedonia, in 2013.

The second aim was to describe the physical activity profile of Macedonia obtaining results for the physical activity on population level. The first product was a physical activity card as the baseline for future evaluation of physical activity status in the country.

**METHODS**

Using a standardized methodology of Global Observatory for Physical Activity (GoPA) were collected socio-demographic indicators, surveillance, policy, and research data from monitoring physical activity prevalence for each country around the world by a Council of the International Society of Physical Activity and Health (ISPAH) including Macedonia (Hallal, & Ramirez, 2015).

A country representative, the author: Vera Simovska, MD., PhD., President of NGO for public health “HEPA Macedonia National organization for the promotion of health-enhancing physical activity” and specialist of sports medicine, extracted and approved the data

presented as a country card for physical activity in Republic of Macedonia.

**RESULTS**

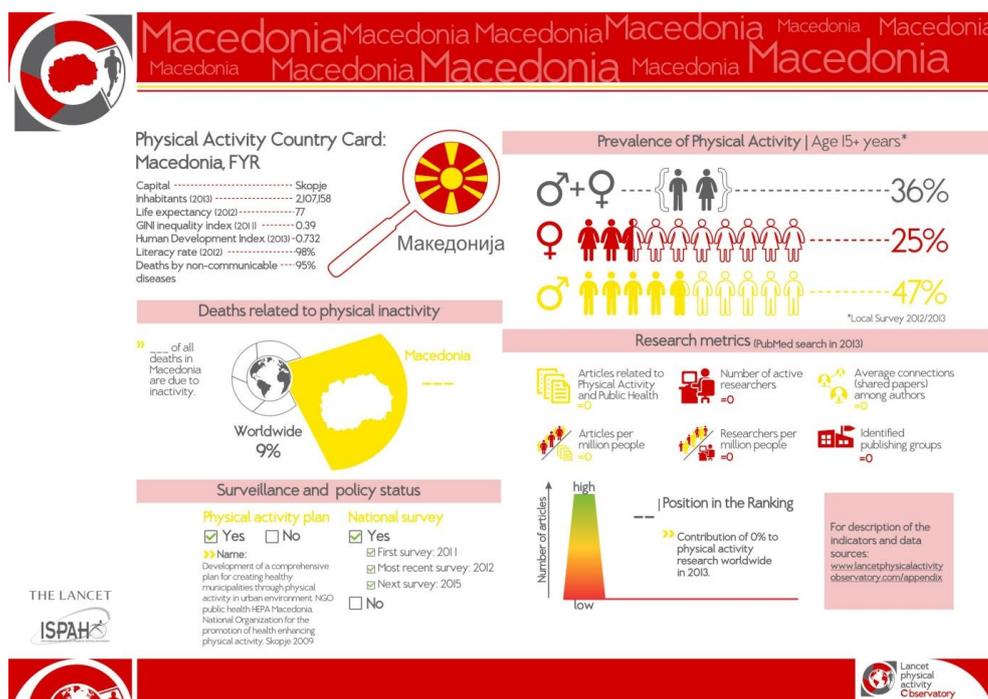
It was estimated that only 36% (Simovska-Jarevska et al., 2013) of the Macedonian adult population were physically active. Age-standardized prevalence of insufficient physical activity in persons aged 15 and over is defined as not meeting any of the following recommendations: 150 minutes per week of moderate-to vigorous intensity physical activity per week or 75 minutes per week of vigorous intensity aerobic physical activity or an equivalent combination of both activities. Prevalence of insufficient physical activity in young adolescents is defined as less than 60 minutes of physical activity of moderate to vigorous intensity daily (Department of Health and Human Services, 2008; Physical Activity Guidelines for Americans) (Global recommendations on physical activity for health, 2010).

Macedonia has 64% of physical inactivity estimated in the population with women being more inactive compared to men (Simovska-Jarevska et al., 2013).

The data of adult population is similar to the study of young adolescents aged 16-18 years gained in 2007. (Global School-Based Student Health Survey, GSHS, 2007/2008, IBCRef: 102773a1). 86.4% of girls was inadequately active during leisure time (including inactive) versus 76.6% of boys. 52.2% of students spent three or more hours per day doing sedentary activities during a typical or usual day. There was no significant gender difference between male students (51.1%) and female students (54%) who spent three or more hours per day doing sedentary activities.

Regarding the sitting time, 44.9% of youth, both,

Map-1. Physical Activity Country Card: Macedonia



from urban and rural areas, aged 16-18 spent 3 or more hours. 42.2% of girls were sedentary versus 47.5% of boys (Jordanovska-Jakimovska, & Simovska-Jarevska, 2015).

A comprehensive set of policy options to improve physical activity is listed in the Global NCD Action Plan. The First Macedonian “Move for Health” Council was established within the WHO CINDI program (World Health Organization Countrywide Integrated Non-communicable Disease Intervention program) in 2003. (Simovska, Panovski, Naumovski & Tomic-Čkalevska, 2005).

In 2010, WHO developed global recommendations on physical activity for health (Global recommendations on physical activity for health, 2010). The Agency for Sport and Youth of Republic of Macedonia was established the Program for Sport development during the period of 2013-2017 years focused on development of sport.

Regarding to the “Physical Activity for Health” action plan and national policy documents, its existence Declaration “Move for Health” (Simovska et al., 2005), national recommendation on HEPA, counseling on physical activity as part of primary health care activities and mandatory physical education in primary and secondary schools.

The HEPA Macedonia NGO also contributes to developing education and health policy, research, monitoring and other national activities related to physical activity for health as a member of the Standing Committee for Advancement of Healthcare System at the Ministry of Health of the Republic of Macedonia. One of the main contributions at the First Sub-Committee with title: “Good Governance” was the “Development of a comprehensive plan for creating healthy municipalities through physical activity in urban environment”.

## DISCUSSION AND CONCLUSIONS

We start to create a physical activity country cart in 2014 (Map-1) (Electronic reference formats recommended by the (Global Observatory for Physical Activity, 2015) as the baseline for future evaluation of physical activity status of the adult population in Macedonia associated with national public health priority given the significant impact on chronic diseases, general health, development and well-being (Electronic reference formats recommended by the World Health Organization: Non-communicable Diseases, Country Profiles of the Former Yugoslav Republic of Macedonia, 2014).

It's critical to develop a national physical activity for health action plan and convene a national physical activity for health committee or task force with high-level support and resources and with representation from multiple sectors, agencies, NGOs and the private sector to provide leadership and guidance in implementing the Health-Enhancing Physical Activity Plan.

Our synthesis indicates the following school curriculums, policies and strategies:

- School curriculum that includes “Skills for Health” focused on healthy eating, physical activity and body image (Jordanovska-Jakimovska, & Simovska-Jarevska, 2015).

- Increased sessions for physical activity and the development of fundamental movement skills throughout the school week;

- Environments and cultural practices that support children being active throughout each day;

- Support for teachers and other staff to implement health promotion strategies and activities (e.g. professional development, capacity building activities);

- Parent support and home activities that encourage children to be more active eat more nutritious foods and spend less time in screen based activities.

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