Annex IV: A Whole School Approach to Healthy Living: Healthy Eating & Physical Activity Policy

BACKGROUND AND CONTEXT

Children and adolescents are a global priority (WHO/UNICEF, 2018). They need to engage in healthful behaviours starting from an early age to grow and develop into healthy adults. Being physically active combined with healthy eating is essential to provide adequate energy and balance to maintain a healthy weight.

Studies have shown that proper nutrition has a direct effect on student performance and behaviour in school (Ross, 2010). A well-nourished child is a child that is healthier and better capacitated to learn and develop. Many studies have also shown that there is a relationship between health and income, with the poorest sections of the population being the most vulnerable and socially disadvantaged in terms of the incidence of chronic diseases. They also show lower rates of acceptance of health-promoting behaviours compared with other sectors of society (WHO/FAO, 2003). The WHO stresses the fact that policies need to favour those that are most at risk and have the least power to effect change (WHO, 2015).

In promoting coherence of national and international policies across multiple sectors to improve the health status at the national level, this policy is thus aligned with several strategies and initiatives including the Framework for the Education Strategy for Malta 2014-2024 (MEDE, 2014), the National Inclusive Education Framework (MEDE, 2019) and the EU Public Procurement of Food for Health: Technical Report on the School Setting (Joint Presidency of the Malta Presidency and the EU, 2017).

Considering the amount of time that children spend at school, schools are an ideal environment for supporting healthy behaviours. Hence, schools need to ensure that children are supported via the provision of healthy food and opportunities for physical activity. The healthful behaviours adopted in childhood are more likely to remain in adulthood.

Indeed, the EU Action Plan on Childhood Obesity 2014-2020 and other initiatives highlight schools as a key environment for health promotion, including physical activity and diet. Moreover, the increasing prevalence of overweight and obesity especially in children is a major public health issue in most developed countries, including Malta.

A look at the current prevalence rates of overweight, obesity and underweight among children and youths in Malta shows an urgent need for improvement. This has been confirmed through the Malta National Childhood Body Mass Index Survey (2017). The results showed that 56.7% of all Maltese students fell within the parameters of normal weight established in the study.

Given that children spend close to a third of their daily life within the school environment, it is laudable to capitalise on the school setting to promote health and educate children in nutrition and physical activity matters. Schools are a key environment to teach large groups of children and promote long-term positive health behaviours. School food policies, regulations and guidelines are thus essential to have in place. Their implementation can have a number of both short- and long-term benefits such as improved student health and performance at school, increased societal awareness about the links between food and health as well as reduced healthcare costs.

VISION AND AIMS

The vision of the Ministry for Education and Employment and the Ministry for Health foresees a future in which children, their families and the whole community are physically active, eat healthy food and live in environments that support healthy behaviours to reduce obesity, chronic disease and enhance well-being. The Whole School Approach to Healthy Living: Healthy Eating and Physical Activity Policy aims to:

- Give high priority to healthy eating and physical activity through the integration and implementation of health education in all aspects of school life.
- Provide learners with knowledge, skills and attitudes as well as experiences needed for health and well-being from an early age to make informed choices about their health and well-being throughout the lifecourse.
- Actively involve the school community to develop, implement and evaluate healthy eating and physical activity actions.
- Strengthen the necessary framework and support, thus enabling a school environment to help the school community adopt healthier patterns of living by encouraging physical activity and promoting healthy foods in line with the School Food and Beverage Standards.
- Make provision for a flexible curriculum which highlights health, physical activity, nutrition, food safety, hygiene and hands-on opportunities for food preparation.
- Ensure that clear and consistent messages about the components of healthy living that are in line with those promoted by the Health Authorities are reinforced at school.

LEGISLATION

In terms of Article 5 of the Education Act, Chapter 327 of the Laws of Malta, the responsibility to promote the physical health of students, through health information and promotion and health living programmes, falls under the Ministry for Education and Employment, particularly the Directorate for Educational Services. The Ministry for Education and Employment therefore has the lead responsibility for monitoring the implementation of this policy.

Article 6 of the Healthy Lifestyle Promotion and Care of Non-Communicable Diseases Act (CAP. 550) regulates the Procurement of Food for Schools Regulations, 2018 (L.N. 266 of 2018). These Regulations set out the requirements for foods and beverages sold or offered in schools known as School Food and Beverage Standards. It is stipulated that schools shall implement a programme for the promotion of healthy eating. Also, it further states that schools should not permit any advertising of or accept sponsorships of food products which are not in line with the established criteria. Furthermore, schools must also ensure that water intended for human consumption is made available.

The School Food and Beverage Standards include nutrient-based and food-based definitions of the foods and drinks that must be provided as well as those that are restricted. They apply to all food and drink provided to pupils and students on and off school premises during the school day including school trips, breakfast clubs, tuck shops and vending.

HEALTH-PROMOTING BEHAVIOURS OF CHILDREN AND ADOLESCENTS

Eating patterns have a significant effect on health and well-being. The provision of a healthy diet reduces the risk of diet-related health conditions such as obesity and oral health issues.

Table 1 below indicates the multiple factors that influence the eating behaviours of children and adolescents.

Individual/Intrapersonal	Social Environment/Interpersonal
Psychosocial Biological	Family Peers
Physical Environment/Community Settings	Microsystem/Societal
Schools Fast Food Outlets Mobile Vendors Convenience Stores Accessibility to Safe Recreational Space	Mass Media Marketing and advertising Social and Cultural norms

Food habits in most European countries, including Malta, are characterised by a high consumption of animal products, processed foods high in fat, especially industrial fats, sugar and salt as well as a low consumption of whole foods, especially those from plants. A review of scientific evidence has shown that a number of health behaviours can help curb the current increasing health problems affecting our population.

Healthy snacking

One of the health behaviours that addresses energy balance is snacking. Hence, the provision of affordable, simple and tasty healthy snack options within the school and home environment will target children with obesity and oral health problems particularly those from vulnerable groups.

Vegetables and fruit consumption

There are various economic, institutional, behavioural and sociocultural barriers that preclude many people worldwide from consuming the daily minimum amount of 400g of fruit and vegetables recommended by the World Health Organisation (WHO/FAO, 2004). Data from the HBSC (2017 - 2018) study showed that 54% of girls and 56% of boys between the ages of 11 to 15 years, do not consume a daily portion of vegetables or fruit.

Water intake and oral health

Access to safe drinking water is a fundamental human right and contributes to good health. All students should have access to drinking water, at all times, at a number of points around the school as reiterated by LN266 of 2018. Dehydration leads to negative effects on the students' performance throughout the day and hence students should be allowed to drink water frequently. Water consumption needs to increase significantly during hot and humid days and during physical activity.

Drinking water instead of sugar sweetened beverages would reduce calorie intake and minimize oral health problems among children and adolescents to address the current problems of dental decay and cavities and excess weight.

National oral health survey

Oral diseases and tooth loss have a significant and negative impact on the quality of life and wellbeing of people and affects them functionally, psychologically and socially. Poor oral health also impacts on poor school attendance and performance in children (Jackson et al., 2011).

Oral health is more than just good teeth. It is an integral part of general health as the condition of the mouth mirrors the condition of the body as a whole. Dental caries is still very common among school children. The results from the national survey carried out in 2014 co-jointly by the Dental Public Health Unit and the Faculty of Dental Surgery, University of Malta showed that 31% of three-year olds are already at risk of developing decay (early enamel caries) whereas 10% of 3-year old children already have caries into dentine and require dental treatment – some children needing as much as 9 fillings (out of 20 teeth) (Data still unpublished).

The most important dietary cause of dental caries is the frequency and amount of sugars often hidden in food products consumed. Dental erosion is associated with consumption of acidic soft drinks and juices (Moynihan & Petersen, 2004). Schools need to enforce healthy snacks with restrictions on sugar products so as to promote children's oral health (Legal Notice, 2018).

Physical activity

The WHO (2018) defines physical activity as any bodily movement that involves energy expenditure provided by skeletal muscles. These include tasks that are carried out while working, playing, doing household chores, travelling and engaging in leisure activities.

Variations in patterns of physical activity and the adoption of sedentary lifestyles are also significant factors behind obesity (WHO Observatory, 2014). Physical activity also contributes to children's physical development, wellbeing, bone strength and mobility (Janssen & Leblanc, 2010). Play and recreation are essential in learning motor and social skills and in the development of creativity (Gleave & Cole-Hamilton, 2012).

Physical activity is one of the most basic human functions and needs which has benefits across the lifespan. There is strong evidence that being physically active can benefit both body and mind, as well as reducing the risk of many diseases (EUFIC, 2020). Children's level of physical activity or sport is positively associated with cognitive functioning or academic success (Trudaeo & Shepard, 2008).

Different types and amounts of physical activity are required for different health outcomes.

 The WHO (2018) recommends that children and adolescents aged 5-17 years should do at least 60 minutes of moderate-to-vigorousintensity physical activity daily and include activities that strengthen muscle and bone, at least 3 times per week. Physical activity of amounts greater than 60 minutes daily will provide additional health benefits.

A recent research has shown that lower levels of adiposity are paralleled by comparatively higher levels of vigorous physical activity in children from a higher socioeconomic status (Luzak et al., 2020). Schools, through effective organisation and delivery, are well placed to maximise participation, enjoyment and skill development for all students including those with diverse needs, abilities, interests and socioeconomic background. Every effort should be made to encourage schools to provide daily physical activities in all grades, inside or outside the curriculum and in cooperation with partners from the local community, as well as to promote interest in life-time physical activities in all pupils.

In a recent study by Steene-Johannessen et al. (2020), it has been revealed that two thirds of European children and adolescents are not

sufficiently active. A positive trend shown in the HBSC (2017-2018) study is that local boys and girls aged thirteen years carried out more moderate to physical activity daily in 2018 than in 2014 (Table 2). Another slight increase in physical activity was recorded amongst the elevenyear-old boys in 2018. A decrease was however reported amongst the 15-year-olds cohort and the eleven-year old girls.

Sedentary behaviour

According to the 2013-2014 HBSC study (Table 3), the proportion of Maltese adolescents who watch television for more than two hours per weekday was found to be similar or even less than the HBSC international average for 2014. This is a promising result however measures still need to be taken to address the sedentary lifestyle amongst schoolchildren.

Maltese adolescents partecipating in at least 60 minutes of moderate-		Age				
activity daily	11		13		15	
	Воу	Girl	Воу	Girl	Воу	Girl
2014	28%	21%	20%	11%	16%	9%
2015	29%	19%	22%	14%	15%	5%

Table 2: Percentage of Maltese children (aged 11-15 years) participating in at least 60 minutes of moderate-to-vigorous physical activity daily (HBSC survey 2020).

Maltese adolescents who watch television for two or more hours per weekday	Age					
weekudy	11		13		15	
	Воу	Girl	Воу	Girl	Воу	Girl
2014	53%	41%	58%	54%	65%	54%
HSBC international average	53%	47%	62%	61%	65%	62%

Table 3: Percentage of Maltese children (aged 11-15 years) who watch television for more than 2 hours per weekday (HBSC survey 2016)

KEY ACTION / MEASURE

Key Action/Measure	Smart Target	Stakeholder	Timeframe
Key Action 1 A whole school approach actively involving the school community to develop, implement and evaluate healthy eating and physical activity actions	Dissemination of policy to all school community.	HCN	Term 1 till
	School staff knowledgeable about LN 266 of 2018.	SLT	September 2030
	Development of an integrated action plan with co-ordinated school measures and schemes of action addressing healthy eating and physical	HPDPD	Cyclical actions till September 2030
	activity.	SSS	
	A key member of staff identified to actively work within an appointed team on a school action plan to address the key policy issues.	EO HE	
	Dissemination of action plan to school community.	EO PE	
	Ongoing consultation with the school community to include NGO, Local Councils and other relevant stakeholders.		
Koy Action 2	School community informed about the chart		Soptombor 2011
Enhance the school ethos	term and long-term benefits of regular physical	ncin	- 2030
and environments to support healthy eating and physical	activity.	SLT	
activity considering the health- promoting behaviours	School community informed about the benefits of healthier food and beverage options including fresh produce to make an informed choice.	HPDPD	
	Schools to provide opportunities for outdoor learning and hands-on gardening experiences.	SSS	
	Implementation of nutrient- and food-based standards for foods, beverages and meals	EO HE	
	Schools to promote the consumption of	EO PE	
	vegetables and fruit and increase their	Other relevant	
	availability through participation in the respective scheme.	stakeholders	
	Primary Schools to participate in milk schemes to provide for low fat milk consumption and allocate funds for the provision of daily milk, dairy/alternative.		
	Improve availability, accessibility and affordability to healthy food options.		
	Schools to upgrade dining spaces and facilities.		

Key Action/Measure	Smart Target	Stakeholder	Timeframe
Key Action 2 Enhance the school ethos and environments to support healthy eating and physical activity considering the health- promoting behaviours	 Identify space and set up a food preparation area/ food lab in each school. Schools promote the importance of and the maintenance of oral hygiene. Schools to develop grounds and playing facilities to support physical activity. Schools to ensure that all learners have easy access to fresh drinking water throughout the day. Collaboration with parents and the wider school community to develop programmes which encourage healthy eating and physical activity. 	HCN SLT HPDPD SSS EO HE EO PE Other relevant stakeholders	September 2011 - 2030
Key Action 3 Provide nutritious and safe foods in line with the food and beverage standards	 Food and Beverage Standards regulating the sale and availability of food and beverages in all schools are updated and communicated to all schools and school communities. Development of a health-sensitive, environmentally friendly and sustainable as well as socially responsible procurement of food Primary Schools to offer universal school breakfast programme in Primary Schools. Primary School to participate in milk schemes to provide for low fat milk consumption and allocate funds for the provision of daily milk. Increased availability and accessibility to fresh and healthier food and beverage options at school. Provision of free school lunches to ensure learners from low-income families have access to nutritionally balanced food options. Age-appropriate amounts of healthy food options offered across time periods and menu cycles. Tuck shops and vending machines prepare, serve and/or sell food that is reasonably priced and meets national school food and beverages in schools reflect Standards and policy guidelines. 	DES SSD HCN SLT HPDPD EHD SSS Other relevant stakeholders	Ongoing actions till September 2030

Key Action/Measure	Smart Target	Stakeholder	Timeframe
Key Action 4 Integrate and implement health education throughout the whole school system to provide learners with knowledge, attitudes, skills, and experiences needed for healthy eating and physical activity standards	Further incorporate and elaborate upon the theme of healthy living specifically, food and nutrition, physical activity and oral health education for life within the curriculum in a formal, structured way.	DES DCLE HCN	September 2020 till - September 2030
	event based-programme for Primary Schools targeting the basic skills associated with healthy eating, together with practical intervention sessions.	SLT HPDPD	
	Align curriculum content with health education guidelines ensuring consistent messages.	SSS	
	Uptake of health behaviours including the increase in physical activity levels.	EO HE	
	Learners equipped with planning, budgeting, and practical skills as part of preparation of healthy meals.	EO PE	
	Development of specific programmes focusing on practical skills and the preparation of low- cost meals targeting vulnerable learners.	Other relevant stakeholders	
	School community is informed of what constitutes a healthy portion size according to age as a guide.		
	Learners equipped with lifelong personal fitness skills and education on limitation of screen time and sedentary behaviour.		
	Engagement with parents and provide them with nutrition and physical activity information.		
	Collaboration with community organisations to set up initiatives under the guidance of specialised personnel to increase awareness and skills.		
Key action 5 Ensure the provision of professional development for educators	Provision of qualified educators to teach physical education classes and run Food and Nutrition	DQSE	Ongoing actions till
	programmes. Development of capacity-building initiatives to train and update educators on issues related to school food and physical activity.	DCLE	2030
		EO HE	
		EO PE	

REFERENCES

Attendance Works. (2018). Chronic Absence. Retrieved from Attendance Works: https://www.attendanceworks.org/chronic-absence/addressing-chronic-absence/3-tiers-of-intervention/

European Commission, (2014). EU Action Plan on Childhood Obesity 2014-2020. Retrieved from https://ec.europa.eu/health/sites/health/ files/nutrition_physical_activity/docs/childhoodobesity_actionplan_2014_2020_en.pdf

Gleason, P. M., Dodd, A. H (2009). School breakfast program but not school lunch program participation is associated with lower body mass index. Journal of the American Dietetic Association, 109(2), 118-28. doi:10.1016/j.jada.2008.10.058

Gleave, J., & Cole-Hamilton, I. (2012). A world without play: a literature review on the effects of a lack of play on children's lives. Retrieved from http://www.playengland.org.uk/media/371031/a-world-without-play-literature-review-2012.pdf.

Gordon-Larsen, P., Adair, L. S., Nelson, M. C., & Popkin, B. M. (2004). Five-year obesity incidence in the transition period between adolescence and adulthood: The National Longitudinal Study of Adolescent Health. American Journal of Clinical Nutrition, 80, 569 – 575.

Heim, S., Stang, J., Ireland, M. (2009). A garden pilot project enhances fruit and vegetable consumption among children. Journal of the American Dietetic Association. 109(7),1220-1226.

Inchley J, Currie D, Budisavljevic S, Torsheim T, Jåstad A, Cosma A et al., eds. (2020). Spotlight on adolescent health and well-being. Findings from the 2017/2018 Health Behaviour in School-aged Children (HBSC) survey in Europe and Canada. International report. Volume 2. Key data. Copenhagen: WHO Regional Office for Europe. Licence: CC BY-NC-SA 3.0 IGO. English / Russian

Inchley J et al. eds. (2016). Growing up unequal: gender and socioeconomic differences in young people's health and well-being. Health Behaviour in School-aged Children (HBSC) study: international report from the 2013/2014 survey. Copenhagen, WHO Regional Office for Europe. (Health Policy for Children and Adolescents, No. 7).

Jackson, S.L., Vann, W.F. Jr., Kotch, J.B., Pahel, B.T & Lee, J.Y., (2011) Oral health has been well established as a fundamental Impact of Poor Oral Health on Children's School Attendance and Performance. Am J Public Health; 101:1900–1906.

Janssen, I., & Leblanc, A. (2010). A Systematic Review of the Health Benefits of Physical Activity in School-Aged Children and Youth. Retrieved from http://www.ijbnpa.org/content/7/1/40

Larson, N. I., Story, M., Wall, M., Neumark-Sztainer, D. (2006). Calcium and dairy intakes of adolescents are associated with their home environment, taste preferences, personal health beliefs, and meal patterns. Journal of the American Dietetic Association, 106, 1816-1824.

Laws of Malta, Article 5 of the Education Act, Chapter 327.

Legal Notice 266 of 2018 (2018). Procurement of Food for Schools Regulations. Government Gazette of Malta No. 20,037 – 10.08.2018

Luzak A, Guadalupe G, Amelia S, Anders M, Decelis A, Polito, A et al. (2020). Socioeconomic Patterning of Children's Accelerometer-Assessed Physical Activity Intensities and Adiposity: A Pooled Analysis of Individual-Level Data for 26,915 Children and Adolescents from 36 European Cohorts. Retrieved from SSRN: https://ssrn.com/abstract=3551423 or http://dx.doi.org/10.2139/ssrn.3551423 Mahoney, C. R. (2005). Effect of breakfast composition on cognitive processes in elementary school children. Physiology & Behavior, 85, 635–645.

Ministry for Education and Employment. (2014). Respect for All Framework. Retrieved from https:// education.gov.mt/en/.../Respect%20 For%20All%20Document.pdf

Ministry for Education and Employment (2019) A National Inclusive Education Framework (2019) Malta: MEDE

Ministry for Education, Youth and Employment. (2007). Healthy Eating Lifestyle Plan. Retrieved from https://education.gov.mt/en/resources/ Documents/.../help.pdf Ministry for Health (2017) Public Procurement of Food for Health: Technical Report on the School Setting. Joint Presidency of the Malta Presidency and the EU.

Ministry for Health, the Elderly and Community Care. (2011). The National Cancer Plan. Malta. Retrieved from https://ehealth.gov.mt/download. aspx?id=4720

Moynihan, P., & Petersen, P. (2004). Diet, Nutrition and the Prevention of Dental Diseases. Public Health Nutrition, 7(1A), 201–226.

Prentice, A. M., & Jebb, S. A. (1995). Obesity in Britain: Gluttony or Sloth. British Medical Journal, 311, 437-439.

Ross, A. (2010). Nutrition and its effects on academic performance . Nutrition and Academic Performance . 1-58.

Steene-Johannessen, J., Hansen, B.H., Dalene, K.E. et al. Variations in accelerometry measured physical activity and sedentary time across Europe – harmonized analyses of 47,497 children and adolescents. Int J Behav Nutr Phys Act 17, 38 (2020). https://doi.org/10.1186/s12966-020-00930-x

Story, M., Neumark-Sztainer, D., & French, S. (2002). Individual and environmental influences on adolescent eating behaviours. Journal of American Dietetic Association, 102, 40-51.

Trudaeo, F., & Shepard, R. J. (2008). Physical education, school physical activity, school sports and academic performance. International Journal of Behavioural Nutrition and Physical Activity, 5(10). Retrieved from http://www.ijbnpa.org/content/5/1/10

Ward, D. (2011, October). School Policies on Physical Education and Physical Activity. A Research Synthesis. Princeton, New Jersey: Active Living Research, a National Program of the Robert Wood Johnson Foundation. Retrieved from www.activelivingresearch.org

WHO/FAO. (2003). Diet, Nutrition, and the Prevention of Chronic Diseases. Geneva; Switzerland: WHO Press.

WHO/FAO Workshop on Fruit and Vegetables for Health. (2004, September 1-3). Fruit and vegetables for health: Report of a Joint FAO/WHO Workshop, Kobe, Japan. Retrieved from: http://www.google.com.mt/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0CC EQFjAA&url=http%3A%2F%2Fwww.fao.org%2Fag%2Fmagazine%2Ffao-who-fv.pdf&ei=cdLEVIjQBsr7_aP2vgqgE&usg=AFQjCNEucFs1gveUQ rzenv81wvIK3x2oSA&sig2=F5qifYgs-Cq-ygUw12uTMQ

WHO. (2003). Oral health promotion: an essential element of a health-promoting school. Geneva, World Health Organization (WHO Information Series on School Health No. 11)

WHO European Childhood Obesity Surveillance Initiative (COSI), (2008). Retrieved from http://www.euro.who.int/en/health-topics/disease-prevention/nutrition/activities/monitoring-and-surveillance/who-european-childhood-obesity-surveillance-initiative-cosi

WHO. (2012). Population-based approaches to Childhood Obesity Prevention. Retrieved from http://www.who.int/dietphysicalactivity/ childhood/WHO_new_childhoodobesity_PREVENTION_27nov_HR_PRINT_OK.pdf

WHO. (2014). Global Health Observatory (GHO). Retrieved from http://www.who.int/gho/ncd/risk_factors/physical_activity/en/

WHO & Observatory, G. H. (2014). Prevalence of insufficient physical activity. Retrieved from http://www.who.int/gho/ncd/risk_factors/physical_activity_text/en/

WHO. (2014). European Action Plan for Food and Nutrition Policy. Retrieved from www.euro.who. int/__data/assets/.../64wd14e_ FoodNutAP 140426.pdf

WHO. (2015). European Food and Nutrition Action Plan 2015 - 2020. Denmark: WHO Regional Office for Europe.

World Health Organisation, (WHO). (2004). Global Strategy on Diet, Physical Activity and Health. Geneva. Retrieved from www.who.int/ dietphysicalactivity/strategy/.../strategy_english_web.pdf

World Health Organisation (WHO), 2018. Physical Activity. Retrieved from https://www.who.int/news-room/fact-sheets/detail/physical-

activity#:~:text=Should%20do%20at%20least%20150,%2D%20and%20vigorous%2Dintensity%20activity.

World Health Organisation/UNICEF (2018). The extension of the 2025 Maternal, Infant and Young Child nutrition targets to 2030. WHO/ UNICEF Discussion paper. Retrieved from https://www.who.int/nutrition/global-target-2025/discussion-paper-extension-targets-2030.pdf



GOVERNMENT OF MALTA MINISTRY FOR EDUCATION, SPORT, YOUTH RESEARCH AND INNOVATION NATIONAL SCHOOL SUPPORT SERVICES Ministry for Education, Sport, Youth Research and Innovation (MEYR)

Great Siege Road Floriana FRN1810