

A WHOLE SCHOOL APPROACH TO A HEALTHY LIFESTYLE: HEALTHY EATING AND PHYSICAL ACTIVITY

POLICY

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MESSAGE BY THE MINISTER FOR EDUCATION AND EMPLOYMENT

My Ministry is committed to implementing the 'Education for Life' concept which is promoted by UNESCO through its four Pillars of Learning namely: learning to know, learning to do, learning to live together and learning to be.

An integral component of the 'learning to be', is learning how to make healthy choices and live a healthy life. The overall consumption of healthy foods has declined amidst the changing demand and accessibility of food, increasing convenience of 'junk' and 'ready-made' food, poor eating habits, and prevalence of a more sedentary lifestyle. Interventions targeted at healthy nutrition need to occur early in childhood and adolescence to prevent or reverse the adverse health effects of overweight and poor eating habits. Therefore, knowing and understanding that proper nutrition and physical activity have a significant impact on one's ability to learn is crucial for students, bringing with it the realisation that learning, attainment and health are intrinsically linked.

We are therefore committed to continue addressing the health of our students through a Whole School Approach to a Healthy Lifestyle: Healthy Eating and Physical Activity Policy. The Policy builds on the experience gained through the implementation of the Healthy Eating Lifestyle Plan.

Our schools provide an especially critical environment for encouraging healthy behaviours. In many cases, life-long habits and behaviours are formed during primary and middle school years. Schools, therefore, offer an opportunity to engage students in healthy eating and regular physical activity and to reinforce important health messages. Schools also provide a bridge to stimulate parental involvement in shaping children's habits and attitudes about healthy lifestyle choices. It is with the above in mind that this Policy places

healthy food, improved nutrition and physical activity high in priority on every school agenda.

The success of this Policy requires that our schools work together with policymakers, parents and communities to create an environment where students eat healthfully, become physically fit and develop lifelong habits that contribute to wellness. Whilst the Policy creates a framework for planning, organizing, and clarifying roles and responsibilities to ensure efficiency and commitment to change, it is the motivation, input and commitment of each and every one of us that determines whether change takes place.

To accommodate the new and ongoing demands of the various initiatives required by this policy, we must all be prepared to be dynamic and flexible. We will actively support the College and School Administration in their readiness for its implementation.

We will continue to collaborate with the Ministry for Energy and Health and with our other stakeholders, both internal and external, to implement an effective strategy that creates a school environment conducive to educate our children and young people in the importance of healthy eating and physical activity as part of a healthy life style.

I take this opportunity to commend and thank all of you who have collaborated to the development of this Policy and the College Principals, Heads of School and the school communities together with the many stakeholders for the commitment which you will demonstrate to successfully implement the strategy for the benefit of our students, their family and society.

Evarist Bartolo | Minister



MESSAGE BY THE PARLIAMENTARY SECRETARY FOR HEALTH

The prevalence of overweight and obesity among Maltese schoolchildren and adolescents has been increasing over recent years, as it has in other southern European countries. Evidence shows that environments with barriers of access to healthy foods and fewer occasions to engage in physical activity are associated with higher rates of obesity.

The dietary and physical activity behaviours of children and adolescents are influenced by many sectors of society, including families, communities, schools, child care settings, health-care providers, governmental entities, the media, and the food, beverage and entertainment industry. Each of these sectors has an important, independent role to play in improving the dietary and physical activity behaviours of children. Schools play a particularly critical role by establishing a safe and supportive environment with policies and practices that support healthy behaviours. Schools also provide opportunities for children to learn about and practice healthy eating and physical activity behaviours by developing the necessary skills required. This whole of government and whole of society approach is a necessity for us to be able to tackle this ever growing problem of overweight and obesity which is affecting the whole of our population at all ages.

Besides the promotion of healthy eating, this Policy also includes the promotion of physical activity. These two main themes will be addressed by schools, at home as well as by their surrounding communities such that healthy messages initiated within schools are maintained throughout the child's life and in all settings.

It is a known fact that children who are obese or overweight are more at risk of being obese as adults and of developing a range of related health problems. It is increasingly important, therefore, that we take action to seek to improve the health and well-being of children. A healthy, balanced diet and regular physical activity make an important contribution to children's growth and development, to their educational performance and attainment and to their long-term health and well-being.

The new document is in line with recommendations from recently developed health documents including the Non Communicable Disease Strategy (2010), the National Cancer Plan (2011), the National Healthy Weight for Life Strategy (2012), the Food and Nutrition Policy and Action Plan for Malta (2014) as well as the NAO Report on Physical Education and Sports (2010).

The Secretariat for Health has collaborated with the Ministry for Education and Employment, as in previous years, in the preparation of this policy which is based on evidence and good practices. We are committed that over the coming scholastic years, we will continue to give our input towards its successful implementation, its monitoring process as well as in its evaluation.

Only in this way, will we be able to help support families of children and adolescents to adopt a healthy diet and physical activity patterns, thus improving the health of the Maltese population.

Chris Fearne

Parliamentary Secretary for Health

TERMINOLOGY

School culture

refers to the set of norms, values and beliefs, rituals and ceremonies, symbols and stories that make up the 'persona' of the school.

School

includes primary, middle, secondary schools, resource centres and learning support centres.

College

refers to a network of schools, within them State boys and girls schools, and which would ensure educational experience and services in a full and continuous process starting from early childhood education, and through the primary and secondary levels. Every College shall be under the responsibility, guidance and administration of a Principal (Education Act, 2012).

Parents

refers to the biological or legal guardians of the students attending the school (Education Act, 2012).

School community

refers to the Senior Management team, teachers and staff members who work in the school, the students who attend the school, their parents and families, local residents and organisations that have a stake in the school's success.

ABBREUIATIONS

CDC Centre for Disease Prevention and Control

DES Directorate for Educational Services

DQSE Directorate for Quality and Standards in Education

ECOSI European Childhood Obesity Surveillance Initiative

FAO Food and Agricultural Organisation

HBSC Health Behaviour School-aged Children Survey

HFSS High in fats, sugar and salt

HPDPD Health Promotion and Disease Prevention Directorate

MVPA Moderate to vigorous physical activity

NAO National Audit Office

NCD Non Communicable Disease

NCF National Curriculum Framework

NGO Non-Governmental Organisation

PE Physical Education

WHO World Health Organisation

KMS Kunsill Malti Għall-iSport

UISION AND AIMS

The vision of the Ministry for Education and Employment and the Ministry for Energy and 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 in order to reduce obesity, chronic disease and enhance well-being.

The Whole School Approach to Healthy Lifestyle: Healthy Eating and Physical Activity Policy aims to:

- / Give high priority to healthy eating and physical activity through holistic education.
- / Strengthen the necessary framework and support an enabling school environment to help the whole school community to adopt healthier patterns of living by encouraging physical activity, promoting healthy foods and limiting the availability of products high in salt, sugar and fats.
- / Empower children to achieve the required physical and health literacy, to adopt a healthy lifestyle from an early age and to make informed choices about their lifestyles throughout the life course.
- / Make provision for a flexible curriculum which highlights health, nutrition, food safety and hygiene and food preparation, which promotes physical activity.
- / Ensure that clear and consistent messages about food, drink and physical activity are delivered across the school day as to reinforce the health messages consistent with those promoted by the Health Authorities.

BACKGROUND

Interventions targeted at health and well-being need to start early in childhood in order to prevent or reverse the adverse effects of overweight, obesity and poor eating habits (St-Onge et al., 2003). Schools can function as an important opportunity for well-being and prevention (Carter, 2002) as they provide the most effective way of reaching large numbers of people including children and youths, school staff, families and community members (WHO, 2006). Initiatives carried out in school settings can contribute to an improvement in children's lifestyle.

The WHO Global Strategy on Diet, Physical Activity and Health (WHO, 2004) highlights that

"Bringing about changes in dietary habits and patterns of physical activity will require the combined efforts of many stakeholders, public and private, over several decades".

Health promotion is about helping people to have more control over their lives, and thereby improve their health. As more people are empowered to live healthier lifestyles, more social capital is generated as these people set their own goals, mobilise resources, and develop action plans to address problems they have collectively identified. Education by itself is not sufficient and there is an ever growing need to implement ecological approaches that recognise that individuals cannot be extracted from the environment in which they interact (Loper et al., 2003).

A student is a member of a larger community and the actions and attitudes of any given student can only be understood in the context of his family, school, village/town, country. In ensuring greater social capital, schools need to develop as communities of learners and network with other entities to ensure greater community mobilisation. While support needs to be given, schools need to be free from socially engineered paradigms that often stifle initiatives that can be tailored to particular needs. Students are often influenced by the whole community so if they are to be educated about their lifestyle, the wider community needs to be involved. It is an opportunity to work with people, rather than for people and this can yield greater sustainability (CDC, 2011). Malnutrition, in particular obesity, is a multi-faceted ever growing problem which requires a multi-disciplinary approach that includes all the stakeholders concerned to rectify the situation.

Nutrition is one of the important elements for healthy living in school-aged children and it should be given high priority on every school agenda. There is evidence to suggest that improved nutrition enhances learning ability, leading to better academic performance (WHO, 2006). Exposing children to balanced and nutritious food throughout childhood reinforces lifelong eating habits thus contributing to children's overall well-being and helping them enjoy a healthy and fulfilling life in the future.

Environments in which children are brought up, contribute substantially to children's upbringing and well-being. The school therefore has the responsibility to promote healthy eating patterns whilst acknowledging that improving the nutritional status of school-aged children is an important investment for future generations. Education holds an unrivalled potential as an avenue which promotes a proactive disposition towards health and well-being in children. Research shows that the school environment influences children's attitudes, preferences, and behaviours. Unfortunately, when nutritionally inadequate foods and beverages are consumed at school during special activities the wrong message is transmitted to the children (EU Action Plan on Childhood Obesity, 2014-2020).

Physical education and physical activity have an educational value in their own right and provide the child with a more holistic education. There is strong evidence that children and adolescents benefit from physical activity through improved: cardio respiratory and muscular fitness, bone health, cardiovascular and metabolic health biomarkers. There is a growing body of evidence that inactive children are more likely to become inactive adults (Gordon-Larsen et al., 2007; Ratakin et al., 1994; Ebbeling, 2002). Hence, the importance of introducing physical activity at an early age.

Children's level of physical activity or sport is positively associated with cognitive functioning and academic success. (Trudaeo & Shepard, 2008). A comprehensive literature review of evidence suggests that:

- 1. physical activity can help improve academic achievement, including grades and standardised test scores;
- 2. physical activity can affect cognitive skills and attitudes and academic behaviour (including enhanced concentration, attention, and improved classroom behaviour); and
- **3.** increasing or maintaining time dedicated to physical education might help and does not appear to adversely affect academic performance (CDC, 2010).

All students, regardless of sex, race/ ethnicity, health status, physical or cognitive ability or disability, should have access to physical education and other physical activity programmes. Schools can provide important opportunities for physical activity to children across all grade levels. Evidence based strategies for enhancing physical education, recess and in-class activity breaks help children be more active during the school day (Ward, 2011).

Research has shown that school-based approaches to supporting child health and well-being can be effective, but only if they adopt a whole school approach. A whole school approach to food, nutrition and physical activity involves addressing the full range of issues (Lee, 2009).

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 healthy lifestyle 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.

EATING BEHAVIOURS OF CHILDREN AND ADOLESCENTS

Eating patterns have a significant effect on health and well-being. Childhood and adolescence are critical periods and the provision of a healthy diet reduces the risk of diet-related health conditions including obesity and oral health issues.

Multiple factors influence the eating behaviours of children and adolescents. These include individual or intrapersonal influences (eg, psychosocial, biological); social environmental or interpersonal (eg, family and peers); physical environmental or community settings (eg, schools, fast food outlets, convenience stores); and macrosystem or societal (eg, mass media, marketing and advertising, social and cultural norms (Neumark-Sztainer et al., 2003; Larson et al., 2006; Van der Horst et al., 2007; Story et al., 2002; O'Toole et al., 2006; Federal Trade Commission, 2008).

Several studies found that the 'cost' of food plays a very important role in what the consumer chooses to buy and therefore eats (Chandon, 2012) Fat and sugar, known to play an important part in the current obesity epidemic, provide dietary energy at very low cost.

Food habits in most European countries have changed in recent decades. The diet is characterised by a high consumption of animal products and processed foods and low consumption of plant food. This has led to a high proportion of calories from fat, especially saturated fat, and sugar. This change in food habits is also very evident in Malta.

4.1

Breakfast

Breakfast is one of the most important meals of the day. It provides the necessary energy and nutrients to achieve physical and mental performance as well as controls satiety while reducing hunger (Brown et al., 2013). The prevalence of childhood obesity is increasing due to the consumption of high density foods and may also be attributed to breakfast skipping. Studies have shown that the likelihood of childhood obesity is less in those children who eat breakfast (Dubois et al., 2006). Children who eat a healthy breakfast have better motor functional skills and a lower body mass index than children not regularly eating breakfast (Baldinger et al., 2012). Skipped breakfast has a negative impact on academic achievement affecting cognitive development resulting in increased absenteeism (Basch, 2011). Studies show that children who eat breakfast are healthier and exhibit positive behaviour resulting in higher achievement in school (Mahoney et al., 2005). Studies show that the introduction of healthy breakfast clubs in primary schools targeting children aged 3 - 10 years will be supportive in reducing obesity in the long term (Gleason et al., 2009). One of the major advantages of eating breakfast was the reduction of unplanned, impulsive snacking on foods high in calories and fats (Schlundt et al., 1992). Provision of breakfast to early arrival children can provide valued support to families coping with varying degrees of difficulty in their material, environmental, relational and social circumstances (Shemilt et al, 2003). Involving students and parents in breakfast clubs is more likely to increase success.

Data from the Health Behaviour Study in School-aged Children (HBSC) carried out in 2010 showed that an average of 49% of 11—15 year old children consume breakfast every school day (Table 1).

PERCENTAGE WHO CONSUME BREAKFAST EVERY SCHOOL DAY	Age						
	1	11		13		5	
	Boy	Girl	Boy	Girl	Boy	Girl	
2002	58.8%	58.1%	53.9%	46.9%	53.1%	42.6%	
2006	53.0%	52.0%	49.0%	41.0%	46.0%	38.0%	
2010	55.8%	59.8%	45.2%	37.6%	50.4%	46.8%	
HSBC international average 2010	72.0%	69.0%	65.0%	57.0%	59.0%	50.0%	

Table 1: Percentage of children consuming breakfast daily (HBSC Survey for 2002, 2006 and 2010 HPDP, 2012).

4.2

Vegetables and fruit consumption

Fruits and vegetables include a diverse group of plant foods that vary greatly in content of energy and nutrients. They supply dietary fibre which is linked to lower incidence of cardiovascular disease and obesity. Fruits and vegetables also supply vitamins and minerals to the diet and are sources of phytochemicals that function as antioxidants, phytoestrogens, and anti-inflammatory agents and through other protective mechanisms. The HBSC survey carried out in 2010 showed that on average less than 40 per cent of Maltese children between the ages of 11 and 15 years of age consume only one portion of fruit a day whilst less than 15 per cent of children in the same age group consume a portion of vegetables daily (Tables 2 and 3 respectively).

PERCENTAGE	Age						
EATING FRUIT DAILY	11		13		15		
	Boy	Girl	Boy	Girl	Boy	Girl	
2002	51.5%	59.4%	44.1%	49.6%	37.7%	43.8%	
2006	42.0%	46.0%	33.0%	47.0%	35.0%	34.0%	
2010	40.9%	42.4%	40.4%	43.2%	25.3%	41.0%	
HSBC international average 2010	38.0%	46.0%	33.0%	40.0%	27.0%	35.0%	

Table 2: Percentage of children consuming fruit on a daily basis (HBSC survey years 2002, 2006 and 2010, HPDP, 2012).

PERCENTAGE EATING	Age						
VEGETABLES DAILY	11		13		15		
	Boy	Girl	Воу	Girl	Воу	Girl	
2002	19%	25%	12%	19%	16%	18%	
2006	10%	15%	7%	14%	16%	21%	
2010	12%	15%	8%	14%	15%	23%	
HSBC international average 2010	32%	40%	29%	35%	26%	35%	

Table 3: Percentage of children consuming vegetables on a daily basis (HBSC survey years 2002, 2006 and 2010 HPDPD, 2012).

There are various economic, institutional, behavioural, and sociocultural barriers that preclude many people worldwide from consuming the daily minimum 400g of fruit and vegetables recommended by the World Health Organisation (WHO/FAO, 2004).

School-based nutrition education should focus not only on nutrition information, but also on developing skills and behaviours related to areas such as food preparation, food preservation and storage, social and cultural aspects of food and eating; enhancing of self-esteem and positive body image and consumer aspects (Contento, 1981; Dixey et al., 1999). School gardens, agricultural education, fruit and vegetable preparation, and tasting activities are concrete, hands-on experiences that can help students to develop a personal connection to their food and a lasting relationship to healthy eating. By providing students access to fruit and vegetables through, for example, the fruit and vegetables scheme being provided by the Ministry for Sustainable Development, the Environment and Climate Change and supported by EU funding, food preferences are influenced. The schools' setting can be taken as an opportunity whereby peer influences, social support and teacher role models can influence healthy behaviours. School-based, hands-on experiences with fruits and vegetables may also empower children to prepare these foods at home with their family and influence the quality of the food their family buys and prepares (Heim et al., 2009).

4.3

Foods high in fat, sugar and salt (HFSS)

It has become evident that many children are eating a diet which is too high in fat, salt and sugar and too low in fruit, vegetables and fibre. A healthy diet is one that is rich in fruits and vegetables, whole grains, and fat-free and low-fat dairy products for children under 2 years of age. Children, adolescents, and adults need to limit their intake of solid fats (major sources of saturated and trans fatty acids), cholesterol, sodium, added sugars, and refined grains. Exposure to unhealthy food items in schools gives an inconsistent message and hence schools are the perfect setting whereby foods which are HFSS are not permitted.

Schools should also have restrictions on sponsorships and marketing of HFSS products as evidence shows that children are highly influenced by the marketing of such products.

4.4

Sugar sweetened beverages and foods high in sugar

Sugar sweetened beverages are major contributors to obesity and dental caries. In the US it was estimated to contribute to nearly 11 percent of children's total calorie consumption. (Wang et al., 2008). Each additional daily serving of sugared soda increases a child's risk of obesity by 60 percent (Ludwig et al 2001). Malta is considered as one of the highest soda consumers in the world.

Data from the HBSC study shows that consumption of soft drinks increased among nearly all age groups and was much higher than the HBSC international average for 2010 as indicated in Table 4 (HBSC, 2012).

In the HBSC 2001-2002 (HBSC, 2002) study, Malta had the highest percentage (54 per cent) of consumers of sweets or chocolates once or more every day compared to the other countries participating in this study.

The consumption of soft drinks and sweets/chocolates is likely to be compromising the intake of more nutritious foods among schoolchildren and may be impeding compliance with current dietary recommendations.

PERCENTAGE CONSUMING	Age						
SOFT DRINKS DAILY	11		11 13 15		13		5
	Boy	Girl	Boy	Girl	Boy	Girl	
2002	36.5%	38.8%	45.7%	39.2%	45.0%	35.9%	
2006	44.0%	34.0%	47.0%	37.0%	49.0%	35.0%	
2010	44.3%	44.3%	46.9%	43.8%	49.3%	34.3%	
HSBC international average 2010	19.0%	16.0%	25.0%	20.0%	28.0%	22.0%	

Table 4: Percentage of 11, 13 and 15 year old Maltese schoolchildren who consume soft drinks daily (HBSC survey years 2002, 2006 and 2010, HPDPD,2012).

Drinking water instead of sugar sweetened beverages would reduce caloric intake among children and adolescents. Studies have shown that European children and adolescents do not drink enough water (Sichert-Hellert et al., 2001). Restricting sugar sweetened beverages and ensuring free access and promotion of regular intake of plain water throughout the school day ensures a reduction in caloric intake and ensures that children consume water as the best choice of fluid for meeting daily fluid requirements.

The findings above clearly indicate the need of proactive future measures to be adopted to promote a healthier diet.

4.5

Oral Health

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. Recent scientific studies show a distinct relationship between gum diseases and stroke, heart disease, diabetes, osteoporosis and pre-term low-birth-weight babies (Kim & Amar S, 2006).

Dental caries is still very common amongst schoolchildren. 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 consumed in products which are found in confectionary, soft drinks, biscuits, cake, fruit juices, honey and added sugar (Sheiham, 2001). 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 (WHO, 2003).

PHYSICAL ACTIVITY

5.1

Physical activity

Physical activity is one of the most basic human functions and needs which has benefits across the lifespan. There is strong evidence that children and adolescents benefit from physical activity through improved: cardio respiratory and muscular fitness, bone health, cardiovascular and metabolic health biomarkers. Children's level of physical activity or sport is positively associated with cognitive functioning or academic success. (Trudaeo & Shepard, 2008). There is a growing body of evidence that shows that inactive children are more likely to become inactive adults (Gordon-Larsen et al., 2007; Ratakin et al., 1994).

It is recommended that individuals engage in adequate levels of physical activity throughout their lives. Different types and amounts of physical activity are required for different health outcomes.

The WHO (WHO, 2010) recommended levels of physical activity for children aged 5 - 17 years are:

- / Children and youth aged 5-17 should accumulate at least 60 minutes of moderate- to vigorous-intensity physical activity daily.
- / Amounts of physical activity greater than 60 minutes provide additional health benefits.
- / Most of the daily physical activity should be aerobic. Vigorous-intensity activities should be incorporated, including those that strengthen muscle and bone, at least 3 times per week.

Recent research has also suggested that people should reduce extended periods of sedentary behaviour, such as sitting at work or watching TV, which may constitute an independent risk factor for health regardless of activity levels.

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 and interests. Comprehensive physical activity programmes that offer PE breaks and safe and active ways to get to school not only offer children the skills to learn how to be physically active for a lifetime, but also provide physical and mental benefits which help them perform better in school. Hence every effort should be made to encourage schools to provide physical activities on a daily basis 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.

The HBSC 2006 data show that up to 14% of Maltese 13-year old children did not undertake any moderate-to-vigorous physical activity (MVPA); 4.5% participated in MVPA once a month and 8% performed MVPA at a frequency of less than once a month. In the 2010 HBSC study (Table 5), more boys and girls aged between 11 and 15 years of age were carrying out physical activity on a regular basis. Moreover, this survey showed that 26.3% of boys and girls aged between 11 and 15 years practised at least one hour of physical activity on a daily basis. It should be noted that there has been a significant increase in overall physical activity from 2006 to 2010 with levels above the HBSC average.

PERCENTAGE PARTICIPATING IN 60 MINUTES OF MODERATE TO VIGOROUS PHYSICAL ACTIVITY DAILY	Age							
	1	1	13		1.	15		
	Boy	Girl	Boy	Girl	Воу	Girl		
2006	27.0%	18.0%	20.0%	14.0%	19.0%	13.0%		
2010	42.6%	24.6%	36.2%	14.6%	26.3%	13.6%		
HSBC international average 2010	28%	19.0%	24%	13.0%	19.0%	10.0%		

Table 5: Percentage of Maltese children (aged 11-15 years) participating in 60 minutes of moderate to vigorous physical activity daily (HBSC surveys 2006 and 2010, HPDPD, 2012).

Data collected, in 2008, by the School Health Services within the Ministry for Health, as part of the European Child Obesity Surveillance Initiative (ECOSI) compared the amount of physical activity carried out in State, Church and Independent schools at primary level. The data showed that in 62 per cent of State schools in Malta, children are allowed between 61 to 120 minutes of Physical Education lessons per week. Half of Church schools offer their students less than one hour of PE lessons per week; whereas half of Independent schools offer 61-120 minutes of PE lessons per week and almost half offer more than 2 hours of PE lessons per week.

A study in 2012 showed that a quarter of 10-11 year old children spent large amounts of time engaged in screen time; with only 39% of boys and 10% of girls meeting the recommendation of one hour of daily MVPA. Obese children were found to be less active than non-obese children (Decelis, et al., 2014). The authors recommend an increase of MVPA in schools amongst school-age children as a possible important strategy to promote MVPA since children spend most of their waking time at school. They also mention the importance of targeting discreetly the less active and obese children.

A review of studies concludes that up to an hour of daily physical activity programs can be added to a school curriculum by taking time from other subjects without hurting students' academic achievement in those subjects (Trudaeo & Shepard, 2008). Conversely, taking time from physical education and adding it to the academic curriculum does not enhance either the students' grades in these subjects or their physical fitness (Marsh, 1992).

5.2

Sedentary Behaviour

According to the 2010 HBSC study (Table 6), the proportion of Maltese adolescents who watch television for more than two hours per weekday was found to be similar to the HBSC international average for 2010.

PERCENTAGE WATCHING TV FOR MORE THAN 2HRS PER WEEKDAY	Age							
	1	1	13		15			
	Boy	Girl	Boy	Girl	Воу	Girl		
2010	60.4%	54.7%	60.6%	58.6%	60.0%	58.5%		
HSBC international average 2010	58.0%	54.0%	65.0%	64.0%	64.0%	62.0%		

Table 6: Percentage of Maltese children (aged 11-15 years) who watch television for more than 2 hours per weekday (2010 HBSC survey. HPDP, 2012)

Decelis A et al., (2012) also found that a quarter of 10-11 year old children exceeded the guidelines of two hours of TV on weekends; with double the amount on weekdays. In view of the findings above, measures need to be taken to address the sedentary lifestyle amongst schoolchildren.

OVERWEIGHT AND OBESITY

6.1

Dietary factors

The WHO and the Food and Agricultural Organisation (FAO) expert group found 'convincing' evidence that high intake of energy dense foods is a risk factor for obesity. It also found that heavy marketing of foods high in fat, sugar and salt (HFSS) as well as large portion sizes were also contributory risk factors (WHO/FAO, 2004).

6.2

Physical Activity

Changes in patterns of physical activity and the adoption of sedentary lifestyles are also important factors behind obesity (WHO Observatory, 2014; Prentice & Jebb, 1995). However, the benefits of physical activity go beyond maintenance of energy balance and therefore, the prevention of weight gain. Physical activity also contributes to children's physical development, well-being, 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).

6.3

Epidemiology

The major health challenge affecting Maltese schoolchildren is that of overweight and obesity as current national data shows. A cohort of children who were measured at age 7, 9 and 11 years showed on average a 19% increase in the proportion of total overweight and obese children along the years (Farrugia Sant'Angelo et al., 2011). In fact 46.95% of 11 year olds in 2012 were either overweight or obese (23.05% overweight and 23.9% obese). A noticeable effect however is that whereas for boys both overweight and obesity are increasing, the proportion of obesity in girls has decreased; which is a positive outlook (Table 7).

CHILDREN BORN IN 2001	Age						
	7	7	Ç	9	1	1	
	Boy Girl		Воу	Girl	Воу	Girl	
O/W + Obese %	26.1	29.6	44.4	39.6	50.2	43.7	
O/W %	8.8	16.1	17.6	16.6	22.4	23.7	
Obese %	17.3	13.5	26.4	23	27.8	20	

Table 7: Percentage of overweight and obesity of a cohort of children followed up at age 7, 9 and 11 years, ECOSI, 2012.

The Health Behaviour in Schoolchildren Study (HBSC, 2010) assessed self-reported data for overweight and obesity among 11 – 15 year old Maltese children. The average total overweight and obesity for 11 year olds was 33.5%, 33% for 13 year olds and 25.5% for 15 year olds. Compared to the 2006 study, there are increasing rates in 11 year old boys and girls and in 13 year old boys and decreasing rates for 13 year old girls and 15 year old boys and girls (Table 8).

PERCENTAGE OVERWEIGHT			Ag	ge				
OR OBESE	11		11 13		11 13		1.	5
	Boy	Girl	Boy	Girl	Boy	Girl		
2002	N/A	N/A	34%	24%	28%	20%		
2006	30%	25%	31%	31%	32%	28%		
2010	41%	26%	37%	29%	28%	23%		
HSBC international average 2010	17%	13%	17%	11%	18%	10%		

Table 8: Percentage of overweight or obese Maltese children (aged 11-15 years) (Health Behaviour School-aged Children Survey (HBSC) for the years 2002, 2006 and 2010 HPDPD, 2012).

Overweight and obesity in childhood have a significant impact on both physical and psychological health (Dehghan et al., 2005). Mossberg HO (1989) in his study of a '40-year follow-up study of obesity' among children found that, overweight children when followed up after 40 years were more likely to have cardiovascular and digestive diseases and increased mortality from any cause, compared to those who were lean. Several studies have shown that a child who is obese between the ages of 10 and 13 has an 80 per cent chance of becoming an obese adult (Torgan et al., 2002).

One of the areas for action recommended by the 'Healthy Weight for Life' Strategy (2012) is to ensure that fewer people, especially children are overweight. Weight gain among children is considered normal as long as the weight gained by children does not deviate from established weight curves. Overweight children do not need to achieve weight loss since their body mass index can be normalised if they are able to maintain a fixed weight while still growing in height. However, obese children need to be provided with professional advice to reduce excess weight.

The prevention and management of obesity requires a range of coordinated policies to improve diet and physical activity levels in the early years at school and in families and communities (WHO, 2012). Schools have the potential of offering various opportunities to promote healthy dietary patterns for children and also a potential access point in engaging parents and the community.

ALLERGIES

Food allergies are presenting increasing challenges for schools. These conditions can be life-threatening in nature and hence schools need to be prepared for the entry of students with food allergies.

RELATED DOCUMENTS

Other related documents to this policy include:

Respect for All Framework (MEDE, 2014)

Food and Nutrition Policy and Action Plan For Malta (Ministry for Energy and Health, 2014)

EU Action Plan on Childhood Obesity, 2014-2020 (EC, 2014)

European Action Plan for Food and Nutrition Policy (WHO, 2014)

Food and Nutrition Policy and Action Plan for Malta 2015-2020 (2014) Malta's National Healthy Weight for Life Strategy (MHEC, 2012)

Healthy Weight for Life: A National Strategy for Malta (MHEC, 2012)

National Cancer Plan (MHEC, 2011)

Strategy for the Prevention and Control of Non Communicable Disease in Malta (MHEC, 2010)

Physical Education and Sport in State Primary and Secondary Schools (NAO, 2010)

School Policy Framework (WHO, 2008)

Healthy Eating Lifestyle Plan (MEYE, 2007)

OWNERS

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REVIEW DATE

This document will be reviewed during February 2016.

You are encouraged to submit your feedback by December, 2015 via email on: r4af.mede@gov.mt

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