# Evaluation of the School Scheme for School Years 2017/2018 то 2021/2022 

Ref: MESDC/PAY 122/2017/1 and MESDC/PAY 42/2017-1

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## 1. EXECUTIVE Summary

This report presents the findings relating to the Evaluation of the School Scheme implemented between school years 2017-2018 and 2021-2022 (Ref: MESDC/PAY 122/2017/1 and MESDC/PAY 42/2017-1).

The main objective of this study was to evaluate the effectiveness of the School Scheme implemented between school years 2017-2018 and 2021-2022.

In order to enable comparability of data, the same methodology and tools were utilised as those undertaken in previous studies. Heads of schools/coordinators, teachers, stakeholders and parents of the students were targeted to attain pertinent feedback thereby enabling the appropriate assessment of the effectiveness and efficiency of the School Scheme.

### 1.1 Consumption habits and preferences

In view of the importance of daily milk, fruit and vegetables consumption as part of a healthy diet, part of the study focused on the consumption habits of milk, fruit and vegetables among students and their respective parents. In this respect, and congruent to previous studies the baseline of 5 daily portions of fruit and vegetables was utilised. This is congruent with the WHO/FAO recommendation of "a minimum of 400 g (equivalent to 5 portions of fruit and vegetables) of fruit and vegetables per day (excluding potatoes, sweet potatoes, cassava and other starchy roots ${ }^{1 \prime \prime}$.

In relation to milk intake, the baseline of 2 servings per day (equivalent to 250 ml milk; 1 tub ( 150 ml yoghurt; $30-40 \mathrm{~g}$ cheese; $45-50 \mathrm{~g}$ ricotta/gibejna) is recommended with an emphasis on choosing low-fat plain milk, yoghurt and cheese as part of one's daily diet. Lower fat versions are still high in protein and calcium. ${ }^{2}$ This is congruent with the WHO recommendation of "us[ing] milk and dairy products (kefir, sour milk, yoghurt and cheese) that are low in both fat and salt ${ }^{3 "}$.

## Awareness and intake

Over half (51.0\%) of the parents interviewed correctly indicated '4 to 6 fruit and vegetable portions per day'. Such results indicate that there was a decline in awareness from previous studies. (In 2015 and 2017, 68.7\% had indicated 4 to 6 portions daily).

[^0]Nevertheless, when assessing actual consumption patterns, the majority of parents at $54.8 \%$ stated that they consume between 1 to 3 portions of fruit and vegetables in a day while $32.7 \%$ (in 2017 this stood at $33.0 \%$ ) consume 4 to 6 portions in a given day. Such figures indicate that there has been no noticeable variance since the previous study.

Likewise, when analysing children's daily consumption patterns of fruit and vegetables, a total of $63.2 \%$ consume 1 to 3 portions of fruit and vegetables, while $21.9 \%$ eat 4 to 6 portions a day. Such results indicate that while the amount of children that eat the recommended daily intake of fruit and vegetables is still low, there has been an increase over the previous study. Indeed, in 2017, this stood at 18.5\%.

The findings also reveal the contribution of parents in promoting the consumption of fruit and vegetables - with $56.7 \%$ of parents indicating that they provided daily portions of fruit and vegetables with their child's packed lunch (for school). This represents an increase over the previous study (in 2017 this stood at 53.4\%).

Furthermore, the study indicates a decrease among those parents that 'never' provide fruit and vegetables with their child's packed lunch (in 2017 this stood at $15.5 \%$, currently 11.0\%).

Regarding milk consumption, over half (51.4\%) of the parents interviewed correctly indicated ‘ $0-250 \mathrm{ml}$ milk per day'.

When assessing actual consumption patterns, $46.7 \%$ of parents stated that they consume 2 servings in a day while $27.8 \%$ consume between 250 and 500 ml per day. No data is available for comparison however, figures indicate that most parents consume the recommended intake.

Likewise, when analysing children's daily consumption patterns of fresh milk, a total of $45.2 \%$ consume from 0 to 250 ml of fresh milk a day, while $37.0 \%$ drink between 250 and 500 ml in a given day. These figures also show that most children consume the recommended intake.

## Preference and attitude

Children generally prefer consumption of fruit when compares to vegetables, with $85.0 \%$ of children stating they enjoy eating fruit compared to $60.8 \%$ who said they enjoy eating vegetables. Figures indicate that while fewer children indicated they prefer fruit, more children indicated that they enjoy eating vegetables when compared to data gathered in 2017.

According to most parents (64.4\%) the reason why their children consume fruit and vegetables is due to the fact that they enjoy the taste. Nonetheless, $35.6 \%$ also indicated that health reasons are a main contributor to the consumption of fruit and vegetables by their children followed closely by pressure from family members at $35.3 \%$.

Consistent with previous studies, the most popular fruits among children are strawberries (80.4\%), apples (78.9\%), bananas (72.7\%), grapes (70.1\%) and watermelons (66.5\%). When
analysing fruit consumed at school, bananas registered the highest percentage, with $70.4 \%$ of parents stating that their children eat bananas at school.

As for children's vegetable preferences, carrots registered the highest mentions (74.5\%), followed by tomatoes (51.3\%) and broccoli (46.9\%). Such ranking is consistent with previous studies. With respect to vegetable consumption at school, tomatoes attained the highest responses, mentioned by $38.1 \%$ of parents. Carrots and cucumbers then followed with $37.5 \%$ and $33.0 \%$ responses respectively.

### 1.2 Lifestyle

Part of the research focused on children's lifestyle, more specifically in relation to time spent by children exercising, sitting down and practicing some sport or physical activity.

The majority of children (41.2\%) exercise between 30 minute and 1 hour on a daily basis, while $21.2 \%$ indicated that they exercise 'less than 30 minutes daily'. On a weekly basis, $44.1 \%$ indicated that they exercise between 1 to 5 hours a week. This represents a slight decrease over previous studies when $59.5 \%$ had indicated to exercise between 1 to 5 hours weekly. However, a total of $35.1 \%$ indicated that they exercise more than 5 hours per week. Such figure indicates an increase when $28.4 \%$ had indicated to exercise more than 5 hours weekly in the previous study.

When assessing the type of activities children participate in, results show that up to $89.0 \%$ of children participate in some kind of sport. This represents a noticeable increase over the previous study when $62.8 \%$ had indicated to practice some sport. Furthermore, the study indicates that all children do some form of activity.

The study indicates that children spend most time sitting whilst at school followed by time sitting whilst doing their homework. On average, children spend around 5.81 hours sitting for any activity.

### 1.3 School Milk, Fruit and Vegetables Scheme

Overall, parents have a positive perception of the Scheme with $20.2 \%$ indicating they feel that the Scheme is 'very good' while another $35.3 \%$ feel it is 'good. While such results are lower than the previous study (in 2017, 39.8\% indicated 'very positive' while $36.6 \%$ indicated 'good'), the results are still highly positive.

Likewise, when assessing the perception of the heads of schools/coordinators in terms of the functioning of the School Fruit and Vegetable Scheme, findings reveal a positive outlook with a total of $77.7 \%$ giving a positive response.

A review of the teachers' views indicates that the School Fruit Scheme is well received by teachers too though to a lesser extent, with $23.1 \%$ saying it was 'very good' while another $45.6 \%$ rated the scheme as 'good'. While positive, there has been a decrease in teachers' overall positive perception when compared with the previous study. In fact in 2015 the percentage of this compound ratings was $86 \%$.

The general feedback obtained from the stakeholders in the Scheme was positive, with the School Scheme perceived as fulfilling its objectives. All stakeholders interviewed commented that the School Milk, Fruit and Vegetables Scheme was a good initiative and targets a very relevant issue in Malta, namely obesity and unhealthy eating habits. Furthermore, a couple of stakeholders indicated that the Scheme was also beneficial for the deprived families and those at risk of poverty, as these families often considered the purchase of fruit and vegetables as an unattainable expense.

The main reason schools participated in the Scheme was for the health benefits derived from the Scheme (77.7\%). Conversely $16.7 \%$ indicated they were 'obliged' to participate with $52.8 \%$ indicating that this placed a considerable work burden on the school.

When assessing how the scheme impacted the child's eating habits, findings reveal that in most cases the diet of the child was positively impacted to some degree.

A total of $50.3 \%$ of parents felt that the Scheme impacted their child's diet, though to varying degrees as opposed to $49.7 \%$ that felt that the Scheme was 'not influential' on their children's diet. This represents a slight decrease over the previous study when $41.3 \%$ of the parents stated that it was 'not influential'.

Most of the parents indicated that as a result of the School Scheme there was no change in their involvement in their children's diet. Conversely, $48.8 \%$ of the parents felt that the Scheme had no impact on their involvement in their child's diet.

In line with the previous study, notwithstanding the positive perception of the scheme, the study did reveal that the majority of parents (58.8\%), reported no change in their children's consumption patterns of milk, fruit and vegetables at home since the introduction of the scheme. On the other hand, up to $8.2 \%$ reported an 'increase', whilst a further $25.8 \%$ noted a 'slight increase'. Likewise, the majority of parents (56.8\%) did not report an increase their child's milk, fruit and vegetable consumption at school. There were however $35.6 \%$ that felt that their child's consumption patterns did increase, though to varying degrees (of which 26.0\% indicated a 'slight increase').

Conversely, most teachers pointed out that an increase in milk, fruit and vegetable consumption among the children was noticed following the implementation of the Scheme. Up to $22.1 \%$ ( $46.0 \%$ in 2017) stated there was a 'slight increase' while another $27.9 \%$ ( $24.6 \%$ in 2017) stated there was an 'increase'.

Likewise, $62.5 \%$ of Heads of Schools felt that the Scheme had resulted in a positive alteration in children's milk, fruit and vegetables consumption patterns. Of these $11.1 \%$ indicated an 'increase' while $27.8 \%$ felt that there was a 'slight increase'.

### 1.4 Accompanying Measures

The study has shown that at $35.7 \%$, in parents' views, the accompanying measures of the Scheme have had a positive impact on children.

As for teachers, they had varying views on the effectiveness of the various measures, with the most positively viewed measures relating to the distribution of colouring books followed by farm/factory visits and the distribution of measuring charts. Similar views were expressed by heads of schools/coordinators.

### 1.5 Operating Framework of the School Scheme

## Information extracted from the questionnaires

With a total of $83.3 \%$ positive responses, the majority of schools were satisfied with the delivery arrangements with the contractors. However, the schools consider the Scheme to be a burden in terms of work involved with $52.8 \%$ indicating 'yes to some extent'. Notwithstanding, $88.9 \%$ indicated that the work burden did not discourage the school from participating in the School Scheme.

That said, the main negative comment received from both the heads of schools and the stakeholders related to the packaging of such produce, with the general comment being that the packaging (biodegradable containers) created too much waste.

Another comment voiced by the majority of schools related to children's preference of fruit to vegetables and that wastage was minimal when fruit was distributed to the children. Further to this, the feedback received from the parents, teachers and the schools alike show that the choice of fruit mix was not appealing to children as some fruit ripen much quicker than other fruit. In this regard, various stakeholders suggested that fruit is presented whole to the children rather then cut, sliced and peeled ready to eat.

With respect to the variety, some schools did indicate that this could be improved. One stakeholder also commented on the variety offered.

## Information attained from data attained from the Contractors in relation to the Project

The financial evaluation highlights the positive impact of the Scheme that successfully targets the vast majority of schools, be they Church, State and Independent.

The research evidenced that children tend to prefer fruit and that the distribution of vegetables results in a higher percentage (though contained) of wastage. That said, the data
indicates that the distribution is carried out once a week and that in one month, children are provided with 3 portions of fruit and 1 portion of vegetables which is deemed as ideal.

As for the variety, the figures indicate a much higher variety of fruit (melons, watermelons, strawberries, tangerines, clementine and apples) being distributed than vegetables (cherry tomatoes, carrots and lettuce).

## 2. CONCLUSIONS AND RECOMMENDATIONS

### 2.1 Overall

The School Scheme is positively viewed by parents, teachers, heads of schools and stakeholders, with the latter also perceiving the Scheme to be fulfilling its objectives.

Overall, parents are aware of the recommended daily intake of fruit and vegetables, though, to date both parents and children's actual daily consumption of fruit and vegetables is still below the recommended daily intake. That said, the success or otherwise of the Scheme must be viewed in a wider context, and the fact that the majority of parents are today aware of the recommended intake of milk, fruit and vegetables augurs well for the future, bearing in mind that it takes time to alter habits/traditions. Furthermore, the accessibility of fast food and other unhealthy options, and fast-food entities' considerable advertising and promotional budgets invariably hinder the Scheme's healthy eating drive given the fast-paced lifestyle the majority of households live.

From a financial perspective, when one considers the number of schools participating in the scheme, the total direct cost per child per year and number and variety of accompanying measures, the Scheme is deemed to result in a positive impact.

Apart from the above, the declaration of a pandemic alert in Malta during the tender implementation and with the issue of Legal Notices $41-77$ or $2020^{45}$ by the Superintendent of Public Health, schools were closed down until further notice.

The closure of schools on 13 March 2020 had prompted the suspension of the requisition for the provision of milk, fruit and vegetable supplies by the Contracting Authority until the reopening of schools. The Contracting Authority initiated a negotiated procedure for the provision of fresh milk through an off-premises voucher-based system, which was approved by the European Commission on 15 April $2021^{6}$ however, a similar system was found to be technically more difficult for the fruit and vegetables component of the School Scheme.

Moving forward, the following recommendations seek to increase the efficiency, effectiveness and impact of the Scheme.

### 2.2 Educational Perspective

The importance of education on forming healthy eating habits in children cannot be undermined. Indeed, the educational aspect of the School Scheme must be further emphasised and incorporated as both a short- and medium-term goal. Relevant authorities must endeavour to improve the educational aspect of the School Scheme to foster greater

[^1]awareness of the importance of a healthy and balanced diet amongst both parents and children.

### 2.3 Consumption Patterns

Research indicates that the milk component of the School Scheme is better received and consumption patterns are more in line with the recommended daily intake. The fruit and vegetable component of the School Scheme, on the other hand, required more improvement in view that while fruits are preferred by the vast majority of children, the vegetable component of the Scheme requires more development in order to reach set targets.

Moving forward it might be opportune to determine whether/to what extent it would be possible to alter the consistency and format of vegetables distributed to kids, bearing in mind that the research has evidenced that the vast majority of children generally eat vegetables cooked (while fruit is generally eaten fresh). The significance of vegetable consumption and its nutritional benefits cannot be undermined. Thus, exploring alternative ways of presenting the vegetables in a more appealing and tasteful way, need to be considered.

### 2.4 Accompanying Measures

Overall, accompanying measures are viewed positively. Having said that, the effectiveness of the various activities vary, with farm/factory visits being seen more favourably in view that they enable children with a practical, hands-on perspective and a more memorable/impressionable experience of the produce they eventually consume. Similar, innovative, hands-on measures including but not limited to hands-on, educational workshops on starting a vegetable garden that could possibly be replicated in the child's home or children picking their own fruit/vegetables and readying them for consumption, ought to be explored.

### 2.5 Parent and Teacher Involvement

The School Scheme was designed on the idea that consumption of milk, fruit and vegetables occur on educational premises as research indicates that children are influenced by their primary caregivers including parents and teachers, as well as by their peers.

## Parents

Parents are recognised as being the primary care givers and their role in their children's life plays an integral role in forming their habits from a very young age. Children often emulate parents' actions and internalise habits observed in parents. In this regard, parents help shape their children's habits as they ultimately prepare the children's food and hence play a
fundamental role on the child's daily intake on milk, fruit and vegetables. Although research has evidenced that parents make an effort to positively influence their children's milk, fruit and vegetables, the daily consumption of fruit and vegetables in particular among both the parents' and children's population fall below the recommended levels.

In this regard, it would be opportune to expand the educational aspect of the Scheme to include the parents.

## Teachers

Teachers are considered to be role models by their students and hence also play an integral role when it comes to both the consumption of the products as well as facilitating the educational aspect of the Scheme. The implementation of the School Scheme is based on the concept that children emulate their behaviour on their role models hence the School Scheme is based on consumption in schools were they are believed to be more prone to adopt positive healthy eating habits when they see their role models and peers participating in such habits. Therefore, it is imperative that teachers lead by example. Likewise, from an educational perspective, teachers need to continually reinforce the message of the importance of a healthy lifestyle and healthy eating.

Research indicates that motivated teachers are often very creative in coming up with activities that help promote health eating, be it by showing their students videos on the topic in question and/or identifying songs that highlight the importance of five portions of fruit and vegetables per day and other similar endeavours.

It is thus important to keep teachers motivated, and equally important to keep them updated on the topics of nutrition and healthy lifestyle. This could be done through regular talks/seminars and also workshops that enable the exchange of good practices among this important cluster.

### 2.6Schools

Overall, school participation in the Scheme is very positive, even though schools indicate that the Scheme creates an added administrative burden. Likewise, the heads of schools felt that they were being adequately informed about the Scheme and its obligations. The majority of schools also indicated to be aware overall of the various accompanying measures.

In view of the considerable variances between the schools (in terms of both size and space availability), it is imperative that future innovative accompanying measures identified take this aspect (school size/space availability) into consideration. Related to this, the limited resources (both human and financial) cannot be undermined.

### 2.7 Communication Channels

The study shows that while there is room for improvement in order to better achieve the targets set in the Strategy, there were no major issues of concern voiced by the stakeholders.

That said, it is imperative to communication channels remain open as continuous feedback facilitate improvements. Regular meetings must also be maintained with all partners involved to allow for more discussions on relevant issues pertaining to the Scheme.

## 3. Research Objectives

The School Scheme forms part of a wider EU initiative and has been operational for a number of years targeting the declining consumption of fresh fruit, vegetables and milk in the European Union which do not meet international or national nutritional recommendations.

On the other hand, consumption of processed food, which is often high in added sugar, salt, fat or additives, is on the rise. Such unhealthy diets, together with low physical activity, result in obesity. As a result, the School Scheme aims to encourage children to follow a healthy diet and lifestyle.

The Scheme supports the distribution of fruit, vegetables and fresh milk to schoolchildren aged between 3 and 11 years of age attending primary school.

The priority is for fresh fruit and vegetables and for fresh milk. Health considerations, seasonality, variety and availability aspects underpin the choice of products. Moreover, local and short supply chains are given priority.

The study seeks to satisfy Article 8(2) of Commission Implementing Regulation (EU) 2017/39 that states that "Member States shall submit their evaluation report or reports to the Commission by 1 March of the calendar year following the end of those 5 school years. The first evaluation reports shall be submitted by 1 March 2023."

This evaluation report was drawn following a data gathering process that involved:

- Parents of children that fell within the target segment (aged between 3 and 11); as well as
- Teachers;
- Heads of schools/Principals; and
- A number of stakeholders.

Parents, teachers and heads of schools/principals were targeted by means of separate structured questionnaires. So as to enable comparability of data the questionnaires that were utilised for the previous evaluation were replicated. As for the stakeholders, and also in line with the previous evaluation, these were targeted through face-to-face in-depth interviews.

## 4. Research Methodology

### 4.1 Overview

The research methodology adopted was congruent with that utilised for the previous study in view of integrating the data, findings and analysis of this evaluation exercise with data, findings and analysis of the one previous evaluation covering the previous period.

Consequently, a two-phased approach as adopted that comprised:

- Qualitative research through the conduct of in-depth face-to-face interviews among stakeholders
- Quantitative research through the distribution of three distinct questionnaires to target the three distinct target audiences, namely: heads of schools/principals ${ }^{7}$, teachers ${ }^{8}$ and parents ${ }^{9}$ of children that fell within the target audience in relation to children aged between 3 and 11 years.


### 4.2 Sampling of Children

The School Scheme targets educational establishments comprising children up to 11 years of age hence school children attending primary school. In view of the relatively young age of the target audience, the questionnaire for this segment was to be completed by the respective parent/s.

The questionnaire was sent to all the parent population who had registered their child/ren's interest in participating in the School Scheme i.e., circa 15,000 students, during school year 2020-2021.

### 4.3 Sampling of heads of schools/principals and teachers

Distinct questionnaires were designed for:

- Heads of schools/principals ${ }^{7}$ and
- Teachers ${ }^{8}$

A questionnaire was sent to the individuals falling within the sample of the above indicated clusters.

[^2]
### 4.4 Questionnaire Design

The questionnaires that were utilised for the previous evaluation were replicated in order to allow for comparability of data. The questionnaires were distributed through Microsoft Forms and links were sent to the respective target audiences to participate in the online survey ${ }^{10}$. A number of validations were included in the data entry system which did not allow respondents to submit the questionnaire if they left relevant questions unanswered. This limited the item 'non response' and enhanced the quality of the data.

### 4.5 Fieldwork

The ongoing communication and cooperation between the stakeholders including the Contractors, the Contracting Authority, the Ministry for Education, Sport, Youth, Research and Innovation and the Health Promotion and Disease Prevention Directorate within the Ministry for Health was paramount for the successful execution of the study.

The online surveys were disseminated directly to the target audiences through email. Clear instructions were provided as well as contact details where/whom to contact in case of difficulties. The language of the questionnaires to the parents was done in both Maltese and English in keeping with the diverse population of the target audience.

Stakeholders were tackled through in-depth face-to-face interviews. In this respect, meetings were held with the Contractors as well as with the Health Promotion and Disease Prevention Directorate and the Ministry for Education, Sport, Youth, Research and Innovation to gather data for the evaluation of the School Scheme.

All the data was treated with the strictest confidentiality, ensuring anonymity at all stages whilst safeguarding interviewees in accordance to the data protection regulations.

[^3]
## 5. Research Results

### 5.1 Findings from Students/Parents

## Demographic Profile

The sample comprised of school children aged between 3 and 11 years of age attending State, Church and Independent kindergarten and primary schools.

Type of School

|  | Count | \% |
| :--- | :---: | :---: |
| Church School | 464 | $33 \%$ |
| Independent School | 121 | $9 \%$ |
| State School | 811 | $58 \%$ |
| Total | $\mathbf{1 3 9 6}$ | $\mathbf{1 0 0 \%}$ |

Region of School

|  | Count | \% |
| :--- | :---: | :---: |
| Gozo | 98 | $7 \%$ |
| Northern | 231 | $17 \%$ |
| Northern Harbour | 287 | $21 \%$ |
| South Eastern | 290 | $21 \%$ |
| Southern Harbour | 372 | $27 \%$ |
| Western | 118 | $8 \%$ |
| Total | 1396 | $100 \%$ |

## Gender of Student

|  | Count | \% |
| :--- | :---: | :---: |
| Female | 704 | $50 \%$ |
| Male | 687 | $49 \%$ |
| Prefer not to say | 5 | $0 \%$ |
| Total | 1396 | $\mathbf{1 0 0 \%}$ |

## Grade of Student

|  | Count | $\%$ |
| :--- | :---: | :---: |
| Kinder 1-2 | 180 | $13 \%$ |
| Year 1 | 187 | $13 \%$ |
| Year 2 | 150 | $11 \%$ |
| Year 3 | 195 | $14 \%$ |
| Year 4 | 194 | $14 \%$ |
| Year 5 | 193 | $14 \%$ |
| Year 6 | 297 | $21 \%$ |
| Total | 1396 | $\mathbf{1 0 0 \%}$ |

## Demographics of Respondent (Parent/s)

Employment Status

|  | Count | \% |
| :--- | :---: | :---: |
| Actively employed | 1154 | $83 \%$ |
| Housewife | 202 | $14 \%$ |
| Retired | 2 | $0 \%$ |
| Student | 7 | $1 \%$ |
| Unemployed | 31 | $2 \%$ |
| Total | 1396 | $100 \%$ |

Employment Sector

|  | Count | \% |
| :--- | :---: | :---: |
| Private Sector | 621 | $44 \%$ |
| Public Sector | 481 | $34 \%$ |
| Self employed | 136 | $10 \%$ |
| Unemployed | 158 | $11 \%$ |
| Total | 1396 | $\mathbf{1 0 0 \%}$ |

Level of Education

|  | Count | \% |
| :--- | :---: | :---: |
| No schooling | 1 | $0 \%$ |
| Primary | 5 | $0 \%$ |
| Secondary | 301 | $22 \%$ |
| Post secondary | 356 | $26 \%$ |
| Tertiary | 733 | $53 \%$ |
| Total | $\mathbf{1 3 9 6}$ | $\mathbf{1 0 0 \%}$ |

## Fruit and Vegetables Consumption Habits

The FAO/WHO report ${ }^{11}$ indicates that the daily intake of fruits and vegetables should be at least 400 grams. This is equivalent to 5 portions of fruit and vegetables. This data is used as a baseline throughout this report.

Parents were requested to indicate what, in their opinion, is the minimum amount of fruit and vegetables that should be consumed.

## Daily Recommended Intake

A total of $51.0 \%$ correctly indicated ' 4 to 6 fruit and vegetable portions a day'. Such results indicate that there has been a decline since the previous study ( $68.7 \%$ in 2017 report). $44.0 \%$ of the parents indicated ' 1 to 3 fruit and vegetable portions a day', while $1.0 \%$ indicated 'between 7 to 10 fruit and vegetable portions per day'. Such data indicates that although the majority indicated the correct portion, fewer parents are aware of the recommended number of portions for daily intake.


## Weekly Recommended Intake

On a weekly basis, $34.0 \%$ indicated 'between 20 to 40 fruit and vegetable portions weekly'. Such results indicate a decrease since the last study when then $60.3 \%$ had indicated this amount. A total of $35.0 \%$ indicated 'between 10 to 20 fruit and vegetable portions weekly' (24.4\% in 2017).

[^4]

## Parents' Consumption Patterns

The questionnaire was also designed to collect the necessary data to determine the amount of fruit and vegetables consumed by the parent/s. A total of $10.0 \%$ of parents indicated consuming 'five times or more (fruit and vegetables) per day'. This is congruent with the previous study. Furthermore, $36 \%$ indicated consuming ' 3 to 4 times per day' ( $21.2 \%$ in 2017).


## Parents' Daily Consumption Patterns

The majority of parents (55.0\%) consume 1 to 3 portions of fruit and vegetables per day. A total of $33.0 \%$ indicated that they consume between 4 to 6 portions per day. This is in line with the previous study where then $32.5 \%$ indicated to consume between 4 to 6 portions per day. A total of $5.0 \%$ indicated to eat more than 7 fruit and vegetable portions a day (in 2017, this stood at 5.3\%).

## Children's Consumption Patterns

The majority of children (45.0\%) consumer between 1 to 2 portions of fruit and vegetables a dat. A total of $6.0 \%$ of children consume ' 5 times or more per day' portions of fruit and vegetables. This represents an increase over the previous years (in 2017 this stood at 4.3\%). Likewise, the number of children that consume fruit and vegetable portions ' 3 to 4 times a day' increased over the previous evaluation period (from 17.0\% to 29.0\%). A total of 3.0\% of children never eat fruit and vegetables which previously stood at 1.7\%.


## Children's Daily Consumption Patterns

The majority of children i.e., $63.0 \%$, tend to eat ' $1-3$ fruit and vegetable portions per day'. A total of $22.0 \%$ of children consume ' $4-6$ fruit and vegetable positions per day' which constitute an increase over the past years (this stood at $18.5 \%$ in 2017).


## Form in which Fruit and Vegetables are Consumed at Home

When analysing fruit and vegetable consumption patterns amongst children, nearly all children (52.0\%) consume fresh fruit. Cooked products follow with $11.0 \%$ positive replies.


## Provision of Fruit and Vegetables with the Children's Packed Lunch

Most of the parents (57.0\%) indicated that they provide a portion of fruit and vegetables with the children's packed lunch on a daily basis. During the previous evaluation exercise, this stood at 53.4\%. Furthermore, the number of parents that 'never' provide a portion of fruit and vegetables decreased from $15.5 \%$ to $11.0 \%$.


## Milk Consumption Habits

The baseline taken as reference is that of 2 servings per day (equivalent to 250 ml milk; 1 tub ( 150 ml yoghurt; $30-40 \mathrm{~g}$ cheese; $45-50 \mathrm{~g}$ ricotta/gibejna) as is recommended by WHO with an emphasis on choosing low-fat plain milk, yoghurt and cheese as part of one's daily diet. Lower fat versions are still high in protein and calcium ${ }^{12}$.

Parents were requested to indicate what, in their opinion, is the minimum amount of milk that should be consumed.

## Daily Recommended Intake

A total of $51.0 \%$ correctly indicated ' $0 \mathrm{ml}-250 \mathrm{ml}$ per day' followed by $40.0 \%$ of parents who indicated that the minimum amount of fresh milk that should be consumer per day is between 250 ml and 500 ml . Such data indicates that although the majority indicated the correct portion, fewer parents are aware of the recommended number of portions for daily intake.


## Weekly Recommended Intake

On a weekly basis, 47.0\% indicated between '1-2L per week' while 30.0\% indicated '2-3L per week'.

[^5]

## Parents' Consumption Patterns

Through the questionnaire, data gathered also indicates that $34.0 \%$ parent/s consume the recommended amount of milk per day which is congruent with the results extracted previously.


## Children's Consumption Patterns

The majority of children (43.0\%) consume between 0 ml to 250 ml servings of milk on a given day. A total of $4.0 \%$ of children consume ' $2 \mathrm{~L}-3 \mathrm{~L}$ per week' of milk. A total of $5.0 \%$ of children never drink milk.


## Children's Lifestyle

The questionnaire was also designed to collect information in order to assess the general lifestyle of the surveyed children in terms of exercise and other activities.

## Daily exercise

The majority of children ( $41.0 \%$ ) exercise between 30 minutes to an hour a day, which shows little change from the previous study, followed by $25 \%$ that indicated to exercise between ' 1 2 hours per day'. $7 \%$ of the children indicated that they do not exercise.


## Weekly exercise

Results indicate that the majority of children (44.0\%) exercise between 1 hour to 5 hours per week, while $6.0 \%$ exercise less than 1 hour per week. The number of children that do not exercise on a weekly basis stands at $5.0 \%$ which has increased from 2017 (3.6\%)


## Active Participation

A large majority of children participate in some kind of sport whereas $11.0 \%$ of children are reported to not participate in any sport.


## Hours spent sitting

Results indicate that the majority of school children spend most of their time sitting at school with the longest registered time related to 'sit at school' which is congruent with the results from previous studies. This is followed by 'sit for homework' purpose.


## Children's Preferences

The following charts indicate children's preferences in relation to milk, fruit and vegetable consumption.

## Reason/s for consuming fruit and vegetables

Parents were asked to indicate the main reason/s their children eat fruit and vegetables. 'They enjoy the taste' obtained the highest response at 46.9\%. 'Pressure from family members' and 'health reasons' resulted in $25.7 \%$ and $25.9 \%$ respectively.


## Preferred time to eat fruit and vegetables

When analysing children's preferred time of the day for consuming fruit and vegetables, the results indicate that with respect to fruit, lunchtime is the preferred time ( $37.1 \%$ ), followed by the afternoon (30.1\%).

Breakfast/Morning - Kolazzjon/f... 387
Lunch - Ikla ta' Nofsinhar 898
729
Dinner/Evening - Pranzu/Filgћax... 361
Never - Qatt 48


As for vegetable consumption, children tend to prefer to eat vegetables in the evening for dinner (47.4\%), followed by lunchtime (27.9\%).Breakfast/Morning - Kolazzjon/f... 67
Lunch - Ikla ta' Nofsinhar 574

Afternoon - Wara Nofsinhar 317Dinner/Evening - Pranzu/Filgћax... 974

- Never - Qatt 125



## Reason/s for consuming milk

Parents were asked to indicate the main reason/s their children drink milk. 'They enjoy the taste' obtained the highest response at 68.8\%. 'Health reasons' resulted in 20.1\%.


## Preferred time to drink milk

When analysing children's preferred time of the day for drinking milk, the results indicate that breakfast is the preferred time (47.1\%), followed by the afternoon (23.6\%).


## Like consuming fruits and vegetables

Parents were asked to indicate whether their child/ren like to consume fruits and vegetables.
As indicated in the graphs below, children by far prefer to consume fruit over vegetables, with over $85.0 \%$ indicating to like fruit as opposed to $62.0 \%$ that indicated to liking vegetables.


Furthermore, results indicate that an absolute majority of children (90.0\%) like milk.

## Like milk



## Perceptions on consumption volumes

Parents where asked, whether in their opinion their children consumed adequate amounts of milk, fruit and vegetables.
$55.0 \%$ of respondents were of the opinion that their children ate sufficient amounts of fruit. Conversely, only $39.0 \%$ felt that their children ate sufficient quantities of vegetables. On the other hand, $80.0 \%$ felt that their children consumed enough milk.

Consume enough fruit


Consume enough vegetables


## Consume enough milk



## Willingness to consume more

Data collected in this part of the survey sought to determine whether children would be interested in consuming more milk, fruit and vegetables. Parents where asked, whether in their opinion their children consumed adequate amounts of milk, fruit and vegetables.

As indicated in the data presented, more children would be willing to consume more fruit and milk but more than half of the children are not willing to consume more vegetables.

Willingness to consume more fruit
Willingness to consume more vegetables


Willingness to consume more milk


## Children's fruit and vegetable consumption at school

The questionnaire also sought to determine what fruits vegetables children consumed at school.

## Fruit

$17.3 \%$ of the children consume apples at school followed by strawberries (15.2\%), grapes (13.3\%) and bananas (13.1\%).


Plums - Ghanbaqar 108

- Pears - Langas
- Peaches - Haw

Nectarines - Čipresk
Melons - Bettiegћ
Kiwi

- Grapes - Gheneb

Fresh Figs - Tin frisk
Citrus Fruit - Frott tać-citru

- Cherries - Ċirasa
- Bananas - Banana
- Apricots - Berquq 85

Apples - Tuffieћ
983
D Doesn't like fruit - Ma jhobbx/th... 117

## Vegetables

The most consumed vegetables are tomatoes at $18.2 \%$ followed by carrots (17.9\%) and cucumbers (15.7\%).


## Lack of consumption

The following graphs illustrate those fruits and vegetables that children do not consume because they do not like them.

## Fruit

Among the fruits under review, fresh figs are the least liked among children congruent to the previous study with $15.2 \%$ responses. Apricots (10.2\%) and plums (9.6\%) follow.
Watermelons - Dullieg $\hbar$ ..... 183
Strawberries - Frawli ..... 132
Plums - Ghanbaqar ..... 583
Pears - Lanǵas ..... 496
Peaches - Haw ..... 320
Nectarines - Cipresk ..... 502
Melons - Bettiegh ..... 345
Kiwi ..... 597
Grapes - Gheneb ..... 168
Fresh Figs - Tin frisk ..... 927
Citrus Fruit - Frott tać-citru ..... 288
Cherries - Cirasa ..... 468
Bananas - Banana ..... 161
Apricots - Berquq ..... 619
Apples - Tuffie ..... 87
Doesn't like fruit - Ma jhobbx/th... ..... 72
Likes all fruit - lhobb/thobb il-fr... ..... 132

## Vegetables

$11.5 \%$ indicated a dislike for radishes followed by beetroot (11.2\%), turnip (9.2\%) and mushrooms ( $7.9 \%$ ) and hence were the least consumed amongst children.


Overall, data indicates that at over 15.0\%, children dislike vegetables more than fruit.

## School Milk, Fruit and Vegetables Scheme

Following the analysis carried out in the previous section in relation to the consumption of milk, fruit and vegetables at school, the next section will be focus on the impact of the School Scheme.

## Effect on children's consumption of fresh milk, fruit and vegetables at home

According to the results of the survey, $59.0 \%$ of the parents indicated that there was 'no change' in their children's consumption patterns of milk, fruit and vegetables. Having said that, $26.0 \%$ indicated a 'slight increase' in their children's consumption patterns.


## Effect on children's fresh milk, fruit and vegetables consumption at school

A total of $57.0 \%$ of parents indicated 'no change' in their children's consumption patterns of milk, fruit and vegetables at school. There were $36.0 \%$ that evidenced some form of increase ('slight increase' or 'increase') in their children's consumption patterns as opposed to 7.0\% that indicated the opposite.


## Impact on children's diet

The below table indicates that at $50.0 \%$, the majority of parents felt that the Scheme did not impact their children's diet whereas $29 \%$ found the Scheme to be 'fairly influential' on their children's diet.


## Parents' involvement on their children's diet

The following table indicates to what extent parents involved themselves in their children's diet as a result of the Scheme. With only $14.0 \%$ positive responses, overall, the majority of parents felt that, as a result of the Scheme they did not involve themselves more in what their children's diet. In fact, the largest group at $49 \%$ responded in the negative.


Impact of the accompanying measures on the child's interest for milk, fruit and vegetables consumption

Several accompanying measures were undertaken as part of the School Scheme, namely farm/factory visits, distribution of measuring charts, and other promotional material. Consequently, the study sought to determine if, to what extent, such accompanying measures created further interest and impact on the children's consumption of milk, fruit and vegetables.

With a total of $35.0 \%$ positive responses, parents felt that such measures left a positive impact on their children's consumption patterns of the supplies. While $26.0 \%$ indicated 'yes, but only to some extent', $9.0 \%$ indicated 'yes definitely'.


## General perception

In conclusion, parents were asked about their general perception of the School Scheme.
Overall, parents found the Scheme to be equally 'good' and 'fair' at $35 \%$ respectively. On the other hand, $7.0 \%$ felt that the Scheme was 'bad' and another $3.0 \%$ as 'very bad'.


### 5.2 Findings from Teachers

## Demographic Profile

The survey among teachers targeted the same sample that was targeted for the students/parents survey and comprised of teachers working with school children aged between 3 and 11 years of age and working in State, Church and Independent kindergarten and primary schools.

A total of 140 teachers completed the survey. The following tables display the demographic characteristics of the teachers and schools targeted.

Type of School

|  | Count | \% |
| :--- | :---: | :---: |
| Church School | 57 | $41 \%$ |
| Independent School | 11 | $8 \%$ |
| State School | 72 | $51 \%$ |
| Total | $\mathbf{1 4 0}$ | $\mathbf{1 0 0 \%}$ |

Number of Students in Class

|  | Count | \% |
| :--- | :---: | :---: |
| 0 to 10 students | 9 | $6 \%$ |
| 11 to 20 students | 88 | $63 \%$ |
| 21 to 30 students | 43 | $31 \%$ |
| Over 30 students | 0 | $0 \%$ |
| Total | $\mathbf{1 4 0}$ | $\mathbf{1 0 0 \%}$ |

Age of Students in Class

|  | Count | \% |
| :--- | :---: | :---: |
| $3-5$ years | 56 | $40 \%$ |
| $5-7$ years | 32 | $23 \%$ |
| $7-11$ years | 52 | $37 \%$ |
| Total | $\mathbf{1 4 0}$ | $\mathbf{1 0 0 \%}$ |

Region of School

|  | Count | \% |
| :--- | :---: | :---: |
| Gozo | 17 | $12 \%$ |
| Northern | 30 | $22 \%$ |
| Northern Harbour | 15 | $11 \%$ |
| South Eastern | 25 | $18 \%$ |
| Southern Harbour | 34 | $25 \%$ |
| Western | 17 | $12 \%$ |
| Total | 138 | $100 \%$ |

## Impact of the School Fruit, Vegetables and Milk Scheme

## Consumption

Teachers were asked whether they noticed any shifts in the consumption of fruit, vegetables and milk among the children at the school they taught.

With a response of $41 \%$, the majority of teachers indicated a slight increase in consumption, though to varying degrees ('slight increase' and 'increase'). Conversely $18 \%$ indicated a decrease.


## Wastage

Teachers were asked whether, as a result of the School Fruit, Vegetables and Milk Scheme, they noticed an increase in fruit, vegetables and milk wastage at school by the children.

With $50 \%$ responses, the teachers are of the opinion that there is an element of wastage as a result of the scheme. Conversely $16 \%$ indicated a decrease in wastage, while $22 \%$ indicated 'none'.


## Child's weight

In line with the previous study, teachers (96\%) did not notice any change in the children's weight following the introduction of the Scheme.


Effectiveness of the School Fruit, Vegetables and Milk Scheme and Accompanying Measures

## Overall perception

Teachers were asked to indicate their general perception of the Scheme.
Overall, teachers' perception on the School Fruit, Vegetables and Milk Scheme is fair (53\%). While there has been a significant decline in percentage over the previous evaluation period (in 2017 this stood at a more positive perspective with $68.7 \%$ indicating a 'Good' and 'Very good' response), with a mere $12 \%$ negative views, the Scheme is still well perceived.


## Awareness on Accompanying Measures

Teachers were asked to indicate all the various activities undertaken, linked to fruit, vegetables and milk consumption, that they were aware of.

The awareness levels of the varying Accompanying Measures of the Scheme are relatively high with only $18 \%$ of the teachers filling in the survey leaving this question blank. Among the Accompanying Measures, the distribution of colouring books (28\%) followed by farm/factory visits ( $15 \%$ ) attained the highest positive responses.


## Effectiveness of the Accompanying Measures

The study then sought to attain teachers' perceptions on the distribution of promotional materials and the farm/factory visits as Accompanying Measures. In this regard teachers were asked to rank the effectiveness on a 5-point scale, where a score of 1 indicated 'not effective at all' while at the other end, a score of 5 indicated 'very effective'.
$31 \%$ of teachers responded that these measures were averagely effective while $10 \%$ considered them as 'very effective', $15 \%$ considered them as 'not effective at all' and $14 \%$ had no opinion. The distribution of promotional materials attained more responses than the farm/factory visits however these were thought to be less effective than the farm/factory visits since $36 \%$ found them less effective when compared to the $20 \%$ who found the farm/factory visits less effective.


### 5.3 Findings from Heads of Schools/Principals

## Demographic Profile

The study also involved attaining the feedback of the 'Head of School/Principal' and targeted the same sample that was targeted for the students/parents and teachers survey for State, Church and Independent kindergarten and primary schools for children aged between 3 and 11 years of age. In total 36 heads of schools/principals completed the survey.

The following tables display the demographic characteristics of the teachers and schools targeted.

## Type of School

|  | Count | \% |
| :--- | :---: | :---: |
| Church School | 14 | $39 \%$ |
| Independent School | 4 | $11 \%$ |
| State School | 18 | $50 \%$ |
| Total | $\mathbf{3 6}$ | $\mathbf{1 0 0 \%}$ |

Respondent

|  | Count | \% |
| :--- | :---: | :---: |
| Head/Principal | 12 | $33 \%$ |
| Assistant Head | 17 | $47 \%$ |
| Administration/Coordinator | 1 | $3 \%$ |
| Other | 6 | $17 \%$ |
| Total | $\mathbf{3 6}$ | $100 \%$ |

## Similar Initiatives

The study sought to determine whether schools had adopted similar initiatives to the School Fruit, Vegetables and Milk Scheme prior to the introduction of the Scheme in question. The graph below indicates that the majority of the schools (67\%) had not undertaken a similar scheme.


## Reason for participating in the Scheme

With a total of $78 \%$ of responses, the majority of heads of schools opted to participate in the Scheme because of its health benefits. A further 5\% indicated that participation in the School Fruit, Vegetables and Milk Scheme was made voluntarily. By contrast, $17 \%$ felt obliged to participate.


## Information

Heads of schools were asked whether, in their opinion, they were being adequately informed about the School Fruit, Vegetables and Milk Scheme and its obligations. In this respect, the vast majority ( $86 \%$ ) answered positively. This percentage represents a slight increase over the previous evaluation (then 84.4\%) has answered positively.


## Deliveries

The study then analysed the time when deliveries were carried out. The results illustrate that the majority of deliveries are carried out between 07:30hrs and 09:00hrs (83\%) while the remaining $17 \%$ indicated that deliveries were generally carried out between 09:00hrs and 10:00hrs.

When comparing these results with the previous study it transpires that deliveries are still overall being carried out early. In 2017 the vast majority of respondents (53.1\%) had indicated that deliveries generally took place between 07:00hrs and 08:00hrs.


## Quality of delivery arrangements

The vast majority of schools (83\%) indicated satisfaction with the delivery arrangements with the contractor.


## Fruit, vegetables and milk consumption time

Heads of schools were asked to indicate at what time children generally consumed the fruit, vegetables and milk in their school. The half of schools which responded to the survey (50\%) indicated 'In class'. 'During recreation' then followed with $42 \%$ of responses.


Impact of the School Fruit, Vegetables and Milk Scheme

## Consumption patterns

The study asked heads of school whether they noticed an alteration in children's consumption of fruit, vegetables and milk at school following the implementation of the School Fruit, Vegetables and Milk Scheme. A total of 39\% of respondents felt that the Scheme had resulted in children consuming more fruit, vegetables and milk at school though to varying degrees ( $11 \%$ indicated an 'increase' while a further $28 \%$ felt that there was a 'slight increase').


## Wastage

Heads of schools were asked whether the Scheme had effected fruit, vegetable and milk wastage at the school by children. The majority (27\%) felt that there was no shift in wastage.

A total of $33 \%$ felt that the Scheme had resulted in an increase in fruit, vegetable and milk wastage. $14 \%$ believed wastage decreased following the implementation of the Scheme.


## Child's weight

When asked whether they saw any variation in the children's weight following the introduction of the School Fruit, Vegetables and Milk Scheme, the majority (92\%) of the heads of schools that participated in the study indicated that they had seen 'no change'.


## Availability of other food

The majority ( $75 \%$ ) of the heads of schools that participated in the study indicated that no other food is available within the school premises.


## Awareness of Accompanying Measures

Heads of schools were asked to indicate all the various activities undertaken, linked to fruit, vegetables and milk consumption, that they were aware of.

Among the Accompanying Measures, the distribution of colouring books (69\%) followed equally by farm/factory visits and distribution of rulers(58\%) attained the highest positive responses.


## Effectiveness of the Accompanying Measures

The study then sought to attain schools' perceptions on the distribution of promotional materials and the farm/factory visits as Accompanying Measures. In this regard heads of schools were asked to rank the effectiveness on a 5-point scale, where a score of 1 indicated 'not effective at all' while at the other end, a score of 5 indicated 'very effective'.
$46 \%$ of respondents showed that these measures were averagely effective while $10 \%$ considered them as 'very effective' and $6 \%$ considered them as 'not effective at all'. The
farm/factory visits were thought to be more effective overall than the distribution of promotional materials since $36 \%$ found them more effective when compared to the $14 \%$ who found the farm/factory visits less effective.


## Work burden on the school

The study sought to determine whether the heads of schools felt that the School Fruit, Vegetables and Milk Scheme placed a considerable work burden on the school. As indicated from the below chart, the majority of schools, albeit by a small degree, (53\%) consider the Scheme to be a burden in terms of the work involved. Conversely, $33 \%$ felt that the Scheme's work burden on the school was 'not so much'.


## Work burden discouraging participation

Of the schools surveyed, only $11 \%$ felt that the work burden discouraged the school from participating in the Scheme.


## Perception of the School Fruit, Vegetables and Milk Scheme

Based on their experience with the Scheme, heads of schools were asked to indicate how well they felt the School Fruit, Vegetables and Milk Scheme was functioning. With a total of 78\% positive responses, the vast majority of schools felt that the Scheme was functioning well.


## Suggested improvements

The final part of the study asked heads of schools for their views and opinions on possible improvements to the Scheme. Below are the main points highlighted:

## Fruit and vegetables

The general comment was that children preferred fruit over vegetables. In this respect some respondents suggested an increase in the distribution of fruit over vegetables or the distribution of sweeter vegetables in order to minimise/eliminate waste. The general feeling was that wastage generally related to vegetables rather than fruit.

## Presentation

A large number of respondents felt that, where possible, the fruit and vegetables should be distributed as wholes as opposed to sliced to preserve their freshness.

Other heads of schools voiced comments about the quality of the fruit that sometimes reached the schools in relation to the oxidation that takes place between fruits such as tangerines and apples since these are not delivered as wholes but sliced and presented together in the container.

In relation to presentation, a number of respondents also felt that packaging of fruit and vegetables should be minimised. This ties in with the suggestion to present the children with whole fruits.

## Deliveries

Only a few schools commented on the importance of delivery being punctual with one recommending that it should always take place at the same time. Another respondent indicated that in cases of schools with multiple buildings, delivery should be made to each building since staff have to dedicate time to collect the portions from the delivery point and take it to their building accordingly, leading to waste of time.

## Milk

The majority of respondents did not add any feedback in relation to the distribution of the milk portions. Only one remarked that there was no wastage in terms of the milk while another remarked that all was well when it came to the milk portions.

### 5.4 Interview with stakeholders

The evaluation of the School Scheme also incorporated a number of in-depth interview with stakeholders involved in the Scheme. The following stakeholders were interviewed:

- Ministry for Education, Sport, Youth, Research and Innovation
- Health Promotion and Disease Prevention Directorate within the Ministry for Health
- Ministry for Agriculture, Fisheries and Animal Rights - Agriculture and Rural Payments Agency
- Contractors


## Effectiveness of the School Scheme

All the stakeholders interviewed were of the opinion that the Scheme had a positive impact and fulfilled its objectives in promoting a healthy and balanced diet among children.

All stakeholders interviewed felt that such accompanying measures were effective in increasing the students' exposure and awareness to the importance of fruit and vegetables. Stakeholders commented that the measures did encourage the consumption of fruit and vegetables and increased exposure to the children of the importance of consuming them. Furthermore, the general feeling was that certain endeavours were also effective in targeting the parents.

Stakeholders applauded the farm/factory visits as one of the most effective measures implemented as it offered an educational and fun activity for children to participate in whilst also providing them with a unique hands-on experience.

One stakeholder commented that while the school could influence the children's awareness on healthy eating, there was a limit to how much could be done, and that there ought to be more communication/coordination with the parents to ensure that a unified message was being passed on to the children. One stakeholder recommended that parents are invited for an activity with their children in order to involve them more in the Scheme.

## Teachers as role models

One of the most important aspects of the School Scheme is the consumption of milk, fruit and vegetables on school premises as the Scheme is designed on evidence that children are more likely to build lasting habits when they see their peers and role models participating in said habit.

In view of this, teachers within a school setting play a significant role in fulfilling the objectives of the Scheme. This was one of the common feedback received during interviews. Stakeholders were in general agreement that younger students tend to internalise actions seen at school by their teachers.

One of the stakeholders brought forward the idea that educational workshops could be organised to promote healthy eating as teachers can be more involved in the Scheme than just to distribute the portions to the students. This was already being implemented in some classes as teachers go out of their way to create activities around the Scheme to further disseminate the message of a healthy and balanced diet.

## Logistical Operations of the Scheme

The operational aspect of the Scheme ran smoothly until the disruption caused by the covid19 pandemic. The closure of schools on 13 March 2020 had prompted the suspension of the requisition for the provision of milk, fruit and vegetable supplies by the Contracting Authority until the reopening of schools. The Contracting Authority then initiated a negotiated procedure for the provision of fresh milk through an off-premises voucher-based system,
which was approved by the European Commission on 15 April $2021^{13}$ however, a similar system was found to be technically more difficult for the fruit and vegetables component of the School Scheme.

The main issue brought up by stakeholders related to the presentation of the fruit and vegetables especially during the hot summer months. All were in agreement that presentation was important in the promotion of fruit and vegetable consumption. In this regard, several stakeholders suggested that instead of distributing ready to eat portions of fruit and vegetables, these could be distributed as whole fruits/vegetables instead.

## Suggested Improvements to the Scheme

As mentioned in the previous section, several stakeholders suggested the presentation of whole fruit and vegetables rather than sliced, diced and cut fruit and vegetables with a greater emphasis on the educational component of the Scheme.

The stakeholders applauded the Scheme on bringing together all parties for discussion in order to ensure that all aspects of the Scheme was being taken care of to ensure its smooth implementation in the most efficient and effective manner.

[^6]
## 6. Annex - Cross Tabular Analysis

Minimum amount of fruit and vegetables that should be consumed per day * Gender Crosstabulation

| Minimum amount of fruit and vegetables that should be consumed per day | Female | Male | Prefer not to say | Grand Total |
| :---: | :---: | :---: | :---: | :---: |
| 1-3 fruit \& vegetable portions per day | 299 | 312 |  | 611 |
| \% within Gender | 42.47\% | 45.41\% |  | 43.77\% |
| 4-6 fruit \& vegetable portions per day | 362 | 345 | 5 | 712 |
| \% within Gender | 51.42\% | 50.22\% | 100\% | 51\% |
| 7-10 fruit \& vegetable portions per day | 18 | 13 |  | 31 |
| \% within Gender | 2.56\% | 1.89\% |  | 2.22\% |
| 7-10 fruit \& vegetable portions per day | 8 | 6 |  | 14 |
| \% within Gender | 1.14\% | 0.87\% |  | 1\% |
| I don't know | 11 | 6 |  | 17 |
| \% within Gender | 1.56\% | 0.87\% |  | 1.22\% |
| More than 10 fruit \& vegetable portions per day | 5 | 4 |  | 9 |
| \% within Gender | 0.71\% | 0.58\% |  | 0.64\% |
| More than 10 fruit \& vegetable portions per day | 1 | 1 |  | 2 |
| \% within Gender | 0.14\% | 0.15\% |  | 0.14\% |
| Grand Total | 704 | 687 | 5 | 1396 |

Minimum amount of fruit and vegetables that should be consumed per day * Grade Crosstabulation

| Minimum amount of fruit and vegetables that should be consumed per day | Kinder 1-2 | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Grand <br> Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1-3 fruit \& vegetable portions per day | 79 | 90 | 66 | 74 | 83 | 80 | 139 | 611 |
| \% within Grade | 43.89\% | 48.13\% | 44\% | 37.95\% | 42.78\% | 41.45\% | 46.80\% | 43.77\% |
| 4-6 fruit \& vegetable portions per day | 94 | 81 | 79 | 108 | 105 | 102 | 143 | 712 |
| \% within Grade | 52.22\% | 43.32\% | 52.67\% | 55.38\% | 54.12\% | 52.85\% | 48.15\% | 51\% |
| 7-10 fruit \& vegetable portions per day | 2 | 7 | 5 | 5 | 1 | 5 | 6 | 31 |
| \% within Grade | 1.11\% | 3.74\% | 3.33\% | 2.56\% | 0.52\% | 2.59\% | 2.02\% | 2.22\% |
| 7-10 fruit \& vegetable portions per day | 1 | 4 | 0 | 3 | 2 | 0 | 4 | 14 |
| \% within Grade | 0.56\% | 2.14\% | 0\% | 1.54\% | 1.03\% | 0\% | 1.35\% | 1\% |
| I don't know | 1 | 3 | 0 | 3 | 2 | 5 | 3 | 17 |
| \% within Grade | 0.56\% | 1.60\% | 0\% | 1.54\% | 1.03\% | 2.59\% | 1.01\% | 1.22\% |
| More than 10 fruit \& vegetable portions per day | 2 | 2 | 0 | 1 | 1 | 1 | 2 | 9 |
| \% within Grade | 1.11\% | 1.07\% | 0\% | 0.51\% | 0.52\% | 0.52\% | 0.67\% | 0.64\% |
| More than 10 fruit \& vegetable portions per day | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 2 |


|  | \% within Grade | $0.56 \%$ | $0 \%$ | $0 \%$ | $0.51 \%$ | $0 \%$ | $0 \%$ | $0 \%$ | $0.14 \%$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Grand Total | 180 | 187 | 150 | 195 | 194 | 193 | 297 | 1396 |  |

Minimum amount of fresh milk that should be consumed per day * Gender Crosstabulation

| Minimum amount of fresh milk that should be consumed per day | Female | Male | Prefer not to say | Grand <br> Total |
| :---: | :---: | :---: | :---: | :---: |
| Oml-250ml per day | 368 | 350 | 0 | 718 |
| \% within Gender | 52.27\% | 50.95\% | 0.00\% | 51.43\% |
| 250ml-500ml per day | 278 | 272 | 4 | 554 |
| \% within Gender | 39.49\% | 39.59\% | 80.00\% | 39.68\% |
| 500 ml - 1 L per day -500 ml | 29 | 41 | 0 | 70 |
| \% within Gender | 4.12\% | 5.97\% | 0.00\% | 5.01\% |
| I don't know | 26 | 18 | 1 | 45 |
| \% within Gender | 3.69\% | 2.62\% | 20.00\% | 3.22\% |
| More than 1L per day | 3 | 6 | 0 | 9 |
| \% within Gender | 0.43\% | 0.87\% | 0.00\% | 0.64\% |
| Grand Total | 704 | 687 | 5 | 1396 |

Minimum amount of fresh milk that should be consumed per day * Grade Crosstabulation

| Minimum amount of fresh milk that should be consumed per day | Kinder 1-2 | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Grand Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Oml-250ml per day | 92 | 102 | 68 | 100 | 104 | 97 | 155 | 718 |
| \% within Grade | 51.11 | 54.55 | 45.33 | 51.28 | 53.61 | 50.26 | 52.19 | 51.43 |
| 250ml-500ml per day | 74 | 64 | 67 | 77 | 71 | 82 | 119 | 554 |
| \% within Grade | 41.11 | 34.22 | 44.67 | 39.49 | 36.60 | 42.49 | 40.07 | 39.68 |
| 500 ml - 1L per day | 6 | 12 | 9 | 10 | 11 | 5 | 17 | 70 |
| \% within Grade | 3.33 | 6.42 | 6.00 | 5.13 | 5.67 | 2.59 | 5.72 | 5.01 |
| I don't know | 6 | 6 | 5 | 5 | 8 | 9 | 6 | 45 |
| \% within Grade | 3.33 | 3.21 | 3.33 | 2.56 | 4.12 | 4.66 | 2.02 | 3.22 |
| More than 1L per day | 2 | 3 | 1 | 3 | 0 | 0 | 0 | 9 |
| \% within Grade | 1.11 | 1.60 | 0.67 | 1.54 | 0.00 | 0.00 | 0.00 | 0.64 |
| Grand Total | 180 | 187 | 150 | 195 | 194 | 193 | 297 | 1396 |

Frequency of parent's consumption of fruit and vegetables at home * Gender Crosstabulation

| Frequency of parent's consumption of fruit and vegetables at home | Female | Male | Prefer not to say | Grand Total |
| :---: | :---: | :---: | :---: | :---: |
| 1-2 times per day | 268 | 247 | 1 | 516 |
| \% within Gender | 38.07\% | 35.95\% | 20.00\% | 36.96\% |
| 3-4 times per day | 249 | 254 | 4 | 507 |
| \% within Gender | 35.37\% | 36.97\% | 80.00\% | 36.32\% |


| 5 times or more per day |  | 70 | 71 | 0 | 141 |
| :--- | :--- | ---: | ---: | ---: | ---: |
|  | \% within Gender | $9.94 \%$ | $10.33 \%$ | $0.00 \%$ | $10.10 \%$ |
| Never |  | 3 | 7 | 0 | 10 |
|  | \% within Gender | $0.43 \%$ | $1.02 \%$ | $0.00 \%$ | $0.72 \%$ |
| Up to 3 times a week |  | 60 | 58 | 0 | 118 |
|  | \% within Gender | $8.52 \%$ | $8.44 \%$ | $0.00 \%$ | $8.45 \%$ |
| Up to 6 times a week |  | 54 | 50 | 0 | 104 |
|  | \% within Gender | $7.67 \%$ | $7.28 \%$ | $0.00 \%$ | $7.45 \%$ |
| Grand Total |  | $\mathbf{7 0 4}$ | $\mathbf{6 8 7}$ | $\mathbf{5}$ | $\mathbf{1 3 9 6}$ |

Frequency of parent's consumption of fruit and vegetables at home * Grade Crosstabulation

| Frequency of parent's <br> consumption of fruit <br> and vegetables at home | Kinder <br> $1-2$ | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Grand <br> Total |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 1-2 times per day | 68 | 73 | 58 | 75 | 66 | 67 | 109 | 516 |
| \% within Grade | $37.78 \%$ | $39.04 \%$ | $38.67 \%$ | $38.46 \%$ | $34.02 \%$ | $34.72 \%$ | $36.70 \%$ | $36.96 \%$ |
| 3-4 times per day | 66 | 58 | 52 | 74 | 75 | 69 | 113 | 507 |
| \% within Grade | $36.67 \%$ | $31.02 \%$ | $34.67 \%$ | $37.95 \%$ | $38.66 \%$ | $35.75 \%$ | $38.05 \%$ | $36.32 \%$ |
| 5 times or more per day | 19 | 20 | 13 | 19 | 17 | 20 | 33 | 141 |
| \% within Grade | $10.56 \%$ | $10.70 \%$ | $8.67 \%$ | $9.74 \%$ | $8.76 \%$ | $10.36 \%$ | $11.11 \%$ | $10.10 \%$ |
| Never | 1 | 1 | 2 | 0 | 1 | 3 | 2 | 10 |
| \% within Grade | $0.56 \%$ | $0.53 \%$ | $1.33 \%$ | $0.00 \%$ | $0.52 \%$ | $1.55 \%$ | $0.67 \%$ | $0.72 \%$ |
| Up to 3 times a week | 11 | 17 | 11 | 15 | 22 | 19 | 23 | 118 |
| \% within Grade | $6.11 \%$ | $9.09 \%$ | $7.33 \%$ | $7.69 \%$ | $11.34 \%$ | $9.84 \%$ | $7.74 \%$ | $8.45 \%$ |
| Up to 6 times a week | 15 | 18 | 14 | 12 | 13 | 15 | 17 | 104 |
| \% within Grade | $8.33 \%$ | $9.63 \%$ | $9.33 \%$ | $6.15 \%$ | $6.70 \%$ | $7.77 \%$ | $5.72 \%$ | $7.45 \%$ |
| Grand Total | 180 | 187 | 150 | 195 | 194 | 193 | 297 | 1396 |

Frequency of parent's consumption of milk at home * Gender Crosstabulation

| Frequency of parent's consumption of milk at home | Female | Male | Prefer not to say | Grand Total |
| :---: | :---: | :---: | :---: | :---: |
| OL-1L per week | 76 | 55 | 1 | 132 |
| \% within Gender | 10.80\% | 8.01\% | 20.00\% | 9.46\% |
| Oml-250ml per day | 228 | 240 | 1 | 469 |
| \% within Gender | 32.39\% | 34.93\% | 20.00\% | 33.60\% |
| 1L-2L per week | 57 | 39 | 0 | 96 |
| \% within Gender | 8.10\% | 5.68\% | 0.00\% | 6.88\% |
| 250ml-500ml per day | 219 | 207 | 3 | 429 |
| \% within Gender | 31.11\% | 30.13\% | 60.00\% | 30.73\% |
| 2L-3L per week | 54 | 68 | 0 | 122 |
| \% within Gender | 7.67\% | 9.90\% | 0.00\% | 8.74\% |
| Never | 70 | 78 | 0 | 148 |
| \% within Gender | 9.94\% | 11.35\% | 0.00\% | 10.60\% |


| Grand Total | 704 | 687 | 5 | 1396 |
| :--- | :--- | :--- | :--- | :--- |

Frequency of parent's consumption of milk at home * Grade Crosstabulation

| Frequency of parent's consumption of milk at home | Kinder 1-2 | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Grand Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0L-1L per week | 19 | 14 | 12 | 25 | 19 | 19 | 24 | 132 |
| \% within Grade | 10.56\% | 7.49\% | 8.00\% | 12.82\% | 9.79\% | 9.84\% | 8.08\% | 9.46\% |
| Oml-250ml per day | 65 | 55 | 48 | 65 | 64 | 70 | 102 | 469 |
| \% within Grade | 36.11\% | 29.41\% | 32.00\% | 33.33\% | 32.99\% | 36.27\% | 34.34\% | 33.6\% |
| 1L-2L per week | 13 | 14 | 11 | 10 | 14 | 12 | 22 | 96 |
| \% within Grade | 7.22\% | 7.49\% | 7.33\% | 5.13\% | 7.22\% | 6.22\% | 7.41\% | 6.88\% |
| 250ml-500ml per day | 51 | 67 | 48 | 51 | 66 | 48 | 98 | 429 |
| \% within Grade | 28.33\% | 35.83\% | 32.00\% | 26.15\% | 34.02\% | 24.87\% | 33.00\% | 30.7\% |
| 2L-3L per week | 19 | 12 | 13 | 18 | 10 | 24 | 26 | 122 |
| \% within Grade | 10.56\% | 6.42\% | 8.67\% | 9.23\% | 5.15\% | 12.44\% | 8.75\% | 8.74\% |
| Never | 13 | 25 | 18 | 26 | 21 | 20 | 25 | 148 |
| \% within Grade | 7.22\% | 13.37\% | 12.00\% | 13.33\% | 10.82\% | 10.36\% | 8.42\% | 10.6\% |
| Grand Total | 180 | 187 | 150 | 195 | 194 | 193 | 297 | 1396 |

Portions of fruit and vegetables consumed in a day * Gender Crosstabulation

| Portions of fruit and vegetables consumed in a day | Female | Male | Prefer not to say | Grand Total |
| :---: | :---: | :---: | :---: | :---: |
| 1-3 fruit and vegetable portions per day | 388 | 375 | 2 | 765 |
| \% within Gender | 55.11\% | 54.59\% | 40.00\% | 54.80\% |
| 4-6 fruit and vegetable portions per day | 226 | 228 | 2 | 456 |
| \% within Gender | 32.10\% | 33.19\% | 40.00\% | 32.66\% |
| I do not consume fruit and vegetables every day | 53 | 56 | 0 | 109 |
| \% within Gender | 7.53\% | 8.15\% | 0.00\% | 7.81\% |
| More than 7 fruit and vegetable portions per day | 37 | 28 | 1 | 66 |
| \% within Gender | 5.26\% | 4.08\% | 20.00\% | 4.73\% |
| Grand Total | 704 | 687 | 5 | 1396 |

Portions of fruit and vegetables consumed in a day * Grade Crosstabulation

| Portions of fruit and <br> vegetables consumed in <br> a day | Kinder <br> 1-2 | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Grand <br> Total |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 1-3 fruit and vegetable <br> portions per day <br> \% within Grade | 103 | 100 | 81 | 118 | 105 | 101 | 157 | 765 |
| $57.22 \%$ | $53.48 \%$ | $54.00 \%$ | $60.51 \%$ | $54.12 \%$ | $52.33 \%$ | $52.86 \%$ | $54.80 \%$ |  |
| $4-6$ fruit and vegetable <br> portions per day <br> \% within Grade | 60 | 53 | 53 | 58 | 60 | 70 | 102 | 456 |
|  | $33.33 \%$ | $28.34 \%$ | $35.33 \%$ | $29.74 \%$ | $30.93 \%$ | $36.27 \%$ | $34.34 \%$ | $32.66 \%$ |


| I do not consume fruit and vegetables every day | 10 $5.56 \%$ | $\begin{array}{r} 22 \\ 1176 \% \end{array}$ | 13 $8.67 \%$ | 12 $6.15 \%$ | $\begin{array}{r} 20 \\ 10.31 \% \end{array}$ | 14 $7.25 \%$ | 18 $6.06 \%$ | 109 $7.81 \%$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| More than 7 fruit and vegetable portions per day |  |  |  |  |  |  |  |  |
|  | 7 | 12 | 3 | 7 | 9 | 8 | 20 | 66 |
| \% within Grade | 3.89\% | 6.42\% | 2.00\% | 3.59\% | 4.64\% | 4.15\% | 6.73\% | 4.73\% |
| Grand Total | 180 | 187 | 150 | 195 | 194 | 193 | 297 | 1396 |

Amount of fresh milk consumed in a day * Gender Crosstabulation

| Amount of fresh milk consumed in a day | Female | Male | Prefer not to say | Grand <br> Total |
| :---: | :---: | :---: | :---: | :---: |
| Oml-250ml per day | 342 | 308 | 2 | 652 |
| \% within Gender | 48.58\% | 44.83\% | 40.00\% | 46.70\% |
| 250ml-500ml per day | 192 | 195 | 2 | 389 |
| \% within Gender | 27.27\% | 28.38\% | 40.00\% | 27.87\% |
| I do not consume fresh milk every day | 129 | 132 | 0 | 261 |
| \% within Gender | 18.32\% | 19.21\% | 0.00\% | 18.70\% |
| More than 500 ml per day | 41 | 52 | 1 | 94 |
| \% within Gender | 5.82\% | 7.57\% | 20.00\% | 6.73\% |
| Grand Total | 704 | 687 | 5 | 1396 |

Amount of fresh milk consumed in a day * Grade Crosstabulation

| Amount of fresh milk consumed in a day | Kinder $1-2$ | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Grand <br> Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0ml-250ml per day | 84 | 83 | 64 | 106 | 83 | 93 | 139 | 652 |
| \% within Grade | 46.67\% | 44.39\% | 42.67\% | 54.36\% | 42.78\% | 48.19\% | 46.80\% | 46.70\% |
| 250ml-500ml per day | 54 | 53 | 48 | 38 | 55 | 55 | 86 | 389 |
| \% within Grade | 30.00\% | 28.34\% | 32.00\% | 19.49\% | 28.35\% | 28.50\% | 28.96\% | 27.87\% |
| I do not consume fresh milk every day | 32 | 40 | 30 | 37 | 40 | 35 | 47 | 261 |
| \% within Grade | 17.78\% | 21.39\% | 20.00\% | 18.97\% | 20.62\% | 18.13\% | 15.82\% | 18.70\% |
| More than 500ml per day | 10 | 11 | 8 | 14 | 16 | 10 | 25 | 94 |
| \% within Grade | 5.56\% | 5.88\% | 5.33\% | 7.18\% | 8.25\% | 5.18\% | 8.42\% | 6.73\% |
| Grand Total | 180 | 187 | 150 | 195 | 194 | 193 | 297 | 1396 |

Frequency of children's consumption of fruit and vegetables * Gender Crosstabulation

| Frequency of children's <br> consumption of fruit <br> and vegetables | Female |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |


| 3-4 times per day | 207 | 198 | 3 | 408 |
| :---: | ---: | ---: | ---: | ---: |
| \% within Gender | $29.40 \%$ | $28.82 \%$ | $60.00 \%$ | $29.23 \%$ |
| 5 times or more per day | 41 | 36 | 0 | 77 |
| \% within Gender | $5.82 \%$ | $5.24 \%$ | $0.00 \%$ | $5.52 \%$ |
| Never | 24 | 23 | 0 | 47 |
| \% within Gender | $3.41 \%$ | $3.35 \%$ | $0.00 \%$ | $3.37 \%$ |
| Up to 3 times a week | 78 | 88 | 0 | 166 |
| \% within Gender | $11.08 \%$ | $12.81 \%$ | $0.00 \%$ | $11.89 \%$ |
| Up to 6 times a week | 42 | 33 | 1 | 76 |
| $\%$ within Gender | $5.97 \%$ | $4.80 \%$ | $20.00 \%$ | $5.44 \%$ |
| Grand Total | 704 | 687 | 5 | 1396 |

Frequency of children's consumption of fruit and vegetables * Grade Crosstabulation

| Frequency of children's consumption of fruit and vegetables | Kinder 1-2 | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Grand <br> Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1-2 times per day | 83 | 81 | 71 | 80 | 93 | 79 | 135 | 622 |
| \% within Grade | 46.11\% | 43.32\% | 47.33\% | 41.03\% | 47.94\% | 40.93\% | 45.45\% | 44.56\% |
| 3-4 times per day | 60 | 55 | 46 | 62 | 57 | 53 | 75 | 408 |
| \% within Grade | 33.33\% | 29.41\% | 30.67\% | 31.79\% | 29.38\% | 27.46\% | 25.25\% | 29.23\% |
| 5 times or more per day | 16 | 13 | 6 | 8 | 7 | 14 | 13 | 77 |
| \% within Grade | 8.89\% | 6.95\% | 4.00\% | 4.10\% | 3.61\% | 7.25\% | 4.38\% | 5.52\% |
| Never | 5 | 8 | 3 | 7 | 6 | 7 | 11 | 47 |
| \% within Grade | 2.78\% | 4.28\% | 2.00\% | 3.59\% | 3.09\% | 3.63\% | 3.70\% | 3.37\% |
| Up to 3 times a week | 10 | 24 | 12 | 27 | 23 | 28 | 42 | 166 |
| \% within Grade | 5.56\% | 12.83\% | 8.00\% | 13.85\% | 11.86\% | 14.51\% | 14.14\% | 11.89\% |
| Up to 6 times a week | 6 | 6 | 12 | 11 | 8 | 12 | 21 | 76 |
| \% within Grade | 3.33\% | 3.21\% | 8.00\% | 5.64\% | 4.12\% | 6.22\% | 7.07\% | 5.44\% |
| Grand Total | 180 | 187 | 150 | 195 | 194 | 193 | 297 | 1396 |

Frequency of children's consumption of milk * Gender Crosstabulation

| Frequency of children's consumption of milk | Female | Male | Prefer not to say | Grand <br> Total |
| :---: | :---: | :---: | :---: | :---: |
| OL-1L per week | 61 | 38 | 0 | 99 |
| \% within Gender | 8.66 | 5.53 | 0.00 | 7.09 |
| Oml-250ml per day | 311 | 281 | 3 | 595 |
| \% within Gender | 44.18 | 40.90 | 60.00 | 42.62 |
| 1L-2L per week | 36 | 37 | 0 | 73 |
| \% within Gender | 5.11 | 5.39 | 0.00 | 5.23 |
| 250ml-500ml per day | 230 | 273 | 1 | 504 |
| \% within Gender | 32.67 | 39.74 | 20.00 | 36.10 |


| 2L-3L per week | 26 | 24 | 1 | 51 |
| :---: | :---: | :---: | :---: | :---: |
| \% within Gender | 3.69 | 3.49 | 20.00 | 3.65 |
| Never | 40 | 34 | 0 | 74 |
| \% within Gender | 5.68 | 4.95 | 0.00 | 5.30 |
| Grand Total | 704 | 687 | 5 | 1396 |

## Frequency of children's consumption of milk * Grade Crosstabulation

| Frequency of children's consumption of milk | Kinder 1-2 | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Grand <br> Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| OL-1L per week | 7 | 16 | 13 | 14 | 14 | 16 | 19 | 99 |
| \% within Grade | 3.89\% | 8.56\% | 8.67\% | 7.18\% | 7.22\% | 8.29\% | 6.40\% | 7.09\% |
| Oml-250ml per day | 72 | 83 | 68 | 85 | 74 | 89 | 124 | 595 |
| \% within Grade | 40.00\% | 44.39\% | 45.33\% | 43.59\% | 38.14\% | 46.11\% | 41.75\% | 42.62\% |
| 1L-2L per week | 9 | 9 | 5 | 9 | 12 | 11 | 18 | 73 |
| \% within Grade | 5.00\% | 4.81\% | 3.33\% | 4.62\% | 6.19\% | 5.70\% | 6.06\% | 5.23\% |
| 250ml-500ml per day | 74 | 64 | 52 | 69 | 76 | 64 | 105 | 504 |
| \% within Grade | 41.11\% | 34.22\% | 34.67\% | 35.38\% | 39.18\% | 33.16\% | 35.35\% | 36.10\% |
| 2L-3L per week | 7 | 4 | 5 | 6 | 6 | 6 | 17 | 51 |
| \% within Grade | 3.89\% | 2.14\% | 3.33\% | 3.08\% | 3.09\% | 3.11\% | 5.72\% | 3.65\% |
| Never | 11 | 11 | 7 | 12 | 12 | 7 | 14 | 74 |
| \% within Grade | 6.11\% | 5.88\%\% | 4.67\% | 6.15\% | 6.19\% | 3.63\% | 4.71\% | 5.30\% |
| Grand Total | 180 | 187 | 150 | 195 | 194 | 193 | 297 | 1396 |

Portions of fruit and vegetables child consumes in a day * Gender Crosstabulation

| Portions of fruit and vegetables child consumes in a day | Female | Male | Prefer not to say | Grand Total |
| :---: | :---: | :---: | :---: | :---: |
| 1-3 fruit and vegetable portions per day | 441 | 438 | 4 | 883 |
| \% within Gender | 62.64\% | 63.76\% | 80.00\% | 63.25\% |
| 4-6 fruit and vegetable portions per day | 168 | 138 | 1 | 307 |
| \% within Gender | 23.86\% | 20.09\% | 20.00\% | 21.99\% |
| More than 7 fruit and vegetable portions per day | 14 | 18 | 0 | 32 |
| \% within Gender | 1.99\% | 2.62\% | 0.00\% | 2.29\% |
| My child does not consume fruit and vegetables every day | 81 | 93 | 0 | 174 |
| \% within Gender | 11.51\% | 13.54\% | 0.00\% | 12.46\% |
| Grand Total | 704 | 687 | 5 | 1396 |

Portions of fruit and vegetables child consumes in a day * Grade Crosstabulation

```
Portions of fruit and
```

vegetables child consumes in Kinder Grand
$\begin{array}{llllllll}\text { a day } & \text { 1-2 } & \text { Year } 1 & \text { Year } 2 & \text { Year } 3 & \text { Year } 4 & \text { Year } 5 & \text { Year } 6 \text { Total }\end{array}$

| 1-3 fruit and vegetable portions per day | 109 | 117 | 103 | 131 | 119 | 108 | 196 | 883 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \% within Grade | 60.56\% | 62.57\% | 68.67\% | 67.18\% | 61.34\% | 55.96\% | 65.99\% | 63.25\% |
| 4-6 fruit and vegetable portions per day | 48 | 41 | 30 | 38 | 47 | 49 | 54 | 307 |
| \% within Grade | 26.67\% | 21.93\% | 20.00\% | 19.49\% | 24.23\% | 25.39\% | 18.18\% | 21.99\% |
| More than 7 fruit and vegetable portions per day | 4 | 8 | 1 | 3 | 2 | 7 | 7 | 32 |
| \% within Grade | 2.22\% | 4.28\% | 0.67\% | 1.54\% | 1.03\% | 3.63\% | 2.36\% | 2.29\% |
| My child does not consume fruit and vegetables every day | 19 | 21 | 16 | 23 | 26 | 29 | 40 | 174 |
| \% within Grade | 10.56\% | 11.23\% | 10.67\% | 11.79\% | 13.40\% | 15.03\% | 13.47\% | 12.46\% |
| Grand Total | 180 | 187 | 150 | 195 | 194 | 193 | 297 | 1396 |

Amount of milk child consumes in a day * Gender Crosstabulation

| Amount of milk child consumes in a day | Female | Male | Prefer not to say | Grand Total |
| :---: | :---: | :---: | :---: | :---: |
| Oml-250ml per day | 344 | 285 | 3 | 632 |
| \% within Gender | 48.86\% | 41.48\% | 60.00\% | 45.27\% |
| 250ml-500ml per day | 247 | 269 | 1 | 517 |
| \% within Gender | 35.09\% | 39.16\% | 20.00\% | 37.03\% |
| More than 500 ml per day | 39 | 60 | 1 | 100 |
| \% within Gender | 5.54\% | 8.73\% | 20.00\% | 7.16\% |
| My child does not consume fresh milk every day | 74 | 73 | 0 | 147 |
| \% within Gender | 10.51\% | 10.63\% | 0.00\% | 10.53\% |
| Grand Total | 704 | 687 | 5 | 1396 |

Amount of milk child consumes in a day * Grade Crosstabulation

| Amount of milk child consumes in a day | Kinder $1-2$ | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Grand Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Oml-250ml per day | 77 | 75 | 76 | 90 | 79 | 101 | 134 | 632 |
| \% within Grade | 42.78\% | 40.11\% | 50.67\% | 46.15\% | 40.72\% | 52.33\% | 45.12\% | 45.27\% |
| 250ml-500ml per day | 69 | 67 | 54 | 70 | 84 | 60 | 113 | 517 |
| \% within Grade | 38.33\% | 35.83\% | 36.00\% | 35.90\% | 43.30\% | 31.09\% | 38.05\% | 37.03\% |
| More than 500 ml per day | 16 | 19 | 5 | 10 | 8 | 15 | 27 | 100 |
| \% within Grade | 8.89\% | 10.16\% | 3.33\% | 5.13\% | 4.12\% | 7.77\% | 9.09\% | 7.16\% |
| My child does not consume fresh milk every day | 18 | 26 | 15 | 25 | 23 | 17 | 23 | 147 |
| \% within Grade | 10.00\% | 13.90\% | 10.00\% | 12.82\% | 11.86\% | 8.81\% | 7.74\% | 10.53\% |
| Grand Total | 180 | 187 | 150 | 195 | 194 | 193 | 297 | 1396 |

Frequency parent provides fruit and vegetables in child's packed lunch * Gender Crosstabulation

| Frequency parent provides fruit and vegetables in child's packed lunch | Female | Male | Prefer not to say | Grand Total |
| :---: | :---: | :---: | :---: | :---: |
| 1 to 2 times a week | 114 | 107 | 0 | 221 |
| \% within Gender | 16.19\% | 15.57\% | 0.00\% | 15.83\% |
| 3 to 4 times a week | 125 | 104 | 1 | 230 |
| \% within Gender | 17.76\% | 15.14\% | 20.00\% | 16.48\% |
| 5 times a week | 405 | 382 | 4 | 791 |
| \% within Gender | 57.53\% | 55.60\% | 80.00\% | 56.66\% |
| Never | 60 | 94 | 0 | 154 |
| \% within Gender | 8.52\% | 13.68\% | 0.00\% | 11.03\% |
| Grand Total | 704 | 687 | 5 | 1396 |

Frequency parent provides fruit and vegetables in child's packed lunch * Grade Crosstabulation

| Frequency parent provides fruit and vegetables in child's packed lunch | Kinder 1-2 | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Grand Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 to 2 times a week | 25 | 27 | 20 | 35 | 25 | 40 | 49 | 221 |
|  | 13.89 | 14.44 | 13.33 | 17.95 | 12.89 | 20.73 | 16.50 | 15.83 |
| \% within Grade | \% | \% | \% | \% | \% | \% | \% | \% |
| 3 to 4 times a week | 31 | 30 | 17 | 40 | 21 | 25 | 66 | 230 |
|  | 17.22 | 16.04 | 11.33 | 20.51 | 10.82 | 12.95 | 22.22 | 16.48 |
| \% within Grade | \% | \% | \% | \% | \% | \% | \% | \% |
| 5 times a week | 114 | 110 | 101 | 107 | 122 | 102 | 135 | 791 |
|  | 63.33 | 58.82 | 67.33 | 54.87 | 62.89 | 52.85 | 45.45 | 56.66 |
| \% within Grade | \% | \% | \% | \% | \% | \% | \% | \% |
| Never | 10 | 20 | 12 | 13 | 26 | 26 | 47 | 154 |
|  |  | 10.70 |  |  | 13.40 | 13.47 | 15.82 | 11.03 |
| \% within Grade | 5.56\% | \% | 8.00\% | 6.67\% | \% | \% | \% | \% |
| Grand Total | 180 | 187 | 150 | 195 | 194 | 193 | 297 | 1396 |

Hours child exercises daily * Gender Crosstabulation

| Hours child exercises daily | Female |  | Male | Prefer not to say | Grand Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1-2 hours per day |  | 150 | 198 | 1 | 349 |
| \% within Gender |  | 21.31\% | 28.82\% | 20.00\% | 25.00\% |
| 30 minutes -1 hour per day |  | 296 | 277 | 3 | 576 |
| \% within Gender |  | 42.05\% | 39.35\% | 0.43\% | 81.82\% |
| Less than 30 minutes per day |  | 172 | 124 | 1 | 297 |
| \% within Gender |  | 24.43\% | 17.61\% | 0.14\% | 42.19\% |
| More than 2 hours per day |  | 38 | 41 | 0 | 79 |


| \% within Gender | $5.40 \%$ | $5.82 \%$ | $0.00 \%$ | $11.22 \%$ |
| ---: | ---: | ---: | ---: | ---: |
| My child does not exercise | 48 | 47 | 0 | 95 |
| \% within Gender | $6.82 \%$ | $6.68 \%$ | $0.00 \%$ | $13.49 \%$ |
| Grand Total | $\mathbf{7 0 4}$ | $\mathbf{6 8 7}$ | $\mathbf{5}$ | $\mathbf{1 3 9 6}$ |

## Hours child exercises daily * Grade Crosstabulation

| Hours child exercises daily | Kinder $1-2$ | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Grand Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1-2 hours per day | 45 | 46 | 45 | 59 | 42 | 40 | 72 | 349 |
| \% within Grade | 25.00\% | 24.60\% | 30.00\% | 30.26\% | 21.65\% | 20.73\% | 24.24\% | 25.00\% |
| 30 minutes - 1 hour per day | 70 | 78 | 67 | 78 | 87 | 85 | 111 | 576 |
| \% within Grade | 38.89\% | 41.71\% | 44.67\% | 40.00\% | 44.85\% | 44.04\% | 37.37\% | 41.26\% |
| Less than 30 minutes per day | 31 | 39 | 32 | 33 | 45 | 40 | 77 | 297 |
| \% within Grade | 17.22\% | 20.86\% | 21.33\% | 16.92\% | 23.20\% | 20.73\% | 25.93\% | 21.28\% |
| More than 2 hours per day | 14 | 8 | 4 | 12 | 13 | 13 | 15 | 79 |
| \% within Grade | 7.78\% | 4.28\% | 2.67\% | 6.15\% | 6.70\% | 6.74\% | 5.05\% | 5.66\% |
| My child does not exercise | 20 | 16 | 2 | 13 | 7 | 15 | 22 | 95 |
| \% within Grade | 11.11\% | 8.56\% | 1.33\% | 6.67\% | 3.61\% | 7.77\% | 7.41\% | 6.81\% |
| Grand Total | 180 | 187 | 150 | 195 | 194 | 193 | 297 | 1396 |

Willingness to consume more fruit * Gender Crosstabulation

| Willingness to <br> consume more <br> fruit | Female |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Male |  | Prefer not to <br> say | Grand <br> Total |  |  |
| No | 276 | 255 | 1 | 532 |  |
| \% within Gender | $39.20 \%$ | $37.12 \%$ | $20.00 \%$ | $38.11 \%$ |  |
| Yes | 428 | 432 | 4 | 864 |  |
| \% within Gender | $60.80 \%$ | $62.88 \%$ | $80.00 \%$ | $61.89 \%$ |  |
| Grand Total | $\mathbf{7 0 4}$ | $\mathbf{6 8 7}$ | $\mathbf{5}$ | $\mathbf{1 3 9 6}$ |  |

Willingness to consume more fruit * Grade Crosstabulation

| Willingness <br> to consume <br> more fruit | Kinder <br> $\mathbf{1 - 2}$ | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Grand <br> Total |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| No within | 61 | 75 | 59 | 69 | 75 | 73 | 120 | 532 |
| Grade | $33.89 \%$ | $40.11 \%$ | $39.33 \%$ | $35.38 \%$ | $38.66 \%$ | $37.82 \%$ | $40.40 \%$ | $38.11 \%$ |
| Yes | 119 | 112 | 91 | 126 | 119 | 120 | 177 | 864 |
| \% within |  |  |  |  |  |  |  |  |
| Grade | $66.11 \%$ | $59.89 \%$ | $60.67 \%$ | $64.62 \%$ | $61.34 \%$ | $62.18 \%$ | $59.60 \%$ | $61.89 \%$ |
| Grand Total | $\mathbf{1 8 0}$ | 187 | $\mathbf{1 5 0}$ | $\mathbf{1 9 5}$ | 194 | 193 | $\mathbf{2 9 7}$ | 1396 |

Willingness to consume more vegetables * Gender Crosstabulation

| Willingness to consume more vegetables | Female | Male | Prefer not to say | Grand Total |
| :---: | :---: | :---: | :---: | :---: |
| No | 420 | 403 | 1 | 824 |
| \% within |  |  |  |  |
| Gender | 59.66\% | 58.66\% | 20.00\% | 59.03\% |
| Yes | 284 | 284 | 4 | 572 |
| \% within |  |  |  |  |
| Gender | 40.34\% | 41.34\% | 80.00\% | 40.97\% |
| Grand Total | 704 | 687 | 5 | 1396 |

Willingness to consume more vegetables * Grade Crosstabulation

| Willingness <br> to consume <br> more <br> vegetables | Kinder <br> $\mathbf{1 - 2}$ | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Grand <br> Total |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| No <br> \% within | 93 | 120 | 93 | 116 | 122 | 106 | 174 | 824 |
| Grade | $51.67 \%$ | $64.17 \%$ | $62.00 \%$ | $59.49 \%$ | $62.89 \%$ | $54.92 \%$ | $58.59 \%$ | $59.03 \%$ |
| Yes | 87 | 67 | 57 | 79 | 72 | 87 | 123 | 572 |
| \% within |  |  |  |  |  |  |  |  |
| Grade | $48.33 \%$ | $35.83 \%$ | $38.00 \%$ | $40.51 \%$ | $37.11 \%$ | $45.08 \%$ | $41.41 \%$ | $40.97 \%$ |
| Grand Total | $\mathbf{1 8 0}$ | 187 | 150 | 195 | 194 | 193 | $\mathbf{2 9 7}$ | 1396 |


[^0]:    ${ }^{1}$ Healthy Diet: Key Facts. World Health Organisation (WHO) https://www.who.int/news-room/fact-sheets/detail/healthy-diet (viewed in February 2023)
    ${ }^{2}$ Food-Based Dietary Guidelines in Europe - table 7 (WHO) https://knowledge4policy.ec.europa.eu/health-promotion-knowledge-gateway/food-based-dietary-guidelines-europe-table-7 en (viewed in February 2023)
    ${ }^{3}$ A healthy lifestyle - WHO recommendations (WHO) https://www.who.int/europe/news-room/fact-
    sheets/item/a-healthy-lifestyle---who-recommendations (viewed in February 2023)

[^1]:    ${ }^{4}$ Legal Notice 41 of 2020 (Malta) https://legislation.mt/eli/ln/2020/41/eng/pdf (viewed in February 2023)
    ${ }^{5}$ Legal Notice 77 of 2020 (Malta) https://legislation.mt/eli/ln/2020/77/eng (viewed in February 2023)
    ${ }^{6}$ Ares(2021)2556975 - EU School Scheme Approval of an Off-Premises Voucher-Based System (received on 15 April 2021)

[^2]:    ${ }^{7}$ https://forms.office.com/e/3VpuJgzYTw
    ${ }^{8}$ https://forms.office.com/e/mmiGm3g1zN
    ${ }^{9}$ https://forms.office.com/e/KhVps8TVVA

[^3]:    ${ }^{10}$ In view of the distinct questionnaires to tackle the distinct target audiences, three links were created for the online surveys - one for parents, one for schools and another for teachers. Stakeholders were targeted through face-to-face interview hence no link was created in this regard.

[^4]:    ${ }^{11}$ Diet, nutrition and the prevention of chronic diseases: report of a Joint WHO/FAO Expert Consultation. WHO Technical Report Series, No. 916. Geneva: World Health Organization; 2003.

[^5]:    ${ }^{12}$ Food-Based Dietary Guidelines in Europe - table 7 (WHO) https://knowledge4policy.ec.europa.eu/health-promotion-knowledge-gateway/food-based-dietary-guidelines-europe-table-7 en (viewed in February 2023)

[^6]:    ${ }^{13}$ Ares(2021)2556975 - EU School Scheme Approval of an Off-Premises Voucher-Based System (received on 15 April 2021)

