

IMPORTANCE OF A SCHOOL CANTEEN IN THE PROJECT

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HEALTH STATUS OF CZECH POPULATION

- many studies come with disturbing results
 - Report on health of inhabitants of the Czech Republic (2014)
 - Study HBSC (International report on health and lifestyle of children and school children in 2014)
 - WHO
 - Health almanac of the Czech Republic
 - ...
- unfavourable demographic trend – the population is getting older



Report on the health of the inhabitants of the Czech Rep. (2014)

- The Czech Rep. is one of the leading European countries concerning the number of obese (after GB, Malta and Hungary), more than a half of adult population (57 %) is overweight or obese (17 % of obese people)
- In the Czech Rep. approximately 7 % of population suffer from type 2 diabetes (850 000)
- The incidence of colorectal carcinoma in men ranks among the highest in European countries (after Slovakia and Hungary)

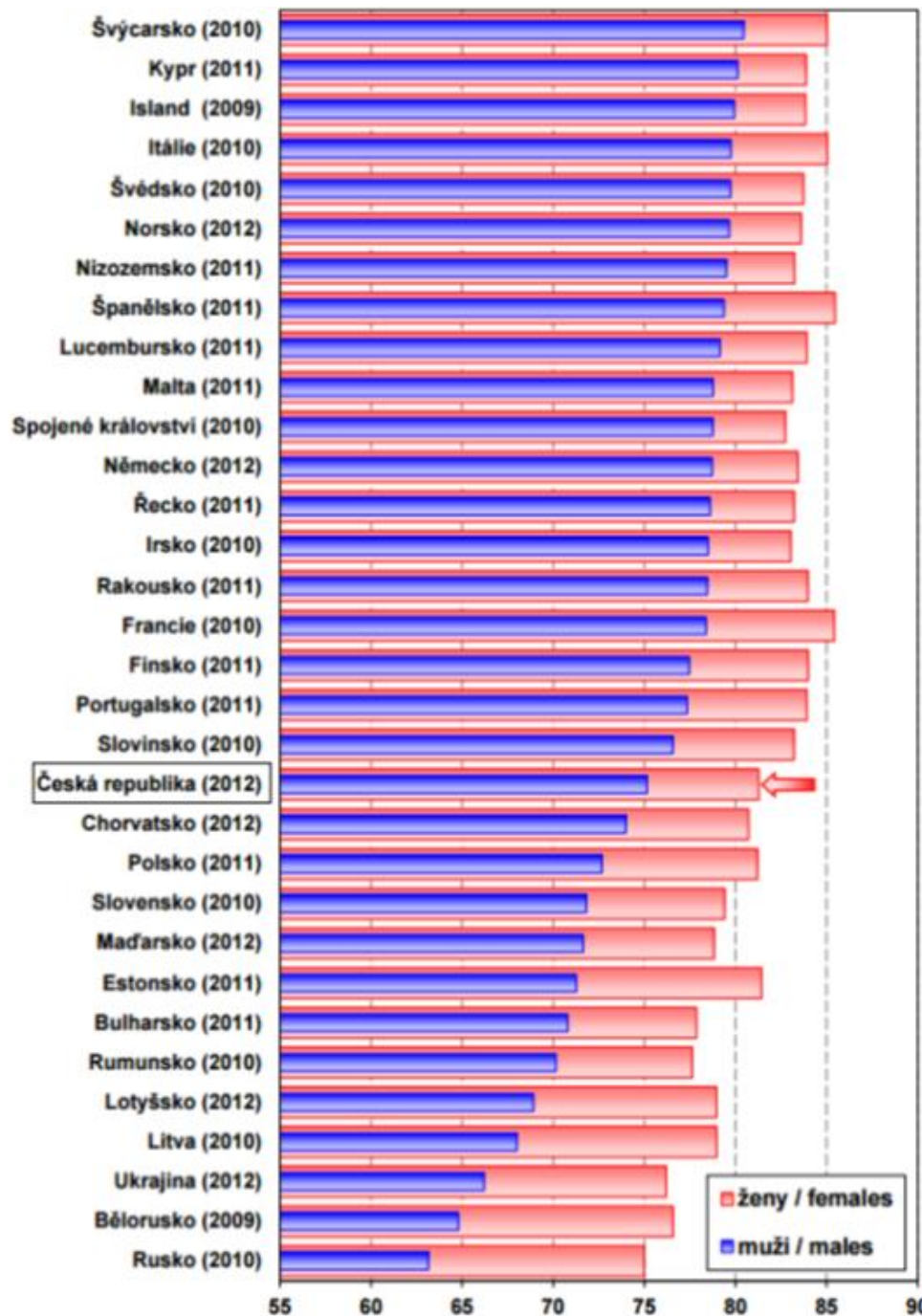
Study HBSC (2014)

- 29 % of eleven-year-old, 28 % of thirteen-year-old and 23 % of fifteen-year-old boys are overweight or obese. Girls suffer from such conditions 50 % less than boys. Concerning this issue Czech children don't differ from the international average, whereas following a diet or other activities aimed at losing weight are strongly above-average; 19 % of fifteen-year old boys and 37 % of fifteen-year-old girls.
- 48 % of fifteen-year-old girls and 28 % of fifteen-year-old boys report 2 and more health issues at least once a week.



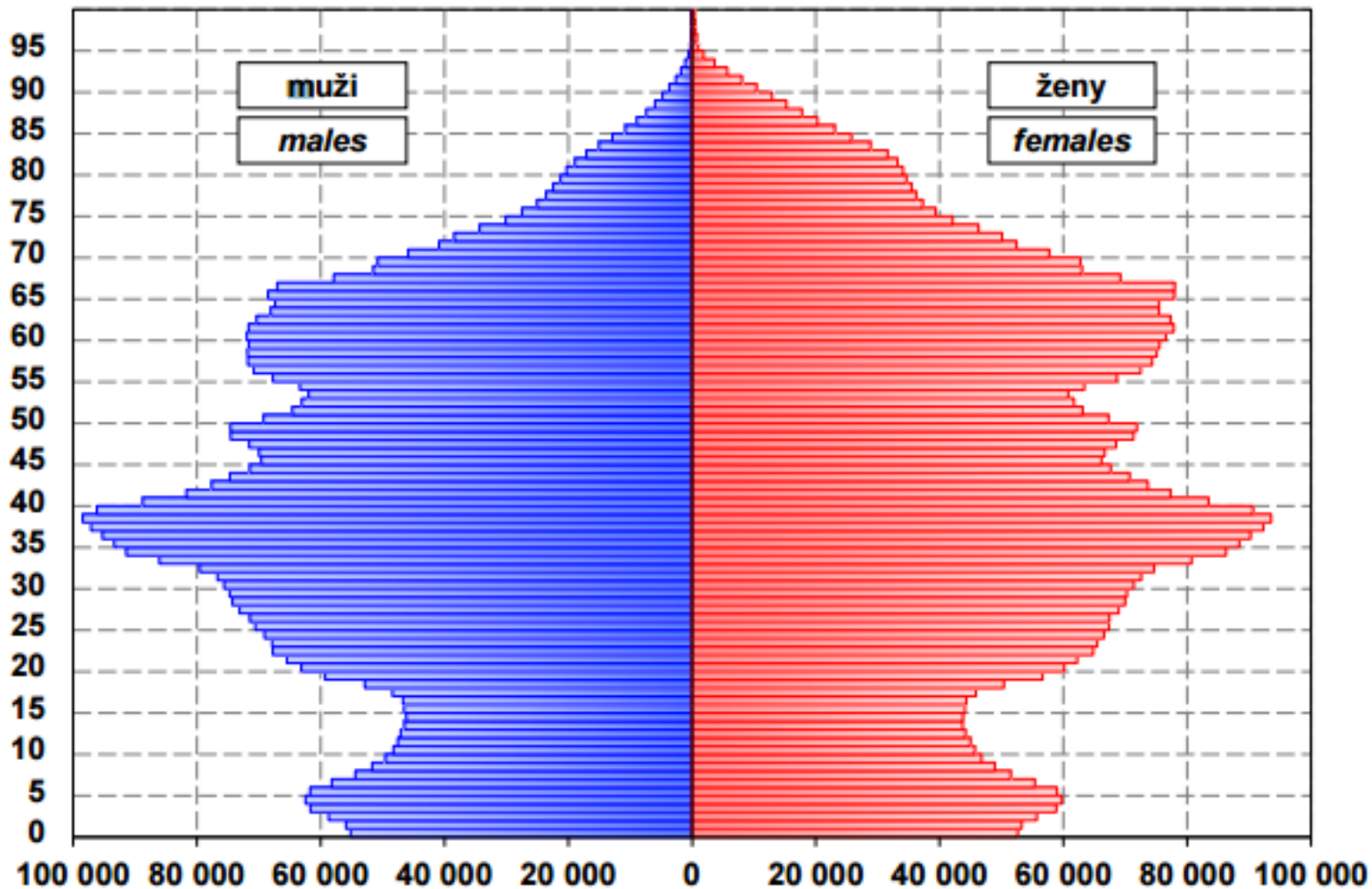
Life expectancy

- healthy life expectancy doesn't lengthen - still 62 years (Report on health of inhabitants of the Czech Republic, www.mzcr.cz)

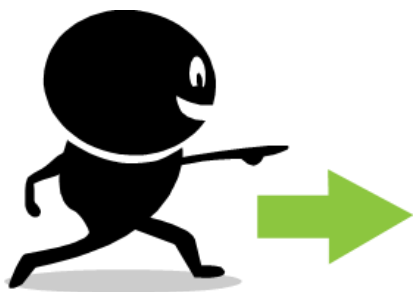


Population pyramid of the Czech Rep.

data from 1.7.2013



HEALTH STATUS OF CZECH POPULATION



To care about our health and health of our children in the right way is becoming more and more important!

According to World Health Organization it would be possible to prevent 80 % of ICD, 90 % of type 2 DM and 30 % of tumours by the right nutrition, accurate physical activity and non-smoking.



NUTRITION AND ITS HEALTH IMPACT

- Nutrition, together with physical activity, is the most important lifestyle factor
(Health 2020 – National strategy of protection and support of health and prevention of diseases)
- Impact of nutrition in prenatal period and during childhood is cardinal
 - metabolic programming, brain development
 - 1000 days for life initiative



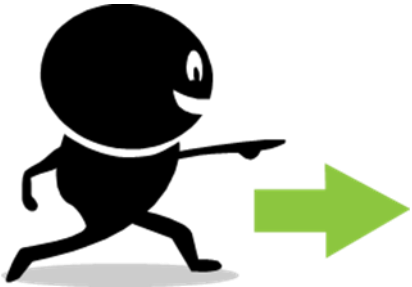
NUTRITION AND ITS HEALTH IMPACT

Report on health of inhabitants of the Czech Republic (2014):

- unbalanced availability of food and composition of diet
- excess calorie intake (excess fats and simple carbohydrates in diet)
- lack of fruits and vegetables
- excess consumption of salt
- irregular meals throughout the day
- lack of physical activity
- ...



NUTRITION AND ITS HEALTH IMPACT



It is necessary to improve the nutrition behaviour of population!



BUT HOW?

NUTRITION AND ITS HEALTH IMPACT

- School canteens take part in nourishing children and teenagers for almost 200 days in a year.
 - lunch at school should assure 35 % of calorie intake
 - morning snack + lunch 50 % of calorie intake
 - kindergartens – 60 % of calorie intake
- **Eating in school canteens (in kindergartens) can significantly affect the nutrition behaviour of children and teenagers and thus their health now and in the future.**



IMPORTANCE OF SCHOOL CANTEEN

- source of energy
- source of important nutrients and water

also

- teaches children the regularity of meals (since KG)
- assures diversity of food
- familiarize children with new kinds of food and meals (huge importance of social learning)
- **in accordance with nutrition education takes important part in the increase of nutrition literacy and improvement of nutrition behaviour**

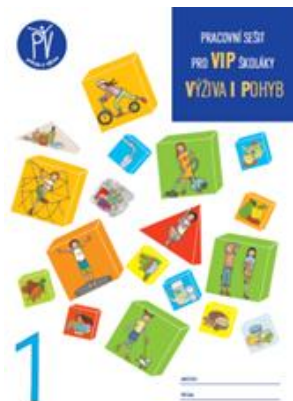


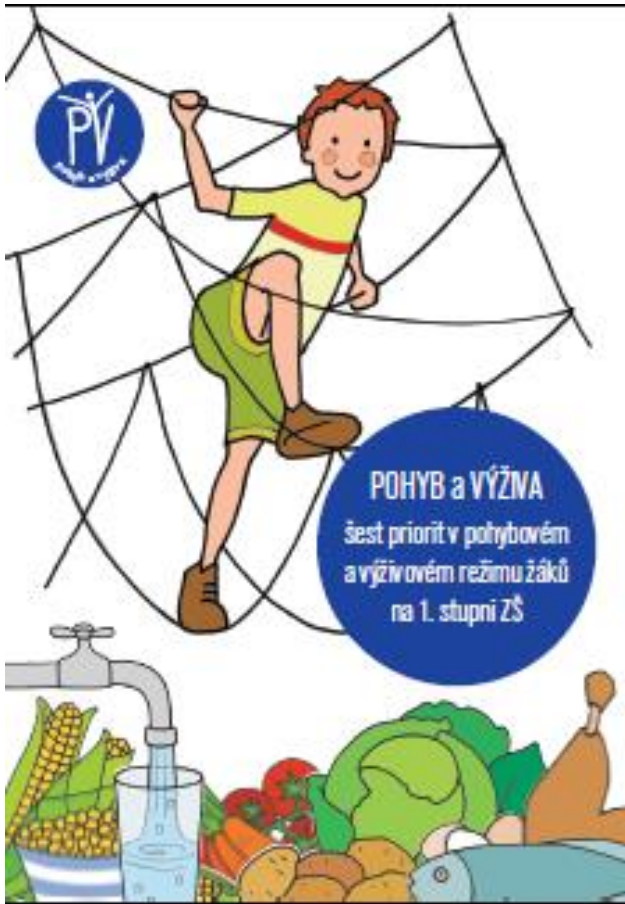
SCHOOL CANTEEN

School canteen is an essential part of nutrition education in the school environment.



PHYSICAL AKTIVITY AND NUTRITION PROJECT





PHYSICAL AKTIVITY AND NUTRITION

Trial examination of changes in movement and nutritional regimen of elementary school pupils

project of MŠMT 2013 - 2015

Concept of the programme:

Vladislav Mužík and Leona Mužíková

www.pav.rvp.cz

Main goal of the project – creation of inspiring school environment for pupils' movement and nutritional regimen and verification of actual capabilities of different kinds of elementary schools for applying the programme in different conditions

Important conditions for this goal:

- consistent creation of pupils' movement and nutritional literacy
- accordance between what is taught and what is done
- consistent connection between movement and nutrition
- educated teachers and other school staff including the employees of school canteen
- cooperation with parents

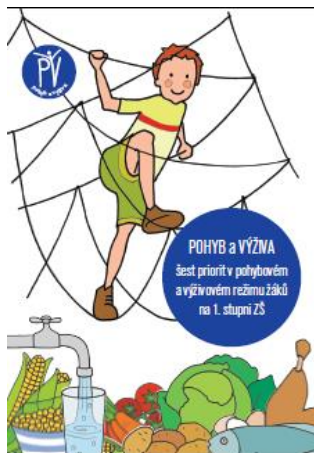
Long-term goal of the project – improvement of movement and nutritional behaviour of children and thus improvement of the health status of our society

Realization of the project MaN

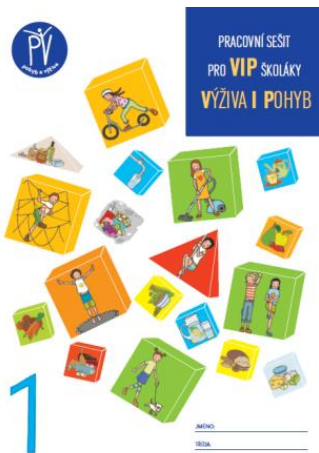
- **preparatory phase** – concept of priorities, methodical materials, webpages, creation of the team, training of the lecturer team, establishing of cooperation with 33 pilot schools
- **trial examination** – school year 2014/2015
 - 33 headmasters or deputies, 265 class teachers, tens of other teachers, cca 5700 pupils, 31 school canteen managers with their employees and 3917 parents actively took full part in the trial examination
- **evaluation of the project, research arrangement, final reports and practical recommendations**
 - final report: Results of examining of the educational programme Movement and Nutrition at elementary school (available at www.pav.rvp.cz)

Education materials

TEACHER



PUPIL



PARENTS



- methodical guides
- posters
- exercise books
- technical texts
- examples of good practice
- didactical tools

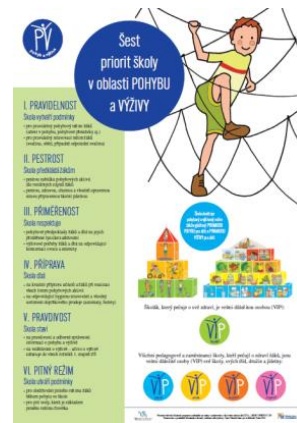
CLASS



CANTEEN



SCHOOL



CLUB



available for free:
www.pav.rvp.cz

Priorities of the educational project

Six priorities (6 P or VI P) in the field of movement and nutrition



I. Regularity

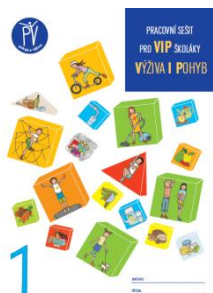
II. Variety

III. Adequacy

IV. Preparation

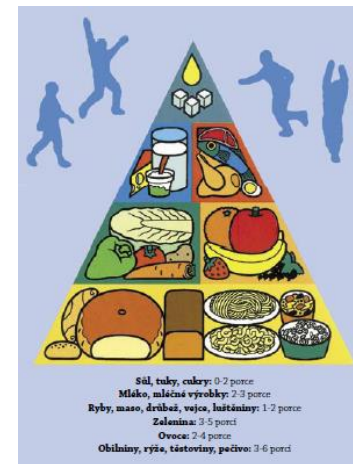
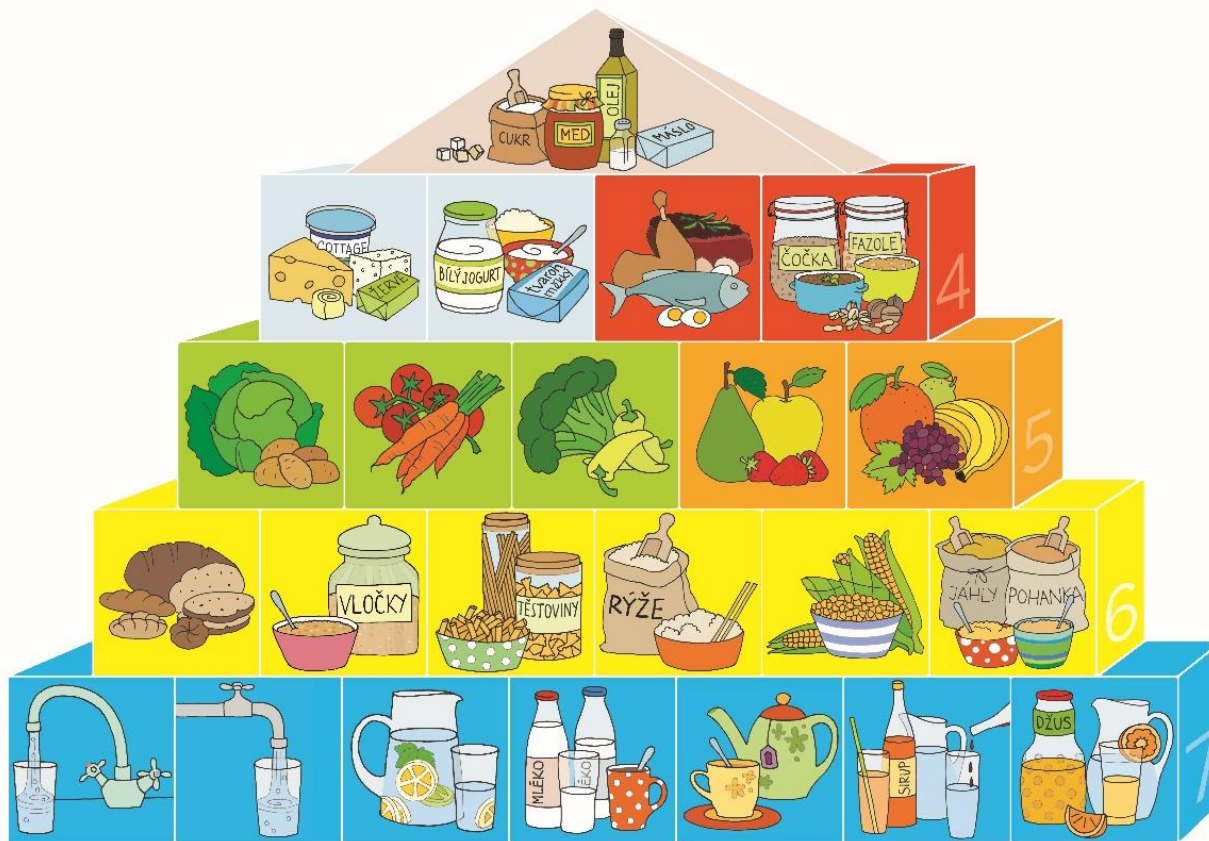
V. Truthfulness

VI. Fluids intake

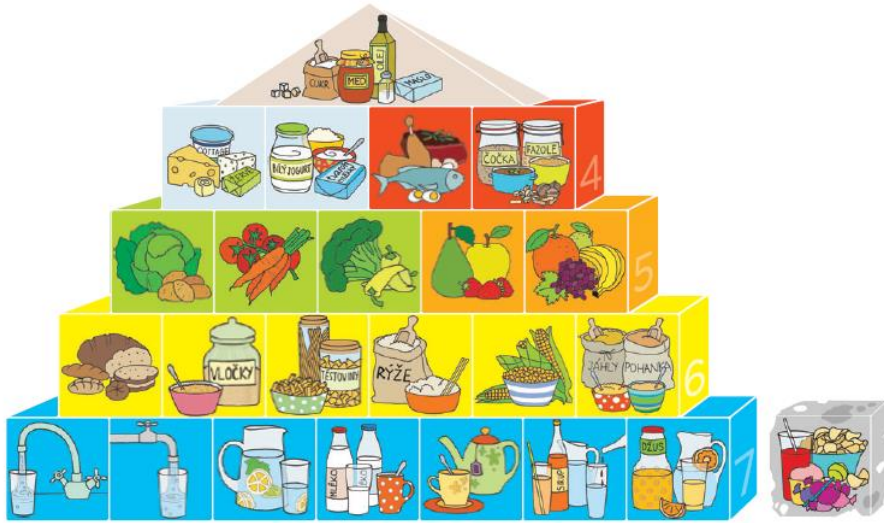


Nutrition pyramid for children

(Mužíková, Březková, 2014)



Nutrition pyramid for children and servings



Nutrition pyramid for children

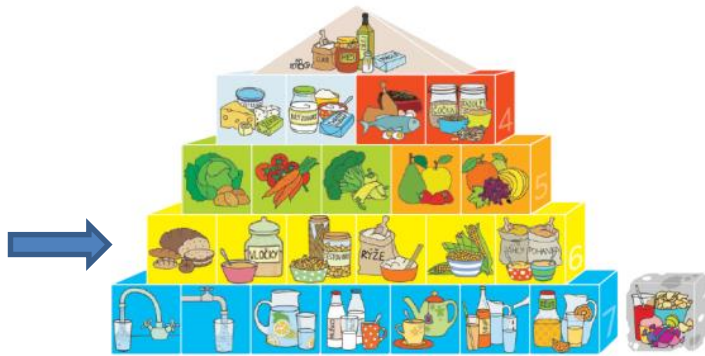
1. level



- the fundamental part of fluids intake is water

Nutrition pyramid for children

2. level



- yellow level is an important source of polysaccharides - energy

Nutrition pyramid for children

3. level



- it is not important to differ fruits and vegetables

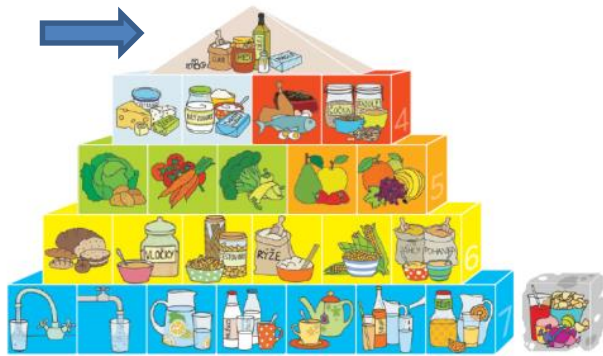
Nutrition pyramid for children

4. level



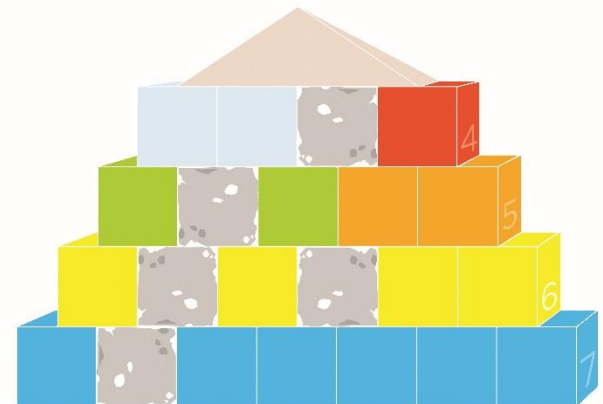
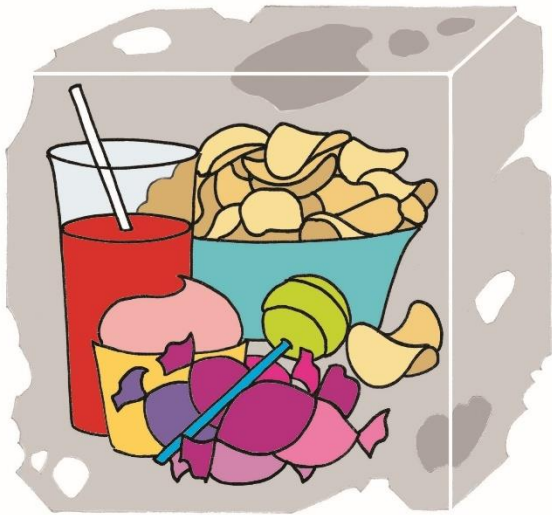
- these sources comprise also nuts and oily seeds

Nutrition pyramid for children the top

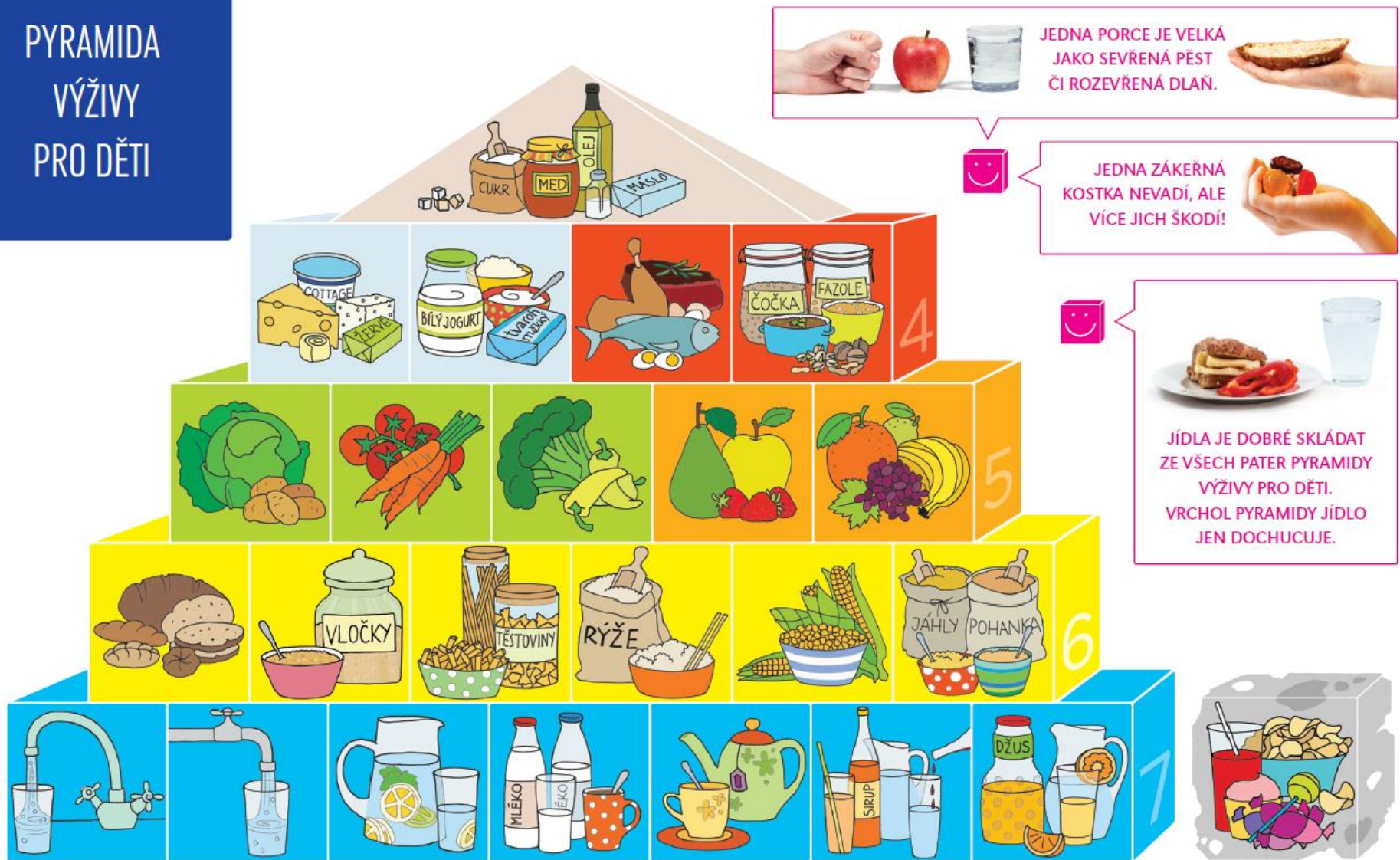


- the serving isn't defined – only for seasoning

Nutrition pyramid for children and the insidious cube



PYRAMIDA VÝŽIVY PRO DĚTI



ROLE OF SCHOOL CANTEEN



- to take part in the main priorities of the programme in the field of nutrition
- to support nutritional education – to create an accordance between nutritional education and conditions in school

31 vedoucích school canteen managers took part in the trial examination,

of which 25 were employees of the pilot schools. The others were employees of another elementary schools or kindergartens (3), school canteen headmaster (1), private entity headmaster (1), ředitel soukromého subjektu (1), Sodexo employee (1).

Two school canteen managers didn't take part in the examination as they were managers of another schools' canteens and only provided meals for the pilot schools.

Managers of school canteens cooperated closely with nutrition lecturers – dietitians (graduates of the Medical faculty, Masaryk university, Brno).

Six rules (VI P) for school canteen

I. REGULARITY

In cooperation with school, the school canteen:

- provides pupils with regular meals
- offers morning and afternoon snacks to pupils (according to conditions)
- helps with keeping the intervals between meals under 3 hours



Six rules (VI P) for school canteen

II. VARIETY

Meals prepared in school canteen are:

- manifold, tasty, healthy and offered in a suitable way to the pupils
- composed of all the levels of Nutrition pyramid for children
- prepared so that the lunch contains at least one serving of fruits or vegetables, the snack contains at least a part of the serving



Six rules (VI P) for school canteen

III. ADEQUACY

School canteen:

- motivates children to consume not so traditional food
- offers unknown food to children at first as a part of a meal, side dish, garnish or salad
- combines traditional food with unusual one (e.g. potato puree with buckwheat, rissoles with oatflakes or legumes, dumplings with wholegrain flour)



Six rules (VI P) for school canteen

IV. PREPARATION

School canteen:

- prefers fresh ingredients, uses seasonal and regional food as much as possible
- uses frozen and dried vegetables and herbs, reduces the usage of conveniences and seasonings
- fulfills the food groups requirements and keeps the rules of composing the menu

ŠEST PRAVIDEL PRO ŠKOLNÍ JÍDELNU

I. PRAVIDELNOST
Školní jídelna se specializuje na školní:
- nabízí pravidelný stravovací režim (ráno, oběd, odpolední a večerní večeře)
- nabízí kvalitní a zdravé potraviny
- nabízí širokou škálu jídel a nápojů, které jsou vhodné pro děti a mládež

II. PĚSTROST
Školní jídelna nabízí:
- širokou škálu jídel a nápojů
- širokou škálu jídel a nápojů
- širokou škálu jídel a nápojů

III. PŘÍMĚRNOST
Školní jídelna:
- nabízí zdravé a vyvážené potraviny
- nabízí zdravé a vyvážené potraviny
- nabízí zdravé a vyvážené potraviny

IV. PŘÍPRAVA
Školní jídelna:
- nabízí zdravé a vyvážené potraviny
- nabízí zdravé a vyvážené potraviny
- nabízí zdravé a vyvážené potraviny

V. PRAVIDLNOST
Školní jídelna:
- nabízí zdravé a vyvážené potraviny
- nabízí zdravé a vyvážené potraviny
- nabízí zdravé a vyvážené potraviny

VI. PĚTÝ REŽIM
Školní jídelna:
- nabízí zdravé a vyvážené potraviny
- nabízí zdravé a vyvážené potraviny
- nabízí zdravé a vyvážené potraviny

Six rules (VI P) for school canteen

V. TRUTHFULNESS

School canteen:

- promotes eating at school, is helpful to its consumers and their parents
- takes part in forming the eating habits and significantly affects the nutritional behaviour of children
- is part of the educational system, involved in education according to its possibilities, which strengthens the importance and value of eating at school



Six rules (VI P) for school canteen

VI. FLUIDS INTAKE

Školní jídelna:

- offers drinking water every day in an attractive way (adequately cool and decorated with peeled lemon, orange, mint or balm)
- offers other beverages suitable for children (e.g. weak teas, diluted juices)
- offers preferably onflavoured milk or milk beverage such as cocoa or white coffee



Results of the trial examination



In the field of nutrition, we were able to:

- include the nutrition curriculum into education of all the classes of elementary school (according to prepared methodology) – 33 schools
- guarantee more fruits and vegetables in pupils' nutrition (including joining the Fruits and vegetables to schools project) – 33 schools
- take care of pupils' fluid intake - 28 schools
- support the nutrition regimen of pupils in school clubs - 30 schools
- increase the variety of meals offered in school canteens
- change the range of products in schools, which had school bufets or food machines (3 schools got rid of food machines, 7 schools changed the products sold significantly)

Results of the trial examination



Evaluation by the school canteen managers:

- most of the school canteen managers liked the MaN programme, identified with its content and are ready to carry on the established positive changes
- promotion of eating at school and the cooperation of school canteen and school management was better compared to the initial status
- fruits and vegetables consumption was increased, variety of meals was improved and suitable fluids intake was secured
- cooperation with nutrition lecturers was accepted very positively, most of the school canteen managers would like to carry on with this cooperation
- cooperation between school canteen and the parents was possible **only partially**
- offering morning or afternoon snacks **wasn't successful in most cases** (morning snacks 11 schools, afternoons snacks only 2 schools)

Recommendations of school canteen managers



Example of answers for an open question in the evaluation questionnaire:

What would you recommend to all the school canteens in the Czech Rep. based on the examination of the Movement and Nutrition programme?

- *„Regular communication with schools and consumers; communication with professionals in nutrition and gastronomy workers education; reciprocal transfer of good practice experience among all the school canteens.“*
- *„Not to be afraid of changes leading to healthy nutrition. To begin, implement and persist. Not to give in under the pressure of adult consumers.“*
- *„Introduce the snacks, the interest is as huge among children as among parents.“*
- *„Bigger variety in the menu. Wider cooperation with the parents, thinking more about the menu composition.“*
- *„Not to be afraid of anything, in the end it's a pleasant change and also a good feeling of reaching something and of the satisfaction of children.“*
- *„I ask all the school canteen managers to pay attention to improving all the meals in the school canteen. I am glad and proud of the possibility to take part in the MaN project, it taught me much and I'm going to keep looking for information about making the school canteen better for sure. It is important to realize that it's us, employees of the school canteen, parents, teachers, who are able to show the children the right direction, how to eat, but also move to prevent serious health issues, possibly fatal. That's the reason why it is really necessary not to give up and carry on.“*
- *„Cook with enthusiasm and love!“*

Recommendation for practice



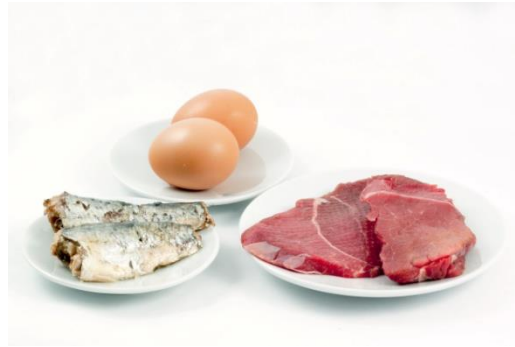
- Accept the school canteen as an **important part of nutritional education** of children and create conditions for its application when developing the nutritional literacy.
- Support the **cooperation between the school canteen and the school**, support school canteen as a part of the school (unlike central or commercial cooking facilities).
- As a school, motivate your pupils and their parents to make use of eating at school. Establish conditions for **cooperation of school – school canteen – parents**. Promote school canteen.
- Strive for the **highest quality of school canteen possible**. Compile the menus according to present nutrition recommendations. Mind the palatability and attractiveness of the meals offered. Follow the recommendations about offering fruits and vegetables and about fluids intake.
- Support the **education of school canteen employees** and create **consulting centres** for them to replace nutrition lecturers with dietitians.
- Support school canteen **economically**. Some requirements of MaN programme couldn't be met due to the lack of school canteen employees – e.g. introducing school snacks, adequate fluid intake, convenience elimination etc.

CONCLUSION

„We are successful in consumption (consumption, not only meeting the food groups requirements) of legumes and fish, although considering fish there is still a possibility to improve a little bit. Usage of turkey and rabbit meat. We use it in meals, where we used pork before, and it doesn't matter, everything is tasty and children are happy. Usage of unconventional pastina and side dishes – bulgur, couscous, buckwheat combined with rice, legume flakes. Drinking water every day – it's more favourite than tea. We don't sweeten the tea now, we use only a fruit tea without sugar and sweeteners, we don't use beverage concentrates. We offer only unflavoured milk or white coffee made of chicory. We don't use smoked meat, nor its products, nor ham – and it's okay, doesn't matter, into meals such as French potatoes, pasta au gratin we use turkey meat, rabbit meat and everything is tasty and children like it very much. We don't fry, rissoles, ćevapi – we bake in the oven. Vegetables and fruits are served daily.“

pilot school canteen manager





THANK YOU FOR YOUR ATTENTION

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