

The School Feeding Program in Italy: Policy and Overview

Policy Overview:

A national guideline exists that outlines the roles and responsibilities of multiple actors involved in school food programs and recommends the level of nutrients to be offered. The Linee Di Indirizzo Nazionale Per La Ristorazione Scolastica¹ (National Guidelines for School Catering) from 2010, delineated the government's directives. A translated version can be found in Appendix 1. The primary objective of Italy's School Food Programs (SFP) is to promote healthy choices/habits with the goal of tackling widespread health issues, creating a healthier population in the long-term. The Ministry of Health has defined the national guidelines for school catering. The document stems from the need to facilitate, from childhood, the adoption of correct eating habits for the promotion of health and the prevention of chronic-degenerative diseases (diabetes, cardiovascular diseases, obesity, osteoporosis, etc.) of which improper nutrition is one of the main risk factors. The guidelines start from the experience gained by local realities: regions, municipalities, SIAN (the Food Hygiene and Nutrition Service), taking catering into consideration as a management system, role and responsibility of the various institutions involved, defining the specifications, nutritional aspects, characteristics of the menu, and evaluation techniques for nutritional quality.

Claudia Paltrinieri stated in the Webinar by the Coalition for Healthy School Food (2021), that SFPs in Italy involve different ministries for different policies and guidelines. Some examples of regulators include:²

- The Ministry of Health defines the guidelines that regulate how the menu must be composed, and the balance of the diet.³
- The Ministry of the Environment has translated the European Green Public Procurement into a law, Criteri Ambientali Minimi, that promotes school canteens to be more sustainable, for example requiring at least 50% organic food, requiring washable dishes and instead of plastic or disposable dishes.⁴

¹ See: https://www.salute.gov.it/imgs/C_17_pubblicazioni_1248_allegato.pdf

² For further researcher, these Institutions named in abbreviated and full form may be of assistance: (in abbreviation and full-names) ABBREVIAZIONI AIC: Associazione Italiana Celiachia AGE: Acidi Grassi Essenziali ANCI: Associazione Nazionale dei Comuni Italiani AQUA: Agricoltura Ambiente Qualità ARPA: Agenzia Regionale per la Protezione dell'Ambiente ART: Articolo ASL: Azienda Sanitaria Locale CE: Comunità Europea CSA: Capitolato Speciale d'Appalto DHA: Acido Docosaesaenoico D.LGS: Decreto Legislativo DM: Decreto Ministeriale DOP: Denominazione d'origine Protetta EPA: Acido Eicosapentaenoico FVG: Friuli Venezia Giulia GPP: Green public Procurement GU: Gazzetta Ufficiale IGP: Indicazione Geografica Protetta INRAN: Istituto Nazionale di Ricerca per gli Alimenti e la Nutrizione LARN: Livelli di Assunzione giornalieri Raccomandati di energia e Nutrienti per la popolazione italiana OGM: Organismo Geneticamente Modificato PA: Pubblica Amministrazione PANGGP: Piano d'Azione Nazionale sul Green Public Procurement.

³ Ministero della Salute (Ministry of Health). From:

https://www.salute.gov.it/imgs/C_17_pubblicazioni_1248_allegato.pdf

⁴ See I Criteri Minimi, from: <https://www.mite.gov.it/pagina/i-criteri-ambientali-minimi>;

<https://www.certifico.com/ambiente/documenti-ambiente/257-documenti-riservati-ambiente/12516-criteri-ambientali-minimi-cam-elenco>; and RELAZIONE ACCOMPAGNAMENTO CAM Servizio di ristorazione collettiva e fornitura derrate alimentari (DM n.65/2020) from:

https://www.mite.gov.it/sites/default/files/archivio/allegati/GPP/2020/relazione_accompagnamento_cam_ristorazione_aprile2020.pdf; <https://www.mite.gov.it/pagina/piano-dazione-nazionale-sul-gpp>

- The Ministry of Agriculture has allocated a fund that rewards canteens that have at least 80% organic food.⁵
- The Ministry of Education has also set guidelines to define how school canteen services should be organized during Covid.⁶

An update to the Italian school catering document based on the application of Regional Guidelines and Directives that refer to the National Guidelines for school catering of the Ministry of Health (2010), was approved in 2018. The document defines the roles of all the protagonists of the service, the municipality, catering service manager, Food and Nutrition Hygiene Service (SIAN), and schools.⁷

In 2020 Linee Di Indirizzo Nazionale Per La Ristorazione Scolastica was released as another update. According to [Foodinsider](#), the document is difficult to read. It is targeted to both school canteens and hospitals.⁸ It was updated in relation to the scientific aspects defined in the recommendations of the WHO of 2015 and of the IARC 2019 with the indication of eliminating preserved meat, reducing red meat, promoting the consumption of organic whole grains, but the role of the canteen commissioners is enhanced. Canteen commissioners are recognized within the '*National guidelines of school catering*,' included as one of the actors of the service, together with the Municipality and the service provider, as a representative body that perform a role and functions specifications. The *Guidelines* for canteen commissions and the prospect of evolution as a promoter of a healthy eating style describe their roles as:

- Liaison role between the user, the Municipality/equal school and the ASL, taking charge of reporting the suggestions and complaints that come from the users themselves

⁵ In 2017, the Italian Ministry of Agricultural, Food and Forestry Policies created a fund for organic school canteens, with a substantial financial endowment: 4 million euro in 2017, 10 million both in 2018 and 2019 and 5 million starting from 2020, cf. Decree Law no. 50 of 2017. From: Gazzetta Ufficiale della Repubblica Italiana. Testo Coordinato del Decreto-Legge 24 Aprile 2017, n. 50. Available online: <https://www.gazzettaufficiale.it/eli/id/2017/06/23/17A04320/sg>.

⁶ Two important changes that have affected Italian school Public Food Procurement: the opening of school canteens to lunches brought from home in 2016 (since rescinded) and the measures adopted since March 2020 to contain the COVID-19 pandemic (see: <https://www.thelocal.it/20210831/explained-what-parents-in-italy-should-know-about-new-covid-rules-in-schools/>). Both events go in the direction of transferring to the parents the responsibility of the school in the food sector. The article concludes that, based on the results of our study, this trend should be discouraged, while it would instead be beneficial to foster initiatives that promote the involvement of parents in school food choices (Pagliarino, Santanera, and Falavigna. 2021. *Opportunities for and Limits to Cooperation between School and Families in Sustainable Public Food Procurement*. CNR-IRCRES, Research Institute on Sustainable Economic Growth, Italian National Research Council, 10024 Moncalieri, Italy. From: <https://www.mdpi.com/2071-1050/13/16/8808/htm>

⁷ Ministero della Salute, 2018. "Linee di indirizzo rivolte agli enti gestori di mense scolastiche, aziendali, ospedaliere, sociali e di comunità, al fine di prevenire e ridurre lo spreco connesso alla somministrazione degli alimenti." From: https://www.salute.gov.it/imgs/C_17_pubblicazioni_2748_allegato.pdf

⁸ Foodinsider, IT. 2020. *Guidelines for School Catering*. From: <http://www.foodinsider.it/commissione-mensa/linee-di-indirizzo-della-ristorazione-scolastica-2020/>

- Collaborative role in monitoring the acceptability of the meal and the methods of providing the service also through evaluation forms, appropriately prepared.⁹

The new document also requires a review and integration of some important aspects of canteen commissioner review that could affect the promotion of the role of parents as an active and participant in the school catering service (definition of a municipal regulation with elements common to all) subject to the necessary parental training which is indicated in the document.¹⁰ You can find more information [here](#).

SFP management and implementation

There are additional separate policies/standards for regions. Each is responsible for their own school food programs, so there are vast differences in practices and standards throughout Italy and there can even be differences at the individual school level. Many outsource the service; however, this has been unsuccessful for some, for overall health and well-being goals, and many municipalities are now working to re-internalize the programs (Coalition for Healthy School Food, 2021). This re-internalization is largely influenced by the Slow Food Movement principles (good, clean, and fair food), and includes considerations such as, local food and farming, short food chains, bio-agriculture, seasonal produce, and minimal packaging (Coalition for Healthy School Food, 2021). Some examples of successful regions/programs include:

- Cremona region, which often ranks at the top of the list (a detailed examination follows).
- Fano School Canteen (in the Marche region).
- Bio Scuola in Perugia (90% organic, local food).
- Caggiano, where parents provide produce from their gardens and payment varies based on their contribution (Coalition for Healthy School Food, 2021).

An example of a regional technical document is *Guidelines of the Friuli Venezia Giulia Region for School Restaurants*. It describes an example of the proper organization and management of school catering services. It was part of National Guidelines for School Catering – from a Unified Conference - 29 April 2010 - Understanding, pursuant to art. 8, paragraph 6, of Law no.131 of 5 June 2003 (Official Gazette no. 134 of 11-6-2010). The document was drawn up by a technical group set up at the Directorate General for Food Safety and Nutrition of the Ministry of Labor, Health, and Social Policies pro tempore, aimed at all operators of collective catering. It focuses attention on some substantial aspects, to provide information at a national level to improve the quality in the various aspects, in particular nutrition. "It contains indications for organizing and managing the catering service, for defining the tender specifications and providing a meal suited to the needs for different age groups, educating the child to acquire correct eating habits."¹¹

⁹ Ibid.

¹⁰ Ibid.

¹¹ Guida Della Regione Friuli Venezia Giulia Per La Ristorazione Scolastica. 2012. From: http://www.regione.fvg.it/rafv/export/sites/default/RAFVG/famiglia-casa/politiche-famiglia/FOGLIA30/allegati/lineeGuidaRistorazioneScolastica_allegatoDGR_2188_2012.pdf

The Guidelines focus on various aspects that combine food with the environment, production areas and culture. This choice is linked to the evidence that the habits, lifestyles, and adequate behavioral models acquired by young people persist into adulthood, with significant effects in terms of health, and that the food supply model identified by public administrations interacts significantly with some elements transversally connected to nutrition and consistent with the principle of health in all policies. The path followed in the document takes up the lines indicated by the ministerial program Gaining Health and represents a concrete articulation of the commitments already shared by the Region with Anci Fvg and Federsanita' Anci Fvg (Friuli Venezia Giulia (FVG) federation of health) and contained in a specific protocol. The common objective is the development of joint initiatives aimed at promoting healthy behaviors in the context of school canteen services through the launch of intersectoral strategies. The special sensitivity that is activated on the theme of food for the new generations allows us to pause and expand the awareness and values that food conveys, adopting the high principles of the right to food, access to healthy and nutritious meals, sustainability, solidarity, and equity. Animated by this particular attention, school catering becomes a context where health is co-produced, an environment designed to support well-being in a combination of synergies between administrations and civil society, which finds a natural candidate for the application of the actions identified by 'World Health Organization in the document "Health 2020."¹² The document can be found [here](#). Additional translated excerpts can be found in Appendix 2.

Funding for school food programs

The federal government does not provide funding for school food programs. There is no government investment aside from the reward provided by the Ministry of Agriculture to school canteens that use at least 80% organic food.¹³

Programs are offered to all school children, but meals are not offered free of cost. Some cities/municipalities share in the cost of the program with parents while others have the parents bear the full cost. There are some subsidies available for those who need them. Costs range from €2.20 - €6.60 per meal, depending on the type of program (i.e., the type of preparation and quality of ingredients).¹⁴

Some contract caterers provide infrastructure for kitchens as part of their contracts. [Camst](#) is on caterer who offers such services and has received good reviews from [Foodinsider](#) who rates school canteen services for quality and sustainability.

School food in Italy-history and values

School meal services in Italy developed since the 1970s, when the school day, in pre-primary school levels (i.e., nurseries and kindergartens) and primary and secondary schools of first level, gradually extended from the morning until the afternoon hours. The school meal service is

¹² Ibid.

¹³ Coalition for Healthy School Food. (2021, June 29). [Webinar] *Italy's school food program: Funding, underlying policy mechanism and implementation* [Video]. YouTube. From: <https://youtu.be/hD2FYO1JWeU>

¹⁴ Ibid.

provided by the municipality (there are more than eight thousand municipalities in Italy) and it can be organized according to different degrees of control: ranging from a completely direct control by the public administration, who owns the structures and equipment and runs the service, to a completely indirect control over the service, run by a collective catering firm with its own structures and personnel, on the basis of a tender contract. According to Bio Bank (2013), the prevailing choice is to subcontract to caterers, (74 per cent of municipalities), while 15 per cent opts for the direct management and the remainders choose a mixed solution.¹⁵

The “Italian National Guidelines for School Catering Services” released in 2010 provide indications to improve the nutritional quality of lunch eaten at school, to deal with organizational and management aspects of food service and educational aspects in the promotion of healthy eating habits in children. As a regional example of acceptance, Tuscany rapidly endorsed the National Guidelines by releasing a regional policy document containing theoretical and practical directions to improve the nutritional and sensory quality of school catering, to organize and manage the catering service and to provide a proper meal suitable to the needs for different age groups.¹⁶

School meals have been shown to contribute significantly to overall dietary habits.¹⁷ They are a way to transmit to schoolchildren food habits in line with dietary recommendations. Italian National guidelines for school feeding prepared by the Ministry of Health were conceived as an informative document with different degrees of applications at the regional level according to local autonomy.¹⁸ An updated revision of the school feeding guidelines in Italy was released in 2018.¹⁹ This revision was a cornerstone since it includes aspects of food behavior, culture, and acceptability in addition to nutritional guidelines. Moreover, aspects related to organic foods and waste prevention, and other sustainability factors are coherent with the principles of EU Green and Sustainable Public Procurement.²⁰ (EU member states must also comply with relevant legislation on the union level.) They recommend achieving a reduction of the environmental impact when public authorities procure goods and services, such as public

¹⁵ Galli F, Brunori G, Di Iacovo F, Innocenti S. 2014. *Co-Producing Sustainability: Involving Parents and Civil Society in the Governance of School Meal Services. A Case Study from Pisa, Italy*. Sustainability. 2014; 6(4):1643-1666. From: <https://doi.org/10.3390/su6041643>

¹⁶ Ibid.

¹⁷ Eustachio Colombo, P., Patterson, E., Lindroos, A. et al. 2020. *Sustainable and acceptable school meals through optimization analysis: an intervention study*. Nutr J 19, 61. From: <https://doi.org/10.1186/s12937-020-00579-z>

¹⁸ Ministero Della Salute. 2010. Dipartimento per la Sanità Pubblica Veterinaria, la Nutrizione e la Sicurezza Degli Alimenti. Direzione Generale Della Sicurezza Degli Alimenti e Della Nutrizione. Linee di Indirizzo Nazionale per la Ristorazione Scolastica. Conferenza Unificata. Provvedimento 29 aprile 2010. Intesa, ai Sensi Dell’art.8, Comma 6, Della Legge 5 Giugno 2003, n.131, G.U. n. 134 del 11-6-2010. From: https://www.gazzettaufficiale.it/atto/serie_generale/caricaDettaglioAtto/originario?atto.dataPubblicazioneGazzetta=2010-06-11&atto.codiceRedazionale=10A07177&elenco30giorni=false

¹⁹ Ministero della Salute. 2018. Direzione Generale per L’igiene e la Sicurezza Degli Alimenti e Della Nutrizione—Uff. 5-Nutrizione e Informazione ai Consumatori “Linee di Indirizzo Rivolte Agli Enti Gestori di Mense Scolastiche, Aziendali, Ospedaliere, Sociali e di Comunità, al Fine di Prevenire e Ridurre lo Spreco Connesso Alla Somministrazione Degli Alimenti”; Ministero della Salute: Rome, Italy, 16 April 2018. From: http://www.salute.gov.it/imgs/C_17_pubblicazioni_2748_allegato.pdf

²⁰ Ibid.

meals.²¹ The underlying idea of this approach is related to the fact that the lunch meal should be considered part of the educational pathways in terms of Italian food culture and the environmentally friendly food system.

According to Maurizio Mariani, Director of Eating City,²² the school cafeteria must be considered in all respects a common good and not just any utility. The definition of *common good* referred to is taken from Italian jurisprudence and corresponds to that provided by the Rodotà Commission²³ which, distinguishing between public, private and common goods, described the latter as those goods which meet two requirements: they express functional utilities for the exercise of the fundamental rights of the person as well as for his free development and are, therefore, goods whose collective, direct and universal fruition must be guaranteed by law in such a way as to take into account the interests of future generations.

M. Mariani continues, Italy is a country that boasts a gastronomic tradition unique in the world and an agri-food chain of excellence, it is also a country of welcome and hospitality, all factors that contribute to the wealth of the country through the development of tourism and care for the land. Coming generations must be able to understand that all this is part of the intangible heritage of our country and what better time is there to spread this culture than lunch at school and the educational opportunity to instill this? We must not forget how important our diet is and how this is our first medicine, a fundamental pillar for the prevention of many diseases and for the raising of our immune defences, investing in lunch at school is equivalent to investing in the future of the country and making cities rural communities more resilient.²⁴

Italy's education system

Italy's education system is organised according to the principles of subsidiarity and school autonomy. The State and the regions share legislative competence. Moreover, regions should comply with the provisions of national legislation. Schools are autonomous regarding didactic, organisational and research activities.

The Ministry of Education, Universities and Research (MIUR) guarantees the uniformity of national educational provision. It does this in many ways, for example, setting:

- general educational goals,
- specific learning goals according to pupils' skills,

²¹ European Commission. 2020. *EU GPP Criteria*.

From: https://ec.europa.eu/environment/gpp/eu_gpp_criteria_en.htm (accessed on 17 April 2021)

²² Goulay, R. 2020. Eating City - Position Paper "*The Italian school canteen as a common good - post Covid-19.*"

English translation by Robin Gourlay - Original Italian version by Maurizio Mariani. From:

<https://www.eatingcity.org/wp-content/uploads/2020/05/Italian-school-canteen-as-a-common-good-after-corona-virus.pdf>

²³ Rodotà, S. 2011. Keynote Speech Council of Europe/European Commission Conference "Shared Social Responsibility." Bruxelles, 1 March 2011. From:

https://www.coe.int/t/dg3/socialpolicies/socialcohesiondev/source/Conf%202011/Rodota_en.pdf

²⁴ Goulay, R. 2020. Eating City - Position Paper "*The Italian school canteen as a common good - post Covid-19.*"

English translation by Robin Gourlay - Original Italian version by Maurizio Mariani. From:

<https://www.eatingcity.org/wp-content/uploads/2020/05/Italian-school-canteen-as-a-common-good-after-corona-virus.pdf>

- the minimum national curriculum,
- standards related to the quality of educational services,
- general criteria for pupil assessment and the organisation of adult education.²⁵

Depending on their autonomy, schools can be flexible in adapting teaching time, curricula, and didactics to pupils' specific learning needs. They can also provide extra-curricular education and activities according to their cultural, social, and economic context, as well as through networks and agreements with other schools, universities, agencies, etc.²⁶

More information on Italy's education legislation and policy can be found [here](#).

Principles of school catering from the Italian Ministry of Health

In school catering it is of fundamental importance to raise the quality level of meals, as nutritional and sensory quality, while maintaining the principles of food safety. In addition to producing and distributing meals in compliance with the indications of LARN²⁷, the Recommended Daily Intake levels of Nutrients for the Italian population, it can play an important role in food education involving children, families, and teachers.²⁸

Teachers and service personnel, adequately trained (on the principles of nutrition, on the importance of the senses in food choice, on the communication methodologies suitable to lead children to a varied consumption of food, on the importance of the correct preparation and portioning of meals), play an important role in favoring the enrichment of the child's home food model of new flavors, food tastes and experiences managing, with serenity, the possible initial difficulties of some children to take a food never consumed before or a taste not appreciated at the first taste.²⁹

School catering should not be seen solely as a mere satisfaction of nutritional needs but should be considered an important and continuous moment of education and promotion of health directed at children, which also involves teachers and parents.³⁰

The overall goal of the catering service is to provide an appropriate meal in an appropriate context according to a systemic view of quality. In this sense, the aims, and strategies for organizing a school catering service must be based on a conscious and effective policy of total quality.³¹

The role of school canteens

To fight the obesity epidemic among children, the World Health Organization recommends that governments intervene through the implementation of health promotion programmes in

²⁵ European Agency for Special Needs and Inclusive Education. 2021. *Country information for Italy - Legislation and policy*. 2021. From: <https://www.european-agency.org/country-information/italy/legislation-and-policy>

²⁶ Ibid.

²⁷ LARN: Livelli di Assunzione giornalieri Raccomandati di energia e Nutrienti per la popolazione italiana

²⁸ *Ministero dell Salute. 2010. Linee Di Indirizzo Nazionale Per La Ristorazione Scolastica*. From:

https://www.salute.gov.it/imgs/C_17_pubblicazioni_1248_allegato.pdf

²⁹ Ibid.

³⁰ Ibid.

³¹ Ibid.

schools.³² In Italy, the 'Fruit in Schools' programme aims to incentivize the consumption of fruit during school breaks instead of snacks.³³ The Italian ministry of health has produced specific guidelines for the correct management of school canteens, setting the amount of daily nutrients intake for each age group.³⁴ Moreover, the Italian school meal service benefits from a dietary and constitutional framework which guarantees 'children's rights to local and healthy food' while promoting teaching programmes on salutary nutrition and sustainable consumption.³⁵

Due to the recent implementation of school-based health promotion programmes and because of a lack of survey data, few quantitative studies have focused on how school canteens intervene on youngsters' nutrition and how this could be related to their social origins. Overall, scholars agree that children benefit from a healthy school food environment and canteen menu in line with nutritional advice can contribute to improving pupils' health.³⁶ The evidence suggests indeed that a healthier school environment is associated with a reduction in the consumption of soft drinks and snacks, and with a general improvement of food habits.³⁷ The school canteen should therefore be seen as part of the so-called 'child-centred investment strategy' which serves the purpose of mitigating differences in social origins by providing universal access to high quality child-care.³⁸

Overview of canteen policies

The reading of the catering system has profoundly changed in the last twenty years. Concepts of organic food and sustainability, hygiene, nutrition, gastronomy, economy, finance, management, administration, and communication are strategically critical.³⁹

Facilitating correct eating habits in an effective model of health promotion and prevention of chronic-degenerative diseases and their main risk factors. School catering must not be seen exclusively as a simple satisfaction of nutritional needs but must be considered an important and continuous moment of education and health promotion aimed at children, which also

³² World Health Organization. 2008. *School Policy Framework Implementation of the WHO Global Strategy on Diet, Physical Activity and Health*. Switzerland: World Health Organization Press.; Oncini, F. 2020. Feeding Distinction: Constrictions and Constructions of Dietary Compliance. *PhD Thesis. University of Trento. Ledizioni*. From: https://www.google.ca/books/edition/Feeding_Distinction_Constrictions_and_Co/n88HEAAQBAJ?hl=en&gbpv=0

³³ European Commission. 2014. *School fruit, vegetables, and milk scheme*. From: <https://goo.gl/KRqgFs>

³⁴ Ministero dell Salute. 2010. *Linee Di Indirizzo Nazionale Per La Ristorazione Scolastica*. From: https://www.salute.gov.it/imgs/C_17_pubblicazioni_1248_allegato.pdf

³⁵ Morgan, K. and Sonnino, R. 2008. *The School Food Revolution. Public Food and the Challenge of Sustainable Development*. London: Sterling.

³⁶ Weichselbaum, E., & Buttriss, J. L. (2014). *Diet, nutrition, and schoolchildren: an update*. *Nutrition Bulletin*, 39(1), 9-73.; Story, M., Nannery, M. S., and Schwartz, M. B. (2009). *Schools and obesity prevention: creating school environments and policies to promote healthy eating and physical activity*. *The Milbank Quarterly*, 87(1), 71-100.

³⁷ Raulio, S., Roos, E., & Prättälä, R. (2010). School and workplace meals promote healthy food habits. *Public Health Nutrition*, 13(6A), 987-992. From: doi:10.1017/S1368980010001199

³⁸ Van Lancker, W. 2013. Putting the child-centred investment strategy to the test: evidence for EU27. *European Journal of Social Security*, 15(1), 4-27.

³⁹ Ministero dell Salute. 2010. *Linee Di Indirizzo Nazionale Per La Ristorazione Scolastica*. From: https://www.salute.gov.it/imgs/C_17_pubblicazioni_1248_allegato.pdf

involves teachers and parents. The primary objective of a good canteen policy is to seek and obtain the maximum congruence between the different profiles of the system, creating a profitable area of convergence between intersectoral policies, which reconciles, on the level of an "ethical" comparison and a fair transparency, the economic logic with the priority ones of health. In this sense, an evolved catering system has several transversal objectives, which, if implemented in a harmonious way, can also represent potential for the sustainability of programs.⁴⁰

These objectives can be summarized in the following points:

- promotion of correct eating habits
- safety and compliance with regulations
- appropriateness with respect to needs, in terms not only of the nutritional characteristics of the recipes and food proposals, cooking technologies, foodstuffs used, but also in terms of sensory satisfaction
- respect for the times and methods of service, comfort, and accessibility
- congruous relationship between quality and price • user satisfaction.⁴¹

Some best practices from Foodinsider.it, among a few of the models seen around Italy, include:

- Frutta a merenda (Fruit as a snack).
- Mensa bio-sostenibile (Bio-sustainable canteen).
- Approvvigionamento dei genitori (Parental catering).
- La mensa di quartiere (The neighborhood canteen).
- Pappafish: pesce fresco in mensa (Pappafish: fresh fish in the canteen).⁴²

A fact-finding survey from 2014⁴³ provided insight into the knowledge of national guidelines and whether they were being applied.

See Appendix 2 for information on the survey and more on canteen policies.

Catering service management in school canteens

The catering service in school canteens can be managed differently: private companies being contracted out by the competent state authority (e.g.: municipalities), public companies (municipality-owned companies which are more autonomous than internal structures), internal structures (municipality owned and municipality-managed catering services) and other cases (e.g.: the municipality states the guidelines and the private company manages the service

⁴⁰ Ibid.

⁴¹ Ibid.

⁴² Foodinsider.it. (n.d.). Best practice in the canteen. Retrieved from, <http://www.foodinsider.it/best-practice/>

⁴³ Ministero della Salute. 2014. *Indagine conoscitiva sulla ristorazione scolastica in Italia-Relazione 2014* (Fact-finding survey on school catering in Italy). From: https://www.salute.gov.it/imgs/C_17_pubblicazioni_2373_allegato.pdf

accordingly, or public-private companies where each component owns 50% of the company capital.⁴⁴

In Italy, the most widely adopted type of catering service management is a contract between municipality and private companies (after a public call for tenders): this represents a percentage of 70%. Other types of catering service management follow with similar percentages: public companies and internal structures (in this case the municipalities directly manage the catering service). Finally, there are other types of catering service management with a percentage of 5%. In this item are included fully private companies and public/private companies (in which the capital comes normally 50% from the public hand and 50% from the private companies). Public companies are concentrated in the NW area (due especially to the case of Milano Ristorazione, which prepare and serve 80,000 meals a day for all schools of Milan), and internal structures mainly in the NE area. In other areas, the contract with private companies is the prevailing choice.⁴⁵

Although dated, a 2014 report by the Science and Policy Report by the Joint Research Centre of the European Commission offers insight into Italy's school food policy as part of a comparison with all 28 EU member states and Switzerland and Norway. The report was meant to inform public health policy makers, educators, and researchers about the European school food policy landscape. It assessed the nutrition-related content of the school food policy for each of the 28 EU Member States (MS) plus Norway and Switzerland, highlighting various options intended to promote healthier school food environments to achieve given objectives, and providing quick access to the relevant source documents. It described policy for food and nutrient-based standards for lunch and other mealtimes. For example, Italy had policy to indicate the portions of fruit and vegetables to be served, the specific number of times red meat, fish, and dairy products can be served, but no policies for restricting deep-fried foods, sweets, and crisps.⁴⁶

⁴⁴ Spigarolo R., Sarti MV, Bocchi S., Giorgi G. 2010. Supply chains for school catering. Comparative study of 5 Italian cases. Report of the Ipopo project presented at the Conference "Comparing Italian and European sustainable catering experiences, Bologna, May 27-28, 2010.

⁴⁵ Ibid.

⁴⁶ Storcksdieck Genannt Bonsmann, S., Kardakis, T., Wollgast, J., Nelson, M., Caldeira, S. 2014. *Mapping of National School Food Policies across the EU28 plus Norway and Switzerland*. JRC SCIENCE AND POLICY REPORTS Report EUR 26651 EN. Luxembourg: Publications Office of the European Union, 2014 © European Union. From: <https://www.aesan.gob.es/AECOSAN/docs/documentos/nutricion/observatorio/lbna26651enn.pdf>

ANNEX III: Overview of food- and nutrient-based standards as predefined in SNIPE – for lunch (III.1 and III.2) and other mealtimes (III.3 and III.4)

Table III.1. Food-based standards for lunch by school food policy.

Country	None	Specified amounts of F&V must be provided for each child	Specified number of times (red) meat served	Specified number of times other sources of protein served	Specified number of times dairy products served	Specified number of times (oily) fish should be served	(Deep)fried/processed products restricted	Sweet treats (chocolate, confectionery, etc.) restricted	Starchy food cooked in fat or oil restricted	Crisps and savoury snacks restricted	Fresh drinking water must be provided and easily accessible	Drinks limited to specific types (e.g. milk, fruit juice, water)	Soft-drinks (e.g. sugar-/artificially-sweetened soft drinks, squash) restricted	Salt provision is restricted
Austria		✓	✓		✓		✓	✓	✓	✓		✓	✓	✓
Belgium - Flanders		✓	✓	✓		✓	✓	✓			✓	✓	✓	
Belgium - Wallonia		✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	
Bulgaria		✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Croatia		✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Cyprus	✓													
Czech Republic		✓	✓	✓	✓	✓								
Denmark		✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	
Estonia		✓		✓			✓	✓	✓		✓	✓	✓	
Finland		✓	✓		✓	✓	✓	✓		✓	✓	✓	✓	✓
France		✓	✓		✓	✓	✓	✓			✓	✓	✓	✓
Germany		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Greece	✓													
Hungary		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Ireland		✓		✓	✓			✓		✓	✓	✓	✓	
Italy		✓	✓	✓	✓	✓					✓			✓
Latvia		✓	✓	✓	✓	✓	✓	✓	✓			✓		✓

47

The full report can be found [here](#).

Nutrition and menus

This section contains excerpts from a paper by the Ministero della Salute, titled Nutrition by Playing - Basic principles for proper nutrition.⁴⁸

At school, proper nutrition has the task of educating the child to learn healthy eating habits and behaviors. The feeding of the child must be considered in a broader context, such as that of the environment, understood not only in a physical sense, but also in a socio-cultural and psychological sense. At school, children learn to sit at the table, to eat what they have on their plate without waste and to appreciate new and sometimes unusual flavors; the seasonal variation of foods allows us to offer foods that, due to differences in tastes, habits and, at times, lack of time for preparation, are not consumed at home. The introduction of new foods can be easily accepted if the initial refusal is overcome thanks to the collaboration of teachers and / or staff who stimulate the child to imitate the spirit of his companions.⁴⁹

The menu must be elaborated according to the principles of a balanced diet from a nutritional point of view, also using typical foods to teach children to maintain food traditions. The variety

⁴⁷ Ibid.

⁴⁸ Ministero della Salute. N.D. La Nutrizione Giocando. Ufficio 5 nutrizione e informazione ai consumatori. From: https://www.salute.gov.it/imgs/C_17_pubblicazioni_3131_allegato.pdf

⁴⁹ Ibid.

of foods is fundamental, as it allows the adequate supply of the nutrients necessary for harmonious growth and substantially contributes to the spread of correct eating habits. The menu must be prepared with a rotation of at least 4/5 weeks, and almost never repeat the same recipe, and change for the autumn-winter and spring-summer periods. In this way, children acquire the availability of vegetables and fruit in relation to the seasons and satisfy the physiological need to modify their diet according to the climate. A varied menu, easily implemented due to the multiplicity of foods of the Mediterranean diet, introduces children to different foods, new flavors and stimulates curiosity about food. The variability of the lunch menu can be obtained simply with the use of seasonal products, with which it is possible to develop different recipes, particularly, first course and side dishes. The importance of drawing up a menu that also includes notes to clarify the reasons for the choices is emphasized. The menu must be prepared for the different age groups. In designing the menu, it is necessary to comply with the needs of metabolism, growth, prevention and favor the progressive achievement of the objectives of total meal quality and user satisfaction, encouraging the tasting and progressive acceptance of different foods. The energy and nutrient evaluation of the menu must be the basis of the school week.⁵⁰

It is advisable not to give a second portion, especially the first dish, to avoid an excessive intake of calories and to change eating habits, as part of the prevention of obesity. Attention to portions is important for the correlation of body weight with the average portion size rather than with the qualitative choices of food made by children. It is therefore crucial that the distribution staff are adequately trained on portioning and distribute the food with appropriate tools (ladles, stirrers or skimmers that have the appropriate capacity to guarantee the suitable portion with a single grip) or in a predetermined number of pre-portioned pieces. If children and/or young people belonging to different ages and to more than one school group are present in the same canteen (e.g., kindergarten, primary, lower secondary school), it is necessary to arrange for different size tools to provide a suitable portion (Ibid). It is advisable to distribute a snack in the middle of the morning with the aim of giving the child, during the break of lessons, the energy necessary to keep the attention alive without weighing down the digestion and allowing him to arrive at lunch with the right appetite. This snack must provide a caloric intake equal to 8% - 10% of the daily requirement and preferably consist of fruit and vegetables of simple consumption (for example those of the IV range). The afternoon snack, when provided, must be equal, in terms of caloric intake and component foods, to the snack.⁵¹

It is important for the child to have water available throughout the school day, preferably from the mains. The school must guarantee the best conditions for the consumption of meals: suitable environments, not noisy and of adequate size for the number of pupils, appropriate presentation of food, sufficient time to eat the meal. The transmission of information on proper nutrition requires the involvement of all staff who, during the time spent at school by the child, participate in both didactic and educational training (Ibid).

⁵⁰ Ibid.

⁵¹ Ibid.

Gaining Health⁵² and Health Promoting Schools, and the whole school approach

The Program “*Gaining Health: making healthy choices easier*” is a national Government strategy adopted in 2007, according to the principles of the “Health in All Policies”. The strategy was named after and refers to the work being carried out under Gaining Health, the European strategy for the prevention and control of noncommunicable diseases adopted by the WHO Regional Committee for Europe in 2006. The program promotes health and equity in health throughout the course of life. This means not only to ensure a good start to every child (with prevention interventions before pregnancy, protection of maternity and new families and protection interventions, promotion, and support of breastfeeding), but also to prevent unhealthy behaviours that often are established during childhood and adolescence, to ensure education for all, to reduce the risk of chronic diseases in adults, to get to a healthy and active aging. Interventions of the program are therefore targeted to the citizens in all ages, in the contexts of life and work, according to the “life course” approach.⁵³ The report can be found [here](#).

Another initiative relevant to child health and education is Health Promoting Schools, the integration of the school and health system. Italy supports the dissemination of the “Whole-school approach” recommended by the World Health Organization as its main scientific evidence, as it pursues educational, health, sustainability, and equity objectives, by means of planning that is governed and developed by each educational establishment, involving all aspects of the school’s life.⁵⁴ More on this topic can be found [here](#).

The whole school approach is taken very seriously in Italy and under law the ‘Commissione Mensa’ (Canteen Commission) involves families in the monitoring and evaluation of the quality of the school meal service.⁵⁵ Each school must appoint its own ‘Commissione Mensa’ which includes any number of parents, appointed for a period of three years, who can visit the school in groups of two, unannounced, any time during term time.⁵⁶

As a fundamental part of an education programme called ‘Cultura che Nutre’ (Culture that Feeds), Italian teachers reinforce the effort made in the school kitchen by linking it to material in the classroom which covers many key areas: food, nutrition, and lifestyle (including cooking), Italian farming practices and food quality and, finally, the Italian diet and food culture.⁵⁷

More on *Gaining Health and Health Promoting Schools* can be found in Appendix 3.

⁵²

⁵³ Chrodis, E.U. the Health Programme of the European Union. N.D. *Gaining Health: Making Healthy Choices Easier Italy*. From: <http://chrodis.eu/wp-content/uploads/2017/03/gaining-health-making-health-choices-easier.pdf>

⁵⁴ Implementation Guidance for Health Promoting Schools Draft 2 September 2020. Murdoch Children’s Research Institute. The Royal Children’s Hospital, 50 Flemington Road Parkville, Victoria, 3052 Australia. From: https://cdn.who.int/media/docs/default-source/mca-documents/adolescents-and-youth/hps-implementation-guidance-draft-25c1a4f0c608e404b961b7b0b3d563172.pdf?sfvrsn=47940f35_2

⁵⁵ Heindl, I. 2003. The European Forum on eating at school – making healthy choices. The University of Flensburg. From: http://www.evb-online.de/docs/Strasbourg_talk_revisited.pdf

⁵⁶ Ibid.

⁵⁷ Young, 2005. *Eating at school - Making healthy choices*. Council of Europe. ISBN 978-92-871-5574-0.

Fragmentation

In Italy, more so than other EU countries, the moment of lunch acquires a "multifunctional" value, in which not only the nutritional dimension is intertwined, but also the right to health and education⁵⁸ and this opens space for forms of "Creative procurement," supporting sustainable patterns of consumption that privilege quality; local, seasonal, fresh foods.⁵⁹

Canteen service is extremely fragmented by regional and municipal territory and inhomogeneous from a qualitative point of view: within a province they can be found municipalities offering an excellent school lunch service alongside municipalities offering minimal or mediocre service. The canteens can be managed directly by the same administrations, or the service is assigned to one or more external companies based on a tender. There is talk of mixed management where the direct management by the public body of some canteens coexists with the contracting of others.⁶⁰ Based on the data provided by Bio Bank (2010), the contract formula is clearly prevalent, chosen by 74% of the canteens⁶, 15% adopts direct management, 9% mixed management. The missing 2% concerns those canteens that have not declared the management method.⁶¹

The public service of school meals is a complex area in which food is linked to the nutritional balance, health, and education of young users. Therefore, the definition of the menus, the safety and freshness of the selected products, the synergy of the mealtime with the educational processes are all factors that contribute to a more sustainable school canteen service.⁶² The overall evaluation of the school canteen system is primarily identified with the quality of the food ingredients used. There has been a gradual conversion in schools for several years from conventional agricultural products to products from controlled supply chains, such as organic ones, for which the guarantee of safety, the absence of pesticides, preservatives, dyes, or polishing substances is given,⁶³ as well as products with a designation of origin, or simply seasonal products from local areas.

⁵⁸ Ruffolo U. 2001. *School Catering: Legal Perspectives*. In *School Catering: Future Perspectives*. Book 5, Culture that Feeds, Interregional Program of Communication and Food Education. Ministry of Agriculture and Forestry Policies (ed. By RB Finocchiaro), pp. 103–125. Ismea, Rome.

⁵⁹ Morgan, K., and Sonnino, R. 2007. *Empowering consumers: the creative procurement of school meals in Italy and the UK*. *International Journal of Consumer Studies*. Volume 31, Issue 1, pages 19–25.

⁶⁰ Slow Food. 2008. *National survey on school canteens*. By Paolo Gramigni, report presented at Più Menù Expo, Fiera di Genova, November 23-25, 2008.

⁶¹ Bio Bank 2010, Tutto Bio. *Annuario del Biologico* (Yearbook of Organic). Published by Egaf Edizioni Forlì, Italy, 2010.

⁶² Galli, F. & Brunnori, G. 2012. *Towards a more sustainable Italian school catering: sustainable public procurement*. University of Pisa, Department of Agricultural, Food and Agro-environmental Sciences (DISAAA-a). *Agriregionieuropa year 8 n° 29, Jun 2012*. p. 71. From: <https://agriregionieuropa.univpm.it/it/content/article/31/29/verso-una-ristorazione-scolastica-italiana-piu-sostenibile-sustainable-public>

⁶³ Spigarolo R., Sarti MV, Bocchi S., Giorgi G. 2010. Supply chains for school catering. Comparative study of 5 Italian cases. Report of the Ipopo project presented at the Conference "Comparing Italian and European sustainable catering experiences, Bologna, May 27-28, 2010.

Sustainability and Procurement

The food served in Italian schools has a focus on procurement and sustainability. Meals are recognized as an integral part of both people's right to education and the consumers' right to health.⁶⁴ In the mid-1980s, the Commission 'What is Organic' was established and the first national law to regulate the organic sector was introduced. Soon after this, the municipality of Cesena designed the first organic school meal system.⁶⁵ During the late 1980s Italy began to promote the values of the Mediterranean diet. In 1986, the National Institute for Nutrition published the 'Guidelines for a Healthy Italian Diet', which explicitly promoted the Mediterranean food model in public sector catering.⁶⁶

The link between local, organic food and public catering food policies was prevalent in 1999, when, in response to an increased public concern for healthy eating, the Italian Government issued Finance Law 488. This law guaranteed the promotion of regionally sourced, organic, good quality food products in institutions which operate public canteens, including schools.⁶⁷ The results of Hee and Mikkelsen's report in 2010, provided some evidence of the fact that having an organic food procurement policy or strategy at school seem to have a positive influence on the "nutritional environment" at school. The results indicate that having an organic food procurement policy or strategy in most cases positively affect the awareness on nutrition and healthy eating issues. The results suggest that creating a raised awareness on food issues and a sensitive organizational environment at school could have positive impact on pupil's health. The results are further encouraging since they support the fact that the connection that most people make between good nutrition and organic consumption seems to be reflected in actual school food environment. However, it should be noted that, the quantitative part of the study had limited statistic power and a considerable dropout rate. They concluded that future research should investigate the impact of organic school food serving practices on children's eating habits.⁶⁸

To view special tender specifications service for preparation and administration of meals at school canteens in Cremona as an example please click [here](#).

Food waste has become a critical issue in Italy and around the world. Over one-third of food produces for school canteens is wasted.⁶⁹ Please see Appendix 2 for more details.

⁶⁴ Ruffolo U. 2001. *School Catering: Legal Perspectives*. In *School Catering: Future Perspectives*. Book 5, Culture that Feeds, Interregional Program of Communication and Food Education. Ministry of Agriculture and Forestry Policies (ed. By RB Finocchiaro), pp. 103–125. Ismea, Rome.

⁶⁵ Morgan, K., and Sonnino, R. 2007, *Empowering consumers: the creative procurement of school meals in Italy and the UK*. *International Journal of Consumer Studies*. Volume 31, Issue 1, pages 19–25.

⁶⁶ Soil Association. 2014. *'Food for Life: Healthy, Local, Organic School Meals.'* The Soil Association, Bristol. From: https://foodforlife.org.uk/~/_media/files/policyreports/food_for_life_report_2003.pdf

⁶⁷ Hee, C. and Mikkelsen, B.E. 2010. *Does organic school food service provide more healthy eating environments than their non-organic counterparts?* Foodscape Series Report nr. 1. Aalborg University. From: https://orgprints.org/id/eprint/17423/1/6th_version.pdf

⁶⁸ Ibid.

⁶⁹ Martone, D.; Censi, L.; Roccaldo, R.; Galfo, M.; D'Addesa, D. 2013. *Mensa Scolastica: Adeguatezza del pasto*. J. Food Sci. Nutr. 2013, 42, 9–22. From:

Challenges and Universality

In Sweden, school canteens started providing free meals to fight health disparities in 1946.⁷⁰ Similarly, some Danish schools offer free lunches with organic and local food as a strategy to improve the nutritional quality of children's diets.⁷¹ Contrary to lunchboxes prepared at home, which usually reflect the family's food culture, the school meal can thus be employed as a 'great equaliser' that guarantees universal access to a wholesome meal whilst transmitting values on how to eat properly and in a well-balanced manner.⁷² Other European countries, such as Finland, provide free school lunches to all pupils. In France, school lunches are not free, but are heavily subsidised. All infant pupils in England's schools are entitled to a free hot meal at lunchtime, but take-up is not compulsory.

School meals in Italy provide regular Italian cuisine, although they may vary among regions and towns.⁷³ The Italian government is doing a large-scale study to measure and involve students in food habits, diets, and food choices.⁷⁴ However, many parents struggle for the right to pack home meals as their children since school food is rather expensive.⁷⁵ Italy's Supreme Court said schools should have the autonomy to decide if children are allowed to eat packed lunches on school grounds.⁷⁶ A lower court previously ruled in favour of a group of Turin parents who wanted to opt out of school meals. Parents have reacted angrily to a decision by Italy's top court which states that the right to eat packed lunches in schools is not "unconditional." Parents say school meals are costly. They also argue that food provided by schools can be unhealthy.⁷⁷

The Supreme Court ruled recently that bringing a packed lunch was "a possible violation of the principles of equality and non-discrimination based on economic circumstances." [A local Turin Facebook group called on parents to petition schools](#), arguing that sending in home-cooked food was a "social right" which did not hamper their children's ability to participate in school life. Others said they could not be sure canteens would cater to specific dietary requirements of some pupils.

https://www.researchgate.net/profile/Deborah-Martone/publication/259968873_Mensa_scolastica_adequatezza_del_pasto/links/54af98250cf2b48e8ed67449/Mensa-scolastica-adequatezza-del-pasto.pdf

⁷⁰ Lundborg, P. & Rooth, D.-O. 2021. Swedish school lunch reform, nutrition, and lifetime income. From: <https://voxeu.org/article/swedish-school-lunch-reform-nutrition-and-lifetime-income>

⁷¹ He, C., Breiting, S., Perez-Cueto, F. 2012. *Effect of organic school meals to promote healthy diet in 11-13-year-old children. A mixed methods study in four Danish public schools*. *Appetite*. 59. 866-876. From: <https://doi.org/10.1016/j.appet.2012.09.001>.

⁷² Gullberg, E. 2006. *Food for Future Citizens: School Meal Culture in Sweden*. *Food, Culture and Society: An International Journal of Multidisciplinary Research*. 9. 337-343. From: <https://doi.org/10.2752/155280106778813279>.

⁷³ School Meal. n.d. From: https://en.wikipedia.org/wiki/School_meal#Italy

⁷⁴ *DietNE: Diet Nutrition and Education* 2016. "A Table of Colors". November 4, 2015. From: <https://web.archive.org/web/20160326095254/http://dietne.com/a-table-of-colors/>

⁷⁵ *BBC News*. 2019. "Packed lunches not a right in Italian schools, court rules." 1 August 2019.) From: <https://www.bbc.com/news/world-europe-49190625>

⁷⁶ Ibid.

⁷⁷ Ibid.

Universality, providing free meals for all children, may help to prevent these issues and those of stigma. In Ontario, a “universal” SFP, according to Sustain Ontario (n.d.) means that all children and youth can participate in the program. “Universal” means that no child is turned away based on their family’s ability to pay, fundraise, or volunteer with the program. In a mixed system that includes fully subsidized and paid meals based on parent’s ability to pay or income.⁷⁸

Cremona: a regional example of a lauded school food program (and other examples)

Cremona’s school canteens were rated the best in 2020. For the third time in five years, Cremona, with its double menu and healthy and delicious recipes, ranks first in the fifth Rating of the school menus and the survey on the post lockdown canteen conducted by the Foodinsider School Canteen Observatory and presented in collaboration with Slow Food. After Cremona city are Fano, Jesi, Trento, Rimini, Bergamo, and Mantua.⁷⁹

Cremona employs a canteen model that uses cooks employed by the Municipality and the support of a collective catering company, Camst, which works in full harmony with the Administration. The school catering service for the years 2015-2020 is entrusted to the Camst company. Camst manages school catering under the supervision of the Educational Policies and Education Sector of the Municipality of Cremona - Educational Policies and Education Service - School catering office.⁸⁰

Their canteens enjoy a rating that exceeds 90% in nursery schools and can be understood from the number of cooks (40) in the kitchens (32) and from a management system of the Municipality that aims at a canteen that it is good to taste but also balanced and healthy. The winning combination is illustrated by one between the nutritionist, Silvia Bardelli, and the cooks, whose gastronomic expertise is linked to a food culture that knows and exploits the properties of food. The menus they produce include dishes such as ' *yellow risotto with zucchini and pistachio pesto*', ' *sage and chestnut sauce pasta*', ' *legume and quinoa meatballs* ', ' *roasted millet turbot and chickpea cream*'. Unusual dishes for a school canteen, but behind which there is an idea of health that starts from the food offered at school, together with an education to taste and the pleasure of ingredients that best support the growth of children.⁸¹

⁷⁸ Sustain Ontario. N. D. Universal Student Nutrition Program. From: <https://sustainontario.com/greenhouse/custom/uploads/2016/09/What-is-meant-by-universal-student-nutrition.pdf>; For additional articles on this subject and other school canteen articles see: Cittadinanzattiva APS. From: <https://www.cittadinanzattiva.it/component/tags/tag/ristorazione-scolastica.html>; <https://www.pdcremona.it/mense-scolastiche-alloni-pd-per-la-maggioranza-e-gli-m5s-il-pasto-a-scuola-non-e-un-momento-educativo/>; <https://www.ilgiorno.it/cremona/cronaca/quintano-mensa-causa-1.4722213>; https://www.cremonacinque.edu.it/system/files/t-circolare_servizio_mensa_26_settembre_2019.pdf

⁷⁹ Prima Cremona. 2020. *School canteens, Cremona at the top: first place in the 5th rating of school menus*. Cremona Chronicle, November 2020. From: <https://primacremona.it/cronaca/mense-scolastiche-cremona-al-top-primoposto-nel-5-rating-dei-menu-scolastici/>

⁸⁰ Comune di Cremona. 2021. *School catering in state kindergartens and state first grade primary schools: general information and menus*. From: <https://www.comune.cremona.it/node/421331>

⁸¹ Platrinieri, C. 2019. *Esempi di buone practice nella ristorazione scolastica*. From: <https://www.regione.marche.it/portals/0/Agricoltura/EduAlim/Macerata%2025%20ottobre%202019/PALTRINIERI.pdf>; Platrinieri, C. 2020. *EATING AT SCHOOL. The sustainable canteen revolution that will change the world*. From:

The excellence achieved by the Cremona school canteen is the result of a political will that believes in the importance and value (also political) of the school catering service that it has managed with a highly respected team. To develop a quality school service has its advantages, not only for children. This is demonstrated by the fame that Cremona has gained, which has made itself known both in Italy and abroad for the extraordinary quality of its school menus.⁸² Councillor for Education in Cremona, Maura Ruggeri, states "the commitment (to excellence in school food and nutrition) is realized daily through the proposal of menus prepared with great passion by professionals and the desire to involve teachers, cooks, parents and children more and more in prospective studies and reflection on issues related to the enhancement and impact that food choices have on everyone's life. " In fact, the councillor concludes, it is important to keep in mind that food can be a formidable tool to support psychophysical well-being, health as a whole also and above all in this particular moment, but it can also be a valid tool to support health environment, opting for increasingly aware and responsible choices."⁸³

According to Foodinsider, Cremona is one of the Italian municipalities that "stand out for the biodiversity of the dishes, for the balance of the diet, the ability to elaborate recipes and the quality of raw materials, mostly organic, but also for the variety of fish."⁸⁴

However, canteens of lower quality offer menus with increasing amounts of processed foods, such as preserved meats, (which the WHO classifies in group 1 of foods 'definitely carcinogenic') and ultra-processed (which FAO classifies in group 4 including "croquettes" and "sticks", sausages, hamburgers, hot dogs, and other reconstituted meat products; and soups, packaged desserts), passing from the percentage of 75.5% last year to 81.5% this year.⁸⁵

Another study, supported overall by a survey by the Foodinsider School Canteen Observatory, aimed to promote and make visible those canteen models that do not aim to satiate, but to nourish, educate, create economic development and social in respect of the environment.⁸⁶

Among the negative notes of the survey, it emerges that more and more menus offer processed and ultra-processed foods, going from the percentage of 75.5% last year to 81.5% this year. "A datum - is explained with the survey - that goes hand in hand with the increase in the frequency of red meats."⁸⁷

https://www.bondproject.eu/wp-content/uploads/2020/03/BOND_-T3.3-Hungarian-PRT-_Claudia-Paltrinieris-presentation_2020.02.04.pdf

⁸² Comune di Cremona. 2021. *School catering in state kindergartens and state first grade primary schools: general information and menus*. From: <https://www.comune.cremona.it/node/421331>

⁸³ Ibid.

⁸⁴ Cremona Oggi (Chronicle) 2021. School canteens, Cremona 2nd in the 6th Foodinsider rating. From: <https://www.cremonaoggi.it/2021/06/17/mense-scolastiche-cremona-2a-nel-6-rating-foodinsider/>

⁸⁵ Ibid.

⁸⁶ Il Sole 24 Ore. 2021. *School canteens, the most virtuous in Fano, Cremona and Parma*. School Editorial Staff. Families and students. 24 Italy. From:

<https://www.ilsole24ore.com/art/mense-scolastiche-piu-virtuose-fano-cremona-e-parma-AER4xnQ>

⁸⁷ Ibid.

The analysts also point out that "canteens are increasingly becoming a collection of quick dishes that aim to satiate, such as plain pasta, pizza, sticks, hamburgers, croquettes, spreadable cheese, yogurt and pudding and are less and less the real school canteen which has an inherent burden to educate, as well as nourish. Finally, few canteens that, faced with "rampant food poverty" which affects more than one child in 10, have used the school catering service to deal structurally with the fragility of families. There is also a decrease in canteens that serve meals with washable dishes, dropping from 65% to 59%.⁸⁸ A pejorative fact that means a lot of disposable both in the refectory and in the classroom, a solution that does not go in the direction of sustainability as indicated instead by the Ministry of the Environment with the Cams that require you to administer the meal with ceramic tableware. There are also few canteens that, faced with rampant food poverty, which affects more than one in 10 children, have used the school catering service to deal structurally with the fragility of families (Ibid). Belluno and Latina hijacked the kitchen of the school canteen to produce dishes for the soup kitchen, while Cremona and Bergamo responded by expanding the number of gratuities and bonuses to allow everyone access to the canteen service.⁸⁹

The restrictions due to Covid prevented parents from directly controlling the situation. Only 7.9% of the sample said they were able to carry out regular inspections, 17% only a few inspections, and 75.1% were not allowed to enter the school to carry out the inspection activity.⁹⁰

"The gap between the resilient canteen is widening, which despite the organizational difficulties due to the consumption of the meal in the classroom, has invested to improve or maintain the quality standard of the service -declares the president of Foodinsider, Claudia Paltrinieri - compared to those canteens where the service is comparable to a sort of "fast food at school", where the CTS has taken advantage of this summer's indication of "simplification" of the meal. , even going so far as to suspend the administration of water."⁹¹

Cremona, on the other hand, is among the few canteens that have "used the school catering service to deal structurally with the fragility of families: while Belluno and Latina have hijacked the kitchen of the school canteen to produce dishes for the soup kitchen, Cremona and Bergamo they responded by expanding the number of gratuities and bonuses to allow everyone access to the canteen service."⁹²

⁸⁸ Ibid.

⁸⁹ Ibid.

⁹⁰ Wine News. 2021. *Italian school canteens alarm, "fast food" is growing, and sustainable practices are decreasing.* From: https://winenews.it/it/allarme-mense-scolastiche-italiane-cresce-il-fast-food-e-calano-le-pratiche-sostenibili_444722/

⁹¹ Ibid.

⁹² Cremona Oggi (Chronicle) 2021. School canteens, Cremona 2nd in the 6th Foodinsider rating. From: <https://www.cremonaoggi.it/2021/06/17/mense-scolastiche-cremona-2a-nel-6-rating-foodinsider/>

“It is a great satisfaction and an important feedback to the work we have been doing for years” comments Maura Ruggeri, councillor for the school. “A work that focuses on quality and attention to food proposals. A great work of collaboration and coordination between the Municipality and those who manage the canteen, on the addresses and methods of preparing and administering food for children, who are healthy and comply with national guidelines. We have introduced organic and whole foods, as close as possible to the physiological needs of the children's age. Another very important aspect is the educational one: the canteen is a fundamental moment of school activity.”⁹³

An interesting perspective on the challenges of school catering can be found in this [document](#), Challenges of School Catering in Udine, Municipality of Udine – Italy, 2017.

For more information on school menus in Italy please see the Foodinsider website [here](#). Also, please see Appendix 4 for information on Culinary Training, Collaboration, and Menus.

⁹³ Ibid.

Appendix 1

Translated Version of: LINEE DI INDIRIZZO NAZIONALE PER LA RISTORAZIONE SCOLASTICA (2010)⁹⁴ – National Guidelines for School Catering - from Google Docs



LINEE DI INDIRIZZO NAZIONALE PER LA RISTORAZIONE SCOLASTICA

Ministry of Health

**DEPARTMENT FOR VETERINARY PUBLIC HEALTH, NUTRITION AND
FOOD SAFETY**

DIRECTORATE-GENERAL FOR FOOD SAFETY AND NUTRITION

NATIONAL GUIDELINES

FOR SCHOOL CATERING

⁹⁴ From: https://www.salute.gov.it/imgs/C_17_pubblicazioni_1248_allegato.pdf



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NATIONAL GUIDELINES FOR CATERING scholastic

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NATIONAL GUIDELINES FOR SCHOOL CATERING

Index

- 1. Introduction**
- 2. Catering as a management system**
- 3. Roles and responsibilities**
- 4. Nutritional and LARN aspects**
- 5. Intercultural aspects**
- 6. Criteria and indications for the definition of the Specifications**
 - (a) subject to the contract*
 - (b) menu*
 - (c) foodstuffs*
 - (d) personnel*
 - (e) hygiene*
 - (f) transport and distribution of meals*
 - (g) evaluation and management of surpluses and surpluses, reduction of waste production*
- 7. Annexes**
 - special diets*
 - table for the organization of the service and its activities*
 - bibliographical sites and references*

1. INTRODUCTION

The *National Guidelines for School Catering* move from the need to facilitate, from childhood, the adoption of correct eating habits for the promotion of health and the prevention of chronic-degenerative diseases (diabetes, cardiovascular diseases, obesity, osteoporosis, etc.) of which improper nutrition is one of the main risk factors.

On the other hand, profound changes in the lifestyle of families and individuals have led, for an increasing number of individuals, to the need to eat at least one meal outside the home, using the services of collective and commercial catering.

As you know, the objective of promoting correct lifestyles in the population is an international priority.

Access to and practice of healthy and correct nutrition is one of the fundamental rights to achieve the best possible state of health, particularly in the first years of life.

In fact, the "Convention on the Rights of the Child", adopted by the UN in 1989, enshrines the right of children to have a healthy diet adequate to the maximum possible health and the revision of the 1996 European Social Charter states that "every individual has the right to benefit from any measure that can enable him to achieve the best possible level of health".

In 2006, the Who (World Health Organization) Regional Office for Europe approved Gaining health, a specific programme that includes a multisectoral strategy aimed at the prevention and control of chronic **diseases**. At the end of 2007, the WHO, together with the European Commission and the 27 Member States of the Union, approved a declaration on "Health in all policies", to promote the elaboration and implementation of health-friendly policies in different areas, such as food, environment, trade, education, industry, work, and transport. The success of many health promotion interventions also depends on elements outside the "health system".

This line was born in 2007 "*Gaining Health –making healthy choices easy* ", a global strategy aimed at promoting healthy lifestyles and reducing chronic non-communicable diseases, developed by the Ministry of Health, to counteract modifiable risk factors such as misdeed feeding, sedentary lifestyles, alcohol abuse and smoking. Among the areas of intervention, collective catering, in particular school catering, has been identified as a priority tool to promote health and educate to a correct diet.

In school catering it is of fundamental importance to raise the quality level of meals, as nutritional and sensory quality, while maintaining the principles of food safety. The correct management of catering can favor nutritionally correct food choices through interventions to evaluate the adequacy of the menus and promote some dishes / recipes. In addition to producing and distributing meals in compliance with the indications of the Recommended Daily Intake levels of Nutrients for the Italian population (LARN), it can play an important role in food education involving children, families, teachers.

Teachers and service personnel, adequately trained (on the principles of nutrition, on the importance of the senses in food choice, on the communication methodologies suitable to lead children to a varied consumption of food, on the importance of the correct preparation and portioning of meals), play an important role in favoring the enrichment of the child's home food model of new flavors , food tastes and experiences managing, with serenity, the possible initial difficulties of some children to take a food never consumed before or a taste not appreciated at the first taste.

This document, prepared by a technical group in the Directorate General for Food Safety and Nutrition of the Ministry of Labour, Health, and Social Policies pro tempore, is aimed at all operators of school catering and focuses attention on some substantial aspects, to provide at national level indications to improve their quality in the various aspects, the nutritional one. It contains guidance for organising and managing the catering service, for defining tender specifications and providing a meal adapted to needs for different age groups, educating the child to acquire correct eating habits.

This document highlights general aspects relating to health promotion, which apply to all types of service.

2. CATERING AS A MANAGEMENT SYSTEM

The reading of the catering system has changed profoundly over the last twenty years, assuming, in the conceptual model of local authorities and operators in the sector, connotations of organicity, in the awareness of the complexity of its profiles:

- gastronomic/hotel
- economic and financial
- administrative/management
- hygienic/nutritional
- communication
- facilitating correct eating habits in an effective model of health promotion and prevention of chronic degenerative diseases and their main risk factors.

School catering should not be seen solely as a mere satisfaction of nutritional needs but should be considered an important and continuous moment of education and promotion of health directed at children, which also involves teachers and parents.

The primary objective of a good catering policy is to seek and obtain the maximum congruences between the different profiles of the system, creating a profitable area of convergence between inter sectoral policies, which are concise, in terms of an "ethical" comparison and fair transparency, economic logic with priority health ones.

In this sense, an advanced system of catering has more transversal objectives, which, if implemented harmoniously, can also represent potential for sustainability of the company.

In summary, these objectives can be summarised as follows:

- promotion of correct eating habits
- safety and compliance with standards
- appropriateness with respect to needs, in terms not only of nutritional characteristics of food recipes and proposals, cooking technologies, products used, but also in terms of sensory liking
- respect for the times and methods of service, comfort, and accessibility
- reasonable relationship between quality and price
- user satisfaction.

Within the catering system, the model defined above calls in the field new and integrated skills and requires investments in the training of professional figures who approach the specific techniques also managerial skills and overview of the critical issues of the system and the method to solve them.

On the health services front, from a fundamentally limited approach to the control functions on the application of rules relating to food hygiene and food production facilities, we have moved, thanks to important cultural changes, to an approach that has enriched the scope of public health in interaction with the

world of catering with objectives and meanings, including in the field of correct nutrition. This makes it desirable to strengthen the services involved.

In an overall framework of food and health policies in which several actors are called upon to make an indispensable contribution, the common thread and focus for coherent and synergistic actions towards common objectives can be represented by logics based on the combination of "health promotion - promotion of quality", in which the prospect of the future could be the introduction of reward mechanisms , for those who operate according to principles that connote a "catering that promotes health".

The overall goal of the catering service is to provide an appropriate meal in an appropriate context according to a systemic view of quality. In this sense, the aims, and strategies for organizing a school catering service must be based on a conscious and effective policy of total quality that considers:

- definition and formalization of roles and responsibilities for design, management, production, control
- identification of the necessary human resources and their qualifications
- training and updating of staff on the objectives and peculiarities of the service by reason of its purpose and its users
- correct management and improvement of structural and plant equipment
- availability of premises and furnishings of adequate comfort for the consumption of the meal
- guarantee of a hygienic self-control system
- assessment and management of surpluses and surpluses
- proper waste management (separate collection, use of ceramic or environmentally impactful dishes, etc.)
- activation of a system for detecting and managing service non-conformities
- differentiation of the menu according to the type and need of users
- adequacy of consumption times with eating habits and physiological needs of users
- system for verifying the degree of user satisfaction, through objective and subjective indicators
- specific collaborative measures for educational projects in the field of nutrition.

The key players entering the field of skills related to school catering are:

- Contracting entity (municipality or peer school)
- Restaurant service manager
- Local Health Company
- Users (children and their families)
- Educational institutions

3. ROLES AND RESPONSIBILITIES

Cooperation of specific skills is crucial with a view to a gradual but progressive improvement of the eating habits of children and possibly their families.

Basic models of dietary tables, modulated on local realities and any changes thereto must contain valid nutritional messages, responding to LARns and approval standards calibrated to the collective dimension.

Since the primary objective of school catering is to guarantee nutritional quality, usability of nutrients and hygiene and health safety with the meal in the canteen, in a frame of sensory pleasantness, it is necessary to integrate choices motivated by theoretical technical aspects with common sense, considering that the food proposals of the basic model have a strong educational value.

Effective communication between institutional stakeholders and families is essential for the promotion of synergies that can be extremely beneficial if coordinated in a joint health promotion project. The communication of objectives and the basic criteria for achieving them is in fact an important resource in the context of educational interventions in the territory.

The activity of the ASL, specifically of sian (Food Hygiene and Nutrition Service), takes place in:

- monitoring of the hygienic and nutritional characteristics of meals, including the evaluation of dietary tables adopted
- supervision and control activities in accordance with current regulations

- controls (inspections, audits, audits) based on risk graduation criteria that consider several elements such as: characteristics of production reality, product characteristics and hygiene of production, hygienic health training of employees, self-control system (formal completeness, degree of application and adequacy, historical data, previous non-compliance), etc.
- food education

The Municipality/joint school as head of the service is responsible for:

- choice of the type of service it intends to offer
- planning of investments and resources
- preparation of the specifications both for direct management in the economy and in case of external entrustment and in any case for every type of management provided
- overall control over the service especially in case of client of the service to third parties
- monitoring of the good performance of catering, both in the case of direct and indirect management, with controls aimed at:
 - product quality of food and finished dish
 - respect for portions
 - good organization and management of the service
 - acceptance of the meal

The service manager is involved in:

- carrying out the service in compliance with current legislation and contractual commitments
- offering meal products in the logic of a quality system
- constant training/updating of school catering staff

The School Canteen Commission, as a representative body, may carry out:

- role of liaison between users, the Municipality/peer school and the ASL, taking care to report the suggestions and complaints that come from the users themselves
- collaboration role in monitoring the acceptability of the meal and the methods of providing the service also through evaluation sheets, properly prepared

It is desirable to develop the role of the Canteen Commission also as a partner/interlocutor in the various food education projects/initiatives in the school, aiming at the empowerment of its members to promote healthy food choices among all parents belonging to the school.

The operation and functionality of the canteen committee must be defined by a local regulation, drawn up by the Municipality, which sets out the lines of intervention and defines the relations between the Commission itself and the institutional bodies in the various individual realities.

The teaching staff or those who attend the meal must be more involved in the interventions for the development of correct eating habits of the child and families.

Training and updating interventions should be provided for all those involved in school catering, aimed at both health education aspects and those more closely related to nutritional quality and food safety.

4. NUTRITIONAL AND LARN

A balanced and correct diet, but also pleasant and acceptable, is an essential prerequisite for everyone to maintain a good state of health and, in an evolutionary age, for optimal growth.

At school, proper nutrition has the task of educating the child to learn healthy eating habits and behaviors.

The feeding of the child must be considered in a broader context, such as that of the environment, understood not only in a physical sense, but also in socio-cultural and psychological.

At school children learn to stay at the table, eat what they have on their plate without waste and appreciate new and sometimes unusual flavors; the seasonal variation of foods allows to propose foods that, due to differences in tastes, habits and sometimes lack of time for preparations, are not consumed at home. The introduction of new foods can be easily accepted if any initial refusal is overcome thanks to the collaboration of teachers and/or staff who stimulate the child to the spirit of imitation towards their classmates.

The menu must be developed according to the principles of nutritionally balanced nutrition, also using typical foods to teach children the maintenance of food traditions.

As indicated in the Guidelines for healthy nutrition of INRAN (National Institute of Research for Food and Nutrition), the variety of foods is fundamental, as it allows the adequate supply of the nutrients necessary for harmonious growth and contributes, substantially, to the spread of correct eating habits.

The menus must be prepared with rotation of at least 4/5 weeks, to almost never repeat the same recipe, and different for the autumn-winter and spring summer period. In this way children acquire the availability of vegetables and fruits in relation to the seasons and meet the physiological need to change the diet according to the climate. A varied menu, easily feasible for the multiplicity of foods of the Mediterranean diet, makes children know different foods, new flavors and stimulates curiosity towards food.

The variability of the lunch menu can be achieved simply by using seasoned products, with which you can elaborate always different recipes, first courses and side dishes.

The importance of drawing up a menu that also includes explanatory and operational notes to clarify the reasons for the choices is underlined.

The menu should be prepared based on LARN for different age groups. In the design of the menu, it is necessary to meet the needs of metabolism, growth, prevention and favor the progressive achievement of the objectives of total quality of the meal and user satisfaction, encouraging the tasting and progressive acceptance of the different foods.

The energy and nutrient evaluation of the menu must be based on the school week.

It is advisable to include in the specifications, subject to sharing of meaning with users and the school, the need to prevent the administration of a second portion, especially of the first dish, to avoid an excessive intake of calories and to change eating habits, in the context of the prevention of obesity.

Defining suitable weights in dietary tables for school meals is the starting point for balancing daily nutrition and preventing obesity in evolutionary age, provided that the nutritional evaluation on paper of the menus corresponds to an effective application of the recommended portions in the catering establishments.

Attention to portions is becoming increasingly important in food education because of the possible correlation of body weight with the average portion size rather than with the qualitative choices of foods made by children. It is therefore crucial that the distribution workers are properly trained on the portioning and distribute the food with appropriate tools (ladles, pallets or skimmers that have the appropriate capacity to ensure the appropriate portion with a single socket) or in a predetermined number of pieces already portioned. If children and/or children of different ages and/or more than one school group

(e.g., kindergarten, primary, secondary school) were present at the same catering point, the same tool must be provided with the different capacity measures to provide the appropriate portion. Each tool must be marked with a distinctive sign, so that the deployment can proceed with separate toolsets based on the user target.

It is advisable to distribute a snack in the middle of the morning with the aim of giving the child, during the break of lessons, the energy necessary to keep the attention alive without weighing down the digestion and allowing him to arrive for lunch with the right appetite. This snack must provide a caloric intake equal to 8% - 10% of the daily requirement and preferably consist of fruit and vegetables of simple consumption (also of the fourth range).

The afternoon snack, when supplied, must be equal, for caloric intake and for component foods, to the snack.

It is important that the child has water, preferably network, available throughout the school day.

If it is considered necessary to place vending machines for food in schools, limiting the installation to high schools only, this inclusion should be made conditional on the fulfilment of specific requirements also defined through a special specification. The choice should be directed towards healthy products such as food and drinks with low energy density such as fruit, yogurt, fruit juices without added sugar.

The school must ensure the best conditions for the consumption of meals: suitable, non-noisy and adequately sized environments for the number of pupils, appropriate presentation of food, sufficient time to eat the meal.

The transmission of information on proper nutrition requires the involvement of all staff who, in the time spent in school by the child, participate in his training both educational and educational.

The data from the following tables have been compiled on LARN, indications for the different age groups using school catering and considering that lunch must provide about 35% of daily energy needs. The menu is structured in such a way as to provide about 15% protein, 30% fat and 55% carbohydrates.

Table 1 - Recommended intakes of energy, nutrients and fiber related to lunch in different school bands

Recommended	school of childhood	school Primary	school secondary first degree
Energy (kcal) for 35% of daily energy	440 - 640		700 - 830

Protein (g) corresponding to 10-15% of the energy of the meal	11 - 24	13 - 30	18 - 31
Ratio of animal and vegetable proteins	0,66		
Fats (g) corresponding to 30% of the energy of the meal	15 - 21	18 - 27	23 - 28
of which saturated (g)	5 - 7	6 - 9	8 - 9
Carbohydrates (g) corresponding to 55 - 60% of the energy of the meal	60 - 95	75 - 120	95 - 125
of which simple sugars (g)	11 - 24	13 - 30	18 - 31
Iron (mg)	5	6	9
Calcium (mg)	280	350	420
Fiber (g)	5	6	7,5

Recommended daily intakes of energy and nutrients (LARN) are diversified by gender, age, and physical activity levels. In the table for lunch, the minimum and maximum values for each school group are calculated based on the recommended lower and higher recommended energy intakes of each group and mainly consider age.

Table 2 - Frequency of consumption of food and food groups referred to lunch during school week

Food/food group	Frequency of consumption
Fruit and vegetables	A portion of fruit and one of vegetables every day
Cereals (pasta, rice, barley, corn...)	A portion every day
bread	A portion every day
Legumes (also as a single dish when associated with cereals)	1-2 times a week
potatoes	0 -1 time a week
Meat	1-2 times a week

fish	1-2 times a week
eggs	1 egg per week
Cheese	1 time a week
Cold cuts	2 times a month
Single dish (e.g., pizza, lasagne, etc.)	1 time a week

5.A INTERCULTURAL COMPETENCES

Italy is increasingly a multi-ethnic and multicultural nation and the presence of pupils from other ethnic groups is a structural fact of our school system.

Among the cultural identities, peculiar appear the eating habits that are peculiar to every area of the world and every historical moment, in relation to socio-economic conditions, religious beliefs, the availability of raw materials in some geographical areas and the traditions of each population.

The population of other ethnic groups residing in Italy is young and almost 1/4 of them are minors, who attend the educational institutions of our country.

Reflecting the total distribution of citizens of other ethnic groups residing in Italy, even for pupils with non-Italian citizenship there is a clear north-south distribution gradient, with the highest percentages in the northern regions and the lowest quotas in the south. These data underline how intercultural relations are one of the main issues to be addressed in society and in schools. Moreover, schools are the ideal environment for such integration and food is an area on which to deepen and develop these policies.

Young people of other ethnicities are at risk of malnutrition both for lack and excess also because of the attempt to combine ethnic cuisine and Italian proposals and sometimes for the tendency to consume low-cost, high-calorie and low-quality nutritional foods. The new generations find themselves, in fact, growing in a new society between the Western push to consumption outside the home and the link to their eating habits defended in the family. The immigrant child population is a group particularly at risk of weight surplus.

In general, it is extremely easy for children of other ethnicities to adapt to Italian eating habits, and this trend is all the greater the smaller the child.

If children are well suited to both food cultures, that of the host country and that of their country of origin, the more difficult it is to choose the behavioural nature of families, where the concern to not lose one's cultural specificities, including food, can prevail.

Public health plays a key role in helping people make health choices, reducing social risks and inequalities. In this context, school and in particular school catering take on a leading role. Incongruous eating habits can be corrected with healthy school catering proposals that, through the child, can reach the

household. Adopting the intercultural perspective, promoting dialogue and confrontation between cultures, means not only compensatory measures such as special diets, but organising a strategy of real quality growth also based on health and prevention criteria. "Cooking" from an intercultural perspective can mean taking on variety as a paradigm of the very identity of catering, a privileged opportunity to open to all differences.

6. CRITERIA AND INDICATIONS FOR THE DEFINITION OF SPECIFICATIONS

The school catering service, to meet criteria of quality, wholesomeness, and liking, needs a well-defined specifications characterizing the type of service that is required and that is intended to be provided.

The specifications are the document in which the contractual links between the supplier and the contractor are expressed; it must be defined both for municipalities and peer schools that manage the service with their own staff and buy only food supplies, and for those who entrust the service partially or completely to the supplier with different management models.

The specifications must contain:

- criteria based on health promotion and social needs that contribute to the protection of user health and the protection of the environment.
- objective and measurable requirements within defined principles of quality, cost-effectiveness, effectiveness, transparency, and correctness.

The specifications are, from this point of view, a tool to make the administration's commitments clear and transparent, which directly ensures compliance with them through monitoring and verification in both direct and contracted management. The standards of the service, the right of access also for users with health and ethical-religious needs, must be maintained and defined in every management model, as well as declared to all users, to official control bodies, to canteen commissions, through a service card. It represents the commitments that the Authority intends to make and have its contractors hire.

The specifications, therefore, represent an important opportunity to define requirements and design actions that, in addition to guaranteeing the hygienic and nutritional quality of food, promote correct eating behaviors and pursue objectives of collective health protection and environmental protection.

The support that the services of the ASL prevention departments can give in the assessment of the technical requirements of their competence is essential to achieve these objectives.

The assignment of the catering service must be carried out in accordance with the provisions of the DPCM of 18 November 2005 (Code of Public Contracts) and the D.L. 12 April 2006 n° 163

In the formulation of the specifications, particular attention must be paid not only to the correct management of the service, but also to the quality of the products. With the same quality requirements and consistency with health promotion models, attention must be paid to the sustainable valorisation of environmentally friendly products and other system values, directly and indirectly related to food policies, such as sustainable agriculture, worker safety, animal welfare, local traditions and typicality, social cohesion, and fair trade. The goal is to have an organic relationship between quality and price, in the overall system of total quality requirements of the meal and service.

The assessment of the quality of supply may relate to elements characterising the priorities to be pursued; among these are suggested the following:

- short-chain foods, i.e., the use of products that have traveled little and have undergone a few commercial steps before arriving at the kitchen or table. To facilitate the use of these foods, different scores can be awarded for different origins by rewarding local products. The use of fresh fruit and vegetables seasonally must be closely linked to the drafting of menus according to criteria of consistency.

With reference to short-chain foods, it is useful that the Regions and PP. aa. draw up a document listing certain principles that help public administrations to define tender specifications capable of complying with the rules on the free movement of goods within the Community, while protecting freshness, zero kilometer/short supply chain, local products (not necessarily classified among the typical or traditional).

- transport time for food and meals, highlighting transport as quickly as possible. It may be useful to define a general requirement, at least for hot meals.
- introduction of snacks in the middle of the morning or afternoon (also using iv-range fruit, packaged in recyclable material).
- PDO, PGI, STG (Traditional Guaranteed Specialties) and other local connotations.
- use of food products with a low environmental impact (food from organic production and integrated production).
- fair trade products for food not available on the local market.
- use of non-food products with reduced environmental impact (dishes, dishes, napkins...) favoring reusable materials and the use of high biodegradability detergents.
- supplies of kitchen equipment.
- soundproofing of refectories.
- ordinary maintenance of furnishings, equipment, premises.
- replacement of furniture and equipment.
- refurbishment of premises within defined time limits.

- training of staff in support of aspects of health promotion projects.
- organization of the service with reference to specific aspects such as preparation and distribution of special diets, portioning, etc.
- monitoring of over-produced and unused foods.
- recovery, for welfare purposes, of uneaten food (e.g., Good Samaritan's initiative).
 - monitoring user satisfaction.

The main titles to be dealt with in the specifications are as follows:

(a) subject to the contract

The required services and supplies, as well as the desired service operating model, should be defined here. The specifications must clearly indicate the type of service requested and, consequently, the activities to be contracted out. The purchaser must indicate, based on the production facilities owned and the operating model identified, whether he intends to use his own or third-party kitchens, whether to distribute meals prepared on site or in cooking centres and, in any case, any other activity he intends to carry out in the execution of the service. Where possible, priority should be given to the production of meals on site, whether it is operated in economy by the contractor or with management outsourced to the contractor; however, the time interval between preparation and distribution must be kept to a minimum.

The required operating model must also be identified in relation to the population to which it is addressed, defining the numerical size of users, age groups, physiological, pathological, ethical-religious needs, possible disabilities. Additional services necessary for proper performance of the service, such as design, execution of work, preventive, and corrective maintenance, must be clearly indicated among the required activities.

b) menu

It is advisable that basic menus, special diets and related recipes and grammars, drawn up by professionally qualified personnel, in compliance with set objectives, are present in the tender specifications. In any case, both the product merceology to be used and the organizational model of the service to be carried out must be defined.

20

For special diets (e.g., for celiacs) production must be managed with the company self-control system and must be specifically referenced in the document relating to self-control.

Compliance with the established menu must constitute a standard of quality that the customer monitors and monitors daily; this standard commits the contractor to maintain, as far as possible, the constancy

of the menu declared and known to users. Deviations from the menu must be motivated by the manager and accepted by the customer.

The menu must respond to the characteristics of variety, seasonality, nutritional quality and be exhibited publicly. The menus must be prepared over at least 4/5 weeks, to avoid a repetition of the same preparation and be diversified for the autumn-winter and spring-summer period. The seasonal alternation of fresh and local products also has an important educational, nutritional, and environmental value and represents a considerable saving of economic resources.

In the 5 meals of the week, the first courses consist of cereals (pasta, rice, barley, corn, etc.), prepared with different recipes, respecting local traditions, and often associated with vegetables, vegetables, and legumes to allow a wide variety of flavors and a practical experience of food education.

The second courses consist of white and red meats, fish, cold cuts, eggs, cheeses with preparations suitable for the age groups of the users.

Each meal must also include: a side dish of vegetables/vegetables (potatoes no more than once a week and associated with a meal low in other carbohydrates), bread not added to fat and with a low salt content, seasonal fruits of at least three different types during the week, possibly ready for consumption.

Extra virgin olive oil should be used for seasoning, both raw and cooking; butter can only be used for a few recipes; salt should be used moderately and, in any case, always iodized.

It is advisable to provide in the menu the mid-morning snack, with a caloric intake equal to 8% - 10% of the daily caloric requirement, differentiated by age groups of users, preferably consisting of fruits of simple consumption.

There should also be a "travel basket", packaged on the same day and containing everything necessary for the meal, to be used during educational visits.

On religious holidays and/or special anniversaries, in which tradition requires the use of foods and preparations, it is possible to provide for the day's menu to be modified with foods traditionally used on the occasion.

21

Adequate replacements of food related to religious or cultural ethical reasons must also be ensured. Such replacements do not require medical certification, but the simple request of parents.

In the field of school catering, replacements of children's food that require different meals for clinical needs are to be provided. Special diets must be formulated by experienced medically prescribed staff to

maintain the nutritional and educational adequacy of the menus in use in schools.

Special diets concern:

- intolerances and allergies (milk, egg, etc.) with indications of the permitted foods and those to be avoided as reported in the scientific literature
- celiac disease with indications about the foods to be avoided and replaced with the exclusive use of gluten-free products and with specific indications on the preparation and cooking of these foods
 - diseases such as chronic nephropathies, diabetes, dyslipidides, etc.

As an alternative to the basic menu and special diets, there must be a menu for emergency situations arising from various problems including those of a meteorological nature, those deriving from occasional disruptions, logistical or personnel-related reasons, sudden failures, anomalies of water in distribution, etc.

It can also be provided in every school, especially for those served with a deferred meal, but also in schools with their own and traditional cuisine, the maintenance of long-lasting food and bottled water. These foods, suitably stored, must be periodically renewed, and used as a remedy for sudden difficulties, always with the involvement and approval of the contractor.

(c) foodstuffs

The products used must comply with national and Community legislation; every food that is intended to be used, in the wide range of product and commercial choice, must be identified based on technological characteristics, ingredients, shelfability, conservation status, shelf-life, packaging and packaging, supply chain, sensory.

The service manager must be able to document the compliance with the required requirements through product data sheets able to explain all the characteristics; consequently, only products defined, accepted, and accredited by the customer as complying with the requirements, must be used in the service. Any modification relating to the products indicated must be approved in advance by the contracting authority, which will verify the consistency of the characteristics before allowing their use.

It is also the right of the customer to request a reasonable number of certificates or other documentary evidence able to prove the compliance of the product with the quality declared or provided for in the contract, based on a predefined plan, as well as the obligation to report any deviations from what has been agreed, specifying the causes.

Within the self-control system and the quality system, the systematic application of product, bromatological, chemical and microbiological standards and operational protocols to ensure at every stage, including through appropriate sampling, the quality control of raw materials must be considered.

The service manager has an obligation to supply to selected suppliers based on objective criteria that guarantee their reliability both in terms of consistency of the cost/quality ratio of the products offered and the ability to meet the commitments made. In this regard, it may be useful to request a specific technical report with a brief description of the production process of the products and a descriptive report of the company organization, with reference to the supply distribution chain (product acquisition, maintenance, distribution, delivery).

The residual life that the goods must contractually guarantee must be established, depending on a well-defined range: the percentage of residual life guaranteed at the time of purchase represents a specific index for each lot, also in relation to the environmental and structural conditions of the storage and storage sites; indicatively, during procurement, a residual life of the minimum shelf-life (TMC) of not less than 2/3 of shelf-life may be required for products.

(d) personnel

The performance of the contract must be entrusted to staff employed by the firm or any subcontractor, duly authorized by the contracting authority. On these contracts the customer supervises to verify their correctness and compliance with current regulations. The job of corporate operations manager of the contract must be carried out by a person with adequate experience and professionalism and with obvious company delegations.

About the staff responsible for the production and distribution of meals, the specifications must contain measurable and verifiable indices, which express the number of hours devoted to the service in relation to the meals to be produced, the diners to be served and the areas to be reordered.

It is good that these indices are already being drawn up in specifications by the contractor, if he can define them based on established experience. Otherwise, the

23

productivity, through which the dedicated staff must be set up, can be proposed by the companies during the offer and constitute a further element of evaluation, if requested in the call or invitation letter.

It is advisable that the contractor, in a similar way, requires basic training and continuous updating in relation to the organizational

situation and the type of users (e.g., special diets) of the service to be provided.

Training and its effectiveness must be documented in appropriate ways and means.

(c) hygiene

The aspects of food hygiene and safety must be indicated within the company self-control plan, as required by current legislation.

An integral part of the self-control plan are the cleaning interventions carried out at the kitchens and refectories, which must be appropriate and consistent with the sanitization plan. This plan must define the procedures and periodicity of the interventions, the detergents, the sanitizers, and disinfectants used, the equipment and aids adopted.

(f) transport and distribution of meals

The meal transport plan drawn up by the service manager must be respected and, where appropriate, reviewed in agreement to improve it. Every transport to the individual catering offices must be carried out by minimizing travel times and consequently the parking of meals in hot bond, also guaranteeing organoleptic quality.

For the transport of meals and food to school canteens, it is necessary to use isothermal or thermal containers suitable for the purposes of current legislation and such as to allow the maintenance of temperatures and the quality and sensory requirements of food. The means used for the transport of meals must comply with current regulations. It is obliged to sanitizing the means used, so that during transport there is no soiling or contamination of the food transported. Meals can be transported in mono or multi-portion, according to the required distribution model. The arrival and distribution temperatures of meals must be those indicated by current legislation, considering the time /temperature parameters.

Care must be taken to comply with the criteria arising from the rules on the sizing of the refectory and the space available for each child, as well as the adequacy of the equipment for maintaining the appropriate temperature (benches heated or cooled, thermal trolleys, active or passive isothermal containers, eutectic plates).

(g) assessment of compliance with the requirements of the school catering service, the award of the school catering service in accordance with specifications with objective and measurable requirements must provide for a continuous and constant assessment of compliance with them by the contractor regarding the contractor. Tender specifications for the supply of food raw materials and services in school canteens must not only include product clauses but must also include precise product and process requirements and evaluation criteria.

The evaluation system must be able to detect errors, inefficiencies, non-compliance, and responsibility; carry out an accurate analysis of the errors and corrective actions taken to overcome and eliminate **non-conformities**, up to the identification and elimination of the causes.

Each catering system must have adequate methods of detecting and managing non-conformities.

(h) evaluation and management of surpluses and surpluses, reduction of waste production

In each individual school situation, the possible existence of surpluses and/or surpluses of food should be assessed, seeking the causes to pursue reduction and reuse objectives. Using surpluses and devoting them, instead of their disposal as waste, are respectively a useful solution for waste reduction and a gesture of solidarity.

Environmental education and consumer education and solidarity initiatives can be envisaged in which school children are involved in: - recycling of organic waste (composting)

- consumer education (acceptance of food, demands adapted to the possibility of consumption, etc.)

- solidarity initiatives for the allocation of food to welfare agencies to guarantee food security, the recovery and delivery of surpluses must be clearly regulated indicating users, modalities, and procedures. This type of management cannot be the automatic solution to the problem of "leftovers", which must instead be the subject of an evaluation system, to identify the causes, intervene to overcome any shortcomings and obtain the improvement of the service.

Finally, it is necessary to carefully manage waste other than food (derived from packaging, packaging, dishes, cutlery, etc.), according to the criteria of separate collection of materials.

(i) penalties

The specifications must provide for penalties appropriate to the failure to supply, in part or in full, the meal or its components and for any quantitative/qualitative differences with respect to the specifications.

To ensure effective and effective protection of the provisions of the tender documents, the penalties provided for and the procedures and criteria for their application must be clearly defined.

Provision should be made for:

- specific and proportionate applications of penalties for the aspects of the specifications that are intended to be safeguarded (product, hygienic-sanitary, nutritional, service, etc.), indicating the expected amount and the quality and/or quantitative standard whose non-compliance is intended to sanction

- a gradual application of penalties according to a progression mechanism that allows a simple recall for minor violations and increasing penalties (e.g., from 100% for the first violation to 300% of the amount provided for the third violation, etc.) until the termination of the contract in case of repeated defaults and /or direct liability in serious events, in compliance with the provisions of legislative law 12 April 2006 n.163.

7. ALLEGATI

SPECIAL DIETS

Acceptance

In the presence of a diet for subjects suffering from food allergy or intolerance, e.g., celiac disease, or metabolic diseases, with indication of prohibited foods, with a detailed medical prescription, issued by the attending physician or specialist, the acceptance of the child must be carried out jointly by the school and catering service.

The privacy of the child must be protected according to the local organizational system. In the case of food allergies and intolerances, preparations, intended as recipes, involving the use of the responsible food or its derivatives, must be excluded from the diet; in addition, products in which the food or its derivatives appear on the label or in the accompanying documentation must be excluded. Since many allergenic food derivatives are used as additives or technological adjuvants, qualification, training, training, and staff awareness are of particular importance.

The replacement preparations provided for in the special diet must be sustainable within the specific catering service and be as equal as possible to the daily menu.

The quality level of the special diet must be as appropriate as that of the basic menu.

Replacement preparations should be as similar as possible to the daily menu. It is necessary to promote variety, alternation, and consumption of protective foods, such as fruits and vegetables, as far as possible, even within a special diet.

A coherent problem management model includes:

- definition of objectives, responsibilities, procedures, and service standards by the service manager
- inclusion in the specifications of the quantitative and typological forecast of the special diets to be disbursed
 - diagnosis and prescription
 - formulation of the special diet by competent staff (e.g., dietitian)

- production and distribution (by the service manager/manager)²⁷
- meal care (regulated by the school leader)
- documented control (service manager/manager, ASL, school leader).

Drafting of the diet

The head of the catering service proceduralizes every step (from the formulation of the diet to production and distribution, to meal assistance), with a precise definition of the activities and their responsibilities.

Once the competent personnel have all the necessary documentation, draw up the diet to be delivered:

- the secretariat of the school that transmits the information to those involved in the school (teachers/educators)
 - the child's parents/guardians
 - the school kitchen or the cooking centre where meals are prepared
 - at the SIAN of the territorially competent ASL.
- SIANs can prepare guidelines for special diets and be the preferred interlocutor of companies, institutions, and families for special cases.

Preparation and distribution of special diets

- foods intended for diet must be kept separate from all the others provided for composing the basic menu
- food for the diet must be prepared and packaged in a dedicated area, even temporarily, and stored in special containers that must be placed on a personalized tray bearing the name of the child
- the tools used for the preparation and packaging of the diet must be used only for this production
 - preparation and distribution staff, as well as school staff, must wash their hands thoroughly if they have handled other foods
 - the child must always be served first: it is good that the distribution for classes should initially take place from subjects on a special diet and then continue for the other diners.
- the meal should only be distributed after the staff has identified the child in consultation with the teacher
- the staff in charge of preparation and distribution can verify the correct delivery of the diet through special traceability forms, in which the phases of the relative process are highlighted.

Surveillance and supervision

- provision should be made for a special procedure for the correct distribution and assistance of the meal on which the staff must be adequately trained

- teachers carry out visual check on correspondence between the child's name and the name affixed to the containers containing the diet courses
- in case of doubt, the teacher must have the administration suspended and contact the diet manufacturer immediately (the head of the catering company, the municipality, or the school secretariat).

TABLE (*) FOR THE ORGANIZATION OF THE SERVICE AND ITS ACTIVITIES

The customer chooses in the first column the service he intends to contract and, according to the choice made, finds in the second column the activities to be requested to guarantee the service. Some activities are optional, so they are referred to as optional (F).

SERVICE FROM contract out	ACTIVITIES TO BE REQUESTED	F= Tasks Optional
production of meals	Service design	
	Selection and evaluation of food and non-food products	
	Selection and evaluation of suppliers	
	Food and non-food supplies	
	Reception, acceptance and storage of food and non-food products	
	Preparation of meals	
	Packaging meals	
	Cleaning and sanitization of environments and equipment	
	Staff training	
	Menu design	F
	Training, promotion, and nutritional communication for users	F
	Controls, audits requested by the client	F

	Washing dishes	F
	Customer satisfaction detection	F
administration of meals	Service design	
	Cleaning and sanitization of environments and equipment	
	Staff training	
	Administration of meals	
	Training, promotion, and nutritional communication for users	F
	Controls, audits requested by the client	F
	Washing dishes	F
	Customer satisfaction detection	F
Production and production administration of meals	Service design	
	Selection and evaluation of food and non-food products	
	Selection and evaluation of suppliers	
	Food and non-food supplies	
	Reception, acceptance and storage of food and non-food products	
	Preparation of meals	
	Packaging meals	
	Cleaning and sanitization of environments and equipment	
	Staff training	
	Administration of meals	

	Menu design	F
	Training, promotion, and nutritional communication for users	F
	Controls, audits requested by the client	F
	Washing dishes	F
	Customer satisfaction detection	F
Production and transport of meals	Service design	
	Selection and evaluation of food and non-food products	
	Selection and evaluation of suppliers	
	Food and non-food supplies	
	Reception, acceptance and storage of food and non-food products	
	Preparation of meals	
	Packaging meals	

	Cleaning and sanitization of environments and equipment	
	Staff training	
	Transport and delivery of meals	
	Menu design	F
	Training, promotion, and nutritional communication for users	F
	Controls, audits requested by the client	F
	Washing dishes	F
	Customer satisfaction detection	F

Production, transport, and administration of meals	Service design	
	Selection and evaluation of food and non-food products	
	Selection and evaluation of suppliers	
	Food and non-food supplies	
	Reception, acceptance and storage of food and non-food products	
	Preparation of meals	
	Packaging meals	
	Cleaning and sanitization of environments and equipment	
	Staff training	
	Transport and delivery of meals	
	Administration of meals	
	Menu design	F
	Training, promotion, and nutritional communication for users	F
	Controls, audits requested by the client	F
	Washing dishes	F
Customer satisfaction detection	F	
Production, transport, and administration of meals with menu design	Service design	
	Selection and evaluation of food and non-food products	
	Selection and evaluation of suppliers	
	Food and non-food supplies	

	Reception, acceptance and storage of food and non-food products	
	Preparation of meals	
	Packaging meals	
	Cleaning and sanitization of environments and equipment	
	Staff training	
	Transport and delivery of meals	
	Administration of meals	
	Menu design	
	Training, promotion, and nutritional communication for users	F
	Controls, audits requested by the client	F
	Washing dishes	F
	Customer satisfaction detection	F
Product supply food and non-food	Service design	
	Selection and evaluation of food and non-food products	
	Selection and evaluation of suppliers	
	Food and non-food supplies	
	Reception, acceptance and storage of food and non-food products	
	Cleaning and sanitization of environments and equipment	
	Staff training	
	Menu design	F

	Training, promotion, and nutritional communication for users	F
	Packaging of food and non-food products	
	Transport and delivery of food and non-food products	
	Controls, audits requested by the client	F
	Customer satisfaction detection	F

* Elaborated by ente Nazionale Italiano di Unificazione (UNI)

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United Nations Organization (UN): www.onuitalia.it

World Health Organization: www.oms.it

Ministry of Education, University and Research: www.istruzione.it,
www.miur.it

Ministry of Agricultural, Food and Forestry Policies:
www.politicheagricole.it

National Institute of Research for Food and Nutrition: www.inran.it

Italian National Unification Body: www.uni.com

Gaining health, making healthy choices easy – Lifestyles:
www.salute.gov.it/stiliVita

Pilot project of education in taste, health and well-being aimed at
high school students "Fruit snacks":

www.benesserestudente.it/public/upload/cibosalute/progetto%20Frutta%20Snack.pdf

Recommended Daily Intake levels of Nutrients for the Italian Population

LARN (Society of Human Nutrition, revision 1996) INRAN:

www.inran.it/servizi_cittadino/per_saperne_di_piu/tabelle_composizione_alimenti/larn-71k

Guidelines for healthy INRAN nutrition:

www.inran.it/servizi_cittadino/stare_bene/guida_corretta_alimentazione

Appendix 2

Additional excerpts from the Google translated document: *Guidelines of the Friuli Venezia Giulia Region for School Restaurants (Guida Della Regione Friuli Venezia Giulia Per La Ristorazione Scolastica, 2012)*⁹⁵

In an overall framework of food policies for health in which several actors are called upon to make an indispensable contribution, the common thread and fulcrum for coherent and synergistic actions towards common objectives can be represented by logics based on the binomial "health promotion - promotion of quality", in which the prospect of the future could be the introduction of reward mechanisms, for those who work according to principles that characterize a "canteen that promotes health". To have real, acceptable dishes, a school catering company provided information about the typical dishes they serve.⁹⁶ The overall goal of the catering service is to provide an appropriate meal in an appropriate context according to a systemic vision of quality.

- Since the primary objective of school catering is to guarantee nutritional quality, usability of nutrients and health and hygiene safety with the meal in the canteen, in a setting of sensory pleasantness, it is necessary to integrate choices motivated by technical-theoretical aspects with common sense, considering that the food proposals of the basic model have a strong educational value. Effective communication between institutional interlocutors and families is essential for the promotion of synergies that can prove extremely fruitful if coordinated in a common health promotion project. The communication of objectives and basic criteria to achieve them represents an important resource in the context of educational interventions in the area. The activity of the ASL (ASL: Local Health Authority), specifically of the SIAN (Food Hygiene and Nutrition Service), is carried out in:
 - Surveillance of the hygienic-nutritional characteristics of meals, including the evaluation of the dietary tables adopted
 - Surveillance and control activities in compliance with the regulations current
 - controls (inspections, checks, audits) based on risk graduation criteria that consider several elements such as: characteristics of the production reality, characteristics of the products and hygiene of production, hygiene and health training of employees, self-control system (formal completeness, degree of application and adequacy, historical data, past non-conformities), etc.

⁹⁵ From:

http://www.regione.fvg.it/rafvfg/export/sites/default/RAFVG/famiglia-casa/politiche-famiglia/FOGLIA30/allegati/lineeGuidaRistorazioneScolastica_allegatoDGR_2188_2012.pdf

⁹⁶ Rossi L, Ferrari M, Martone D, Benvenuti L, De Santis A. 2021. *The Promotions of Sustainable Lunch Meals in School Feeding Programs: The Case of Italy*. *Nutrients*. 2021; 13(5):1571. From: <https://doi.org/10.3390/nu13051571>

; Ribal, J., Fenollosa, M.L., García-Segovia, P. et al. 2016. *Designing healthy, climate friendly and affordable school lunches*. *Int J Life Cycle Assess* 21, 631–645. From: <https://doi.org/10.1007/s11367-015-0905-8>

- Food education The Municipality / equal school as responsible for the service is responsible for:
 - choice of the type of service it intends to offer
 - planning of investments and resources
- Elaboration of the specifications both for direct management in the economy and in the case of external assignment and in any case for any type of management envisaged
- Overall control over the service especially in the case of commissioning of the service to third parties
- Surveillance of the good performance of the catering, both in the case of direct and indirect management, with controls aimed at:
 - commodity quality of food and finished dish
 - respect for portions
 - good organization and management of the service
 - acceptance of the meal
 The service manager is responsible for:
- Carrying out the service in compliance with current legislation and contractual commitments
- Offering meal products in the logic of quality
- Training / constant updating of the staff of the school catering service

The school canteen Commission, as a representative body, can play the role of liaison between the user, the Municipality / equal school and the ASL, taking charge of reporting the suggestions and complaints that come from the user itself, and a collaborative role in monitoring the acceptability of the meal and the methods of providing the service also through evaluation forms, appropriately prepared. It is desirable to develop the role of the canteen Commission also as an interlocutor/partner in the various food education projects/initiatives in the school, aiming at the empowerment of its members for the purpose of promoting healthy food choices among all parents belonging to the school. The operation and functionality of the canteen commission must be defined by a local regulation, drawn up by the Municipality, which establishes the lines of intervention and defines the relationships between the Commission itself and the institutional bodies in the various individual realities. The teaching staff or those attending the meal must be more involved in the interventions for the development of correct eating habits of the child and of the families. It is advisable to provide training and refresher courses for all those involved in school catering, aimed both at the aspects of health education and those more closely linked to nutritional quality and food safety.

1 HEALTHY DIET AT SCHOOL 1.1 GUIDELINES FOR A HEALTHY ITALIAN DIET:

A balanced and correct diet is an essential prerequisite for maintaining a good state of health. As already stated at the national level in the "National guidelines for school catering", proper nutrition at school also has the task of educating the child to learn healthy eating habits and behaviors. In fact, at school, children learn to sit at the table, to eat without waste, to vary food according to the season. Schools and institutions are therefore called upon to play an important role in improving the nutritional status of children and young people, promoting, and creating the conditions for proper nutrition and promoting physical activity. The Guidelines for a Healthy Italian Diet summarize the key behaviors for eating better, with taste and in compliance with food traditions, while protecting one's health. Below will be developed and adapted to the school, with some suggestions for the preparation of school menus, 7 of the 10 themes examined in the Guidelines.

Overview of some of the precepts of section 1.1 include (examples follow in the text):
Control your weight and stay active B. More cereals, legumes, vegetables, and fruit C. Fats: choose quality and limit quantity D. Sugars, sweets, and sugary drinks: within the right limits E. Drink plenty of water everyday F. Il salt? Better a little G. Often vary your choices at the table

1.2 INSTRUCTIONS FOR THE FORMULATION OF THE MENU IN THE SCHOOL RESTAURANTS The menu is divided into at least 4 weeks. It is advisable to vary it based on the products present in the area and the preferences of users, identifying the methods of preparation that can make foods that are difficult to accept more appreciated. Food frequencies refer to 5 days a week. It will always be possible to articulate the school menu by transferring the meals already programmed within the same week. The menu can also be useful to guide parents in preparing the other meals of the day. We remind you that it is important to guarantee the alternation of food preparations (if meat is offered for lunch, cheese or legumes will be offered for dinner); in this way children and young people become the vehicle for a message of correct nutrition addressed to the whole family. All dishes on the menu must be prepared on the same day. The menu, in addition to considering the nutritional needs, also considers the organoleptic, technical, and organizational qualities: among the latter, the supply of raw materials, the characteristics of the kitchen and equipment, the need to convey meals, the number of the same, etc.

Overview of the menu from 1.2 (examples follow in the text):

The menu at school • variability in the choice of food; • every day seasonal fruit and vegetables; • the school meal as an example of a healthy diet for the whole family; • drink mains / aqueduct water; • physical activity and nutrition, an indissoluble combination.

Procurement:

The main references in the field of public procurement for the school catering service are as follows: 1) CODE OF PUBLIC CONTRACTS RELATING TO WORKS, SERVICES AND SUPPLIES IN IMPLEMENTATION OF DIRECTIVES 2004/17 / EC and 2004 / 18 / EC Legislative Decree 12 April 2006, n. 163; this is the reference regulatory body for public works, services, and supplies contracts. Pursuant to art. 2, paragraph 1 of the code "The awarding and execution of works and public works, services and supplies, pursuant to this code, must guarantee the quality of the services and be carried out in compliance with the principles of economy, effectiveness, timeliness and correctness ; the assignment must also comply with the principles of free competition, equal treatment, non-discrimination, transparency, proportionality, as well as that of advertising in the manner indicated in this code ". The provision referred to in paragraph 2, however, provides that the principle of economy can be subordinated within the limits in which it is expressly permitted by the regulations in force and by the Code, "... to the criteria, provided for by the announcement, inspired by social health and the environment and the promotion of sustainable development ". Therefore, in establishing the general principle that the principles of economy, effectiveness and free competition are always guaranteed in the award procedures, Legislative Decree 163/2006 recognizes the possibility that social issues, health protection and environment and promotion of sustainable development. The award of contracts for school

catering services falls within the case referred to in art. 20 of the code and is therefore governed exclusively by art. 68 (technical specifications), from art. 65 (notice on the results of the award procedure) and by art. 225 (notices relating to contracts awarded).

The document then goes into detail about canteen management, procurement, production, distribution, operations, nutrition, menus, social determinants, special diets, and more.

The table of contents gives a good overview of what is included:

1 Alimentazione sana a scuola	pag. 4
1.1 Le linee guida per una sana alimentazione italiana	pag. 4
1.2 Indicazioni per la formulazione del menù nella ristorazione scolastica	pag. 12
1.3 Diete speciali	pag. 15
2 Refezione scolastica	pag. 18
2.1 Appalti - riferimenti utili	pag. 18
2.2 La gestione del servizio	pag. 21
2.3 Valorizzazione del prodotto locale - denominazioni dei prodotti alimentari	pag. 31
3 Approfondimenti e allegati	pag. 35
3.1 Determinanti sociali	pag. 35
3.2 Agricoltura sociale e ristorazione scolastica	pag. 38
3.3 Il benessere nell'ambiente scuola	pag. 40
3.4 Immigrazione, cibo e cultura	pag. 43
3.5 Indicazioni nutrizionali	pag. 45
3.6 Tecniche di cottura	pag. 48
Allegato 1 - Scheda richieste diete speciali - etico religiose	pag. 50
Allegato 2 - Schede rilevamento del pasto modulo tipo	pag. 51
Allegato 3 - Lista merceologica	pag. 53
Allegato 4 - Menù base su 4 settimane	pag. 62
Allegato 5 - Menù base su 8 settimane	pag. 63
Allegato 6 - Linee di indirizzo per la distribuzione automatica di prodotti alimentari	pag. 64
Allegato 7 - Lo spreco alimentare, cause e azioni con particolare riferimento alla refezione scolastica. Contributo del Prof. Andrea Segrè Preside di Facoltà di Agraria Università degli Studi di Bologna	pag. 66
Bibliografia	pag. 72

The translation of the ToC (all done in Google Drive) is as follows:

1 Healthy eating at school page 4.

4 1.1 The guidelines for a healthy Italian diet page 4.

4 1.2 Indications for the formulation of the menu in school catering page 12.

12 1.3 Special diets page 15

2 School meals page. 18

2.1 Contracts - useful references page. 18

2.2 The management of

the service page. 21

2.3 Valorisation of the local product - food product names page. 31

- 3 Further information and attachments page. 35
- 3.1 Social determinants page. 35
- 3.2 Social agriculture and school catering page. 38
- 3.3 Well-being in the school environment page. 40
- 3.4 Immigration, food, and culture page. 43
- 3.5 Nutritional indications page. 45
- 3.6 Cooking techniques page. 48

Annex 1 - Special diet request form - religious ethics page. 50

Annex 2 - Meal detection cards, type module page. 51

Annex 3 - Product list page. 53 Annex 4 - Basic menu over 4 weeks page. 62

Annex 5 - Basic menu over 8 weeks page. 63

Annex 6 - Guidelines for the automatic distribution of food products page. 64

Annex 7 - Food waste, causes and actions with reference to school reporting.

Contribution of Prof. Andrea Segrè Dean of the Faculty of Agriculture of the University of Bologna page. 66

Fact-finding survey 2014

With this first cognitive survey, a panoramic view of the situation relating to school catering in Italy was acquired. The most significant data of the survey highlighted that alongside the widespread knowledge (73%) of the national guidelines for school catering, a minimal percentage (2.39%) of schools emerged that, despite knowing them, do not apply them.⁹⁷ Analyzing the reasons behind the non-use could be useful to coordinate and homogenize the activities related to the catering service in schools. The periodic survey of user satisfaction, which occurs in 74% of schools, should be carried out in all schools since this survey is of fundamental importance not only to assess user satisfaction but also to improve the quality of the meal and palatability of the dishes. One of the criticalities of the service highlighted by the survey is the distribution of fruit at the time of the snack, foreseen in only 28% of the institutions. Despite efforts to increase the consumption of fruit and vegetables in children, through initiatives and information campaigns promoted by various institutions, this result indicates insufficient sensitivity. Regarding a highly topical topic such as food surpluses, detected only in 58% of schools, it is essential that each structure carries out a monitoring, searching for the causes both to pursue reduction and reuse objectives. In conclusion, the multiplicity of the information acquired will make it possible to identify specific areas of intervention and plan food education strategies. Similar initiatives will be proposed again to monitor the progress of the service and verify the improvement or resolution of the critical issues encountered.⁹⁸

Food waste

The reduction of food waste, from the production chain to industrial transformation, up to the distribution and consumption phase, represents one of the most important challenges of this

⁹⁷ Ministero della Salute. 2014. *Indagine conoscitiva sulla ristorazione scolastica* in Italia-Relazione 2014. From: https://www.salute.gov.it/imgs/C_17_pubblicazioni_2373_allegato.pdf

⁹⁸ Ibid.

century, especially when compared to the criticalities of the current socio-economic context of the population and the concomitant need to implement social solidarity and environmental sustainability. It is estimated that in the EU1 around 100 million tonnes of food are wasted every year at all stages of the food chain, from production to consumption, of which 14% is attributed to collective catering; the estimated cost of disposing of food products in landfills amounts to approximately 143 billion euros. Waste also has an impact not only on the economy but also on society and the environment. In Italy, the importance of the "waste problem" can also be understood from the data relating to Collective Catering which, according to Oricon, produces an overall volume of meals that is close to one and a half billion, with a turnover of approximately 6.5 billion euros per year.⁹⁹ Waste is related to the awareness and attitudes of individuals and management skills along the production chain.¹⁰⁰

⁹⁹ Ferrando, T., Mansuy, J. 2018. *The European Action against Food Loss and Waste: Co-Regulation and Collisions on the Way to the Sustainable Development Goals*.

Yearbook of European Law, Volume 37, 2018, Pages 424–454. Published 06 November 2018. From: <https://doi.org/10.1093/yel/yey015>

¹⁰⁰ Ministero della Salute, 2018. "Linee di indirizzo rivolte agli enti gestori di mense scolastiche, aziendali, ospedaliere, sociali e di comunità, al fine di prevenire e ridurre lo spreco connesso alla somministrazione degli alimenti." From: https://www.salute.gov.it/imgs/C_17_pubblicazioni_2748_allegato.pdf

The fight against food waste has become a priority on the European political agenda; in particular, the Commission and the Council ask for the adoption of concrete strategies and measures aimed at halving food waste along the entire supply chain, by 2025.¹⁰¹ The European Parliament's motion for a resolution "Strategies to improve the efficiency of the food chain in 'EU "(2011/2175 (INI), encourages public institutions, the hospitality sector, schools, hospitals and food banks to collect and redistribute unused, still edible foodstuffs to the needy, as an additional measure and not a substitute for current protection systems furthermore, it reiterates that it is necessary that citizens are informed not only about the causes and consequences of waste but also about how to reduce it.¹⁰² The Commission Communication of 16.10.2017 "EU guidelines on food donations", recommends that at national level relevant standards and / or guidelines on food donation by whom to provide all actors with the provisions and operational procedures existing at national level, including the respective responsibilities of the main subjects, in order to facilitate the fulfillment of obligations and promote best practices.¹⁰³ According to the data provided by the Food Bank and Caritas in Italy, in the organized catering sector (which manages 3 million tons of food), 210,000 tons of surpluses are generated every year; of these, only about 12% is currently recovered (equal to 25,000 tons of food).¹⁰⁴ In 2016, the [Banco Alimentare](#) network recovered a total of 1 million and 100,000 meals, 60% of which were distributed to the Caritas network in Italy. Considering that the catering sources that generate surpluses are very fragmented throughout the territory, it would be desirable to build virtuous logistic networks with donor partners, to support the food recovery activity, implemented by numerous non-profit organizations.¹⁰⁵

According to Martone et al. (2013)¹⁰⁶, the average percentage of food wasted in Italian school canteens is 35.8%. Wasted food comes mainly from side dishes (41.5%), and then second courses (37%) and first courses (29%). Another study considering a sample of primary school canteens within the Bologna province showed that wasted and non-served foods account for 22.0% and 19.2% of prepared food, respectively.¹⁰⁷ The waste of foods in some food groups

¹⁰¹ European Commission. N.D. *EU actions against food waste*, n.d. Food Safety.

From: https://ec.europa.eu/food/safety/food-waste/eu-actions-against-food-waste_en

¹⁰² Smith, S., & Cunningham-Sabo, L. 2014. Food choice, plate waste and nutrient intake of elementary- and middle-school students participating in the US National School Lunch Program. *Public Health Nutrition*, 17(6), 1255-1263. doi:10.1017/S1368980013001894

¹⁰³ Ferrando, T., Mansuy, J. 2018. *The European Action against Food Loss and Waste: Co-Regulation and Collisions on the Way to the Sustainable Development Goals*.

Yearbook of European Law, Volume 37, 2018, Pages 424–454. Published 06 November 2018. From:

<https://doi.org/10.1093/yel/yey015>

¹⁰⁴ Ibid.

¹⁰⁵ Ibid.

¹⁰⁶ Martone, D.; Censi, L.; Roccaldo, R.; Galfo, M.; D'Addesa, D. 2013. *Mensa Scolastica: Adeguatezza del pasto*. *J. Food Sci. Nutr.* 2013, 42, 9–22. From:

https://www.researchgate.net/profile/Deborah-Martone/publication/259968873_Mensa_scolastica_adequatezza_del_pasto/links/54af98250cf2b48e8ed67449/Mensa-scolastica-adequatezza-del-pasto.pdf

¹⁰⁷ Boschini, M.; Falasconi, L.; Giordano, C.; Alboni, F. 2018. Food waste in school canteens: A reference methodology for large-scale

studies. *Journal of Cleaner Production*. 2018, 182, 1024–1032. From: DOI: 10.1016/j.jclepro.2018.02.040

makes the meals inadequate in terms of energy and nutrients contents and increased environmental impact. This represents challenges for ensuring proper nutrition is received by students.¹⁰⁸ For more information on Canteen food waste, see “Linee di indirizzo rivolte agli enti gestori di mense scolastiche, aziendali, ospedaliere, sociali e di comunità, al fine di prevenire e ridurre lo spreco connesso alla somministrazione degli alimenti” from the Ministero della Salute.

The Municipality of Cremona (considered one of the best school meals programs in Italy) has implemented a mix of measures aimed at reducing food waste in school canteens. These measures concern both the internal reorganization of the canteen service and the preparation of educational courses. To reduce food surpluses, continuous monitoring of supplies for school kitchens was conducted, which led to changes in both the methods and timing of orders for raw materials. This has allowed a better adherence to the real needs of food in quantitative and qualitative terms. Kitchen staff and those responsible for controlling supplies have been trained and made aware of the purpose. Following the introduction of these changes, the monitoring relating to the quantification of kitchen waste showed a significant reduction. The scraps have been donated for some years to the volunteers of the APAC onlus (Animal Protection Association Cremona Onlus), upon regular request, thus finding a new useful destination (Cremona: Measures for The Reduction of Food Waste in School Canteens). For additional insight into Cremona’s measures to combat food waste please see Fight against food waste: this is what the Municipality does in schools.

Appendix 3

Gaining Health and Health Promoting Schools (Gaining Health: Making Healthy Choices Easier Italy, n.d.)¹⁰⁹

In developing the national strategy of *Gaining Health*, the Ministry of Health playing a leading role advocating, inspiring, and guiding the multisectoral action, has signed several “Memoranda of understanding” with other Ministries, public and private sectors, to achieve specific objectives to promote and facilitate healthy lifestyles. In order to promote the traditional Mediterranean diet, rich in fresh fruit and vegetables, for its positive health effects and to provide concrete responses in terms of healthy nutrition and lifestyles, the Ministry of Health has created and maintains a constant and constructive dialogue with the food industry which has the opportunity of taking on an active role in improving people’s health, in meeting the

¹⁰⁸ Byker, C.J.; Farris, A.R.; Marcenelle, M.; Davis, G.C.; Serrano, E.L. 2014. *Food waste in a school nutrition program after implementation of new lunch program guidelines*. *J. Nutr. Educ. Behav.* 2014, 46, 406–411. From: https://www.sciencedirect.com/science/article/pii/S1499404614001778?casa_token=JvQe1FeMPIMAAAAA:5a0IH_UecP7wq56ir-HAqQF1KgUWWD4u5o9PwWfED63wETSW2CwMKQDRMNpnrtCzt4A8Zkolz; Cohen, J.F.; Richardson, S.; Austin, S.B.; Economos, C.D.; Rimm, E.B. 2013. *School lunch waste among middle school students: Nutrients consumed and costs*. *Am. J. Prev. Med.* 2013, 44, 114–121. From: <https://doi.org/10.1016/j.amepre.2012.09.060>; Smith, S., & Cunningham-Sabo, L. 2014. Food choice, plate waste and nutrient intake of elementary- and middle-school students participating in the US National School Lunch Program. *Public Health Nutrition*, 17(6), 1255-1263. doi:10.1017/S1368980013001894

¹⁰⁹ Chrodis, E.U. the Health Programme of the European Union. N.D. *Gaining Health: Making Healthy Choices Easier Italy*. From: <http://chrodis.eu/wp-content/uploads/2017/03/gaining-health-making-health-choices-easier.pdf>

emerging demand of citizens for the acquisition and maintenance of healthy lifestyles as well as in playing a role as “health promoter”. Consequently, in Italy some food production and distribution companies have volunteered to take initiatives aimed at improving the nutritional quality of some of their products, at progressively reducing the serving sizes, and at eliminating less healthy products from automatic dispensers in school settings. The Ministry of Health is also working with Food Industry to increase the availability of foods with reduced content of salt. Therefore, since 2009, thanks to some Memoranda of Understanding signed between the Ministry of Health, the Food Industry and the National Craft Bakers Associations, bread and bakery products, some frozen foods and fresh “pasta” have been gradually marketed with a 5 to 15% reduction in their salt content. However, our most recent monitoring data show that salt intake of Italian population is double of the recommended level of less than 5 grams per person per day. (Ibid).

- Data from national surveillance systems: OKkio alla Salute -Keep an eye on Health- involves every two years more than 40,000 children and parents and 2,500 schools in all the Italian Regions. (It collects data on weight, eating habits, exercise, and sedentary lifestyle of children of the third primary class, and about some aspects of the school environment). Italy also participates to the international HBSC (Health Behavior in School-aged Children - health-related behaviours in children of school age), involving every four years, a sample of students aged 11, 13 and 15 from all the Italia Regions. (The survey represents Italy’s national instrument for monitoring the factors and processes that may determine the effects on the health of adolescents, because since 2010 the survey has been realized in all the Italian Regions, including a sample of more than 60.000 students).¹¹⁰

The report can be found [here](#).

Health Promoting Schools integrates the school and health system. Italy supports the dissemination of the “Whole-school approach” recommended by the World Health Organization based on the main scientific evidence, which pursues educational, health, sustainability, and equity objectives, by means of planning that is governed and developed by each educational establishment, involving all aspects of the school’s life.¹¹¹

The Schools for Health in Europe network foundation (SHE) monitors the implementation of school health promotion in SHE member countries. This country-specific report summarizes the results of the SHE surveys in Italy. A survey was conducted in September 2020 for the Friuli Venezia Giulia region and the findings represent the perceptions of the SHE regional coordinator on school health promotion and the Health Promoting School (HPS) approach in schools in this country.¹¹²

¹¹⁰ Ibid.

¹¹¹ Implementation Guidance for Health Promoting Schools Draft 2 September 2020. Murdoch Children’s Research Institute. The Royal Children’s Hospital, 50 Flemington Road Parkville, Victoria, 3052 Australia. From: https://cdn.who.int/media/docs/default-source/mca-documents/adolescents-and-youth/hps-implementation-guidance-draft-25c1a4f0c608e404b961b7b0b3d563172.pdf?sfvrsn=47940f35_2

¹¹² Schools for Health in Europe (SHE). 2020. Country-specific results of Italy, Friuli Venezia region. From: <https://www.schoolsforhealth.org/sites/default/files/editor/mapping/italy-friuli-venezia-giulia-monitoring-2020.pdf>

The survey explored significant barriers and facilitators for the implementation of health promotion in schools in the region. It resulted in 8 facilitating factors and 7 barriers.

Facilitators	Barriers
<ul style="list-style-type: none">- Collaboration between the health and education sectors, intersectoral collaboration- The national educational policies and curriculum- Interest of schools in health promotion- Motivation of teachers- Support from school management- Participation in the SHE network- Support from local authorities	<ul style="list-style-type: none">- Lack of time and energy of s- Functioning like volunteers- Health promotion is consider activity- Schools lack understanding participating in HPS activities- Absence of support from lo- School coordinators work is paid- Frequent changes of region

You will find the report [here](#).

As mentioned, the whole school approach is taken very seriously in Italy and under law the 'Commissione Mensa' (Canteen Commission) involves families in the monitoring and evaluation of the quality of the school meal service.¹¹³

According to Linee Di Indirizzo Nazionale Per La Ristorazione Scolastica¹¹⁴, a balanced and correct diet, but also pleasant and acceptable, is an essential prerequisite for everyone to maintain a good state of health and, in developmental age, for optimal growth. At school, proper nutrition has the task of educating the child to learn healthy eating habits and behaviors. The feeding of the child must be considered in a broader context, such as that of the environment, understood not only in a physical sense, but also in a socio-cultural and psychological sense. At school, children learn to sit at the table, to eat what they have on their plate without waste and to appreciate new and sometimes unusual flavors; the seasonal

¹¹³ Heindl, I. 2003. The European Forum on eating at school – making healthy choices. The University of Flensburg. From: http://www.evb-online.de/docs/Strasbourg_talk_revisited.pdf

¹¹⁴ Ministero dell Salute. 2010. Linee Di Indirizzo Nazionale Per La Ristorazione Scolastica. From: https://www.salute.gov.it/imgs/C_17_pubblicazioni_1248_allegato.pdf

variation of foods allows us to offer foods that, due to differences in tastes, habits and, at times, lack of time for preparation, are not consumed at home. The introduction of new foods can be easily accepted if the possible initial refusal is overcome thanks to the collaboration of teachers and / or staff who stimulate the child to imitate the spirit of his companions.¹¹⁵

The menu must be elaborated according to the principles of a balanced diet from a nutritional point of view, also using typical foods to teach children to maintain food traditions. As indicated in the Guidelines for a healthy diet of INRAN (National Research Institute for Food and Nutrition), the variety of foods is fundamental, as it allows the adequate supply of the nutrients necessary for harmonious growth and contributes, in substantially, to the spread of correct eating habits. A varied menu, easily implemented due to the multiplicity of foods of the Mediterranean diet, introduces children to different foods, new flavors and stimulates curiosity about food. Lunch must provide about 35% of the daily energy requirement. The menu is structured in such a way as to provide about 15% protein, 30% fat and 55% carbohydrates.¹¹⁶

The school catering service, to meet the criteria of quality, healthiness, and satisfaction, requires a well-defined specification that characterizes the type of service that is required and intended to be provided. The specification is the document in which the contractual obligations between supplier and client are expressed; it must be defined both for municipalities and equal schools that manage the service with their own staff and purchase only food supplies, and for those who entrust the service partially or completely to the supplier with different management models. The specifications must include:

- criteria inspired by the promotion of health and social needs that contribute to the protection of the user's health and the protection of the environment.
- objective and measurable requirements within the defined principles of quality, cost-effectiveness, effectiveness, transparency, and fairness.¹¹⁷

The entire Google translated document *Linee Di Indirizzo Nazionale Per La Ristorazione Scolastica* can be found in Appendix 1.

¹¹⁵ Ibid.

¹¹⁶ Ibid.

¹¹⁷ Ibid.

Appendix 4

Culinary Training, Collaboration, and Menus

The following is from *Rethinking the School Canteen*.¹¹⁸ The school canteen in Cremona ranked first in the rating of Foodinsider's school menus for two consecutive times and in second place in the survey on the "sustainable meal" of 2019. A recognition, they have found the balanced synthesis between tasty dishes and healthy nutrition. The direction of this result is in the hands of the Administration, which maintains a tight control on quality and dictates the rules through the governance of the service. That the canteen works also emerges from the data relating to the satisfaction of families (in kindergartens) which reaches a consensus of over 90%. Cremona is a perfect example of an Administration that has managed to establish a good level of collaboration between the external supplier, which employs staff and structures, and cooks and kitchens directly employed by the Municipality. There is talk of 32 kitchens, more than 40 internal and external cooks and 3,000 meals a day at a cost of € 5.00, partly covered by families and partly by the Municipality. This canteen is the culmination of a journey that began in 2007, when the recommendations of the WCRF were published that Silvia Bardelli - responsible for the educational policies of the Municipality and therefore also for the school catering service - wanted to progressively integrate in a concrete way into the school menu. First courses with whole grains appeared, legumes increased, red meats decreased, and cured meats slowly disappeared. It was an obstacle course that did not see everyone agree immediately, but the approach made its way by playing the card of taste and education, two essential levers that involved cooks and teachers in a teamwork that made the difference: this shared belief on the opportunity to eat with taste to fuel health has allowed change to take root. We asked Silvia Bardelli the reasons for this distinctive positioning within the classic menu, which clearly shows the value of training that nourishes chefs' competence and motivation. and it is still the key to promoting menus that stand out from the Italian scene. The training of kitchen staff and teachers as promoters of a culture of quality food and the pleasure of taste has been, and still is, the key to promoting menus that stand out from the Italian scene



¹¹⁸ Buglioni, F. N.D. *Mangiare a Scuola (Rethinking the school canteen)*. Topopottori. From: <https://www.topipittori.it/it/topipittori/ripensare-la-mensa-scolastica>

The cooks and cooks of the canteens of Sesto Fiorentino, protagonists of a gastronomic revolution that begins with training and giving up on semi-prepared products. Twice a month they break fourteen thousand fresh eggs by hand.¹¹⁹



Preparation of fresh pasta: many cooking workshops can be carried out in the refectory or in the classroom ((Buglioni, n.d.).

The trained and motivated chefs are the basis for the quality of the dishes

[by Silvia Bardelli, food technologist specialized in Nutrition and head of the Cremona school canteen]

I believe that one of the distinctive values of the Cremona school canteen is to have chefs trained and motivated to experiment, innovate, improve the catering service, both for the good of children and for the pleasure of working well. Our cooks - both those employed by the Municipality, directly managed (kitchen on site) and those who work in the transported meal service (including the cooks present in the terminal kitchens of the schools) - interact, share training and other less structured moments of exchange of experiences. We think it is necessary to enhance the figure of the cook, even the one who works for the transported meal, which too often is debased.¹²⁰

From: Protocol of the Ministry of Health and the Italian Federation of Chefs:¹²¹

By virtue of the ever-increasing number of people who eat away from home, commercial catering is one of the most important aspects for intervening and contributing to improving the

¹¹⁹ Ibid.

¹²⁰ Paltrinieri, C. 2020. *EATING AT SCHOOL. The sustainable canteen revolution that will change the world*. From: https://www.bondproject.eu/wp-content/uploads/2020/03/BOND_-T3.3-Hungarian-PRT-_Claudia-Paltrinieris-presentation_2020.02.04.pdf

¹²¹ Ministero dell Salute. 2021. *Ristorazione collettiva (Collective Catering)*. Protocol of the Ministry of Health and the Italian Federation of Chefs From: <https://www.salute.gov.it/portale/nutrizione/dettaglioContenutiNutrizione.jsp?lingua=italiano&id=1647&area=nutrizione&menu=vuoto>

eating habits of the population. Considering the importance of establishing strategies aimed at improving the state of health and the need to carefully follow the nutritional situation of the population, it was considered particularly useful to envisage a collaboration between the Ministry of Health and the Italian Federation of Chefs.

The result of this collaboration is represented by the document *Azioni Nell'ambito Del Protocollo D'intesa Ministero Della Salute & Federazione Italiana Cuochi (Actions within the Memorandum of Understanding of the Ministry of Health and the Italian Federation of Chefs)*. This document promotes a training course of information and knowledge on basic issues relating to nutritional and food safety.¹²²

A Cremonese menu cycle from 2019 from the Commune of Cremona: School catering in state kindergartens and state first grade primary schools: general information and menus is available [here](#).¹²³ It has interesting information about the program. Some excerpts follow:

The school catering service for the years 2015-2020 is entrusted to the Camst company. Camst manages school catering under the supervision of the Educational Policies and Education Sector of the Municipality of Cremona - Educational Policies and Education Service - School catering office.

The school catering office constantly monitors the correct application of the provisions of the contract and the hygienic-sanitary rules of the rooms, food, and their treatment. The menus adopted are consistent with national and international food guidelines.

The menus vary from year to year, are developed over four weeks and vary according to the seasons: autumn / winter and spring / summer. The autumn / winter menu usually starts in the first week of November and ends at the end of April, while the spring / summer menu starts in May and ends at the end of October.

From November 2017 it is possible for parents who wish to choose an alternative menu to the standard one proposed. The alternative menu is characterized by a greater presence of vegetables, whole grains, legumes, dried fruit. All menus, including the related ingredients, can be downloaded in the "Further information / files to download" section.

The raw materials used include some organic products (flour and various cereals such as: rice, spelled, barley, millet, corn, semolina pasta, spelled pasta, wholemeal pasta, parboiled rice, brown rice, crackers, corn cakes, puree tomato and tomato peeled tomatoes, some fresh fruit and vegetables, potatoes, carrots, apple, pear, kiwi etc .; some frozen vegetables such as spinach, peas, green beans, all legumes and derivatives, tofu and soy milk, eggs, extra virgin olive oil, 100% unsweetened fruit juices), products from fair trade (bananas, ammazonia nuts, chocolate) and DOP products (Grana Padano and Provolone).

The Special diets can be requested only for reasons medical certificates or for ethical / religious reasons; for more information, see the "You might also like" section of this tab. Gluten-free products are available.

The Administration also avails itself, for the service in state schools, of the collaboration of the Canteen Commission which is established with the following objectives:

- pursuing the aims of food education

¹²² Ibid.

¹²³ Commune di Cremona. 2021. *School catering in state kindergartens and state first grade primary schools: general information and menus*. From: <https://www.comune.cremona.it/node/421331>


- expressing an opinion on the quality of the catering service and the regularity of the quantities distributed

- formulate proposals and suggestions.

Menu and recipe information can be found here:

 [Standard menu State preschools and state primary primary schools - spring-summer 2021](#) - 206.13 KB

 ["Choice" menu State preschools and state primary primary schools - spring-summer 2021](#) - 155.8 KB

 [Postcard calendar meetings open to families, teachers, citizens "Choose your menu, feed your well-being"](#) - 322.58 KB

 [Showcooking recipe booklet](#) - 111.63 KB

[School catering \(municipal preschools, state preschools and state primary schools\): rates and concessions](#)

An interview with the cooks who work in the school canteens of the municipal and state schools of Cremona. has been published on the Foodinsider blog, titled *Cremona, Where the Chefs Make the Difference*.¹²⁴

¹²⁴ Insider.it. 2017. *Cremona, dove i cuochi fanno la differenza (Cremona, where chefs make the difference)*. From: <http://www.foodinsider.it/cremona-dove-i-cuochi-fanno-la-differenza/>

Tabella "Menù a scelta" estivo di Cremona (2019)

Giorno	Prima settimana	Seconda settimana	Terza settimana	Quarta settimana
Lunedì	Pasta al pomodoro olive e briciole croccanti Polpette di quinoa radicchio e cannellini Carote	Farrotto al basilico e pomodorini Bocconcini di halibut Insalata mista	Pasta con rucola e ricotta Bruschetta fave e olive Insalata mais e peperoni	Farro al pesto di zucchine Halibut limone e zenzero Carote
Martedì	Risotto erba cipollina e pinoli Halibut gratinato ai pistacchi Valeriana e mele	Ravanelli e carote Risotto mandorle e pomodori secchi Tofu alla mediterranea	Germogli e pomodori Tortelli di borraggine Polpette di legumi	Risotto con ceci e basilico Tortino miglio e zucchine Pomodori
Mercoledì	Vellutata con orzo Humus di ceci e piadina Ratatouille	Antipasto di verdure e frutta secca Gnocchi con sugo di noci Girella con salsina	Orzotto al sugo di fagioli Spinacine Carote	Insalata mista con semi di girasole Lasagnette estive
Giovedì	Pomodori e cetrioli Pizza alle verdure	Vellutata con orzo Hamburger di lenticchie Zucchine al profumo di menta	Conza alla greca Pizza	Pasta con pesto di broccoli Farinata di ceci Cappuccio e carote
Venerdì	Radicchio e noci Miglio alla mediterranea Medaglioni di robiola	Insalatona con grana padano DOP semi di girasole Focaccia al pomodoro Totani al forno	Rucola e semi misti Pasta al pomodoro Merluzzo alle erbe aromatiche	Pasta al profumo di salvia Polpette di piselli Spinaci al limone

Non si usano prodotti fritti o prefritti, si usano sale iodato e pane a ridotto contenuto di sale. A metà mattina vengono distribuite frutta o verdura fresca di stagione.

125