The current state, benefits, and exemplary models of school meal programmes in the European Union –

a report following 19th meeting of Child Guarantee coordinators on school meals

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1. Introduction

In the school year of 2022/2023, school meal programmes in the European Union (EU) reached 25 million children, amounting to a total investment of at least €12 billion (1). Offering school meals is widely regarded as an effective way to ensure that public spending directly benefits children. These programmes have the capacity to efficiently reach all school-age children, regardless of their socio-economic background, for a significant portion of their childhood spanning at least a decade (2). There is compelling evidence demonstrating the crucial role played by school meal programmes in addressing malnutrition and food insecurity, particularly for those from low-income families, helping to alleviate food-insecurity and its associated negative impacts on health and cognitive development. By delivering balanced meals, school meal programmes not only meet immediate nutritional needs but also promote long-term health benefits, as well as benefits across numerous important societal sectors. Hence, addressing school meals is crucial in the context of the EU Child Guarantee (ECG) (see section 1.2)—an initiative designed to ensure that children at risk of poverty or social exclusion (AROPE) have access to a set of key services. Ensuring that all children AROPE have access to these meals is integral to fulfilling the objectives of the ECG.

On December 10 and 11, 2024, a meeting of the ECG Coordinators dedicated to the provision of at least one free healthy meal per school day took place. Organised by the European Commission (EC)'s Directorate-General for Employment, Social Affairs and Inclusion, and the Research Consortium for School Health and Nutrition (see section 1.1), this meeting aimed to bring the Coordinators together to explore the current state and future directions of school meal programmes across the EU. By sharing insights and best practices, the meeting sought to identify effective strategies for improving access to nutritious meals for children in need. The meeting built on momentum from an earlier meeting held in San Sebastián in 2023 where governmental representatives across EU countries and other stakeholders, including the organisers of the present meeting, convened to strengthen the commitment of EU Member States in school meal provisioning.

This report is the result of a joint effort between the EC together with the Research Consortium for School Health and Nutrition. The primary objectives of the report are to synthesise key discussions from the meeting, provide an overview of school meal programmes in different EU Member States, summarise the available evidence on school meal benefits, as well as to showcase good practices. By doing so, the report aims to make a compelling case for the full implementation of the ECG as regards access to free school meals and healthy nutrition.

The report will focus on school meals in compulsory (primary and secondary school) education and is structured as follows: first, it will provide an overview of the Research

Consortium for School Health and Nutrition as well as a description of the ECG and its significance to school meal provisioning in the EU; next, it will present the state of child malnutrition across the European region and highlight the evidenced benefits of healthy school meals; it will then examine the current landscape of school meal programmes within the EU, explore the findings from a ECG-coordinator questionnaire, and showcase good practices; and finally, it will provide concluding remarks.

1.1 The Research Consortium for School Health and Nutrition

In 2021, the School Meals Coalition was launched at the UN Food Systems Summit, aiming to ensure every child receives a healthy, nutritious meal in school by 2030 (3). The Secretariat for the School Meals Coalition is hosted by the United Nations World Food Programme in Rome, Italy.

Today, 108 countries have joined the Coalition, comprising 67% of the global population, with 50 countries defining national commitments to support these goals. The Research Consortium for School Health and Nutrition was also established in 2021 as the first initiative of the School Meals Coalition to support its member states in the design of well-informed, robust national policies (4). With a Secretariat hosted by the London School of Hygiene & Tropical Medicine and Communities of Practice that connect experts across the world, the Research Consortium is a global, multi-partner network of thought leaders and academic institutions. The Consortium's mission is to assemble and conduct research into the design, cost, benefits, and impact of national school meals programmes and complementary interventions across every income level and share programmatic guidance with the countries of the Coalition.

The Research Consortium is guided by a 10-year research strategy to build a global evidence base on school health and nutrition, until 2030, that aligns with and supports the United Nations (UN) World Food Programme's 10-year strategy on the same subject. The Consortium is also specifically designed to support the efforts of the five UN agencies concerned with the well-being of children—the World Health Organization (WHO), the World Food Programme (WFP), the Food and Agriculture Organization of the UN (FAO), the United Nations Educational, Scientific and Cultural Organization (UNESCO), and UN Children's Fund (UNICEF)— who endorsed the establishment of the Research Consortium as a crucial means to provide independent scientific evidence for which programmatic actions to prioritise, based on their impact and value-for-money.

1.2 The European Child Guarantee

In 2021, Member States of the EU unanimously endorsed a Council Recommendation that officially established the ECG. The primary aim of the ECG is to mitigate the effects of poverty on children and to prevent their social exclusion. To achieve this, Member States are recommended to guarantee for "children in need"— specifically, persons under the age of 18 years who are At Risk of Poverty or Social Exclusion (AROPE) —

effective and free access to at least one healthy meal each school day and effective access to healthy nutrition (5).

The ECG emphasises that effective access refers to a circumstance where services are not only readily available but also affordable, accessible, of high quality, timely, and where potential beneficiaries are informed about these services as well as their right to use them. Furthermore, the concept of effective and free access means that not only must these services be accessible, but they should also be provided without any cost to the beneficiaries. This can be accomplished through the direct provision of services or by supplying sufficient financial support to eliminate any cost barriers that might prevent equal access.

Access to nutritious meals is a cornerstone of the ECG, recognising the critical role that food security plays in the overall well-being and development of children. As stipulated in the ECG, the provision of at least one healthy meal each school day not only addresses immediate hunger but could also lay the groundwork for longer-term outcomes. The commitment to ensuring access to nutritious meals as part of the ECG is likely to be a strategic investment in the future well-being of children and society at large.

2. Child malnutrition in Europe

Proper nutrition in childhood is essential for fostering optimal growth, development, learning, and overall health. Conversely, inadequate diets and malnutrition can adversely affect children's physical and psychosocial health, academic performance, and cognitive abilities, leading to reduced productivity and earning potential in the future (6). Within the EU, overweight and obesity represent significant public health concerns, contributing to chronic illnesses, disabilities, and premature mortality. Building on the presentation given by Dr Wickramasinghe—Regional Adviser for Nutrition, Physical Activity and Obesity at the WHO Regional Office for Europe—this section will provide a brief overview of the latest statistics on childhood overweight and obesity in the WHO European Region, as well as its consequences.

2.1 Trends and consequences of overweight and obesity in childhood

Overweight in children above the age of 5 is defined as having a measure of body mass index (BMI)-for-age greater than 1 standard deviation, whereas childhood obesity is defined as being greater than 2 standard deviations, above the WHO Growth Reference median (7) (Figure 1). By 2035, it is estimated that nearly 400 million children worldwide will be affected by obesity, which would represent a doubling of the figure from 2020. In Europe, children are increasingly growing up in settings that make it challenging to maintain healthy eating habits and engage in physical activity.

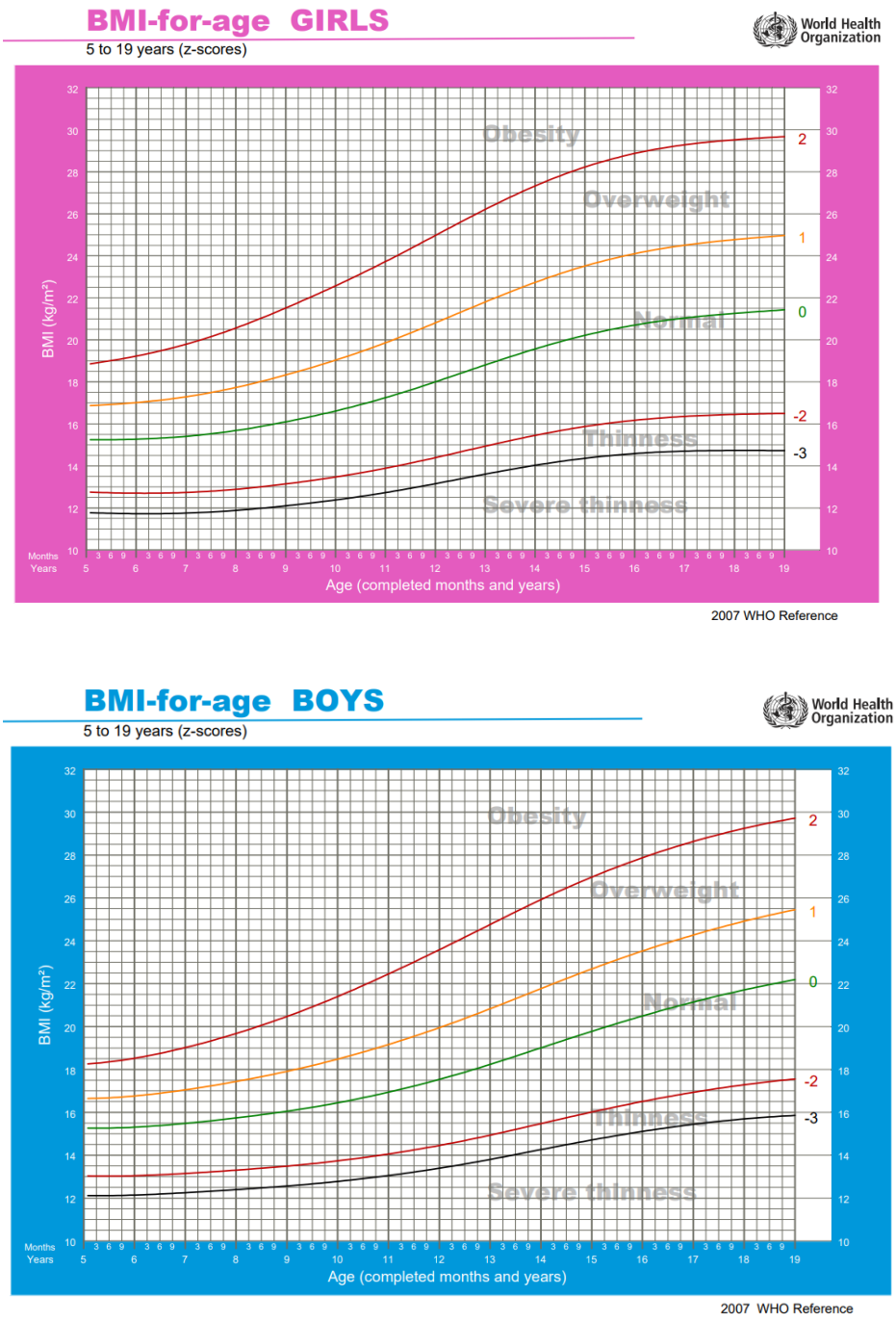


Figure 1. BMI-for-age (children 5-19 years). *Source: World Health Organization* (7).

This environmental factor is a fundamental contributor to the obesity epidemic. The latest statistics from the WHO European Childhood Obesity Surveillance Initiative (COSI) show that about 25% of children aged 7–9 years are living with overweight, with 11% affected by obesity, in the WHO European Region (8). The data shows a greater prevalence of weight issues among boys compared to girls, and with those from less affluent families disproportionately affected in many countries (9). These statistics underscore the persistent public health challenges posed by overweight and obesity in the Region. Projections of future obesity trends indicate a 61% increase in boys and a 57% increase in girls living with obesity between 2020 and 2035 (10). By 2035, it is

expected that 17 million boys and 11 million girls aged 5-19 in this region will be living with obesity. Alarmingly, childhood obesity often persists into adolescence and can continue into adulthood. This is, consequently, coupled with a higher risk of developing non-communicable diseases (NCDs) including type-2 diabetes, cardiovascular disease, and cancer. The latest Global Burden of Disease study estimates that almost 60% of deaths and more than 38% of disability-adjusted life years (DALYS) in the EU are caused by these three types of NCDs, of which approximately a fifth can be attributed to dietary risks (11). This comes at a remarkable cost; NCDs account for up to 80% of all healthcare spending in the EU (12). Providing nutritious meals in schools is a unique opportunity to ensure that all children, irrespective of their socioeconomic status, receive the healthy food they need to support their growth and development, while also instilling beneficial eating habits that can lead to long-term health improvements. Such initiatives can play a pivotal role in combatting obesity, enhancing overall health, and reducing the future burden and cost of NCDs.

2.2 Summary

The rising issue of overweight and obesity in European children, driven by environments that discourage healthy eating and physical activity, pose significant public health challenges, often persisting into adulthood and increasing the risk of NCDs. Socioeconomic factors contribute to these disparities, particularly affecting vulnerable populations. The urgency for effective interventions is critical, with inclusive school meal programmes, and initiatives like the ECG, identified as a key strategy to promote healthier eating habits and combat the obesity epidemic among children in the EU, ultimately supporting their long-term health and well-being.

3. The multifaceted benefits of school meal programmes

The years spent in school are crucial for children's physical, mental, emotional, and social growth. It is during this formative period that the groundwork for good health and a sound mind is established (13). Well-designed school meal programmes have the potential to yield significant multi-sectoral returns that positively impact various aspects of society, extending beyond simply providing food to students. Reaching 418 million children worldwide (and at least 25 million in the EU) in the school year of 2022, school meals are the world's most widely implemented safety net with documented impacts across social protection, education, health and nutrition, agriculture, economic growth, and environmental sustainability (14) (Figure 2), with annual returns from €7-€34 for every €1 spent because of the additive returns across these sectors (15). The long-term benefits are likely to be significantly enhanced if these investments prioritise environmental sustainability. Moreover, by being most effective for the most disadvantaged children, school meal programmes can "level the playing field" in health, nutrition and education (16). Experiences in high- and middle-income countries have linked school meals to food system transformation, where food procurement for school

meals is used as an outlet for commercial farmers (17). This section of the report takes its starting point in the presentation delivered by Professor Donald Bundy— Director of the Research Consortium for School Health and Nutrition—and will deep-dive into some of the evidence on the multiple benefits of school meal programmes across sectors, with a specific focus on EU-countries and some other high-income countries (HICs) with comparable political and economic contexts.

3.1 Benefits to nutrition, health, and education

There is compelling evidence demonstrating the crucial role played by school meal programmes in addressing malnutrition and food insecurity, particularly for those from low-income families. By delivering balanced meals, school meal programmes not only meet immediate nutritional needs, but can also have additional health impacts later in life. By forming preferences for healthy meals, school meal programmes can contribute to reducing diet and weight-related risk factors and associated NCDs in adulthood. This is critical for achieving any national or regional public health goal.

Various studies have identified that school aged children in the EU consume unhealthy foods and lack adequate knowledge about healthy eating habits and lifestyle choices (2,18–24). Major areas of concern include a high intake of energy, fat, and sugar-sweetened beverages, all of which lead to weight gain for both children and adults (2). Studies from the EU context demonstrate the importance of school meals for addressing these concerns. For example, school meals in Sweden (universal, free of charge, buffet style including a large salad bar) (25) have been shown to be more nutrient dense, less energy dense and more in line with nutrient recommendations than the foods children consume outside of school. They also provide nearly half of children's daily total vegetable intake. Similar findings are presented in an intervention study from Denmark (26) where children experienced notable increased intakes of health promoting foods including fruits, vegetables, nuts and seeds, as well as to reductions in foods high in salt, saturated fat and sugar, when their habitual packed lunches were replaced by school meals. The examples from Sweden and Denmark tally with previous research from another Danish study (24), as well as Finish (27), Irish (28), Canadian (29), American (30), and British (31–36) school meal contexts showing the positive impact of school meals on promoting healthy food habits. Similarly, a systematic review (37) shows positive impacts of Universal free school meal (UFSM) on diet quality and to some extent BMI, particularly among lower-income families in OECD (mainly EU) countries. Although it does not exclusively focus on the EU, it does present a contemporary overview of the multiple benefits of UFSM, particularly to those children who are food-insecure and near eligible for free meals in existing means-tested school meal models. For example, out of the 19 studies conducted in OECD countries (including the UK, Denmark, Norway, Japan, Greece, and New Zealand), 13 found improvements in students' dietary outcomes.

As for food security, the most notable evaluated trial from an EU country is found in the Greek DIATROFI-trial—a targeted school meals initiative implemented in 2012. Findings

show that food insecurity reduced from 51.5% at baseline to 47.6% at the one-year follow-up, with a more pronounced effect among those who participated for a longer period in the programme (38). The researchers also found significant reductions in overweight/obesity among children participating in the trial (39).

Findings relating to impacts on health are limited. However, very recent findings demonstrate that if expanding the coverage of school meals to all children in school, and providing meals that are healthy, up to 3 million annual deaths from NCDs could be avoided. The reductions would be the greatest in HICs, with the largest reductions in countries such as Slovakia, Lithuania, Bulgaria, and Poland (40). Synthesised evidence also seems to suggest that school meal programmes may have some physical and psycho-social health benefits for children in economically disadvantaged households (41).

The evidence linking school meals directly to academic performance in EU countries is scarce. In the review by Cohen et al. (37), which examines the effects of these meals across various European trials, only one study (42) demonstrates significant impacts of UFSM on educational outcomes. The report shows that a UFSM pilot programme in England led to increased student attainment, particularly among children from less affluent backgrounds. The area is more researched in the US, where numerous trials (43–46) (also covered in the review) have found positive impacts of school meals on educational outcomes, including attendance. Two of the studies looked at school lunches, whereas the other two studies examined school breakfasts. The most robust evidence of the effects of school meals on academic outcomes is shown by a Swedish longitudinal study (47). It demonstrates that UFSM has had long-term health, education, and income benefits; for example, students who had access to UFSM during their entire primary school period (grade 0-9) had a 3% higher lifetime income, on average, than students who attended schools without this policy. These benefits were observed among both students from lower-income and higher-income families, with the greatest benefits (+6%) among children from lower-income households.

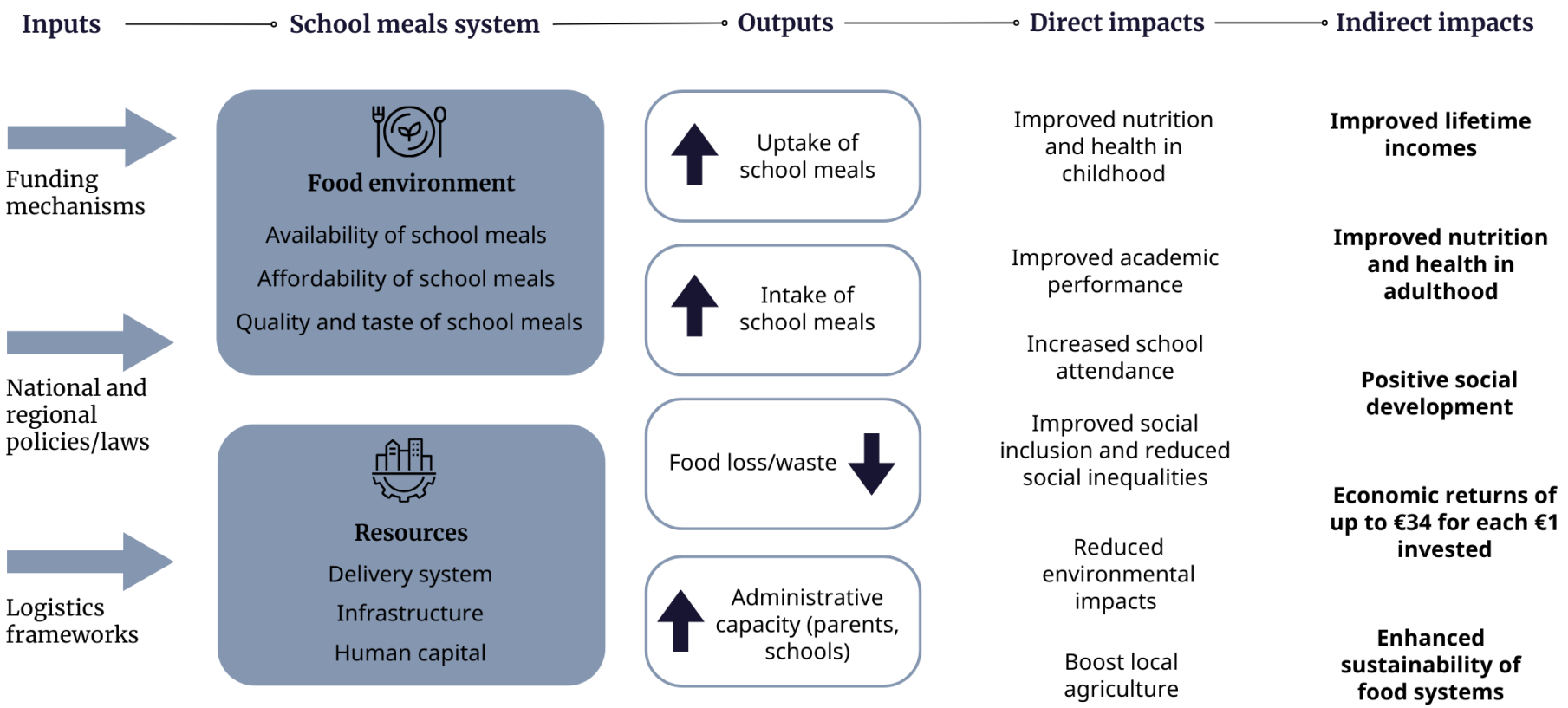


Figure 2. Expected benefits of free or subsidised school meals. Authors' elaboration on the basis of the literature review.

3.2 Social protection and equality

School meal programmes serve as a crucial component of social protection systems worldwide, acting as one of the most extensive and effective safety nets for vulnerable children and families (2). These programmes provide direct support to households by reducing their food expenditure, which can be equivalent to about 14% of total household expenditures, on average, in the EU (48). This figure ranges widely between EU countries (20.6% in Latvia and 9.4% in Luxembourg), and likely also between income groups. The 2008 global financial crisis, followed by austerity measures in various countries and the recent Covid-19 pandemic, have had a disproportionate impact on the most vulnerable populations (49). This situation led to increased levels of income poverty and food insecurity across many European countries. As a result, there has been increased public and political emphasis on the significance of school meal programmes, recognising them as vital health and welfare interventions and as an essential human right (see sections 5.2 and 5.3 for good examples).

In the EU, low socioeconomic status (SES) is positively associated with an increased risk of developing NCDs (50,51). This association can to some extent be explained by a lower diet quality (52,53). School meals—particularly when free or heavily subsidised—can reach school-aged children of every socioeconomic background (54). These meals thus provide a near unique opportunity for all children to establish healthy dietary habits early in life; something that is key to narrowing long-term social health inequalities and promoting public health (54). Socioeconomically disadvantaged children have been shown to be less likely to consume fruits and vegetables overall; something that has been observed in Nordic settings (55–57) as well as in other high-income countries (58). In Sweden, pupils of lower educated parents had significantly lower total daily intakes of vegetables than pupils of parents with higher levels of education, yet with school lunch, no significant differences in mean vegetable intakes were seen between the two groups. School meals have also been shown to narrow socioeconomic gaps in dietary intake in OECD countries such as Norway (59), the UK (60,61), Japan (62), Greece (38) and the United States; a country where children included in the National School Lunch Program (based on parental income) have been shown to consume around 40% of their daily energy from the school lunch (63). Continuing on the subject of social (in)equality, O'Connell et al. (64) qualitatively examine the extent to which school meals are a resource for low-income families in European countries, comparing their respective systems for providing school meals as well as the school meal quality. The authors conclude that the reach and quality of school meals are critical for protecting low-income children from food insecurity. Altogether, the presented evidence highlights the instrumental role that school lunches can play in levelling out social inequalities in dietary quality and/or quantity, and their importance in promoting the intake of healthy and nutritious foods across children of all socioeconomic groups.

3.3 Environmental sustainability and agriculture

Besides promoting healthy diets, meals provided in schools also have the potential to foster environmentally friendly diets in both the short and long term. Schools provide learning environments around food (65) that could facilitate the adoption of planet-friendly diets in practice. The exposure to, and consumption of, school meals over more than a decade of childhood is thus likely to be an important arena for children to internalise planet-friendly dietary patterns, which may persist throughout life (66–68). This changing relationship with food may be extremely important considering the environmental crisis facing the world today.

To date, evaluated initiatives aiming to promote more environmentally friendly school meals or other public meals in practice are scarce. While it has not yet been evaluated, the SchoolFood4Change (SF4C) initiative (69) is facilitating a significant shift towards sustainable and healthy diets at a societal level by directly influencing over 3,000 schools and 600,000 students across 12 EU countries. In line with the EU's Farm to Fork Strategy (70), this initiative serves as a replicable good practice for the EU and beyond, employing a comprehensive multi-level strategy that includes developing sustainable food procurement criteria, incorporating planetary health diets into school meals, training chefs as change agents, and implementing a Whole School Food Approach. For example, in Madrid, the SF4C approach has led to the establishment of two urban policy acts to improve the public food procurement health and sustainability standards of nursery schools' menus (71). In Sweden, the OPTIMAT ™-project—implemented in numerous municipalities—constitutes one of few scientifically evaluated real life school-based interventions demonstrating real impacts on the topic. Optimised school lunch menus that met nutrient requirements for school meals and cost-constraints, with reduced climate impacts of up to 40%, were implemented without increasing food waste nor reducing consumption or school meal satisfaction (72–74). If these reductions in climate impacts were applied to all school meals served in Sweden, a total reduction of 80,000 tons of greenhouse gases annually could result from changing only one school meal. This is equivalent to the yearly average emissions generated by approximately ~50,000 cars in Sweden.

By providing consistent demand for agricultural products, school meal programmes can also offer stability to local farmers and encourage investment in agricultural production. There is no known evidence from EU countries on how school meals impact the agricultural sector, nor any known regional or national policies mandating schools to source a portion of their food from local producers. There are, however, EU initiatives that aim to connect local farmers to schools with potential to generate positive impacts. For example, the EU School Scheme, established in 2017, supports the distribution of milk, fruit, and vegetables to millions of children across Europe, while also emphasising education including farm visits and school gardens, which can increase awareness and

demand for local agricultural products (75). The very recent Strategic Dialogue Report on the Future of EU Agriculture—with a vision for 2035/2040 to ensure food security in the EU while protecting natural resources—also identifies school meals as an efficient policy lever (76). At a global level, Brazil constitutes an example where national policies for school meals have been connected with the agricultural sector. There, public schools are required to spend at least 30% of their meal budget on products from family farmers. This has bolstered incomes and quality of life amongst small-scale farmers, and is a model that could be applied in the EU with similar expected impacts. Using Brazil as an example, the publication by Kelly and Swensson, 2017 (77) lays out important insights on the policy and institutional reforms required for developing and implementing institutional food procurement for linking small farmers to large markets (Figure 3). The presented initiatives are some of many which support the idea that school meals in the EU hold significant potential to serve as a catalyst for agricultural growth by creating stable markets for local producers, promoting sustainable farming practices, and educating the next generation about the importance of local agriculture.

Source: Kelly, S. and Swensson, L.F.J. 2017 [81].

Figure 3: Proposed framework for implementing institutional food procurement policies.

3.4 Summary

The evidence presented in this section demonstrates the considerable additive benefits of school meals relevant to EU countries, encompassing areas such as nutrition, health, and education, while also addressing social inequalities and fostering social inclusion. Additionally, school meals present a unique opportunity to support environmental sustainability and local agricultural production, an area that is less explored and deserves further investigation within EU Member States. Markets are likely to benefit from regional and national procurement criteria that prioritise locally produced food for school meal provision.

4. Current state of school meal programmes in the EU

In accordance with the Recommendation that established the ECG, EU Member States are encouraged to ensure that children in need have access to at least one free healthy meal per school day. This section offers an overview of school meal programmes across Member States, focusing particularly on complete meals in primary and secondary (compulsory) education (see section 4.1.5 on pre-primary education). Some countries may also offer free snacks, milk, or fruit, which are not included in this overview. This section will also present findings from a questionnaire that was issued to all ECG-coordinators prior to the ECG-meeting in December 2024, and where partial/full responses were received from 22 out of 27 Member States. In this regard, the report will focus on the extent to which nutrition standards are available for school meals; the overall budget allocated for and estimated average cost of school meals in the EU; as well as potential challenges and additional cost for Member States to fully comply with the ECG Recommendation. Where data is missing, other data sources were used to attempt to fill those gaps.

4.1 Overview of existing school meal programmes across EU Member States

This overview, illustrated and condensed in Figure 4 and Table 1, is largely based on information provided by Baptista et al. 2023 (78) and questionnaire results. It presents a summary of various school meal programmes across Member States for both primary and secondary education. The data indicates significant variation in these provisions throughout the EU. Seven Member States are focused on offering universal access to free meals for all or most children participating in compulsory education. In contrast, 16 Member States have chosen to concentrate their free meal offerings on specific low-income children or designated schools/areas. Additionally, we classify three Member States as “Emerging” as they are transitioning from a targeted approach to a universal national programme, or from having no national programme to implementing a targeted one. Lastly, one Member State has no national school meals programme in

place for primary or secondary school (although it does have a universal one for preschool children).

4.1.1 Universal

UFSM programmes (here defined as programmes that reach all/nearly all children in compulsory school) are gaining momentum across Europe, with several countries implementing or expanding free meal programmes for students. Finland (FI), Sweden (SE) and Estonia (EE) all have a longstanding history of providing fully subsidised, free school meals to all students in compulsory education. Since the pandemic, the school meal programmes in Luxembourg (LU) and Croatia (HR) have transitioned from targeted to universal systems, providing free meals to all children in primary school and to those in secondary school up to the ages of 17 and 15, respectively. Lithuania (LT) and Latvia (LV) are also considered as having a universal programme; however, they use slightly different approaches. Lithuania provides UFSM to children up to the age of eight, and thereafter targets its provision of free school meals to low-income children above the age of eight in primary school, as well as to all low-income children in secondary school. Latvia provides UFSM to all children up to the age of 10 in primary school only; and many municipalities provide free meals for older students too.

4.1.2 Targeted-Transitioning

Slovakia (SK) has been classified as "Targeted-Transitioning" as the country is currently seen as transitioning from a targeted to a universal system. The country has used a targeted system since the early 2000s, targeting children from low-income households and other vulnerable categories aged 5-15 years (79). Since May 2023, the system is being extended to all children from 2 to 15 years old, and so the country is also moving towards a universal system. It should however be noted that the children are officially only entitled to subsidised, not free meals. The subsidy is, however, intended to cover all costs for the school's canteens and reduce potential co-payments to a minimum or zero, but it may not fully cover the price of school meals, depending on how costs evolve (78).

Slovenia (SI) is currently operating under a targeted approach, providing free school meals to low-income children in primary and secondary school up to the age of 15. The country introduced this system in 2023, and in the same year passed a bill to extend the free school meals to all primary school children by 2027. Therefore, they have also been classified as "Targeted-Transitioning" (see section 5.3).

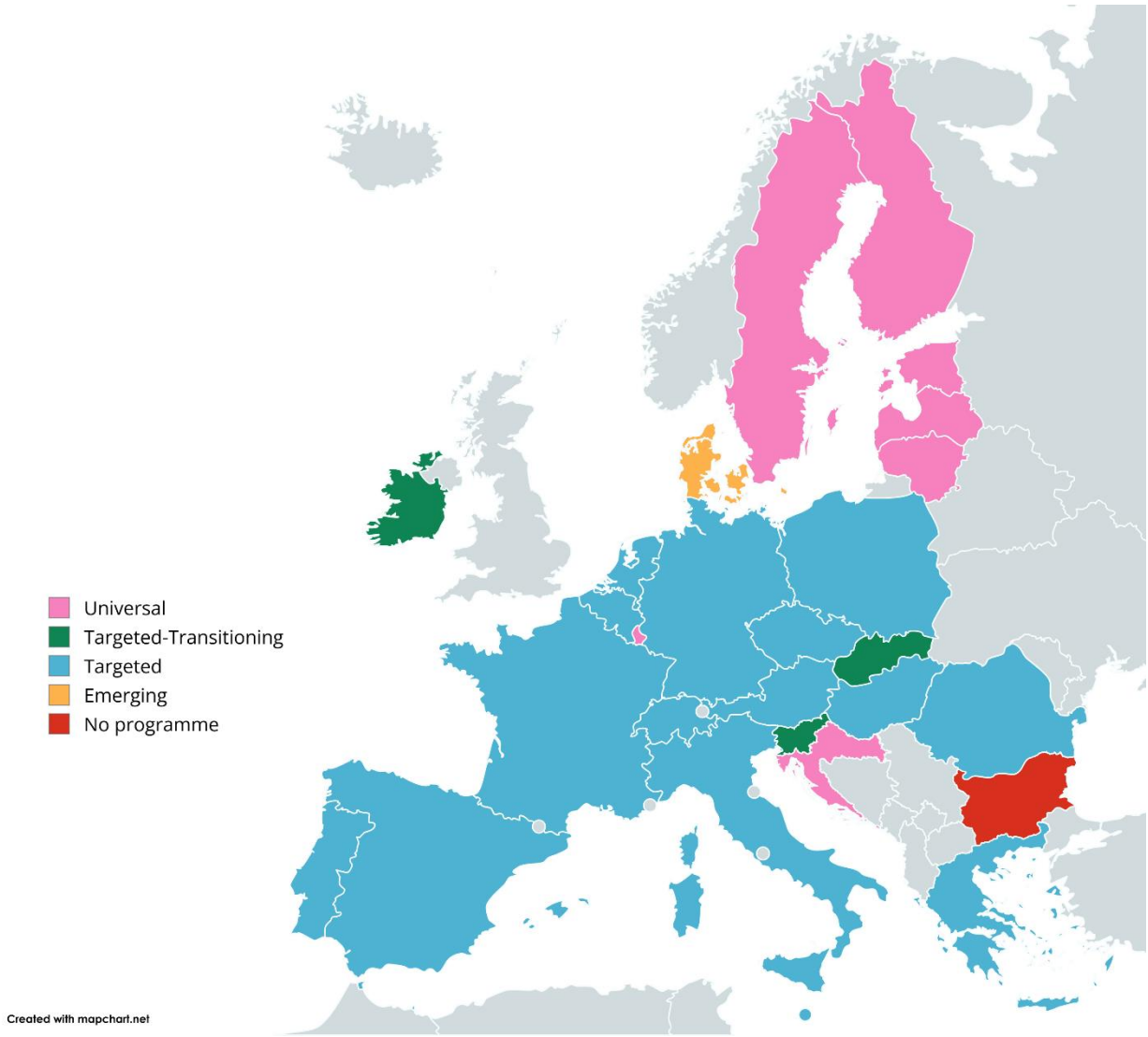
Similarly, Ireland (IE) has a targeted school meals scheme in place. The scheme provides children in socially disadvantaged schools with a free meal and has grown to include over 2,600 socioeconomically disadvantaged primary schools serving approximately 443,000 children as of September 2023. The government has set an ambitious goal to provide free hot meals to all primary schools in Ireland by 2030 at the latest. Ireland is thus also classified as "Targeted-Transitioning" (see section 5.4).

4.1.3 Targeted

To date, a majority (18 out of 27 countries, when also counting Slovenia, Slovakia and Ireland which have been classified as "Targeted-Transitioning") of EU Member States with some form of school meal provisioning are using targeted approaches rather than universal systems. This distribution reflects the ratio of targeted vs. universal programmes globally (80). This means that 90% of the EU's children enrolled in compulsory education live in Member States with targeted systems (81). Out of the countries characterised by having a targeted national school meals programme, Cyprus (CY), Germany (DE), Spain (ES), Czechia (CZ), Hungary (HU), Malta (MT), Poland (PL) and Portugal (PT) use targeting schemes that direct the free meal provisions towards low-income children (rather than low-income schools) in both primary and secondary education. Cyprus and Germany cover all ages (up to age 17), whereas the rest stop provisioning at between 14 and 16 (see Table 1). In the remaining eight countries (Austria (AT), Belgium (BE), France (FR), Greece (EL), Italy (IT), the Netherlands (NL) and Romania (RO)), the targeting is on schools or municipalities rather than individual students. Typically, these schools are located in disadvantaged areas or chosen based on the socio-economic profiles of their student populations. The Netherlands is the most recent addition to the list of targeted countries, joining in 2023, and now offers targeted meals to primary and secondary schools, which can apply for a subsidy if they have 30% or more of low-income students. In some of the countries classified as "Targeted", the coverage of targeted meals is considerably limited. Austria, for example, does not have a national or regional programme that provides free school meals for all students, nor specifically for those from low-income households. However, in Vienna certain public primary and lower secondary schools make free lunches available to every student. Additionally, students from very low-income families attending public institutions in Vienna that provide full-day care may qualify for free lunches (82). In France, there is a national school meals programme where meals are subsidised to a certain extent, and where parents pay a portion of the cost based on household income. Free meals are not generally provided, with exceptions in a few municipalities. Instead, there is a national policy that offers a €1 meal in designated disadvantaged areas for low-income families. To date, about 8.3% of the 36,000 total municipalities have applied for this option, which accounts for approximately one thousand of the 12,000 eligible municipalities. Similarly, in Italy, school meals are predominantly paid for by students, but families with limited income receive the service at no cost in some cases (83). Eligibility for free school meals is assessed locally, and in certain instances, families must be residents of the municipality where the school is situated to qualify for the free service.

4.1.4 Emerging

Denmark (DK) has been classified as "Emerging". To date, the country has not had an official, nationwide programme for school meal provisioning. However, a pilot



programme providing free school meals is a feature of Denmark's 2025 budget, which will also see the return of a popular tax deduction. The budget, confirmed after negotiations with opposition parties, includes a plan to offer free school meals to more than 20,000 students starting in the summer of 2025 (84). Both public schools (folkeskoler) and independent schools (friskoler) will be eligible to apply for the programme, according to the Danish government. The budget allocates €14 million to the pilot programme in 2025, with annual funding of €34 million DEK from 2026 to 2028. The scheme will primarily focus on fully subsidised meals but will also allow for partial parental contributions in certain cases.

Figure 4. Mapping of school meal programmes in the European Union.

Table 1. Overview of school meal programmes in the European Union.

Country	Type of programme	Targeting approach	Primary school	Secondary school
Croatia	Universal	na	All children	All children to age 15
Estonia	Universal	na	All children	All children
Finland	Universal	na	All children	All children
Latvia	Universal	na	All children up to age 10	No children
Lithuania	Universal	na	All children to age 8	na
Lithuania	Targeted	Children	Low-income children +8y	Low-income children
Luxembourg	Universal	na	All children	All children
Sweden	Universal	na	All children	All children
Cyprus	Targeted	Children	Low-income children	Low-income children
Germany	Targeted	Children	Low-income children	Low-income children
Spain	Targeted	Children	Low-income children	Low-income children to age 16
Czech Republic	Targeted	Children	Low-income children	Low-income children to age 15
Hungary	Targeted	Children	Low-income children	Low-income children to age 14
Malta	Targeted	Children	Low-income children	Low-income children to age 16
Poland	Targeted	Children	Low-income children	Low-income children to age 15
Portugal	Targeted	Children	Low-income children	Low-income children
Belgium	Targeted	Schools	Low-income schools	No children
Netherlands	Targeted	Schools	Low-income schools	Low-income schools
Greece	Targeted	Schools	Low-income schools	No schools
Romania	Targeted	Schools	Low-income schools	Low-income schools
Austria	Targeted	Children/schools	Some schools/students	Some schools/students
France	Targeted	Municipalities	Low-income municipalities	Low-income municipalities
Italy	Targeted	Municipalities	Low-income municipalities	Low-income municipalities
Ireland	Targeted-Transitioning	Schools	Low-income schools	Low-income schools
Slovakia	Targeted-Transitioning	na	All children	All children to age 15
Slovenia	Targeted-Transitioning	Children	All children (by 2027)	All children to age 15 (by 2027)
Denmark	Emerging -Targeted	Schools	Unclear	Unclear
Bulgaria	No school meals	na	na	na

4.1.5 Pre-primary education

Pre-primary education has not been included in the mapping of school meal programmes across the EU. One reason for this is that pre-primary school education usually occurs in diverse settings, such as private nurseries and community-based programmes, which may not align with the structures and policies governing compulsory education. While compulsory education is typically governed by national laws and policies, preschools may receive oversight from local authorities or private organisations, resulting in varying standards and practices in meal provision. Sweden is one example of this, having national laws ensuring universal free and nutritious meals for children in compulsory school only, and where the cost/financing and nutritional standards of meals in pre-primary education are governed independently by each municipality. Furthermore, not all children are enrolled in preschool, as some families may not be able to afford the costs associated with private nurseries or extended hours beyond free childcare. Additionally, families may prioritise other forms of care, such as

staying at home with a parent or guardian or may live in areas where preschool options are limited or unavailable. Eligibility for free childcare often varies by local policy, and may vary from eligibility for a free school meal. Hence, mapping statistics related to preschool meal programmes is more complex, as the differing enrolment rates, eligibility criteria, and programme structures complicate a clear interpretation.

4.2 Key findings from questionnaire results related to school meal programmes

4.2.1 Overall budget and cost allocated to school meal schemes among Member States

Information on the total budget allocated to school meals was available for all except five Member States (Supplementary Table 1). The average budget is approximately €631 million, ranging from €850 thousand in Cyprus to €9.7 billion in France. On a per capita basis (total national budget divided by number of children fed), the average expenditure is €349, with a range from €54 in Portugal to €1,229 in France. In total, countries in the EU (as per budgets that were reported in questionnaires/reported in other sources) are investing ~€12 billion in their school meal programmes.

About half of the Member States provided information on the cost of a healthy school meal in their country. Here, the average cost is €3, ranging from €0,75 for a breakfast in Ireland to €5 in Denmark. However, it is unclear whether the information provided represents the total cost associated with providing one healthy meal, including operational costs, or if it only reflects the cost of the food itself.

4.2.2 Existence of nutrition standards for school meals and consideration of organic food

Approximately two-thirds of Member States supplied information regarding the presence of nutrition standards for school meals (Supplementary Table 1). Among these, only two reported that they do not have any nutrition standards in place. For the remainder, the majority have implemented binding standards. However, more than half of the Member States with standards do not include organic food within their guidelines.

Regarding regulations on organic foods for school meals, five countries—Belgium, Denmark, Greece, France and Ireland—have binding regulations in place (Supplementary Table 1). In contrast, three countries—Austria, Finland, Germany and Luxembourg—adhere to voluntary regulations concerning organic content in school meals.

4.2.3 Share of children at risk of poverty and social exclusion receiving a free school meal

Figure 5 shows the estimated percentage of children AROPE (aged 6-17) who receive free school meals across Member States. Among the 16 Member States that provided the necessary data on number of children in need receiving a free school meal, it is estimated that approximately half successfully reach all AROPE children with a free school lunch. Four of these countries achieve this through universal programmes, which is expected. Slovenia and Slovakia, both categorised as "*Transitioning*" countries, also manage to cover all AROPE children, according to our estimates. So does Ireland, with a school meals scheme targeting socioeconomically disadvantaged schools. It is estimated

that five Member States manage to cover between one-third and two-thirds of AROPE children, while three Member States cover less than one-third. Estimations based on data from 2020 show that the total additional annual cost of covering all children at risk of poverty (AROP) would amount to €4.4 billion across all countries in the EU (85). Since these calculations were made, an increasing number of countries have been introducing new/expanding their programmes, suggesting that the additional cost of covering all children AROP today is likely to be lower than previously estimated. This is an area that requires further research, although the trend indicates a reduction in costs. The implication is that countries with universal programmes have successfully achieved their goals, whereas it could be more expensive for countries with more limited coverage to reach similar outcomes.

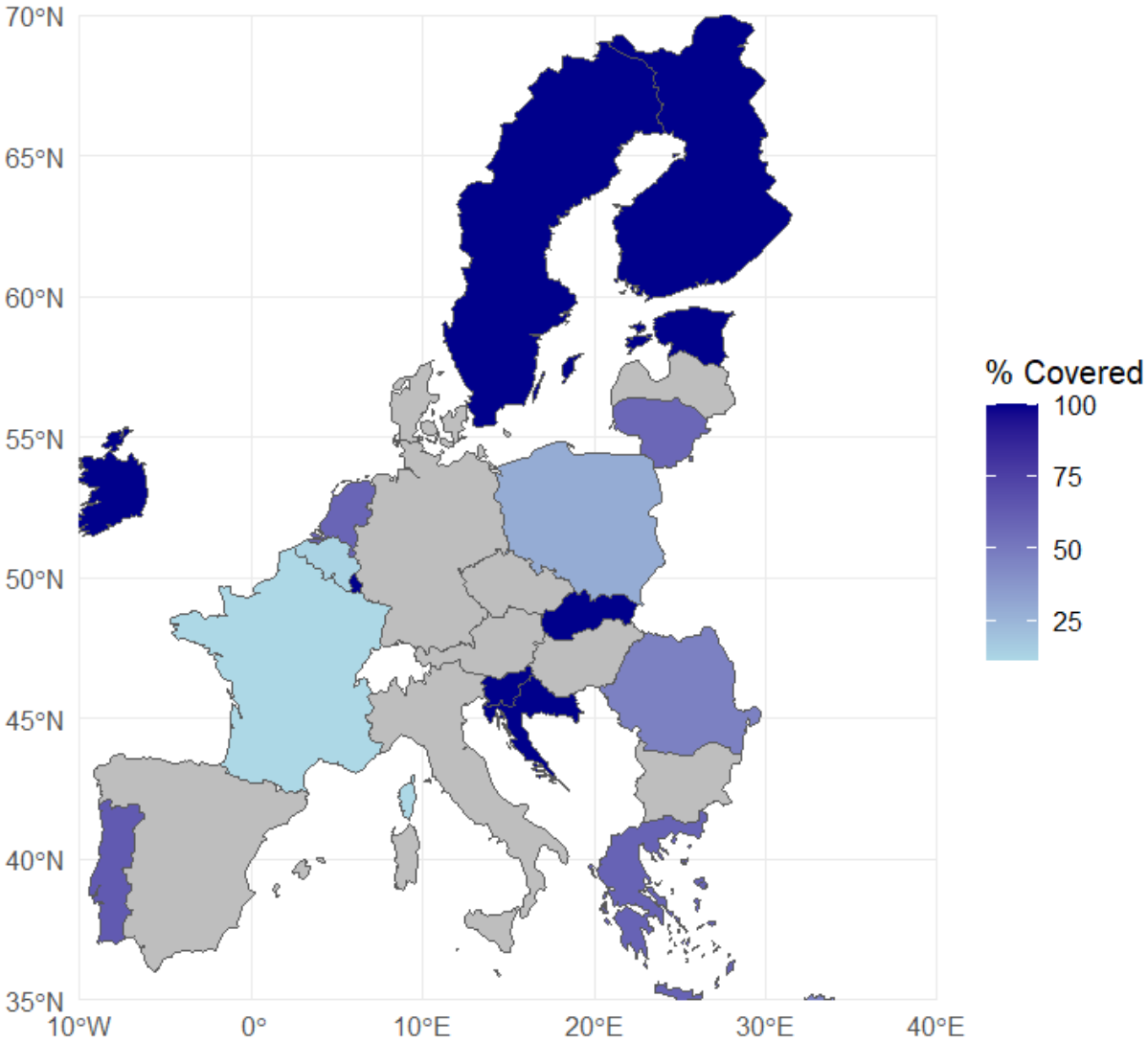


Figure 5. Share of children in need who receive free school meals across Member States. Map is based on the latest annual (estimate of) number of children in need in compulsory school who received at least one healthy meal for free each school day reported in the ECG-coordinator questionnaires as a share of the number of children at risk of poverty and social exclusion aged 6–17 in 2023 from Eurostat (81). *Grey coloured countries = no questionnaire provided/no numbers provided in questionnaire.*

4.2.4 Challenges and cost of covering all children at risk of poverty in the EU

While universal programmes ensure that every child attending school is entitled to receive support, implementing means-tested or rules-based criteria could present various challenges in practice and thus inadvertently overlook a significant portion of children who are most in need. One important challenge is that, in numerous Member States, the income threshold used to establish eligibility is below the AROPE (78). Furthermore, some vulnerable groups, such as asylum seekers or undocumented migrants, may not qualify for targeted provisions because of how eligibility criteria are set. Furthermore, some ECG coordinators identified specific challenges in ensuring coverage for all AROPE children (Supplementary Table 1). These challenges include inadequate infrastructure (Belgium, Croatia, Germany, and Romania), difficulties in data management and coordination (Belgium, Germany, Romania), variability in underlying regulations across schools and regions (Austria), shortages of human resources and qualified providers (Belgium, France, Germany, Greece, Romania), issues with geographical accessibility (Greece), and bureaucratic obstacles for families (Germany). France also identified barriers relating to poor organisation and unclear leadership hindering an expansion of the free school meals scheme. Non-financial barriers to effective and free access to school meals for low-income children have also been summarised previously (78). Beyond the barriers highlighted in the questionnaire, EU Member States appear to encounter other issues such as the stigmatisation of targeted children by peers or staff, which hinder access. Some countries pointed out financial barriers, including inadequate budgets/resources (France, Germany, Greece, Hungary, Romania).

Table 2. Barriers to effective and free access to school meals for low-income children.

Geographical disparity	Limited scope of provision	Lack of infrastructure / staff/ food suppliers	Lack of full-time classes	Fear about quality/ taste of food	Administrative burden for schools/ low application rate by eligible schools	Admin. burden for parents/ low take-up	Stigma of targeted children	No barriers identified
AT, BE, CZ, DE, EL, ES, FR, IE, IT, LV, RO	BE, CZ, EL ES, IE, RO	BG, ES, IE, IT, HR, HU, NL, SI, SK, PT, RO	AT, CY, DE, IT	EE, HU, IE, LU, PT, SI	CZ, RO	CZ, DE, ES, MT, PL	CY, CZ, DE, HU, LT, PL	FI, SE

Source Baptista et al. 2023 (78).

Perhaps the most evident (not listed) barrier relates to school attendance. Clearly, children need to attend school in order to receive a school lunch. Data from 2022 shows that there is a noteworthy attendance gap in EU countries, reaching levels of up to 15-20% in secondary education (86), of which a majority are children AROPE (78). Despite these challenges, efficient targeting could, in some cases, be the most/only financially viable option and, more importantly, it could generate valuable insights and data about meal preferences, logistics, and funding requirements. These could then serve as an important stepping stone toward the implementation of universal school meal systems.

4.3 Summary

A significant number of countries in the EU have not adopted UFSM programmes, with many relying on targeted systems that primarily cater to low-income children/schools/municipalities. Targeted approaches, while aimed at addressing the needs of low-income children, could lead to issues of stigmatisation and non-take up. There is also a notable risk of excluding a considerable number of children AROPE due to the way eligibility criteria are defined. Similar to global trends, many schemes often exclude certain age groups in secondary education, which is concerning given that nutrition during adolescence is crucial for physical growth and health in adulthood [80]. Despite these limitations, recent trends in countries like Luxembourg, Croatia, Slovakia, Denmark, the Netherlands and Demark indicate a trend in Europe towards more inclusive programmes and, overall, the current landscape suggests that targeted systems could pave the way for broader universal programmes in the future.

Funding and provision of school meals vary significantly across Member States, with substantial disparities in budgets and per capita spending. While a majority have binding nutritional standards, organic food inclusion is limited. Out of the Member States providing information, approximately half of the Member States successfully provide free school meals to all children AROPE, but challenges such as inadequate infrastructure, regulatory inconsistencies, and financial constraints remain significant barriers. Additionally, issues like data management difficulties, accessibility, and stigmatisation further hinder comprehensive access to school meals for low-income children.

5. Good practices and drivers for change

The importance of school meal programmes in promoting children's health, well-being, and educational outcomes is well supported by evidence. Good practices in school meal programmes encompass a variety of elements, including the provision of nutritious, balanced meals, the incorporation of local and sustainable food sources, and the inclusion of those most in need. Drivers for change in these programmes are influenced by a multitude of factors, such as evolving public health policies, community

engagement, educational reforms, and the growing recognition of the role school meals play for multiple sectors. This section will explore various good examples for inclusive school meal programmes and the key factors that contributed to their success.

5.1 Sweden's dual commitment: legal rights and nutritional standards in school meal provision

Publicly financed school meals were introduced in Sweden in the late 1940s (87), primarily covering low-income children only. As of 1997 it was enacted in law that all children in primary school/compulsory education (grades 0-9) should receive a free school lunch. Today, 1.1 million fully subsidised lunches, typically consisting of one or more hot main dishes, a salad buffet as well as bread and spread, are served daily to all children in compulsory education (88). This amounts to approximately 200 million lunches per year that are served in all of the country's almost 5,000 primary schools at a total yearly cost (including food, personnel and transportation) of about €700 million (164), and with an evidenced benefit/cost ratio up to 7/1 (47). These meals are usually financed through municipal taxes and planned centrally in the municipality, and are intended to cover 30% of children's daily dietary intake (89). As of 2011, Swedish law specifically states that school meals must be nutritious (90), which is why municipalities rigorously plan meals according to the Swedish school meals standards (174). Evaluations of the Swedish system show that school meals make an important contribution to children's diets on weekdays as they provide between 22 and 30 % of daily nutrient intakes; almost half of daily vegetable intake and roughly two-thirds of daily fish intake. Furthermore, the nutrient density of the school lunch is higher, and the energy density lower, than that of the food consumed during the rest of the day (i.e. outside the school), suggesting that school meals are more nutritious than meals consumed outside of school. As mentioned, the school meals in Sweden also seem to be levelling out social inequalities in dietary intake.

Sweden's success in providing UFSM can be largely attributed to its strong commitment to enacting laws and standards that guarantee every child's right to a nutritious school lunch. This legal framework ensures not only that all meals adhere to specific nutritional guidelines but also that access to these meals is guaranteed for all students. By embedding these principles in legislation, Sweden fosters an inclusive educational environment that supports both the health and well-being of children, ultimately contributing to improved dietary habits, social equity and significant economic returns to society.

5.2 School meals in Croatia: the success of the "Every Child's Right to a School Meal" campaign

Before 2023, Croatia's national strategy focused on providing school meals to low-income children only. Administrative barriers, insufficient funds and stigmatisation of eligible children had always been issues preventing the access to school meals among

children in need (91). The system also faced challenges such as inconsistent meal provision, unclear eligibility criteria, and staffing issues (92). More recently, the COVID-19 pandemic was reinforcing the problems. As a response to these challenges, the campaign "Every Child's Right to a School Meal" was initiated in 2020, aiming to address the issue of children missing meals due to financial constraints. Advocates (including high profile academics) sent an open letter to the Croatian government highlighting that one in five children were at risk of poverty and that the existing school meals programme was insufficient. After two years of advocacy, the government proposed an amendment to the Education in Primary and Secondary Schools Act, establishing the right to a school meal. As of 2023, the government is now committed to offering free school meals to all primary and secondary students up to age 15, marking a shift to a universal system. This reform, funded by the Ministry of Science and Education, has increased coverage rates from 30% to 100% for children aged 6 to 15.

Driven by societal advocacy in the face of the pandemic and other challenges, Croatia's transition to a UFSM programme marks a significant commitment to social inclusion and food security. This policy change not only underscores the government's commitment to combating child poverty but also ensures that all children, regardless of their socio-economic background, have equitable access to nutritious meals. By establishing this right, Croatia has taken crucial steps toward fostering a healthier, more inclusive environment for its youth.

5.3 Transitioning to UFSM in Slovenia thanks to strong public support and proactive government initiatives

Slovenia launched its national school meals programme in 1953 (1). The Slovenian School Meals Act (93) sets the legal basis for how school meals should be organised and funded and currently mandates participation from all schools. National dietary guidelines for school meals have been in effect since 2005 (94), with ongoing monitoring to ensure nutritional quality. Evidence indicates that Slovenian school lunches align well with these guidelines concerning energy and various nutrients (95). The Act requires schools to provide a mid-morning snack, with many also offering lunch, breakfast, and afternoon snacks, all subsidised but not free. The targeted system fully subsidises school meals for low-income students whose families fall below specific income thresholds. Slovenia is one of few Member States that is ensuring coverage for nearly all children at risk of poverty, as defined by the ECG (78,85). In 2023, a bill supported by an NGO and voter signatures was passed to extend this benefit to all children in compulsory school (aged 6-15y) by September 2027. Following discussions about the feasibility of such a scheme (schools are lacking sufficient staff and facilities to accommodate all students at the moment), the Education Ministry has initiated a pilot project for a central school kitchen to prepare meals for multiple schools, emphasising the role of public primary schools in fostering inclusion and collective solidarity.

In Slovenia, key drivers for change in the national school meals programme include a strong legislative framework that mandates participation and ensures nutritional

quality. The combination of strong public support and the government's proactive approach to addressing challenges related to infrastructure and staffing is essential in the country's advancement towards a more inclusive and universal school meals system.

5.4 Ireland's targeted scheme reaching all children AROPE with a daily free, hot meal

The School Meals Scheme in Ireland has a long history dating back over a century. The Urban and Gaeltacht Schemes for school meals were introduced in 1914 and 1930, respectively, marking the beginning of organised food provision for students (96). Today, the School Meals Programme is operated by the Department of Social Protection and has evolved significantly (97). The programme aims to provide nutritious meals to school children across the country, with a focus on supporting disadvantaged students. All meals provided must meet specific nutrition standards. Schools are responsible for choosing their own suppliers through an open and transparent procurement process. Funding for the School Meals Programme is allocated by the Department of Social Protection on a per-meal, per-child, per-day basis. This approach allows for flexibility in implementation while ensuring that resources are directed towards the students who need them most.

Within the overarching School Meals Programme, the Hot School Meals Programme was introduced in 2019 as a small pilot of 30 schools. The programme has grown significantly in recent years and was extended to include all socioeconomically disadvantaged primary schools from September 2023, i.e. some 2,600 schools and organisations, covering 443,000 children (98). With this reach and scale, Ireland is today reaching all AROPE children with a free, healthy school meal. Although not currently implemented, the government has now set an ambitious goal to provide hot meals to all primary schools in Ireland by 2025, or at the latest, before 2030 (98).

6. Concluding remarks

School meals programmes are near ubiquitous across EU countries (26 of 27); seven of these programmes provide free meals to all children "At Risk of Poverty or Social Exclusion" (AROPE), based on the information provided in the questionnaires. This report shows that EU countries are demonstrating a common trend towards more inclusive school meal programmes. Although the cost today of covering all EU children "At Risk of Poverty or Social Exclusion" (AROPE) is uncertain, the current trend of programme expansion and universal access indicates that the cost is likely lower than the €4.4 billion estimated for 2020. Overall, the current landscape suggests that targeted systems could pave the way for broader universal programmes. The benefits of school meals are numerous: these programmes, along with the European Child Guarantee (ECG),

play a crucial role in improving learning, children's diets, narrowing social inequalities, mitigating the impacts of childhood obesity, helping to reduce the economic burden of NCDs, and thus to reaching regional and national public health goals.

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Supplementary Table 1. Overview of questionnaire results.

Country	Existence of nutrition standards for school meals	Inclusion of requirement on organic food in standards	% of children AROPE covered	Overall budget (€) allocated to school meal schemes	Nr of children receiving a meal[a]	Budget/capita (€)	Cost of the provision of one free healthy meal (€)	Main challenges to covering all children AROPE
Austria	Yes, voluntary	Yes, voluntary	–	9 170 399[a]	387 821	24	No information available	1. Different responsibilities and financing frameworks depending on the type of school
Belgium	Yes, binding	Yes, binding	13	214 000 000	331 875	645	3.7	1. Staffing shortages 2. Infrastructure deficits 3. Data and coordination challenge
Croatia	Yes, binding	No	100	72 000 000	343 069	210	2.0	1. Lack of infrastructure
Cyprus	Yes, binding	No	46	847 500	13 353	63	4.0	1. Low-income families receive meal allowances deemed sufficient for children not covered by targeted meal programmes
Czechia	No information available	No information available	–	No information available	874 379	–	No information available	No information available
Denmark	Yes, binding	Yes, binding	–	14 000 000[b]	0	–	5.0	No information available
Estonia	Yes, binding	No	100	24 351 075	170 270	143	No information available	1. Food price increase 2. Increase in the cost of catering services 3. State budget cuts
Finland	Yes, voluntary	Yes, voluntary	100	446 427 223[a]	995 778	448	2.8	Not applicable
France	Yes, binding	Yes, binding	11	9 747 682 984[a]	7 931 271	1 229	No information available	1. Poor organisation and unclear leadership

								2. Municipalities' capacity to implement the programme varies. 3. Logistics create challenges for staff in managing breakfast distribution. 4. High supervision costs burden municipalities. 5. Lack of resources hinder many cities, especially in poorer regions. 6. Risk of obesity exacerbation deters municipal participation
Germany	Yes, voluntary	Yes, voluntary	–	No information available	na	–	4.5	1. Implementation challenges (including financial barriers) 2. Lack of infrastructure 3. Lack of qualified staff 4. Bureaucratic hurdles 5. Information gaps 6. Federal system results in fragmented program implementation
Greece	Yes, binding	Yes, binding	66	115000000	154 736	743	3.15	1. Lack of budget 2. Geomorphological map of the country (mountainous and remote villages and many small islands) 3. Lack of qualified providers in small island municipalities
Hungary	Yes, binding	No	–	263 000 000	628 677	418	No information available	Lack of budget
Ireland	Yes, binding	Yes, binding	100	190 100 000	257 578	738	Breakfast - €0.75 Cold Lunch - €1.70	No information available

							Dinner - €2.50 Hot School Meal - €3.20	
Italy	No information available	No information available	–	No information available	645 028	–	No information available	No information available
Latvia	No information available	No information available	–	32 508 643[a]	181 477	179	No information available	No information available
Lithuania	Yes, binding	No	58	49 000 000	147 195	333	No information available	Not applicable
Luxembourg	Yes, voluntary	Yes, voluntary	100	No information available	90 069	–	4.1	No information available
Malta	No information available	No information available	–	1 512 423[a]	9 370	161	No information available	No information available
Netherlands	No	No	59	166 000 000	514 980	322	No information available	1. The responsibility is on eligible schools to apply. Hence, it depends on the school if a child receives a school meal and not on the income of the parents
Poland	No information available	No information available	29	132 129 250	1 896 683	70	1.8	No information available
Portugal	Yes, binding	No	64	54 561 187[a]	1 012 452	54	No information available	1. Difficult to capture illegal immigrants because they are not in the system

Romania	No	No	47	152 749 294	1 412 464	108	3.00	1. Insufficient infrastructure in schools 2. Insufficient funding for full coverage 3. Qualified staff and human resources 4. Lack of coordination between administrative levels
Slovakia	Yes, binding	No	100	115 893 687	605 144	192	1.30 to 2.30	No information available
Slovenia	Yes, binding	No	100	59 132 707	178 205	332	3.0	No information available
Spain	No information available	No information available	–	168 612 928[a]	1 211 552	139	No information available	No information available
Sweden	Yes, binding	No	100	734 500 000	1 623 662	452	3.7	Not applicable

[a]Data from the Global Child Nutrition Foundation 2024 (1).
[b]As per the 2025 budget.
AROPE = at risk of poverty and social exclusion.