



Governance Architecture of Free Nutritious Meal Programs: A Systematic Review on Policy Design and Control Systems

Ekasakti Octohariyanto^{1*}, Dumilah Ayuningtyas², Mufti As Siddiq M Irzal³, Anggie Hardiyanti⁴, Salma Nusaiba⁵

^{1,2,5}Department of Health Administration and Policy, Faculty of Public Health, Universitas Indonesia. Indonesia

^{3,4}Department of Epidemiology, Faculty of Public Health, Universitas Indonesia. Indonesia

*Corresponding Author: octohariyanto@gmail.com

ARTICLE INFO	ABSTRACT
Manuscript Received: 29 May 2026 Revised: 22 June 2026 Accepted: 03 July 2026 Date of Publication: 27 July 2026 Volume: 6 Issue: 2 DOI:10.24252/algizzai.v6i2.68540 KEYWORDS <i>Free Nutritious Meal;</i> <i>public policy;</i> <i>governance;</i> <i>monitoring;</i> <i>evaluation</i>	Introduction: Free nutritious meal programs or similar school meal programs are important interventions to improve children's nutrition, education, and social protection. However, successful implementation largely depends on governance quality. This study aimed to synthesize governance practices of school feeding programs across countries as evidence for the development of Indonesia's Free Nutritious Meal Program (MBG). Methods: A systematic review approach following the PRISMA 2020 guideline. Literature searches were conducted on governance studies related to MBG or similar programs across Africa, the Americas, Asia, and Europe. Quality assessment was performed using CASP and AGREE II, followed by narrative synthesis based on governance dimensions. Results: A total of 34 studies were included, comprising 12 studies from Africa, 10 from the Americas, 7 from Asia, and 5 from Europe. Of these, 21 were rated as high quality, 11 as moderate, and 2 as low quality based on CASP/AGREE II appraisal. Countries with stronger governance systems such as Brazil, Finland, Japan, Thailand, and South Africa demonstrated clearer national regulations, integrated monitoring systems, and stronger cross-sector coordination. In contrast, countries with weaker governance faced challenges related to accountability, supervision, and local implementation capacity. Hybrid governance combining strong national regulation and community ownership was identified as the most effective model for program sustainability. Conclusion: The success of MBG or similar school meal programs is strongly influenced by governance quality, accountability systems, and local institutional capacity. Strengthening regulations, digital monitoring, and cross-sector coordination are essential for improving MBG governance in Indonesia. Protocol Registration: PROSPERO CRD420261395331
Publisher: Department of Public Health, Universitas Islam Negeri Alauddin Makassar	



INTRODUCTION

Free nutritious meal programs or equivalent initiatives, encompassing school feeding programs, national school meal programs, mid-day meal schemes, and other forms of state-funded nutritional meal provision, represent one of the largest and most far-reaching social interventions in the world. Between 2020 and 2022, such programs expanded to reach 418 million children daily, with 98% of their costs borne by domestic national budgets. In the 2022–2023 academic year, the aggregate budget allocated to school meal programs across 147 surveyed countries reached at least US\$67.2 billion. Substantively, these programs function not only as social safety nets for vulnerable families, but also as strategic investments in human capital development and community-based food security (Watkins *et al.*, 2024; WFP, 2024; GCNF, 2025).

The relevance of free nutritious meal programs within the global development agenda continues to strengthen. A significant paradigm shift has occurred: school meal programs are no longer viewed merely as donor-driven priorities, but have transformed into nationally owned policy instruments firmly embedded within government agendas. In November 2024, under Brazil's G20 Presidency, the Global Alliance Against Hunger and Poverty was launched, explicitly recognizing school meal programs as cost-effective policies for education, nutrition, agriculture, and local economic development. This declaration was accompanied by concrete commitments from multiple countries to dramatically expand the reach of equivalent programs toward a target of 150 million children by 2030. This context affirms that free nutritious meal programs are no longer merely welfare programs, but multidimensional public policy instruments that require robust, structured, and accountable governance frameworks (Global Alliance Against Hunger and Poverty, 2024a, 2024b; WFP, 2025).

The complexity of implementing free nutritious meal programs at national scale, however, demands far more than political commitment and budget availability. These programs operate within multi-actor systems involving ministries of education, health, agriculture, and finance, alongside local governments, the private sector, and local communities, an institutional architecture inherently prone to coordination fragmentation, jurisdictional overlap, and accountability gaps. In decentralized contexts, school-based meal programs delegated to subnational governments prove particularly complex, requiring cross-sectoral coordination and multi-stakeholder collaboration, while local government units do not consistently prioritize health and nutrition agendas in their resource allocation decisions (Van *et al.*, 2022). It is precisely here that the policy and governance dimensions, encompassing regulatory formulation, implementation, evaluation, and control systems, become the primary determinants of whether such programs are effective, sustainable, and equitable.

Analysis of 51 World Bank SABER (Systems Approach for Better Education Results) School Feeding surveys consistently identifies the weakest policy areas as program design, implementation, and fiscal space (Schultz *et al.*, 2024). A recent examination of school meal governance in the United Kingdom found that without clear regulatory mandates and coordinated long-term investment, programs remain vulnerable to inconsistent implementation, non-compliance with nutritional standards, and geographic disparities in access (Michaels and Barling, 2025). These findings underscore that the success of free nutritious meal programs is fundamentally determined by the quality of the policy and governance systems that drive them, rather than by the magnitude of budgets allocated alone.

Governance challenges in free nutritious meal programs are multidimensional and cross-contextual. A mixed-methods systematic review of school meal programs in Sub-Saharan Africa found that strengthening program implementation requires bold commitment and improved coordination across multiple levels of governance, identifying 53 implementation barriers distributed across food supply, meal preparation, and distribution systems (Liguori *et al.*, 2024). Similarly, a qualitative study in Nigeria found that school meal policy implementation is rarely enforced, with key barriers including deprioritized funding, resistance to change, and the absence of functional oversight mechanisms (Tubi and Oyewole, 2025). A

qualitative study in Ethiopia revealed that the success of home-grown nutritious meal programs is heavily contingent on institutional capacity building among school-level and local government stakeholders, a capacity-building component frequently neglected in program design (Desalegn, Gebremedhin and Stoecker, 2022). These challenges are structural in nature and transcend geographic boundaries, reflecting a systemic governance deficit across countries at varying income levels.

Notwithstanding this global momentum, a significant literature gap persists in scientific inquiry on free nutritious meal programs. The preponderance of available evidence focuses on nutritional, educational, and health outcomes, such as changes in nutritional status, school attendance rates, or academic achievement, while the policy and governance dimensions of these programs remain severely underexplored. Despite substantial global investment in and public attention to school meal programs, there remains a critical need for more comprehensive evidence on their cost-effectiveness and their interaction with other policy interventions. An evaluation of school food policies across Europe found that although all European Union member states have established national food policies, evaluation of these policies at the secondary school level remains markedly limited (Mendez Acosta and Bedasso, 2024; Blecha *et al.*, 2025).

This systematic review therefore aims to synthesize scientific evidence from qualitative studies and policy briefs on the policy architecture and control systems of free nutritious meal programs across diverse national contexts. For clarity and consistency, this review adopts "free nutritious meal programs or equivalent initiatives" as the umbrella term throughout. Country- or programme-specific terms (e.g., school feeding programme, national school meal programme, mid-day meal scheme, or MBG) are used only when referring to a specific national programme by name.

METHODS

This systematic review was conducted and reported in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 guidelines (Page *et al.*, 2021).

Eligibility Criteria

Inclusion and exclusion criteria were established a priori based on a PICO framework adapted for qualitative policy research. Studies were included if they addressed free nutritious meal programs and examined at least one of the following dimensions: policy formulation (including regulatory, institutional, and cross-sectoral coordination frameworks); policy implementation; institutional capacity building; program oversight (including monitoring and evaluation as sub-dimensions); or program control and accountability. Studies whose primary outcomes were nutritional, health, or educational outcomes without addressing any policy or governance dimension were excluded.

Eligible study designs comprised: primary qualitative research (case studies, phenomenology, grounded theory, ethnography, in-depth interviews, focus group discussions, and thematic analysis); policy briefs from government institutions or international organizations (WHO, WFP, UNICEF); official program evaluation reports with traceable methodology; and mixed-methods studies where the qualitative governance component could be independently extracted. Purely quantitative studies, meta-analyses, opinion editorials, and conference proceedings not accessible in full text were excluded. Publication dates were restricted to January 2000 through December 2025, in English or Indonesian.

Data Sources and Search Strategy

A systematic search was conducted across six electronic databases (PubMed/MEDLINE, Scopus, CINAHL via EBSCOhost, Google Scholar, ProQuest, and the UNICEF Institutional Repository) and one institutional grey literature repository (WFP). Access to Web of Science and Embase was unavailable due to institutional limitations. The search strategy was developed using seven structured keyword blocks combined with Boolean operators (AND, OR), covering terminology related to: program (*school feeding*,

free nutritious meal), policy (*health policy, policy design*), governance (*governance, institutional governance*), oversight (*supervisory system, control system, monitoring*), accountability (*accountability mechanism, reporting system*), implementation (*cross-sectoral coordination, inter-sector collaboration*) and qualitative study and policy brief design filters. All searches were conducted in May 2026. The complete Boolean search strings applied across all databases and grey literature sources are presented in Appendix S1.

Screening and Selection Process

All references were managed using the Rayyan AI platform. Duplicates were detected automatically and verified manually prior to removal. Screening was conducted in two stages by four independent reviewers using Rayyan's blind mode feature. The first stage involved title and abstract screening; the second stage involved full-text assessment of articles that passed the first stage, with explicit recording of exclusion reasons. Inter-rater agreement was substantial at both screening stages, as measured by Cohen's Kappa. At the title/abstract screening stage, agreement among the four reviewers (assessed pairwise and averaged) was $\kappa=0.81$ (95% CI: 0.76–0.86), indicating almost perfect agreement. At the full-text eligibility stage, agreement was $\kappa = 0.74$ (95% CI: 0.66–0.82), indicating substantial agreement. Both values exceeded the a priori threshold of $\kappa \geq 0.70$ specified in the review protocol (McHugh, 2012).

Risk of Bias Assessment

Study quality was assessed using two instruments selected according to document type (Hannes, Lockwood and Pearson, 2010). For primary qualitative research, the Critical Appraisal Skills Programme (CASP) Qualitative Checklist was applied, classifying studies into three quality levels: High (8–10 criteria met), Moderate (5–7), and Low (<5) (Long, French and Brooks, 2020). For policy briefs and policy documents, the AGREE II instrument was applied across six quality domains; documents scoring below 40% on Domain 3 (Rigour of Development) were retained but reported with explicit limitation notations (Brouwers *et al.*, 2010). Quality assessments were conducted independently by four reviewers, with disagreements resolved by consensus. Low-quality studies were not automatically excluded but are reported transparently in the results. Full CASP and AGREE II quality appraisal results for each included study are presented in Appendix S3.

Data Extraction

Data extraction was conducted independently by four reviewers using a standardized form developed a priori. Extracted data encompassed: bibliographic information; study and program characteristics; policy dimensions examined (formulation, implementation, evaluation); control system dimensions examined (institutional capacity building, oversight, control); actors and institutions involved; cross-sectoral coordination mechanisms; oversight and monitoring systems; control and accountability mechanisms; success factors and barriers; primary governance findings; policy recommendations; and quality assessment scores. Where information was unavailable in the publication, corresponding authors were contacted at least once. Discrepancies in extracted data were resolved through consensus discussion.

Outcome Variable and Measures

Outcomes examined were exclusively governance outcomes, not clinical, nutritional, or educational outcomes. Primary outcomes comprised: (1) characteristics of regulatory and institutional frameworks in policy formulation; (2) models of cross-sectoral coordination and institutional role distribution in implementation; (3) models of institutional capacity building for program managers; (4) design and effectiveness of oversight systems, including monitoring and evaluation; (5) program control and accountability mechanisms; and (6) success factors and barriers in the governance and control system of

free nutritious meal programs. Secondary outcomes included decentralization-centralization dynamics, stakeholder engagement patterns, digital innovations in oversight, and policy recommendations from included studies. Outcomes were assessed through identification, extraction, and narrative synthesis of findings (Lewin *et al.*, 2018).

Data Synthesis

Data synthesis was conducted using two complementary qualitative methods. Thematic Synthesis was applied to integrate findings from primary qualitative research through three sequential stages: line-by-line coding, development of descriptive themes, and generation of analytical themes (Thomas and Harden, 2008). Framework Synthesis was applied to policy briefs and policy documents, using an a priori analytical framework derived from the three-stage policy cycle (formulation, implementation, evaluation) and the three sequential control system dimensions (Barnett-Page and Thomas, 2009). Findings from both methods were integrated into a Governance Architecture Matrix and presented in a Summary of Qualitative Findings (SoQF) table (Tong *et al.*, 2012). Statistical meta-analysis was not planned given the anticipated heterogeneity of study designs.

Coding was conducted independently by two reviewers using NVivo software (version 14) to support line-by-line coding, theme development, and audit-trail documentation. Descriptive codes were generated inductively from the data and subsequently grouped into analytical categories aligned with the three-stage policy cycle and the three sequential control system dimensions described above. Coding disagreements were resolved through joint review of the source text and discussion between the two coders; a third reviewer was consulted for unresolved discrepancies. To enhance analytical consistency, both reviewers independently coded an initial 20% subset of included studies before proceeding with the remaining studies, and periodically cross-checked coding decisions throughout the synthesis process.

The Governance Architecture Matrix (Tables 1-4) was constructed by mapping coded findings from each included study onto the corresponding governance dimension and policy-cycle stage (formulation, implementation, evaluation) for the relevant country or region. Each cell synthesizes findings across all studies reporting on that dimension within a given continent; studies contributing multiple relevant findings appear across multiple cells, while studies with narrower scope contribute to fewer cells, meaning individual studies did not contribute equally to every dimension. Where studies reported contradictory findings for the same country or governance dimension, both perspectives are retained in the narrative synthesis and explicitly noted (e.g., variation in oversight capacity across sub-national units), rather than resolved through majority-based judgement. This approach follows established conventions for framework-based qualitative synthesis (Barnett-Page and Thomas, 2009).

Protocol Registration and Deviations

The protocol for this systematic review was prospectively registered in PROSPERO under registration number CRD420261395331 prior to the data extraction stage (Booth *et al.*, 2012). Two deviations are reported transparently: (1) searches of Web of Science and Embase could not be conducted due to institutional access limitations, a deviation assessed as not substantially affecting search coverage given that Scopus and CINAHL index the majority of journals covered by both databases; and (2) searching of the WHO IRIS repository yielded no relevant references. All deviations are reported explicitly in accordance with PRISMA 2020 transparency recommendations. This review was reported in accordance with the PRISMA 2020 statement (Appendix S5).

RESULTS

Selection of Studies

The systematic search across seven scientific databases and grey literature sources yielded a total of 2,031 records, with the largest contributions from ProQuest (n=900), Scopus (n=440), UNICEF (n=328), CINAHL via EBSCOhost (n=256), Google Scholar (n=91), the World Food Programme repository (n=37), and PubMed (n=16). Following duplicate removal, 48 records were eliminated, leaving 1,983 records proceeding to the screening stage. At the title and abstract screening stage, 1,700 records were excluded for failing to meet basic inclusion criteria, yielding 283 records forwarded to full-text retrieval. Of these, 35 reports were inaccessible in full text and were subsequently excluded.

Eligibility assessment was conducted on 248 full-text reports. At this stage, 214 reports were excluded on specific grounds: purely quantitative research design without a qualitative governance component (n=68), absence of relevant governance dimensions (n=59), programs not sufficiently comparable due to substantial divergence from the review's focus (n=41), unclear or untraceable methodology (n=27), and publication outside the specified time frame (n=19). Following all selection stages in accordance with the PRISMA 2020 guidelines, 34 studies met the inclusion criteria and were incorporated into the final synthesis of this systematic review. Characteristics of all 34 included studies are presented in Appendix S2. The complete PRISMA 2020 flow diagram is presented in Figure 1.

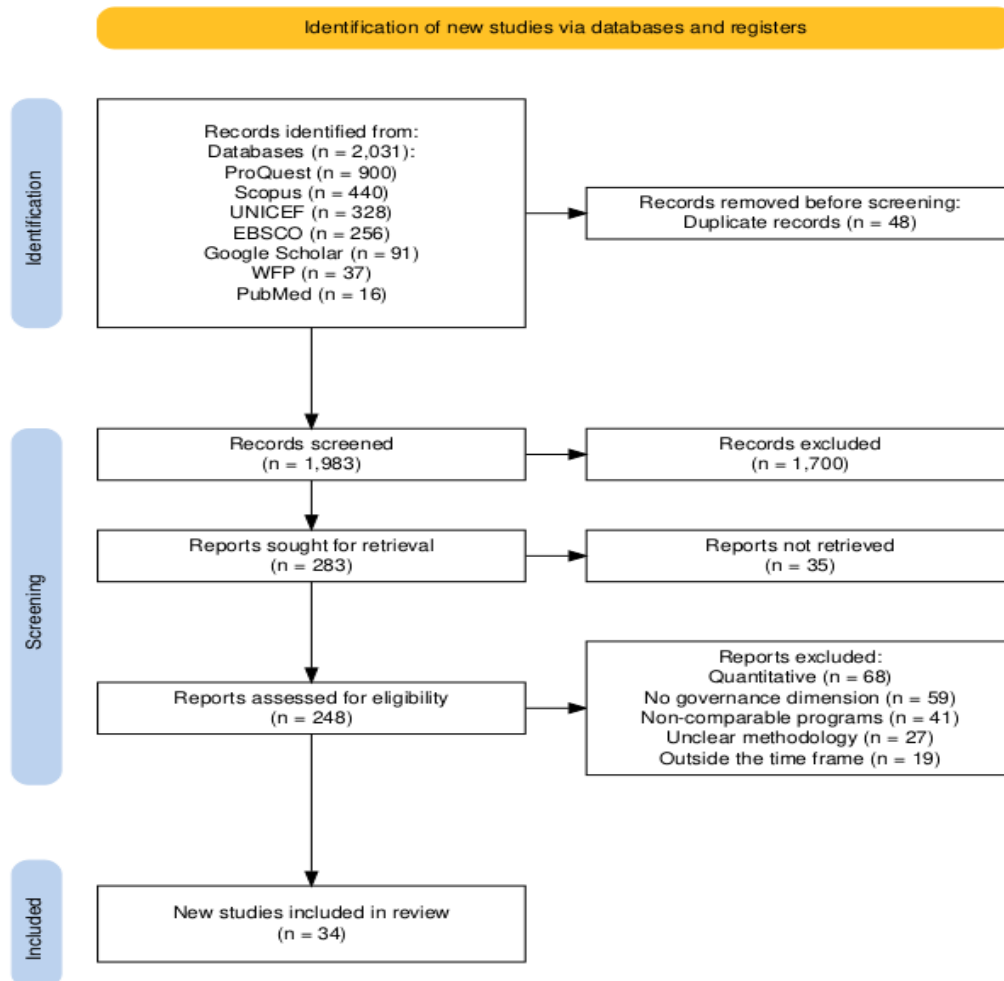


Figure 1. PRISMA Flow Diagram

Findings

African continent

Table 1. Synthesis of Governance Architecture in African continent

Governance Dimension	Policy Formulation	Implementation	Policy Implications
Institutional Capacity Building	Institutional capacity is developed through formal regulations, MoUs with WFP/PCD, and autonomous models such as Nigeria's NHGSFP. Tanzania has yet to establish a national school feeding policy.	Capacity building proceeds unevenly; South Africa, Rwanda, and Addis Ababa demonstrate stronger capacity-building structures compared to Ethiopia (Sidama) and Tanzania, where cook hygiene training remains minimal.	Dedicated capacity-building budget allocations, mandatory hygiene and nutrition training, and institutionalization of international technical assistance are required. (Devereux <i>et al.</i> , 2018; Munje and Jita, 2019; Desalegn, Gebremedhin and Stoecker, 2022; Ndayishimye and de Dieu Dushimimana, 2024; Tamiru <i>et al.</i> , 2024)
Oversight & Supervision	South Africa and Nigeria maintain formal oversight systems through the Department of Basic Education (DBE) and the Office of the Vice President respectively, whereas Tanzania delegates oversight entirely to school food committees without national guidance.	Field-level oversight is generally weak due to staffing constraints, infrequent routine supervision, and low engagement of local supervisors.	Integrated digital M&E systems, formal field supervisor mandates, and periodic impact evaluations are required. (Munje and Jita, 2019; Roothaert <i>et al.</i> , 2021; Acheampong, 2022; Arkorful, 2022; Desalegn, Gebremedhin and Stoecker, 2022; Tamiru <i>et al.</i> , 2024)
Control & Accountability	South Africa and Rwanda maintain relatively strong accountability regulations through budget rules, school audits, and dedicated program accounts.	Financial control is weak in Ghana, Nigeria, and Tanzania, attributable to delayed reimbursements, corruption, and fund management without adequate audit systems.	Strict budget allocation regulations, periodic audits, dedicated program accounts, and fund flow tracking systems are required. (Roothaert <i>et al.</i> , 2021; Acheampong, 2022; Arkorful, 2022; Dorlach, Sule and Umukoro, 2025)
Cross-Sectoral Coordination Policy	Multi-sectoral coordination policies are gradually being developed, though most remain sectoral and insufficiently integrated.	Implementation coordination is weak due to inter-ministerial silos, limited formal directives, and low community engagement. Rwanda's SGAC represents the most structured coordination model.	Institutionalised cross-sectoral technical steering groups and multi-stakeholder forums are required. (Roothaert <i>et al.</i> , 2021; Acheampong, 2022; Arkorful, 2022; Ndayishimye and de Dieu Dushimimana, 2024; Tamiru <i>et al.</i> , 2024; Dorlach, Sule and Umukoro, 2025)
Regulatory & Program Standards	South Africa has the most comprehensive regulatory framework; Tanzania has yet to establish national program standards.	Program standards are frequently not enforced due to budget constraints, weak food quality standards, and regional implementation variation.	National school feeding standards, inflation-adjusted budget provisions, and nationally contextualised evaluation frameworks are required. (Munje and Jita, 2019; Roothaert <i>et al.</i> , 2021; Arkorful, 2022; Desalegn, Gebremedhin and Stoecker, 2022; Tamiru <i>et al.</i> , 2024)
Reporting Mechanisms	South Africa and Rwanda maintain formal reporting systems through annual reports, feeding registers, and food stock records.	Reporting in Ghana and Tanzania is weak, attributable to the absence of audit trails, grievance mechanisms, and inadequately documented fund management.	A national digital reporting system, public annual reports, and accessible formal grievance mechanisms are required. (Gelli and Espejo, 2013; Devereux <i>et al.</i> , 2018; Ndayishimye and de Dieu Dushimimana, 2024)

Governance Dimension	Policy Formulation	Implementation	Policy Implications
Decentralization / Centralization	Rwanda implements a more adaptive hybrid model, whereas Ghana and Tanzania exhibit weaknesses characteristic of systems that are either excessively centralized or decentralized without regulatory support.	Decentralization without adequate budgetary and regulatory support produces programme instability, while centralization without community ownership increases corruption risk.	A centre-local hybrid model with community ownership and local procurement is more effective for programme sustainability. (Devereux <i>et al.</i> , 2018; Roothaert <i>et al.</i> , 2021; Arkorful, 2022; Ndayishimye and de Dieu Dushimimana, 2024; Dorlach, Sule and Umukoro, 2025)

American continent

Table 2. Synthesis of Governance Architecture in the American continent

Governance Dimension	Policy Formulation	Implementation	Policy Implications
Institutional Capacity Building	Brazil and Canada embed capacity building within national regulations and farmer–school linkage strengthening, whereas Colombia and several US jurisdictions place greater emphasis on technical support for schools and communities.	Brazil demonstrates the strongest model through family farmer and school committee training, while implementation in Canada and Colombia remains contingent on local capacity and community support.	Strengthening local technical and institutional capacity is necessary to sustain programme implementation and oversight effectiveness. (Hawkes <i>et al.</i> , 2016; Schwartzman <i>et al.</i> , 2017; Girardi, 2019; Cabrera-Ledesma <i>et al.</i> , 2023)
Oversight & Supervision	The United States and Brazil maintain formal audit-based and school compliance oversight systems, whereas several Latin American countries remain dependent on local administrative supervision.	Oversight implementation in the United States is more systematic through structured inspections and compliance reviews, while other countries exhibit marked variation in supervision quality across regions.	Oversight systems require strong national standards, periodic audit mechanisms, and strengthened local supervisory authority. (D’Andrade, 2007; Schwartzman <i>et al.</i> , 2017; Ferreira <i>et al.</i> , 2019; Mejía Toro <i>et al.</i> , 2025)
Control & Accountability	Brazil and the United States possess the strongest accountability frameworks through budget regulations, school councils, and performance indicators, whereas several Latin American countries continue to face weak funding transparency.	Control implementation in Brazil is more participatory through CAEs and local procurement obligations, while the United States emphasizes contract-based compliance and federal standards.	Programme accountability requires strengthening through impact indicators, financial transparency, and results-based control systems. (Hirschman and Chriqui, 2013; Hawkes <i>et al.</i> , 2016; Schwartzman <i>et al.</i> , 2017; Zapata and Caicedo-Muñoz, 2024)
Cross-Sectoral Coordination Policy	Brazil and Canada have developed more mature intersectoral approaches integrating education, health, and agriculture, whereas coordination in several Latin American countries remains predominantly sectoral.	Coordination implementation in Brazil is more stable through school councils and farmer networks, while the United States and Canada rely on inter-agency collaboration and local community engagement.	School feeding governance requires institutionalised multi-sector governance with clearly defined inter-agency role distribution (D’Andrade, 2007; Schwartz <i>et al.</i> , 2012; Schwartzman <i>et al.</i> , 2017; Girardi, 2019)

Governance Dimension	Policy Formulation	Implementation	Policy Implications
Regulatory & Program Standards	Brazil and the United States possess the most comprehensive school feeding regulations through national nutritional standards and mandatory local procurement requirements, whereas other countries exhibit variation in regional implementation standards.	Standards implementation in the United States is more stringent through federal compliance mechanisms, while Brazil is distinguished by its integration of local food and family farming requirements.	Specific and directive national regulations are essential to ensuring consistent cross-regional implementation. (Hawkes et al., 2016; Ferreira et al., 2019; Zapata and Caicedo-Muñoz, 2024; Mejía Toro et al., 2025)
Reporting Mechanisms	The United States possesses the most advanced reporting system through national dashboards and school compliance systems, whereas Latin American countries remain dominated by manual administrative reporting.	Reporting implementation in the United States is more comprehensively integrated with national school data systems, while several other countries remain dependent on self-reporting and regional submissions.	Strengthening outcome-based data and monitoring systems is necessary to support more accurate policy evaluation. (Hirschman and Chriqui, 2013; Ferreira et al., 2019; Girardi, 2019; Cabrera-Ledesma et al., 2023)
Decentralization / Centralization	Brazil implements the most mature decentralization model through municipal governance and CAEs, while the United States employs a combination of federal standards and local implementation.	Implementation in Brazil is more participatory, community-based, and local procurement-oriented, whereas several other countries continue to face regional capacity disparities.	Hybrid governance models combining national standards with strong technical support for local implementation are required. (D’Andrade, 2007; Schwartz et al., 2012; Schwartzman et al., 2017; Mejía Toro et al., 2025)

Asian continent

Table 3. Synthesis of Governance Architecture in the Asian continent

Governance Dimension	Policy Formulation	Implementation	Policy Implications
Institutional Capacity Building	Japan and Thailand demonstrate the most institutionalized approaches to capacity building, supported by national legislation, nutrition curricula, and official operational manuals, whereas the Philippines, Nepal, and Timor-Leste rely more heavily on community empowerment and local volunteer mobilization.	Japan positions professional nutrition teachers as the primary actors, Thailand develops cross-sectoral training frameworks, while Indonesia, Nepal, and Timor-Leste continue to depend on classroom teachers, volunteers, or community cooking teams whose capacities vary considerably.	institutional capacity strengthening requires the integration of formal training, local technical assistance, and the institutionalization of school nutrition personnel. (Nakamura, 2008; Van et al., 2022; Pramesthi et al., 2025; Ximenes, 2025; Mathurapote, Posayanonda and Sae-iew, 2026)
Oversight & Supervision	Thailand and Japan maintain the most formalized oversight systems through national committees and dedicated school nutrition officers, whereas the Philippines, Nepal, and Timor-Leste rely on community-	Thailand's oversight implementation is more structurally defined through online monitoring and cross-sectoral committees, while Indonesia and the Philippines continue to face limitations in	Strengthening oversight therefore necessitates the integration of digital monitoring tools alongside standardized health outcome indicators. (Nakamura, 2008; Shrestha et al., 2020; Van et al., 2022; Pramesthi et al., 2025; Mathurapote, Posayanonda and Sae-iew, 2026)

Governance Dimension	Policy Formulation	Implementation	Policy Implications
	and school-based supervision.	routine supervision and the administrative burden placed on teachers.	
Control & Accountability	Japan and Thailand possess the most robust accountability mechanisms, grounded in national legislation and formal governance structures, while Nepal and Timor-Leste depend more substantially on community-based social controls.	The Philippines and Nepal exhibit participatory control models through community reporting and local cooperative audits, whereas Israel encountered coordination weaknesses and policy rigidity during the COVID-19 crisis.	Effective program governance therefore requires a combination of formal government controls and community-based social accountability mechanisms. (Shrestha et al., 2020; Azarieva, Berry and Troen, 2022; Van et al., 2022; Ximenes, 2025; Mathurapote, Posayanonda and Sae-iew, 2026)
Cross-Sectoral Coordination Policy	Thailand exhibits the most mature cross-sectoral coordination model, operationalized through a Health in All Policies (HiAP) approach, while Japan emphasizes the integration of education and health sectors through its Shoku-Iku framework.	The Philippines and Nepal demonstrate coordination that is more deeply rooted in local government and community structures, whereas Israel experienced inter-ministerial coordination failures during the pandemic.	School feeding governance consequently demands formalized cross-sectoral coordination alongside clearly defined emergency response mechanisms. (Nakamura, 2008; Azarieva, Berry and Troen, 2022; Van et al., 2022; Ximenes, 2025; Mathurapote, Posayanonda and Sae-iew, 2026)
Regulatory & Program Standards	Japan and Thailand possess the most comprehensive regulatory frameworks and program standards, while the Philippines and Indonesia remain focused on the local adaptation of national programs.	Japan applies nutrition standards embedded within the national curriculum, Thailand employs an online school lunch management system, whereas Nepal and Timor-Leste continue to face limitations in local food quality standards.	Strong national regulation must therefore be accompanied by flexibility in local adaptation and clearly articulated food quality standards. (Nakamura, 2008; Shrestha et al., 2020; Van et al., 2022; Pramesthi et al., 2025; Mathurapote, Posayanonda and Sae-iew, 2026)
Reporting Mechanisms	Thailand and the Philippines operate the most advanced digital reporting systems through online monitoring platforms and web-based databases, while Timor-Leste and Nepal continue to rely on community-generated manual reports.	Reporting in Indonesia and the Philippines is strengthened by photographic documentation and daily records, though these remain contingent on the administrative capacity of schools and local governments.	The strengthening of digital information systems is therefore essential to enhancing transparency and enabling evidence-based policymaking. (Shrestha et al., 2020; Van et al., 2022; Pramesthi et al., 2025; Ximenes, 2025; Mathurapote, Posayanonda and Sae-iew, 2026)
Decentralization / Centralization	The Philippines and Timor-Leste demonstrate more decentralized, community-based implementation models, while Japan and Thailand maintain strong national regulatory frameworks alongside controlled local implementation.	Nepal and the Philippines have successfully linked school feeding to local supply chains, whereas Israel highlighted the limitations of an excessively centralized model under emergency conditions.	A center-periphery hybrid model with strengthened community ownership is therefore more effective for ensuring the sustainability and local adaptability of programs. (Shrestha et al., 2020; Azarieva, Berry and Troen, 2022; Van et al., 2022; Ximenes, 2025; Mathurapote, Posayanonda and Sae-iew, 2026)

European continent

Table 4. Synthesis of Governance Architecture in the European Continent

Governance Dimension	Policy Formulation	Implementation	Policy Implications
Institutional Capacity Building	Finland and Sweden demonstrate the strongest capacity building approaches through the integration of school meals into their educational and welfare state systems, whereas England and several Eastern European countries rely more substantially on school nutrition policies and local government support.	Finland positions school meals as a component of its pedagogical system, with the active involvement of teachers and nutrition staff, while England continues to encounter variation in capacity across schools and local authorities.	The integration of school feeding into the national education system therefore strengthens the sustainability and implementation quality of programs. (Kiss <i>et al.</i> , 2019; Vik, Van Lippevelde and Øverby, 2019; WFP, 2024)
Oversight & Supervision	Finland and England maintain formal oversight systems grounded in national nutrition standards and school inspections, while Eastern European countries rely more heavily on local government supervision.	England applies rigorous school food inspections and compliance reviews, whereas oversight implementation in other countries continues to exhibit considerable variation across regions and schools.	Effective oversight consequently requires clearly defined national standards alongside health- and education-based outcome monitoring. (Kiss <i>et al.</i> , 2019; Vik, Van Lippevelde and Øverby, 2019; WFP, 2025)
Control & Accountability	England and Finland possess the most robust accountability mechanisms, supported by national regulation, school accountability frameworks, and public audits, while several Southern European countries continue to face fragmented local governance.	Finland exhibits the most stable program control through universal public financing, whereas England relies more substantially on compliance with school food standards.	Accountability systems therefore need to integrate funding transparency, regular auditing, and school service quality indicators. (Kiss <i>et al.</i> , 2019; Vik, Van Lippevelde and Øverby, 2019; WFP, 2025)
Cross-Sectoral Coordination Policy	Finland and Sweden exhibit the most mature cross-sectoral coordination through the integration of education, health, and social welfare, while England focuses more narrowly on coordination between schools and local health authorities.	Coordination in the Nordic countries is more thoroughly institutionalized through municipal governance and school welfare systems, whereas other countries continue to encounter administrative silos.	School feeding is most effective when embedded within national education and social welfare policy frameworks. (Kiss <i>et al.</i> , 2019; Vik, Van Lippevelde and Øverby, 2019; WFP, 2024, 2025)
Regulatory & Program Standards	Finland and England possess the most comprehensive school nutrition standards in Europe, whereas Eastern and Southern European countries continue to	England enforces mandatory school food standards, while Finland emphasizes food quality and educational meals in daily school implementation.	Mandatory and measurable national standards are therefore essential for maintaining the quality and equity of school feeding services. (Kiss <i>et al.</i> , 2019; Vik, Van Lippevelde and Øverby, 2019; Chambers <i>et al.</i> , 2020; WFP, 2024)

Governance Dimension	Policy Formulation	Implementation	Policy Implications
	exhibit regional variability in standards.		
Reporting Mechanisms	Finland and England operate reporting systems grounded in school inspections and national reporting frameworks, whereas several other European countries continue to rely on school-level administrative reports.	Reporting in Finland is more thoroughly integrated with the national education system, while England emphasizes school compliance reporting.	An integrated digital reporting system is therefore necessary to support evidence-based governance and quality assurance. (Drake <i>et al.</i> , 2016; Kiss <i>et al.</i> , 2019; Vik, Van Lippevelde and Øverby, 2019)
Decentralization / Centralization	Finland applies a decentralization model grounded in municipal governance supported by strong national regulation, while England employs a combination of central standards and local school-level implementation.	The Nordic countries demonstrate more adaptive local implementation, facilitated by strong local government capacity, whereas several Southern European countries continue to face local capacity disparities.	A hybrid model combining strong national regulation with controlled local autonomy is therefore more effective in sustaining program continuity. (Kiss <i>et al.</i> , 2019; Vik, Van Lippevelde and Øverby, 2019; Chambers <i>et al.</i> , 2020; WFP, 2025)

DISCUSSION

Principal Findings

This systematic review demonstrates that the success of free nutritious meal programs globally is not solely determined by funding availability or beneficiary coverage, but is substantially shaped by the quality of governance architecture, encompassing institutional capacity building, oversight, control, cross-sectoral coordination, reporting systems, and programme decentralization design. Countries with more institutionalized governance, such as Finland, Japan, Brazil, and South Africa, tend to possess strong national regulations, formal monitoring systems, and more stable accountability mechanisms compared to countries with fragmented governance such as Ghana, Tanzania, and several South Asian contexts. These findings reinforce the argument that free nutritious meal programs are not merely nutritional interventions, but constitute components of social and educational policy that require mature cross-sectoral governance (Bundy *et al.*, 2011; Gelli and Espejo, 2013).

In Africa, the principal governance challenges identified were weak oversight systems, the absence of dedicated monitoring and evaluation (M&E) budgets, and high dependency on international donors such as WFP and PCD. The majority of countries conduct only process monitoring without rigorous outcome evaluation. Nonetheless, Rwanda and South Africa demonstrate comparatively stronger governance practices through school audit committees, digital reporting systems, and formal budget-based regulations such as DORA. Nigeria similarly exhibits governance improvement through its split-funding model and adaptive federal-state coordination (Devereux *et al.*, 2018; Dorlach, Sule and Umukoro, 2025).

By contrast, countries in Europe and East Asia demonstrate governance more thoroughly integrated with their education and welfare state systems. Finland and Japan position school feeding as a component of educational governance and child welfare policy, rather than as a food assistance programme. Thailand similarly demonstrates strong cross-sectoral coordination through a Health in All Policies (HiAP) approach and a national digital monitoring system. Brazil, meanwhile, stands as the most consistent example of integrating local procurement, community ownership, and school nutrition councils (CAEs) into programme governance, a model that has demonstrably strengthened transparency, community participation, and long-term programme sustainability (Singh and Fernandes, 2018).

A further notable finding is that hybrid governance models, combining strong national regulation with locally embedded, community-based implementation, tend to be more effective than either excessively centralized or excessively decentralized arrangements. Brazil, Rwanda, Finland, and Japan demonstrate that local ownership functions optimally when situated within a clear national regulatory framework. Conversely, Tanzania illustrates that decentralization without adequate regulatory support, budgetary provision, and institutional capacity substantially increases risks of programme instability and accountability deficits. On the other hand, overly centralized systems, as observed in certain cases in Ghana and Israel, tend to inhibit adaptive responses, particularly during crises or periods of rapid policy change. These findings underscore the importance of maintaining an appropriate balance between central steering and local flexibility in public policy governance (Gelli and Espejo, 2013).

Before translating these findings into policy implications, it is important to note the nature and strength of the underlying evidence base. The included studies were predominantly qualitative case studies and policy analyses rather than comparative effectiveness studies, meaning findings reflect patterns of association rather than causal evidence of what makes governance "work." Consistency of findings varied across governance dimensions: patterns regarding institutional capacity building and oversight were broadly consistent across studies within the same region, whereas evidence on the relative effectiveness of specific accountability mechanisms was more heterogeneous. Transferability of findings across contexts should also be treated cautiously, given substantial differences in fiscal capacity, administrative decentralization, and

existing welfare infrastructure between, for example, Nordic welfare states and lower-resource decentralized settings; governance arrangements shown to function well in one setting are not automatically transferable to another without contextual adaptation.

Governance Implications

This review carries important implications for the development of Indonesia's Free Nutritious Meal Programme. First, programme governance cannot rest solely on food distribution and financing, but must be constructed through an institutionalized governance system encompassing national regulation, layered oversight mechanisms, transparent auditing, and outcome-based evaluation. The majority of countries examined in this review demonstrate that weak monitoring, inadequate audit trails, and poor inter-agency coordination constitute the primary causes of low programme effectiveness, even where substantial political commitment and budgetary support are available (Gelli and Espejo, 2013).

Second, strengthening community ownership emerges as a critical determinant of programme sustainability. Brazil's CAEs model and Rwanda's SGAC demonstrate that meaningful participation by communities, schools, parents, and local governments is capable of reinforcing social oversight while simultaneously enhancing programme legitimacy. In the Indonesian context, this approach is particularly relevant for mitigating risks of programme politicization, budget leakage, and regional implementation disparities. International experience further indicates that integrating local procurement into free nutritious meal programs can simultaneously strengthen local economies and enhance long-term programme sustainability (Singh and Fernandes, 2018).

These international governance patterns carry direct relevance for Indonesia's Free Nutritious Meal Program (Program Makan Bergizi Gratis). MBG's current implementation architecture, coordinated through the National Nutrition Agency with delivery via community-based kitchens (Satuan Pelayanan Pemenuhan Gizi), shares structural similarities with the hybrid models observed in Brazil and Rwanda, particularly in its reliance on localized delivery units operating under central technical standards. However, unlike Brazil's CAEs, MBG's local oversight bodies are still in early institutionalization, and dedicated M&E budget allocation, a recurring enabler identified across the reviewed studies, has not yet been clearly established in MBG's regulatory framework. Strengthening these two elements, local accountability bodies and ring-fenced M&E financing, represents a direct, evidence-informed opportunity for MBG's governance design going forward.

Finally, this review demonstrates that the future trajectory of free nutritious meal program or equivalent initiative policy is moving towards digital governance and evidence-based monitoring. Countries with digital reporting systems, monitoring dashboards, and integrated education-health data demonstrate markedly stronger evaluation capacity and more responsive policy adaptation compared to manual systems. Accordingly, the implementation of Indonesia's Free Nutritious Meal Programme requires the development of an integrated digital monitoring system connected across the education, health, and local government sectors. Such an approach is essential for ensuring transparency, efficiency, and the program's capacity to generate sustained long-term impacts on the health, education, and social protection of school-age children.

This review has several limitations. First, the majority of included studies employ qualitative approaches and policy analysis, resulting in considerable variation in governance methods and indicators across studies. Second, not all countries possess strong evidence pertaining to outcome and impact evaluation of free nutritious meal program or equivalent initiative governance, such that the synthesis is more substantially focused on process governance dimensions. Third, limitations in English-language publications and access to grey literature may have resulted in certain local governance practices remaining unidentified within this review.

Fourth, publication bias cannot be ruled out, as this review relied primarily on published peer-reviewed literature and a limited set of institutional grey literature sources; governance experiences that were never formally documented, or that were documented only in internal government reports without public access, are likely underrepresented in this synthesis. Fifth, this review was restricted to publications in English and Indonesian. This language restriction may have systematically excluded governance literature published in French, Portuguese, Spanish, or other national languages, particularly from Francophone West Africa and Lusophone contexts beyond Brazil, where school feeding governance is also actively documented. Sixth, and related to the above, these restrictions may result in underrepresentation of governance experiences from non-English-speaking countries more broadly, potentially skewing the synthesis toward governance models that are more visible in the international English-language literature relative to those that are not.

Seventh, this review combined peer-reviewed empirical studies with policy briefs and institutional grey literature (e.g., WFP and other agency reports), which differ substantially in methodological rigor and transparency of reporting. While grey literature was retained to capture governance experiences not yet published in peer-reviewed outlets, and was appraised separately using AGREE II, findings drawn from these sources should be interpreted as reflecting institutional perspectives rather than independently verified empirical evidence, and this distinction is reflected in the quality ratings reported in Appendix S3. Notwithstanding these limitations, this review provides a comprehensive account of governance patterns in free nutritious meal programs across continents and their implications for policy development in Indonesia.

CONCLUSION

The success of governance in free nutritious meal programs or equivalent initiatives is substantially determined by the strength of institutional governance, the quality of cross-sectoral coordination, oversight and accountability mechanisms, and local implementation capacity. Countries with strong national regulations, integrated monitoring systems, and hybrid governance models grounded in community ownership, such as Brazil, Finland, Japan, Thailand, and South Africa, tend to demonstrate more stable, transparent, and sustainable programme implementation. Conversely, countries characterized by fragmented governance, weak evaluation systems, and low institutional coordination face persistent challenges of implementation instability, limited oversight, and reduced programme effectiveness.

Free nutritious meal programs are not merely nutritional interventions, but constitute integral components of social, educational, and human development policy requiring a comprehensive governance approach. Strengthening outcome-based monitoring systems, integrating digital governance, promoting local procurement, and facilitating meaningful community participation are critical elements in supporting programme sustainability. This review offers strategic lessons for the development of Indonesia's Free Nutritious Meal Programme, particularly in building governance that is adaptive, transparent, and grounded in multi-sector collaboration.

Drawing on the governance patterns identified across the 34 studies reviewed, several implications emerge for the development of Indonesia's Free Nutritious Meal Programme. These include the potential value of an integrated governance framework encompassing strengthened national regulation, digital monitoring and evaluation systems, public accountability mechanisms, and clearer cross-sectoral coordination among the education, health, food, and local government sectors. The evidence further suggests that a hybrid governance approach, combining strong central regulation with locally embedded, community ownership-based implementation, as observed in Brazil, Rwanda, and Finland, may offer advantages for programme sustainability, though this should be tested and adapted to Indonesia's specific institutional context rather than adopted directly. Future research is recommended to longitudinally evaluate

the governance effectiveness of the Free Nutritious Meal Programme, with particular attention to the impact of implementation on service quality, budget transparency, health outcomes, and regional capacity disparities in programme delivery.

ACKNOWLEDGMENTS

The authors extend their gratitude to the Faculty of Public Health, Universitas Indonesia for its academic support and the scholarly environment that facilitated the conduct of this research.

CONFLICTS OF INTEREST

All authors declare no conflicts of interest in relation to this research.

FUNDING

This research received no funding from any public, commercial, or not-for-profit organization.

AUTHORS' CONTRIBUTIONS

EO contributed to research conceptualization, systematic review protocol development, literature searching, data extraction, synthesis analysis, and manuscript writing. DA contributed to academic supervision, methodological validation, and critical manuscript review. EO, MAS, AH, and SN contributed to article screening, quality assessment, and data extraction. All authors read and approved the final version of the manuscript.

SUPPLEMENTARY MATERIAL

Appendix S1 Complete Database Search Strategies

Appendix S2 Characteristics of Included Studies

Appendix S3 Quality Assessment Results (CASP and AGREE II)

Appendix S4 Full Governance Architecture Matrices by Continent (Extended Tables 1–4)

Appendix S5 PRISMA 2020 Checklist

[\[PDF-File-Supplementary-Material\]](#)

REFERENCES

- Acheampong, J.O. (2022) “Stakeholders Perspective of the Ghana School Feeding Program: A Case of the Denkyembour District,” *Interchange*, 53(2), pp. 313–333. Available at: <https://doi.org/10.1007/s10780-022-09461-9>.
- Arkorful, V.E. (2022) “School Feeding and SDG Implications: A Stakeholder-Based Study,” *Global Encyclopedia of Public Administration, Public Policy, and Governance*. Cham: Springer International Publishing, pp. 11818–11831. Available at: https://doi.org/10.1007/978-3-030-66252-3_4258.
- Azarieva, J., Berry, E.M. and Troen, A.M. (2022) “Child food insecurity in the wake of the COVID-19 pandemic: urgent need for policy evaluation and reform in Israel’s school feeding programs,” *Israel Journal of Health Policy Research*, 11(1), p. 13. Available at: <https://doi.org/10.1186/s13584-022-00523-y>.
- Barnett-Page, E. and Thomas, J. (2009) “Methods for the synthesis of qualitative research: a critical review,” *BMC Medical Research Methodology*, 9(1), p. 59. Available at: <https://doi.org/10.1186/1471-2288-9-59>.
- Blecha, N. *et al.* (2025) “Evaluation of school food policies for secondary schools in Europe: Results for
- Journal Homepage:* <https://journal3.uinalauddin.ac.id/index.php/algizzai>

- health, acceptance, and affordability from a scoping review,” *Obesity Reviews*, 26(7). Available at: <https://doi.org/10.1111/obr.13911>.
- Booth, A. *et al.* (2012) “The nuts and bolts of PROSPERO: an international prospective register of systematic reviews,” *Systematic Reviews*, 1(1), p. 2. Available at: <https://doi.org/10.1186/2046-4053-1-2>.
- Brouwers, M.C. *et al.* (2010) “AGREE II: advancing guideline development, reporting and evaluation in health care,” *Canadian Medical Association Journal*, 182(18), pp. E839–E842. Available at: <https://doi.org/10.1503/cmaj.090449>.
- Bundy, D. *et al.* (2011) “On the Transition to Sustainability: An Analysis of the Costs of School Feeding Compared with the Costs of Primary Education,” *Food and Nutrition Bulletin*, 32(3), pp. 201–205. Available at: <https://doi.org/10.1177/156482651103200303>.
- Cabrera-Ledesma, B. *et al.* (2023) “A Descriptive Qualitative Study of the Perceptions of Regulatory Authorities, Parents, and School Canteen Owners in the South of Ecuador about the Challenges and Facilities Related to Compliance with the National Regulation for School Canteens,” *International Journal of Environmental Research and Public Health*, 20(7), p. 5313. Available at: <https://doi.org/10.3390/ijerph20075313>.
- Chambers, S. *et al.* (2020) “Learning from the implementation of Universal Free School Meals in Scotland using Normalisation Process Theory: Lessons for policymakers to engage multiple stakeholders,” *Food Policy*, 95, p. 101936. Available at: <https://doi.org/10.1016/j.foodpol.2020.101936>.
- D’Andrade, R.N. (2007) *A qualitative study of the effectiveness of school feeding programs in the city of Ottawa, Canada, Financial Management*.
- Desalegn, T.A., Gebremedhin, S. and Stoecker, B.J. (2022) “Successes and challenges of the Home-grown School Feeding Program in Sidama Region, Southern Ethiopia: a qualitative study,” *Journal of Nutritional Science*, 11, p. e87. Available at: <https://doi.org/10.1017/jns.2022.77>.
- Devereux, S. *et al.* (2018) *School Feeding in South Africa: What we know, what we don’t know, what we need to know, what we need to do*. South Africa. Available at: www.foodsecurity.ac.za.
- Dorlach, T., Sule, U. and Umukoro, N. (2025) “School food politics in Africa: Two Nigerian school feeding programs in comparative perspective,” *Global Social Policy*, 25(3), pp. 492–511. Available at: <https://doi.org/10.1177/14680181251387293>.
- Drake, L. *et al.* (2016) *Global School Feeding Sourcebook: Lessons from 14 countries*, *Global School Feeding Sourcebook*. Imperial College Press. Available at: <https://doi.org/10.1142/p1070>.
- Ferreira, D.M. *et al.* (2019) “Perception of the operating agents about the Brazilian National School Feeding Program,” *Revista de Saúde Pública*, 53, p. 34. Available at: <https://doi.org/10.11606/S1518-8787.2019053000597>.
- GCNF (2025) *School Meals Programs: Expanding Access through Innovative Financing to Accelerate Progress Towards the SDGs*. USA. Available at: <https://gcnf.org/school-meals-programs-expanding-access-through-innovative-financing-to-accelerate-progress/> (Accessed: May 15, 2026).
- Gelli, A. and Espejo, F. (2013) “School feeding, moving from practice to policy: reflections on building sustainable monitoring and evaluation systems,” *Public Health Nutrition*, 16(6), pp. 995–999. Available at: <https://doi.org/10.1017/S1368980012003989>.
- Girardi, M.W. (2019) “Policy coherence in the implementation of the 2030 agenda for the sustainable development : the brazilian school feeding programme case study,” *Revista de Direito Internacional*, 15(3). Available at: <https://doi.org/10.5102/rdi.v15i3.5945>.
- Global Alliance Against Hunger and Poverty (2024a) *Fact Sheet and How to Contribute*. Brazil. Available at: <https://globalallianceagainsthungerandpoverty.org/wp-content/uploads/2024/11/Fact-sheet-EN->

- baixa-2.pdf (Accessed: May 15, 2026).
- Global Alliance Against Hunger and Poverty (2024b) *Governments and partners pledge to double school meals for children in hardesthit countries by 2030*. Brazil. Available at: <https://globalallianceagainsthungerandpoverty.org/new/2030-school-meals-sprint-press-release/> (Accessed: May 15, 2026).
- Hannes, K., Lockwood, C. and Pearson, A. (2010) "A Comparative Analysis of Three Online Appraisal Instruments' Ability to Assess Validity in Qualitative Research," *Qualitative Health Research*, 20(12), pp. 1736–1743. Available at: <https://doi.org/10.1177/1049732310378656>.
- Hawkes, C. *et al.* (2016) "How to engage across sectors: lessons from agriculture and nutrition in the Brazilian School Feeding Program," *Revista de Saúde Pública*, 50(0). Available at: <https://doi.org/10.1590/S1518-8787.2016050006506>.
- Hirschman, J. and Chriqui, J.F. (2013) "School food and nutrition policy, monitoring and evaluation in the USA," *Public Health Nutrition*, 16(6), pp. 982–988. Available at: <https://doi.org/10.1017/S1368980012004144>.
- Kiss, A. *et al.* (2019) "The Reform of School Catering in Hungary: Anatomy of a Health-Education Attempt," *Nutrients*, 11(4), p. 716. Available at: <https://doi.org/10.3390/nu11040716>.
- Lewin, S. *et al.* (2018) "Applying GRADE-CERQual to qualitative evidence synthesis findings—paper 2: how to make an overall CERQual assessment of confidence and create a Summary of Qualitative Findings table," *Implementation Science*, 13(S1), p. 10. Available at: <https://doi.org/10.1186/s13012-017-0689-2>.
- Liguori, J. *et al.* (2024) "How do publicly procured school meals programmes in sub-Saharan Africa improve nutritional outcomes for children and adolescents: a mixed-methods systematic review," *Public Health Nutrition*, 27(1), p. e213. Available at: <https://doi.org/10.1017/S1368980024001939>.
- Long, H.A., French, D.P. and Brooks, J.M. (2020) "Optimising the value of the critical appraisal skills programme (CASP) tool for quality appraisal in qualitative evidence synthesis," *Research Methods in Medicine & Health Sciences*, 1(1), pp. 31–42. Available at: <https://doi.org/10.1177/2632084320947559>.
- Mathurapote, N., Posayanonda, T. and Sae-iew, K. (2026) "An Analysis of the School Catering Management System of Thailand Through <sc>HiAP</sc> 's Four Pillars," *Health Promotion Journal of Australia*, 37(1). Available at: <https://doi.org/10.1002/hpia.70114>.
- McHugh, M.L. (2012) "Interrater reliability: the kappa statistic," *Biochemia Medica*, pp. 276–282. Available at: <https://doi.org/10.11613/BM.2012.031>.
- Mejía Toro, C. *et al.* (2025) "Free, healthy school lunches in New Zealand: A Value for Investment analysis," *BMC Public Health*, 25(1), p. 3546. Available at: <https://doi.org/10.1186/s12889-025-24529-8>.
- Mendez Acosta, A. and Bedasso, B. (2024) *Do School Meals Boost Education in Low-and Middle-Income Countries? A 15-Year Review*. Available at: <https://www.cgdev.org/blog/do-school-meals-boost-education-low-and-middle-income-countries-15-year-review> (Accessed: May 15, 2026).
- Michaels, L. and Barling, D. (2025) "School meal nutrition and procurement policies in England: governance variability and innovation in implementation settings," *Frontiers in Sustainable Food Systems*, 9. Available at: <https://doi.org/10.3389/fsufs.2025.1643778>.
- Munje, P.N. and Jita, L.C. (2019) "The implementation of the school feeding scheme (SFS) in South African Public primary schools," *Educational Practice and Theory*, 41(2), pp. 25–42. Available at: <https://doi.org/10.7459/ept/41.2.03>.
- Nakamura, T. (2008) "The integration of school nutrition program into health promotion and prevention of

- lifestyle-related diseases in Japan.,” *Asia Pacific journal of clinical nutrition*, 17 Suppl 1, pp. 349–51.
- Ndayishimye, I. and de Dieu Dushimimana, J. (2024) “Role of Stakeholders’ Collaboration in the Implementation of School Feeding Programme: A Case of Twelve Years Basic Education Schools in Nyabihu District, Rwanda (2020–2022),” *African Journal of Empirical Research*, 5(2), pp. 426–437. Available at: <https://ajernet.net>.
- Page, M.J. *et al.* (2021) “The PRISMA 2020 statement: an updated guideline for reporting systematic reviews,” *BMJ*, p. n71. Available at: <https://doi.org/10.1136/bmj.n71>.
- Pramesthi, I.L. *et al.* (2025) “Evaluating the Impact of Indonesia’s National School Feeding Program (ProGAS) on Children’s Nutrition and Learning Environment: A Mixed-Methods Approach,” *Nutrients*, 17(22), p. 3575. Available at: <https://doi.org/10.3390/nu17223575>.
- Roothaert, R. *et al.* (2021) “Policies, Multi-Stakeholder Approaches and Home-Grown School Feeding Programs for Improving Quality, Equity and Sustainability of School Meals in Northern Tanzania,” *Frontiers in Sustainable Food Systems*, 5. Available at: <https://doi.org/10.3389/fsufs.2021.621608>.
- Schultz, L. *et al.* (2024) “The SABER School Feeding policy tool: a 10-year analysis of its use by countries in developing policies for their national school meals programs,” *Frontiers in Public Health*, 12. Available at: <https://doi.org/10.3389/fpubh.2024.1337600>.
- Schwartz, M.B. *et al.* (2012) “Strength and Comprehensiveness of District School Wellness Policies Predict Policy Implementation at the School Level,” *Journal of School Health*, 82(6), pp. 262–267. Available at: <https://doi.org/10.1111/j.1746-1561.2012.00696.x>.
- Schwartzman, F. *et al.* (2017) “Background and elements of the linkage between the Brazilian school feeding program and family farming,” *Cadernos de Saúde Pública*, 33(12). Available at: <https://doi.org/10.1590/0102-311x00099816>.
- Shrestha, R.M. *et al.* (2020) “Home-grown school feeding: assessment of a pilot program in Nepal,” *BMC Public Health*, 20(1), p. 28. Available at: <https://doi.org/10.1186/s12889-019-8143-9>.
- Singh, S. and Fernandes, M. (2018) “Home-grown school feeding: promoting local production systems diversification through nutrition sensitive agriculture,” *Food Security*, 10(1), pp. 111–119. Available at: <https://doi.org/10.1007/s12571-017-0760-5>.
- Tamiru, Y. *et al.* (2024) “Perceived benefits and challenges of school feeding program in Addis Ababa, Ethiopia: a qualitative study,” *Journal of Nutritional Science*, 13, p. e32. Available at: <https://doi.org/10.1017/jns.2024.42>.
- Thomas, J. and Harden, A. (2008) “Methods for the thematic synthesis of qualitative research in systematic reviews,” *BMC Medical Research Methodology*, 8(1), p. 45. Available at: <https://doi.org/10.1186/1471-2288-8-45>.
- Tong, A. *et al.* (2012) “Enhancing transparency in reporting the synthesis of qualitative research: ENTREQ,” *BMC Medical Research Methodology*, 12(1), p. 181. Available at: <https://doi.org/10.1186/1471-2288-12-181>.
- Tubi, M.I. and Oyewole, O.E. (2025) “Assessment of School Food Policy Influencing Nutritional Behaviour of Adolescents from the Perspective of School Stakeholders in Ibadan, Oyo State,” *International Journal of Environmental Research and Public Health*, 22(6), p. 866. Available at: <https://doi.org/10.3390/ijerph22060866>.
- Van, V.T.S. *et al.* (2022) “A Community-Led Central Kitchen Model for School Feeding Programs in the Philippines: Learnings for Multisectoral Action for Health,” *Global Health: Science and Practice*, 10(6), p. e2100391. Available at: <https://doi.org/10.9745/GHSP-D-21-00391>.
- Vik, F.N., Van Lippevelde, W. and Øverby, N.C. (2019) “Free school meals as an approach to reduce health

- inequalities among 10–12- year-old Norwegian children,” *BMC Public Health*, 19(1), p. 951. Available at: <https://doi.org/10.1186/s12889-019-7286-z>.
- Watkins, K. *et al.* (2024) *School feeding and the Sustainable Development Goals: An agenda to combat child hunger, boost education, transform food systems and strengthen equity*. London. Available at: https://schoolmealscoalition.org/sites/default/files/2024-11/ODI_School_feeding_and_the_SDGs.pdf (Accessed: May 15, 2026).
- WFP (2024) *School Meals Policy*. Italy. Available at: <https://www.wfp.org/publications/wfps-updated-school-meals-policy-november-2024> (Accessed: May 15, 2026).
- WFP (2025) *State of School Feeding Worldwide 2024*. Italy. Available at: <https://doi.org/10.71958/wfp130772>.
- Ximenes, S.M. (2025) “Empowering Communities through School Feeding: Local Participation and Sustainable Nutrition in Timor-Leste,” *ASEAN Journal of Community Service and Education*, 4(2). Available at: <https://ejournal.bumipublikasinusantara.id/index.php/ajcse>.
- Zapata, C. and Caicedo-Muñoz, S. (2024) “Evaluation of the implementation of the School Feeding Program in Cali,” *Cuadernos de Administración*, 40(78). Available at: <https://doi.org/10.25100/cdea.v40i78.12837>.