

Implementation Evaluation of the National School Nutrition Programme



planning, monitoring
& evaluation

Department:
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Policy Summary

The National School Nutrition Programme (NSNP) aims to improve the health and nutritional status of the poorest learners in South Africa. Its main objective is to enhance learning by providing a nutritious meal on time daily. The programme is of great strategic importance; it involves a large financial commitment from government (R5.3 billion), and reaches over 9 million learners. Given this, an implementation evaluation was commissioned by the Department of Planning, Monitoring and Evaluation (DPME), in collaboration with the Department of Basic Education (DBE) and was conducted by JET Education Services. The evaluation assessed whether the NSNP is being implemented in a way that is to result in significant health and educational benefits.

Key policy implications are the following:

Most if not all countries across the world have a school nutrition programme (WFP, 2013). The relevance of the NSNP is unquestionable; given the high levels of child poverty and hunger in South Africa, there is need for

a national school nutrition programme. Government should commit to providing core funding for the NSNP over the long term. Schools are an effective channel through which to supply children with nutritious meals, but pre-school years are the most critical and there is great need for a nutrition programme linked to Early Childhood Development centres.

Learners are, for the most part, receiving meals daily, but there is room for improvement regarding the composition of meals (starch, protein, and fruit or vegetables in the right portion size) and the timing. Half (50.2%) the schools served all three food groups: the food group most often missed was fruit/vegetables. There is also a tendency to prepare more starch and less protein and vegetables than is required. Soya is the least popular form of protein: on the days when soya is served, fewer learners eat the NSNP meals and there is wastage. It is recommended that more popular alternatives be introduced and learner representatives involved in designing the menus.

School meals should be served as close as possible to the start of the school day if they are to relieve short-term hunger and boost concentration. The evaluation found that only 18.1% of schools managed to serve the main NSNP meal by 10:00 am. The DBE should introduce a policy that schools start feeding by 09:00 am under teacher supervision. Where it is not possible to serve the main meal early, children should be provided with a snack at the start of the school day.

Infrastructure challenges (inadequate space for food storage and preparation and poor access to water) were found in some schools (particularly in KwaZulu-Natal and Limpopo), impacting on the safe and efficient preparation of meals. An audit should be conducted of NSNP infrastructure and equipment needs in schools and national and provincial action plans developed to meet them.

The NSNP is implemented via two different models, decentralised and centralised, in different provinces, but there is considerable variation in how provinces using the same model implement it. Evidence suggests that no one model is best. Performance in implementation varies more between provinces using the same model than between models, indicating that province-specific factors account for the greatest part of performance differences.

Blockages can occur in the business processes, leading to meals not being served every day in some schools. These tend to be province specific and should be addressed via the development and implementation of national guidelines and standards. Key blockages include: disbursement of funding from provinces to schools (KwaZulu-Natal, Limpopo and Mpumalanga); procurement of service providers (KwaZulu-Natal); late delivery (particularly in provinces using the centralised model); and payment of service providers invoices (KwaZulu-Natal and Gauteng). Local sourcing of vegetables has the potential to address schools concerns regarding the vegetable deliveries (timeous, sufficient, good quality) and stimulate local agricultural development. A pilot involving partners including the Department of Agriculture is recommended.

International literature demonstrates that, if a school nutrition programme is well implemented, positive impact is likely in terms of enrolment, attendance and retention in the education system, relief of short-term hunger and enhanced concentration in class. Benefits in terms of educational performance are only likely to occur in schools with high quality teaching and learning. This highlights a concern that school nutrition programmes can eat into teaching and learning time. The administrative burden of the NSNP could be mitigated for schools by creating the position of “Senior Volunteer Food Handler” and engaging a community member to provide support.

Some cost savings could arise from introducing individual targeting in some schools (specifically in Gauteng and the Western Cape) where a proportion of learners are opting out of the NSNP.

Possible models for upscaling should be investigated via a series of pilots, with rigorous monitoring and evaluation, including impact and cost effectiveness analysis. These include: providing breakfast or a snack at the start of the school day; providing meals to selected learners in need in quintile 4 and 5 schools; and increasing the amount of energy provided to be more in line with the benchmark of 30-45% of the recommended daily allowance. Some provinces are already piloting these to the NSNP, but they are not being systematically assessed in this way. If substantial benefits are demonstrated, over and above those of the NSNP in its current form, then roll-out should be considered at scale.



Executive Summary

1. Introduction and background

The National School Nutrition Programme (NSNP) aims to enhance learning capacity and improve access to education by providing a nutritious meal daily to learners at school (DBE and DPME, 2014). The programme is of great strategic importance: it relies on a range of stakeholders, involves a large financial commitment from government (R5.3 billion), and reaches 9,131,836 learners (DBE, 2015). Given this, an implementation evaluation was included in the National Evaluation Plan (NEP) for 2014-2015. The evaluation aims to assess whether the NSNP is being implemented in a way that is to result in significant health and educational benefits for learners. The key evaluation questions to be answered were:

1. Is the programme being implemented as planned?
2. Are procedures effective for timely delivery?
3. Are learners receiving quality meals and services?
4. What are the variations in implementation?
5. Is the programme reaching intended beneficiaries?
6. Is there evidence that NSNP enhances learning behaviour (likely impact of the programme)?
7. Should it be upscaled? How can it be improved?
8. Are there other spinoffs of the NSNP?

2. Overview of the NSNP

The overall purpose of the NSNP is to improve the health and nutritional status of the poorest learners. The programme's objectives are (DBE and DPME, 2014):

1. To contribute to enhanced learning through school feeding;
2. To strengthen nutrition education in schools in order to promote healthy lifestyles;
3. To promote sustainable food production initiatives in schools; and
4. To develop partnerships to enhance the programme.

Two implementation models are followed. In the centralised model, Provincial Education Departments (PEDs) appoint service providers and enter into service level agreements (SLAs) to procure and deliver food to schools, the PEDs transfer funds to schools to purchase fuel and pay Volunteer Food Handlers (VFHs) stipends. The decentralised model operates in the Eastern Cape, Free State, North West, and Northern Cape and reaches 3.0 million learners. In the centralised model, PEDs transfer money to schools and schools appoint service providers and enter into SLAs with them. This model is used in Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga, and the Western Cape and reaches 6.1 million learners (DBE, 2015).

3. Methodology

The implementation evaluation, which was overseen by a steering committee, employed a mixed methods design. It is important to bear in mind that this was not an impact evaluation, an economic evaluation, or an audit of the NSNP. The following data collection methods were used:

- A document and literature review;
- Refinement of the NSNP's theory of change (ToC)¹ and development of a logframe;
- Interviews with 44 key stakeholders at national, provincial and district level;
- Surveys with principals, NSNP Co-ordinators, VFHs, school governing body (SGB) members and learners and observations in a representative sample² of 267 primary and special schools³;
- Survey interviews with a sample of 26 NSNP service providers from across all provinces;
- Analysis of cost and output data.

4. Literature review

A literature review was conducted to ensure a sound contextual basis for the study. Previous NSNP evaluations were reviewed and national and international literature covering the health and nutritional status of school-age children and issues affecting the implementation, outcomes and cost of school nutrition

¹ The ToC which was developed to guide the evaluation can be found in Chapter 2 of the summary and main reports.

² 270 schools were sampled and fieldwork was successfully completed in 267. Sampling 270 schools out of a sampling frame of 15,404 schools gives a margin of error of 6% with a 95% confidence level. Care should be taken when interpreting the results at provincial level as the margin of error is much higher than for the national sample.

³ Secondary schools were excluded due to budgetary constraints.

programmes were investigated. Stemming from this, key contextual factors and characteristics that determine the effectiveness of school nutrition programmes were identified (see key findings from the literature review on p. 6 - 7 of the summary report and the full literature review from p.32 - 54 of the main report.)

5. Key evaluation findings

5.1. Programme relevance and design - *Is the programme reaching intended beneficiaries?*

The **rationale** for the NSNP is sound: in light of the prevalence of child poverty and hunger in South Africa, there is a need for a school nutrition programme in all provinces.

The programme targets all learners in quintile 1-3 public schools, which are the 60% poorest schools in South Africa. In targeting all learners in schools with an NSNP, the programme avoids stigmatising learners who eat the NSNP meals. The majority of learners (72.7%) ate the NSNP meal on the day of fieldwork. 47.4% said they “always” and a further 47.6% said they “sometimes” eat the meal. Thus a high proportion of learners eat the NSNP meals regularly. However, in Gauteng and the Western Cape, in some schools, a proportion of learners are “opting out” of the NSNP.

The intended beneficiaries, learners from low socio-economic backgrounds, are receiving NSNP meals, but other unintended beneficiaries, including VFHs, educators, and other school stakeholders, also receive the meals. The Department of Basic Education (DBE)

encourages teachers and VFHs to eat with the learners, to avoid stigma being attached to eating the meals. However, the Conditional Grant funding does not make provision for this and the concern is that, unless provisioned for, this practice will reduce the available food for meals for learners.

5.2. Programme effectiveness - *Are learners receiving quality meals and services?*

Serving a nutritious meal on time, every day is the key output of the NSNP, which 96% of Conditional Grant funding is channelled towards. Learners are mostly receiving NSNP meals regularly, but there is room for improvement regarding the composition of the meals (number of food groups and quantity of food prepared) and the time they are served.

In half (50.2%) of the schools visited for fieldwork, learners receive balanced meals comprising three food groups (starch, protein and vegetables); 42.4% of schools served only two food groups. The food group most often not served was vegetables.

Schools tend to prepare higher quantities of starch and lower quantities of vegetables and protein than they should, for the number of learners approved⁴ for the NSNP, meaning that learners are receiving less than the recommended daily amount of certain food groups. There are provincial variations in this regard as indicated below.

⁴ NSNP-approved refers to the number of learners approved for NSNP feeding using the conditional grant funding. This is based on enrolment at the school during the previous school year.



Quantity of starch and vegetables prepared in relation to the number of NSNP-approved learners, source: key performance (KPI) instrument

Province	Starch					Vegetables/fruit				
	<50%	51%-80%	81%-100%	>100	No data*	<50%	51%-80%	81%-100%	>100	No data*
GT	18.1%	29.7%	19.9%	30.5%	1.7%	30.0%	19.1%	7.3%	3.5%	3.8%
KZN	4.4%	5.9%	25.4%	59.4%	4.8%	11.0%	19.5%	12.7%	44.4%	6.8%
LP	10.1%	12.5%	6.6%	68.9%	1.9%	16.9%	24.9%	41.7%	11.1%	1.7%
MP	2.4%	39.0%	24.6%	32.3%	1.7%	24.2%	26.4%	22.4%	45.3%	1.7%
WC	26.4%	19.3%	38.5%	13.8%	2.1%	21.7%	15.6%	44.5%	17.5%	1.9%
EC	0.9%	7.1%	15.9%	60.9%	15.3%	20.9%	22.1%	14.9%	24.6%	33.5%
FS	0.0%	2.6%	11.2%	83.1%	3.2%	3.9%	5.9%	2.8%	73.5%	5.9%
NC	2.9%	4.4%	10.3%	25.8%	56.6%	4.0%	12.0%	13.5%	44.3%	20.2%
NW	0.0%	5.2%	18.6%	76.2%	0.0%	17.5%	16.3%	49.4%	10.4%	3.1%
Total	5.0%	11.4%	18.2%	57.7%	7.7%	17.1%	20.3%	21.4%	29.9%	13.0%

*no data can result for several reasons: quantities served on the day were not available, the number of NSNP-approved learners was not available or the food group was not served on the day.

Feeding should be completed by 10:00 am if the meals are to boost learners' concentration. However, the last learner was fed by 10:00 am in only 18.1% of schools which serve one meal per day⁵. Only in Limpopo did the majority of schools complete feeding by 10:00 am as recommended.

Time by which feeding of the main meal is completed, from observation (excluding Gauteng and Western Cape), source: KPI instrument and observation

Province	By 10:00am	10:01-11:00am	After 11am or no meal	No data	Median	Mean	SD	Min	Max
KZN	0.0%	71.1%	24.1%	4.8%	10:30	10:47	00:29	10:04	11:56
LP	52.5%	41.8%	0.0%	5.6%	10:03	10:14	00:23	09:51	11:50
MP	35.1%	57.9%	2.8%	4.2%	10:19	10:22	00:21	09:37	11:30
EC	11.6%	58.5%	18.0%	11.9%	10:55	11:08	00:47	10:00	13:50
FS	0.0%	88.9%	8.9%	2.2%	10:40	10:44	00:29	10:05	14:46
NC	40.0%	41.3%	3.8%	15.0%	10:15	10:14	00:38	09:00	11:50
NW	17.9%	75.0%	6.2%	0.8%	10:23	10:34	00:26	09:40	11:55
Total	18.1%	61.6%	13.4%	7.0%	10:38	10:43	00:40	09:00	14:46

Of the 267 schools visited for fieldwork, the main meal was served at 255 schools (96.2%). School stakeholders confirmed that there are days when feeding does not take place, mainly because of funds not being received on time, late delivery by suppliers, tender processes not being complete (in KwaZulu-Natal) or a lack of fuel. In the worst cases, days or months were reported to have passed with no NSNP feeding occurring.

Various challenges were found with regards to food preparation and health and safety, including: inadequate space for food storage and preparation (NSNP preparation facilities were rated as "very poor" or "poor" in 23.2% of schools); poor access to water (NSNP Co-ordinators reported that water was "not available" or access was "erratic" in 49.7% of schools); poor cleanliness (linked to challenges with water); and the unsafe storage of gas (only 35.9% of the

⁵ In provinces which serve breakfast as well as lunch (Gauteng and the Western Cape) the main meal should be served by 12:30pm. Data on serving times in these schools can be found in the summary and main reports.

schools using gas kept the canisters outside, and 66.0% of those canisters that were outside were locked in a cage). These challenges were greatest in KwaZulu-Natal and Limpopo.

The majority of schools had received some training on the NSNP, but there was poor provision of training for VFHs: only 41.9% had been trained. Provincial differences are quite striking: Mpumalanga had the highest proportion of training of VFHs (86.9%), whereas the Free State had trained only 5.2% of its VFHs. Health and safety in the storage and preparation of food, preparing the right foods in the right quantities, preparing tasty meals and serving meals on time are, to a large extent dependent on VFHs being knowledgeable and skilled. New VFHs should receive training in all of these areas before they commence work.

5.3. Programme fidelity and efficiency - *Is the programme being implemented as planned? What are the variations of implementation at different sites or by different provinces? Are operational procedures effective to ensure the timely delivery of food?*

The NSNP is implemented via two different models, decentralised and centralised, but considerable variation between provinces means that in effect there are nine implementation variations. Provinces using a decentralised model are implementing several of the business processes⁶ more efficiently; however, in this model there is a higher administrative burden in schools. Business processes are functioning for the most part, but there is room for improvement, as indicated below. Disbursement of funding is a challenge including: disbursement from national to provincial Treasury (in the first quarter) and from provincial Treasury to schools (particularly in KwaZulu-Natal, Limpopo and Mpumalanga). Funding not having been received on time is one of the key reasons why some schools were unable to feed on certain days.

The two procurement models have strengths and weaknesses: some schools in decentralised provinces have challenges appointing service providers (Eastern

Cape, Northern Cape and North West) and not all schools have SLAs in place with their service providers (Northern Cape). In centralised provinces, procurement can be very lengthy, leading to contracts being renewed rather than new providers appointed (KwaZulu-Natal and Limpopo). Tender processes not having been completed was a reason why some schools in KwaZulu-Natal were unable to feed on certain days.

Late delivery by service providers is the main reason schools do not always follow the menu and the reason some schools were unable to serve meals on some school days. Delivery seems to work better in the decentralised model, suggesting that schools using this model are better able to hold service providers accountable. Delivery challenges tend to be concentrated in specific provinces, particularly KwaZulu-Natal. Monitoring of deliveries is a weakness and an area for improvement in both models.

Challenges with the timely payment of invoices were evident in KwaZulu-Natal and Gauteng, in instances leading to service providers not being able to deliver and meals not being served.

Extensive monitoring and reporting is undertaken in accordance with the requirements for Conditional Grant funding. The responsibility falls mainly at district level and district officials fulfil a key role in monitoring and supporting implementation in schools. The number of provincial and district officials assigned to the NSNP varies considerably between provinces and there are no national norms and standards. Capacity issues (shortage of staff and vehicles) impede the provision of support to schools, monitoring and reporting in some provinces and districts.

An implementation index constructed to summarise performance in key aspects of implementation found that there was more variation between different provinces using the same model than between models, indicating that province specific factors account for the greatest part of the differences. This confirms the literature review findings that an array of options are possible in terms of school nutrition programme logistics and that no particular model is better because contextual factors matter (Drake et al., 2016).

⁶ The business processes are: planning and budgeting; disbursement of funding; procurement; ordering, delivery and payment; food preparation and serving; and monitoring and reporting.

5.4. Additionality - Are there other spinoffs of the NSNP?

The NSNP provides opportunities to over 50,000 VFHs annually to cook for the NSNP and earn a stipend of R960 per month. This translates into R576 million a year which benefits community members. The stipend is lower than the EPWP social sector minimum wage. However, DBE and Treasury Officials pointed out that the NSNP VFHs are volunteers and do not work fulltime and that therefore the EPWP minimum wage does not apply to the NSNP. However, policy is unclear on this matter (EPRI, 2015).

The NSNP also stimulates economic activity: around R5.1 billion is spent on the meals annually; in provinces where procurement favours Small, Medium and Micro-sized Enterprises (SMMEs) and co-operatives (KwaZulu-Natal, Gauteng, Mpumalanga and the Northern Cape), they can benefit as service providers. If SMMEs and co-operatives are delivering food, it is vital for robust procurement, payment and monitoring systems to be in place. These were found to be weak in KwaZulu-Natal, particularly the timeous payment of 2,029 service providers, leading in some instances to learners not being fed.

An area with the potential to benefit schools and communities and stimulate local agriculture is through the local sourcing of vegetables. This may help to address schools concerns regarding the vegetable deliveries (timeous, sufficient, good quality) and provide a regular market for local agricultural produce.

5.5. Likely impact, funding and upscaling - Is there evidence that NSNP enhances learning behaviour (likely impact of the programme)? Should NSNP be up-scaled? How can it be improved?

If the programme is implemented as intended and the change theory presented in the ToC is plausible, impact is more likely.

Challenges relating to: the disbursement of funds to schools; contracting of service providers; timely delivery of the correct and good quality goods; and payment of service providers on time; lead to some schools not being able to serve meals on all schools

days. Challenges tend to be province specific and 96.2% of schools did serve an NSNP meal on the day of fieldwork. The quality of meals should improve to maximise the nutritional value. Furthermore, meals should be served at the start of the school day, or at least by 10:00 am, for the food to aid concentration.

Literature suggests that school nutrition programmes can lead to increased enrolment and improved attendance and over time, these outcomes can lead to improved retention in the education system. However, evidence is mixed regarding the impact on learner performance. Improvements are only evident in well organised schools with good quality teaching.

International experience demonstrates the need to secure long-term funding and institutionalise school nutrition programmes (Bundy et al., 2009). The NSNP reaches around 75.6% of all public school learners currently; slightly exceeding the target of 75% outlined in Action Plan to 2019.

There are some areas where efficiencies can be tightened within the current framework. Individual targeting should be considered in some schools where not all learners eat the NSNP meals regularly and income and poverty levels are mixed. For example, if NSNP meals were no longer prepared for 10% of learners in Gauteng and the Western Cape, the saving would be R74.5 million over the school year. However, improvements at scale would require additional funding.

6. Recommendations for policy, management, implementation and further research

6.1. Improve relevance and appropriateness

by: 1) integrating the NSNP more closely with other health, feeding, and nutrition programmes. Considering that the early years are the most critical for nutrition, there is great need for a nutrition programme linked to ECD centres; 2) introducing individual targeting in some schools where not all learners eat the NSNP meals regularly and income and poverty levels are mixed. Although there are concerns regarding stigmatisation, individual targeting has been successful in countries such as Chile; and 3) specifying in the NSNP guidelines

who the NSNP meals are intended for and how leftover meals and stock should be dealt with, and then monitoring this.

6.2. Improve programme effectiveness by: 4) ensuring food is served by 10:00 am and preferably at the start of the school day. The DBE should introduce a policy that schools start feeding by 09:00 am under teacher supervision. If this is not possible, a snack should be served when children first arrive at school; 5) reducing the frequency of serving soya and introducing more alternatives (e.g. pilchards; legumes such as cow peas, split peas, chick peas, baked beans and kidney beans; and peanut butter) and involving learners in the design of menus; 6) conducting an audit of NSNP infrastructure and equipment related needs in schools and developing action plans to meet these via corporate donor and partner support; 7) developing a planning tool which allows schools to adjust their school specific menus upwards or downwards in line with changes in enrolment, or if learners opt out of the NSNP; 8) emphasising performance monitoring: “% of learners who receive a nutritious meal on time, on every school day” should become the key performance indicator for the NSNP and good performance should be acknowledged and rewarded in a variety of ways, including via the NSNP best school and district awards; 9) reinvigorating the food production component of the NSNP.

6.3. Fidelity and efficiency can be improved by: 10) Developing norms and standards for staffing and resources required for implementation of the NSNP; 11) creating the position of Senior VFH, extending the period of time VFHs can be appointed for and training all VFHs at the start of their service; 12) developing guidelines and monitoring tools for the NSNP business processes. Related to these: a) funding disbursements from provinces to schools must be streamlined to ensure that funds arrive on time; b) guidelines and monitoring tools are required as a matter of urgency for ordering and delivery; c) payment to service providers must be streamlined, particularly in KwaZulu-Natal and Gauteng where this is a major problem. In

KwaZulu-Natal, VFHs should be paid by schools, and not service providers; 13) strengthening and streamlining the monitoring system. Automate some of the manual processes and systems. A pilot is recommended before making any changes to the current system.

6.4. Additional benefits could be maximised by: 14) increasing the minimum stipend for VFHs so that it is in line with the minimum stipend for Social Sector EPWP workers; 15) piloting local procurement of fresh produce. The pilot should be reviewed at the end of a year.

6.5. Sustainability can be improved and **upscaling** is recommended by: 16) Ensuring continued commitment from Government of core funding for the NSNP; 17) fully documenting the cost of NSNP (including the Conditional Grant funding, contributions from provinces’ equitable share grant, contributions from partners and at school and community level); 18) upscaling via a series of pilots, with rigorous monitoring and evaluation including impact evaluation and cost effectiveness analysis. If benefits can be demonstrated over and above those of the NSNP in its current format, roll-out should be considered at scale. The proposed pilots are: a) providing breakfast or a snack at the start of the school day; b) providing NSNP meals to identified learners in quintile 4 and 5 schools; c) increasing the amount of energy provided to be more in line with the internationally recommended 30-45% of the recommended daily allowance if children attend school for half a day; d) introducing nutritional supplements (with support from the Department of Health) to enhance the nutritional value of NSNP meals.



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