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INTEGRATED NUTRITION PROGRAMME

Nobayeni Dladla is the head of the nutrition directorate and has a background in health sociology and many years of experience behind her. Her career in the Health Department started in 1994 as co-ordinator for the Nutrition Committee and Maternal, Child and Women’s Health Committee. Faced with her biggest challenge yet and, assisted by her dynamic and dedicated team, Dladla has managed to produce a programme that has started to show small roots of success.

The Integrated Nutrition Programme (INP) as it is known, aims to facilitate a coordinated inter-sectoral approach to solving nutrition problems in South Africa. Nutrition policies, strategies and interventions follow the application of the fundamental nutrition programming process of assessment, analysis and action (triple A cycle) to the different elements of the conceptual framework in any given context and at all levels.

The emphasis is on building the long term capacity of communities to be self-sufficient in terms of their food and nutrition needs while at the same time protecting and improving the health of the most vulnerable parts of the population—women and young children.

Collaboration and cooperation with other departments, sectors within the health department, the private sector and NGO/CBO is integral in making the programme a success. Emphasis is placed on building knowledge and skills within communities and within government structures so that accountability for public funds can be maintained at the same time that decision making is being devolved to local level.

The INP is based on the recommendations of the Nutrition Committee which was appointed in August 1994 by the Minister of Health to develop a nutrition strategy for South Africa. In considering the multi-sectoral and complex causes of malnutrition, the committee recommended an Integrated Strategy to replace the fragmented and mostly food-based approaches of the past.

The goals of the INP are to enable all women to breastfeed their children exclusively for the first four to six months of life, and thereafter continue breast-feeding in addition to the introduction of appropriate complementary foods up to 24 months of age and beyond.

The goals are:
- prevent an increase in mortality due to diseases of lifestyle.
- promote the health of women and in particular pregnant and lactating women.
- reduce the prevalence of malnutrition in children.
- ensure optimal growth of infants and young children.
- improve capacity at all levels in order to solve the problems of malnutrition and hunger.
- improve intersectoral collaboration and community ownership of the programme and resources.
The vision of the INP is optimum nutrition for all South Africans. This will be achieved through improving the nutritional status of all South Africans through the implementation of integrated nutrition activities.

THE PRINCIPLES OF THE INP INCLUDE:

- Good nutrition for all South Africans should be promoted as a basic human right and as an integral component and outcome measure of social and economic development.
- Nutrition programmes should be integrated, sustainable, environmentally sound, as well as people and community driven.
- There should be a clear strategy for the promotion of nutritional well-being.
- The nutrition status of the population should be monitored.
- Cooperation between countries and international agencies should be encouraged.
- Adequate financial, human and institutional resources should be provided to ensure effective and efficient nutrition policies, strategies, programmes and services.
- High priority should be given to the rights of children, their survival, protection and development.
- The use of existing structures and programmes to address nutrition concerns should be encouraged.
- An integrated primary school health care approach should be adopted.
- Inter-sectoral collaboration of relevant structures such as line departments should be mobilised at all levels to ensure joint action to address nutritional problems.
- The active participation of households, community leaders and structures, NGOs, CBOs, and other community role players should be mobilised at project level to ensure that projects are people and community driven.
- Communities should be empowered with the necessary skills and knowledge to become self-reliant with regard to their food and nutrition needs and to be in control of factors affecting their nutritional well-being.
- Coping strategies already in place should be supported.

At national level a Director heads the Nutrition Directorate and is supported by a team of 14 staff members with different skills and expertise. There are nine Nutrition Sub-directorates headed by Deputy Directors Nutrition at the provincial level.
The INP is implemented as the integral part of the primary health care approach and at the different levels of the health management structures. The INP is an integrated programme and service delivery process at the operational level that is organised around target groups and different service points of service delivery to include health facilities, community structures, nutrition rehabilitation centres, care institutions and schools.

The key activities and milestones of the INP include:

Primary School Nutrition Programme which was implemented on 1 September 1994 following the President's announcement in the State of the Nation Address on 24 May 1994 that a nutritional feeding programme would be implemented in every primary school where a need has been established. Additional focus areas included nutrition education and health promotion through interventions such as parasite control and micronutrient supplementation. The strategy adopted for the Primary School Nutrition Programme is that of transformation from being a vertical programme to being part of the national Integrated Nutrition Programme (INP). The PSNP is used as a springboard for the development of community-based nutrition projects. It includes the development of a comprehensive school nutrition programme with linkages to the community, to other school health services and to other non-health sectors.

Milestones of the PSNP include:

The scope of funding for the conditional grant which replaced the RDP allocation for the PSNP includes all the key components of the INP. This has been implemented since the 1998/99 financial year. Since 1994, the concept of business planning has been introduced. Capacity building has been built to such an extent that project planning and the formulation of business plans are now a requirement at all levels in terms of the INP. A nutrition package for the Primary School Curriculum has been developed using 40 primary schools in the Eastern Cape and Free State provinces as pilot projects.

Outputs include:
- Teachers and learners support materials were developed for Grade 1-6.
- 211 teachers were trained, one per school in 19 schools.
- 51 community workshops were conducted.
- 9 food gardens were established.
- According to the evaluation, the project effectively increased knowledge levels, attitudes and perceptions with respect to nutrition.

**MICRO-NUTRIENT CONTROL:**

Iodine Deficiency Disorders (IDD)

During 1995 salt iodation legislation was passed. In
1998, a survey was conducted to assess the magnitude and extent of IDD in the country in order to obtain a baseline data to monitor improvement in iodine status and to formulate strategies for interventions.

**Vitamin A**

The successful implementation of surveys conducted, was on the anthropometric and immunisation of children 6 to 71 months. The results indicated that 33% of children had serum Vitamin A levels below 20μg/dl. In view of this high prevalence of Vitamin A deficiency, a brochure as well as a training package with slides directed at health workers, was developed to present the findings and strategies for the prevention and treatment of this deficiency.

**Food Fortification: Milestones:**

Consensus was reached that a food consumption survey be conducted to identify a suitable food vehicle in 1996. A Food Fortification Task Team consisting of industry, research institutions, other departments, universities and professional societies was formed in 1997 to support the food fortification activities. An expert position paper on iron overload and the implications of iron fortification was commissioned and completed in 1997. A food consumption survey was recommended to identify possible vehicles for food fortification. This survey which is being commissioned by the Department of Health commenced in 1998 and results will be available in May 1999.

The survey is designed to provide information on:
- Usual food consumption patterns of children aged 1-9 years old.
- Usual nutrient intake of these children.
- Main factors that impact adversely on food consumption.
- Anthropometric status of these children.
- An appropriate food vehicle for food fortification.
- Development of appropriate messages for nutrition education.

Following the completion of the food consumption survey in May 1999, the food fortification programme will be launched in October 1999.

Food composition data forms the basis of the development of dietary guidelines, intervention studies, supplementary feeding schemes and nutrition education. During 1995 the South African Food Composition Data (SAFCOD) was formed to create a forum to undertake and facilitate food products analysis and the development of a national South African food database. SAFCOD comprises research institutions, the food industry and the Departments of Health and Agriculture. The Department of Health sponsored the analysis of South African fresh and frozen chicken, milk and selected dairy products and selected fruit and vegetables. The analysis was completed in March 1998. Booklets on analyzed foods are available and are distributed widely for nutrition promotion. Ten food-based dietary guidelines were developed for S.A. These will form a core of key nutrition education material on the promotion of good health and healthy lifestyle.

Evaluation of the training of trainers in Lactation Management was evaluated in 1998 and the key findings were: knowledge, attitudes and practices towards the implementation of the baby friendly hospital initiatives were increased. Information on HIV/AIDS and breast-feeding was inconsistent, but a breast-feeding guideline has been developed for health workers as well as a guideline document for HIV transmission and breast-feeding. There is a high turn over of trained personnel, with a number of 206 health professionals being trained.

**Capacity Building Programme for the INP**

The main aim of this programme is to improve the skills of the programme implementors and re-orientate the thinking from the vertical food-based approach towards solving nutrition problems to an integrated multi sectorial approach within a developmental context. During 1995 the Food and Agriculture Organisation (FAO)
worked together with the Department of Health to implement the INP in a national capacity building project for the implementation of the INP. The project was divided into three phases namely:

**Phase 1** - Nutrition Advocacy: to sensitize programme coordination with the INP. "Nutrition has been neglected and has received little attention, therefore nutrition advocacy bring awareness to senior officials around nutrition issues."

**Phase 2** - Curriculum planning and training. "A Training Needs Assessment Survey was done to determine what the needs of the INP were. It was then piloted in the Northern Province and a national integrated nutrition curriculum induction course was put in place."

**Phase 3** - The tertiary training review in human nutrition to support the INP was completed in 1998. "Universities and technikons were approached in order to review their training around nutrition, to establish whether their curriculum was serving the needs of the country according to government policy."

In 1997 an Integrated Community Nutrition Induction Course was developed and piloted in the Northern Province. On the basis of the findings and recommendations, it was decided to extend the course to Mpumalanga, Gauteng and the Eastern Cape in 1998/9. The course will be extended to other provinces in 1999/2000.

**Community Based Nutrition**

In line with the PHC approach, community based nutrition forms a cornerstone of implementing the INP as part of the community-based health care approach and to build the capacity of the communities to be able to solve their own nutritional problems.

Seventeen community-based nutrition projects targeting the nutritionally vulnerable communities, especially the poor communities and the most vulnerable groups and households within those communities were piloted in four provinces. These projects ranged from food-based income generation projects to nutrition education and promotion projects.

A process evaluation of these projects was done towards the end of 1998. The main aim of the evaluation was to draw lessons from the process following initiating and managing these projects, to inform and assist with the process of efficiency and effectively expanding the community-based nutrition approach countrywide.

**Health Facility-based Nutrition Interventions.**

**Activities within the health facilities include:**

- food service management
- growth monitoring and promotion focusing on children under five.

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**COMMUNITY BASED NUTRITION**

Community-based nutrition plays an important role in implementing the Integrated Nutrition Programme (INP) as part of the community-based health care approach. This needs to be done to enable communities to solve their own problems.

- 17 community-based nutrition projects were launched in 4 provinces.
- These projects ranged from food-based income generation projects to nutrition education and promotion projects.

Evaluation was done on these projects at the end of 1998, to inform and assist with expanding the community-based nutrition program countrywide.

**The Key Findings of the Evaluation Were:**

- Strong community-building capacities can be achieved through skills such as:
  - basic financial management
  - project management
  - technical/vocational skills such as: fence making, brick laying, bush bakery, juice making.

- Active community involvement is an important factor to the project and can be improved upon.

- Cost effectiveness can be achieved by the participation of various departments in the project activities.

- To ensure the success of community-based nutrition and the learning of technical skills, the concept needs to be understood by the programme implementors.

- To enable communities to solve their own nutrition problems, the transfer of capacity building skills to the communities is being pursued with speed.

- The department feels that other measures also need to be taken to address the current malnutrition problems.

- A number of projects under poverty alleviation have been started countrywide, which will be continuously refined and developed to fit the mode of community nutrition projects and the training of programme implementors.
1999/2000 and Beyond
- Implementation of the food fortification plan
- Nutrition education and promotion
- Implementation of nutrition surveillance system
- Training and capacity building at all levels
- Support of community-based nutrition interventions

(The activities are assisted through the funding of Micronutrient Initiative (Ottawa) and UNICEF).

- Draft fortification profile (mid-March 1999).
- Advocacy to key government departments, industry and non-governmental organizations (NGO’s) (April-May 1999).
- Organoleptic stability and consumer acceptance studies (April-August 1999)
- Consumer research for social marketing (July-August 1999).
- Training and capacity building workshops and the plan for industry (August-September 1999)
- Consultations and workshops on legislation and draft regulations (August-October 1999).
- Social marketing and IEC plans and materials (August-September 1999).
- Launch Legislative Advocacy and Public Information (October 1999).
- Conduct assessment on anaemia and the causes thereof.

IODINE DEFICIENCY DISORDER (IDD) SURVEY

In 1995 the salt iodation legislation was passed. In 1998 a survey was conducted to assess the extent of IDD in the country by the South African Institute for Medical Research.

IDD baseline survey and future activities

- Data will be beneficial in the development of an IDD monitoring system. The information will help to evaluate and control IDD through salt iodation. From this we can determine whether salt levels as indicated in the legislation are adequate to reduce and control IDD and whether they should be adjusted.

- The results also show to what extent coarse salt, which is not iodated, is consumed.

- Annual retail surveys assess the salt iodine level at retail stage. This provides information on the availability of iodated salt in communities.

- The survey provides statistics which are nationally and provincially representative.

- This provides the opportunity for the establishment of a monitoring and evaluating IDD system whereby provinces will be responsible for monitoring the iodine status of communities with the assistance of local laboratories and research institutions.
Nombuselo Mdluli (not real name) lives in Snake Ville Soweto and attends Vukuzenzene Primary School. Her parents are unemployed. The food she receives at school is the only meal she will get for the entire day. The feeding project was put in place as a morning snack in order to supplement the children’s daily diet. It is not a well balanced meal if there are any left overs from the day’s feeding. Nombuselo and two other poor kids will be given a loaf or two to take home for the family. If there is nothing left over the principal has to make a plan, if he can. Vukuzenzene is one of 15 207 schools that is reached by the Primary School Nutrition Programme, (PSNP). Nombuselo is one of 4 538 495 children who have benefitted from this programme.

At eleven o’clock each day, the children of Vukuzenzene line up and are served their daily snack. A survey of school children in Gauteng found that 34% of black children said that they were still hungry when they came to school. Other studies have shown that many children arrive at school feeling hungry and not having had breakfast. Mondays at Vukuzenzene mean biscuits fortified with iron and Vitamin A and a cup of Vitamin C juice. The children enjoy this most. They do not enjoy the instant maas that is served on Wednesdays. It needs time to curdle and ideally should be served cool. There are no refrigerators at the schools and it is not given time to curdle. On the Friday that we were at Vukuzenzene, the children were being served four slices of bread and a gob of butter was placed on top with a cup of the fortified juice. The children then smeared the butter onto their bread with their dirty little fingers and devoured it.

It is the job of the District Development Officers (DDO), of the Department of Education, to ensure that monitoring is done and complaints are lodged to the complaints desk at the Provincial Office. Nicky Kubeka, who deals with complaints at the desk, says that the number of complaints has decreased since the inception of the programme. She now only deals with three or four a day, sometimes none. Once Kubeka has received a complaint she then calls the relevant people and ensures that changes are made. The monitors in Gauteng alone have to service 911 schools and there are 18 DDOs and 18 Early-Childhood Development Officers from the Department of Education. Phillip Thabethe the DDO for the Soweto area says that he monitors five schools quarterly and sees all five in one morning.

The school feeding helpers at the schools are mostly unemployed people who need training. Problems such as not knowing how to mix the instant maas correctly, and not spreading the butter on the bread, or ensuring that jam or peanut butter is put with the butter exist.

Ms Rina Ochse, the Deputy Director, Nutrition from the Health Department, explains the problems surrounding this. “There are too many helpers without transport and it is a problem trying to get them together in order to train them adequately. The suppliers are required to train the helpers on how to prepare the food properly as well as to pay them. They are also required to send the labels of the goods being supplied to the provincial office in order to ensure that they are supplying the correct brands of food.

“Other problems include the children being fed late in the morning because the suppliers bring the food late and pay the helpers late. These are all problems which still have to be rectified.” However, she continues, the problems associated with school feeding programmes, are well known world-wide. It is expensive and complicated logistically. Despite this, review articles suggest that school feeding is the most common type of school nutrition programme.

### MOST COMMON PROBLEMS OF SCHOOL FEEDING PROGRAMMES WORLD-WIDE.

- irregular supplies
- food lost through spoilage or the black market and theft
- inadequate rations in calories and nutrients
- unacceptable food
- disruption of teaching for meal preparations
- burdensome reporting/monitoring
- burden on school staff
- logistical difficulties of transporting large quantities of food with poor transportation and communication systems.

One of the goals of the school nutrition intervention is to increase concentration and learning capacity. Additional focus areas included nutrition education and health improvement interventions, such as parasite control and micronutrient supplementation. Judging from the slightly better example of the programme at Emisebeni in Soweto, the other school that we attended, one could see that these goals were being reached to some extent. The extremely enthusiastic principal, Ms Tebogo Kgedi continually thanked the officials present for the nutrition programme. She was keen to point out that the school’s attendance improved once the feeding scheme was put in place. “It has decreased absenteeism and the children are noticeably more energetic and concentrate better in class.” Studies on the effect of school meals on attendance and enrolment show...
Traditionally, health and education have been perceived as separate issues, rather than two interactive components of child development. There is now recognition of the link between health and the child's ability to participate and succeed at school. Health and nutrition interventions are being strongly recommended as methods for achieving better education outcomes, and studies suggest that the potential gain in education through nutrition and health interventions are substantial. Research studies have shown that a child's active learning capacity and, therefore, school
However, some of the findings from studies in other countries have shown some improvements as a result of the feeding scheme. There seems to be a general agreement that school feeding programmes cannot be expected to make a significant contribution to combating malnutrition among school children because of the multiplicity of factors causing malnutrition.

In addition, the relatively small nutritional contribution of many school meals relative to a child's total daily nutritional requirements, limits the ability of school feeding to impact on nutrition status. Another concern about the school feeding is that the school meal may displace food consumed by the school child at home, thereby not providing any net gain in nutritional intake, and possibly even result in an overall reduction of nutritional intake. This is particularly of concern when the school meal is small in terms of nutritional value.

Attention instead has increasingly focused on the role of school feeding programmes in maximizing children's learning capacity through the relief of short-term hunger, and shifted from being nutritional-related to being education-related. Other benefits of the school feeding programmes include it acting as a vehicle for motivating parents to take a more active part in the organisation of the school and the community at large.

If properly designed, school feeding programmes can promote community development activities, such as employment creation (e.g., cooks and helpers) as well as local food supplying enterprises or providing an outlet for local food production. In South Africa, 10 815 employment opportunities were reported from April 1998 to January 1999. 18 247 compensated volunteers and 14 432 non-compensated volunteers, totalling 32 679, from communities participated in project activities during January 1999. The number of participating enterprises include, 304 medium, 1 958 small and four very small. Food suppliers delivering food during January 1999 numbered 2 266. The number of people trained in the period April 1998 to January 1999 were 5 143.