

MID-DAY MEAL HANDBOOK

Draft Outline*

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* This draft outline for “mid-day meal handbook” was prepared at a workshop held at the Centre for Equity Studies in March 2004. The handbook will be fleshed out in due course, and hopefully adapted for different states, translated in local languages, etc. Meanwhile this outline is being circulated for the benefit of those who wish to work on similar handbooks in their own state or area. No copyright!

Preamble

Purpose of the handbook; who it is addressed to; how it can be adapted to local circumstances; how/where it can be used (e.g. in teacher training programmes) or disseminated...

1. The Importance of Mid-day Meals

1.1. The main objectives: (1) improving child nutrition; (2) promoting school attendance; (3) fostering social equity.

1.2. Other (possible) roles of mid-day meals: socialization role; employment for women; reducing the burden of household work; nutrition education; child health; community participation; making the school environment more child-friendly; the “integrated nature of growth”; hungry children are inactive, irritable, indifferent to learning ...

2. The Supreme Court Orders

2.1. Nutrition and health as basic rights of all citizens. Universal, nutritious mid-day meals as an aspect of the right to food. The Supreme Court order on mid-day meals. Cooked mid-day meals vs earlier system of “dry rations”.

2.2. Implications: mid-day meal is a legal entitlement; need for people to be aware of their entitlements and demand them; regular provision of mid-day meals is extremely important and disrupting mid-day meals, even for a single day, is a serious violation of children’s rights.

2.3. What the SC “norms” on calories, proteins etc. amount to in practical terms.

3. Guiding Principles

3.1. **Reliability:** The meal should be provided every day (including holidays if possible), at a regular time. All supplies should reach on time and be of good quality.

3.2. **Quality:** The meal should be nutritious, tasty, digestible, and vary from day to day.

3.3. **Hygiene:** High standards of hygiene and cleanliness should be maintained.

3.4. **Transparency:** Accounts should be scrupulously maintained, and open for public scrutiny.

3.5. **Equity:** The mid-day meal should be used as an opportunity to impart a spirit of equality and sharing among children of different social backgrounds. The cook and helper should also receive fair treatment.

3.6. **Imagination:** Local knowledge and resources should be used to provide good nutrition at low cost. Community support should be sought to enhance the quality of mid-day meals.

4. Facilities Needed for a Successful Mid-day meal

4.1. **Infrastructure:** cooking shed (with adequate space, appropriate location, etc.); storage space...

4.2. **Personnel:** a cook and helper; if possible an “organizer”; possible role of self-help groups, mahila mandals, PTAs, etc.

4.3. **Equipment:** utensils; cooking pots; clock; weighing/measuring implements; storage equipment; washing equipment; plates and tumblers...

4.4. **Water:** a safe source of drinking water, preferably on school premises; if needed, water purification facilities (e.g. filters, chlorine tablets). If needed PHED should be approached for improved water facilities, purification or storage.

5. ABC of Child Nutrition

5.1. Requirements of good nutrition for a child in the primary-school age group. Role of energy, proteins, fats, carbohydrates, minerals/vitamins, roughage.

5.2. Main nutrition deficiencies in children (nature, detection, consequences, and remedies):

- Protein-energy malnutrition (PEM).
- Vitamin A deficiency (leads to vision problems, night-blindness, etc.; also susceptibility to infection; can be reduced by eating green leafy vegetables, palm oil, “yellow foods” like carrots, tomatoes, papaya...; Vitamin A supplementation every 6 months is also advisable).
- Iron and folic acid (leads to anemia and affects growth, cognition, activity, etc.; can be reduced by cooking in iron vessels; eating green leafy vegetables, gur,...; or through iron supplementation).
- Iodine (causes goitre; can be reduced by using iodised salt).
- Other possible deficiencies: vit D (rickets), vit C (scurvy), vit B Complex (beri-beri, pellagra)...

5.3. Worms. How they affect children’s nutrition. Recommended action: mass deworming every 6 months.

6. Nutritious Food at Low Cost

6.1. General advice: the nutrition value of the MDM can often be enhanced at low cost by imaginative use of local foods. For instance, green leafy vegetables are available locally in most villages, and tend to be both cheap and nutritious. Local food habits often provide important clues about “nutritious food at low cost”.

6.2. “Tips” to enhance the nutrition content of the MDM: sprouting (enhances vitamin content); “mixing” (of dals, oils, etc.); fermentation (e.g. *khamiri ata*); “multi-coloured” meals; kneading flour with spinach, dahi, milk, oil, boiled vegetables, etc.; not throwing away the rice water; adding some extra oil; adding protein-rich items such as soya, groundnut, eggs, fish, meat, etc.; home-made dahi (safe and easy)...

6.3. Examples of useful ingredients and their “qualities”: puffed/flaked rice; coarse grains (millet, ragi, bajra, jowar); *bhuna chana*; gram; soyabean; groundnuts and peanuts; gur and jaggery; seasonal vegetables/fruit; *mukmelon ke beej*; *sehjana ki phalli*; other beans; bananas...

6.4. Examples of cheap and nutritious menus...

6.5. Examples of useful types of “processed food”: murmura; (poha? muri?); chikki/brittle; biscuits (some?!); chana; dry mixtures... These can be particularly useful in circumstances where cooking is difficult, e.g. monsoon months. However processed food should never become a permanent substitute for cooked meals.

6.6. Examples of not-so-cheap but highly nutritious ingredients/menus (e.g. eggs).

6.7. Foods to be avoided (e.g. high-cost, low-nutrition, unsafe, junk)... Also, avoid spicy food.

7. Hygiene and Cleanliness

7.1. Introduction: Why hygiene and cleanliness are important. Examples of how poor hygiene can lead to illness, food poisoning, etc.

7.2. Children’s hygiene: washing hands (before and after meals, and after toilet); cutting nails; combing hair; clothing.

7.3. Basic rules of kitchen hygiene: washing hands; cutting nails; cooking in a clean space with clean utensils; covering cooked food; keeping water covered in a clean container, after purification (by boiling, filtering or chlorination) if necessary; cover the vessels while cooking (this also saves fuel and retains nutrients); vessels should be cleaned in a separate space using appropriate means (soap, ashes,...).

7.4. Other kitchen tips: vegetables should be scrubbed, not just washed, and outer layer should be discarded; avoid damaged vegetables or fruit; tying hair; careful waste disposal (e.g. in a pit; not in the open, and not close to the cooking area); use fresh and well-washed ingredients; avoid under-cooking (but also over-cooking, which leads to loss of nutrients); extra care with animal products; extra care in summer months; serve food hot; avoid food that smells or looks suspicious; someone should “taste” the food before it is served...

7.5. Storage tips: Store food in dry, clean and covered containers; use local methods to keep insects and rodents at bay; “desi fridges” and other “appropriate technology” tips; storage should be supervised (e.g. by teacher or sarpanch).

7.6. Water tips: Sources of safe water; how to purify water (boiling; filtering; chlorination); water storage; use mug with a handle to draw water from jars...

8. The Mid-day Meal Routine

8.1. Introduction: The mid-day meal has an important “socialisation” role. It should be served in an organised, dignified, equitable, friendly manner – not a free-for-all.

8.2. A “model routine”: regular timing; meal is served in a clean open space, separate from the classrooms; space is swept 5 minutes in advance by the helper; children wash their hands (with soap); they sit in an orderly manner as food is served; an educative rhyme (e.g. about good nutrition) is recited before the children start to eat; children get adequate time to eat and are given a second helping if necessary; the teacher eats with the children; no food is wasted; after the meal, washing of hands again, rinsing of plates, safe disposal of leftovers, cleaning of the area.

8.3. MDM is an opportunity to foster social equality. All children should receive equal treatment (eat the same food, drink from the same pitchers, etc.), and sit together for the meal (with their friends if they wish, but preferably with some “rotation” between different days). If some children bring food from home they should be encouraged to share it. Teachers should eat with the children.

8.4. Examples of practices to be avoided: children eat food on pages of notebooks; “groupies” eat together day after day; scrambling for the food; scattering all over the place; bolting home with the food...

9. From Food to Health

9.1. Introduction: The scope for linking mid-day meals with other health facilities.

9.2. Nutrition supplements: iron, vitamin A, iodine.

9.3. Deworming: why it is important; how it should be done.

9.4. Mid-day meals as an opportunity for nutrition and health education. How this can be achieved, with children as well as with the community. Examples of useful health and nutrition “messages”, and how they can be conveyed through rhymes, songs, skits, stories, puppet shows, etc.

9.5. Need to link schools with health services, and especially for regular health checkups (including anthropometry, eyes, teeth, etc.).

10. Recap: Do's and Don'ts