SUMMARY AND CONCLUSIONS

The National Nutritional Anemia Prophylaxis Programme (NAP) and National Programme for the Prevention of Blindness due to Vitamin A deficiency (VAP) were launched by the Government of India during the fourth Five Year Plan period (1969-74). The limited evaluations of these programmes carried out so far have revealed that after more than three decades of their existence they have not been as successful as they were expected to be, and the problem of iron and vitamin A deficiencies in India is nowhere near its solution. The programme impact has been in focus in most evaluations, while detailed in-depth studies of the management of these programmes have not been carried out. Further, efforts thus far have been directed towards studying these programmes in isolation and not in the overall context of primary health care within which they operate. Also, the emphasis has been on quantifying the problems besetting these programmes rather than taking a close look at the reasons behind these problems through an integrated use of both qualitative and quantitative methods. Further, comparative urban-rural studies in nutrition programme management have not been reported. Also, no such studies have been carried out in the Indore district of Madhya Pradesh where this study was conducted.

Therefore, the present study aimed at evaluating selected management components of NAP and VAP within the context of primary health care in Indore (process as well as impact evaluation); at assessing whether the perceived excessive emphasis on Family planning programme (FP) does indeed adversely affect the implementation of NAP and VAP and determining the relative strengths and weaknesses of the various qualitative and quantitative methods integrated in the study design.

Materials and Methods

The sample of the study consisted of 9 Urban Family Welfare Centres, 5 Rural Primary Health Centres and 5 Subcentres. At the providers' level, the sample consisted of a total of 72 urban and rural functionaries (19 ANMs, 5 MPWs (male), 14 LHVs, 4 BEEs and 14 MOs, 6 senior district officials and 10 recently trained ANMs). A total of 370 beneficiaries (57 pregnant women, 103 lactating women and 210 preschool children) formed the sample at the beneficiaries' level.

Experimental design : The present investigation was a semi-longitudinal study with a focus on management evaluation. The management components studied were : manpower and material resources (knowledge, attitudes and practices of functionaries, work organization and time allocation, and infrastructural support provided in terms of logistics of iron and vitamin A supplements, transport, incentives and disincentives), monitoring and control (target setting, supervision, MIS-circulars, reports, records, daily diaries and meetings). In addition, impact of NAP and VAP on beneficiaries was studied in terms of their

utilization of iron and vitamin A supplements and impact on hemoglobin levels and presence of Bitot's spots.

Methods : Continuous direct observations of all the ANMs and LHVs forming the sample were conducted during working hours over a period of one year. Each ANM was observed for a period of 6 days while each LHV was observed for a period of 3 days. The other qualitative and quantitative data collection tools administered to the functionaries were narratives, scenarios, ranking cards, structured domain interviews and informal conversations. A review of secondary data (circulars, reports, records, daily diaries) was carried out at district, Centre and Subcentre levels. The beneficiaries were administered structured interview schedules; estimation of hemoglobin levels of pregnant and lactating women and preschool children, and clinical examination of eyes of preschool children for the presence of Bitot's spots, was done.

Results

Section A : Providers' level

1. The knowledge of functionaries at Centre and Subcentre level and of district level officials was very inadequate with regard to the operational aspects of NAP and VAP. Although in the interviews, a favourable attitude was expressed towards these programmes, observations indicated that in practice, the functionaries gave little importance to them. Similarly, while the functionaries reported several desirable practices in implementation of these programmes, field observations over a year highlighted in detail several instances of mismanagement of these programmes. For example, the IEC to beneficiaries was observed to be practically non-existent though it was reported to be provided by all the functionaries. Similarly, monitoring of beneficiary adherence to iron supplementation was negligible in practice though reported to be regular in interviews.

2. Pre-service as well as in-service training provided to the functionaries was found to be extremely inadequate with respect to NAP and VAP. It is another weak aspect of the management of these programmes which needs to be urgently addressed.

3. The time and motion study data, gathered through the year long observations, indicated that the ANMs and the LHVs worked for less than 5 hours on an average work day as against about 6 hours reported by them. Atleast one-third of the total working time was spent by the ANMs and LHVs in unproductive personal work which was unrelated to their expected duties. Observations showed that there were monthly variations in the amount of time allocated by functionaries to various programmes during the year under study. Implimentation of immunization and family planning took up a major portion of the time of the functionaries and officials at all levels throughout the year while a negligible proportion of the total working time was devoted to NAP and VAP.

4. The supplies of iron and vitamin A supplements were reported to be inadequate and/or irregular by functionaries and district

officials. The scrutiny of stock registers and observations confirmed these findings, and also revealed that even the available supplies were being mismanaged, i.e. there was excessive unused stock at some centres while practically no stock at others.

5. Targets for various Centres and Subcentres for beneficiary coverage were found to be set arbitrarily without taking into consideration the number of eligible target beneficiaries.

6. Regarding the supervision being provided at various levels, most of the functionaries stated in interviews that their supervisors checked records and made field visits. However, the observations showed that the records were rarely and perfunctorily checked and fields visits were infrequent. Supportive supervision (for example, providing guidance and problem solving) was either lacking or inadequate. Most of the supervision, in practice, related to enquiring about achievements of targets related to FP and immunization. On the rare occasions that NAP and VAP received the attention of the supervisors, the supervision was restricted to instructing the functionaries to achieve targets and to collect iron and vitamin A supplies from the stores.

7. The record maintenance related to NAP and VAP was found to be poor. The records of supplies received and distributed at various centres were incomplete, while the records of beneficiary coverage were even more unsatisfactory. An assessment of the MIS revealed that FP and immunization were the focus of district officials and centre level supervisors in meetings, circulars and reports. NAP and VAP related information received scant attention.

Data at the providers' level revealed that with respect to most of the management components studied under NAP and VAP, there were no consistent urban-rural differences. The differences were more on account of the human element - the functionaries' performance depended more upon their individual characteristics rather than their urban or rural placement.

Section B : Beneficiaries level

1. According to responses of beneficiaries, only about 43 percent of the child beneficiaries and 61 percent of the women beneficiaries had received the iron supplement, while only 21 percent of the preschool children had received vitamin A supplement. Thus, the coverage of beneficiaries in the sample with the supplements was poor. The responses of beneficiaries were in agreement with the data of observations that the functionaries rarely monitored the receipt and consumption of iron supplements and imparted little IEC to the target group. Two-thirds of NAP beneficiaries and one-third of VAP beneficiaries had discontinued taking the supplement mainly due to lack of receipt of subsequent doses; few discontinued due to side effects.

2. The mean hemoglobin levels were low : 9.9 g/dl in pregnant women and 9.8 g/dl in preschool children. Urban beneficiaries had lower hemoglobin levels than their rural counterparts. The receivers of the iron supplements had higher mean hemoglobin level and a lower percent prevalence of anemia as compared to non-receivers.

3. The prevalence of Bitot's spots in the preschool children was higher (4%) than the WHO cut off point (0.5%) indicative of public health significance of the problem. The prevalence was higher in the urban than rural children and in the non-receivers as compared to receivers.

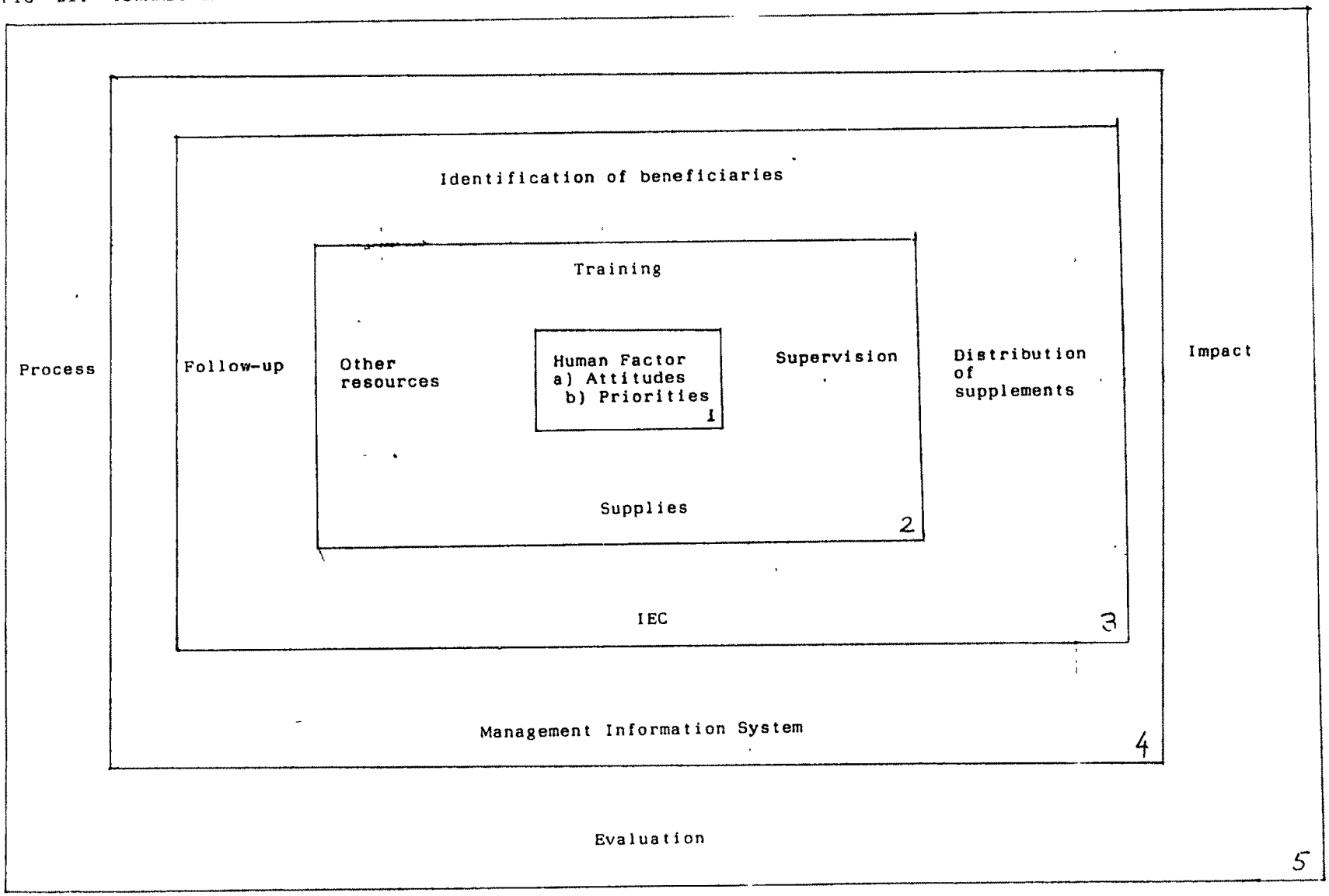
To conclude, Figure 21 takes a look at some of the basic issues affecting the implementation of NAP and VAP on the basis of the study findings, and suggests how these can be addressed to improve the situation. The human factor is the central issue which appeared to affect programme performance. Even in the present set up with its limitations, some functionaries and supervisors showed far more sincerity towards their work than the others. The variability in the work performance was not so much situation related (urban vs rural, Subcentre vs Primary Health Centre) as it was person related. Thus, even if the hardware of the management system is improved, it will not effectively function unless the software i.e. human development, is also given equal emphasis. Two significant components of the human factor which deserve a mention are attitudes and priorities of functionaries.

a) Attitudes of functionaries towards primary health care in general and towards specific programmes (NAP and VAP) in particular are important. Often a casual or indifferent attitude among the functionaries was seen towards primary health care and the people who use it. Also, those programmes which have significant long term but less visible benefits (eg. health education, nutrition supplementation) were not taken as seriously as the "visible" and "important" programmes (like family planning and immunization). This will markedly reduce the chances that a balanced, holistic and need based Government Health Service system is made available to the people.

Training of the functionaries is an important input which can help functionaries have a more favourable attitude towards nutrition programmes. Training of trainers is especially important. The trainers should be aware of the specific job functions which the trainees are expected to perform in the community and the potential problems that they will face. The nutrition component in the training of field level functionaries needs to be urgently strengthened so that it is cohesive and not diffused, specific and not vague, and takes adequate care of the field level management of NAP and VAP.

b) Priority assigned to specific PHC programmes; to individual tasks within the gamut of job functions and to the quality vs quantity of work done, is another important component (Fig 21). Programmes perceived to be less important (such as NAP and VAP) were given less priority and hence less time and

FIG 21. TOWARDS IMPROVEMENT OF MANAGEMENT OF NAP AND VAP WITHIN THE EXISTING PHC INFRASTRUCTURE



financial/material resources in implementation, as compared to FP and immunization which were considered more important.

Within their job functions, the functionaries prioritised certain tasks (such as distribution of iron and vitamin A supplements) at the cost of other important ones (such as IEC to beneficiaries and proper record-keeping). They also gave far more importance to achievements of targets under NAP and VAP (quantity of work) rather than to ensuring the completion of dose to each beneficiary (quality of work). Through proper training and supportive supervision, the functionaries can be helped to provide a better balance of services. Further, the issue of priority emerges from the policy makers and programme planners and cascades downwards to the grassroot functionaries; hence it has to be addressed at that level. It is imperative to advocate the cause of nutrition programmes before programme administrators and senior decision makers so that more support may be made available by way of financial, manpower and material resources. Involvement of the mass media is also desirable for nutrition programme advocacy, especially for the general public, so that a demand for nutrition programmes is created.

Once adequate priority to NAP and VAP and the preparedness of functionaries (who are equipped with adequate training, supplies and other resources) is ensured, the target beneficiaries can be identified, educated through relevant IEC, distributed the supplements according to a planned strategy and followed up through home visits to monitor adherence to the supplementation regime. All these efforts have to be supported by an effective MIS. In particular, attention is required towards streamlining the existing recording and reporting system, monitoring its maintenance and giving a feedback to functionaries on receipt of reports. Prompt and constructive feedback is an incentive to functionaries to work better and to maintain correct and complete records. A two way flow of information between supervisors and field level functionaries at all levels is necessary for effective management of NAP and VAP.

Finally, process and impact evaluation of NAP and VAP will reveal the bottlenecks in the management system at the providers' level and the constraints at the beneficiaries' level, on the basis of which corrective measures can be taken. Vigorous efforts need to be made to institutionalize the use of qualitative indicators - along with the existing quantitative indicators such as extent of coverage - for external or internal evaluation. This will ensure that the quality of services provided will receive adequate attention.

Recommendations for future research

1. Operations research in nutrition programme management is needed to answer the question, "how can the management of NAP and VAP be strengthened within the existing Primary Health Care set up?"

2. Future studies which incorporate qualitative and participatory research tools in programme evaluation and are

conducted jointly by programme administrators and researchers are needed.

3. Observations as a research method hold promise for yielding valuable qualitative data for nutrition programme evaluation. More studies are required to experiment with this method in various situations.

4. Finally, communications research is needed to establish the types of advocacy efforts which will successfully promote the cause of nutrition programmes among policy makers and programme administrators.