A BEFORE AND AFTER TRIAL OF THE EFFECTIVENESS OF NETWORK ANALYSIS IN HEALTH OPERATION MANAGEMENT

Dear Editor,

The relevance of "Network Analysis" as a tool for planning, monitoring and control of health projects has been highlighted by the authors. But the study leaves an impression that those networks are very simple and the activities are broad, which needs to be corrected. e.g. Activity D (Administrative actions to make up deficiencies) would have consisted of several activities. These activities would ideally be referred to as tasks. If activities are suitably defined, the cause of delay and remedial action would generally have been reflected by the activities themselves. It is not clear of study was due to change in certain activities or due to highly optimistic calculation of activity time during the first year.

During the second year the network has also been modified with Activity B following Activity A, which could always run concurrently, as they merely pertain to procuring information regarding spraying eqpt and trained personnel from units, respectively. There is also no gain by means of reduction in slack time available which remains at 15 days in both the networks. With this in view a technique of network analysis (Critical path method) also utilises optimistic and pessimistic timings for various activities, while planning the network.

The main reduction in time during the second year is in activity D and activity F, which are not strictly controllable by the health managers, as they pertain to action for making up of deficiencies of spraying equipment and supply of hygiene chemicals by different agencies. These difficulties could easily be overcome if suitable inventory management practices are followed by these agencies.

An interesting aspect of the study is that the solution proposed for most of the delays is liaison activity by SHO. This also highlights the prevailing lack of co-ordinating mechanisms among different agencies and the low priority accorded to management of health related problems by various administrative agencies. A project like this cannot achieve the levels of efficiency and efficacy required unless all the agencies involved are incorporated in the network with all their relevant activities. There would be a requirement of high level of inter sectoral co-ordination or a unified central agency overlooking the project.

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Reply

The various activities undoubtedly would comprise of a cluster of inter-related tasks, successful completion of which would result in performance of the activity. Each and every detail of such tasks within the activities could not be provided, firstly, for reasons of space, and more importantly, because such tasks would be quite variable, e.g. an apparently simple task like undertaking telephonic conversation may be extremely easy in one area but pretty difficult in another firm. For this reason, it is felt that it would be best to leave such intricate details to the health managers operating in different local situations.

During the first year, the calculation of time was not based on assumptions, but factual info, and that too retrospectively on the basis of how things had happened; hence, it is not likely that the calculation would have been distorted (either optimistically or pessimistically).

The slack time has definitely remained 15 days in both

the situations. However, the objective of the intervention was to prepone the completion of event No (7) which was achieved with an improvement of one month.

Even if Activities A and B started concurrently, the loops of critical path(s) would have remained the same at 165 days. On the other hand starting activity B on completion of event 2 gave some spare time to OC SHO to look after other important jobs which were required to be done in the month of October.

The fact that the main achievements have been in respect of activities (D,F) which are primarily the task of users/procuring agencies and not the health managers, is an indication that health managers, with little bit of extra effort and liaison with these units/HQs, may achieve significant improvements in results in those areas which are ultimately going to be identified as primarily their own responsibility.