Health Management Training of UGs- A Missed Opportunity!**Sunder Lal¹, Biswaraj Inglergeri²**¹Former Professor and Head, Department of Community Medicine, Pt. B.D Sharma, PGIMS, Rohtak, Haryana,²Professor, Department of Community Medicine, AIIMS, B.G. Nagara, Nagamangala, Mandya, Karnataka, India**Correspondence:** Prof. (Brig.) Sunder Lal, **E-mail:** vikassehgal79@gmail.com

The objectives of undergraduates (UGs) medical education have been clearly defined. At the end of undergraduate program, the Indian Medical graduate should be able to recognize “Health for All” as a national goal, learn every aspect of national policies on health, achieve competency in holistic medicine, develop scientific temper and observe medical ethics. In consonance with the national goals, each medical institution should evolve institutional goals to define the kind of trained manpower they intend to produce. The Indian medical graduates coming out of medical colleges be familiar with the basic factors which are essential for the implementation of national health programs, acquire basic management skills in the area of human resources, material and resource management related to health care delivery system, general and hospital management, principal inventory skills and counselling. He must be able to identify community health problems and learn to resolve these by designing, instituting corrective steps and evaluating the outcome of such measures. Such a graduate should be able to provide leadership to health care team in primary and secondary health care setting, educate and motivate other members of the team and accountable to patients, community and the profession (MCI 2018).^[1] All these competencies are relevant and relate to effective training of UGs in basic health managerial skills by whole of the college faculty (as institutional responsibility) and more so by the department of community medicine.

The revised curriculum lays substantial emphasis on community based teaching and acquisition of managerial skills. Similarly national health policy states that medical education must be integrated with

health care delivery system so that students learn in real life situation and not in the confines of medical colleges.^[2] It is widely recognized that training in health management by and large has been neglected and consequently the managerial functions of the health system are being neglected. Teaching/learning of management skills by didactic method is high and dry and quite boring for teachers and students alike. Participatory methods such as case studies, observation, interaction and demonstration could be most useful. Most textbooks do not cover health management topic adequately and adhere to purely theoretical concepts. Some of the participatory methods of learning on health management are being presented hereunder for their adoption and wider application in the existing training program of UGs.

Managing human resources in health: In a community development block, one Community Health Centre (CHC) or block level Primary Health Centre (PHC) is responsible to 1,20,000 population. Human resources at this level of organization are- 5 specialists, 4 general duty medical officers, 10 staff nurses, 5 technical support staff, 1 public health manager, 1 or 2 block level supervisors besides clerical and other support staff. In the block there are 24 subcentres, each with 2 Auxillary Nurse Midwives (ANMs) and one male mutlipurpose health worker. In all there are 72 health workers, 120 Accredited Social Health Activist (ASHAs), 120 Anganwadi workers (AWWs) besides 100-120 Village Health Nutrition and Sanitation Committees (VHNSC), Panchayati Raj Institutions (PRIs), Non-Government Organization (NGOs) and private practitioners. The subcentres have been upgraded to Health and Wellness Centres with

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an addition of 1 Mid-Level Health Provider (MLHP)-AYUSH doctor or BSc nurse. Medical officer is a key facilitating figure in the National strategy of "Health for All". He is first and foremost health manager as he is in-charge of extensive human and material resources to reach 1,20,000 people to deliver health services. Managing human resource is a major task in terms of their continued education/ training, to progressively upgrade their skills on the job training, supportive supervision and motivation, coordination, organizing work plans, monitoring, arranging supplies and providing effective leadership to health teams. The leadership role of medical officer in the overall health system is proving to be a weak link placing the success of the other more critical elements of subcentres, Village Health Nutrition and Sanitation Committees (VHSNC), ASHAs in a great jeopardy. Most medical officers/doctors are seen to be playing almost exclusively clinical curative role by spending 80-90% of their time in routine daily clinics at PHC/CHC. They are unable and unwilling to take management function and liaison with the community. We must look back to the system of medical education as to how well we have imparted basic health management training to UGs. In service training through professional development courses and pre-placement training program is a partial answer to this problem. System of medical education must train them on basic health management skills during UGs and internship training program.

Health Planning: It simply means identification of health service needs / problem of community, setting priorities and goals, organizing adequate resources and ensuring organized activities/program to meet these needs by implementing the planned activities, supervising and monitoring these activities and ultimately evaluating the results of the planned activities/services. Planning in India has been decentralized to the village level. Gram sabha and equivalent urban bodies of the country are the basis of the planning process, they determine their needs and priorities and work hard to achieve their needs with the support of government.

Planning process – assessment of health service needs by health workers- a case study

Household surveys- an instrument to assess health service needs: The objective of household survey is to

assess the health service needs of the community. Household survey collects information on total family members, their age, sex, literacy, occupation, marital status, disease, disability, health seeking behaviours besides determinants of health such as source of drinking water (safe water), use of sanitary latrine, economic status and use of cooking fuel. During these surveys the workers collect and compile the tally of pregnant women, eligible couples, births and deaths, causes of deaths, below poverty line families (high risk household) and total population. Annual household surveys are conducted by ASHAs and AWWs with the support of ANMs and updated continuously for marriages, pregnancy, births, abortions, deaths, causes of deaths and migration. ASHA also prepares community based assessment checklist of persons above 30 years of age for community based screening to identify high risk persons by scoring method of common determinants of Non-Communicable Diseases (NCDs) for early detection and management. In addition the village health sanitation and nutrition committee members/ Mahila Arogya Samiti in urban area members are also consulted to validate the information collected by household survey. This way the family health folders and individual health records and population data are created and priorities are determined.

Facility survey: In addition to household survey facility survey are also being conducted to collect information on available inputs (manpower, building, equipment and drugs/diagnostics etc.). Their basic purpose is to identify critical gaps which need to be addressed during planning process. Available resources are matched with Indian Public Health Standards to discover gaps at Subcentre and PHC.^[3]

Workload Assessment: From the household survey data the workload and service requirements of a typical subcentre with population of 5000 can be assessed. Essential service needs from such surveys emerge as under, however these are indicative only. Workers must collect realistic workload and service requirements themselves from their own data base (household survey)

- Eligible couples enumerated (married women 15-49 years)- 850-950
- Current users of family planning methods, number of active users will vary from subcentre to

subcentre

- Pregnant women per annum: 110-120
- Live births per annum: 100-108
- Under 5 children: 625-650
- Children between 5-6 years: 96-104
- Children 10 years of age: 94-102
- Children 16 years of age: 92-100
- Persons above the age of 30 years: 1850
- Elderly population above 60 years: 450
- Adolescents 10-19 years age group: 1000
- Anaemic pregnant and lactating mothers, children and adolescents: 50%
- Underweight under 5 children: 35% (use AWW data)
- Episodes of Diarrhoea, ARIs, Fever in children:

Actual Out Patients of subcenter of last year

- Proportion of ailing persons: Actual Out patients of subcentre- approximate 8% of population
- Diabetes, Hypertension and Obesity: 9-14%

The resources required for each service are worked out by the health workers and procured as per norms of IPHS. Standard/norms of each service have been set and accordingly health worker makes a plan for delivering services to target population.^[3]

Action Plan by health workers (work planning): From the household survey data health worker themselves determine their workload and realistic targets and objectives. The objectives are to provide quality services as per standard and achieve desired coverage level of each service. The workers plan their activities

Monthly work plan of MPHW Female						
Week	Monday	Tuesday	Wednesday*	Thursday	Friday	Saturday
First	NCDs village-1	MCH and FP clinic	Immunization village - 3	MCH and FP clinic	AW visit-1	Open day
Second	NCDs village-2	-do-	Immunization village – 4	MCH and FP clinic	AW visit-2	Open day
Third	NCDs village-3	-do-	Immunization village - 1	-do-	AW visit-3	Open day
Fourth	NCDs village-4	-do-	Immunization village – 2	-do-	AW visit-4	Open day
Fifth	NCDs village-5	-do-	Immunization village - 5	-do-	AW visit-5	Open day

* Village health sanitation and nutrition day with ASHA and AWW once a month and fixed screening days for NCDs in villages, NCDs- Non communicable diseases; FP- Family Planning, MCH- Maternal and Child health; AW- Anganwadi

and a day wise and village wise fixed work schedule is followed by health worker to cover 5-6 anganwadi areas and 5000 population. The target population knows this work schedule to avail services. The prime activities include- home visits for tracking of beneficiaries and to identify new beneficiaries, sustained contacts with eligible couples, to provide skilled attendance at birth, home based post-natal and new born care, holding outreach session on immunization and maternal and child health services, register birth and deaths, causes of deaths, identify epidemic prone diseases and visiting anganwadis to

track under 6 children for services as also follow up of immunized children for adverse events following immunization. A typical work plan is depicted as above. The work plan is flexible enough to make adjustment to respond to any emergent situations such as outbreak/ epidemic or other mass campaigns (deworming, diarrhoeal fortnight).

One day is fixed for screening of non-communicable diseases. On fixed day, fixed time and at fixed place an outreach session for immunization and MCH services is held. One outreach session per month for 1000 population in rural and 2000

population in urban slums areas is held usually on health and sanitation day. MCH and family planning clinic is held at subcentre on fixed days. On open days any missed activity of that week is undertaken. Priority for health worker is to cover and spend more time with below poverty line families.

Implementation of work plan: Planning is as good as its implementation. System of tracking the beneficiaries throughout life span has been created, thus a life cycle approach for continuum of services has come into operation. Further household survey listing has been expanded to include all persons over 30 years of age for early detection of NCDs and their management at community level. The work schedule precisely and explicitly states implementation plan. The implementation plan illustrates as to who will do what activity, at what time (time of initiation and completion of activity), and at which place with what resources. It gives an overview of activities against which monitoring can be undertaken.

Work reporting- A monitoring tool: Routine monthly monitoring report can be used to learn various indicators of monitoring system. Observing and interpreting lively monitoring process built in the health care delivery system is an extremely useful experience for students and teachers alike. With available inputs of subcentre and community the Health workers, ASHAs and AWWs generate service outputs. These outputs are regularly reported by health workers on standard format.^[4] Thus regular monthly work report of a subcentre is an important monitoring tool to learn inputs, processes, outputs, effects and impact indicators of monitoring system. This report indicates whether the activities are being carried out as planned under work schedule/plan and having expected effects on target population of 5000. For each monitoring indicator the standard of performance has been set. Health manager/supervisors are able to identify the critical gaps between actual performance and standard performance of health worker/subcentre. Some of the expected or standard performance of various indicators in health care delivery system is indicated here under:

- Registration of pregnant women, births and deaths- 100%
- Antenatal check ups- minimum 4 complete ANC

per antenatal

- Screening of antenatals for HIV and Syphilis- 100%
- Institutional deliveries- 80%
- Initiation of breast feeding within 1 hour of birth- proportion of new born
- Institutional stay after delivery—minimum 48 hours
- Exclusive breast feeding up to 6 months – proportion of infants
- New born and post natal home visits by ASHAs- 6-7 visits
- Post natal and Neonatal home visits by ANM- minimum 4 visits
- Complimentary feeding at 6 months
- Outreach immunization and MCH session- 1 session for 1000 population in rural and 2000 population in urban area.
- Immunization coverage- 80%
- Contacts with eligible couples- 1 contact every month
- Couple protection rate- 60%
- Sputum smears- 3% of new adults attending OPD services
- Monthly blood smear examination rates
 - ✧ Area with Annual Parasite Incidence (API)>1 – 1.5% of population
 - ✧ Area with Annual Parasite Incidence (API)<1 – 0.5% to 0.7% of population
- Village health and sanitation day at each anganwadi- 1 day/month
- Supportive supervision of subcentre by health supervisor—once a week
- Supportive supervision by medical officer- once a month to each subcentre

Causes of death and sex ratio at birth are being reported regularly in the monthly monitoring report. Indicators in routine reports are expressed as simple counts and provide information on number of beneficiaries provided services in the reporting month. Simple counts provide only numerator data which indicates service utilization. More important is to know whether a service is being performed as planned. This requires collecting of numerator and denominator data. Standards are the denominators in computation of performance. An indicator involves a numerator (what was the actual performance) and a denominator (the standard performance).

For example:

$$\frac{\text{Number of outreach sessions held} = 2}{\text{Number of outreach sessions planned} = 5} = 40 \%$$

The result indicated that only 40% of the sessions were held and 60% missed. Performance based incentives for each indicator are given to MLHP and Health team at Health and Wellness Centre.

In immunization coverage, a common objective is to fully immunise 80% of target children. That "Standard" is the denominator. The numerator would be actual proportion of children immunized. The performance would be :

$$\frac{\text{Number of children immunized} = 72}{\text{Number of children to be immunized} = 120 \times 80} \times 100 = 75 \%$$

The result indicates that program met 75% of its target. It also shows that actual coverage was 72/120=60% or 20 percentage point below the standard. Similarly proportion of ante-natals provided 4 Antenatal Cases (ANCs) out of total pregnancies registered can be arrived at to measure gap in performance. This information is built in the routine reporting system or available with the health workers. Hence one can find the performance gap. The root causes of performance gap can be analysed for improvement of work performance. Root causes are generally related to management processes such as poor planning, poor logistics, supplies, vacancies and non-availability of materials.

Community monitoring: Village health sanitation nutrition committee (VHSNC)/PRIs monitor local facility (subcentre, PHC) and ensures that necessary inputs, infrastructure and manpower are available for health services. It also monitors coverage/quality, effectiveness, behaviour and presence of health personnel, denial of services and negligence. It also provides feedback to the system and validates the data collected by health team. Long term objective remains to increase community participation in management of health services and social determinants of health.

Coordination: This management function can be observed on village and health sanitation day. All the service providers – Medical officer, ANM, ASHA, AWW, teachers, members of VHSNC/Mahila Aarogya Samitee (MAS) converge on one platform to deliver package of health services. This is the best forum as all

departments and ministries converge at the level of village/urban ward to address health and social determinants.

Delegation and on the job training- A management function: Job functions of medical officer, health supervisors and health workers- ANMSs, ASHAs and AWWs have been revised and described in most of the textbooks of community medicine. Theory lectures on job description are not enough. Seeing is believing. Best way to learn job description are- observing health workers on their job at workstation or at an outreach session on village health and sanitation day, 4Ds screening program in schools and NCDs screening program in action at community level. Most of the health functions related to primary health care in the area of maternal and child health, national health programs on communicable and non-communicable diseases and integrated disease surveillance program have been delegated to health workers. Untied money of Rs. 10,000/- per annum is available with ANM for local action which is a fine example of financial delegation. The quality and coverage of health services largely depends on their skill to plan, organise and prepare an efficient work plan. The role of health manager (medical officer) and the health supervisors is to continuously upgrade their skills by on the job and continued education and by supportive supervision besides reviewing their work reports every month.

The case study presented on health services need assessment by household surveys, work load assessment, work planning, work reporting, monitoring and evaluation in real life situation could be a trigger as to how microplanning for a population of 5000 is being pursued at the lowest level of the health pyramid. The teachers/faculty can demonstrate this exercise to students in urban/rural setting or can bring field functionaries to classroom setting with household survey data and work schedule/plan. The other method of learning skill of planning include by allotting families to the students for interaction with the families and collection of information for action on the same household format as being used in the system. Most institutions or community medicine departments use their own learning protocols for family studies such as family folders, household survey formats, maternal and child

health cards, immunization and growth charts etc. which are altogether different from the ones being used under national health programs (NRHM, RCH, ICDS and NCDs). In our experience using household survey register and work reporting formats and other formats as being used in various national health programs are much more meaningful. That makes more sense as it provides opportunity to update the local records. The observations can be cross matched with those of health workers and gaps can be discovered for rectification. This mechanism reinforces the system and helps the workers to update their records

Evaluation: Evaluation is the cumulative result of monitoring over a period of time. It involves an assessment of “ quality and quantity of achievement against the predetermined objectives and goals”. Monitoring is confined to oversee ongoing operations at the levels of inputs and processes, while evaluation aims at measuring effects and outcomes of the program. Since health management and information (HMIS) is well developed now the data of the same over a long period of time can serve the purpose of evaluation- to measure the impact indicators such as reduction in morbidity, mortality, disability and improvement in nutrition and decrease in fertility. Baseline and repeat surveys such as large scale population based surveys- National Family Health Surveys (NFHS) and SRS over a long period can be used to demonstrate the impact of proven interventions and process of evaluation in the form of case studies.

Conclusion:

Personnel engaged in health care delivery system require basic health management skills to deliver health services in a planned way. Health management functions such as – health services need assessment, workload, work planning, programming, delegation, coordination, supervision, monitoring and evaluation can be best learned in life situation as illustrated in the text. Work planning /microplanning as being pursued at the lowest level of health pyramid – subcentre health team (ANMs, ASHAs, AWWs) provides an excellent opportunity to learn basic health management skills.^[5]

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