REVIEW ARTICLE

Public Health Proficiency of Fresh Indian Medical Graduates &Ways and Means of Enhancing it

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BACKGROUND

Ministry of Health and Family Welfare, Government of India is committed to achieving Universal Health Coverage (UHC) for its entire 1.4 billion population living in our 6.6 lakh plus villages and nearly 3000 towns/ cities. Delivery of UHC is predominantly dependent upon our primary health care system of which human resources for health (HRH) forms a crucial component. The HRH responsible for delivering primary health care comprises of a team of about 40 individuals consisting of two Health Assistants, ten to twelve Multipurpose Health Workers (Female and Male) and about thirty ASHA Volunteers besides one or two Medical Officer/s.

The Medical Officer (MO) stationed at the Primary Health Centre (PHC) is tasked with the responsibility of providing not just supportive supervision but also technical leadership on all aspects of preventive, promotive and curative care at individual level including public health aspects and national health programmes (1) Park. This HRH team under the leadership of the PHC MO caters to the health needs of ~30,000 inhabitants residing within the jurisdiction of the PHC and its five to six Health and Wellness Centres (HWC). Most of the health care services delivered at the primary health care level revolves around our national health programmes viz. RMNCH+A, NVBDCP, RNTCP, NLEP, NACP, NPCDCS, NPCB&VI, safe water and sanitation, etc. as provided under the Indian Public Health Standards (IPHS) for PHC (2) IPHS. Proficiency in public health on the part of the PHC MO, therefore, becomes crucial without which it may not be feasible to achieve effective Universal Health Coverage at the grassroot level.

It is however, common knowledge that the average PHC MO, most of whom are fresh graduates of modern medicine, do not possess the required public health proficiency so essential to lead the primary health care team of forty-plus individuals for effective Universal Health Coverage. It therefore, becomes a dire necessity to assess the reasons for lack of public health proficiency in our fresh medical graduates and how this shortcoming can be rectified. This article aims at examining this very issue and suggest a workable yet effective solution.

PUBLIC HEALTH PROFICIENCY OF FRESH INDIAN MEDICAL GRADUATES

While the freshly graduated MOs do not face any difficulty in clinical and related work during their debut posting at PHC just after their graduation in view of NMC's well-structured and effective clinical training programme, that is not the case as far as public health proficiency and national health programmes are concerned. The reason for this lack of public health proficiency among fresh graduates of modern medicine, may be attributed to two primary reasons: firstly, due to lesser experience in view of their having joined the services afresh, and secondly due to inherent fallacies in our medical education curriculum itself. While the health care delivery system can't do much and has to be contended with fresh medical graduates joining the primary health care team, something needs to be done to rectify inherent problems in our medical education curriculum, if they really exist. However, before rectification can be attempted,

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we need to understand the problems and fallacies in the first instance.

The first fallacy of our medical education curriculum is that here the subject of Community Medicine, the only specialty dealing with national health programmes and its management, is taught from 1st to 7th semester, and it's examinations completed even before the student is adequately exposed and trained in the crucial clinical subjects of Obstetrics & Gynaecology, Medicine, Paediatrics, TB & Chest, etc. even though the national health programmes are nothing but community applications of these clinical subjects. As a result, the undergraduate students of MBBS curriculum during their training in public health and national health programmes under the department of Community Medicine are trained either very superficially or not at all with respect to the public health skills and competencies so essential to lead the primary health care team as PHC MO at a later date. This fallacy becomes evident by a simple perusal of the Gazette Notification on "Competency based Undergraduate Curriculum" of the National Medical Commission (3) which we have summarized in column (2) of Table I below.

The second, and probably the greater fallacy limiting public health proficiency of fresh medical graduates, are inherent weaknesses in the Compulsory Rotatory Internship (CRI) Programme as advocated currently by the National Medical Commission (NMC). In this context it is worth mentioning that freshly passed MBBS doctors have to undergo 12 months CRI training in accordance with the Compulsory Rotating Medical Internship Regulations 2021 (4) before they are eligible for being awarded their degree and permanent medical registration. As per these regulations Intern Doctors are supposed to be posted for 2 months in Community Medicine to gain public health proficiency. But again, it is common knowledge that optimal enhancement in public health proficiency does not happen in reality due to multiple reasons. The prominent reasons of which are: (i) Skills and competencies in public health aimed to be inculcated in intern doctors as per the NMC Regulations of 2021 are very basic and cannot be expected to produce effective public health team leaders as required of a PHC MO, (ii) There is lack of functional linkages between most departments of Community Medicine and the grass-root level at which National Health Programmes are implemented, (iii) The attention and priority of Interns are focussed elsewhere during this period, namely, NEET PG Entrance. Even a cursory perusal of the concerned NMC Regulations on Internship Training would vindicate our stand and the same has been summarized in column (3) of Table I below.

The third, and probably the most important fallacy limiting public health proficiency of our medical graduates stems from the fact that while the specialty of Community Medicine under whom teaching and training of Public Health is conducted in India, though thought to be the equivalent of Public Health, is not so in reality. This view point of ours stands vindicated from the existing mis-match in the skills and competencies required of a PHC MO as advocated in the "Operational Guidelines for Comprehensive Primary Health Care through Health & Wellness Centres" (5) and the IPHS Standards for PHC (2) vis-à-vis the public health skills and competencies aimed at and likely to be built-up through the curriculum recommended by NMC for MBBS undergraduates (3) and Interns (4). The skills and competencies required of the leader of the primary health care team have been summarized in Col (1) of Table I.

It would therefore, be reasonable enough to accept that there exists some lacunae in our medical education curriculum as far as imparting public health proficiency to our fresh medical graduates is concerned. One may however, forcefully argue that there are no such lacunae, but doing so might be akin to the legendary action of an ostrich in the face of imminent danger - burying its head and eyes under the sand.

POSSIBLE MODALITIES FOR ENHANCING PUBLIC HEALTH PROFICIENCY

Having conceded that the skills and competencies required of a PHC MO are undeliverable through the MBBS curriculum and Internship training as recommended by NMC Regulations in its present form. We next need to examine the ways and means through which public health proficiency of our fresh medical graduates can be enhanced.

One of the ways of attaining proficiency in public health might be by enrolling each and every freshly joined PHC MO into one of the existing public health training courses. Popular public health courses available in India fall under four

broad categories namely: (i) 3 year Doctor of Medicine (MD) in PSM/ CM/CHA, etc., (ii) 2 or 1 year Diploma in Public Health, (iii) 3 to 6 month Certificate course in some specific domains of public health and (iv) a variety of On-line courses. A fifth variant also exists, namely, programme specific orientation courses linked to some core national health programme. While most of these courses are full time and taught off-line, some of them are part time and delivered online also. Each public health specialization has a somewhat different focus, course content, curriculum and has widely varying demand and/ or prestige.

An examination on whether any of the above stated existing courses could be utilized for enhancing the public health skills of fresh medical graduates was done through an in-house consultation within the faculty and residents of PSM Department of AIIHPH Kolkata.

One alternative could be to enrol the MOs into one of the MD/ Diploma programmes of 2 to 3 years duration, right at entry into government job. It was noted that this proposition, might not just be very difficult but practically impossible to implement, in view of: (a) not every MO can be relieved for such long duration immediately on joining, (b) most states would be highly reluctant to spare even small number of fresh MOs in view of great paucity of MOs in most States. The over-arching reason for non-relieving of the fresh MOs would be a variety of administrative/ logistic issues linked to their recruitment/ induction and their subsequent eligibility for post-graduation.

The second alternative could be to sponsor the MOs for one of the above stated public health specialization courses after the MO has put in the requisite three to five years of service when they become eligible for post-graduation. This policy is also impractical since only a small proportion of them can be offered the facility for post-graduation, and even more importantly only a fraction of the eligible may want to specialize in public health. This second policy, if implemented, would also mean withholding the benefits due to the beneficiary population for that many number of years. Similarly, it would also simply not be possible to enrol each of our fresh medical graduates into one of the multitudes of programme specific orientation courses linked to our core national health programmes.

We therefore, conclude that the existing post-graduation, diploma and certificate programmes in public health as well as the multitude of orientation courses linked to our core national health programmes are neither suitable nor feasible from logistic point of view for enhancing the public health proficiency of fresh MOs and help the nation achieve Universal Health Coverage effectively. It therefore, follows that a new well-designed compact yet effective public health capsule course has to be created and implemented to enhance the public health proficiency of the leader of our primary health care team and help this nation achieve effective universal health coverage.

IDENTIFICATION OF KEY PUBLIC HEALTH SKILLS/ COMPETENCIES FOR PHC TEAM-LEADER

Having agreed that a new short-term public health course is required, we then proceeded to find out whether any documentation of the public health skills/ competencies needed of PHC MOs/ freshly graduated IMGs existed anywhere. We could not find any such document. We therefore, conducted a brain storming session within the faculty of this department including our PGTs, many of whom are experienced PHC MOs, to identify the public health skills and competencies/ training needs for PHC MOs. The following public health skills and competencies/ training needs were deemed to be important: (i) Conduction of Monthly Meetings with Heath Team Members, (ii) Conduction of Village Health, Nutrition & Sanitation Days, (iii) Organization of Public Health Campaigns such as Pulse Polio/ Covid vaccination including its micro-planning, (iv) Planning & implementation of Social & Behaviour Change Communication, (v) Inventory Management of Drugs & Vaccines at PHC, (vi) Handling of medico-legal cases, (vii) Handing of injuries, accidents, poisonings & bites, (viii) Micro-planning for disaster management, (ix) Handling of administrative & financial responsibilities, (x) Handling of HRH including Organizational behaviour and conflict management, etc.

We next held a focus group discussion (FGD) with 6 fresh medical MOs who have joined the West Bengal Health Services (WBHS) recently and refined and crystallized the public health proficiency training needs for the target group and matched it subsequently with the skills/ competencies required of a PHC MO as advocated in the “Operational Guidelines for Comprehensive Primary Health Care through Health & Wellness Centres” and “Indian Public

Health Standards for PHC". We could identify nineteen (19) specific public health skills and competencies which are depicted in Column (1) of Table 1.

Perusal of Table 1, as also the four key reference documents in question (2-5), would make it amply clear that the curriculum currently being followed for MBBS undergraduates as well as for training Intern doctors is not sufficient to inculcate the required public health skills and proficiencies as needed by our fresh PHC MOs, and hence is in dire need of modification urgently.

TABLE 1 SUMMARY OF KEY PUBLIC HEALTH SKILLS & COMPETENCIES REQUIRED OF PHC MO AND THOSE AIMED TO BE BUILT-UP THROUGH MBBS CURRICULUM & INTERNSHIP TRAINING AS RECOMMENDED BY NMC REGULATIONS

S. No.	*Key Services/ Activity to be provided at PHC/ HWC/ Outreach by/ under supervision of PHC MO* [@] *%*	*Skills/ Competencies focussed during undergraduate MBBS Curriculum* [#]	*Skills/ Competencies focussed during Compulsory Rotating Medical Internship* [$]	
1.	Monitoring & Supervision of National Health Programmes including Disease Surveillance	Only theoretical aspects of "surveillance" covered superficially	Minimal	Remark: CMRI Regulations focus is on: 1) "diagnosis & treatment of common medical illness and *recognizing* the importance of community involvement" 2) *Familiarity* with National Health Programs 3) *Capability* to conduct Health education 4) *Observation/ Assistance* in establishing linkages with other agencies (water supply, food distribution, social agencies, etc.) *To sum up, the skills and competencies built-up in IMGs may not prepare them optimally for their next obvious*
2.	Preparedness & First Level Action in Disease Outbreak	Only theoretical aspects of "outbreak investigation" covered superficially	Nil	
3.	Preparedness & First Level Action in Disaster Situations	Only theoretical aspects of "disaster management" covered superficially	Nil	
4.	Preparedness for delivering Laboratory Services [#] including *Periodic Validation of Reports*	Not covered	Nil	
5.	Conducting Monthly Review Meetings	Not covered	Nil	
6.	Forecasting, Indenting, Inventory & Store Management	Not covered	Nil	
7.	Training to UG Medical Students, Interns, HA, MPW, ASHA, AWW, etc. on Basic Health Care	Not covered	Nil	
8.	Organization of Health Mela / special occasions (e.g. VHND, Weekly IFA Distribution, Deworming day, Geriatric clinic, etc.)	Not covered	Nil	
9.	Weekly Reporting of Epidemic Prone Diseases in S, P & L Forms & SOS Reporting of Cluster of cases	Not covered	Nil	
10.	Reporting & Record Maintenance under various Health Programmes (HMIS)	Not covered	Minimal	
11.	Disinfection of Water Sources & coordination with PHE deptt.	Only theoretical aspects of "Water treatment" covered superficially	Minimal	
12.	Functioning of DOTs Centre including Collection & Transport of sputum samples	Only theoretical aspects covered superficially	Minimal	
13.	Formation and Handholding of Patient Support Groups	Not covered	Nil	
14.	Community based Health Education & Counselling	Only theoretical aspects covered superficially	Minimal	
15.	Disbursement of Financial Support under JSY/ RNTCP/ NLEP, etc.	Not covered	Nil	
16.	Collection & Reporting of Vital Events	Only theoretical aspects covered superficially	Nil	
17.	Population Enumeration, Empanelment of families, Tracking of Missed/ left-out/ Drop outs among ANC/ PNC/ Vaccination Using Population Based Analytics	Only theoretical aspects covered superficially	Nil	
18.	Community Mobilization & Negotiation using Communication & Leadership Skills	Only theoretical aspects of "Communication" covered superficially	Nil	

19.	Preparation of Micro-Plans for Polio Day, Measles day, etc. including Individual Birthing Cases	Not covered	Nil	*carrier path i.e. PHC MO*

WAY FORWARD

The mandate to effect changes in curriculum for MBBS undergraduates as well as training curriculum for Intern doctors vests with the National Medical Commission, who have to initiate and set the process in motion and ratify it as well. But there are two basic hurdles in it: firstly, the processes followed by NMC to initiate and effect changes in medical curriculum are tedious and cumbersome and takes too long a time and NMC has just concluded one such round of exercise after about two decades; and secondly, trying to alter the curriculum, even if it has been done carefully and after detailed consultations with all stake holders, might lead to imbalances within the programme and create even greater difficulties/ fallacies.

Both these perceived hurdles forced us to think out of the box and search for an alternative agency which could achieve the goal of enhancing public health proficiency in fresh MOs but without tinkering with the curriculum prescribed by NMC for MBBS undergraduates and trainee Interns. This agency, we thought could be the Directorate General of Health Services (DGHS) of MoHFW, GOI who have the mandate to deliver health services effectively across the nation and also enhance the public health proficiency of MOs to ultimately help the nation achieve Universal Health Coverage. DGHS is also the apex technical-body/ think-tank of MoHFW tasked specifically for producing out-of-the-box innovative approaches. If DGHS takes upon itself the responsibility of enhancing the public health proficiency of fresh MOs, it has two distinct advantages, namely, (i) its shorter, simpler and less cumbersome bureaucratic procedures, and hence, its decisions require shorter duration to fructify; and (ii) the ease with which it can partner with State governments in line with the principles of cooperative federalism espoused by the Central Government.

In view of the foregoing, it becomes imminent that a tailor-made new 12 week “Certificate Course in Public Health” be created targeting our freshly passed Indian medical graduates. This course can be a capsule course administered on online-offline dual-mode principle which would enable the candidates’ to continue with their routine duties at their parent headquarters for the major part of the training (i.e. ten out of the total of 12 weeks). The candidates shall have to be present physically at the venue of orientation training for 2 weeks only, during which they shall be taught the nuances of the art and science of core public health skills and competencies. Such a course shall be immensely beneficial to the entire nation and its residents.

It might be in the greatest interest of the deserving beneficiary population of this great nation that it be made mandatory for all medical officers to complete this course before their induction into the Provincial Health Services or immediately thereafter, but certainly not more than six months after joining the same. A short duration capsule course like this can be initiated within a very short span of time and would require very minimal additional financial outlay. Premier public health institutions of this country such as the National Institute of Health & Family Welfare (NIHFW Delhi), All India Institute of Public Health (AIIHPH Kolkata), School of Public Health, PGIMER Chandigarh, etc. can work together utilizing their individual areas of expertise and experience and partner with apex agencies such as National Health Mission (NHM) and think-tanks such as National Health Systems Resource Centre (NHSRC New Delhi) under the auspices of DGHS can turn this wishful thinking into a ground reality.

To sum up, enhancement of the public health proficiency of each and every doctor joining/ aspiring to join the public health services is the need of the hour for which no stone must be left unturned. This one small action is certainly going to be the game-changer in the delivery of primary health care and universalization of health coverage in the days to come and it is only to be seen how fast and who all can make this happen.

REFERENCES

1. Park K. Park’s Textbook of Preventive and Social Medicine. 26th Ed. Jabalpur, India. M/s. Banarasidas Bhanot Publishers, 2021. P 993-6.
2. Directorate General of Health Services, MoHFW, Govt. of India. Indian Public Health Standards (IPHS), Guidelines for Primary Health Centres. 2012, New Delhi. [Internet] Available from: https://nhm.gov.in/images/pdf/guidelines/iphs/iphs-revised-guidlines-2012/primay-health-centres.pdf [Last accessed on 26.12.2021]
3. National Medical Commission. Competency Based Undergraduate Curriculum for the Indian Medical Graduate Regulations (2018), National Medical Commission, Govt. of India. [Internet] Available from:

https://www.nmc.org.in/information-desk/for-colleges/ug-curriculum/ [Last accessed on 11.11.2021]
4. National Medical Commission. Compulsory Rotating Medical Internship Regulations (2021). National Medical Commission, Govt. of India. [Internet] Available from: https://www.nmc.org.in/ActivitiWebClient/open/getDocument?path=/Documents/Public/Portal/NmcGazette/231280.pdf [Last accessed on 21.12.2021]
5. National Health Systems Resource Centre. Comprehensive Primary Health Care through HWC – Operational Guidelines (2018). National Health Systems Resource Centre, MoHFW, Govt. of India. [Internet] Available from: https://ab-hwc.nhp.gov.in/download/document/45a4ab64b74ab124cfd853ec9a0127e4.pdf [Last accessed on 27.12.2021]