



HEALTHCARE MODEL: TOUCHING LIVES IN REMOTE AREAS

Medical Science

Lt Col Sushil Kumar

Army Medical Corps

Dr Vikas H

Senior Resident Department of Hospital Administration, AIIMS, New Delhi

Dr Abhinav Wankar*

Chief Medical Sciences, Sahyadri Hospitals Ltd, Pune *Corresponding Author

KEYWORDS

INTRODUCTION

Health care represents a major challenge for many countries. Governments around the world must address rising health care costs, aging populations, access disparities, and chronic illnesses. These issues present serious dilemmas for policymaking, budgets, and service delivery. Indian healthcare delivery system, primarily responsible for providing healthcare to the citizen of this country are the government agencies with focus on primary healthcare and the private players, catering to the secondary & tertiary care, majority of them limited to the urban sectors, tier I & tier II primarily. Healthcare includes access to both timely and appropriate healthcare as well as the underlying social and economic determinants of health, such as conditions of work and adequate food and shelter.¹

There are many persisting challenges such as, health services are quantitatively inadequate and quality often not known, low public expenditure on health and people often have to pay out of their pockets to avail health services at risk of falling into poverty, and the emerging burden of noncommunicable diseases (NCDs), etc.² The draft National Health Policy prepared in 2015 proposes that health be made a fundamental right and views government's role as critical.³ World Health Report of 2010 on Health Systems Financing mentions the Path to Universal Coverage.⁴

USAID has argued that health system governance is governance undertaken with the objective to protect and promote the health of the people. Governance involves "(1) setting strategic direction and objectives; (2) making policies, laws, rules, regulations, or decisions, and raising and deploying resources to accomplish the strategic goals and objectives; and (3) overseeing and making sure that the strategic goals and objectives are accomplished".⁵ WHO included leadership in the concept. Leadership and governance involves ensuring that a strategic policy framework exists and is combined with effective oversight, coalition-building, regulation, attention to system-design and accountability. It requires overseeing and guiding the health system as a whole, not just the public system, in order to protect the public interest - broader than simply improving health status.⁶ Siddiqi et al. subsequently expanded the list to ten components: strategic vision, participation and consensus orientation, rule of law, transparency, responsiveness, equity and inclusiveness, effectiveness and efficiency, accountability, intelligence and information, and ethics.⁷

India's urban poor are especially vulnerable, given that primary care facilities in the cities are generally less organized and fewer in number than in rural communities.^{8,9,10,11} The lack of a coherent approach in this area has raised concerns about the extent to which government can influence the rapidly expanding private sector to adopt ethical and standardized health services.^{12,13,14,15}

AIM

To develop a conceptual integrated model of healthcare delivery system for providing basic & essential healthcare to the remote population, in tandem with the existing healthcare provisioning mechanism of the Govt of India.

NEED ASSESSMENT

On analysing the public health scenario over few decades in India, the

overall picture statistically shows very impressive pattern. Few essential pillars on which the healthcare delivery system of every country is based, shows significantly encouraging trend. Infant mortality rate has dropped from nearly more than 150 to 37 (a massive more than three-fold reduction); the maternal mortality rate has shown a tenfold dip from 2000 to less than 200 per 100,000 live births. Also, the doctor patient ratio shows a drastic change from nearly 1:6300 to 1:1800, which reflects a massive 3.5 times improvement.

Now, if the focus is shifted & concentrated on the rural India per se, which accounts for more than 70% of the total country's population, of 130 crore, the situation tells a different story of a massive urban-rural divide. Status of the existing health infrastructure reveals that still more than 25% of the villages are not connected by roads. Of about 90 crore rural populations, only 68.3% have got access to PHC, 43.2% access to Sub-centre and merely 43% have got an access to some kind of qualified doctor.

While most of the issue related to provisioning of healthcare to the Gen population is by the state agencies with augmentory / supervisory role of the centre, in the Armed forces scenario, all the facets of the healthcare delivery to the troops, ex-servicemen and the dependents is provided and maintained through the multi-layered system under the purview of Director General Hospital Services (DGHS).

In order to make the state and central healthcare machinery deliver the intended services to each and every citizen of this country, probably, the time has come to intimately and seamlessly integrate the vigour and expertise of the Armed Forces Medical Services, with the National efforts, particularly, in far flung and remote areas, where major population of India resides. The Army Medical Corps has a rich heritage and cherished legacy of professionalism, devotion to duty and compassion towards the ill and the wounded. By the virtue of its well-established comprehensive healthcare delivery mechanism, it has been over the years provided state-of-the-art and evidence based medical care to the entire spectrum of its clientele and has always risen to the need of the hour, both during war and peace. The system, though very rugged at the face of it, has its own set of peculiar challenges and tasks yet to be accomplished. Spreading itself to embrace an entirely different role in its already overburdened functional profile is definitely a tough ask.

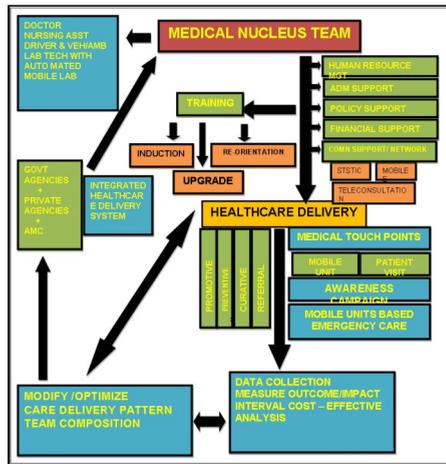
THE MEDICAL NUCLEUS TEAM

Strategic Intent of the Medical Nucleus Team. To provide promotive, preventive and curative model of healthcare services to the remote population, while integrating itself seamlessly to the pre-existing, Hub-and-spoke model of care delivery mechanism, its main thrust focussed on delivery of primary and emergency medical care.

Medical Team Composition

The medical nucleus team would be an optimal functional blend of military and civil manpower, taking into account essential prerequisites like experience, technical and functional capabilities. An option of incorporating the local non-military (civil) workforce can prove beneficial due to their inherent scale of knowledge about the targeted remote clientele base, common population preferences, their prejudices and their prioritised healthcare needs. In addition, their

knowledge about the geographical terrain (for deeper care outreach), awareness about pre-existing medical resources (for ease of overlapping the care delivery) and their larger acceptance by the population can prove beneficial. Further, valuable expertise of ex-servicemen from the Medical Corps (NT JCO, Nursing Assistant, Ambulance Assistant) and retired service personnel from other Arms and Services, if incorporated, can be a definite value addition to the effectiveness and overall impact of the medical team composed as follows:-



Ser No	Manpower	No
(a)	Doctor / Medical Officer	1
(b)	Nursing Technician	2
(c)	Stores holder	1
(d)	Lab Asst/Tech	1
(e)	Driver	2
(f)	Total	7

Functional Dimensions. While the basic methodology of the care provision will be an integrated approach, encompassing promotive, preventive, curative and referral services, the thrust areas would remain Basic Medical Care. Following are the essential tenets of the intended healthcare delivery.

- (a) Patient visit to the healthcare delivery Centre.
- (b) Organising medical camps with support from Civil/Mil healthcare agencies.
- (c) Health Education/Awareness Campaign.
- (d) Referral services to pre-determined higher medical echelon (Civil/Mil).
- (e) Carrying out vaccination.
- (f) Tele-consultation with higher medical care echelon (Civil/Mil).
- (g) Data collection, basic data analysis, forwarding compiled data report to higher medical care echelon/ analysis centre.

Medical Care Centre. For provision of basic requirements for living and operating, either the medical care centre is co-located with civil/military medical set-up from where it can launch its mobile activity and for its ease of functioning. Living accommodation for 7 health personnel with medical Room/Doctors room along with shelters for stores to be catered for.

Transportation. For the medical team to be effective in its intent, mobility will remain the most important parameter. In this connection, Ambulance vehicle with basic medical care equipment will be an inescapable requirement for moving the patient to the medical centre and for referring them to the higher medical echelon. Suitable basic spare parts for the ambulance and general duty vehicle along with fuel in adequate quantity will have to be maintained at the centre. For mechanical help, upon the vehicle breakdown, coordination with or dependence on the nearest Civil/Military set-up is mandatory for unhindered services.

Security. Security will remain one of the major challenges in the whole proposal. It requires further deliberations in order to visualise its incorporation in the medical care establishment. At this juncture, ways and means to secure the medical care centre and security of the team members, particularly in the deeper geographical regions of Northern

and North-Eastern part of the country, where the Armed Forces is battling out every moment with ANEs, seems to be insurmountable hindrance in the whole effort.

Communication. In the form of mobile networks, will remain the backbone of the medical centre team. Communication between the care providers, both within team and with external healthcare agencies, for referral services, telecommunication with the higher medical echelon and with the care seekers can only be achieved through the support of information network centre. Robust communication/networking infrastructure is an inescapable requirement for the effectiveness of the whole proposal.

Stores. Following types of stores will have to be catered for at the medical care centre, for it to be optimally functional.

- (a) Medical Stores (Expendable/Non Expendable).
- (b) Medical equipment stores.
- (c) Training and Administrative stores.
- (d) Survival stores (Food, ration, water (Portable, general use).
- (e) Hygiene stores.
- (f) Transportation related stores.
- (i) Spare parts.
- (ii) Fuel and Lubricants.

Financial Support. Adequate and appropriate financial support in order to keep the medical care delivery system functional is an inescapable requirement. Funds will be required for arranging and maintaining fixed assets and procuring all the types of stores along with monthly pay, allowances and suitable incentives (recurrent expenditures), to the care providers functioning in the remote geographical areas.

ESSENTIAL PRE-REQUISITE FOR MEDICAL NUCLEUS UNIT (MNU)

Consumer Focused Care Delivery. The model (MNU) will have to develop out of substantive community engagement and consultation. Focus will have to be maintained essentially to prioritise the healthcare needs of rural and remote client. Unless the functional component of the medical units have got acceptance, ownership in the community, the penetrance of this concept will remain a huge barrier for it to be a success.

Equity in Healthcare Delivery. Equity, in terms of care outreach has remained an insurmountable barrier in all healthcare delivery models and will continue to be so, till the time optimum functional integration at the remote level between different care providing agencies is achieved and standardised.

High Professional Standard & Development. The ibid healthcare model will have to time & again titrate its existing knowledge-base in an effort to achieve high degree of professional standard, optimal clinical practice through the provision of appropriate professional development, support, training, better career opportunities and incentivised approach for all the directly and indirectly involved work force.

Integrated Multi-Disciplinary Care & Inter Sectoral Collaboration. All the healthcare delivery model, be it private/public or integrated, with primary focus on the remote population, will have for create and maintain various level of communication touch points with all its vertical and horizontal dimensions. The success of any healthcare model in not visible in totality, till the time the impact it has on the remote population is not seen, heard and acknowledged by the other care providing agencies of similar nature and intent. Effective collaboration in focus areas of training, education and capability development is an inescapable prerequisite.

Effective Management and Health Planning. Effective healthcare models will have to demonstrate highly effective management and planning capabilities to meet the healthcare challenges with innovative practise, to get the best out of the workforce employed for the task.

Feedback/ Reporting. Biggest challenge lies in the effort required to measure the effect of what has been done, its original intent and its overall impact on the healthcare delivery to the remote population. This process has the potential to engage communication in all

dimensions in an effort to improve service and find new and better ways to meet the community needs of healthcare.

SWOT Analysis of the Proposed Healthcare Model. The proposed model, like any other functional system, has its own set of characteristics in terms of its internal Virtues eg strength, weakness and external environmental factors, which continuously interact, impacts its functional strategy and overall output eg threat and opportunities.

STRENGTH	WEAKNESS
<ul style="list-style-type: none"> ● Intent of the Govt to provide healthcare to all citizens ● Good practices & Org learning. ● Extensive pre-existing infrastructure for integration (Govt & Private) ● Availability of appropriate funding mechanism ● Integrated local manpower (Civil/Mil) ● Experienced & trained manpower from both Civil & Military ● Strong Org work culture & ethos ● Adequate stores of all kinds ● Transportation support ● Communication network support ● Security concern & support ● Intention of the paying agencies for adequate remuneration 	<ul style="list-style-type: none"> ● Lack of Legal framework & policy support of the Govt ● Lack of perspective planning, implementation & benchmarking ● Policy-practice disconnect, missing middle linkages like in other models ● Strength/capacity/intent & priority of the funding agencies ● Vertical & horizontal integration is a challenge since multiple agencies involved with diverse work cultures ● Gaps in training, Policy, design & delivery ● Focus only on primary care & no specialist care - detrimental impact on the consumer satisfaction ● Remuneration congruent with the effort ● Availability of transportation, spares & communication infrastructure ● Adequate Security for both structural & functional safety

OPPORTUNITY	THREAT
<ul style="list-style-type: none"> ● Huge demand for medical care in the rural India (largely untouched) ● To fill in the existing gaps in healthcare delivery machinery of the Govt ● To integrate with already in-the-field experienced National flagship programs for quick gains & visible impact ● To utilise & piggy-ride on the existing communication & networking system ● To target & train local young population ● To utilise the experienced ex-servicemen for the local healthcare delivery Retired manpower looking for re-employment & resettlement opportunities 	<ul style="list-style-type: none"> ● Changing morbidity profile ● Severe shortage of trained & experienced manpower ● Increasing cost of basic medicine including lifesaving drugs & all kinds of stores ● Wide geographical diversity ● Varied consumer preference & acceptance of healthcare ● Frequent changing position of the trained manpower ● Better job opportunities & better carrier profile in the urban sectors ● Lack of technology induction, incorporation & use ● Huge opportunity cost for the Govt ● Unpredictable outcome & unforeseen implementation hurdles ● Security concerns while implementing in North & North-Eastern part of India

CONCLUSION

India owing to its multifaceted constraint has seen many programmes being conceptualised, formulated, executed from time to time and terminated subsequently, without making any significant impact on the morbidity profile of the citizens living in the remote sector. The proposed integrated healthcare model too has similar challenges to face, which requires systematic and strategic approach in order to see it successful. One of the approaches is to expand the public provision and find ways around the staff and infrastructure constraints. Issues related to policy, regulation, pricing and finances then are subsumed within the stabilised system. At the administrative level, however, it is essential for the government to maintain and sustain quality healthcare service provision for all citizens through the proposed model by owning the concept. Though its conceptual, functional and administrative feasibility will require much in-depth deliberation and analysis, at the face of it, the proposed model is definitely doable with rich dividends but with huge challenges and difficulties enroute.

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