LETTER TO EDITOR CODEN: AAJMBG

Telemedicine as a tool to progress towards 'Universal Health Coverage' in India: A concept map

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Dear Editor:

World Health Organization (WHO) defines telemedicine as "the delivery of health care services, where distance is a critical factor, by all health care professionals using information and communication technologies for the exchange of valid information for diagnosis, treatment and prevention of disease and injuries, research and evaluation, and for the continuing education of health care providers, all in the interests of advancing the health of individuals and their communities" [1].

As per WHO & High Level Expert Group (HLEG), UHC is defined as "Ensuring equitable access for all citizens resident in any part of the country, regardless of income level, social status, gender, caste or religion, to affordable, accountable and appropriate, assured quality health services (promotive, preventive, curative and rehabilitative) as well as public health services addressing wider determinants of health delivered to individuals and populations, with the government being the guarantor and enabler, although not necessarily the only provider, of health and related services"[2].

With the global adoption and increased momentum, UHC has been at the forefront of all health policies globally and nationally in the recent years. This has been reaffirmed and reflected in the political declaration adopted by the member states in the first ever high level meeting of United Nations (UN) on UHC in the year 2019. This unanimously adopted declaration has once again re-emphasised on the need for strong political commitment and also provided a road map with necessary actions to achieve UHC [3].

India also has adopted UHC and set an ambitious target of achieving UHC by 2022. But, considering various challenges of health care delivery system in India such as lack of physical access to health care infrastructure, mainly in the rural areas, inadequate availability and unequal distribution of health care workforce, progressing towards UHC has been a uphill task despite of multi-level efforts [4].

However, in the era of Information & Technology (IT), the potential of developing an efficient health care delivery system leveraging newer technologies was realised and the concept of telemedicine was seen as a potential strategy that could facilitate in delivering health care services across all the corners of India.

With an existence in India for more than two decades, application of telemedicine in health care delivery system has been on continuous rise, with an exponential growth seen during the times of COVID-19 pandemic [5-6].

Additionally, recommendations from WHO and Ministry of Health & Family welfare (MoHFW), Government of India, for the usage of telemedicine in delivering essential health services has once again re-emphasized on unleashing the true potential of telemedicine [7-9]. The same has been envisioned through this concept map [Figure 1].

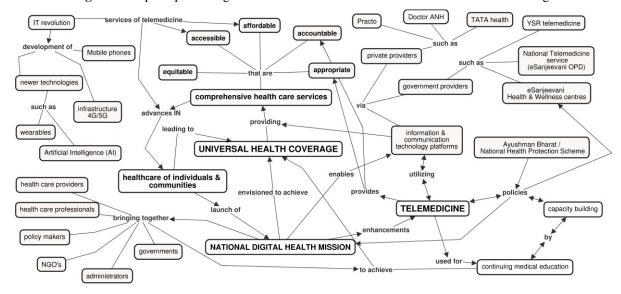


Fig-1: Concept map showing telemedicine as a tool to achieve Universal Health Coverage

The core strength of UHC lies in delivering comprehensive health care services to all the citizens in a country and these services should be equitable, accessible, affordable, accountable and appropriate. This concept map shows the complex linkages in between various entities that could power the concept of telemedicine in delivering comprehensive health care services that fulfil all the characteristics of services in UHC. It is of importance to understand how development of Information & Technology combined with rapid adoption across the country can make the delivery of telemedicine services more affordable and accessible.

All of these combined with the policy level adoption through Ayushman Bharat / National Health Protection Scheme and National Digital Health Mission have the potential to fasten the development and availability of telemedicine services in India, also at the same time making them accountable [10]. With an increased accessibility and affordability, these services would take the shape of an equitable distribution in reaching to all the sections including the vulnerable groups in the community, which can truly lead to UHC. The additional benefits would include the utilization of the telemedicine services in capacity building of health care workforce in the country, especially in the vulnerable and low-resource settings. This

ultimately would help strengthen and sustain the progress towards UHC.

The digital & information age transformations in India, augmented by the opportunities raised during the ongoing pandemic are leading to more enhanced initiatives in the previously unexplored areas in the field of telemedicine, both from government and private sectors. Such initiatives would certainly help in increasing the penetration of telemedicine services to the far-flung corners of the country, which in turn would help in India's progression to UHC in a more efficient manner. However, adoption of such services over the conventional care at a much faster pace still remains a challenge for the entire health care delivery ecosystem.

Also, additionally, a much bigger challenge remains in the form of adopting and scaling up newer technologies/interventions on a massive scale. Overcoming these challenges would not only require sustained efforts in increasing the awareness on the concept of telemedicine, but also a strong advocacy for telemedicine at the policy level to make it more credible and accountable. The National Digital Health Mission (NDHM) initiative in this direction is a new beginning in the dream run towards UHC.

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References

- World Health Organization. A health telematics policy in support of WHO's Health-For-All strategy for global health development: report of the WHO group consultation on health telematics (Accessed 23rd September 2021). https://apps.who.int/iris/bitstream/ handle/10665/63857/WHO_DGO_98.1.pdf?sequence= 1&isAllowed=y
- World Bank. Universal Health Coverage: Quality, affordable health care is the foundation for individuals to lead productive and fulfilling lives and for countries to have strong economies (Accessed 4th September 2021). https://www.worldbank.org/en/topic/universalhealthcoverage
- 3. Planning Commission, Government of India. High Level Expert Group Report on Universal Health Coverage for India (Accessed 10th September 2021). https://nhm.gov.in/index1.php?lang=1&level=2&sublin kid=1244&lid=270
- Anand S, Fan V. Human Resources for Health Observer Series: The Health Workforce in India (Accessed 15th October 2021). https://www.who.int/hrh/ resources/16058health_workforce_India.pdf
- Agarwal D, Roy N, Panwar V, Basil A, Agarwal PM. Bringing health care closer to people-A review of various telemedicine models under the national health mission in India. *Indian journal of community medicine*, 2020: 45(3):274.
- Garg S, Gangadharan N, Bhatnagar N, Singh MM, Raina SK, Galwankar S. Telemedicine: Embracing virtual care during COVID-19 pandemic. *Journal of family medicine and primary care*, 2020; 9(9):4516.
- World Health Organization. Strengthening the health system response to COVID-19: technical guidance for maintaining the delivery of essential health care

- services while mobilizing the health workforce for COVID-19 response (Accessed 29th September 2021). https://apps.who.int/iris/bitstream/handle/10665/332559/WHO-EURO-2020-669-40404-54161-eng.pdf?sequence=1&isAllowed=y
- Ministry of Health & Family Welfare, Government of India. Telemedicine practise guidelines: Enabling Registered Medical Practitioners to provide healthcare using telemedicine (Accessed 5th October 2021). https://www.mohfw.gov.in/pdf/ Telemedicine.pdf
- World Health Organization. Global strategy on digital health 2020-2024 (Accessed 3rd October 2021).
 - https://extranet.who.int/dataform/upload/surveys/183439/files/Draft%20Global%20Strategy%20on%20Digital%20Health.pdf
- National Health Authority, Government of India. National Digital Health Mission (Accessed 20th September 2021). Available from: https://ndhm.gov.in

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