

## Digital and Virtual Healthcare during Pandemic: Changing Trends in Healthcare 2020

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The COVID pandemic has impacted health as well healthcare globally. The restrictions due to lockdown and social distancing, the fear of exposure and infection, lack of adequate protective gear for all strata of society, and diversion of resources, attention and priorities towards the pandemic, has caused a significant concern in the realm of chronic health monitoring and treatment, as well as routine health consultation. This has particularly been seen in developing nations with huge burden of COVID cases and a relative limitation of health facilities. Exploring Digital and Virtual Healthcare as a key methodology and facility to maintain the health and wellness of the population, can be the most viable and beneficial way to go. It can tackle the two glaring issues of limiting exposure and infection during a pandemic, as well as increasing access to routine healthcare, and monitoring of existing and chronic diseases.

Digital and Virtual Healthcare has a 5 fold advantage of (a) cutting commuting time, inconvenience and cost to the patient, (b) avoiding waiting time and exposure to other patients at the Doctor's chamber, (c) getting structured information and guidance (d) effective maintenance of records enabling data analytics to study trends, and formulate treatments and policies (e) empowers patients, and improve their active participation and attitude towards disease management.

Patients today have much more access to information due to penetration of internet. Asia has an internet penetration of 54.2% which represents 50% of the world's population. India's internet users have registered double digit 18% growth to reach 627 million in 2019 representing a 40 % overall internet penetration. 87% of these are defined as regular users, having accessed internet in last 30 days. Nearly 200 million active internet users reside in rural India. 77% of India's population is accessing wireless broadband through smartphones. This paves the way for access to doctors and healthcare professional service to a large part of the population in most countries.

A three-tier virtual health system creation is set to lead the future of healthcare globally. The first tier would be focused on convenient access to health information from credible sources. These sources include doctors with documented medical background, experience and scientific acclaimed work, or recognized medical associations, clinics institutes or government bodies. These are usually in the form of online portals, platforms and apps. These sources should also carry with them inbuilt online facility or remote-access for interactive query solving and health guidance. The active role played by Healthcare Providers (HCPs) in empowering patients with right health information and guidance can be one of the keys to successful patient outcomes and satisfaction. This also sets the foundation for preventive healthcare, patient empowerment and awareness, and improving the overall health and wellness quotient of the population. It can greatly reduce dispelling of unsubstantiated and unverified medical information which often become sources of irrational fear or practices.

The second tier of virtual healthcare would be active doctor-patient face to face consultation for a specific health condition or symptom. This has commenced over smart phones as audio/video calls or over online sessions. Patients would now be encouraged and guided to keep home health kits consisting of a non-contact thermometer, pulse oximeter (which shows pulse rate, and Oxygen saturation), and a digital Blood Pressure device. This will help doctors measure vitals, analyze and monitor symptoms or parameters for both acute and chronic health

conditions. Tele-medicine guidelines are now a part of the health policies in most countries and also have established protocols for prescribing medicines (E-prescriptions). Most pharmacies are conducting timely delivery of the E-prescribed medicines in urban and semi urban areas. However, challenges still remain in rural areas, where community centers and primary health centers can be equipped to run as pharmacies and also provide virtual health consults. Virtual Healthcare can be very valuable for managing mental health, and providing counselling

The third tier of virtual healthcare would be the diagnostic, laboratory and investigational services. Enhancing home sample collection in the peripheral areas, and portable X ray machines is the need of the hour. There are also health vehicle services with CT scan and Ultrasonography facilities which can be distributed in accordance with district population. This will not only improve diagnosis but also enable monitoring and control of chronic diseases and response to medicines. Such services can serve as an immense employment generation process, and also bridge language and cultural barriers.

In the last few decades Healthcare has majorly focused on prescription and interventional medicine, with segregation of allopathic, and herbal/traditional medical systems. Today there is increased recognition of dietary and lifestyle factors in diseases. Several indigenous herbs and foods have now through clinical trials been approved in allopathic medicine as supplements and drugs. Therefore, most patients and diseases today will benefit by a holistic and integrated therapeutic approach, by complementing drug therapy with lifestyle, nutritional/dietary, psychosocial and scientific indigenous/alternative therapies. The latter holds an important place in rural healthcare in developing nations like India. Virtual Healthcare especially should incorporate such a holistic approach which will empower patients more, increase their participation and responsibility in their disease management and also reduce burden on healthcare infrastructure.

The pandemic has been an eye opener for Governments to allocate a far higher percentage of GDP to Health in terms of development of both facilities at peripheral and central level, and also increasing number and quality of trained professionals in Health-care. There is now a trend towards 'Self Sufficiency' in Healthcare at individual and society level with emphasis on improving health status, healthy lifestyle practices, regular checks and monitoring, timely consultation through virtual platforms, home health kits, and improving health awareness through authentic information and guidance. The role of the family physician will once more assume immense importance as the backbone of healthcare in society. Hospitals would focus on the three aspects of advanced medicine requiring physical presence and admission for patients which include intensive care and life support, emergency assistance and stabilization, and surgical/interventional procedures for disease management. The Pandemic has brought with it a wave of changing trends and opportunities in health, and redefined clinical practice and approach to treatment, for the coming 2020 decade.