



## Impact of covid-19 on adoption of telemedicine in nigeria

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### ARTICLE HISTORY

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### Background

Coronavirus disease-2019 (COVID-19) is a viral infection caused by severe acute respiratory syndrome coronavirus-2 (SARS CoV-2) [1]. The World Health Organization (WHO) has declared COVID-19 as a pandemic, affecting almost all the countries in the world. The first case of COVID-19 was reported in Wuhan in China in November, 2019 [2]. It has affected over 20 million people worldwide with over 800 000 mortality cases reported [3]. It is a global crisis with tremendous impact on medical care at health care facilities [4]. It is an extra burden on the available limited resources for health care. According to Song et al, there has been an increased use of telemedicine for consultation, communication and training during the pandemic [5].

### Impact of COVID-19 on nigeria as a nation

Nigeria is a developing nation in sub-Saharan Africa and has been equally hit by the COVID-19 pandemic. The first official case of COVID-19 in Nigeria was reported in February, 2020, about three months after the disease was first documented in China. According to the Nigeria Centre for Disease Control (NCDC), Nigeria has recorded over 50 000 cases and over 900 deaths [6]. Unemployment has skyrocketed and there has been an economic meltdown with a looming economic recession. Every sector has been affected negatively with companies declaring mid-year losses and inflation rising astronomically.

### Impact of COVID-19 on health care delivery in nigeria

Prior to the epidemic, health care delivery in Nigeria had background challenges such as insufficient health personnel, suboptimal investment in the health sector, substandard infrastructure, poor funding and unfavorable health care policies [7]. These challenges are not peculiar to Nigeria as similar circumstances are found in other low and middle income countries. However, COVID-19 has made the situation in the health sector worse.

The health systems have had to address the problems peculiar to COVID-19 in addition to the background challenges in the sector. Most of the health facilities do not have well equipped and specially designated isolation centres. So, a few secondary and tertiary hospitals had to come up with makeshift isolated wards. Due to the underlying poor funding of health services,

most of the makeshift facilities could not be adequately equipped and staffed. The facilities and staff for other diseases had to be diverted for COVID-19 thereby making patients being treated for other diseases suffer even more.

Many patients, both new and old, were afraid of presenting at the health facilities for the fear of contracting COVID-19 during the peak of the epidemic in the country. Even health care providers had to shut down some facilities at the peak of the epidemic to minimize transmission of the virus. The country depends significantly on imported drugs and medical equipment as well as reagents used in the laboratories. These suffered greatly at the peak of the epidemic. Travel bans excluded medical materials but the bureaucratic processes involved in importing these things created significant barriers.

### Role of telemedicine in nigeria

According to the WHO, telemedicine is defined as health care delivery approach from a distance using electronic means and the aims are to prevent diseases, diagnose ailments, treat medical disorders, carry out researches and support medical education [8]. Telemedicine is targeted at improving the barriers to health care access. These barriers are prominent in Nigeria and they include the demographic barriers, geographical barriers, financial barriers, health care associated barriers which include insufficient health personnel [9]. Despite the widely recognized benefits, adoption of telemedicine in Nigeria is very low due to many reasons which include cost of equipment, inadequate training, lack of technical knowhow, poor internet facilities and unavailable institutional infrastructure. Others include erratic power supply, poor government policies and issues of confidentiality [10].

### Increased adoption of telemedicine in nigeria during the covid-19 epidemic

The adoption of telemedicine in clinical practice in Nigeria has risen with the advent of COVID-19 due to the challenges of the conventional one-on-one clinical care which had been the norm prior to the epidemic. In addition, the adoption of policies such as lockdowns as well as social distancing and the reduced hospital visits by patients occasioned by the fear of contracting COVID-19 in health facilities have culminated into wider adoption of telemedicine to improve health care delivery in Nigeria [11].

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Public and private health facilities have increased funding for infrastructure to enhance the adoption of telemedicine in the hospitals for diagnosis, treatment and training [12].

### Conclusion

COVID-19 is a global pandemic and Nigeria is also being affected. It has impacted negatively on the barely adequate health care delivery in Nigeria. Lockdowns and the fear of contracting the infection have hindered patients receiving health care from presenting at the hospitals. Telemedicine aims to deliver care via electronic channels and can overcome the barriers to health care access posed by the COVID-19 epidemic in Nigeria. However the adoption of telemedicine, prior to the epidemic, was very low due to several factors. There is evidence that the advent of COVID-19 has led to a wider adoption of the telemedicine approach to health care delivery in Nigeria. Many health care institutions in the country have invested in telemedicine infrastructure and training so as to improve health care coverage during the pandemic and thereafter.

### Funding

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### Conflict of interest

None

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