

ENSURING ACCESS TO ROUTINE AND ESSENTIAL SERVICES DURING COVID-19 THROUGH UTILIZING TELEHEALTH IN SRI LANKA

COVID-19 PROMISING PRACTICES

EXECUTIVE SUMMARY

- Sri Lanka is a lower-middle income country with high health status driven by accessible quality primary health care services from the public and private sectors.
- The first local case of COVID-19 in the country was documented in March 2020, which led to changes in the configuration of health service delivery.
- To prevent disruption in access to both COVID-19 and non-COVID-19 health services, health care facilities adopted telehealth innovations using basic mobile telephone functionality following the guidelines from the Ministry of Health. The adoption of telehealth during the COVID-19 pandemic has allowed some primary care providers in Sri Lanka to continue providing remote medical care facilities to their patients.
- Successful implementation of telehealth requires adequate data infrastructure, well-trained staff, and clear management & communication protocols in dealing with patients.

SRI LANKA PHC AT A GLANCE



Population: 21.67 M
GDP/Capita: \$4,102 (current USD)
Human Development Index: 0.78
Life Expectancy at Birth: 76.8 Years

- Sri Lanka has a pluralist health system composed of modern allopathic and traditional ayurvedic health services.
- The public health sector is organized into two parallel streams: (1) community health, and (2) curative care services delivered through a variety of hospitals. No user fees at the point of care are charged within the public sector.
- 90% of hospital in-patient services are delivered by the public sector. For primary health care, 45% of the services are delivered by the public sector, while the rest is through the private sector.
- Sri Lankan health facilities are classified as National, Teaching, General, Base, and Divisional Hospitals and Primary Medical Care Unit (PMCU). Closest to the communities are divisional hospitals and primary medical care units.
- With increasing access to health services across the country, many have begun to bypass primary care facilities for higher-level care facilities, for higher quality and broader availability of services. This has led to underuse of the primary care system and overcrowding of the secondary and tertiary care systems.

COVID-19 IN SRI LANKA



As of 28 May 2020

1,486
TOTAL CONFIRMED
CASES

745
RECOVERIES

10
DEATHS



Sri Lanka's COVID-19 response has focused on community quarantine efforts through declaring curfews, closure of some public facilities, and the declaration of an extended national public holiday that urged the public to work from home. In parallel, the ministry of health released a series of guidelines and circulars to aid health facilities and local health programs in COVID-19 preparedness and response. To strengthen surveillance efforts, the ministry of health developed a web-based DHIS2 package that captures information on high-risk passengers entering the country from at-risk countries for active COVID-19 surveillance - this innovation has now been adopted by multiple countries worldwide. Efforts to mobilize the private sector for outbreak management were also initiated to help mitigate the broad impact of the pandemic. This came in the form of digital solutions and partnerships that facilitated continuity in screening, treatment, and monitoring of patients.

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COVID-19 SRI LANKA: THE ROLE OF TELEHEALTH IN ENSURING CONTINUED ACCESS TO HEALTH SERVICES

AN INTERVIEW WITH DR. KUMARA MENDIS

Dr. Kumara Mendis is the Chair Professor of Family Medicine at University of Kelaniya, Sri Lanka and an Associate Professor in the School of Medicine at Western Sydney University, Australia. We interviewed Dr. Mendis to learn more about his experiences in leading the development of COVID-19 guidelines for Sri Lankan Primary Care Physicians - specifically on adoption of telemedicine services. Also in the interview were Dr. Lalantha Senaratne, Dr. Deshan Kotugodella, Dr. Sankha Randenikumara, and Dr. Supun Withana. Responses have been edited for length and clarity.



L-R: Tareen Weerasinghe, Sankha Randenikumara, Aruni Weerakoon, Chandana Atapattu, Lalantha Senaratne, Supun Withana, Kumara Mendis

Question: What was the initial impact of COVID-19 on access to primary health care services and primary health care facilities? What was done to address this impact at the primary care level?

Answer: When COVID-19 hit Sri Lanka, the Ministry of Health decided to designate one hospital from each province as a receiving center for suspected COVID-19 patients. Initially the National Institute of Infectious Diseases (NIID - IDH) was named as the only treatment center. Because of this, there was an influx of non-COVID patients to other health facilities that were not receiving COVID patients, particularly divisional hospitals and primary medical care units. After identifying the shift in health care priorities, the divisional hospitals decided that essential services should still be accessible to patients by continuing routine work and providing urgent care in emergency units. With the help of local administrative bodies and volunteer groups in the community, we were able to organize logistics for the screening and subsequent referral of suspected COVID-19 patients to designated centers. Health care workers and staff were trained on proper hand hygiene and equipped with adequate personal protective equipment (PPE) for infection control. Triaging at the entrance and waiting areas that follow social distancing protocols were set up outside the divisional hospitals. Patients who are waiting in line receive health education on COVID-19, and are given information about the new hospital hotline for tele-consultation and scheduling of future appointments.

At the level of the primary medical care units (PMCU), provision of routine and essential health care services was not significantly interrupted. The out-patient department, non-communicable diseases (NCD) clinics, and maternity clinics

remained open to cater to patients in the community. Similar to the measures taken in the divisional hospitals, the PMCUs established triaging and waiting areas, as well as equipped the staff with personal protective equipment (PPE). However, known patients who are at high-risk of complications from COVID-19 (e.g. cancer, chronic kidney disease, etc.) were discouraged from coming to the PMCU unless for emergency concerns. Some community-based services such as mobile health clinics, home visits, and workplace NCD screening were temporarily discontinued during this COVID-19 pandemic.

In line with these operational changes in the facilities, the Ministry of Health took an active role in providing [clinical guidelines](#) for doctors. However, this focused mainly on screening and management of hospital patients and there was only brief guidance provided for handling patients in the primary care setting. Currently, there are around 10,000 doctors working in government hospitals in the daytime, who in the evenings hold private practices and work as primary care physicians (PCPs). These PCPs are in the frontline of patient care in any healthcare crisis as the closest healthcare professionals to the family. They have a major responsibility in looking after high-risk groups, identifying suspected cases, preventing spread, and opportunistic patient education during the current pandemic of COVID-19.

Question: What guidance was provided to maintain primary health care services during COVID-19? What strategies did this guidance document describe?

Answer: Given the paucity of specific guidance for primary care, we mobilized some colleagues working in the universities, divisional hospitals and PMCUs to start brainstorming on how to optimize health service

provision during COVID-19. Following this discussion, our group-- which included members from a cross section of private and public sectors including the Ministry of Health, Universities, and the College of General Practitioners of Sri Lanka (CGPSL)-- developed a set of guidelines for primary care physicians to aid them in managing both COVID-19 and non-COVID cases. These guidelines could be used in Private Family Practice/General Practice Clinics, PMCUs, divisional hospitals, and by doctors delivering primary curative care at other facility types in Outpatient Departments (OPDs).

These guidelines cover topics including maintenance of primary care consultation during the pandemic, utilization of remote consultation and telehealth, diagnostic, management and monitoring algorithms for both COVID-19 and non-COVID patients, and re-configuring operations for community-based services. At present, these guidelines are being disseminated nationally through the Ministry of Health Epidemiology Unit Website.

Question: We understand that telehealth has played a major role in Sri Lanka's COVID-19 response. What specific guidance on telehealth was provided?

Answer: During the COVID-19 pandemic, we discourage patients from visiting clinics for

treatment unless absolutely necessary. Instead, we strongly recommended that providers establish a remote consultation service (mobile hotline / video consultations using WhatsApp) with their patients to enable them to advise the patients and clarify queries related to their symptoms. This means the majority of first contact care would shift to remote consultations over the phone. This enables the PCPs to triage COVID-19 suspected patients appropriately with minimum exposure to healthcare staff and other patients. At the same time, it allows non-COVID patients to be managed appropriately from their own homes.

In Sri Lanka, Telehealth is a broad term that includes Telemedicine and Telephone Consultations. The PCPs are advised to first start with setting up telephone consultations using the existing clinic landlines which the majority of the patients are familiar with at the PMCUs. They are advised to post a notice outside their clinic indicating the details and criteria for tele-consultation. Through phone consultation, PCPs would already be able to manage most medical concerns. If necessary, video consultations (e.g. through WhatsApp, Viber, Zoom, etc.) could be utilized to provide additional visual diagnostic clues and therapeutic presence. The PCPs are advised to strictly follow a remote consultation algorithm to differentiate suspected COVID-19 patients from non-COVID patients, for

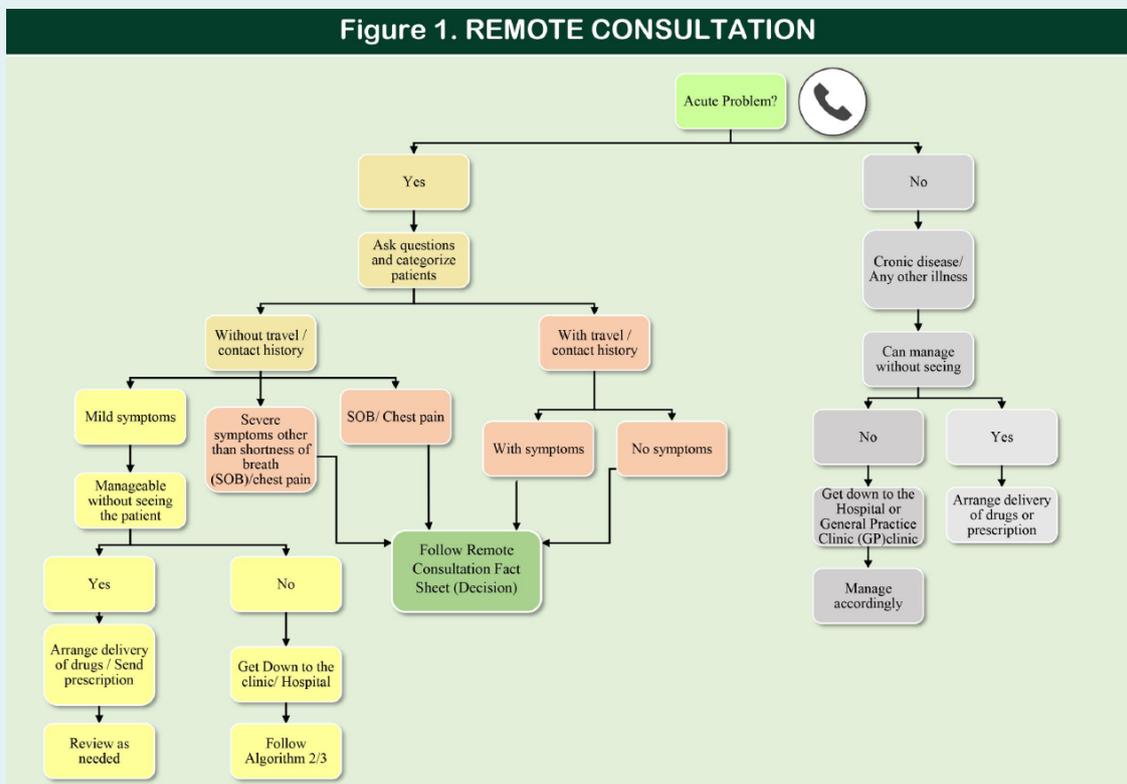


Figure 1. Algorithm on Remote Consultation

eventual referral or management, respectively. In the guidelines, PCPs also have access to templates and tips for implementing telehealth services.

Question: How was this guidance on telehealth implemented in the different health facilities?

Answer: The guideline was first tested in the University Family Medicine Clinic at the Faculty of Medicine, University of Kelaniya. Here, we had the benefit of having computerized all paper health records to a cloud-based personal electronic health record (cb-PEHR) system in late 2019. When COVID hit Sri Lanka and the universities were closed, we procured mobile phone sim cards and publicized the numbers on the department website so that our regular patients could call us. We then ran a query in our clinic PEHR of individuals over the age of 50 who had comorbidities linked to poor COVID-19 prognosis. We were able to identify around 250 patients who met this criteria and divided the individuals between the five family physicians in the practice. Within three days we were able to call every patient in the list to give them health information about COVID-19, and alleviate their fears that might prevent them in continuing to seek care for their existing conditions. These patients were then given information on how to seek medical advice through tele-consultation. Although the country was in a lockdown and a curfew was in place, the five clinic doctors were able to provide telehealth consultations with the PEHR to most of the problems, and even arrange hospital admission if needed by coordinating with the Colombo North Teaching Hospital which is adjacent to the Faculty of Medicine.

In the PMCUs, patients were encouraged to utilize telephone consultation for non-emergent concerns. This new process was able to replace the home visits temporarily paused during COVID-19. Before the pandemic, most of the patients seen in the PMCU would usually be “walk-ins” or patients without prior appointments. After we disseminated the information on this new process (i.e. landline number, procedures), patients now tend to schedule clinic appointments ahead of time. Health assistants were trained and also mobilized to answer the phones, take the messages, and give general advice. On the phone, PCPs are able to get the patient’s histories, and assess the need to seek in-person consultation or coordinate referrals to a tertiary facility. In some cases where we needed to do video examination, the patient’s family members

would help us with showing the symptoms or lesions through WhatsApp, particularly for older patients who needed assistance with the technology. After the consultation, if needed, the PCP can send the patient an SMS prescription that they could show to the pharmacy. Through the help of the community administrative officers and health workers, patients could also send their hand-held medical record to the hospital pharmacies for filling of written prescriptions. These medicines (and the medical record) will then be delivered to their homes through a hospital partnership with the national postal service. To promote continuity of care, PCPs are advised to document these consultations in their medical records. They are also encouraged to continue communication through phone follow-ups after the patient was either fully managed or referred to the hospital.

For the divisional hospitals, the new telehealth approach helped in managing the out-patient load through efficient use of telephone communication in scheduling consultations. Similar to the PMCUs, this remote system was also used for phone consultations, coordination of prescriptions, and the referral of patients to respective tertiary centers.

Question: What are the factors that facilitated implementation of these guidelines in the primary care clinics?

Answer: Prior to COVID-19, there was resistance to telehealth because patients preferred face-to-face consultations. When the pandemic hit, patients were confined to their homes during the long government curfew and had no choice but to transfer to telehealth. In Sri Lanka, around 90% of the population have mobile phones. The younger generation are comfortable with using telemedicine and virtual health, with specific interest in services like having their medications arranged through calling and then having it delivered. For the care of the elderly, it helps that the younger members of the family are with them at home to help them with the technical processes during consultations. With patient and workforce safety in mind, PCPs also became open to adopting telehealth because it would help them continue their practice, balance workload, and coordinate referrals to tertiary facilities.

The existence of open-source electronic medical platforms like OpenMRS and OpenEMR supported the implementation of telehealth. These free

platforms provide PCPs access to patient records even if they're not in their clinics. Open access to online resources and training on telehealth also helped strengthen the capacity of health providers and systems users. PCPs who were already using electronic medical records (EMR) in their practice had the easiest time shifting consultations to telehealth. These physicians note that patients appreciate that, because of existing electronic medical records, they don't need to rehash their entire patient history during a visit - they just need to say their name and the PCPs already have all of their information.

Finally, implementation and spread of the guidelines was catalyzed by the supportiveness of the Ministry of Health. In the public facilities, internet access and bandwidth have been increased to enable telephone consultations. Currently, the Sri Lanka Medical Council is formulating health information system guidelines because of the increased use of Telehealth consultations. Public-private partnerships are also being explored to improve telehealth and the national EMR system.

Question: What have been the challenges related to implementing this telehealth model nationally?

Answer: In Sri Lanka, most of the primary health care facilities do not have any form of personal medical records (either paper or electronic) that they maintain in-house. Instead, medical records usually come in the form of a booklet that a patient brings with them to consultations, and are also used in filling prescriptions in the pharmacy. Because of this, it has been difficult to ensure patients' medical histories are taken into account during telehealth consultations to promote continuity of care, and coordination between facilities has also been challenged. This difficulty is highlighted by the lack of proper referral pathways from primary to secondary care. Any citizen can consult a secondary

or tertiary care physician as long as they pay for consultation fee at a private hospital outpatient department.

There are also challenges in terms of reimbursing telehealth services. With the majority of PCPs in Sri Lanka working in the private sector, a significant number of telehealth services provided outside the public facilities are not subsidized because of the lack of electronic financial logistics. In effect, private PCPs would be providing services for free, and this would not be sustainable in the long run. Finally, a lack of workforce bandwidth has hampered roll out of this telehealth model. Currently, one person has to do most of the functions from maintaining records, receptionist work, dispensing medicine, etc. This responsibility usually falls to the health care provider.

Question: What lessons have you learned from this new approach of expanding telehealth? Do you think these changes in practice will go beyond the COVID-19 pandemic?

Answer: These changes in telehealth that were brought about by response to the COVID-19 pandemic have provided us with an opportunity to strengthen Sri Lanka's health information system. The government is now seeing the value of expanding telehealth and EMR systems to the national level for improving gatekeeping and redistributing patients from the tertiary centers to primary health care facilities. And with COVID-19 happening, everyone now wants to have an electronic medical record for themselves.

To facilitate this, the Ministry of Health has initiated private public partnership projects that will offer citizens of an electronic personal health record 'free' of charge with a telehealth application attached. This has come through within the past two weeks and will bring about a new era of ambulatory care.

RELEVANT RESOURCES



RELEVANT IMPROVEMENT STRATEGIES

- [Primary Health Care Policies](#)
- [Quality Management Infrastructure](#)
- [Information Systems and Information Systems Use](#)
- [Workforce, Funds, and Safety](#)
- [Population Health Management](#)

GLOBAL LEARNING TOOLS AND RESOURCES

- WHO Resources
 - [COVID-19 Operational guidance for maintaining essential services during an outbreak](#)
 - [Telemedicine: Opportunities and Developments in Member States](#)
- [Knowledge Action Portal - Digital Health](#)
- [PATH Resources to support COVID-19 in LMICs](#)