Early detection of HIV and initiation of anti-retroviral treatment (ART) is crucial for ensuring the wellbeing and survival of children who are born with HIV. Without it, one in three children living with HIV will die before their first birthday and half of them will not reach the age of two.

In India, many ART centres do not have a pediatrician on staff and so the responsibility for treating HIV-positive children falls on the available medical officers, many of whom may lack expertise and confidence when it comes to providing pediatric HIV treatment and care to the children living with HIV.

Children in need of expert pediatric HIV care in India are referred to one of seven national Pediatric Centres of Excellence for HIV Care (PCoE), which is the most tertiary level of health facility for children living with HIV. These centres provide pediatric HIV diagnosis, treatment and care among HIV exposed and infected children throughout the country, particularly those suffering from complications. One such centre is located at Lokmanya Tilak Municipal Medical College & General Hospital, Sion (popularly known as Sion Hospital) in Mumbai, the capital of Maharashtra state which is home to around 15% of people living with HIV in India.

The Telemedicine Initiative for Pediatric HIV Care

India has a long and successful history of using telemedicine to connect rural health centres to district and state level facilities under India’s National Rural Health Mission (now National Health Mission; NHM).

Recognizing the need to extend the availability of expert pediatric HIV care in all areas of Maharashtra and not just the districts of Mumbai, PCoE, Sion approached UNICEF and the Maharashtra State AIDS Control Society (MSACS) to implement their vision of reaching out to the HIV-infected children in all districts of the state. Together, they developed an innovative plan to harness existing telemedicine infrastructure in Maharashtra by connecting PCoE, Sion to ART centers outside of Mumbai in Maharashtra.

Sumit is around 8 years old and lives with his uncle Santosh in Nashik, Maharashtra. Sumit’s mother passed away 4 years ago and he has been in the care of his uncle ever since.

Sumit was born with HIV. His uncle Santosh brings Sumit to the hospital every six months for a check up.

“When we visit the center if there is any problem, then doctors of the center contact Mumbai’s specialist doctors for their expert opinion through video conferencing”, says Santosh.

Hearing of Sumit’s falling CD4 levels, the local hospital at Nashik recently modified Sumit’s HIV treatment regimen. Both Santosh and Sumit are grateful for the expert care they are receiving without need for travel.

“It is important to us that Sumit can continue with his schooling and lead a normal life. We are happy that he can continue with his schooling without disruption from illness or travel”.

Doctors at Nashik Hospital consult with pediatric experts at PCoE, Sion Hospital in Mumbai through Telemedicine.
Results

How is the video-conferencing scheduled?
PCoE schedules video-conferencing calls with 2 ART centres each day, 5 days a week lasting approximately one hour. In preparation for these calls, ART staff - usually the medical doctor and counsellor - are requested to identify three pediatric HIV cases to discuss with the pediatric experts at the PCoE, Sion in Mumbai.

What are the benefits of the Telemedicine Initiative?
Utilising existing telemedicine infrastructure has improved contact between PCoE and the ART centres and their patients. As a result, families of children living with HIV now have improved access to expert pediatric HIV care, which has positive benefits for their health and wellbeing. Families no longer have to travel to Mumbai for this care - a journey which was often made at great expense in time and money.

Many of the children under the care of PCoE are orphans, looked after by extended family members who are typically engaged as daily wage earners. Removing the need to travel for expert care prevents families from losing income due to time away from work, and prevents children from missing school.

This virtual connection to PCoE has reduced waiting times and delays associated with referrals. This has eliminated unnecessary delays in accessing health care and treatment for children living with HIV.

The improved contact between PCoE and medical officers at ART centres has increased opportunities for professional mentoring and capacity building. From ongoing training sessions with counsellors and medical officers, to one-on-one problem solving, supervised case management or discussions about recent advances in pediatric HIV, the Telemedicine Initiative is enhancing the capacity of ART centre staff to provide quality pediatric care directly to their patients.

Looking forward
This Initiative has been replicated in the state of Karnataka and Andhra Pradesh, significantly increasing the access to expert pediatric HIV care for children living with HIV across the country, and helping to better reach unreached children and their families in India.

Additional documentation of this Telemedicine Initiative for Pediatric HIV Care is underway to better understand the impact and cost-effectiveness of the initiative. The evidence generated from this will be used to support advocacy efforts for broad scale-up.