



For every child, health

HARNESSING THE POWER OF DIGITAL HEALTH SOLUTIONS FOR CHILDREN IN SOUTH ASIA

One quarter of the world's children live in South Asia. One quarter of our world's next generation. Enabling them to have healthy starts and childhoods, supported by effective primary healthcare within a wider framework of universal health coverage and human security, is fundamental to ensuring that children in South Asia can realize their human potential and that of their communities, countries and region.

Digital health – enabling and transforming life-saving primary health care

The challenge. Across this region of contrasts, millions of children, adolescents and caregivers lack access to effective primary health care. The causes and challenges are myriad – remote or hard to reach communities, poverty, humanitarian crises, insufficient or disjointed health infrastructure – but the consequences are stark: millions of children suffering or dying from preventable diseases. The COVID pandemic and its wider impacts have risked hard-won progress towards the Sustainable Development Goals and exposed the vulnerabilities of existing health architecture. But the global pandemic response has also shown that significant rapid progress is possible, thanks to

innovation, political will and collective human effort.

We can and must keep the momentum going to close the health equity gap and ensure all children and women can access quality, integrated primary health care.

UNICEF's vision is for a world in which no child dies of a preventable cause and all children reach their full potential in health and well-being. As we collectively strive towards this vision and the Sustainable Development Goals, harnessing the power of digital technologies is critical towards achieving health equity and Universal Health Coverage.

The opportunity. In South Asia and around the world, UNICEF is working closely with governments, partners and donors to build and strengthen integrated, data-led and digitally-enabled health systems that will accelerate access to quality public health care for all, especially for the most disadvantaged children, adolescents and caregivers, and build resilience against future health shocks.

The potential is huge: the digitalization of health services can directly enhance quality-of-care, reduce human error, improve patient outcomes, increase efficiency, lead to more equitable coverage and lower overall costs. Moreover, timely, high-quality

data exposes inequities in health access and outcomes and enables decision makers to identify unmet needs, including how and where to invest in health facilities, personnel, vaccines, and other supplies. With incredible diversity across the region's countries – from the world's most populous country to small island state, stable upper/middle income countries to states with complex and fragile socio-political contexts, densely populated slums to remote rural communities – there is no single solution to strengthening vital health systems. Instead, a customized approach is needed to ensure appropriate, impactful and sustainable interventions to strengthen digitally-enabled health systems.

Building resilient digitally-enabled health systems in South Asia

The following examples show just some of the ways that UNICEF is working closely with governments, partners and donors to create, embed and scale up digital health solutions; solutions that are already improving health outcomes for children and women in South Asia, as well as creating stronger primary care health systems that are resilient and responsive in the face of future health emergencies and evolving demographic and epidemiological contexts.

Yet there is still much more to do, and we call upon the public and private sectors to join with us to realize transformative digital change across South Asia for the benefit of all children.

Challenge: Reaching zero dose and under-vaccinated children with life-saving vaccines

In 2021 alone:

- 3.8 million children in South Asia did not receive a single dose of life-saving vaccines
- 1.25 million children did not receive all the vaccine doses they need

Afghanistan and Pakistan remain two of world's three polio endemic countries

ACTION. Digital tools and technologies are critical to enabling every part of the complex process of turning vaccines into vaccinations. Across South Asia, UNICEF and partners are employing varied digital health interventions to reach zero dose and under-vaccinated children:

In Bhutan, real time cold chain temperature monitoring and emergency alerts help keep vaccines viable right down to the last mile. In Pakistan, a Mobile phone-based Referral (mRef) application enables Community Health Workers to identify and track unvaccinated children in the slums of Karachi; whilst in Afghanistan, real time campaign monitoring aids in the battle to eradicate polio.

SUPPORTING DIGITAL TOOLS include:

- GIS and microplanning for mapping and targeting
- Integrated DMIS for beneficiary tracking
- Real time campaign monitoring
- Data analytics
- eCRVS and Digital Identity systems
- Supply chain monitoring and management
- Workforce planning and training
- Mobile and digital data capture
- Communication technologies to support vaccine confidence and demand generation activities.

Challenge: Overcoming 'last mile' delivery barriers to reach children, adolescents and caregivers with quality PHC services

In all South Asian countries, geography, distance and poverty are amongst the barriers preventing children and caregivers from accessing PHC services.

ACTION. The COVID-19 pandemic has helped accelerate innovation and the adoption of digital and communication technologies to overcome service barriers. For example:

In Nepal, the only full-time specialist child and adolescent mental health service is at Kanti Children's Hospital, Kathmandu, and travel is long and costly for families outside the capital. UNICEF-supported 'tele-mental' services now enable children and young people to receive mental health support from psychologists and psychiatrists; and a new Chatbot #OnMyMind (launched March 2023) now provides an AI configured service for children and adolescents, widening access to mental health information and linking them with the

tele-mental health services, backed with training of local health workers.

SUPPORTING DIGITAL TOOLS include:

- Telemedicine
- ChatBots and AI-enabled digital interfaces
- Integrated DMIS for beneficiary tracking
- Data analytics
- Workforce planning and training
- Mobile and digital data capture
- Communication technologies to support health education, raise awareness and tackle stigma.

"In a country like ours, where services are sparse outside Kathmandu and travel is very difficult, tele-medicine is a new frontier"

Dr. Arun Raj Kunwar, Head of Child and Adolescent Psychiatry, Kanti Children's Hospital, and lead psychologist for the tele-mental health system.

Challenge: Improving maternal and neonatal outcomes

Despite major progress, too many children and women still lose their lives in childbirth in South Asia:

- Neonatal mortality: 23 deaths per 1,000 live births
- Maternal mortality: 163 per 100,000 live births

5 out of 8 South Asian countries are not on track to meet SDG3 skilled birth attendance targets

ACTION. Accurate, comprehensive data and analysis guides health service design to drive gains in child, maternal and other health outcomes. For example:

In Uttar Pradesh, India, the MaNTrA Labour Room Online MIS (developed with technical & financial support from UNICEF) now captures data from 6,300 delivery points that support 2.8 million births annually, enabling effective intrapartum care quality monitoring to improve maternal and neonatal outcomes. MaNTrA can also deliver Interactive Voice Response messages to beneficiaries, collect patient feedback and will be compliant with other

state & national systems (incl. birth registration, ante/post natal information, cash transfers). MaNTrA will be transitioned completely to the government ensuring long-term sustainability.

SUPPORTING DIGITAL TOOLS include:

- eCRVS and Digital Identity systems
- Integrated DMIS for beneficiary tracking
- Real time campaign monitoring
- Data analytics
- Supply chain monitoring and management
- Workforce planning and training
- Mobile and digital data capture
- Communication technologies to keep women connected to child & maternal care.

Working together to accelerate digital health systems and transformation in South Asia for all children

Investment in digital systems, tools and infrastructure directly enables children to survive and thrive. Remarkable progress is underway across the South Asia region, but much still needs to be done to embed systemic change, scale up proven solutions and mainstream the use of digital tools to advance primary health care and close the health equity gap.

Now is a time of rapid digital evolution and significant potential. Together, we can explore the transformative power of digital enablement for the benefit of children throughout South Asia. UNICEF has embarked on a journey to integrate the rapidly evolving frontier technologies into the next generation of digitally-enabled health systems, such as Artificially Intelligent chatbots for mental health and community health worker support; data sciences for trend mapping and early identification of neo-natal defects; GIS mapping for efficient service delivery; drones for vaccine deliveries; blockchain for logistics and supply chain management; and other emerging technologies.

At the same time, UNICEF recognizes the entrenched digital divide in the South Asia region, and we are partnering with global and regional agencies and the private sector to advocate for equitable digital access and address the network connectivity and affordability gap, to ensure that digital health services are accessible to everyone.

UNICEF in South Asia invites public and private sector partners to join us in united action to accelerate digitally-enabled health systems, architecture and preparedness planning across the region, through:

- ❖ Strategic investments
- ❖ Shared value partnerships
- ❖ Advocacy, innovation and thought leadership

Together, we can change lives.



UNICEF brings regional and technical expertise in digital health, alongside our wider health programming. UNICEF co-leads with the World Health Organization (WHO) the **Digital Health Centre of Excellence (DICE)** - a multi-agency consortium that supports national governments to develop and improve digital health systems. Its goal is to make health services, such as vaccines, maternal and child health, and nutrition, more equitable and attainable through a data-driven approach and by harnessing the power of sustainable and scalable digital health solutions.

UNICEF in South Asia. UNICEF has been working in South Asia for over 70 years to save children's lives, defend their rights, and help them fulfil their potential, especially those most marginalized and disadvantaged. We work from the grassroots to the government level to drive child-centred and data-driven change, to give children and young people a voice in decisions that affect them, and to create positive futures.

UNICEF in South Asia has 52 offices across the region's eight countries: Afghanistan, Bangladesh, Bhutan, India, the Maldives, Nepal, Pakistan and Sri Lanka.