

**Rapid Assessment of Digital Health Services
provided by Public Health Facilities in Nepal during
COVID-19 pandemic to continue essential RMNCH
services
(Oct to Dec 2021)**



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Population
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Service
Family Welfare Division

Binjwala Shrestha, PhD
Board member
Safe Motherhood Network Federation, Nepal

Study team

1. Dr Binjwala Shrestha, Team Leader
2. Dr. Buna Bhandari, Public Health Expert
3. Nayana Amatya Rajbhandari, IT expert
4. Laxmi Khanal, Project Coordinator, SMNF

Outline of presentation

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Introduction

- The term digital health is rooted in **eHealth**, which is defined as “**the use of information and communications technology (ICT) in support of health and health-related fields**”.
 - **Mobile health (mHealth)** is a subset of eHealth and is defined as “**the use of mobile wireless technologies for public health**”
- Digital health interventions aim to facilitate targeted communications to individuals and health workers to give them more immediate access to clinical protocols,
 - for example, decision-support mechanisms or **telemedicine consultations** with other health workers.
- The **disruption of health services due to the COVID-19 pandemic** created high demand for digital health intervention to strengthen health care delivery for **reproductive, maternal, new born, child and adolescent health services**.

Importance of Digital health intervention

Strategic actions:

1. **Remote health service strengthening** (transportation of vaccine via drone, information and communication through mobile app)
2. **Hospitals will be computer friendly** for data managements (vital events, recording of health service utilization)
3. **Patients data management in hospital recording system** (patient should not carry paper based reports and medical prescriptions)
4. **Telemedicine** for rural community from specialist
5. **Data management during disease outbreak** to plan and respond emergency situation
6. **Health Human resource management** using digital system

रणनीति कार्यान्वयन भए के हुन्छ ?



दुर्गममा स्वास्थ्य उपचार सुदृढ हुन्छ
(प्रविधि- ड्रोनमार्फत खोपलगायत स्वास्थ्य सामग्री ओसार्ने, मोबाइलबाट सूचना र सन्देश दिने, एप्स बनाएर जनचेतना फैलाउने)



अस्पतालहरू कम्प्युटरमैत्री बन्छन्
(शिशु जन्मेदेखि मृत्युसम्मको स्वास्थ्य उपचार सम्बन्धी सम्पूर्ण विवरण थाहा पाउन सकिने)



बिरामीले कागजपत्र बोक्नु पर्दैन, स्वास्थ्य सम्बन्धी सम्पूर्ण जानकारी कम्प्युटरमै रहन्छ



दुर्गमका बिरामीले घरैमा बसीबसी सुगमका डाक्टरसँग परामर्श र उपचार लिन सक्छन्



रोगव्याधी र महामारीलगायतको तथ्यांक समयमै उपलब्ध हुन्छ, नीति निर्माण, अध्ययन, अनुसन्धान र बजेट वितरणमा सहज हुन्छ



स्वास्थ्य क्षेत्रमा कार्यरत जनशक्ति र स्रोतसाधन कति छन् भन्ने थाहा पाउन सकिन्छ

Background

eHealth Strategy of MoHP

Provides roadmap for digitalization of health sector in Nepal over the next few years, with the goal to harness the potential of ICT technologies to improve

- health services,
- health governance and
- management.

Based on the **e-health strategy** MoHP gradually expanding various model of Digital Health Platform/Mobile App connecting all public sector health facilities in Nepal.

During current Covid pandemic period the utilization of digital health app increased for covid case reporting and use of RMNCH.

For example, Digital health app

- *Hamro Swastha* (Our Health) covid case reporting and counselling services
- Medic mobile (various health programs including FCHV programs),
- *Ammako Maya* focused to RMNCH

Digital Data service: The IHMIS managed by Ministry of Health and Population is based on the open-source DHIS2 software platform.

The integrated HMIS included the

- Logistics Management Information System (LMIS),
- Electronic Health Records (EHR) Systems,
- Human Resource Information System (HuRIS) and
- Health Facility Registry (HFR).

Recently ministry of health and population has launched an IMU for recording and reporting of covid cases and covid vaccination and integrated with IHMIS.

IT infrastructure in Nepal

Ref: *MIS report of NTA Sep 2021*

Telecommunication services

135% of the total country's population has voice telephony service, (which includes fixed line telephones as well as mobile subscriptions)

74% covered in Nepal with broadband internet service

➤ **28%**, fixed and wireless broadband

➤ **82%** mobile broadband

Internet service: Most of people has some sort of access to the internet.

Type of mobile Phone used

- Among the total phone users **98% using mobile phone** and
- most of them had access to **handheld, mobile devices.**

Digital skill and expectation of people

- People are accepting IT facilities however **IT facilities are limited to digital literate people.**
- People recognizing the importance of ICT to access health service using ICT

Digital Health intervention services applied by FWD

RMNCH interim guideline launched immediately after the opening of lockdown 2020 April.

the **helpline** was made available for women to consult for

- problems during pregnancy and childbirth and advice and accessing maternal and neonatal health (MNH),
 - family planning (FP),
 - safe abortion service (SAS) and
 - child health-related services.
- Similarly, service providers are using **open data kit software** to share real-time data with FWD for monitoring of RMNCH services
 - **Virtual training and meeting** with stakeholders to update progress, challenges faced and strategic actions to resolve the issues during covid pandemic
 - Use of **mobile telecommunication** to maintain communication between FWD and managers and service providers of health institutions

Action points of RMNCH services (helpline, telemedicine, clinical site establishment, etc.)

- Establish and strengthen the 24/7 helpline service for RMNCAH to provide the necessary information, counselling along with linking to specialists and referral services as required.
- Establish helpline to support the health service provider for clinical decision making for MNCH services
- Psychosocial counseling for front line health workers
- Procurement and transportation and or distribution of the supply of essential MNH, FP, SAS commodities to ensure continuity of services

Objective

1. To review availability and accessibility of IT infrastructure in health facilities regarding connectivity of internet, electricity and ICT devices.
2. To assess the practices of service providers regarding use of digital service delivery and perceived challenges

Methodology

Qualitative methods

1. **Key informant interview** with managers/in-charge of selected Health post and hospitals
2. **In-depth interview** with RMNCH service providers
3. **Observation of IT facilities** in selected health post and hospitals

Study sites and sample size

Health facilities/ participant of interview	Total in one province	Total province	Total Samples size
Health post IT infrastructure	4	7	28
Hospital IT infrastructure	4	7	28
KII with HF in charge/IT staff	4	7	28
IDI with Service providers of RMNCH	4	7	28

Province	District	Health facility
Koshi	Panchthar	Chokmagu HP, District Hospital
	Ilam	Sakejung HP, District Hospital
Madhesh	Dhanusha	Hariharpur HP, Province Hospital
	Mahottari	Ratauli HP, District Hospital
Bagmati	Nuwakot	Ratmate HP, District Hospital
	Rasuwa	Karmi Dada HP, District Hospital
Gandaki	Kaski	Bhalam HP, Gandaki Hospital
	Myagdi	Arman HP, Myagdi Hospital
Lumbini	Bardiya	Jamuni HP, District Hospital
	Arghakhachi	Thula Pokhara HP, District Hospital
Karnali	Surkhet	Chinchu HP, Mehalkuna Hospital
	Dailekh	Rawatkot HP, Dailekh Hospital
Sudur Paschim	Kailali	Gadariya HP, Tikapur Hospital
	Dadeldhura	Samaiji HP, Dadeldhura Hospital

Key Findings

1. Availability of IT infrastructure in Health facilities

a. Electricity connection

- Most Hospital as well as Health Posts had access to fairly consistent electrical power.
- Health Posts however, had very limited backup power supply and were almost completely dependent on the national power grid to power them.

any problems with the power lines could mean many days and even weeks of no power and no internet connectivity

this is linked with road networks being as unreliable as ever, especially in distant rural health posts,

b. Internet connection

- All of the Hospitals had working internet connections; some had better speed and quality and had allocated budgets for internet, while most **health posts** were dependent on **municipality budgets** to pay for their internet and had limited bandwidth and speed at their disposal

2. Access to ICT devices and Digital skill of health workers

- Most hospitals had **access to digital devices** and staff used them for personal and professional purposes with varying degrees of skill.
- **Almost all hospital and health post staff**, reported a use of **smartphone** for both personal and professional purposes.
- **Health Posts had limited quantity of digital devices available**, with better capacity devices available in areas closer to urban hubs.
- Most hospital and health posts reported that they were **better skilled at using their phones rather than computers** for any general-purpose application.
- Most of health workers of hospitals were **expecting refresher training/orientation** for new and advance technology if any specific digital health app, or a specific computer application,

3. Practice digital health by service providers

- During the lockdowns imposed due to COVID-19, these health service providers have use ICT services to provide health care services to their clients when they could not physically attend to the health needs.
- Nurses from **Hospitals in four provinces** and **health posts in two provinces** have managed to provide health care specifically RMNCH consultation to their clients via **Video calls**

4. Effectiveness of implementation of RMNCH interim guidelines

- RMNCH Interim Guideline were not consistently disseminated among the nurses in hospitals and health posts.
- Some hospitals reported that online training were adequate to use these guidelines in the field supported by daily consults
- however most health posts reported inadequate or no training of RMNCH guidelines.

Conclusions

- Almost all managers and service provider have personal smart phone
- Digital technologies were very useful during covid pandemic to provide online based counseling and consultation services
- Digital technologies are also being used to improve the training and monitoring of health care workers and stakeholders meeting.

However

- At the current time, we can conclude that the IT infrastructure and skillset of health care staff currently in place is ***not adequate to fully establish*** any advanced Digital Health Interventions.

Recommendations digital health strengthening in health facilities

A. Strengthen IT infrastructure and affordable policy to increase access to digital health platform (Collaboration between Health and IT companies/telecommunication)

- **Ensure regular internet service** formulating suitable policy to bear the cost of internet connection (wifi /data package and phone recharge).
- **Collaborate with digital companies to mainstream** digital health app for digital RMNCH services with assessing the strength and capacity suitable for RMNCH digital service requirement

B. Strengthen quality of internet and ICT facilities in all level of health facilities to create enabling digital ecosystem (Health facilities strengthening by Health and IT companies**)**

- 1. Ensure effective internet connection *and electricity backup* while planning for online training, communication (meeting, seminar etc).**
- 2. Ensure accessibility of digital devices** such as smartphones and laptops to all health facilities for use by staff.
- 3. Strengthen the capacity of Desktops and Laptops** with recommended latest
- 4. Ensure technical support for maintenance** of available devices, along with
- 5. Plan for adequate and progressive training** for the health care staff.
- 6. Ensure functional communication in rural community,**

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Thank you