



**RWANDA HEALTH INITIATIVE  
FOR YOUTH AND WOMEN**

## **DIGITAL HEALTH INFRASTRUCTURE STRENGTHENING AND ICT EQUIPMENT SUPPORT FOR TELEMEDICINE SERVICE DELIVERY**

### **Objective**

To strengthen the capacity of health facilities and youth centers to deliver quality digital health and telemedicine services through the provision of ICT equipment, internet connectivity, digital tools, and essential infrastructure required for service delivery, data management, communication, and client support.

### **Background**

Digital health technologies are increasingly recognized as critical tools for improving access to quality healthcare, particularly in underserved and rural communities. Telemedicine offers an opportunity to overcome geographic barriers, strengthen access to specialized care, improve service efficiency, and enhance continuity of care.

However, successful implementation of telemedicine models/tele health requires adequate digital infrastructure, reliable internet connectivity, appropriate equipment, and functional data management systems. Many primary public healthcare facilities face challenges related to limited ICT equipment, inadequate connectivity, and insufficient digital systems to support virtual consultations and electronic service documentation.

To address these gaps, Rwanda Health Initiative for Youth and women (RHIYW) in collaboration with its partners, invested in strengthening digital health infrastructure across selected primary public health facilities and youth centers to support the implementation of telemedicine service delivery, data management and communication.

### **Strategic Interventions 2019 -2025**

#### **◆ Strengthening ICT Infrastructure for Telemedicine Services**

To establish functional teleconsultation capacity, ICT equipment and accessories were procured and distributed to selected health facilities across five districts.

Equipment provided included:

- 55 desktop computers
- 22 laptops
- 54 internet routers
- 54 high quality web cameras
- 50 digital signature pads



The equipment was installed in designated teleconsultation rooms within selected primary public health facilities, enabling healthcare providers to conduct virtual consultations, document services electronically, and communicate with specialists and referral facilities.

### ◆ Expanding Internet Connectivity and Digital Communication

- Reliable internet connectivity solutions were established in 77 primary health facilities for a period of two years.

### ◆ Supporting Digital Health Information Systems

We collaborated with the Ministry of Health's digital health team and other stakeholders to support the development and deployment of a digital platform for telemedicine service delivery for CAC.

The digital solution was designed to:

- Capture client clinical information electronically.
- Support service delivery documentation.
- Record treatment outcomes and referrals.
- Facilitate routine monitoring and reporting.
- Strengthen data quality and service continuity.

The platform improved the availability of real-time information for service provision, monitoring, and operational research. The digital tool for Comprehensive Abortion Care is currently hosted by the Ministry of Health and remains available for future program expansion. In addition, RHIYW developed two other digital health tools that are currently in pre-testing phases and being implemented on a limited scale.

### ◆ Strengthening Youth Access to Digital Information

Recognizing the importance of digital literacy and access to information among young people, one youth center was equipped with ICT infrastructure to support youth engagement, learning, and access to online health information.

The center received:

- 13 laptops
- 4 desktop computers and accessories
- Internet connectivity infrastructure



The equipment supports digital learning, access to reliable health information, online education opportunities, youth peers' data collection activities, and internet access for young people visiting the center.

The investment has strengthened the youth center's role as a safe space where young people can access digital resources, health information, and educational opportunities.

## Results Achieved

### ► Improved Digital Readiness of Health Facilities

- 77 health facilities (73 primary health centers and 4 hospitals) equipped to support telemedicine service delivery.
- Functional teleconsultation spaces established and equipped with essential ICT infrastructure.

### ► Enhanced Connectivity for Service Delivery

- Reliable internet connectivity solutions were established across 77 health facilities in five districts: Musanze, Karongi, Kirehe, Rwamagana, and Ruhango.
- Supported primary public Health facilities increased their capacity to participate in digital health initiatives and remote consultations.

### ► Strengthened Digital Health Systems

- Lead the introduction of the health Digital tools for CAC in 71 primary health facilities across 5 districts to support electronic data capture, service documentation, reporting, and monitoring.
- Improved availability and quality of service delivery data.

### ► Increased Access to Digital Services for Young People

- One youth center equipped with ICT infrastructure and internet connectivity.
- Increased access to online health information for adolescents and young people visiting the youth center.

### ► Development Impact

The intervention contributed to strengthening Rwanda's digital health ecosystem by improving the technological capacity of primary public health facilities and expanding access to digital health services.

Key impacts include:

- Enhanced readiness of primary healthcare facilities to implement telemedicine services.
- Improved access to healthcare through digital service delivery platforms.



- Strengthened health information management and reporting systems.
- Increased efficiency of communication, consultation, and referral processes.
- Improved access to reliable health information among young people.

### ► **Sustainability and Systems Strengthening**

The intervention invested in durable digital infrastructure embedded within existing public health facilities and community structures. By strengthening facility-level ICT capacity and supporting integration with Ministry of Health digital systems, the project established foundations for continued telemedicine service delivery beyond the implementation period. The equipment, connectivity infrastructure, and digital systems continue to support healthcare providers in delivering services, managing information, and participating in future digital health initiatives.

### ► **Key Lessons Learned**

- Reliable ICT infrastructure is essential for successful telemedicine implementation.
- Investment in internet connectivity significantly improves digital service delivery and provider engagement.
- Digital health solutions can enhance access to healthcare services in underserved areas.
- Sustainable digital health interventions require simultaneous investments in infrastructure, connectivity, human capacity, and system integration.