

Revolutionizing Healthcare: Digital Innovations in India's Health Sector

(Ministry of Electronics and Information Technology)

January 15, 2024

The Digital India initiative is a people's movement, powered by people's strength and their efforts to learn as well as innovate. I salute all those assiduously working to strengthen Digital India and wish them the very best for their future efforts.

- [Prime Minister Narendra Modi](#)

Digital India is a flagship programme of the Government of India with a vision to transform India into a digitally empowered society and knowledge economy.

The overall goal is to ensure that digital technologies improve the life of every citizen, expand India's digital economy, create investment and employment opportunities and create digital technological capabilities in India.

Digital India has considerably reduced the distance between the Government and citizens. It has also helped in the delivery of substantial services directly to the beneficiaries in a transparent and corruption-free manner. In the process, India has emerged as one of the pre-eminent nations of the world to use technology to transform the lives of its citizens.¹



Digital India programme has brought tremendous changes in the health care sector of India. Initiatives like Ayushman Bharat Digital Mission, CoWIN App, Aarogya Setu, e-Sanjeevani, e-Hospital have made health care facilities and services reach every corner of India. These initiatives bridge the existing gap among different stakeholders of the healthcare ecosystem through digital highways.

¹ <https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1885962>

Ayushman Bharat Digital Mission

The vision of ABDM is to create a national digital health ecosystem that supports universal health coverage in an efficient, accessible, inclusive, affordable, timely and safe manner, that provides a wide range of data, information and infrastructure services. It also ensures the security, confidentiality and privacy of health-related personal information. The Ayushman Bharat Health



Account (ABHA) Number is a hassle-free method of accessing and sharing one's health records digitally. It enables interaction with participating healthcare providers and allows one to receive one's digital lab reports, prescriptions and diagnosis seamlessly from verified healthcare professionals and health service providers.

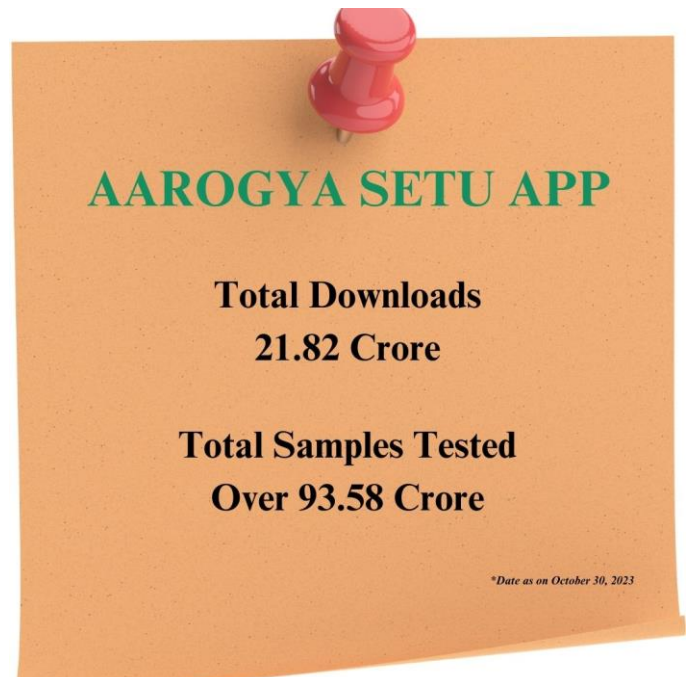
ABHA App

A personal health record, or PHR, is an electronic application through which patients can maintain and manage their health information (and that of others for whom they are authorized) in a private, secure, and confidential environment.²

Aarogya Setu



Aarogya Setu has transformed into a National Health App, bringing you a whole plethora of digital health services powered by the Ayushman Bharat Digital Mission (ABDM). Using Aarogya Setu, one can register for an Ayushman Bharat Health Account (i.e., Digital Health ID) and leverage it for interaction with participating healthcare providers, and allows one to receive digital lab reports, prescriptions and diagnosis seamlessly from verified healthcare professionals and health service providers.



² <https://abdm.gov.in/>

Aarogya Setu helps one to schedule online doctor appointments powered by eSanjeevani OPD Application. One can schedule doctor appointments and consult with a doctor from the comfort of one's home.

Aarogya Setu helps to schedule/reschedule/cancel appointments for Covid-19 vaccination. Using Aarogya Setu, one can download the vaccination certificate or can request changes in the certificate as well.

eSanjeevani



eSanjeevani - the National Telemedicine Service has evolved into the world's largest documented telemedicine implementation in primary healthcare.

The cloud-based eSanjeevani platform is implemented in two modes:

1. ***eSanjeevaniAB-HWC (a provider-to-provider telemedicine platform)***

This variant provides assisted teleconsultations for patients who walk into Health and Wellness Centres (HWCs). The community health officers in Health & Wellness Centres facilitate the teleconsultation for the patients who are connected to the doctors and specialists in hubs established in secondary/tertiary level health facilities or medical colleges. This variant is based on a Hub-and-Spokes model.

2. ***eSanjeevaniOPD (a patient-to-provider telemedicine platform)***

It empowers citizens to access health services in the confines of their homes through smartphones or laptops etc.³

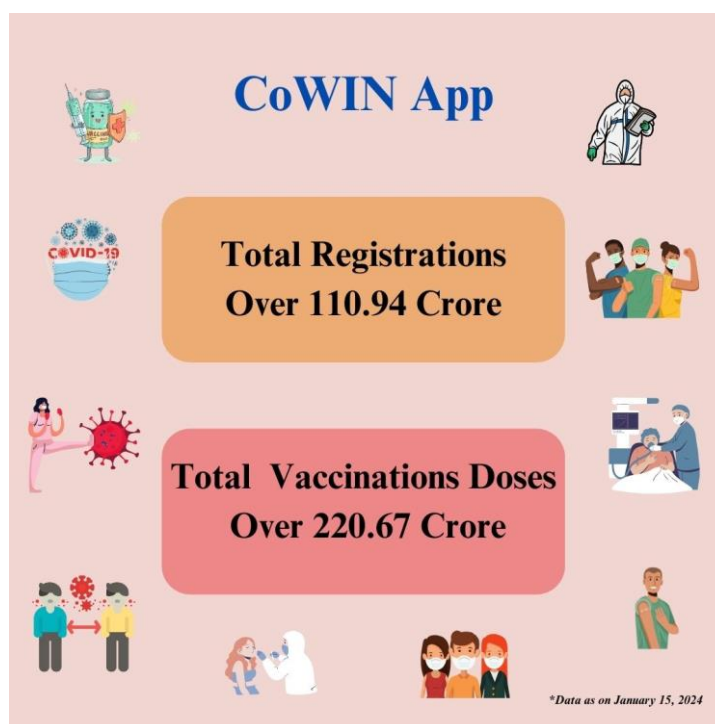


³ <https://esanjeevani.mohfw.gov.in/#/about>

CoWIN

CoWIN was launched to strengthen the COVID-19 Vaccine Intelligence Network (CoWIN) system. It is a digitalized platform being used to effectively roll out and scale up the mechanism for the COVID Vaccine Distribution System nationally. The [Co-WIN software is a robust](#)⁴, dependable and agile technology which offers anytime anywhere registration for COVID-19 vaccination.

As of November 21, 2023, the total number of vaccinations administered is over 220.67 Crore and the total number of registrations are over 110.93 Crore.⁵



e-Hospital

The e-Hospital application is a Hospital Management Information System (HMIS) for internal workflows and processes of hospitals. This one-stop solution helps in connecting patients, hospitals and doctors on a single digital platform.⁶ e-Hospital is made available to Central Government/ State Government/ Autonomous/ Cooperative hospitals on the cloud through the SaaS (Software as a Service) model.⁷



⁴ <https://pib.gov.in/PressReleasePage.aspx?PRID=1714732>

⁵ <https://dashboard.cowin.gov.in/>

⁶ <https://ehospital.gov.in/ehospitalss/aboutus.jsp?NICEHOSSecurity=MOGK-C6AJ-QESZ-62CO-60X5-TTSK-W4TD-K6GK>

⁷ <https://ehospital.gov.in/ehospitalss/>

As part of the Digital India initiative of the Ministry of Electronics and Information Technology, e-Hospital, e-BloodBank and Online Registration System (ORS) applications were developed. ORS portal was inaugurated by the Prime Minister of India on July 1, 2015.

The e-Hospital project was initiated with the following objectives:

- To provide the e-Hospital, e-BloodBank and ORS applications to government hospitals.
- To provide online patient portal for delivery of citizen centric services like online appointment booking, access to lab reports online and blood availability status.
- To provide application related technical support to the hospitals through dedicated Call Centre/ Helpdesk.



e-BloodBank

The e-BloodBank application facilitates the implementation of a complete blood bank management system.

Features of e-BloodBank App

- User friendly and configurable.
- Simple onboarding process for Blood Transfusion Centre or Storage Unit.
- Real-time blood stock availability.
- Request for blood with a touch of a button.
- Blood donation history.
- Upcoming Blood camps in nearby district.



e-BloodBank

Registered Blood Bank
296

Voluntary Blood Donor
Over 2.93 Lakh

Blood Camp Organized
3249

*Data as on January 15, 2024

Online Registration System (ORS)



Online Registration System (ORS)



Number Of Live Hospitals
584



Total Teleconsultation
94,005



Total Online Appointments
Over 86.93 Lakh

*Data as on January 15, 2024

Online Registration System (ORS) is a Digital India initiative that aims to provide online access to hospital services for patients, integrated with the Ayushman Bharat Health Account.

ORS is a framework to link various hospitals across the country for online appointment system for getting consultation where counter-based OPD registration and appointment system through the Hospital Management Information System (HMIS) has been digitalized. The application has been hosted on the cloud services of NIC. The portal facilitates online appointments with various departments of different Hospitals using ABHA (Ayushman Bharat Health Account).

SeHAT

[Services e-Health Assistance and Teleconsultation](#)⁸(SeHAT) is the tri-services teleconsultation service of the Ministry of Defense designed for all entitled personnel and their families. As part of the Government's commitment to Digital India and e-governance, SeHAT was launched on May 27, 2021.

SeHAT stay-home OPD is a patient-to-doctor system where the patient can consult a doctor remotely through the internet using his smartphone, laptop, desktop or tablet. The consultation occurs through video, audio and chat at the same time. It aims to provide quality healthcare services to patients from the comfort of their homes. Safe and structured video-based clinical consultations between a doctor in a hospital, and a patient within the confines of his or her home, anywhere in the country, have been enabled.

It is designed to be extremely simple and easy to use, which requires minimal effort from the users. The user does not need to pay anything to seek teleconsultation & can simply access the services by visiting <https://sehatopd.gov.in>, or by using the SeHAT apps available on the Play store & App Stores.

e-RAKTKOSH

eRaktKosh is a centralized blood bank management system, that was inaugurated on April 7, 2016, for automation of blood banks. It has a web-based application with Aadhaar linkage facility.⁹

It has following six major components for management of blood donation life cycle:

- The biometric Donor Management System for identifying, tracking and blocking donors based on donor's health, donation history etc.
- It provides features such as blood grouping, TTI screening, antibody screening, component preparation etc. as per the defined processes and rules.
- A centralized Blood Inventory Management System for keeping track of the blood stock across numerous blood banks.
- Bio-Medical Waste Management System for disposal of discarded blood and other waste generated during this process.
- Generation of rare blood group donor registries and the generation of regular repeat donors.
- Alert and Notification System.¹⁰



⁸ <https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1793894>

⁹ [About eRaktKosh](#)

¹⁰ <https://www.eraktkosh.in/BLDAHIMS/bloodbank/about.cnt>

References

<https://healthid.ndhm.gov.in/>

<https://dashboard.abdm.gov.in/abdm/>

<https://abdm.gov.in/>

<https://aarogyasetu.gov.in/>

<https://esanjeevani.mohfw.gov.in/#/>

<https://www.eraktkosh.in/BLDAHIMS/bloodbank/about.cnt>

<https://ors.gov.in/orsportal/>

https://ors.gov.in/ebloodbankportal/dashboard/portal/dashboard_details.jsp

<https://ebloodbank.gov.in/eBloodbank/index.html>

<https://www.cowin.gov.in/>

<https://sehatopd.gov.in/workflow>

<https://ehospital.gov.in/ehospitalssso/>

NR/HP/RK/AN