Biometrics in Healthcare Industry

The Indian Government implements the next-generation biometric technology-based fingerprint and IRIS devices for efficient and precise identification of beneficiaries in multiple healthcare schemes for fair healthcare service delivery to eligible families or individuals.

◆ Ayushman Bharat Yojana
◆ Integrated Child Development Services
◆ Mukhyamantri Amrutum (MA) Yojana
◆ Arogya Karnataka Scheme
◆ Bhamashah Yojana

AN OVERVIEW OF HEALTHCARE SCHEMES IN INDIA

Ayushman Bharat Yojna

The world's largest Government sponsored health care scheme aiming to serve the poor.

Ayushman Bharat Yojana also known as Pradhan Mantri Jan Arogya Yojana (PMJAY) or National Health Protection Scheme is a central government scheme launched in 2018, under the Ayushman Bharat Mission of MoHFW in India to achieve the vision of Universal Health Coverage (UHC).

Ayushman Bharat is made upon two pillars, which are -

1. Health and Wellness Centres (HWCs)

Under this pillar, the creation of **1,50,000 HWCs** is under process by transforming existing sub-centres and Primary health centres — covering a population of 3,000-5,000 to ensure universal access to an expanded range of comprehensive primary healthcare services.

2. Pradhan Mantri Jan Arogya Yojana (PM-JAY)

The second pillar of Ayushman Bharat is PM-JAY that aims at providing a health insurance cover of **Rs. 5 lakhs** per family per year for secondary and tertiary care hospitalization. As of July 2019, it has covered as many as **10.74 crores** of poor and vulnerable families in the country (approximately **50 crore beneficiaries**).

Integrated Child Development Services (ICDS) Scheme

The world's largest community-based program, which aims to improve the health, nutrition, and education (KAP) of children of the targeted community.

Integrated Child Development Services (ICDS) scheme is one of the most prestigious and premier national human resource development programs of the GOI. The beneficiaries under the Scheme are children in the age group of 0-6 years, pregnant women, and lactating mothers. The main objectives are:

◆ Improvement in the health and nutritional status of children 0–6 years and pregnant & lactating mothers.
◆ Enhancement of the maternal education and capacity to look after her own health and nutrition and that of her family.
◆ To reduce the incidence of mortality, morbidity, malnutrition, and school dropout.

The ICDS Scheme offers a package of six services :
◆ Supplementary Nutrition
◆ Pre-school non-formal education
◆ Nutrition & health education
◆ Immunization
◆ Health check-up and
◆ Referral services

Mukhyamantri Amrutum Yojana

A health care plan developed by the Government of Gujarat to provide cashless medical facilities to all the eligible families of the state.

The Government of Gujarat launched **Mukhyamantri Amrutum 'MA' Yojana** on 4th September 2012 to provide healthcare to individuals who are living below the poverty line, but later it was extended to all those families whose annual income is **Rs. 4.00 lakhs** or less. MA Yojana comes with a completely cashless process for all expenses involved in hospitalization.

Beneficiaries can avail of the benefits under this scheme having a coverage amount up to **Rs.2 lakh** per family (five members) on a floater basis and transportation charges up to **Rs.3,000.** For the MA scheme enrollment process, **biometric-based kiosks** are established at each Civic Center and Taluka, where biometric information of the eligible beneficiaries of the scheme is collected for enrollment and later verification.

MA card is to identify a beneficiary of the scheme as it contains the photograph and biometric fingerprint impressions of the beneficiary captured at the time of enrollment.

Arogya Karnataka Scheme

Aims to expand 'Universal Health Coverage' to all residents in the Karnataka State.

Keeping in line with all-inclusive health care schemes offered by the Central government, the State Government of Karnataka came up with a universal health scheme – Arogya Karnataka Scheme to provide affordable treatment to all residents of the state.

The main objective of this scheme is to offer better medical facilities to the residents of the state with the "**Health for All**" motto.

A one-time enrollment process is carried out using **Aadhaar and biometric data** for enrolling beneficiaries in the Arogya Karnataka scheme at the Public Health Institute/Private Empanelled Hospital/Enrollment Centers.

The patient's biometric impression is captured on a **biometric device and authenticated with CIDR Aadhar Server**. On successful enrollment in Arogya Karnataka Scheme, a unique identity number, ARKID, is generated, and a health card called "**Arogya Karnataka Card**" is offered to the patient access the treatment under it.

Bhamashah Swasthya Bima Yojana

A cashless healthcare scheme that provides financial security against various medical threats faced by vulnerable families in Rajasthan.

The Government of Rajasthan launched Bhamashah Swasthya Bima Scheme on 13 December 2015 with an emphasis of the government on providing health facilities to the vulnerable people. Under the scheme, financially weaker people of Rajasthan can obtain better healthcare treatment.

Under the Bhamashah Swasthya Bima Scheme, every eligible family is being provided a health insurance cover of Rs. 30 thousand for general diseases and Rs. 3 lakh for serious diseases. As of **November 2019, 4.5 Crore** residents of the state received the benefits under this health insurance scheme.

The scheme was visualized in order to provide quality healthcare to all National Food Security Scheme (NFSS) families and also to reduce the workload on government Health Institutions. Moreover, benefits like hassle free cash less treatment, improved quality of care with efficiency etc, are also envisaged.

Rajasthan is currently offering health insurance benefits to nearly **97 Lakh families under the Bhamashah scheme.**

PROBLEM AREA & SOLUTION

Current problems in a scheme launched in the healthcare sector:

- Fake profiling
- Duplicate billings
- Fraudulent claims
- Multiple enrollments
- Patient identity theft
- Middlemen acting as an obstacle in fund management/transactions

Implementing the Aadhaar-based biometrics solution in Healthcare scheme:

Since the inception of the world's largest citizen biometric identification program – Aadhaar, the next generation biometric technology plays a vital role in individual identification and authentication for public healthcare schemes.

Impact of Aadhaar-based biometric identification on public healthcare schemes:

- Accurate patient identification eliminates the problems of fake profiling and multiple enrollments
- Removes middlemen from the system, helping beneficiaries to receive benefits directly
- Brings transparency and efficiency in fund flow in the healthcare schemes
- Reduces the cases of fraudulent claims
- Curbs patient identity theft

Mantra's fingerprint scanner MFS100 & IRIS scanner MIS100V2 is widely utilized under multiple government-led schemes including, public healthcare programs like Ayushman Bharat Yojana, Bhamashah Scheme, and many more for patient identification & authentication for efficient medical claim process implementation. Currently, 30,000+ Mantra devices are successfully implemented for precise & rapid identification of beneficiaries under various public healthcare schemes across the country.

IMPACT OF BIOMETRIC IN PUBLIC HEALTHCARE PROGRAMS

Ayushman Bharat Yojana

There have been media reports of widespread misuse of the Ayushman Bharat scheme by unscrupulous private hospitals through submission of fake medical bills. There are at least **697 fake cases in Uttarakhand State alone,** where fine of Rs 1 crore has been imposed on hospitals for frauds under the Scheme. Thus, government implemented a robust biometric technology infrastructure for accurate identification and avoiding fake cases under Ayushman Bharat Yojana.

Integrated Child Development Services

Under ICDS, use of Aadhaar and biometric devices ensure that benefits go directly to every eligible child beneficiary, ensuring accurate targeting of the beneficiary and curbing pilferage and duplication. UIDAI has informed that Aadhaar saturation among children below five years of age in the country is **27.6% as on 31st March 2019.**

To improve the nutrition status and services at Anganwadis, the Rajasthan government in 2017, started giving out supplementary nutrition to pregnant women and lactating mothers through **biometric devices**. The objective of the scheme is to ensure ICDS services for improving the health and nutritional status of Anganwadi beneficiaries by tracking the food distribution.

Mukhyamantri Amrutum 'MA' Yojana

MA Yojana utilizes Aadhaar-based biometric devices for the identification of beneficiaries to ensure fair delivery of healthcare schemes to only eligible families or individuals.

To avail healthcare benefits under MA Yojana, every eligible family is asked to issue a QR coded card containing demographic details like district name, URN number, biometric fingerprint impressions of all enrolled family members along with the details are stored on the central server which can be fetched online at the click of a button.

Moreover, the Gujarat government has set up around **67 Civic Centre kiosks and 251 Taluka kiosks** where beneficiaries can enroll themselves and even add or remove card using **biometric fingerprint/IRIS scanner for verification or enrollment.**

IMPACT OF THE SOLUTION

Bhamashah Swasthya Bima Scheme

The residents of Rajasthan can avail benefits under **Bhamashah Swasthya Bima** Scheme easily simply verify the identity through Aadhaar by biometric authentication. In 2018, a significant increase in the number of health insurance claims under Rajasthan's Bhamashah Swasthya Bima Yojana was observed and speculated on whether this was due to the increasing incidence of fraudulent claims made easy by the fact that hospitals were being allowed to admit a sizeable number of patients without biometric authentication.

Thus, the Rajasthan government decided to enroll at least two members of the family via biometrics on the card, and by the end of **April 2018, almost 75%** of beneficiaries availing the Bhamashah scheme were being identified using biometrics.

Arogya Karnataka Scheme

As middlemen were fleecing beneficiaries of Ayushman Bharat Arogya Karnataka (ABARK) scheme, the state government adopted biometric systems to enroll and issue health cards to beneficiaries at their homes. As a result, in Karnataka, smartcards are issues to beneficiaries only after verification through the **Aadhaar-based biometric system** under the scheme.

Moreover, in May 2019, directions were given to all district hospitals, taluka community health centers, and common service centers to adopt biometric devices for enrollment of beneficiaries to bring transparency in the implementation of the Arogya Karnataka Scheme.

Comments and Review of the Users

Aneed support of Sales Representatives