# openIMIS for Health Insurance

## The challenge: Efficiently managing beneficiary, provider and payer data

Many countries are working to extend social health protection as part of the drive to achieve Universal Health Coverage (SDG 3). As health financing schemes are expanded to include people working in the informal sector and other hitherto excluded groups, there is an acute need for digital solutions to efficiently manage the growing information flows.

Paper-based systems make the exchange of data between patients, health service providers and scheme operators slow, inefficient, and susceptible to errors and fraud. Ultimately, this can lead to health insurance schemes becoming financially unviable. Digitalisation results in more efficient data management, helps to streamline business processes and provides the information needed to monitor a scheme's performance.

Many scheme operators continue to invest significant time and resources in the establishment of digital information systems designed to meet their specific needs.

Stand-alone digital solutions introduce problems of their own, however: expensive licensing fees, the risk of vendor 'lock-in', and an inability to exchange data with other information systems. Data 'siloes' are a significant obstacle to the seamless exchange of information that is needed to make health insurance schemes work at scale and to make progress towards Sustainable Development Goal targets.

## openIMIS: A versatile open source solution for health insurance schemes

openIMIS is an open source software which helps insurance scheme operators address these challenges. Designed in accordance with industry standards for interoperability, openIMIS offers a standardised but adaptable way to manage information flows related to health insurance processes by bringing together beneficiary, provider and payer data into a single platform.

openIMIS was originally developed to facilitate the administration of social health insurance schemes for people in the informal sector in low- and lower-middle income countries. It has subsequently been modified for use in administering health insurance schemes focused on the formal sector as well.
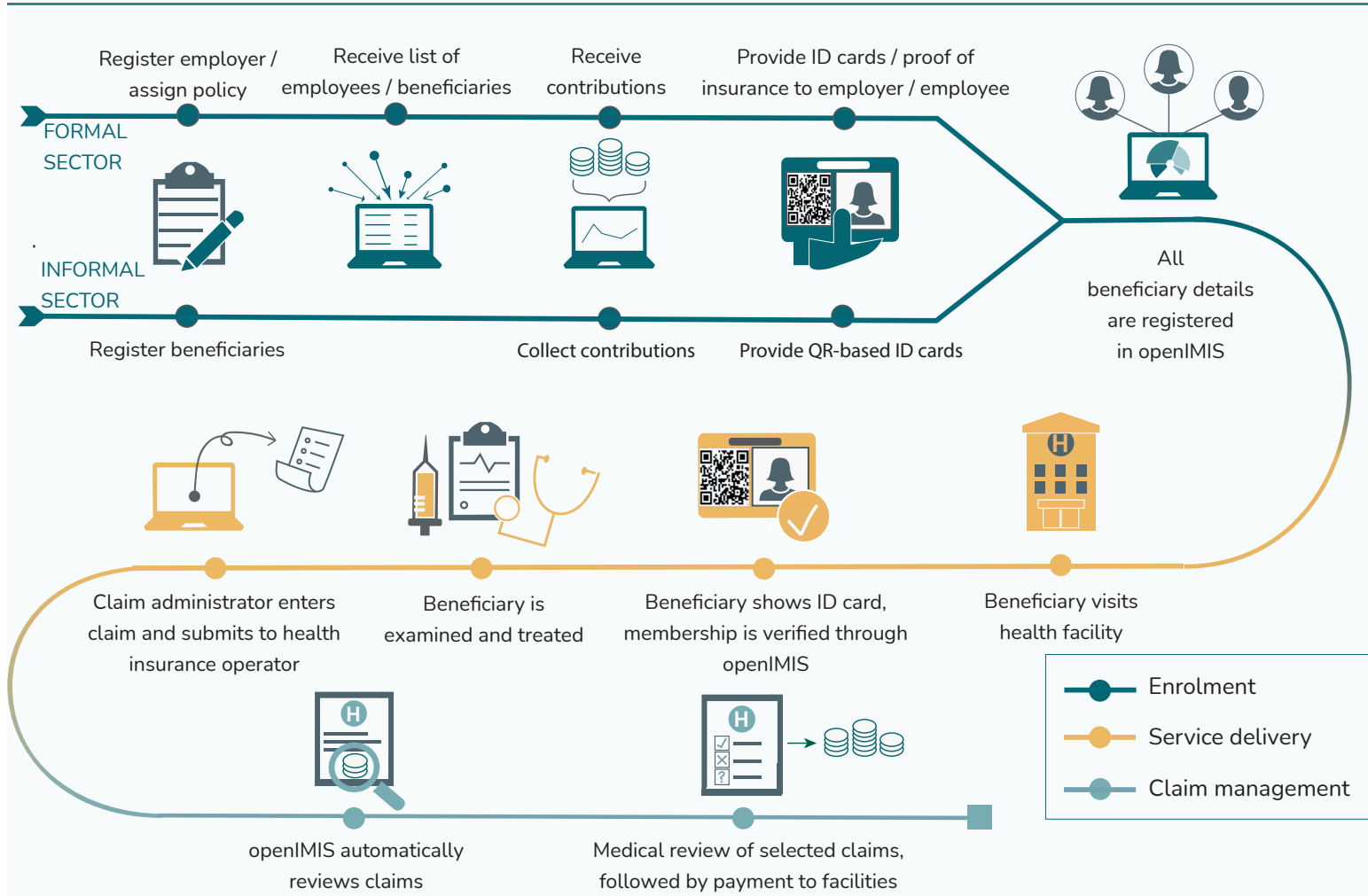
openIMIS supports the following core insurance processes:

- **Beneficiary management**. openIMIS supports the initial enrolment of individuals and/or families into schemes, the renewal of coverage at designated intervals, and the updating of beneficiary records. Family members can be grouped together; beneficiaries can also be linked to an employment contract (in the case of formal sector insurance schemes). Enrolment and renewal data, including photos of beneficiaries, can be collected and transmitted using a mobile app.

# openIMIS

- **Collecting and managing contributions**, including issuing payment receipts and tracking whether beneficiary contributions are up to date.

- **Issuing membership ID cards to beneficiaries.** ID cards are linked via QR codes to unique identifiers. As digital photos are stored on the openIMIS server, there is no need for beneficiaries to provide printed photographs.

- **Verifying scheme membership**. When beneficiaries present their ID cards at health facilities, healthcare workers check their eligibility for services via openIMIS.

- **Health service claims generation and submission**. By entering codes for diagnosis and services rendered, health facilities can generate claims and electronically submit them to insurance scheme operators for review and reimbursement.

- **Medical review of selected claims**. Claims can be automatically rejected based on pre-defined criteria (e.g. delivery service claimed for male beneficiary). openIMIS allows for medical review of selected claims which pass these automated checks.

- **Processing and payment of claims**, including calculation of reimbursements and disbursement of funds to health service providers.

## Example Workflow



**FORMAL SECTOR**
Register employer / assign policy → Receive list of employees / beneficiaries → Receive contributions → Provide ID cards / proof of insurance to employer / employee

**INFORMAL SECTOR**
Register beneficiaries → Collect contributions → Provide QR-based ID cards

All beneficiary details are registered in openIMIS

Claim administrator enters claim and submits to health insurance operator

Beneficiary is examined and treated

Beneficiary shows ID card, membership is verified through openIMIS

Beneficiary visits health facility

openIMIS automatically reviews claims

Medical review of selected claims, followed by payment to facilities

**Legend:**
- ● Enrolment
- ● Service delivery
- ● Claim management

For beneficiaries, openIMIS simplifies enrolment procedures, reduces the number of 'touch points' (therefore saving both time and money), and makes it easy to verify one's coverage status at point of care. For health facilities, it streamlines the processes associated with a health financing scheme and makes it easy for them to receive reimbursements. For scheme operators it reduces operational costs and allows for better monitoring and analysis of the scheme's overall performance. For decision makers, data from openIMIS can enhance policy making and planning related to health service delivery.

## One element of an interoperable digital ecosystem

openIMIS can function on its own as a standalone piece of software, but because it uses common standards for information exchange (i.e. HL7 FHIR specifications), it works seamlessly with other systems. This means that it can readily exchange data with everything from widely used data analytics platforms such as DHIS2 to electronic medical record systems like OpenMRS and other existing beneficiary management systems.

openIMIS's status as a global good supported by active communities of developers and implementers means that the software is being continuously updated and improved with new functionalities. Users benefit from a top-quality product and expert support available through a vibrant community of practice.

## Learn more about openIMIS

The openIMIS Initiative welcomes development partners, implementers with expertise in digital health and social protection systems, scheme operators, developers and academic institutions to help openIMIS grow and improve.

To learn more about how openIMIS can support health insurance processes and progress towards UHC, visit:

www.openimis.org

https://wiki.openimis.org

openIMIS: Health and social protection's digital backbone

Or contact the openIMIS Coordination Desk:

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As at          May 2021

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