

Talking interoperability

A dialogue series for advancing interoperability in the social protection sector

Where can we start? Entry points for interoperability between social protection and health systems

September 03, 2026 | 12:00-14:00 GMT

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About the Digital Convergence Initiative

The **Digital Convergence Initiative (DCI)** is a joint effort by USP2030 to support the **digital transformation of social protection systems**.

Launched in 2021, the DCI:

- ✓ **Facilitates knowledge sharing** on digital social protection systems at a global level
- ✓ **Builds consensus on technical standards** to enable data exchange between digital systems
- ✓ **Supports and strengthens countries' capacities** in their digital transformation journeys
- ✓ **Provides capacity development and training** to strengthen institutional and human capacity

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Agenda

12:00-12:05	Welcome and framing
12:05-12:15	Why SP–health interoperability matters?
12:15-12:30	Use-case mapping
12:30-12:45	Country example: Egypt
12:45-12:50	Reflection/ Questions
12:50-13:05	Country example: Cambodia
13:05-13:10	Reflection/ Questions
13:10-13:30	Digital health architecture perspective
13:30-13:50	Moderated Q&A
13:50-14:00	Closing: key takeaways

Talking Interoperability #23

A dialogue series for advancing interoperability in the social protection sector

Entry points for interoperability between social protection and health systems | Sept 03, 2026 | 12:00-14:00 GMT



Presenter

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GIZ openIMIS



Presenter

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Universal Health
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National Social Protection
Council, Cambodia



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WHO



Moderator

Mathilde Mailfert

ILO



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Housekeeping rules

- Ask your questions in the Q&A box
- Share any comments or resources in the chat
- Simultaneous interpretation is available
Select the language in the interpretation icon on control bar
(English, French, Spanish, Portuguese available)
- Session will be recorded



To: Everyone ▼



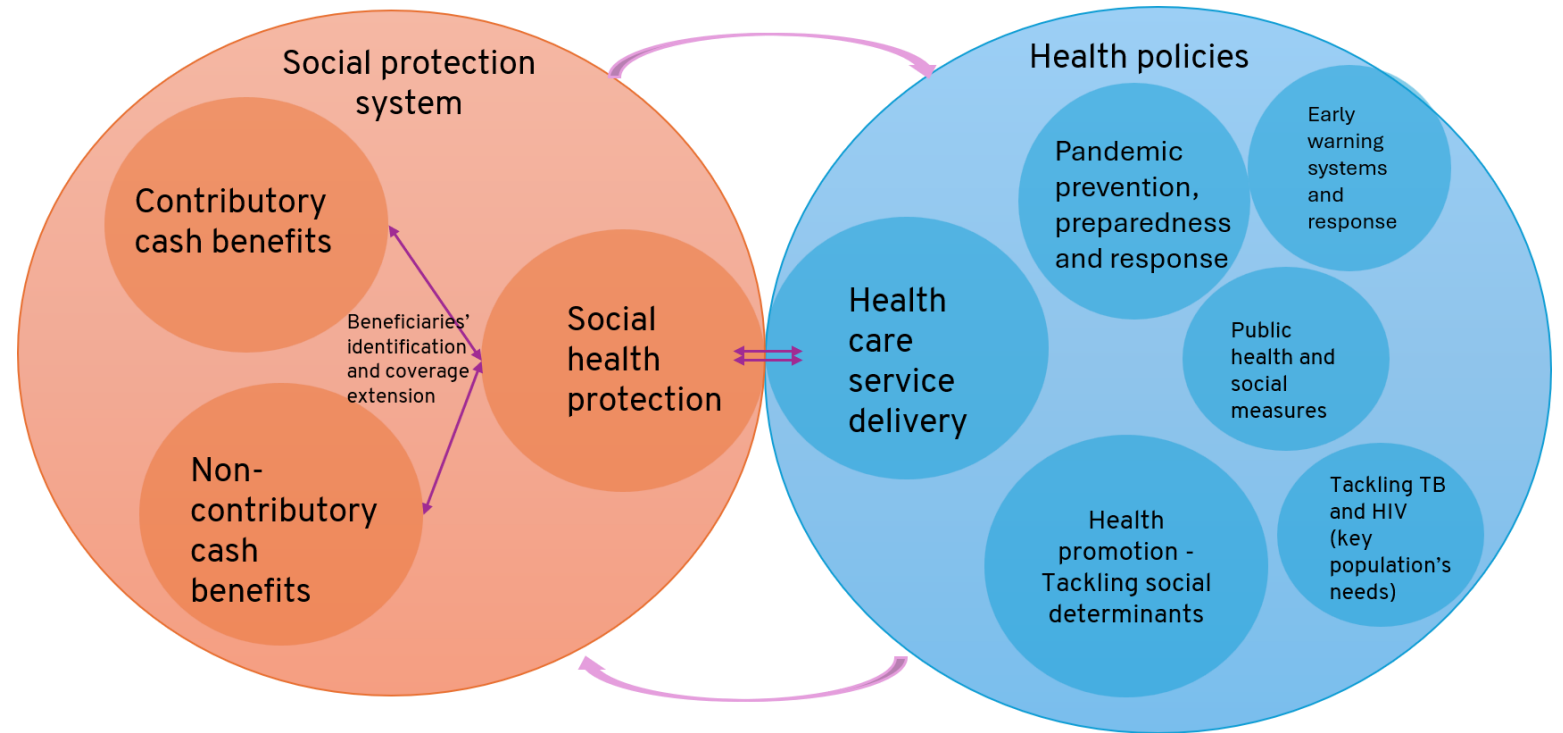
Your text can be seen by panelists and other attendees



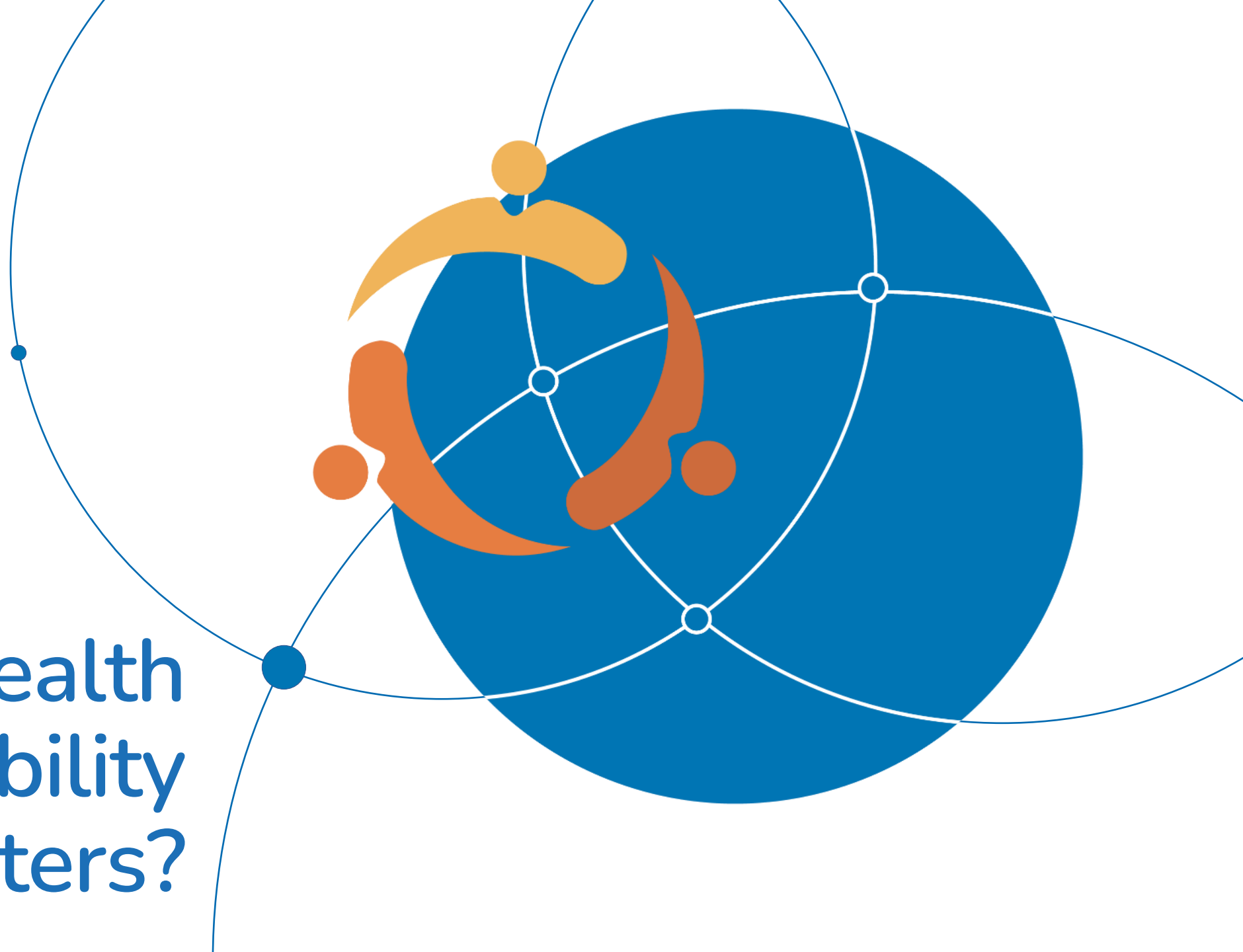
Interoperability between social protection and health: Main policy entry points

Interoperability as a tool for:

- Increased comprehensiveness of protection;
- Supporting transitions from social assistance to social insurance;
- Facilitating schemes' management (including financial);
- Supporting coordinated responses to health security risks;
- Addressing the social determinants of health equity and maximising health dividends.



Why SP–health
interoperability
matters?





Linking Health and Social Protection Systems

Beneficiaries at the center

- Both systems work to provide various services to beneficiaries
- Both systems require having detailed data on services/benefits provided to beneficiaries for efficiency and effectiveness
 - *Health Systems:* Social Health Insurance – Tracking services provided to the insured, ensuring correctness (claims) before reimbursement
 - *Social Protection Systems:* – Wholistic overview of benefits being provided to beneficiaries across multiple programs
- Both systems face similar challenges
 - *Multiple systems (within each) exist without common standards leading to*
 - Duplication: beneficiaries, benefits, systems
 - Exclusion
 - Overall inefficiencies
 - Fragmentation & Lack of interoperability



Linking Health and Social Protection Systems

Beneficiaries at the center

Programmatic Linkages

- Health expenditure is a significant factor in pushing people into poverty
- Increasing needs for SP services beyond health service delivery (eg. nutritional grants for mother & child)

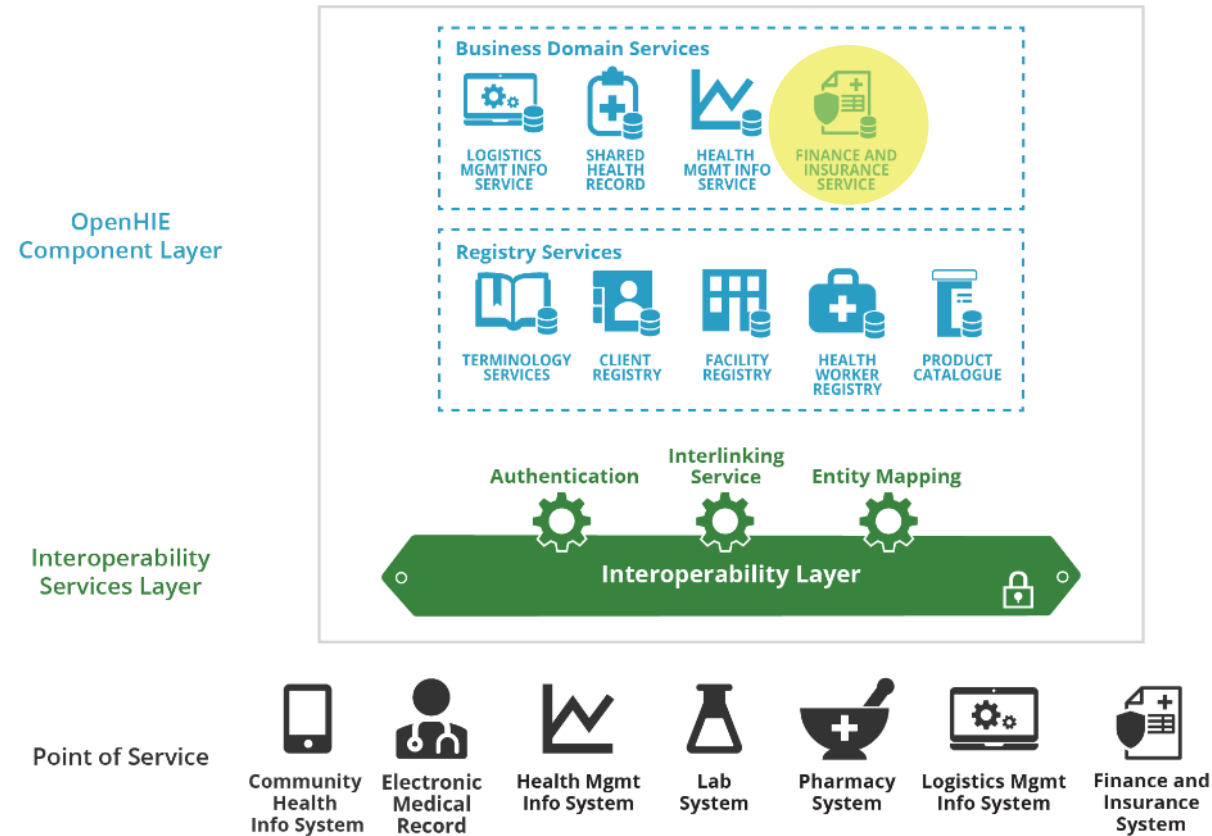
Interoperability

- Interoperability between digital systems can be an enabler to bring health and SP closer together
- Push for reducing duplication, for developing shared artifacts, resources and standards
 - Health: HL7 FHIR standards for interoperability, OpenHIE framework, DPI-H
 - Social Protection: DCI standards for interoperability, DSPDS framework



Interoperability in Health

A reference Information Exchange

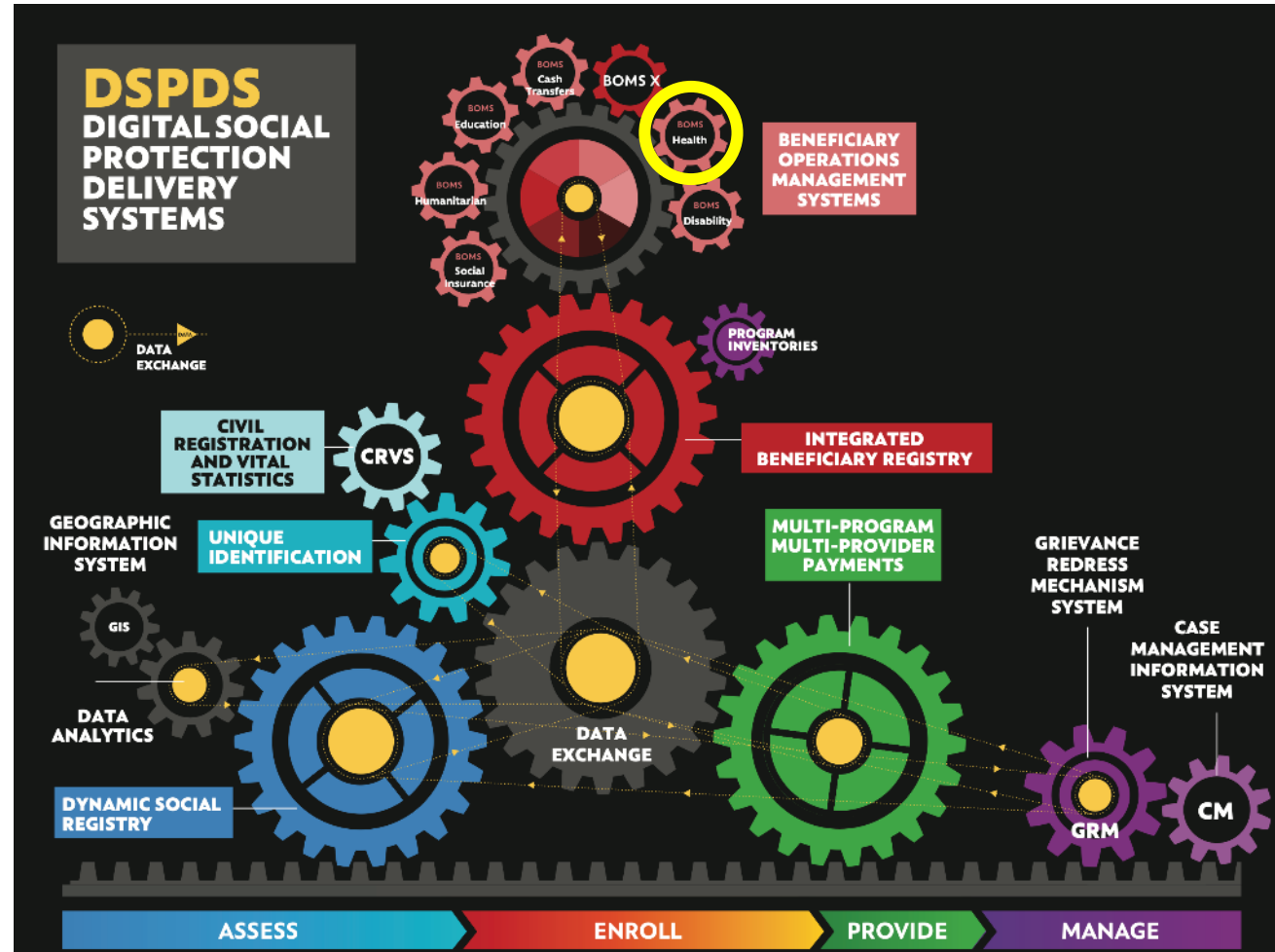


OpenHIE 2021-09-29; CC BY 4.0



Interoperability in Social Protection

A reference Information Exchange



Karippacheril, Tina George; Alberro Encinas, Luis Iñaki; Cardenas Martinez, Ana Lucia; Daly, Conrad; Suri, Satyajit. 2024. Playbook on Digital Social Protection Delivery Systems: Towards Dynamic Inclusion and Interoperability. © World Bank. <http://hdl.handle.net/10986/41527> License: [CC BY 3.0 IGO](https://creativecommons.org/licenses/by/3.0/).



Challenges without interoperability

Unlocking cross sectoral interoperability

Inefficiencies from duplication

- Duplicate registries
 - Beneficiaries
 - Benefit eligibility
- Duplicate processes
 - Poverty identification
 - Disability identification
 - Vulnerability identification
- Added burden on beneficiaries to receive related services, risking exclusion
- Inability of health and social protection systems both to assess needs

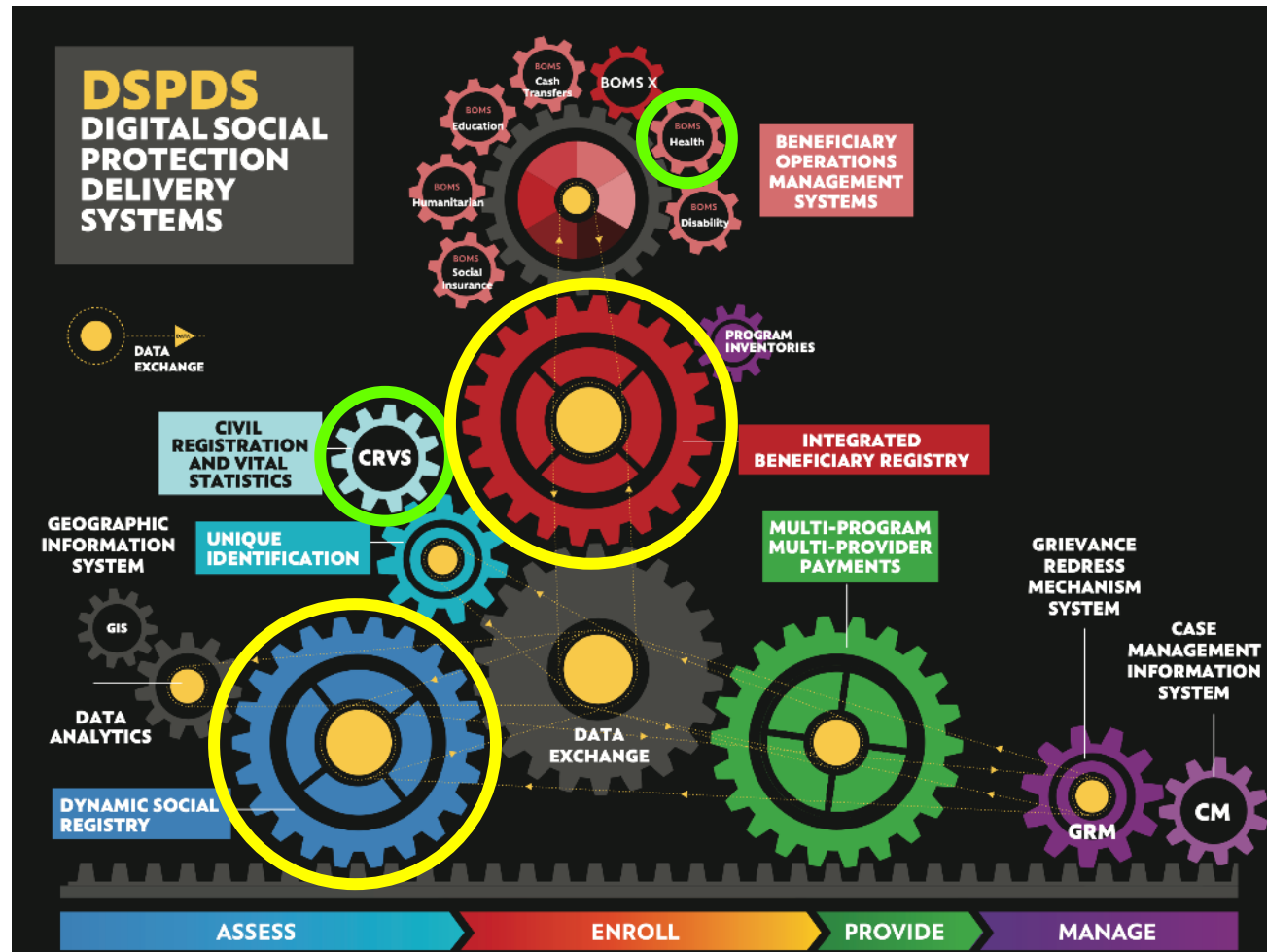
Use-case
mapping





Keeping things dynamic

Registries



CRVS

- Birth
- Death

SHP Programs can

- incentivize data flows through reimbursement requirements

DCI Standards on CRVS and

SPMIS linkage: <https://spdc.org/resource/civil-registry-and-vital-statistics/>



Linking services & benefits

Maternal Health and Nutrition

Many maternal health programs provision for conditional cash transfers

- Conditional Grants
- Antenatal care regimen
- Facility based delivery
- Postnatal care

Cash transfers offered through maternal health programs can:

- Utilize existing SP BOMS
- Eligibility check through social registries/integrated beneficiary registries
- Update social/beneficiary registries automatically.



Disability

Increasing access to social protection services for people with disabilities

- Disability Registries / Disability MIS (DMIS)
- Health systems / Social Health Protection systems -> update Disability related registries for increased inclusion to wider SP benefits
- Establish links between Disability MIS & Social Registries/ Integrated Beneficiary Registries
 - Standard Interfaces
 - [DCI Standards: https://spdc.org/resource/disability-registry/](https://spdc.org/resource/disability-registry/)



Social Insurance

Accident Insurance

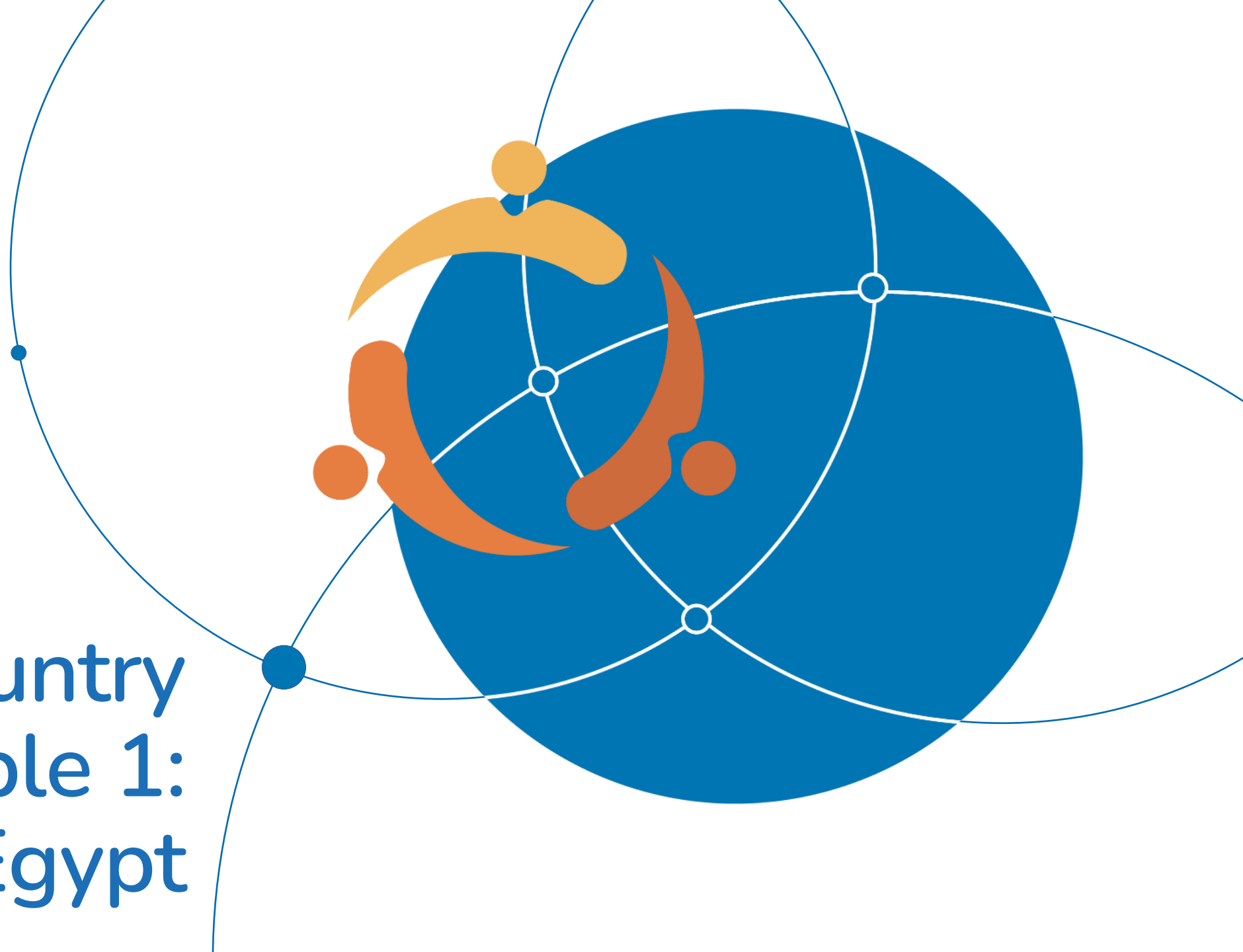
Employment Injury Insurance / Accident Insurance schemes

- Bearing costs of treatment of accidents at workplace
- Compensating for loss of income
- Salary compensation for partial or full disability occurring from workplace accidents

Case begins in health, leads to social insurance payments

Managed within social security organizations, but linkages to social registries, disability registries key to create a holistic picture.

Country
example 1:
Egypt



Automating Universal Health Insurance enrolment for Vulnerable Individuals

Egypt's Case Study

Dr. Mazen ALADDIN

Director of International Cooperation and Development, UHIA



The Universal Health Insurance system

- The Universal health insurance system is the Government of Egypt's vehicle to achieve Universal health Coverage by 2030.
- The UHIS Is Currently rolling out in 6 governorates (Portsaied, Luxor, Ismailia, South Sinai, Aswan, and Suez), and now commenced the roll out in other 6 (Alexandria, North Sinai, Matrouh, Minya, Damietta, and Kafr El-Sheikh).

1st Phase



Port Said

Luxor

Ismailia

South Sinai

Suez

Aswan

2nd Phase



Al-Minia

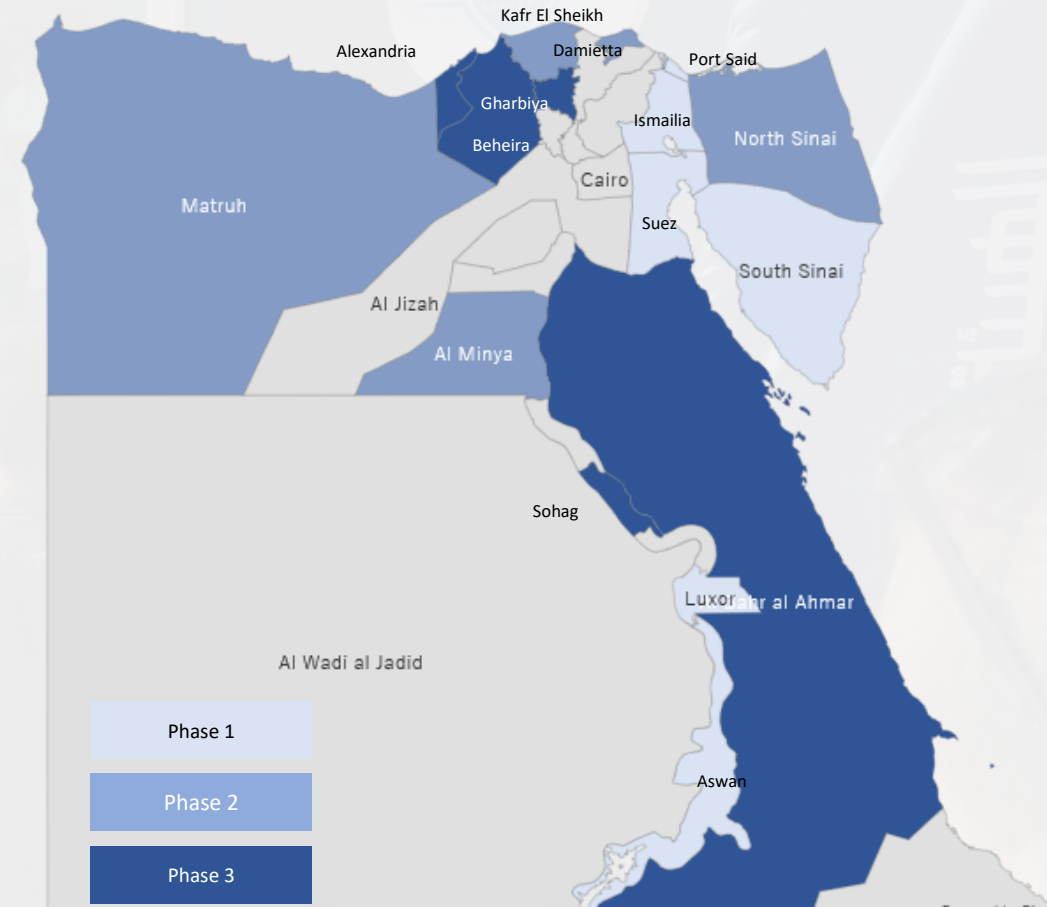
North Sinai

Matrouh

Kafr ElSheikh

Damietta

Alexandria



Phase 1

Phase 2

Phase 3

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Driving the Healthcare Reform in Egypt



UHIA Reporting to the Prime Minister and is responsible for Managing, pooling, provider payments, and management and investment of UHIS funds.



GAHAR is responsible for Accreditation and regulation of Healthcare facilities



The EDA is responsible for the regulation of all pharmaceuticals, medical devices, their accessories, and IVDs in the Egyptian market.



The UPA works tirelessly to ensure the fair and necessary distribution of medicines and medical supplies within the medical framework of Egypt.



Egypt Healthcare authority is the major public medical service, reporting to the Minister of Health, the EHA provides primary, secondary, and tertiary care.



Provision of Public Health, Preventive & Ambulance and Emergency Services and Governance (Policies & Strategies- overall system oversight) and Overall management of UHI Roll-out



The EHC is responsible for professional examinations, Egyptian board certification, CE, clinical guidelines, and comprehensive record-keeping for diseases (Disease Maps)

Health System in Egypt Overview



Reimbursing
preventative
and family
planning
services

1- Ministry of Health and Population

Health System governance and Public, Preventive & Reproductive Health stewardship

3- Egyptian Health Council

Workforce Certification, Clinical Standards, Health Data and Disease Mapping

4- Egyptian Drug Authority

Medications and Medical supplies stewardship and Pricing

5- Unified Procurement Authority

Bulk Procurement, HTA and Distribution

Supply

6- UHIA

Managing UHIS,
Contracting Healthcare
Providers, pooling and
managing financial
resources, strategic
Purchasing.

HTA

Claims Submission

Reimbursement

7- GAHAR

National Accreditor

Accreditation

8- EHA

Major Public
Health service
provider and
regulator of
insurance
healthcare
services

9- Service Providers

Private sector,
NGOs,
University
Hospitals,
Quasi gov.

10- Beneficiary

Premiums

Earmarked taxes

Co Payment

Health Services

2- Ministry of Finance

Public Subsidy Governance, Facility Readiness, and Actuarial and Financial Sustainability Oversight

Subsidies

State budget for health

+5.4 M

Beneficiaries registered

+500 M

Total Claims Value in
USD

+6.5 K

Complicated Surgeries
(Ex: Organ Transplant)

+3.6 Bn

Financial Cumulative
Surplus in USD



+3.5 K

Medical Services
Included in the BBP

+4.9 K

List of Medications
Included in the BBP

581

Contracted Healthcare
Providers

100%

UHIA Provider Portal
Development

Beneficiaries Segmentation

FAMILY PREMIUM FORMULA

Head of household % of wage	+ Spouse 3% of wage	+ Each dependent 1% of wage	+ Employer share 4% (min EGP 50)*
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Salaried Employees

Law 79 / 1975

Base: contribution wage

Employee	1%
Spouse (non-working)	3%
Each dependent	1%
Employer share	4%

Employer min EGP 50/mo

Employers & Professionals

Law 108 / 1976

Base: insurance wage / tax declaration / max wage (whichever higher)

Insured person	5%
Free-profession members	✓
Egyptians abroad	✓
No employer share	—

Self-pays full contribution

Comprehensive-System Workers

Law 112 / 1980

Base: insurance wage only

Insured person	5%
Family cap	7%
Treasury covers gap	✓
Farmers & casual labor	✓

State subsidy on overflow

Pensioners

Retired insured persons

Base: monthly pension

Pensioner	2%
Spouse (non-working)	3%
Each dependent	1%
Widows	2% only

Deducted at pension payout

Subsidized by MoF

PM Decree 4856, 2024

Base: Minimum wage

MOF finances enrollment at 5% of the monthly minimum wage — EGP 300/month per person.

CO - PAYMENTS

Paid at point of service. Annual increase: 7%.

HOME VISIT

EGP 100

flat fee

MEDICINES

10%

cap 1,000 (15% in yr 10)

IMAGING

10%

cap 750 / case

LAB TESTS

10%

cap 750 / case

INPATIENT

5%

cap 300 / admission

* Employer share are only for salaried Employees

Six Categories Exempt from UHIS Contributions

LEGAL BASIS

Law 2/2018 → Treasury pays 5% of national minimum wage / month per person • **PM Decree 1948/2019** (repealed by **Decree 4586/2023**) sets eligibility criteria • Reviewed every 2 years

01

Social Protection Beneficiaries

Takaful & Karama · Solidarity & child pensions

Households already enrolled in non-contributory social safety-net programs.

Capped at the poorest 30% of the population — set annually by Min. of Social Solidarity & Min. of Finance.

02

Unemployed & Ineligible for Benefits

Cannot work · No unemployment compensation

Heads of household unable to work, ineligible for or have exhausted unemployment benefits.

Coverage extends to all dependent family members.

03

Persons Without Family Care

Institutional residents · No guardian or income

Individuals living in social or healthcare institutions — including homeless children & adults.

Includes fostered children placed in alternative families.

04

Persons with Disabilities

Unable to earn a living · No income

Aligned with the Law on the Rights of Persons with Disabilities.

All dependent family members are also covered.

05

Disaster-Affected Areas

Natural or man-made disasters

Individuals & families residing in geographic areas temporarily affected.

Coverage is time-bound to the disaster period.

06

Income Below Basic Needs

Total income insufficient for the family

Household whose average income cannot meet basic family needs.

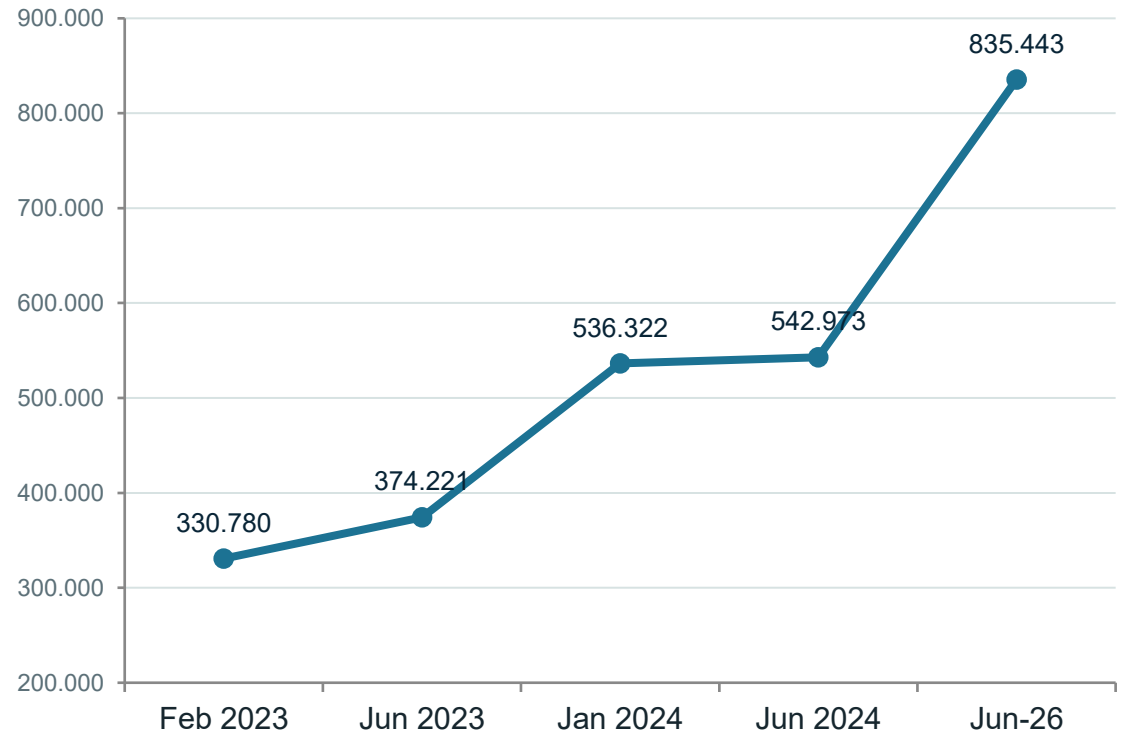
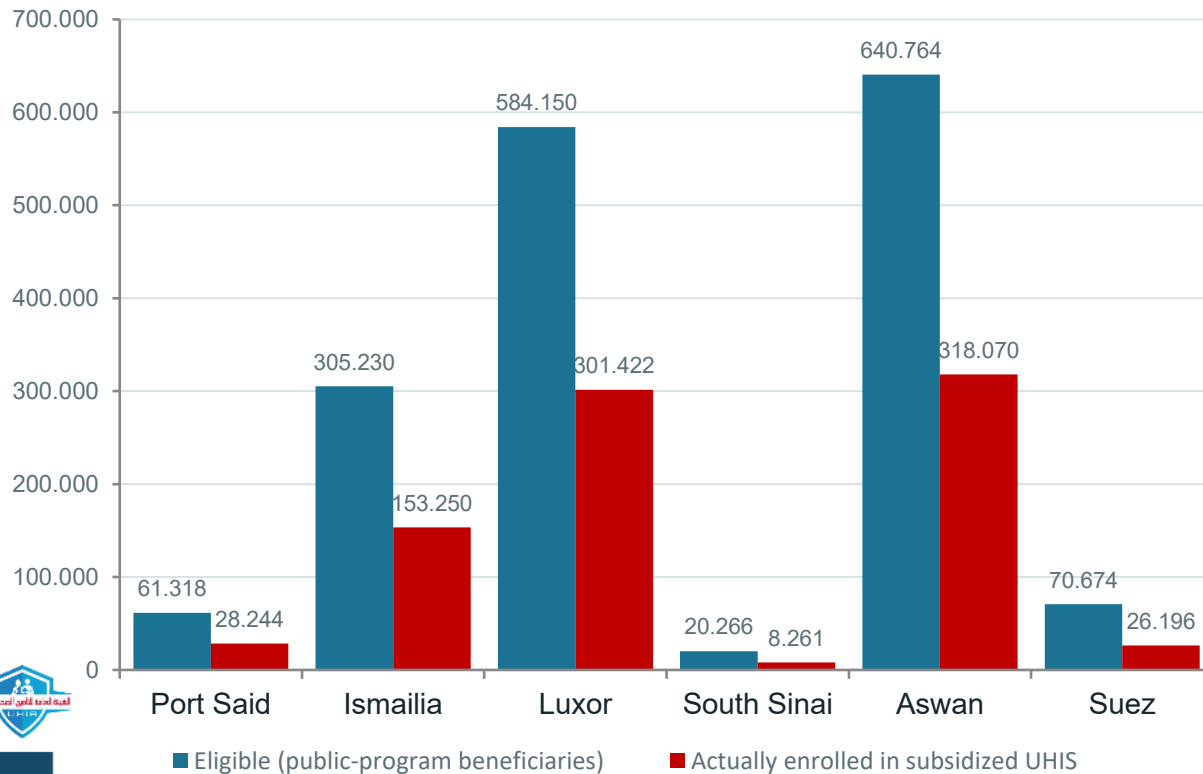
The broadest category — the one most under-applied per the qualitative study.

REVIEWED EVERY 2 YEARS: Targeting criteria are periodically updated by the Ministry of Social Solidarity in coordination with the Ministry of Finance & CAPMAS



Subsidized enrollment varies widely across governorates

Eligible vs. enrolled beneficiaries, June 2026



Why nearly half of eligible people stay uninsured



Lack of Awareness

Applicants must appear in person at UHIA offices, even after already being verified by MOSS or NOSI.



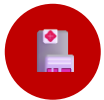
Heavy documentation burden

Photo IDs, birth and marriage certificates, plus cross-agency proof of eligibility for every family member.



No automatic renewal

Coverage lapses unless individuals return to a UHIA office and complete a paper renewal form.



Separate empanelment visit

A further trip to a health facility is required to register with a provider — adding cost and time.



Slow Category 6 reviews

Only 104 of 232 applications were approved between 2020 and 2024 by the UHIA vulnerability committee.



No performance incentive

Enrollment rate is not tracked as a staff performance indicator at MOSS, NOSI, or UHIA.

Why nearly half of eligible people stay uninsured

1

Eligible families often don't know they qualify

The UHIS communication strategy is still not finalized. MOSS, NOSI and health facilities give beneficiaries little to no information about UHIS eligibility, and children reachable through TKP, the Child Pension program, or foster families are not targeted for enrollment through public schools.

2

Proof of TKP status is a moving target

UHIA requires a current MOSS/TKP beneficiary card as proof of eligibility. But TKP rolls are reviewed and reassessed on a rolling basis, and payments can be suspended for months during data updates — so the 'proof' a family holds can go stale before they ever reach a UHIA office.

3

Category 6 has no digital lane at all

MOSS shares monthly Excel data with UHIA for categories 1 and 3 — but category 4 (disability) data still isn't transferred, and category 6 has no data-sharing channel whatsoever. Applicants must personally assemble documentary evidence of vulnerability and pass a high-level UHIA–MOSS–MOHP committee review with undisclosed criteria.

4

No automatic renewal

UHIA has no electronic mechanism to renew coverage using agency data. Every family must physically return to a UHIA office and refile a paper renewal form — or risk their coverage lapsing.

5

Empanelment adds a second, costly trip

Registering with UHIA doesn't complete enrollment: beneficiaries must separately visit a health facility to empanel with a provider — incurring informal registration fees, transport costs and lost time, regardless of their health status.

Egypt enacts automatic registration for the 'unable-to-pay' population

Prime Minister Decree No. 4331 of 2025 · Official Gazette, Issue 47 (bis-b), 26 November 2025

Article 1

Individuals classified as 'unable-to-pay' under Decree No. 4586/2023, and listed in the Ministry of Social Solidarity's cash and social-support program databases, are registered automatically in UHIS.

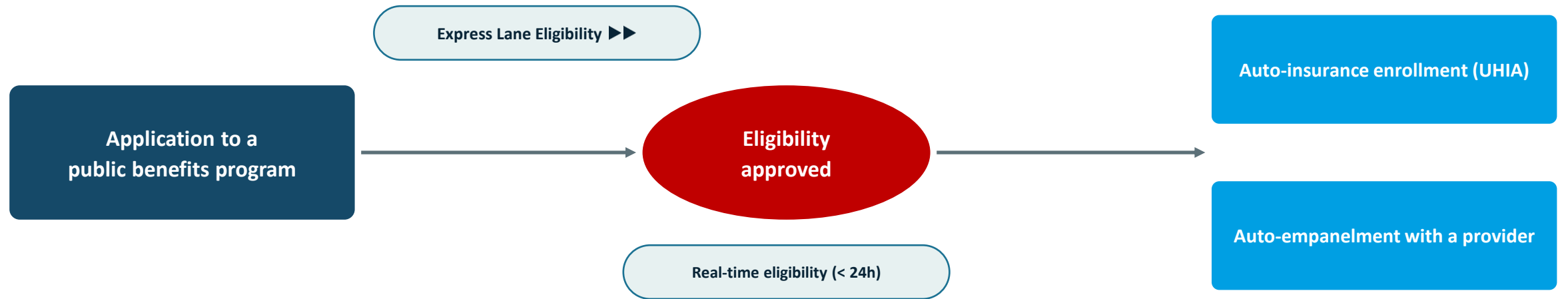
Article 2

The Ministry of Social Solidarity must provide UHIA with periodically updated beneficiary data through the government's data exchange platform, coordinated with the Ministry of Communications and IT.

Article 3

UHIA must ensure coverage begins from the official UHIS launch date in the governorate, or the registration date in the 'unable-to-pay' database — whichever is later — with no action required from beneficiaries.

Digital integration: the vision for automatic enrollment



Express Lane Eligibility

UHIA reuses MOSS/NOSI eligibility findings and UNR data — no re-verification, no extra interview.

Standardized data files

Consistent forms and electronic file structures across agencies enable reliable matching.

Automated renewal

Coverage renews from agency data exchange — no paper renewal form required.

Aligning the two system

MOSS and UHIA define “head of household” differently — so beneficiary records can't load automatically



MOSS Takaful & Karama Registry

Family records structured around the program's own household and dependency rules



Initial Load
blocked



UHIA Beneficiaries Management System (BMS)

Requires a named head of household with an explicit % share of the family for every record

How each household is classified before it can load into BMS



Caregiver, male, or widowed/divorced head of household

Registered as head of household with their % share of the family specified.



Married woman is the cardholder

Household not eligible under this route — status must be reassigned per UHIA's own rules.



Cardholder is a child

Not eligible to be head of household — status must be reassigned per UHIA's family rules.

Key Lessons & Enabling Conditions for Other Countries

01

Legal Mandate First

Obligation, not option

Egypt legislated automatic enrollment step by step — Law 2/2018, then Decrees 4586/2023 and 4331/2025 — turning it into a duty, not a discretionary policy.

02

One Empowered Purchaser

Single authority, clear mandate

UHIA alone controls eligibility, pricing and contracting, while regulation and delivery sit elsewhere — letting private insurers join (34% of facilities) without diluting universality.

03

Shared Standards, Not Just Shared Data

Interoperability is a design task

MOSS and UHIA still can't auto-load each other's records — they define 'head of household' differently. Agree on data models before attempting integration.

04

Diversify Financing

Keep the subsidy affordable

Earmarked levies plus budget transfers cover the poor for well under 0.5% of GDP even at national scale — a fraction of Egypt's fuel-subsidy bill.

05

Phase the Rollout

Test, learn, then scale

UHS expanded governorate by governorate in three deliberate phases, catching administrative and technical issues before they multiplied nationwide.

06

The Last Mile Is Still Human

Automation isn't outreach

Even with registration automatic, awareness gaps and in-person renewal habits persist — digital integration must be paired with communication, not substitute for it.

THE THROUGH-LINE

Automatic enrollment isn't one system integration — it's law, financing, data standards, institutions and outreach all advancing together. Countries that treat any one piece as sufficient on its own tend to stall.





Thank You

Discussion &
Q&A



Country
example 2:
Cambodia



THE HEALTH SYSTEM BEFORE INTEROPERABILITY

Coverage already existed. What was missing was any way to recognise the same person across it.

FOUR PROBLEMS AT THE ROOT



Coverage split by scheme

Equity Fund, Social Security Fund, insurance, out-of-pocket, each with its own rules.



Identity per scheme, not per person

The same patient existed differently in every system, and no system could match them to another.



Eligibility proven on paper

Cards, letters and household books, carried by the patient and checked by hand at the counter.



Nothing was ever current

A commune update reached the health payer overnight, so the record was always a day behind.

THE ROOT CAUSE

No shared identity — resulting in duplicated benefit.

HEALTH EQUITY FUND VS SOCIAL SECURITY FUND

Both finance health care for Cambodians, but they cover different people and are paid for in different ways.

TWO SCHEMES, TWO LOGICS, TWO DIFFERENT OPERATORS



Health Equity Fund (IDPoor)

Tax-financed and non-contributory. Covers poor and vulnerable households identified through the IDPoor targeting system, giving them free care at public facilities.

Entitlement follows the household, verified by IDPoor.



National Social Security Fund

Contribution-financed payroll insurance. Covers formal-sector workers and their dependants, with contributions shared by employer and employee.

Entitlement follows the job, verified by NSSF membership.

WHY IT MATTERS

Separate registries and IDs — the same person can sit in both, or fall between them.

ONE HOSPITAL VISIT, TWO EXPERIENCES

Nine steps become four — less administration for the hospital, faster care for the patient.

BEFORE INTEROPERABILITY

- 1 Patient arrives with a card — or with cash
- 2 Counters split by payer; out-of-pocket patients served fastest
- 3 Care is free at the counter for covered patients
- 4 The hospital claims the cost back afterwards
- 5 Documents assembled; claim sent for certification
- 6 Two separate checks, neither one seeing the other
- 7 A patient holding both cards cannot be detected
- 8 Household data reaches the desk only overnight
- 9 Claims rejected; the hospital absorbs the loss

AFTER INTEROPERABILITY

- 1 Patient arrives — no card is mandatory
- 2 Fingerprint or personal details identify them in seconds
- 3 One live query returns a verified identity, a current household record and any dual coverage
- 4 The claim clears and the correct fund is charged

LESS WORK, BETTER SERVICE

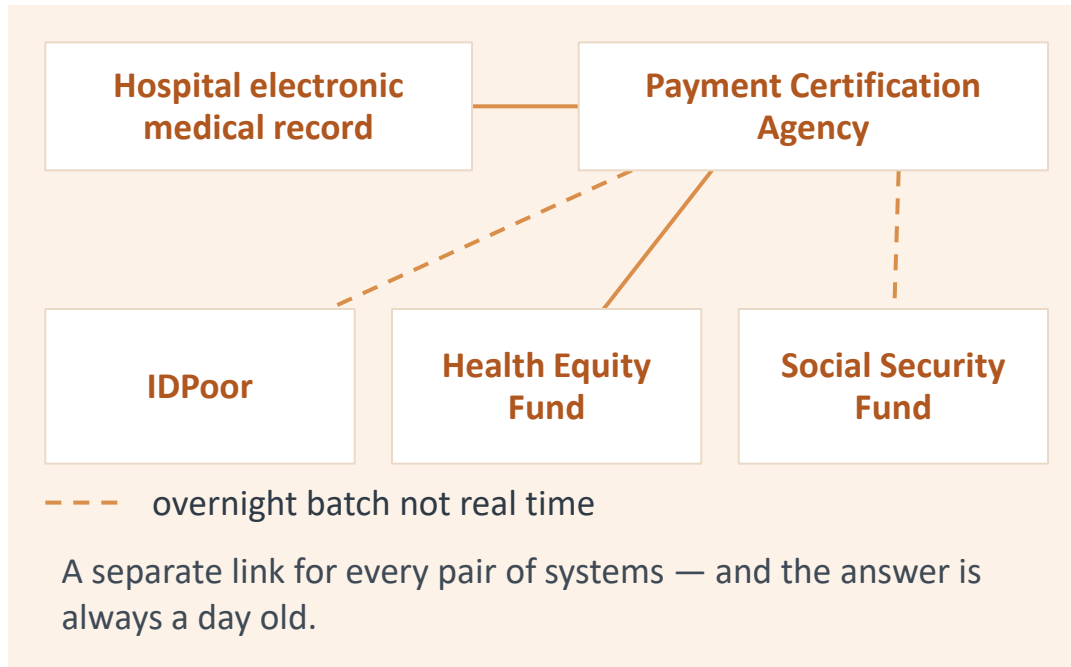
The patient is served in seconds.

The hospital claim process become more seamless.

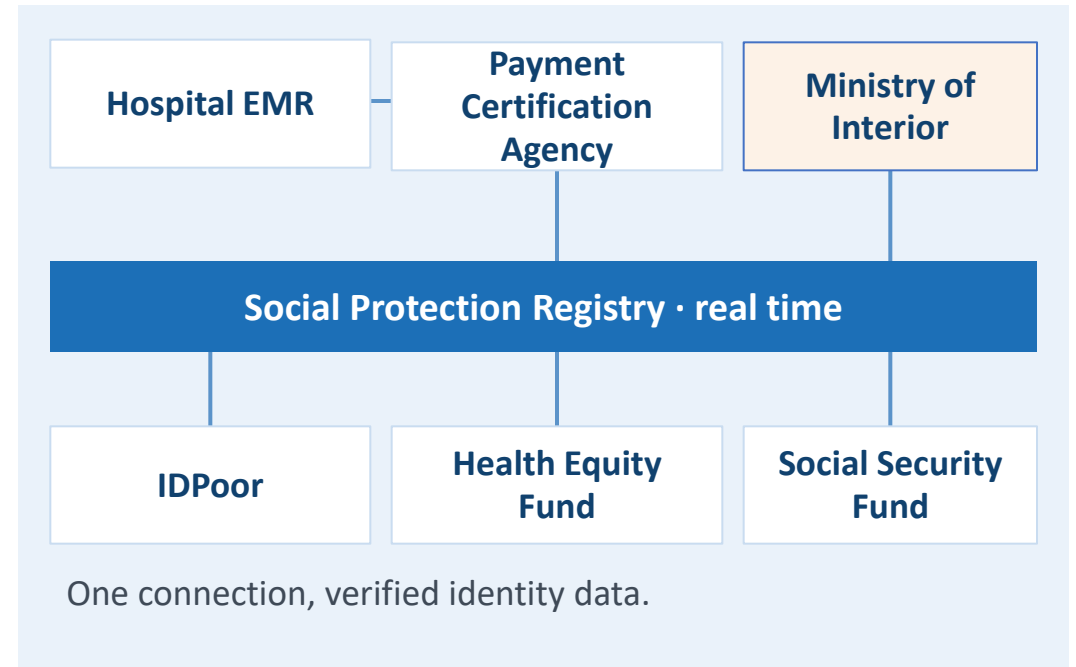
HOW A CLAIM IS PROCESSED

The same institutions on both sides — what changes is how they connect.

BEFORE — WIRED TO EACH OTHER



AFTER — PLUGGED INTO ONE EXCHANGE



The same five systems — connected once through the exchange instead of wired to one another.

THE ISSUES THAT LEAD TO THE NEEDS OF INTEROPERABILITY

The more programmes we added, the more fragmented the system became.

IN HEALTH Where it hurt most	ACROSS THE SECTOR Growth meant fragmentation	IN THE DATA Never current, never single
■ Claims need heavy documents and are often rejected, so the hospital carries the loss. ■ Cash patients are easiest to serve; Equity Card patients wait longest. ■ Each fund is checked separately, neither able to see the other. ■ Dual coverage is invisible, so the government fund pays instead of contributions.	■ Every new scheme added another registry, another form, another connection. ■ More programmes meant more fragmentation, instead of more coverage. ■ No sharing between operators, each kept its own version of the same person. ■ The same household registered again, and again, for every new scheme.	■ A member absent at registration is missing from the household record. ■ Updates land overnight or longer, so the record is always a day behind. ■ No single source of truth — no way to tell which version was correct. ■ A custom link for every pair of systems, costing more with each programme.

One shared identity layer removes all of these at once — which is why we built it.

SOCIAL PROTECTION REGISTRY – SPR

The SPR is the identity backbone of the sector — it holds who someone is, and nothing more.

SYSTEMS PLUGGED INTO THE SPR



CamDX — secure national data exchange

Social Protection Registry

Clean, Deduplicate identity data · verified with Mol records

VERIFIED AGAINST
Ministry of Interior — national identity records

One registry, interoperate with all — no more bilateral connection.

FIVE FUNCTIONS

01 Issue and hold the SPID

One 10-digit identity per person, for life.

02 Verify identity

Authenticated, cross-checked with Ministry of Interior records.

03 De-duplicate

One person, one record — no household paid twice.

04 Answer programme queries

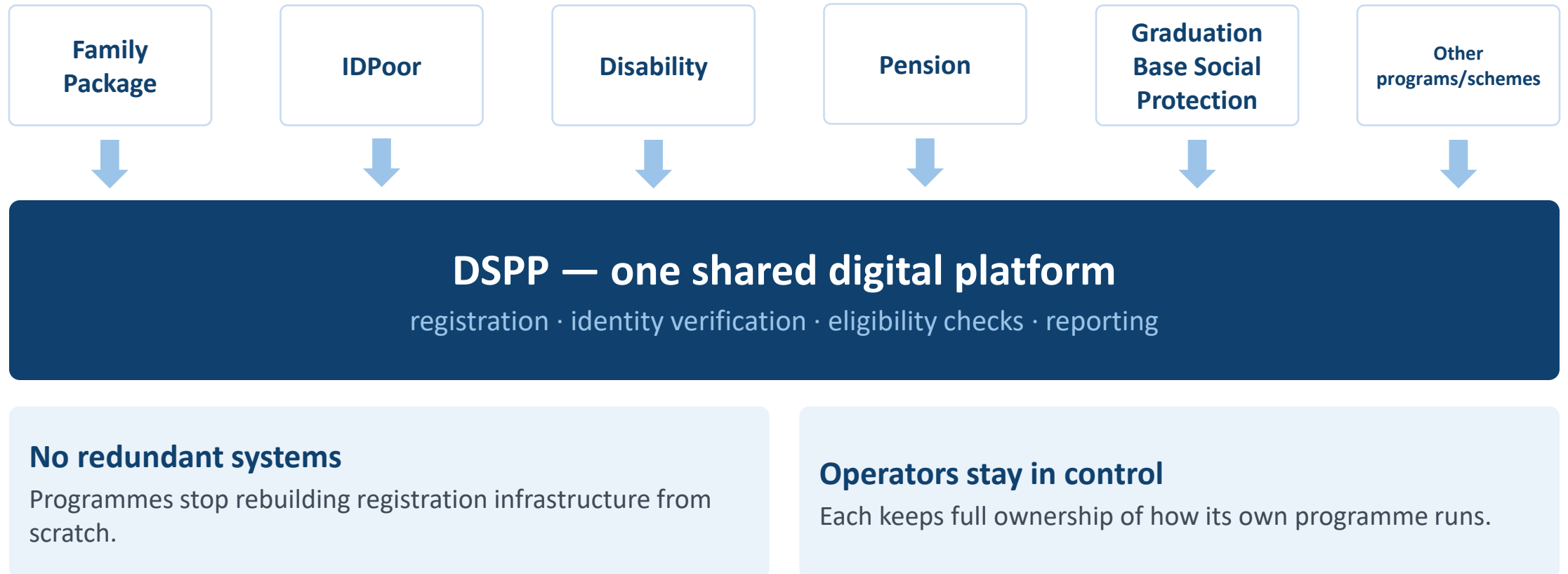
Biometric or demographic search, served over CamDX.

05 Hold one clean data standard

Cleaned and mapped to universal best practice. Operator records stay untouched; SPR keeps the golden copy.

DIGITAL SOCIAL PROTECTION PLATFORM – DSPP

Programmes onboard onto shared infrastructure instead of building their own.



THE PRINCIPLES WE BUILD ON

Six rules, set before the first connection was built.

01

Once only

A citizen gives their information once — never again for the next programme.

02

A single source of truth

One identity record per person, verified against Ministry of Interior data.

03

Centralized-Decentralized

The registry holds who someone is; each operator keeps what its programme does.

04

Interoperability as an ecosystem

Build for the connections that will exist later, not one link at a time.

05

Reuse before building

Use the registries, identifiers and channels that already exist.

06

Land and expand

Prove the model in one sector, then extend it across the rest.

THE ISSUES, AND THE BACKBONE THAT SETTLES THEM

Political mandate, legal basis and technical rules that turn six principles into a working system.

THE ISSUES

No rule said when identity data could cross an agency boundary · holding data is holding authority · every agency needed to see its own gain

01 POLITICAL MANDATE

THE BACKBONE

National Social Protection Council, chaired by the Deputy Prime Minister; its Executive Committee mandates all 18 members to onboard.

WHAT IT LOCKS IN

Once only

Information given once — never again for the next programme.

Land and expand

Prove the model in one sector, then extend it.

02 LEGAL BASIS

THE BACKBONE

Sub-Decree on Harmonization sets what may be shared, by whom and why. Sub-Decree on Digital Claims: no SPID seeding, no payment.

WHAT IT LOCKS IN

A single source of truth

Every claim routed through one social protection ID.

Centralized—decentralized

The law names what may be shared, and nothing beyond.

03 TECHNICAL RULES

THE BACKBONE

Technical Working Group sets the shared identifier and data standards; exchange runs over CamDX security layer, with only identity data in the SPR.

WHAT IT LOCKS IN

Interoperability as an ecosystem

One exchange, not a custom link for every pair.

Reuse before building

Existing registries, identifiers and channels.

WHAT THE BACKBONE DELIVERS

One harmonized registry and platform, built once, reused by many, with no agency giving up its data.

SOCIAL PROTECTION REGISTRY & DIGITAL SOCIAL PROTECTION PLATFORM ADDED VALUE

One layer, plugged into once, enable interoperability within the social protection system.

Reducing the administrative burden

Less complicated for citizens, less verification work for staff, faster delivery for both.



Fewer connections

One shared layer replaces dozens of bilateral APIs.



Lower cost

No redundant registration systems to build or maintain.



Verified data

Cross-checked against Ministry of Interior.



No duplicates

The same household is not double-counted or double-paid.



No need to carry card

Biometric and demographic search identifies citizens.



Faster delivery

Better-targeted services, reached sooner.

THE JOURNEY — AND WHAT COMES NEXT

From a crisis and a registry that already existed, to a backbone the whole sector can use.



One verified identity, many connected services.

Health is the entry point the same approach can extend across the whole social protection ecosystem.

KEY TAKEAWAYS

Start from what exists

Reuse the registry and ID already in place, instead of building a new system for each problem.

Mandate before machinery

Political mandate, then legal basis, then data standards — the connection comes last.

Land and expand

Prove the model in health, then extend it across the social protection ecosystem.

Where to find more

For more detailed information, please visit:



National Social Protection Council
nspc.gov.kh
(Policy)



Digital Social Protection
digitalsp.gov.kh
(Digital Transformation)

Thank you — questions welcome

General Secretariat, National Social Protection Council of Cambodia

Discussion &
Q&A



The Health-Side
Architecture:
Making Cross-Sector
Interoperability
Work



State of Data and Digital Transformation of Health Sector

- Legacy systems have largely been **dependent on external technical and financial support**, lack interoperability, and aren't adequately locally financed or technically supported.
- Abrupt donor exits have exposed the **vulnerability of existing digital investments** and destabilized health systems, risking critical patient data, supply chains, and continuity of services and disease surveillance.
- Fragmentation, poor understanding and use of health interoperability standards and codebases, and **minimal local capacity** threaten resilience.
- Without a serious focus on **understanding health sector needs** and ongoing **problems**, emerging investments into DPs won't address underlying challenges.

WHO-ITU Technical Working Group: Reference Architecture on DPIs and Standards for Health Sector (underway since March 2025)



Needs Defined

Global Strategy on Digital Health 2020-2027 & Lusaka Agenda (2023) for UHC

Employ proven open frameworks

- Enterprise architecture methodology (**TOGAF**)
- Standardized tooling to visualise, describe and analyse the architecture (**ArchiMate**)
- Leverage open health **interoperability standards**, focus on specs for **testability** (IHE, GITB)
- Inspired by OpenHIE architecture and community learnings



Home / Newsroom / Article / Call for public comments and invitation to review - Draft Reference Architecture Guidance for Digital Public Infrastructure for

Call for public comments and invitation to review - Draft Reference Architecture Guidance for Digital Public Infrastructure for Health (DPI-H)

Deadline: 6 September 2026

9 July 2026 | Call for consultation

The World Health Organization and the International Telecommunication Union draft Reference Architecture Guidance for Digital Public Infrastructure for Health

[Draft for public comments - Reference Architecture for Digital Public Infrastructure](#)

The guidance sets out a common reference architecture to help countries plan national digital health infrastructure aligned with priority health sector goals and opportunities to strengthen the guidance before publication, and your input is

We are seeking feedback from those involved in planning, governing, building infrastructure – including ministries of health, DPI authorities, enterprise architecture teams, development partners, and the clinical, public health and standards and high-income settings.



TWG Composition: Multidisciplinary group of experts spanning enterprise architecture, clinical services, health financing, supply chain management, standards & interoperability, systems implementation, social scientists

Health Sector Goals and Use Cases driving Digital Transformation

1. **Build Trusted Data Foundations** – “Capture once, use many times.” Improve data quality, reduce burden of reporting, and enable privacy-preserving secondary uses, including research, population analytics, and training domestic AI models, with interoperability standards.
2. **Digitally-enabled Health Workforce** – “Timely Pay, Proven Skills, Continuous Growth”: Implement digital payroll and workforce registries to ensure timely compensation, verified qualifications, and ongoing development.
3. **Ensure Quality and Continuity of Care** - “Care that connects, protocols that guide.” Deploy patient management, digital decision support and patient history access to health providers to improve quality, consistency, and person-centered care over time.
4. **Establish Trusted Personal Health Records** - “Every person has a right to their own health record” Provide individuals with secure, portable, and verifiable digital health records that follow them across services—while upholding consent, privacy, and data security.
5. **Optimize Supply Chain Management** - “Safe health products and services delivered when and where they are needed”: Use digital platforms for real-time inventory tracking to prevent stock-outs and improve access to essential health products.
6. **Sustainable Financing and Payment in Healthcare** - “Smarter spending, stronger protection.” Leverage digital tools to ensure efficient, transparent health financing and timely payments that protect both systems and individuals.
7. **Strengthen Climate & Epidemic Resilience** – “Predict early, act fast.” Standardize climate, environmental, and disease surveillance data with digital analytics to anticipate outbreaks, forecast risk, and trigger rapid, coordinated response, improving preparedness and system resilience to climate-driven health threats.

The DPI-H Reference Architecture: A shared reference, not a product

IT IS

- ✓ A technology-neutral blueprint of common components and how they fit
- ✓ A common vocabulary, anchored in open standards
- ✓ A route each country chooses to its own health goals
- ✓ A way to reuse, not start from a blank page

IT IS NOT

- ✗ A product, or a single system to install
- ✗ A mandate imposed on countries
- ✗ Reinventing the architecture from scratch
- ✗ One vendor's idea of health infrastructure

Foundational DPI is necessary but not sufficient for health

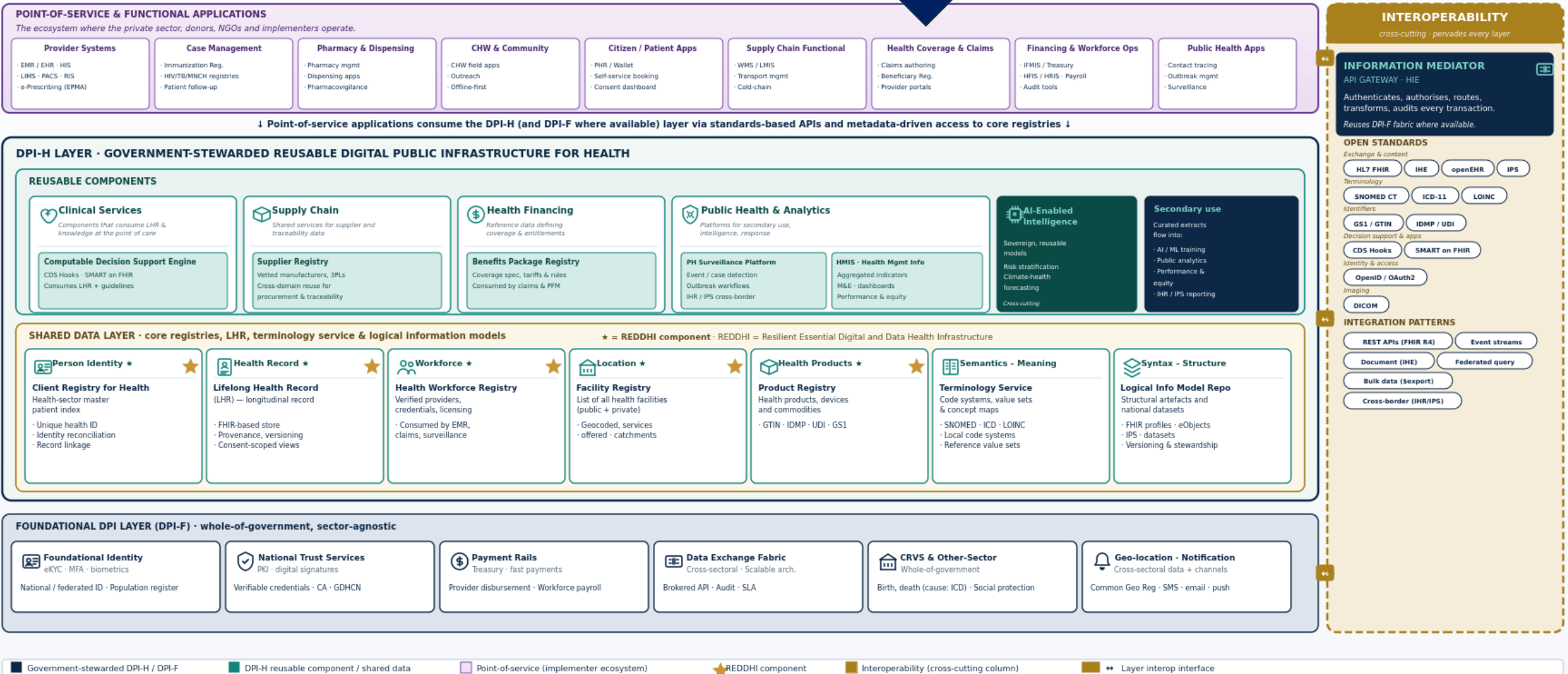
National ID, payment rails and data-exchange infrastructure have shown promise across sectors, including health — but health has needs they were not designed to meet.

- Ensuring universal access to healthcare — including for people without legal identity status — is something a foundational ID alone cannot address.
- Foundational data exchange moves data securely and encrypted. Health also needs semantic interoperability, so clinical meaning is interpreted consistently across systems.
- Payment rails move funds once a decision to pay has been made, but they are agnostic to the determinations that decide whether, what, and to whom to pay. In health, those determinations are relevant.

What does it take to make DPI work for health — described once, properly, so no country has to rediscover it alone and at its own expense?

DPI-H Reference Architecture

Government-stewarded reusable Digital Public Infrastructure for Health · how applications consume and how foundational services are reused

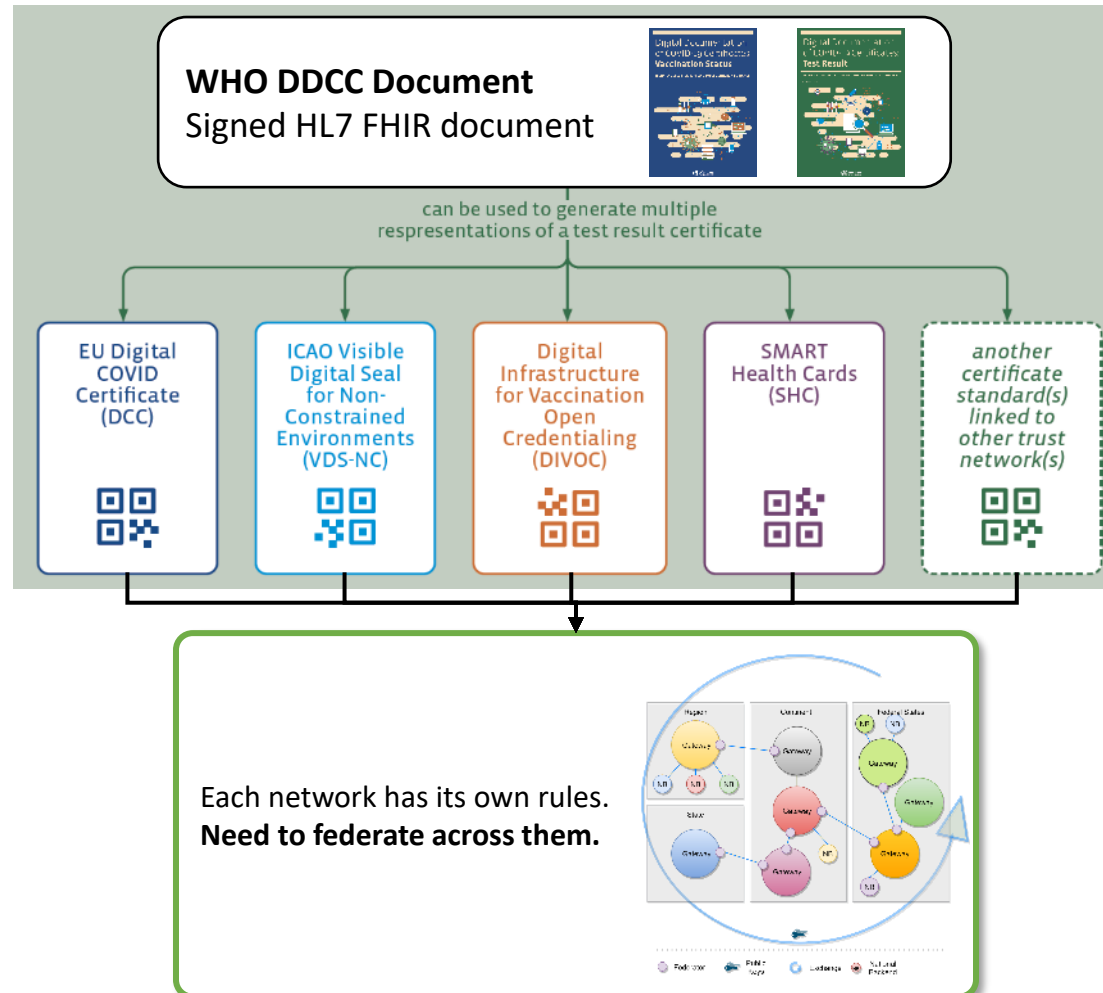


	Sub-goal	Stakeholders & value (motivation)	Business capabilities	Business outcomes	Application services	Application components	Data & reference components
6.1 Budget planning, execution and oversight	6.1 Budget planning, execution and oversight	Ministries of Finance and Ministries of Health: accurate, timely forecasting and budgeting; full accounting and utilisation.	Health budget planning and forecasting (rolling forecasts, budget scenarios)	Rolling budget forecasts on schedule	Data ingestion, aggregation and normalisation	Government IFMIS and financial ledger / chart of accounts (functional; Ministry of Finance) – integration interface	Shared foundational and domain set. Emphasis: Facility Registry for facility-level budget execution; Terminology Service for financial classifications; HMIS for accounts and dashboards.
6.2 Health sector monitoring and auditing		Health system managers: better expenditure planning and allocation.	Budget execution management (allocate, release, commit, track spending)	Budget execution reports by programme, geography and facility	Master data and code-system management	Health Management Information System (HMIS, DPI-H) – analytics, National Health Accounts	+ Compare expenditure against the epidemiological profile to inform allocation.
6.3 Revenue raising		Healthcare providers: predictable, on-time payments.	Financial performance monitoring and disclosure	Provider payment schedules generated on time (linked to releases)	Budget forecasting and scenario modelling	Terminology Service (DPI-H) – financial classifications	Budget execution, payroll, treasury and ledger functions remain in the government IFMIS; the architecture specifies the integration interface, not a parallel health finance system.
6.4 Targeting and identification		Civil society and media: visibility into health financing trends.	Code and master-data management (financial classifications)	National/Unified Health Accounts and public dashboards published on schedule	Budget approval, workflow routing and controls	Facility Registry, Health Workforce Registry (DPI-H)	
6.5 Pooling of funds	6.4 Targeting and identification	Individuals and care recipients: affordable and equitable access to health services.	Enrolment and coverage-scheme discovery	Improved targeting (lower inclusion/exclusion errors)	Scheme discovery and guided enrolment	Client Registry (DPI-H) and National Identity (DPI-F) – identity confirmation	Shared foundational and domain set. Emphasis: Client Registry for identity; Benefits Package Registry for entitlement rules; consent via Security and Consent.
6.6 Purchasing (contracting, provider payments, claims, benefits specification)		Financial entities (purchasing agencies and health coverage scheme managers): accurate enrolment and entitlement decisions.	Eligibility and entitlement determination (consistent benefit rules)	Faster enrolment; real-time eligibility at point of service	Policy administration and entitlement management	Benefits Package Registry (DPI-H) – entitlement rules	+ Broaden targeting to all population segments – vulnerable, informal and formal – not only vulnerable groups.
6.7 Benefits design		Healthcare providers: certainty of coverage at point of service.	Identity confirmation at point of service (proportionate to risk)	Eligible populations enrolled with proof	Eligibility verification and prior authorisation	Scheme policy administration / registration application (functional)	► Distinguish identity confirmation (ID) from targeting and eligibility, aligning with social protection delivery approaches.
6.8 Safeguarding			+ Self-registration for the formal sector	Reduced out-of-pocket expenditure for eligible groups	Identity confirmation at point of service	Eligibility rules engine (functional)	

What does the GDHCN do?

The GDHCN allows for participating Member States to **verify whether a digital health document has been securely issued** by another participating Member State, so they can **trust** the provenance of the data contained in the document.

Based on the experience from digital COVID-19 certificates, it is evident that consensus on global governance and policies are required so that health documents can be recognized and used globally



Varying public health **policies** across countries

Standards **implemented** in a variety of ways without governance

Many existing digital standards **don't** interoperate

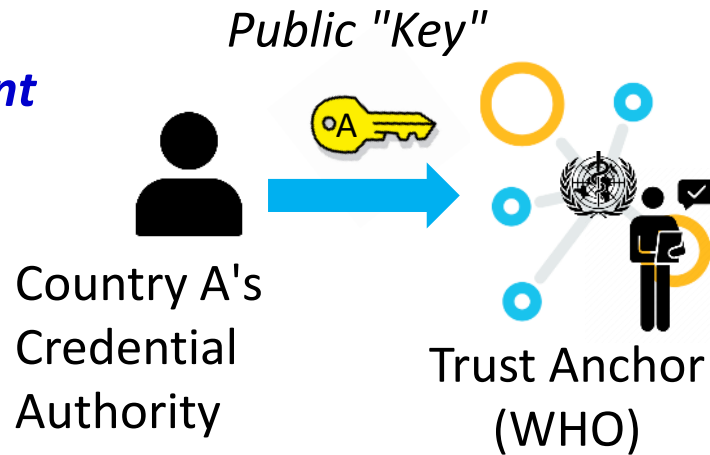
Need to architect for **multiple use cases** beyond COVID-19

Need for a **directory** to federate across trust networks

How does the GDHCN work?

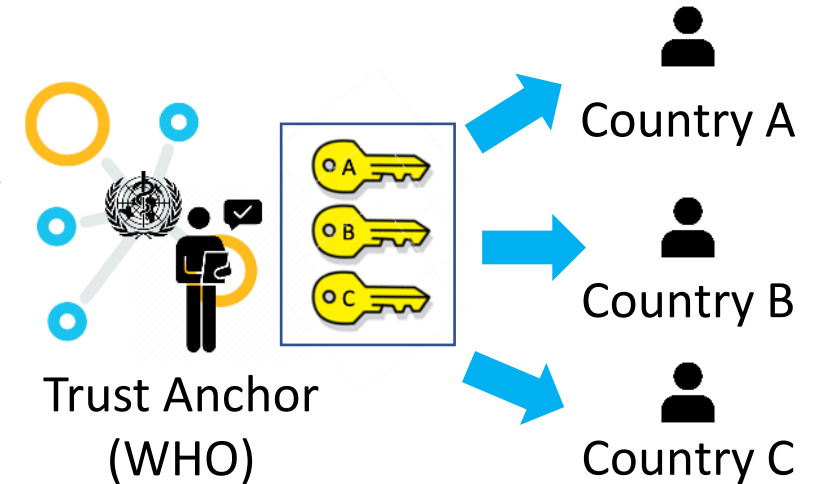
1

Verifies participant identity, certifies provenance of keys, onboards participant



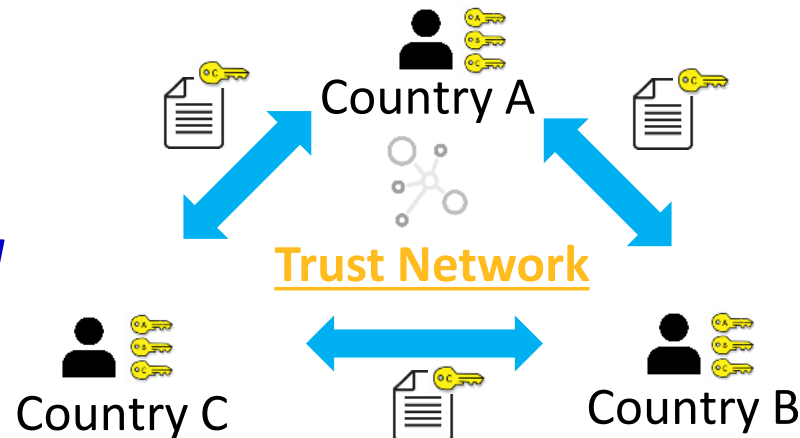
2

Distributes verified public keys to members of trust network



3

Credentialed document provenance from any member can be verified by any other member



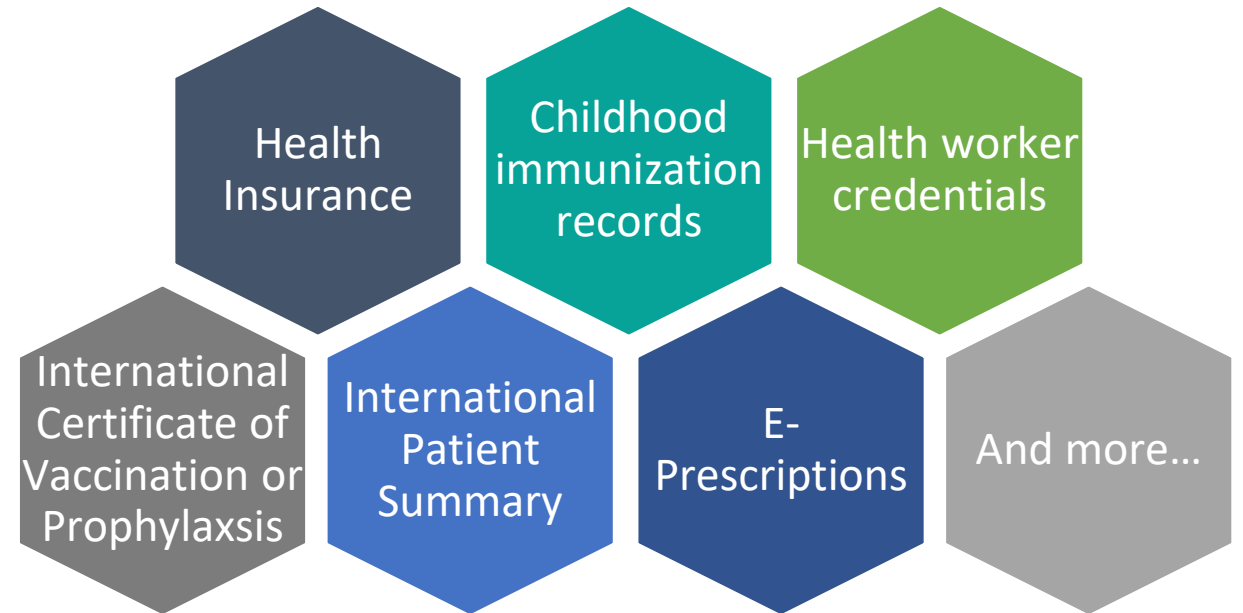
- WHO provides a “phone book” of public keys to all participants
- WHO does not do the verification (i.e., WHO does not make the “phone calls”)
- WHO does not and will not have access to any personal health information or related data

Each individual use case of the GDHCN will have defined governance, unique to that use case or “Trust Domain”

Each **Trust Domain**, would be defined by:

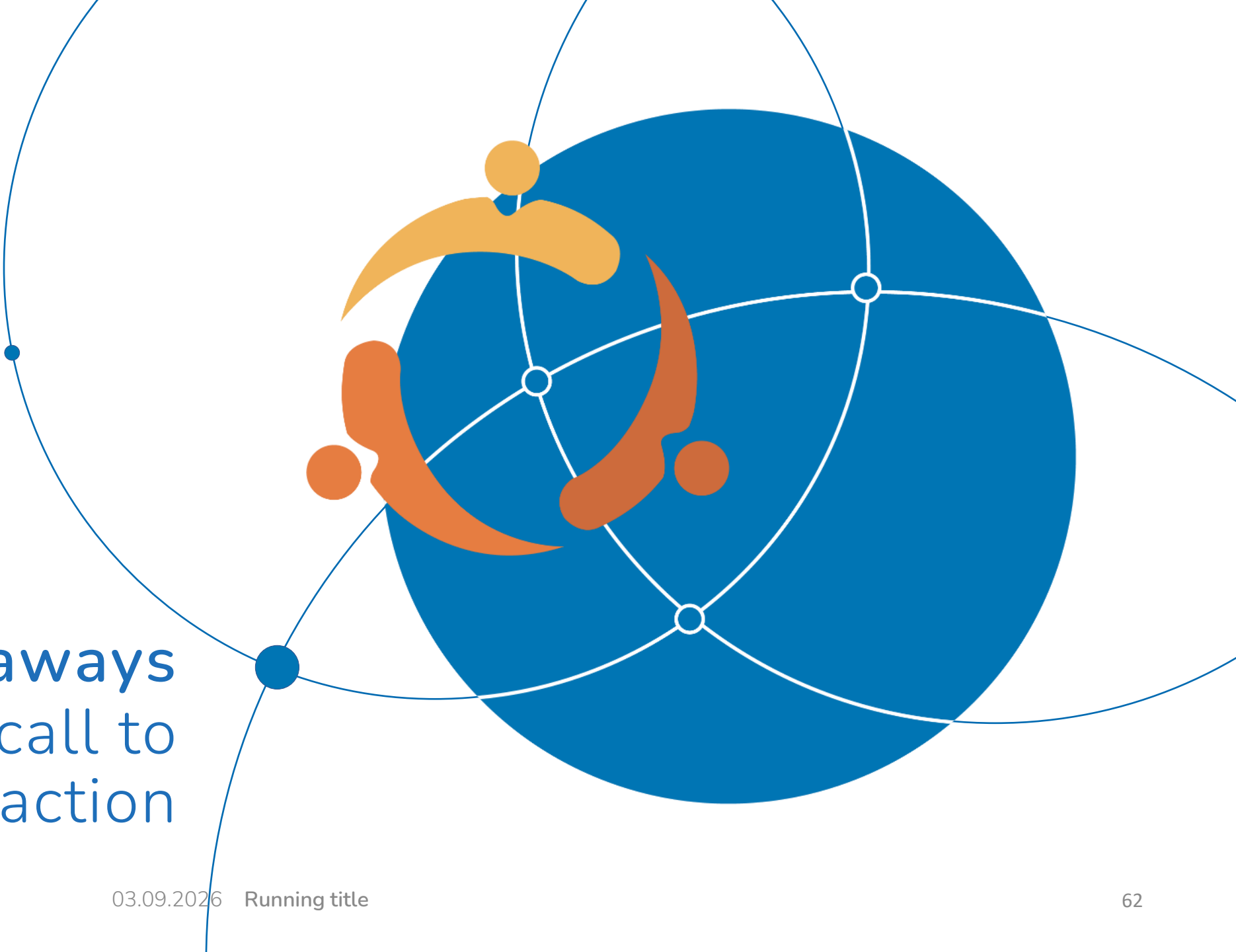
- Defined **use cases** and business processes related to the utilization of Verifiable Digital Health Certificates
- Open, interoperable **technical specifications** that define the applicable Trusted Services and Verifiable Digital Health Certificates for the use case
- a set of **policy and regulatory standards** describing expected behavior of participants for to the use case

Example trust domains



Discussion &
Q&A





Key takeaways And a call to action

Standards in Action Challenge

Call for submissions

 Have a real interoperability example to share?



Track A
Cost of Non-Adoption



Track B
Interoperability Success Story



Track C
DCI Standards Implementation



Why submit?

Top 3 cases awarded

Global Visibility and peer-learning

Scann for more information:



Submission deadline:
13 November 2026



Q&A office hours:
10 September 2026, 8 October 2026



Learn more:
<https://spdci.org/events/dci-standards-in-action-challenge/>



Questions:
contact@spdci.org

Open to government agencies, implementers, development partners, technical teams, and other stakeholders.
Cross-sector submissions are encouraged (including health).

Exercise

Scann to show us
what you have
learned:

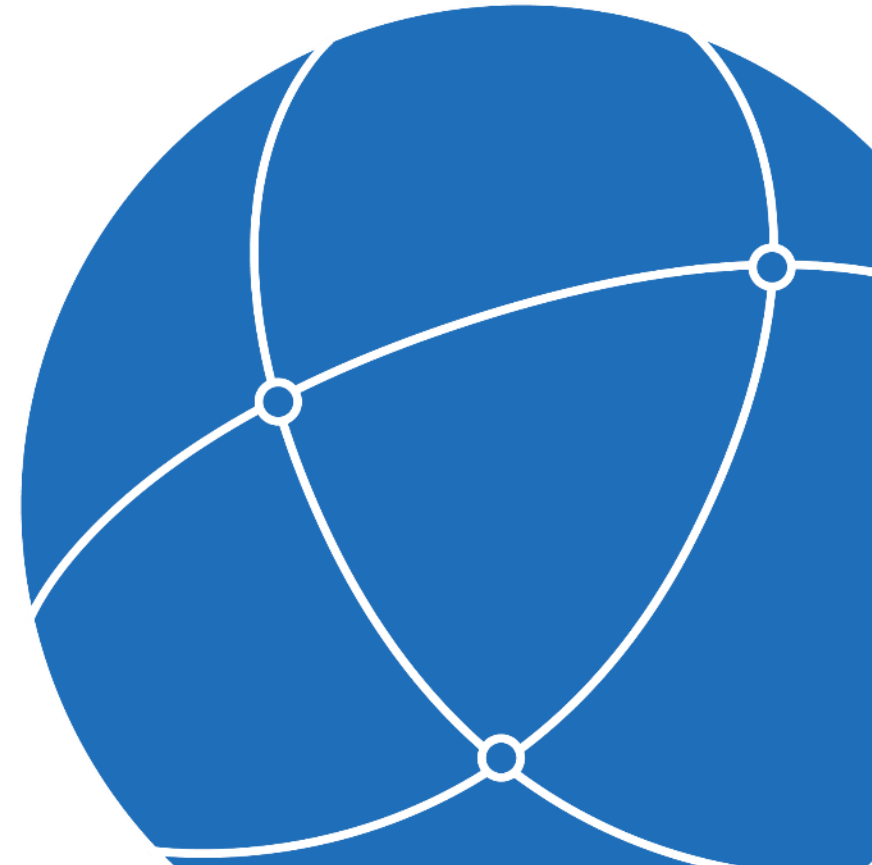


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