



JOINT LEARNING NETWORK

For Universal Health Coverage

- Proposed Community of Practice for Health Insurance Information Systems
- Introduction to the JLN
- JLN IT Initiative work supporting insurance schemes



Proposed new Community of Practice for health insurance information systems

The Challenge:

- Globally, countries are expanding health coverage to more of their citizens through the development of national health coverage plans or schemes. Policies, implementation challenges, technologies, and models of universal health coverage (UHC) programs vary from country to country. Yet one challenge all national health coverage schemes face is the need for a comprehensive health management information system to operationalize the major functions of purchasing healthcare.
- Information systems that support the major functions of a health purchaser (e.g., enroll members, contract with providers, pay claims for health services delivered) are highly complex, costly, and critical for operating effectively at national scale.
- JLN country participants, as well as other global country representatives, have voiced an interest for knowledge sharing and best practices related to information technology (IT) solutions available to support health purchasers.

JLN CoP and Collaborative teams supporting health insurance information systems

Health Insurance Information Systems Community of Practice

Knowledge exchange on common challenges related to technology solutions supporting health insurance or purchaser organizations.

- Virtual activities including communications, networking connections, knowledge management, connections to resources and tools inside and outside of the JLN, webinars, virtual meetings, and facilitated online discussion boards.
- Open to anyone to participate

Common Requirements Collaborative Team

Country peer learning and co-development of knowledge products.

- A collaborative team of country participants will engage in in-person meetings to actively share country experience, document common health insurance business processes, and co-develop a common set of health insurance information systems requirements.
- Country participants invited or nominated to work together over a specified period of time to co-produce a specified output

Other potential topics to explore

Other topics that could be of interest to the Health Insurance Systems community and that could lead to deeper dives explorations:

- Electronic claims format(s)
- Implementing electronic claims
- Electronic payments for claims
- Business rules for claims adjudication
- Claims data quality
- Assessing health insurance software
 - Total cost of ownership
 - Considerations for build vs buy
 - Considering open-source vs proprietary software
 - Assessing software capabilities against user requirements
 - Implementation planning
- Best practices for automating claims adjudication



JOINT LEARNING NETWORK

For Universal Health Coverage

JLN Introduction

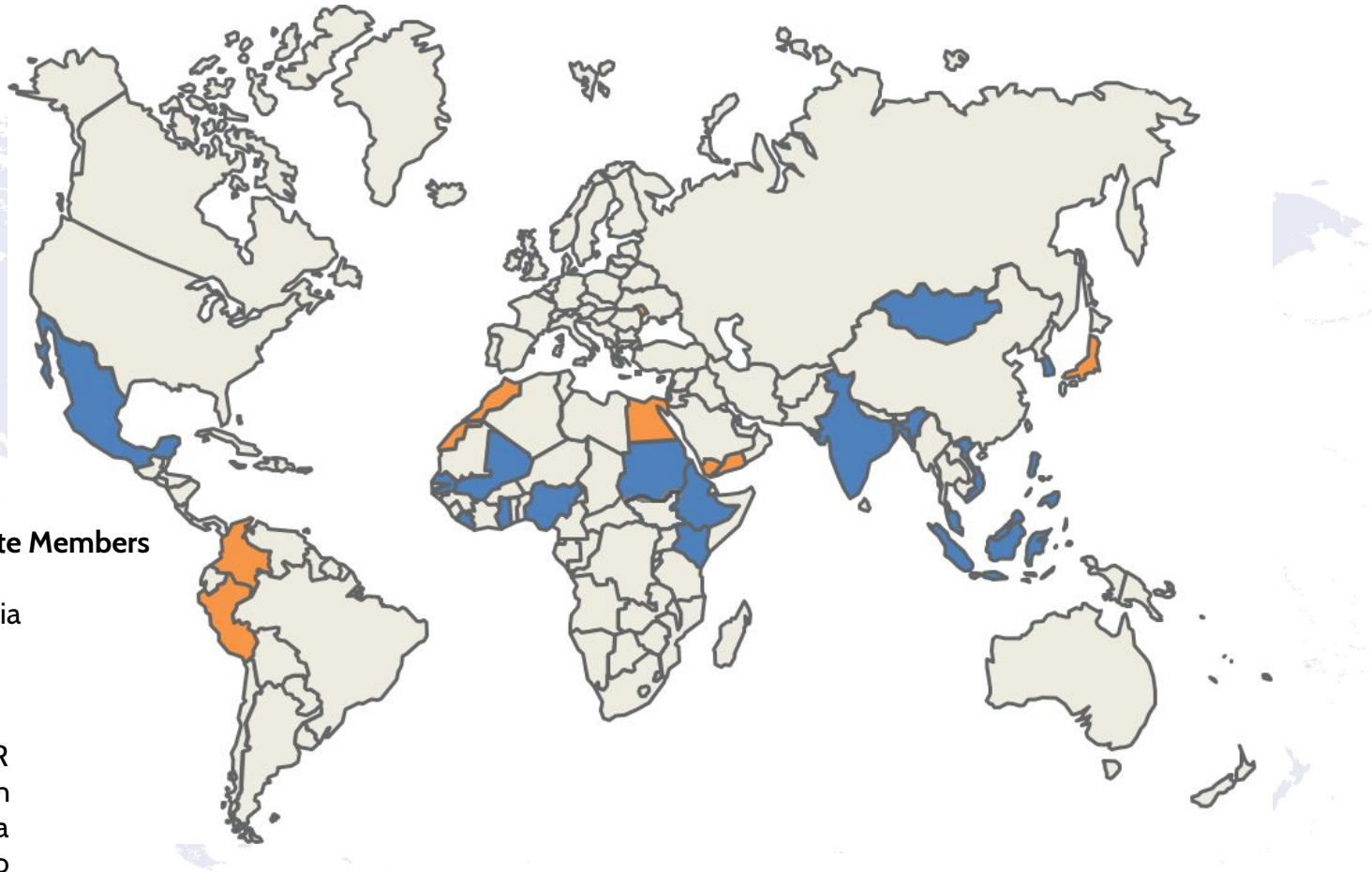
A Growing Network of Policymakers and Practitioners from 30 Member Countries

Full Members

Bangladesh
Ethiopia
Ghana
Indonesia
India
Kenya
Liberia
Philippines
Malaysia
Mali
Mexico
Mongolia
Nigeria
Senegal
South Korea
Sudan
Vietnam

Associate Members

Bahrain
Colombia
Egypt
Japan
Kosovo
Lao PDR
Lebanon
Moldova
Morocco
Namibia
Peru
South Africa
Yemen



The Value of Country-Driven Joint Learning

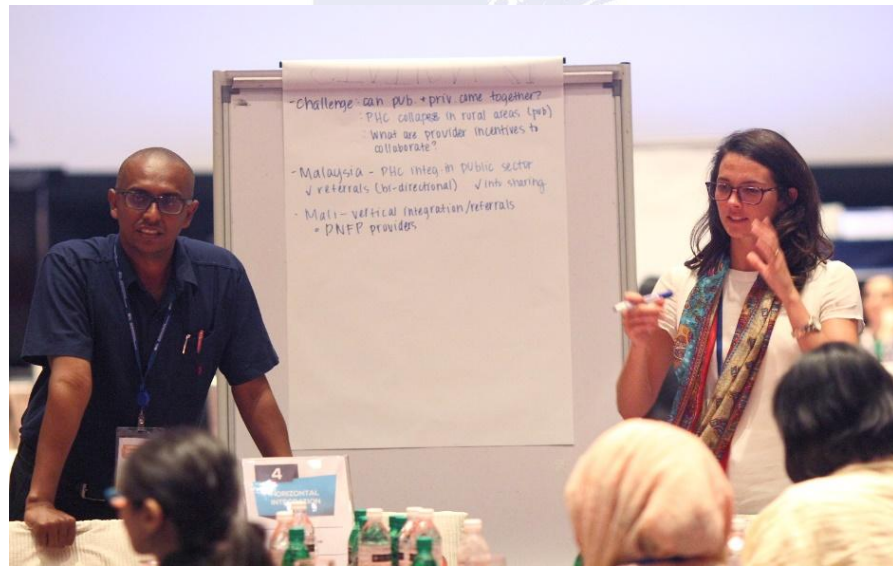


- Centers on **country ownership**
- Highly relevant to countries' reform priorities
- Creates space to **analyze root causes of UHC challenges**
- **Builds trust, safe space and community among members**
- Results in **practical tools and knowledge** that can be shared and applied
- Creates **opportunities** for responsive follow-up by partners

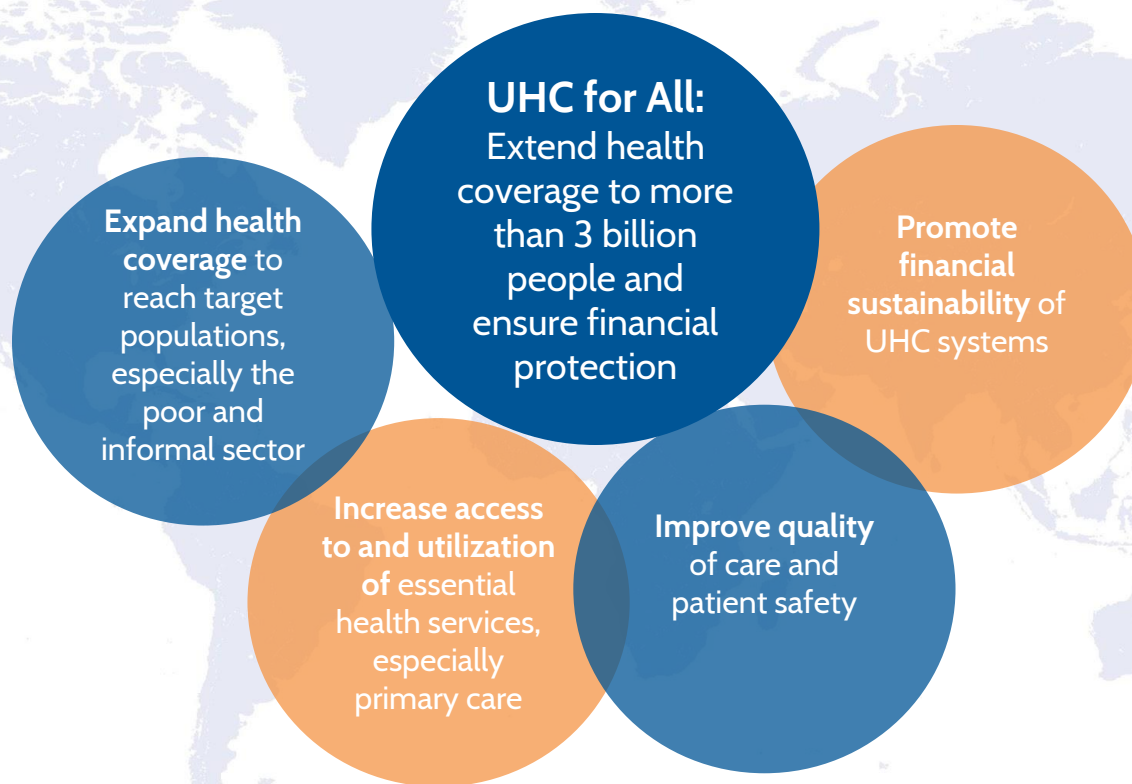
The Joint Learning Approach

Practitioners engage in **collaborative learning** to **co-develop global knowledge** on the practical how-to's of achieving universal health coverage.

1. Identify a common challenge
2. Collectively problem solve
3. Synthesize new knowledge
4. Apply knowledge within JLN countries
5. Share knowledge globally



JLN's Ultimate Goal: UHC



JLN's Focused Areas of Learning: Collaboratives and Exchanges

Population Coverage

Primary Health Care

Provider Payment

Information Technology

Quality

Health Financing

Engaging the Private Sector

Measurement for Improvement

Health Benefits Policy

People-Centered Integrated Care

PHC Financing and Payment

Data Foundations

Medical Audits

Domestic Resource Mobilization

Efficiency

Fiscal Policy Instruments for Public Health

Learning Exchanges

Vertical Integration

Strategic Communications for UHC

Governing to Improve Quality



**JOINT
LEARNING
NETWORK**

For Universal Health Coverage

The JLN IT Initiative

Tools and Resources for using ICT to support UHC

JLN Information Technology Initiative

The IT Initiative network is comprised of IT professionals from ministries of health and national health insurers working together to develop and share artifacts, knowledge, and tools that can be used by countries to develop and implement national health insurance information system plans.

2010 -2016:

- Funded by the Rockefeller Foundation



- IT Technical facilitators: PATH and PharmAccess



2017 - 2018:

- Funded by the Bill & Melinda Gates Foundation



- IT Technical facilitators: PATH and Wipro



What questions do countries have about how to use IT to enable and support UHC implementations?



- How do we operationalize the national scheme policy?
- How do we integrate multiple complex systems that may already exist?
- How do I transition my paper and legacy systems?
- Which information systems do we need to build first?
- Should I build or buy my own software?
- How do I choose among so many competing standards?
- What are the system requirements and constraints for different provider payment methodologies?
- How can I grow my internal capacity to manage these issues over time?

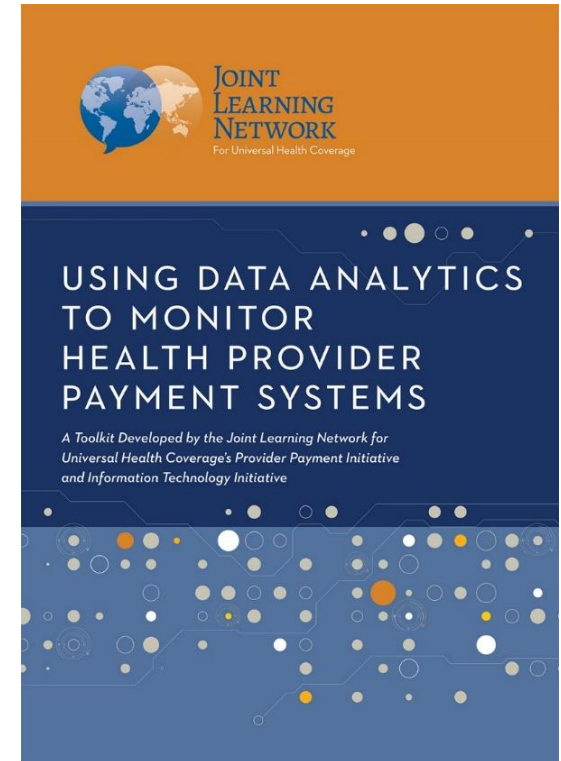
Our approach as Technical Facilitators

The IT Technical Initiative Approach.....

- **Listen and learn** from countries what are common and specific IT challenges they face in support of UHC.
- Create **common reusable artefacts with the countries that can be adapted to local context faster and cheaper than stand alone.**
- **Facilitate joint learning opportunities** focused on specific topics with a high level of interest and demand; and
- **Provide direct support to countries** to adapt global solutions to the local context.

Using Data Analytics to Monitor Health Provider Payment Systems

- Monitor provider payment for trends, alignment with health system objectives, and alerts for unintended consequences
- Follow a six-step framework to select indicators, collect and analyze data, and use data for decision making
- Use guidance, tools, templates, resources, best practices, and real-life lessons from countries implementing provider payment reforms



Co-developed by the JLN's Provider Payment Initiative and Information Technology Initiative with Ghana, India, Indonesia, Kazakhstan, Kenya, Malaysia, Mali, Moldova, Mongolia, Nigeria, the Philippines, and Vietnam

Connecting Health Information Systems for Better Health

Leveraging interoperability standards to link patient, provider, payor, and policymaker data

- An eBook reference guide for countries wanting to link their universal health coverage (UHC) and eHealth information systems using a standards-based approach.
- Illustrates how information and computer technology (ICT) may be employed to simultaneously support care delivery workflows, provider payment workflows, and the generation of health system management metrics and indicators.
- Provides step by step guidance to help select and specify the norms and standards needed to achieve national-scale system-to-system connectivity.

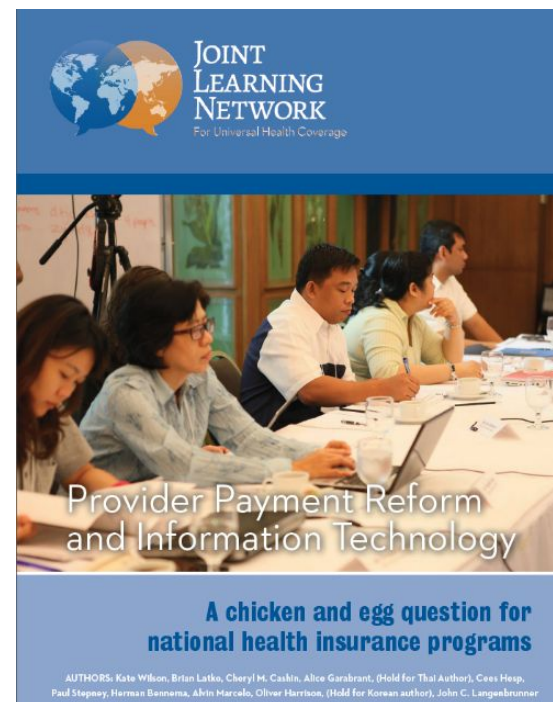


Co-produced by the JLN Information Technology Initiative with Canada, Colombia, India, the Netherlands, the Philippines, South Africa and Thailand

Provider Payment Reform and Information Technology

A chicken and egg question for national health insurance programs

- Provides a conceptual framework for understanding the IT requirements of various payment methods and the choices, trade-offs, and implications of various options
- Examines case studies from countries exploring the key enablers, policy and technical processes followed, and benefits realized
- Reports on lessons learned from these countries and a set of practical next steps for better incorporating investments in IT into reform plans

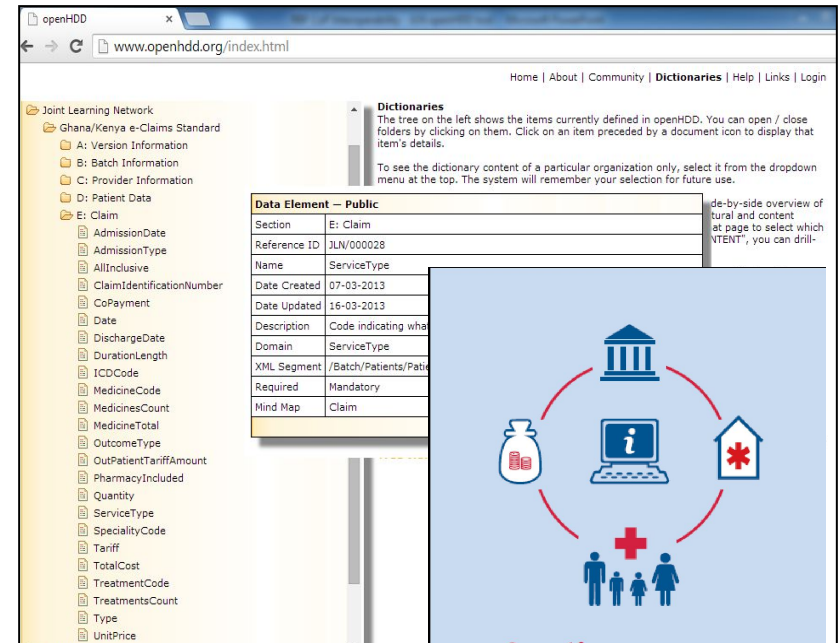


Co-produced by the JLN Information Technology Initiative with Ghana, India, Indonesia, Kenya, Malaysia, Mali, Nigeria, the Philippines, and Vietnam

Health Data Dictionary

(openHDD)

- An HDD enables consistent, accurate, and systematic data collection and exchange.
- openHDD is a collaborative, web-based, open-source tool for creating health data dictionaries.
- Detailed “how to” guidance, standard terminology, and support for the data dictionary tool available to support countries working to make provider and payer information systems interoperable.



The screenshot shows the openHDD web application interface. On the left, there is a tree view of dictionaries under the 'Joint Learning Network' and 'Ghana/Kenya e-Claims Standard'. The tree includes categories like 'A: Version Information', 'B: Batch Information', 'C: Provider Information', 'D: Patient Data', and 'E: Claim'. Under 'E: Claim', there is a list of data elements such as 'AdmissionDate', 'AdmissionType', 'AllInclusive', 'ClaimIdentificationNumber', 'CoPayment', 'Date', 'DischargeDate', 'DurationLength', 'ICDCode', 'MedicineCode', 'MedicinesCount', 'MedicineTotal', 'OutcomeType', 'OutPatientTariffAmount', 'PharmacyIncluded', 'Quantity', 'ServiceType', 'SpecialityCode', 'Tariff', 'TotalCost', 'TreatmentCode', 'TreatmentsCount', 'Type', and 'UnitPrice'.

On the right, there is a 'Data Element - Public' table with the following details:

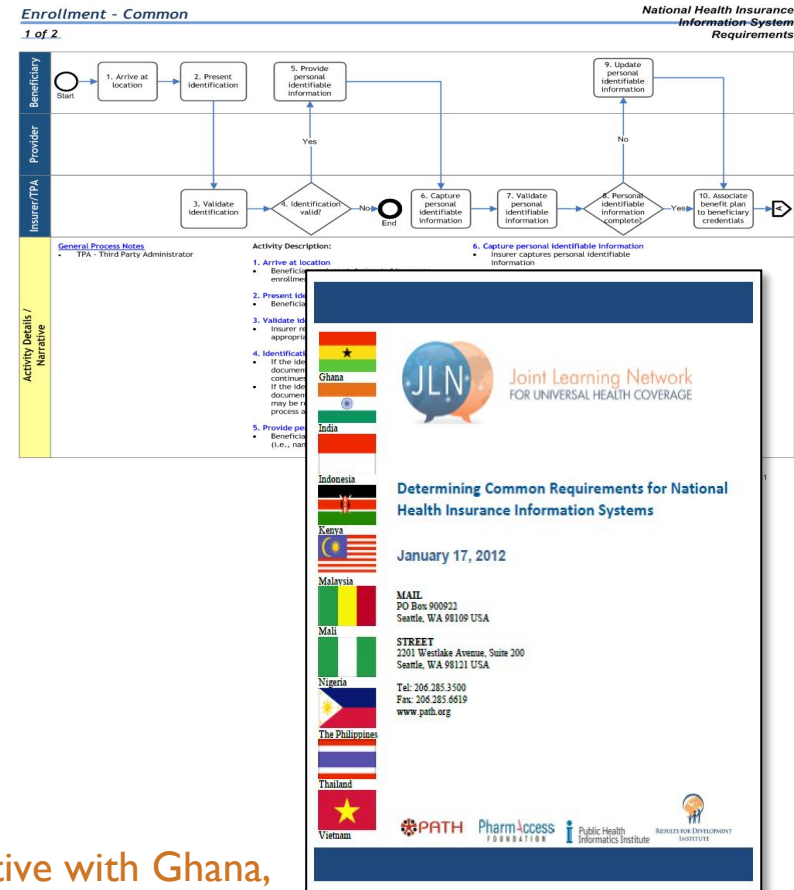
Data Element - Public	
Section	E: Claim
Reference ID	JLN/000028
Name	ServiceType
Date Created	07-03-2013
Date Updated	16-03-2013
Description	Code indicating wh...
Domain	ServiceType
XML Segment	/Batch/Patients/Pat...
Required	Mandatory
Mind Map	Claim

Below the table, there is a diagram illustrating the concept of creating a common language for universal health coverage. The diagram shows a central laptop with an 'i' icon, surrounded by icons for a hospital, a pharmacy, a house with a red cross, and a family. The text below the diagram reads: 'Creating a common language for universal health coverage' and 'HOW OPENHDD CAN HELP YOU'.

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Common Requirements for National Health Insurance Information Systems

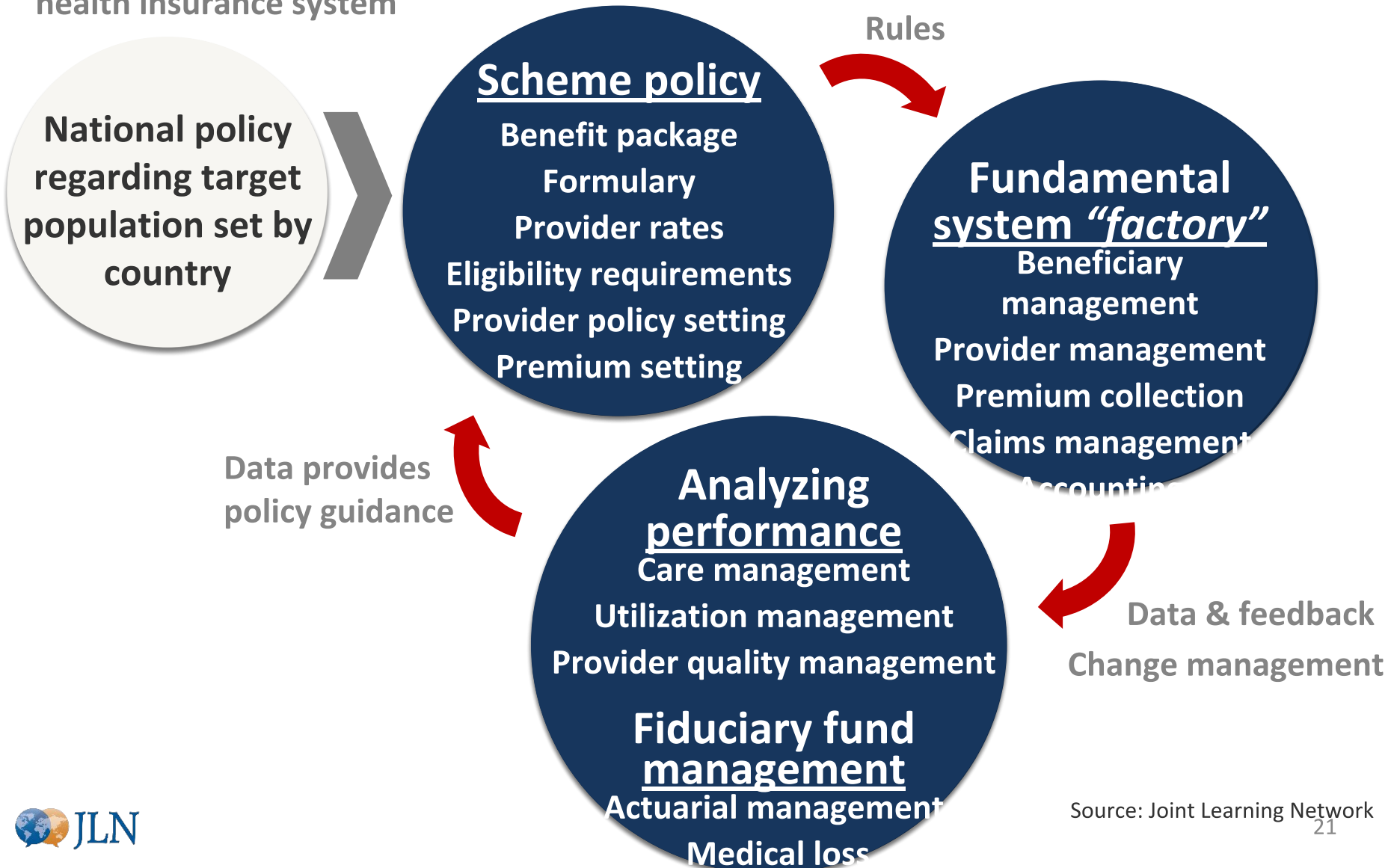
- Draft, functional level requirements for the following health insurance processes:
 - Member enrollment
 - Premium collection
 - Provider management
 - Claims processing
- Functional requirements are statements that describe what an information system needs to do to support the tasks or activities of a national health insurance program.
- These requirements can be used by any country as a starting point on building/buying a new system or revising an existing one.
- JLN member countries worked together to develop this set of “common” functional requirements that other interested countries may take and adapt.



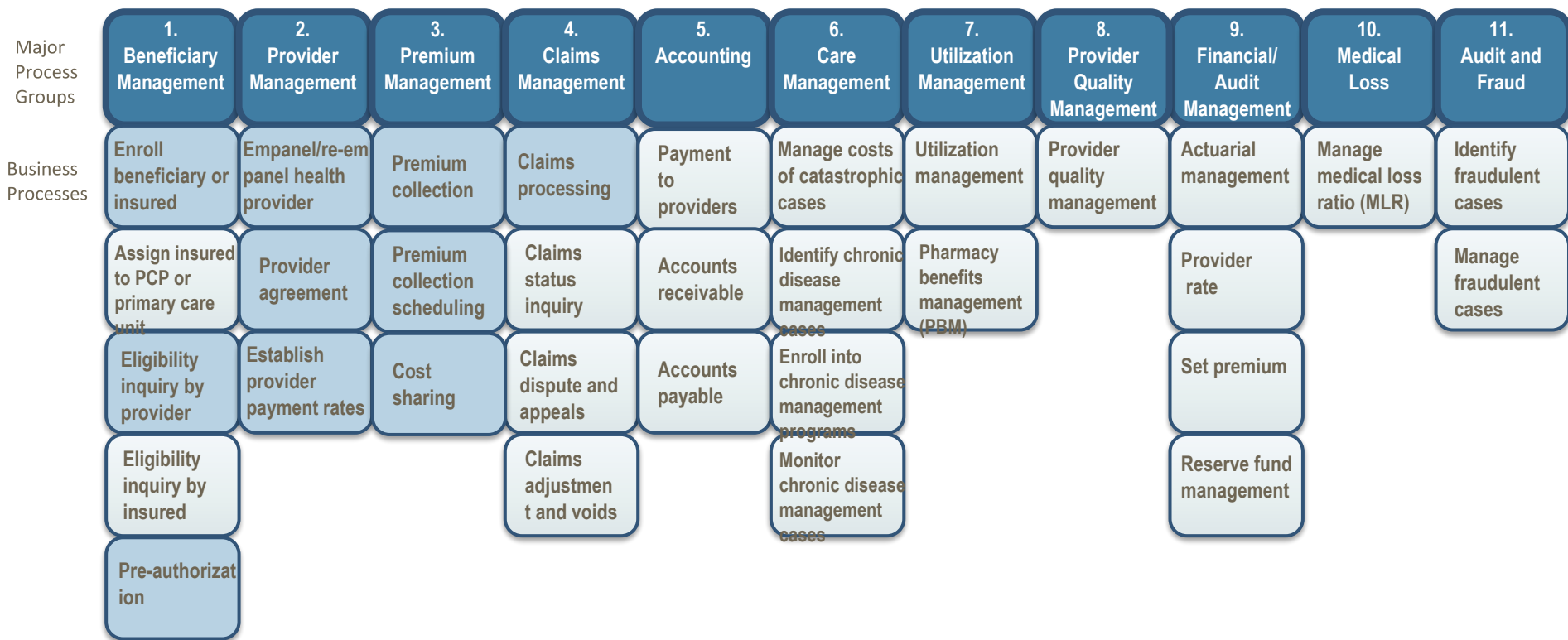
Co-produced by the JLN Information Technology Initiative with Ghana, India, Indonesia, Kenya, Malaysia, Mali, Nigeria, the Philippines, Thailand, and Vietnam

A National Health Insurance Framework



Provides an overview of the actions and business processes covered in a national health insurance system



JLN Common Business Process Framework



Documented processes and system requirements available at: www.jointlearningnetwork.org

 Processes and requirements defined
 Remaining processes

Common Requirements Development Methodology (CRDM)

1. **Domain** – set of functions and processes that define the work of a specific area of the larger health system, i.e. health financing
2. **Process Framework** – set of processes that define the boundaries of a domain and the relationships between them and other systems and domains.
3. **Business Process** – A set of activities and tasks that logically group together to accomplish a goal or produce something of value for the benefit of the organization, stakeholder, or customer
4. **Activity/Task Model** – visual representation of a business process in terms of tasks, sets of tasks and decision points in a logical workflow used to enhance communication and collaboration among users, stakeholders, and engineers
5. **Requirement** – a statement that describes what an information system must do to support a task, activity or decision. These are non-technology statements that usually begin with “the system must or shall...”



Technical Training Cost Break-Down Meeting

Category	Item	Cost	Percentage
Personnel	Trainer	1000	10%
	Trainer	1000	10%
	Trainer	1000	10%
	Trainer	1000	10%
Materials	Materials	1000	10%
	Materials	1000	10%
	Materials	1000	10%
	Materials	1000	10%
Facilities	Facilities	1000	10%
	Facilities	1000	10%
	Facilities	1000	10%
	Facilities	1000	10%
Transportation	Transportation	1000	10%
	Transportation	1000	10%
	Transportation	1000	10%
	Transportation	1000	10%



What is the business process matrix?

- Illustration of all possible inputs, outputs and tasks a system may need to perform for consideration purposes

REFERENCE NUMBER	PROCESS GROUP	PROCESS	OBJECTIVE(S)	INPUTS	OUTPUTS	TASK SETS	MEASUREABLE OUTCOMES
2.1	Beneficiary Management	Enroll beneficiary or insured	Verify identity and eligibility in a timely manner of persons seeking access to benefits plan services	<ul style="list-style-type: none"> • Demographics • Financial information • Geographic information • Qualifying criteria (see qualifying conditions) • Proof of identity (e.g., national identification card, personal identification number, biometrics information, photo) • Medical history • Current medical condition 	<ul style="list-style-type: none"> • Time-based eligibility determination • Insured identifier • Benefits plan number • Benefits class • Benefits plan detail • Proof of coverage • Feed into data repository 	<ul style="list-style-type: none"> • Validate identity documents • Record information in data repository 	<ul style="list-style-type: none"> • Eligibility is determined as approved or rejected • Approved person receives proof of coverage (e.g., identification card) • Assign benefits class • Benefits plan • Accurate list of insured

PHILIPPINES
Multi-level &
Facility ID (Central Director ID)
ICD-9
National Drug Formulary
ICD-9 CM
only 1

	India	KE	GH	Phil.
NAT'l ID	on path	✓	on path	N/A
Health INSURANCE	✓ family group	✓ family group	✓ everyone is insur	✓ everyone is insur
PROVIDER ID	ID # for employer/providers	ACCRED/PROVIDER ID	ACCRED/PROVIDER ID	ACCRED. # / PRF / family

	INDIA	KE	GH	Phil
DIAGNOSIS CODES	By Law	ICD 10	ICD 10	ICD 10
PROCEDURE CODES	Developed their own scheme specific	NO	FROM ICD 10	FROM ICD 9
LOCATION CODES	Hierarchy by NAT'l level/Down. Different schemes use different codes	Provinces, District Divisions, Zip codes	Scheme code based on District	NAT'l Region Zip codes

	INDIA	KE	GH	Phil.
INVESTIGATORY LAB CODE	Part of Program		✓	
PHYSICIAN CODE	N/A	N/A	taking access to capture	
BILLING CODES	✓ ON path	✓		ISSUED by FACILITY DR.
INSURER/TPA CODES	✓	N/A	N/A	N/A



CODE	
①	Patient ID
②	Procedure
③	Disease ICD 9
④	Code D
⑤	PATIENT CLASS
⑥	PROVIDERS ID
⑦	FACILITY
⑧	DRUG CODE
⑨	Area Code

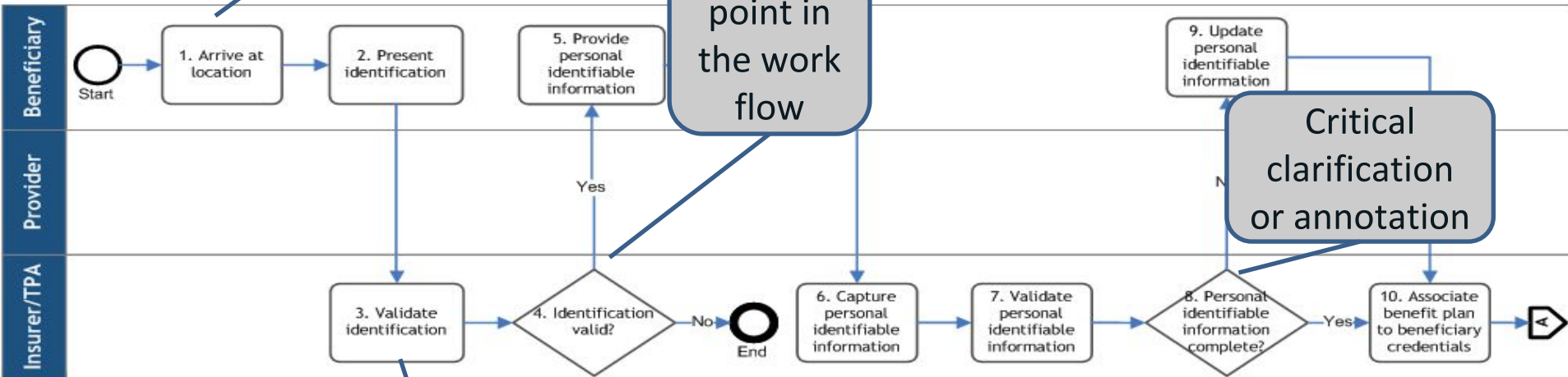
common task flow diagram?

Where the work takes place

Person who does the work

Enrollment - Common
1 of 2

National Health Insurance
Information System
Requirements



Decision point in the work flow

Critical clarification or annotation

Discrete work activity or task

Capture rules, comments and feedback

General Process Notes
• TPA - Third Party Administrator

Activity Description:

- 1. Arrive at location**
 - Beneficiary arrives at designated insurance enrollment location
- 2. Present identification**
 - Beneficiary presents proof of identification
- 3. Validate identification**
 - Insurer reviews identification and other appropriate qualifying documents for validity
- 4. Identification valid?**
 - If identification and/or other qualifying documents are valid then the process continues to step 5.
 - If identification and/or other qualifying documents are not valid then the beneficiary is referred to an alternate offline process and/or process will end
- 5. Provide personal identifiable information**
 - Beneficiary provides appropriate information (i.e., name, address, biometrics...)

- 6. Capture personal identifiable information**
 - Insurer captures personal identifiable information
- 7. Validate personal identifiable information**
 - Insurer reviews captured personal identifiable information with beneficiary to ensure it is accurate
- 8. Personal identifiable information complete?**
 - Insurer reviews the captured data to ensure that all of the appropriate fields are complete
- 9. Update personal identifiable information**
 - Beneficiary provides updated or additional personal identifiable information as requested by the insurer
- 10. Associate benefit plan to beneficiary credentials**
 - In the event that there are several benefit plans for which the beneficiary qualifies then the insurer selects a benefit plan to assign to the beneficiary

ENROLLMENT:

UPDATED TASK FLOW





Information Technology Core Work Group Meeting

Enrollment

OBJECTIVE	BUSINESS	INPUTS	OUTPUTS
<p>Verify identity and eligibility in a <u>timely</u> manner of persons seeking access to <u>benefits</u> plan <u>services</u></p> <p><i>OR</i></p> <p>+ <u>Subsidy</u></p>		<ul style="list-style-type: none"> Demographics Financial information Geographic information Qualifying criteria (see <u>qualifying conditions</u>) Proof of identity (e.g., national <u>identification card</u>, personal identification number, <u>biometrics information</u>, photo) Medical history Current medical condition 	<ul style="list-style-type: none"> Time-based <u>eligibility</u> determination Insured identifier <u>Benefits plan</u> number <u>Benefits class</u> <u>Benefits plan</u> detail <u>Proof of coverage</u> Feed into data repository



What is a draft requirement catalog?

ID	BUSINESS	ACTIVITY	REQUIREMENT (The system must or should...)
1	ELIGIBILITY	Search for insurance detail with alternate ID	allow provider to search for beneficiary's insurance detail with alternate identifier (i.e. name, DOB.....)
2	ELIGIBILITY	Search for insurance detail with alternate ID	allow provider to visibly see prompt for alternate identification method if ID presented is not valid
3	ELIGIBILITY	Capture insurance detail	allow provider to enter identification detail
4	ELIGIBILITY	Capture insurance detail	allow provider to enter proof of insurance detail
5	ELIGIBILITY	Capture insurance detail	allow provider to enter biometric detail
6	ELIGIBILITY	Capture insurance detail	allow provider to capture referral details
7	ELIGIBILITY	Validate Insurance	allow provider to validate identification
8	ELIGIBILITY	Validate Insurance	allow provider to authenticate biometric detail
9	ELIGIBILITY	Validate Insurance	allow provider to visibly see benefits plan assigned to the beneficiary
10	ELIGIBILITY	Validate Insurance	allow provider to visibly see beneficiary eligibility status
11	ELIGIBILITY	Validate Insurance	allow provider to clearly see the beneficiary's benefits plan details
12	ELIGIBILITY	Validate Insurance	allow provider to visibly see enrollee benefit plan statistical data (i.e. amount of money remaining.....)

	INDIA KENYA	GHANA	INDONESIA	PHILIPPINES
PERSON	National ID + Membership #	Membership # NHIS ✓	Membership # Local government produced # Pabrik Hot link	PhilHealth #
PROVIDER (FACILITY) #	Facility accreditation #	Facility code (NHIS produced)	Doctor (produced or by med council)	Facility ID # (separate doctor ID)
DIAGNOSIS	ICD-10 ✓	ICD-10 ✓	ICD-10 ✓	ICD-10 ✓
MEDICINES	MoH drug list ✓	subscribed essential med list	MoH DRG ✓	National Drug List ✓
TREATMENT PROCEDURES	MoH list ✓	MoH standard treatment guidelines (w/ codes)		
HEALTH INSURER	only 1	only 1	MoF assigns codes ✓ insurer division	

	INDIA	KE	GH	Phil.
NAT' I ID	ON path		path	N/A
HEALTH INSURANCE				✓ EVERYONE IS INDIV
PROVIDER ID	ID			ACCRED.
MULT				

Diagn
 CODES
 PROCED
 CODES
 LOCATI
 CODES