A GUIDE TO COMMON REQUIREMENTS FOR NATIONAL HEALTH INSURANCE INFORMATION SYSTEMS

AUGUST 2019

JOINT LEARNING NETWORK
For Universal Health Coverage

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Preface

The Information Technology (IT) Initiative of the Joint Learning Network for Universal Health Coverage (JLN) published a guide for the development and use of common requirements for health insurance information systems in 2012 titled Determining Common Requirements for National Health Insurance Information Systems. This resource was developed to provide a set of practical, common tools and resources for country decision-makers and other health insurance stakeholders as they developed national-level health insurance information system plans.

The 2012 document outlined a set of insurance process modules, diagrams, and requirements produced through a collaborative process with JLN country participants and health insurance experts. Specifically, requirements were created for enrollment, eligibility, preauthorization, claims management, payment collection, and provider payment. These requirements have since been used by a variety of stakeholders, including the Open Health Information Exchange (OpenHIE), the open source Health Insurance Management Information System (openIMIS), and several country governments, including that of Bangladesh.

Recognizing the advances in health insurance technologies, growing interest in the data created through health financing information systems, and country prioritization through the JLN, the IT Initiative hosted a Learning Exchange to revisit the topic of health insurance information systems and to expand and update the contents from the original Determining Common Requirements guide. The Learning Exchange, hosted in Nepal in June 2019, brought together experts from nine countries and several nongovernmental organizations to review, share, and explore the possibilities for expanding the existing common requirements for health insurance information systems.

This document, A Guide to Common Requirements for National Health Insurance Information Systems, is the result of that workshop and the next step toward updating the content of the 2012 document. Much of this document builds from Determining Common Requirements and seeks to provide guidance on why system requirements are important, the methodology for documenting work process flows and determining system requirements, and how stakeholders may utilize common requirements as a building block to accelerate development and/or implementation of health insurance technologies. In addition, this document suggests a way forward for the insurance technology community to contribute to ongoing updates to ensure these requirements continue to have value as a living resource.

Introduction

National health insurance systems are becoming more common as countries move to operationalize health financing transactions of paying for and delivering health services as part of their progress toward Universal Health Coverage for their citizens. Each country has a unique approach to its health coverage schemes, but a common need across all systems is the ability to support basic insurance processes such as enrolling members, contracting with providers, and paying claims as well as the ability to capture, track, and analyze data within the system. As a result, health insurance or health purchaser[1] information systems are becoming more important as schemes are implemented at national scale. Strong health insurance information systems can ensure timely reimbursements, decrease transaction costs, find system efficiencies, prevent fraud, and ensure equitable coverage and treatment. Many countries are also finding value in health insurance data to complement other types of health system data.

The intent of a common requirements framework for health insurance is to be a logical starting point for supporting the development and implementation of health insurance information systems. Functional requirements are an invaluable tool for policymakers and technical experts alike. Policymakers can use them to ensure the information system supports national health insurance priorities and the chosen scheme design. Technical experts gain clarity on the national priorities in a format that is transferable to software design and implementation. These requirements provide a format that is understandable to both health insurance experts and software engineers, providing a platform for prioritization, compromise, and system design.

> "In software engineering and systems engineering, a **functional requirement** defines a function of a system or its component, where a function is described as a specification of behavior between outputs and inputs.[2]"

A functional requirement describes in nontechnical terms how an information system should support the business processes and activities and is useful to ensure understanding between users and developers. A country or organization will define specific requirements for its specific needs. The benefit of a set of globally defined common requirements is to provide an advanced starting point to review best practices and save time and resources in the development process.

This document serves as a guide to the common requirements developed for health insurance systems, explaining the methodology of their creation and some thoughts on how countries and other stakeholders can utilize them. Finally, the document explores how the health insurance community can continue to advance and refine these requirements over time in order to make them a living resource that does not suffer from outdatedness.

1 For our purposes here, a health purchaser is any institution that buys health care goods, services, and interventions on behalf of a covered population. Health purchasers can include the ministry of health, national health insurance schemes, social health insurance agencies, special purchasing agencies, local or national government authorities, other ministries (such as the ministry of defense), private insurance companies, and community-based insurance funds.

2 Wikipedia website. Software engineering page. https://en.wikipedia.org/wiki/Software_engineering. Accessed July, 2019.

Creating common requirements

While common requirements are a useful building block, creating them can be a challenge. Country health coverage schemes range in design, coverage, and maturity—all of which require different types of requirements to function appropriately. However, by working with countries and using a collaborative methodology, commonalities can be found for typical insurance-related processes, such as enrolling members and paying claims. By sharing and comparing requirements across countries, we are creating, cataloging, and making available the global common, reusable requirements for health insurance systems that can be used as building blocks and a starting point for countries and developers to reduce the cost and time of creating their own information systems and solutions.

Between 2010 and 2012, the JLN IT Initiative undertook an extensive effort to document a series of common insurance processes and the associated requirements related to health insurance systems. This process utilized a methodology known as the Collaborative Requirements Development Methodology (CRDM). In 2019, the IT Initiative revisited the requirements developed using the same methodology, beginning the process of how to update and expand this resource.

Using the Collaborative Requirements Development Methodology

The CRDM was developed by the Public Health Informatics Institute and PATH in 2009 with support from The Rockefeller Foundation. This methodology was designed to support the creation of sustainable, scalable, and affordable national health information systems across health domains. The basis of this methodology is to document specific functions that an information system must perform based on the needs of the health system process it is supporting. Since its development, CRDM has been used not only in the health insurance space but also to develop requirements for logistics management information systems, maternal health information systems, and more.

A key aspect of the effectiveness of CRDM is the use of nontechnical language that is familiar to users and subject matter experts. This enables greater clarity and accuracy when communicating the needs of users of information systems to software and system engineers as well as vendors of health insurance applications.

Organizing the work

To organize the health insurance-related business processes and requirements, we found it helpful to define the scope and boundaries for health insurance processes and to show how they fit into the larger health system.

The health system domain

A domain refers to a set of functions and processes that define a specific area or sector, in this case the scope of the entire health system.

In 2012, Determining Common Requirements presented a domain reference model that outlined ten functional health domains, including community services, facility services, laboratory services, human resources, supply chain, finance and insurance, management and planning, environmental services, knowledge and information, and infrastructure management.[3]

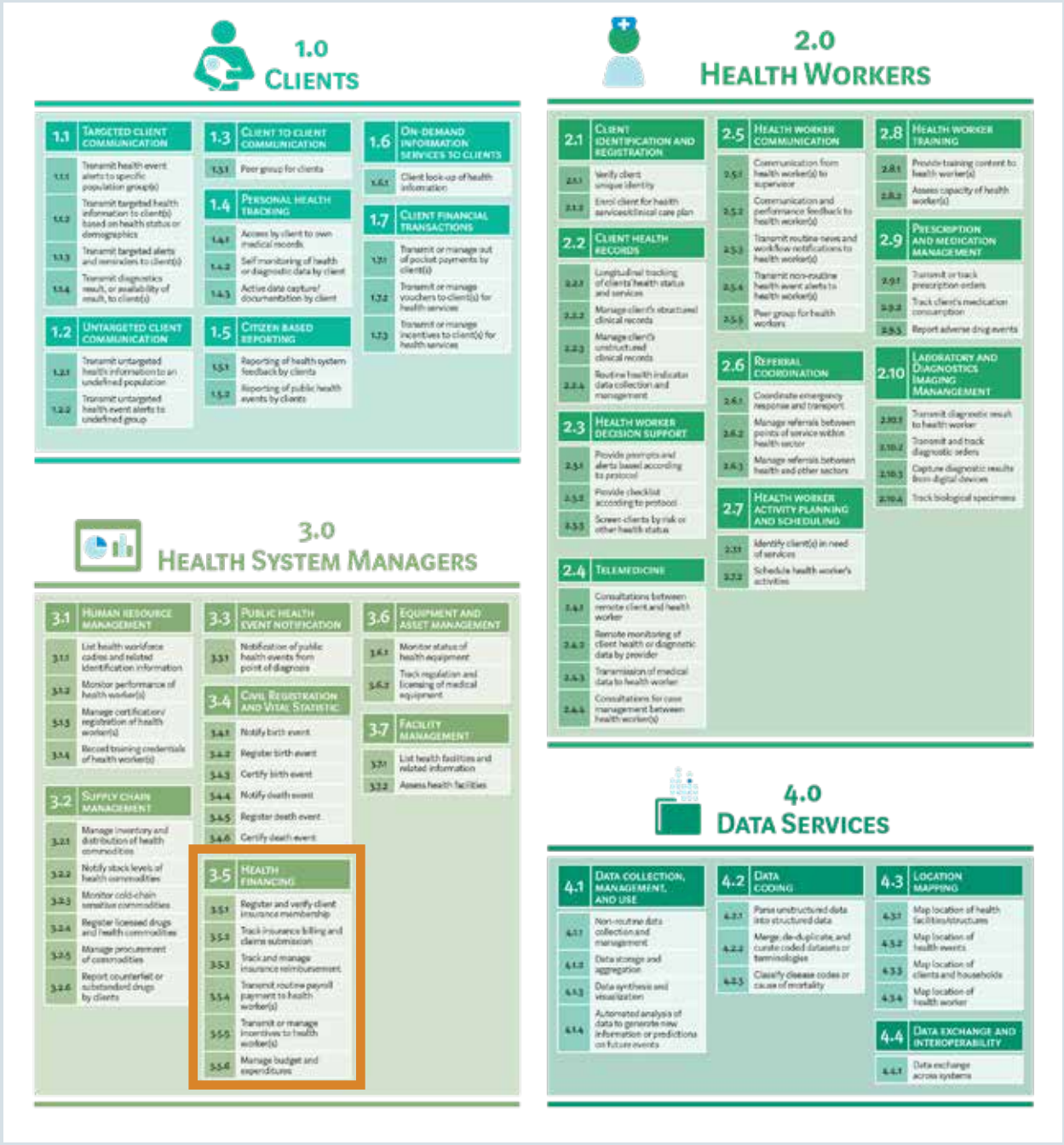
In 2018, the World Health Organization (WHO) published the Classification of Digital Health Interventions[4] to categorize different ways digital and mobile technologies support health system needs. The WHO classification scheme provides a useful domain view of the overall health system. When considering the development of common insurance requirements, the WHO Classification provides a recognized domain-level view and shared language that can unite this effort with efforts of others working in digital health. The Classification outlines digital health intervention categories, which provide a more granular view of digital health interventions. Category grouping 3.5 focuses on health financing, including insurance.

3 See Determining Common Requirements for National Health Insurance Information Systems, Table 1 on page v of the Preface at http://www.joint-learningnetwork.org/resources/determining-common-requirements-for-national-health-insurance-informat

4 Available at: https://www.who.int/reproductivehealth/publications/mhealth/classification-digital-health-interventions/en/

As the health insurance community continues to refine the common requirements, these can be used to inform and expand future versions of the Classification to more completely capture the processes involved in insurance systems.

FIGURE 1 ***WHO Classification of Digital Health Interventions v1.0***

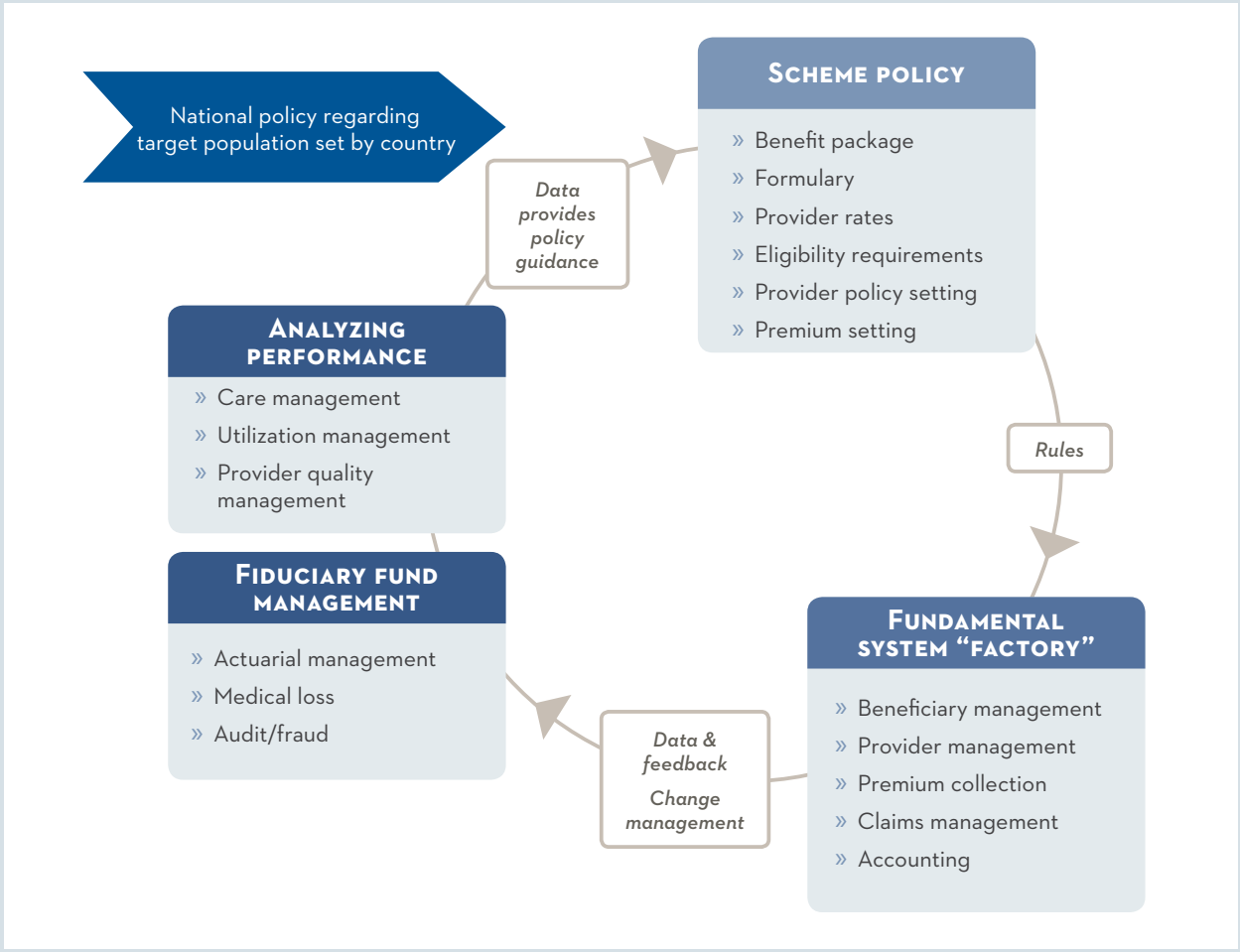


Health insurance process frameworks

A process framework refers to the set of processes that describe a specific health domain and defines the scope and boundaries for the set of processes.

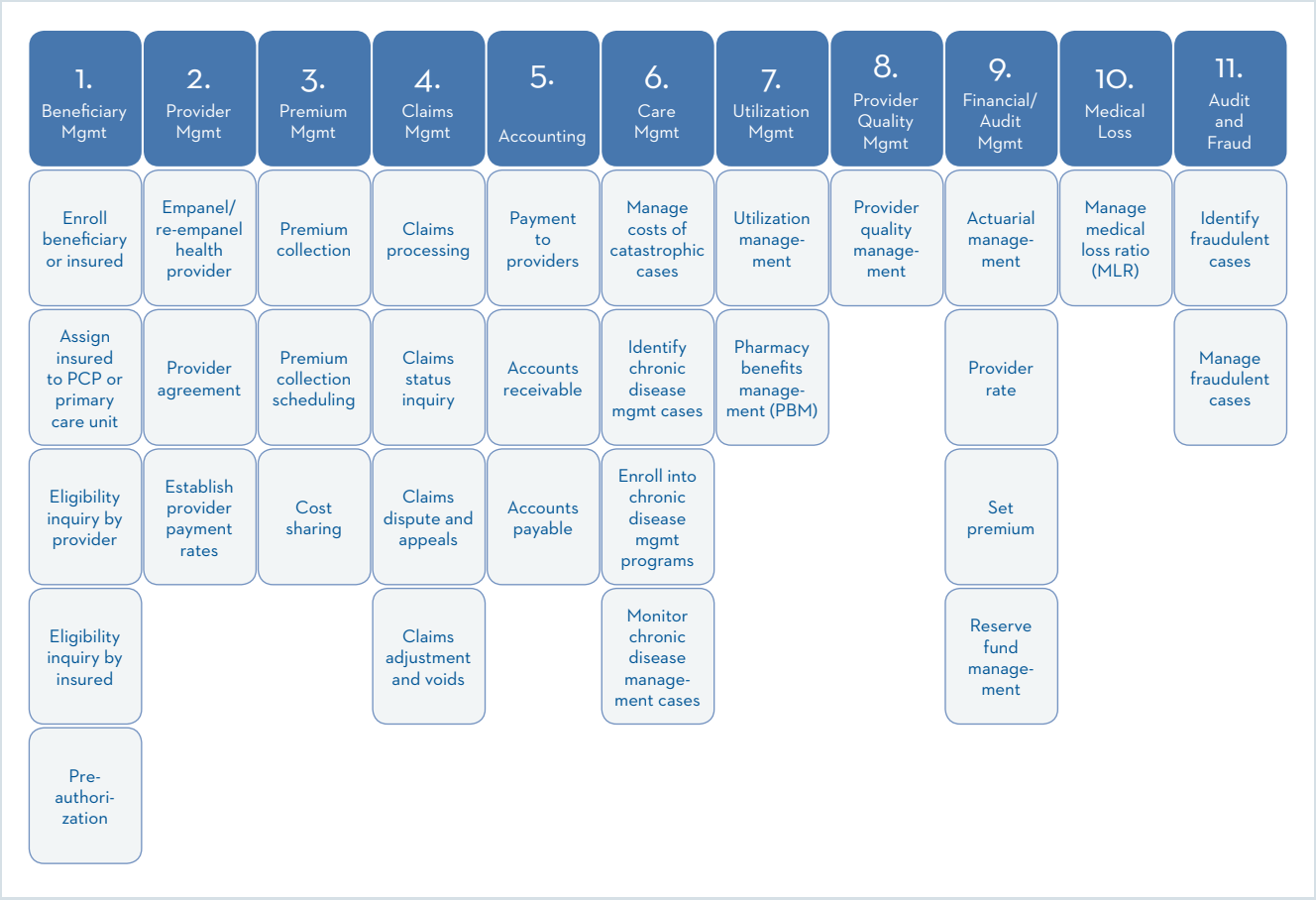
The JLN IT Initiative developed a National Health Insurance Framework in 2012, which was validated again in 2019. This framework shows the relationships between scheme policy, the functions of the health insurer, and data analysis used to assess and inform health insurance programs and scheme policy.

Figure 2 ***Functional view of a national health insurance framework***



The JLN IT Initiative also drafted a structured framework for organizing the business processes to show the major process groups, or functional areas, and the related business processes. This allows countries to understand the variety of processes and subprocesses involved in a task and begin to expand to a level of granularity needed for software development. In addition, by defining the major process groups, this framework creates flexibility for a range of scheme designs. While some schemes may not require beneficiary enrollment and another may require it, both systems will require some level of beneficiary management.

FIGURE 3 ***Structured view of a national health insurance framework, organizing business processes by functional area***



Both frameworks may be useful for different purposes or different stakeholders.

Common business processes for health insurance

Since the requirements define how an information system should support the work activities of the health insurance organization, it is important to first understand how that work is getting done. CRDM provides an approach and tools for looking at work activities or tasks and documenting them as business processes.

A business process refers to 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. Examples of health insurance–related business processes include enrolling a member, processing a claim, or paying a provider.

The common business processes for health insurance are documented both in narrative form in a business process catalog and in graphic form using task flow diagrams.

HL7 FHIR

HL7 FHIR, and other global standards for data exchange, are helpful frameworks for aligning business processes across digital health systems. The Fast Healthcare Interoperability Resources (FHIR) are organized into modules called "resources." Each resource defines a set processes, similar to the business processes outlined through CRDM. The processes outlined by FHIR provide additional technical guidance to software developers that help standardize the format and usability of data between systems. Because many health-related software use FHIR as a standard, aligning the development of common requirements to this structure make the process of interoperability and data exchange easier. It provides a common language that can be used to help shape insurance management software, as well as software used in many other parts of the health care system.

Business process catalog

The business process catalog is an organized list of all the business processes documented for health insurance. The processes are grouped and numbered by functional area. It is possible to continue expanding the processes into further detail, which could include breaking processes into more detailed subprocesses. The JLN IT Initiative from 2012 documented the list of business processes in a business process matrix, which was a table format containing information about each process. As the detailed information captured about each business process continues to expand, it is recommended at this point to reformat the business process matrix table to a business process catalog, supporting a dynamic page view of information about each process that can be expanded without the constraint of table-size columns.

The following information may be captured in the business process catalog:

- **Process number:** A reference number for the business process.
- **Process group:** The high-level functional area to which the business process belongs.
- **Process name:** The name describing the business process.
- **Revision date:** The date the process was last updated.
- **Scheme characteristic:** The type of scheme that process supports. For example, the business process to enroll a member is relevant or supports a scheme that is enrollment based (versus entitlement based).

- **Goal:** The major goal in terms of benefits to population health that is supported by the business process.
- **Objective:** A concrete statement describing what the business process seeks to achieve and points to quantifiable measures of performance.
- **Business rules:** A set of criteria that defines or constrains some aspect of the business process.
- **Triggers:** Events, actions, or states that initiate the first course of action in a business process.
- **Task set(s):** The set of required activities or steps that are carried out in a business process.
- **Inputs:** Information received by the business process from sources outside of the process.
- **Outputs:** Information transferred out of a business process.
- **Standard electronic transaction format:** Reference or link to the electronic format(s) supporting this process.
- **Outcome:** The result of performing a business process, which indicates the objective has or has not been met.

Business processes for health insurance schemes

During the 2019 Learning Exchange, participants were asked to continue expanding the list of defined business processes related to health insurance. Because of the diversity of scheme designs implemented by the countries present, it was suggested to add a column to the business process matrix to note the type of scheme the process supports. For example, the enrollment of beneficiaries changes significantly between enrollment-based schemes and entitlement-based schemes. By outlining these differences, countries will understand the breadth of options available and choose those processes that are most relevant to their scheme. This approach was agreed to be beneficial, but work has not begun to classify and expand the business process framework to include scheme-specific notation. In addition, the participants suggested adding a column for a revision date so that processes in the business process matrix could be added and updated over time.

As the business process matrix is built out over time, additional fields that could be captured for a business process include specific systems for inputs and outputs and any standard electronic transaction formats that support that process.

The work to convert processes from the previous business process matrix to a more detailed business process catalog has not been implemented yet; however, the following is an example showing a process from the existing matrix and what it could look like in new catalog format.

FIGURE 4 ***Current business process matrix example***

REF #	PROCESS GROUP	PROCESS NAME	OBJECTIVE	INPUTS	OUTPUTS	OUTCOMES
2.1	Beneficiary management	Enroll beneficiary	Verify identity and eligibility in a timely manner of persons seeking access to benefits plan services	Demographics Financial information Geographic information Qualifying criteria (see qualifying conditions) Proof of identity (e.g., national identification card, personal identification number, biometric information, photos) Medical history Current medical condition	Time-based eligibility determination Beneficiary identifier Benefits plan number Benefits class Benefits plan detail Proof of coverage Feed into data repository	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 beneficiaries

FIGURE 5 *Sample business process catalog example*

PROCESS #:	2.1
PROCESS GROUP:	Beneficiary management
PROCESS NAME:	Enroll beneficiary
REVISION DATE:	June 2019
SCHEME CHARACTERISTIC:	Enrollment-based schemes
GOAL:	
OBJECTIVE:	Verify identity and eligibility in a timely manner of persons seeking access to benefit plan services
OUTCOMES:	Eligibility is determined as approved or rejected. Approved person receives proof of coverage (e.g., identification card)
BUSINESS RULES:	
TRIGGERS:	
TASK SET(S):	
INPUTS:	Demographics Financial information Geographic information Qualifying criteria (see qualifying conditions) Proof of identity (e.g., national identification card, personal identification number, biometric information, photos) Medical history Current medical condition
INPUT SOURCE SYSTEMS:	
OUTPUTS:	Time-based eligibility determination Beneficiary identifier Benefits plan number Benefits class Benefits plan detail Proof of coverage Feed into data repository
OUTPUT SYSTEMS:	
LINK TO TASK FLOW DIAGRAM:	
SUPPORTED BY ELECTRONIC TRANSACTION FORMATS:	
NOTES:	

Activity or task flow diagrams

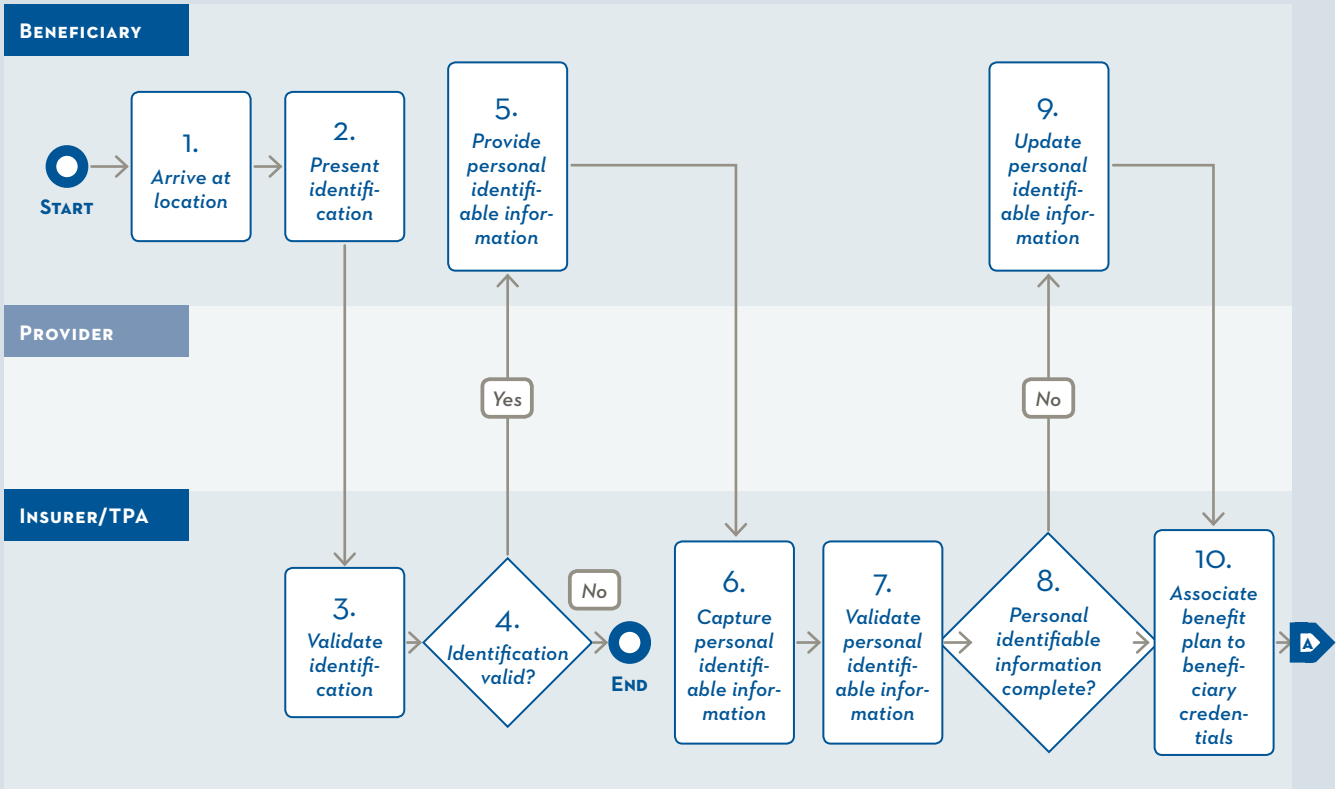
An activity or task flow diagram is a visual representation of a business process, outlining tasks and decision points within a logical workflow. A graphical representation of a business process helps tell a story of who participates in a process, what types of information are exchanged between the participants, and how the work is accomplished.

A task flow diagram typically shows the following:

- **Who:** People, functional role
- **What:** Transactions or exchanges
- **Where:** Where the work takes place; work environment of context
- **Why:** The outcome of the process, which indicates the outcomes of the process have been met

The JLN IT Initiative documented a set of business process task flow diagrams for national health insurance in 2010–2012. Several processes were revisited and expanded in 2012 with the recommendation that the set of business processes could be updated or added to continually over time.

Figure 6 *Task flow diagram example*



Activity details / narrative

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 the identification and/or other qualifying documents are valid then the process continues.
   If the identification and/or other qualifying documents are not valid then the beneficiary may be 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 required by the insurer
10. ***Associate benefit plan to beneficiary credentials***
    In the even that there are several benefits plans for which the beneficiary qualifies, then the insurer selects a benefits plan to assign to the beneficiary

TPA – Third Party Administrator

Common information system requirements for health insurance

A requirement is a statement that describes what an information system must do to support a task, activity, or decision. These statements usually begin with "The system must . . ." or "The system shall . . ." and describe what must be accomplished without specific reference to technology.

Requirements describe the needed functionality of an information system; provide a description of what the information system needs to capture, perform, and display; and answer the question "How would you see information systems supporting task/activity X?"

These statements describe what needs to happen, not how it needs to happen. This provides software engineers with direction on design without limiting them to one solution.

The national health insurance requirements catalog is a listing of system requirements organized by functional area and business process.

FIGURE 7 ***Common system requirements example***

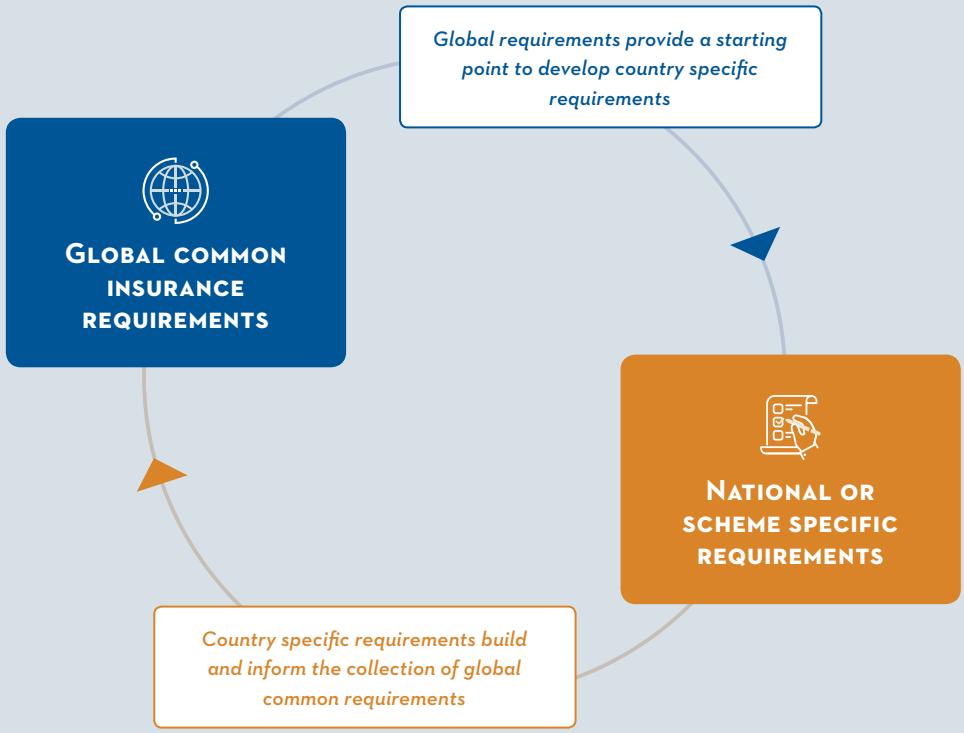
REQ #	PROCESS	ACTIVITY	REQUIREMENT (THE SYSTEM MUST OR SHOULD . . .)	COMMENTS
1	Enrollment	Validate identification	Allow insurer to input national identification number	
2	Enrollment	Validate identification	Allow insurer to check for valid identification number	
3	Enrollment	Validate identification	Insurer to clearly notice error message if identification number does not match national/state database or list	
4	Enrollment	Validate identification	Allow insurer to search and verify if enrollee is already enrolled in a current benefits plan	
5	Enrollment	Capture personal information	Allow insurer to search database by name, identification number, etc., to see if beneficiary has existing enrollment record	Prevention of duplicate records
6	Enrollment	Capture personal information	Allow insurer to capture biometric data	

Applying requirements at a practical level

The common set of business processes and requirements is a resource designed to be both a road map and a tool. It serves as a road map for helping countries move toward the vision of an effective national health insurance information system. At the same time, the requirements can be used as a tool for structuring specific implementation projects, informing vendor requests for proposals, and self-assessing existing insurance capabilities.

Global common requirements serve as a building block resource to inform and shorten the timeline and effort to developing country-specific requirements. Countries can adapt the processes and requirements to address their specific situation and conditions. They can modify the business process sections by adding specific or unique requirements and deleting business processes not applicable to their scheme design. In turn, country-specific requirements are used to update and expand the global set of requirements.

Figure 8 *Common requirements and country-specific requirements*



The following are some examples of where the application of the requirements can add value to countries, donors, nongovernmental organizations, technical agencies, and software developers.

Use	Description
Inform the design of a national system	Common requirements provide a framework for ministries or project teams beginning the process of designing or implementing a national health insurance information system. These requirements can be used to understand the scope that the system will need to support for the desired scheme characteristics. A review of common requirements can help address the question of what requirements are relevant for the context, given national policies and scheme design.
Conduct a landscape analysis	National governments, nongovernmental organizations, technical agencies, and donors can use these requirements to conduct analysis of currently available health insurance software solutions (including commercial, publicly funded, and open source); the requirements will provide an objective comparison to help with mapping of system capabilities and the completeness of solutions evaluated.
Prepare a request for proposal	For project teams that have identified the need to implement an information system to support national health insurance, the common requirements can provide both a framework that will allow the proper scoping of the project and a checklist that can be used when drafting terms of reference or a request for proposal. First, it will allow the team to define what they want to do (i.e., the functional scope). It will also allow the team to ask essential questions. For example: • What are the requirements that will be relevant for our country context given our national and scheme rules? • What requirements must be developed on the provider and payer sides? • Will the solution integrate with existing hospital information systems, or will it need to have interface design built into it? • Are there any requirements that are essential to address while others would be nice to have but not essential? The list of requirements provides a good head start in this prioritization process.
Evaluate solutions	Sometimes managers will be in a position where they have multiple solution alternatives and need to choose a system that best matches the complex and diverse organizational needs. This is often a tricky process in which different parts of the organization may prefer different solutions. Not every software package will be equally strong across all requirements. The list of requirements may in this case be used to score different systems against a list of weighted and prioritized requirements based on country or team preferences, making the discussion more transparent and structured. The requirements can help answer how closely a software solution fulfills the desired requirements.
Guide software development	Software developers are able to define the functionality of a software using the detailed business processes and requirements. Because requirements do not specifically address *how* a process should be carried out, software developers are able to apply different software solutions to ensure the inputs, outputs, and outcomes match the intended objectives and goals. While software may have to be further customized to meet the specific needs of a country or system, a common requirements document provides a starting point for software design and can help software developers create a product that fulfills needs across scheme designs and structures. Common requirements provide: • A common language for objects and processes in the domain that can be understood by technical and nontechnical stakeholders. • A blueprint for functional architecture when designing modules, interfaces, and manuals. • A comparative checklist for evaluating competing software packages. • A starting point for certification that software meets its intended requirements.
Define global common formats for health insurance transactions, enabling interoperability between health systems	By defining common health insurance business processes, and in particular the inputs and outputs of a given process, common requirements can define the specific data needs for a process. This information can be used by individuals working within other information technology projects (electronic medical records, service registries, payment mechanisms) in order to ensure that the data produced by those systems match the needs of the insurance system and that the data coming out of an insurance system are usable by other health information systems. Common requirements can also inform and be informed by transaction standards (e.g., HL7 FHIR) to encourage software and systems to utilize these standards.

Use	Description
Use the CRDM process to develop project-specific requirements	CRDM is a generic process and can be used to identify, discuss, reach agreement on, and document any business process and its related requirements systematically. Some key processes and requirements were already mapped in this document in a way that should be as generic as possible; but even then, value may be found in the analysis and consensus-building aspect of the exercise itself at a country or project level. Furthermore, not all requirements may be equally important or even relevant in every context, so at a minimum, national or local users of this methodology should validate the content of processes and requirements in a specific context.
Develop operational and training materials	Documented business processes and system requirements can help shape the content of operational and training materials by providing a detailed understanding of each step of a business process and how business processes relate to one another. Materials can be cross-checked against requirements to ensure they align with one another and that all processes are covered by both.
Support business process redesign efforts	When reviewing and redesigning the business processes within a system, the global common set of business processes and requirements can provide examples and guidance on best practices. These best practices can be incorporated in process updates in order to improve operational efficiencies.
Improve data quality	Issues with data quality are common. An analysis of business processes can help determine where data are entering the system (either directly collected or coming from another system), how data are processed and analyzed, and how data are shared with users and other systems. By understanding the flow of data through the system, stakeholders can identify potential areas of data degradation or misalignment. Stakeholders are better able to address these specific issues and address data needs of each business process.

From the viewpoint of various stakeholders, the following examples are uses for the common requirements:

Figure 9 ***Stakeholder view of using common requirements***

Recommendations for next steps

The following recommendations were made by members of the health insurance technology community at the Nepal Learning Exchange workshop:

1. Move existing PDF versions of insurance business processes and requirements developed by the JLN to an online, downloadable format so they can be continually updated and anyone wishing to use them can download and adapt them to their context-specific requirements.
2. Add versioning to the health insurance business process matrix/catalog (at the process and requirement level) so that business processes and requirements can be added and updated over time.
3. Add more context on the linkage between scheme design and which business processes and requirements support which kinds of scheme design. This could be accomplished in two ways:
    a. Create a list of scheme characteristics, for example, entitlement-based enrollment, population-based enrollment, or provider payment methodologies such as fee-for-service, case rates, and capitation. Each process and requirement can be tagged with scheme characteristics to show which types of schemes that process supports.
    b. Create scheme "use cases" or scheme "personas" that describe 3–5 fictional schemes and describe their characteristics (contribution, entitlement, formal/informal, provider payment types, etc.). The business processes and requirements can be tagged to the scheme use cases they support. Additionally, actual country examples could be given to illustrate examples that are similar to the scheme use cases.
4. Update the Determining Common Requirements document to be a guidebook with updated information on why and how to use the business processes and requirements. (Note: This guidebook is based on this recommendation.)
5. Support an online "resource center" that can house this growing catalog of health insurance–related resources. The resource should be sustainably maintained, and all documentation/resources must be easily usable (e.g., downloadable, referenceable, and adaptable).
6. Support a community of practice for those interested in "health insurtech" (i.e., health insurance–related technology).
    a. Support opportunities for networking and engagement that could include access to online resources, virtual engagements such as webinars and calls, facilitated networking to link members to relevant content and other members, social media and communications to highlight country accomplishments, opportunities to attend learning exchanges and workshops or speak at conferences, deeper engagements to participate in joint learning and codevelop new resources, and opportunities to network and learn from peers in other countries.
    b. Support a defined engagement or learning collaborative for country participants to update and build out the insurance processes and requirements based on the recommendations from the Learning Exchange workshop.
    c. Support exploration and learning opportunities around additional information technology for health insurance–related topics of interest expressed by this community, which include:
        - Build out new and updated insurance-related business processes, workflow diagrams, and system requirements.
        - Develop global guidance and examples for health insurance operational and performance indicators.
        - Explore possibilities to create a global repository for claims adjudication business rules.
        - Share countries' experiences, best practices, and tools for how to build a claims data model.
        - Inform, endorse, and promote global standards for claims submission formats.
        - Inform, endorse, and promote global standards for claims payment formats.
        - Develop standards for integrating health insurance claims systems with electronic health record (EHR) systems.

Conclusion

Globally, countries are expanding access to health services to more of their citizens through the development of national health insurance schemes; the success of these efforts is highly dependent upon effective and scalable information systems. At the outset, experts questioned if common functional requirements were possible since to date there has been little reuse of national health insurance systems from country to country. Through the application of the CRDM, it is clear that countries do share many of the same functional requirements. If developed collaboratively, with countries guiding the process and documented properly, requirements can be shared among countries to expedite the development of individual national health insurance information systems. Requirements can also be shared with developers creating global software solutions and standards to meet the needs of insurance providers.

The foundational work developed by the JLN provides a good starting point for a global resource that can be updated and expanded over time as more countries use, adapt, and contribute to the set of business processes and requirements.

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