NHSSP

DFID/Nepal Health Sector Programme III (NHSP 3)

FRAMEWORK FOR IMPROVED MANAGEMENT OF HEALTH INFORMATION IN THE CONTEXT OF FEDERAL GOVERNANCE STRUCTURES IN NEPAL

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Acronyms

CEONC	Comprehensive Emergency Obstetric and Neonatal Care
CRVS	Civil Registration and Vital Statistics
DLI	Disbursement Linked Indicators
DPHO	District Public Health Office
EDCD	Epidemiology and Disease Control Division
EWARS	Early Warning, Alert and Response System
GBD	Global Burden of Diseases
HIIS	Health Infrastructure Information System
HMIS	Health Management Information System
HP	Health Post
HR	Human Resources
HRFMD	Human Resources and Financial Management Division
HRH	Human Resources for Health
HuRIS	Human Resource Information System
IHME	Institute for Health Metrics and Evaluation
FMR	Financial Management Report
LMIS	Logistics Management Information System
M&E	Monitoring and Evaluation
MIS	Management Information System
MoH	Ministry of Health
MPDSR	Maternal and Perinatal Death Surveillance and Response
NHA	National Health Accounts
NDHS	Nepal Demographic and Health Survey
NHSS	National Health Sector Strategy
NHSSP	Nepal Health Sector Support Programme
NHSSRF	National Health Sector Strategy Results Framework
NLLS	Nepal Living Standards Survey
OOPs	Out of Pocket Payments
PHAMED	Public Health Administration Monitoring and Evaluation Division
PHCC	Primary Health Care Centre
PPICD	Policy, Planning and International Cooperation Division
RRT	Rapid Response Team
SDGs	Sustainable Development Goals
TABUCS	Transaction Accounting and Budget Control System
TWG	Technical Working Group
WHO	World Health Organisation

1. BACKGROUND AND RATIONALE

With the promulgation of the new Constitution in September 2015, Nepal has been set on course for a decentralized federal form of governance. The federal governance structures will be activated soon after the election scheduled in June/July 2017. The health sector, together with other sectors, is preparing to restructure its entities and functions in line with the three governance structures defined by the Constitution. In 2017, the Office of the Prime Minister and the Council of Ministers endorsed the functional analysis of the Federal, Provincial and Local Governments. Based on this, the Ministry of Health (MoH) has formed a Technical Working Group (TWG) to develop a broader framework referred to as 'health in federalism' that defines the health governance structures and the specific functions in the federal context.

Both the National Health Policy (2014) and the Nepal Health Sector Strategy (NHSS 2015/16-2020/21), have prioritised reform in the health sector, including in the area of health information management. The MoH, in the changed context of federalism, puts health information management (that makes best use of modern technology), at the top of its restructuring and reform agenda. This report outlines a framework that illustrates the roles, responsibilities and accountability of the federal government for improved information management in line with their new functions. This framework will help the federal government to improve availability and use of evidence in planning, budgeting and monitoring cycles.

Although the restructuring process is progressing rapidly, the roles and responsibilities of the local government in the planning and management of health service delivery, including the management of health information systems and their interface with currently existing district health offices, are not yet clearly defined. This is a dynamic document that will guide the ministry in its initial planning process and will be continuously updated to meet changing requirements in the evolving context.

2. PURPOSE AND OBJECTIVES OF THE WORK

This document provides a framework for improved management of health information systems with specific focus on meeting the health sector data needs, particularly relating to the use and dissemination of data at the different levels of government. This framework will assist the three government structures to sustain the achievements made so far and move towards further improvement in health sector information management. Specifically, the framework will help to:

- Improve health information systems in order to enable systematic monitoring and evaluation of health services at all levels of government;
- Enhance availability of quality data, and the dissemination and use of data for evidence based decision making at all levels; and
- Improve transparency and enable citizen engagement for accountable health service delivery.

3. METHODOLOGY

A taskforce comprising of focal persons from MoH and External Development Partners (EDPs) was established to develop this framework[1]. The taskforce is expected to propose to the MoH a framework for improved management of health information systems in the Federal context in line with the functions of the Local Governments as defined in the Constitution. This taskforce has been working under the guidance of the MoH's TWG for federalism. The group also consulted with a wide range of technical experts and key stakeholders and this consultation process will continue through to the finalization of the framework, which is expected to be completed by end of July 2017 However, the framework will still be a 'living document' to align with the changing context.

In addition, a workshop and a series of consultative meetings were held to elicit inputs and comments from key stakeholders including technical experts. The two day workshop was organised by the MoH with the support of the NHSSP and conducted on the 2nd and 3rd May 2017. Participants included Monitoring and Evaluation (M&E) officers from the MoH, Department of Health Services (DoHS) and EDPs. During the workshop, participants reviewed the functions of the health governance structures proposed by the TWG (Refer to Figure. 1). Based on these function, the team further elaborated the key M&E functions with particular focus on strengthening the health information systems at each level in the federal structure. In the process of defining the M&E functions, workshop participants also considered some of the data gaps. Following the workshop the taskforce has continued to meet regularly to further elaborate on the M&E functions of the federal structures. The framework itself is presented in Section 5.

The taskforce also took into account the issues raised by and the input received from M&E TWG meetings. These meeting focused on the health sector data needs, data availability and data gaps in the context of Sustainable Development Goals (SDGs) for the health sector, the Results Framework of the Nepal Health Sector Strategy (NHSS), and the Disbursement Linked Indicators (DLI).

The output of this exercise, the framework for improved information management in the federal context, has been shared with the MoH through the TWG for their use in developing the broader framework 'Health in Federalism'. The MoH's TWG for Federalism has well accepted this. However, given the TWG is still working on the broader framework, the taskforce will continue working on this and feeding the TWG.

4. HEALTH GOVERNANCE STRUCTURES IN THE FEDERAL CONTEXT

The Constitution of Nepal, 2015, has broadly outlined the functions of different level of governance structures: a Federal Government at the central level; Provincial Governments at the seven Provinces; and Local Governments at the 744 local bodies. In line with this structure, the MoH has initiated the process of defining the health governance structures and their functions at each level. So far, a Federal Ministry of Health is proposed in the Federal Government, a Provincial Ministry of Health is proposed in each of the seven Provincial Governments, and a Health Office is proposed in

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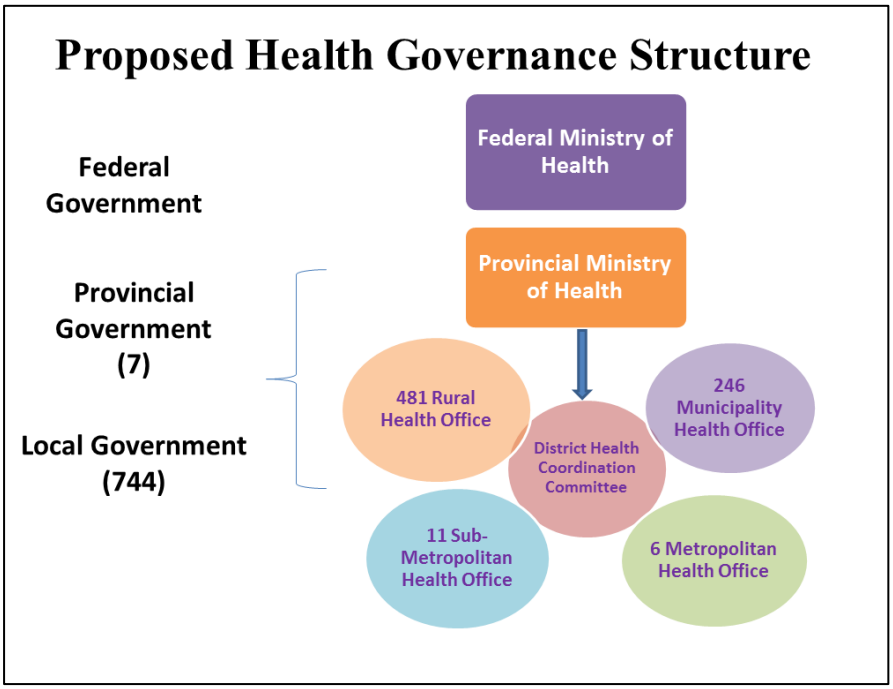
each of the 744 Local Governments. However, this structure is still to be endorsed by the Cabinet. Figure 1 gives an overview of the health governance structures in the federal context.

Box 1: Uncertainties around District (Public) Health Offices:
Given the key roles that the current D(P)HO have been playing in planning and implementation of health programmes at the local level, the TWG has proposed 'District Health Coordination Committee' to coordinate the health governance structures within the district at least until the local governments are capable enough to plan and implement all health programmes. At least at this stage, there is no such provision in the Constitution and the role of this structure is not clearly defined. This proposed structure 'District Health Coordination Committee' need to be endorsed by the Steering Committee and then the Cabinet. Once the structure is endorsed, there will be an Organizational and Management (O&M) survey that will define the functions of this structure. Then the MoH will define the M&E functions of this structure.

In terms of health service delivery, academic and super-specialty hospitals are envisioned under the Federal Ministry of Health, tertiary and secondary hospitals within the Provincial Ministry of Health and primary hospitals, health posts, community health units (CHU) and other facilities within the Local Governments.

Figure 1: Proposed Health Governance Structure



5. FRAMEWORK FOR IMPROVED HEALTH INFORMATION MANAGEMENT IN THE FEDERAL CONTEXT

This section provides a framework for improved management of health information in the context of federalism based on the functions of each level of government as defined in the draft framework 'health in federalism' (Refer to Table 1). This framework illustrates the M&E specific functions of the health governance structures at each level: Federal MoH, Provincial MoH and the Health Office of

the Local Body. The detailed M&E functions at each level of the government are presented in Annex 1.

Table 1 Framework for improved information management in federal context			
Key M&E Functions	**Federal MoH**	**Provincial MoH**	**Health Office of the Local Government**
Development of policy, guidelines, standards, frameworks related to M&E	▪ Develop/update the relevant national policies, frameworks, plans, guidelines, standards ▪ Ensure their compliance at Provincial and Local levels ▪ Feed adequate and quality information/evidence into the development of all other policies related to health	▪ Implementation and regulation of the national policies, laws, standards and plans on basic health and sanitation ▪ Update them or develop new ones as per the need of the Province in alignment with the Federal government; and ensure their compliance at Local level ▪ Feed adequate and quality information/evidence into the development of all other policies related to health	▪ Implementation and regulation of policies, laws, standards and plans on basic health and sanitation ▪ Feed adequate and quality information/evidence into the development of all other policies related to health
Development of laws related to M&E	▪ Develop acts/bills for parliament to put into law; and ensure their compliance at Provincial and Local levels	▪ Follow the Federal Government's Laws and update them or develop new ones as per the need of the Province in alignment with the Federal Government ▪ Ensure their compliance at the Federal and Local level	▪ Implementation and regulation of policies, laws, standards and plans on basic health and sanitation ▪ Ensure their compliance at local level
Management of information systems	▪ Develop national standards and guidelines for management information systems (MISs) like Health Management Information System (HMIS), Logistics Management Information Systems (LMIS), Human Resource Informaiton System (HuRIS) and Health Infrastructure Information System (HIIS ▪ Develop inter-operability framework ▪ Develop unified codes for facilities, services, human resources and others as needed ▪ Ensure generation, sharing, dissemination and reporting of the quality	▪ Develop and operationalize the MISs as per the minimum standards set by the Federal government and as per the local needs ▪ Develop required infrastructure for data sharing - networking and interoperability at provincial level ▪ Ensure generation, sharing, dissemination and reporting of the quality data required at the provincial and federal level – including NHSSRF, SDGs, DLIs ▪ Develop and implement a mechanism to ensure the quality of data at each level ▪ Develop and implement standards for initiating electronic health record	▪ Operationalize the MISs in line with the Federal and Provincial Government standards and guidelines ▪ Update them or develop new ones as per the local needs in alignment with the Federal and Provincial Governments ▪ Develop required infrastructure for data sharing - networking and interoperability at local level ▪ Ensure generation, sharing, dissemination and reporting of the quality data required at the local level and for the provincial and federal level – including NHSSRF, SDGs, DLIs ▪ Develop and implement a mechanism to ensure the quality of data at each level ▪ Develop and implement standards for initiating

Table 1 Framework for improved information management in federal context			
Key M&E Functions	**Federal MoH**	**Provincial MoH**	**Health Office of the Local Government**
	data from all levels ▪ Develop and implement a mechanism to ensure the quality of data at each level ▪ Develop and implement standards for initiating electronic health record (EHR) in line with the e-health strategy	(EHR) in line with the e-health strategy	electronic health record (EHR) in line with the e-health strategy
Surveillance systems	▪ Develop and implement national public health surveillance systems, e.g., CRVS, Integrated disease surveillance, MPDSR, EWARS; and systems for communicable, non-communicable diseases and nutrition ▪ Population projection and estimation	▪ Operationalize the national surveillance systems ▪ Develop and implement additional surveillance systems to meet the Provincial needs in alignment with the Federal Government ▪ Develop and update demographic profiles	▪ Operationalize the national surveillance systems ▪ Develop and implement additional surveillance systems to meet the local needs in alignment with the Federal and Provincial Governments ▪ Develop and update demographic profiles
Programme monitoring and evaluation	▪ ? Evaluation of health programmes at national level ▪ Monitoring of the NHSS RF, SDGs and progress on national and international commitments	▪ Monitoring and evaluation of the preventive, promotive, curative, rehabilitative and palliative health programmes implemented at the provincial level	▪ Monitoring and evaluation of the preventive, promotive, curative, rehabilitative and palliative health programmes implemented at the local level
Research	▪ Prioritize, plan, conduct, monitor, regulate health researches and dissemination	▪ Prioritize, plan, conduct, monitor, regulate health researches and dissemination and use ▪ Establish IRBs	▪ Prioritize, plan, conduct, monitor, regulate health researches and dissemination and use ▪ Establish IRBs
Service delivery	▪ Develop tools to monitor compliance of facilities to the national standards, protocols and guidelines ▪ Monitor equitable distribution, coverage, utilization and effectiveness of health services	▪ Monitor equitable distribution, coverage, utilization and effectiveness of health services following the tools developed by the Federal Government or the updated ones as per the local needs	▪ Monitor equitable distribution, coverage, utilization and effectiveness of health services following the tools developed by the Federal and Provincial Government or the updated ones as per the local needs
Identification and meeting the data needs	▪ Define minimum data needs at different levels ▪ Develop national survey plan and execute it ▪ Ensure establishment and operationalization of routine MISs and surveillance systems at all levels	▪ Define minimum data needs at Provincial and Local levels ▪ Ensure availability of quality data at Provincial and Local levels ▪ Support Federal Government to execute the national surveys; plan and execute local surveys as needed	▪ Define minimum data needs at Local level. ▪ Ensure availability of quality data at local level ▪ Support the Federal and Provincial Governments to execute the national and provincial level surveys; plan and execute local surveys as

Table 1 Framework for improved information management in federal context			
Key M&E Functions	**Federal MoH**	**Provincial MoH**	**Health Office of the Local Government**
		▪ Ensure establishment and operationalization of routine MISs and surveillance systems at Provincial and Local levels	needed ▪ Ensure establishment and operationalization of routine MISs and surveillance systems at local level
Use of evidence in monitoring, decision making and planning	▪ Develop and use frameworks for translating the evidence into action – evidence for policy making, program improvement and improved accountability ▪ Develop and disseminate communication message for general people and specific targeted population groups (leaving no one behind) ▪ Advocacy at all levels	▪ Develop and use frameworks for translating the evidence into action – evidence for policy making, program improvement and improved accountability ▪ Develop and disseminate communication message for general people and specific targeted population groups (leaving no one behind) ▪ Advocacy at all levels	▪ Develop and use frameworks for translating the evidence into action – evidence for policy making, program improvement and improved accountability ▪ Develop and disseminate communication message for general people and specific targeted population groups (leaving no one behind) ▪ Advocacy at all levels
Registry of health institutions, human resource, drugs, equipment, infrastructure and others	▪ Develop and maintain an updated registry of health institutions, human resource, drugs, equipment, infrastructure and others as necessary	▪ Develop and maintain an updated registry of health institutions, human resource, drugs, equipment, infrastructure and others as necessary	▪ Develop and maintain an updated registry of health institutions, human resource, drugs, equipment, infrastructure and others as necessary
Data sharing / dissemination	▪ Develop infrastructure for data sharing - networking and interoperability ▪ Ensure effective mechanism for dissemination of quality data at all levels ▪ Develop a mechanism to promote use of evidence at different level, monitor and support in use of evidence	▪ Develop infrastructure for data sharing - networking and interoperability ▪ Ensure effective mechanism for dissemination of quality data at all levels ▪ Develop a mechanism to promote use of evidence at different levels, monitor and support in use of evidence	▪ Develop infrastructure for data sharing - networking and interoperability ▪ Ensure effective mechanism for dissemination of quality data at all levels ▪ Develop a mechanism to promote use of evidence at different levels, monitor and support in use of evidence
Reporting	▪ Ensure complete, timely and quality reporting of national level indicators with appropriate disaggregation from local and province levels	▪ Ensure complete, timely and quality reporting of provincial level indicators with appropriate disaggregation	▪ Ensure complete, timely and quality reporting of local level indicators with appropriate disaggregation

6. INFORMATION FLOW FRAMEWORK IN THE FEDERAL CONTEXT

All health facilities, both public and private, will have to report to the Local Health Office in the government prescribed format within the specified time. All health facilities and health institutions will have to generate and report the quality data related to the NHSS, SDG, DLI and others as

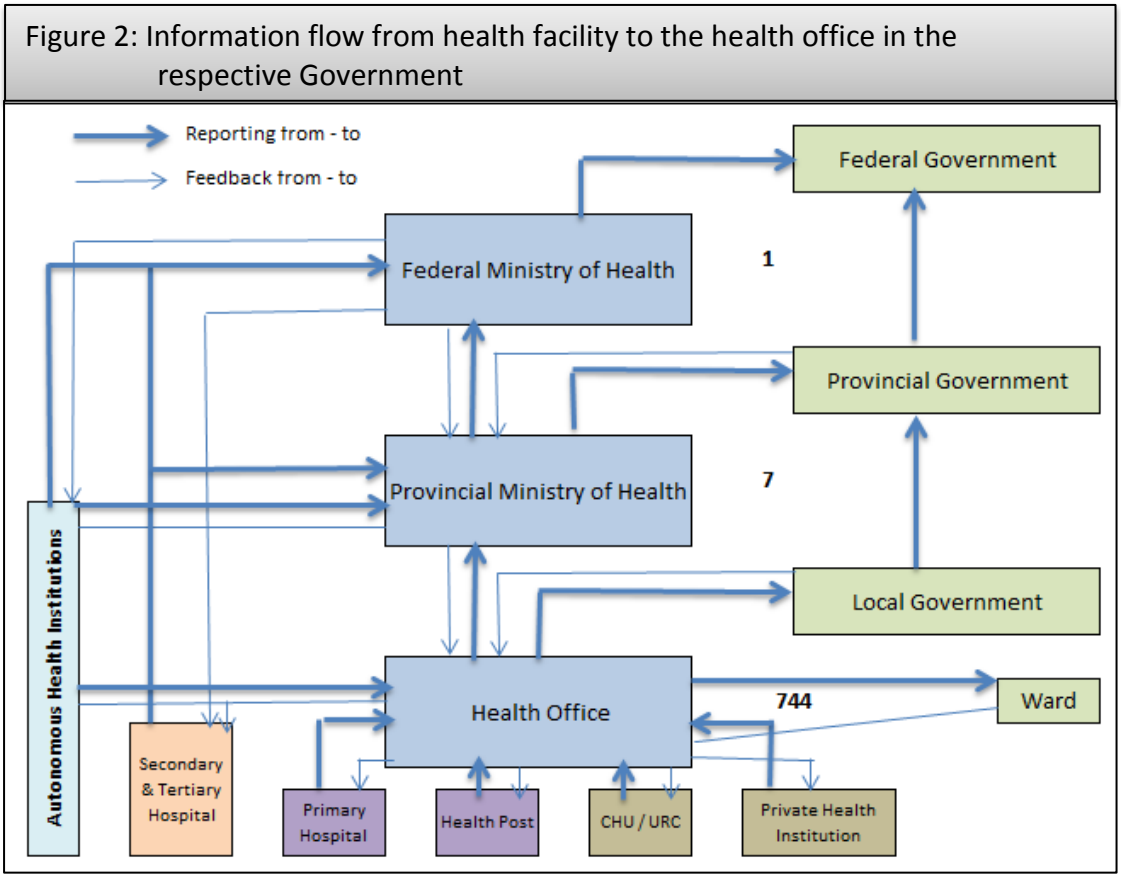
specified by the Federal, Provincial and Local Governments and report to the designated authority in the given format with all desired disaggregation. Each health facility will report their data to the health office of the respective government. The health office in the local government and provincial MoH then collate this and report on the national data. The framework presented in Figure 2 below outlines the reporting and feedback flow from and to the health institutions and the Governments.

Routine reporting lines are as follows:

- Academic and super-specialty hospitals report to the Federal Ministry of Health,
- Tertiary and secondary hospitals report to the Provincial Ministry of Health; and
- Primary hospitals, health posts, urban health clinics, Community Health Units and other facilities report to the health office of Local Governments.

That said, all health facilities within the local body should report the key data to the local government on a regular basis.

Figure 2: Information flow from health facility to the health office in the respective Government



7. HEALTH SECTOR DATA NEEDS AND ACTION POINTS

This section analyses the health sector data gaps based on the data needs to monitor the nine outcomes of the National Health Sector Strategy, 2015/16-2020/21 (Refer to Table 2). While doing so, it also takes into account the data needs to report against the SDGs and the DLIs. This section also provides a framework with specific action points to respond to the data gaps in the federal context. Annex 2 presents the details of the health sector data gaps and the suggested action points for each.

Table 2: Data Gaps and Action Points

NHSS Goal and Outcomes	Key Data Gaps	Action Points
Goal: Improved health status of all people through accountable and equitable health delivery system	▪ Overall, availability, quality and coverage of mortality data is weak ▪ No effective and efficient information systems related to suicide, road traffic accidents and impoverishment due to out of pocket (OOP) expenditure in health.	▪ Strengthen Civil Registration and Vital Statistics (CRVS), Cause of Death Assignment of both community and facility based deaths in collaboration with other stakeholders/line ministries ▪ Population based surveys to be designed to capture health expense data
OC1: Health system: Infrastructure, HRH management, Procurement and Supply chain management	▪ Health infrastructure: system to monitor compliance to the national standards ▪ HRH: An effective and efficient system to monitor production, employment, deployment, availability and projection of health work force ▪ Procurement: Forecasting of drugs and equipment at central level ▪ Supply chain management: Complete and timely production, distribution, supply, storage of drugs and equipment	▪ Establish and operationalize an effective and efficient system at all levels to monitor health buildings' compliance to the national health infrastructure standards and report to higher levels ▪ Develop health workforce registry, update regularly and build interoperability with other MISs ▪ Update LMIS to generate live data on availability/stock-out of drugs and help forecasting ▪ Develop health equipment inventory system to be used by health institutions and report to the higher authority
OC2: Quality of care at point of delivery	▪ Develop and implement a system to monitor quality of healthcare (QoC) at point of delivery and its reporting to higher levels	▪ Define quality of service ▪ Establish and operationalize quality monitoring information system at all levels, particularly at point of service delivery ensuring reporting of key data to higher levels
OC3: Equitable utilization of health care services	▪ Reporting from all public and private facilities to HMIS ▪ Availability of data disaggregated by different population sub-groups – complete reporting to HMIS	▪ Strengthen HMIS to ensure complete coverage of programmes (eg, mental health); and quality data reporting from all public and private facilities ▪ Develop survey plan and harmonize the surveys - population and facility based ▪ Strengthen the sources to generate the data needed to estimate the burden of

Table 2: Data Gaps and Action Points		
NHSS Goal and Outcomes	Key Data Gaps	Action Points
		disease as specified in the global burden of disease estimates
OC4: Decentralized planning and budgeting	▪ Use of evidence in planning ▪ Practice of micro planning and monitoring	▪ Develop systems to generate data and use in planning in the changed context of federalism
OC5: Sector management and governance	▪ Licencing and monitoring of private facilities and institutions ▪ Complete and timely reporting of development partners on expenditure to the Moh	▪ Develop system for licencing and monitoring of private facilities and institutions ▪ Ensure complete reporting from partners and its monitoring mechanism
OC6: Health sector financing	▪ System to monitor budget allocation based on the needs ▪ Data on OOP expenditure on health at sub national level ▪ Definition of ultra-poor and its compliance ▪ Integrated system to monitor insurance coverage and service delivery	▪ Develop and operationalize system to monitor budget allocation based on the needs ▪ Develop survey plan as per the data needs and execute ▪ Develop an integrated system to monitor insurance coverage and service delivery
OC7: Healthy lifestyles and environment	▪ Data availability to estimate mortality rate attributed to unhealthy life style and environmental factors ▪ Data availability on gender based violence, mental health, NCDs and substance use	▪ Develop and operationalize information systems to monitor healthy life style and effect of environmental hazards ▪ Develop survey plan as per the data needs and execute
OC8: Management of public health emergencies	▪ Data availability on disaster preparedness and timely response	▪ Develop and operationalize information systems
OC9: Availability and use of evidence in decision-making processes at all levels	▪ Availability of data to respond to the NHSS RF and SDGs ▪ Use of evidence in decision making and = programme improvement ▪ Data on expenditure on evidence generation and M&E	▪ Develop systems to generate data needed in the health sector ▪ Develop and implement tools to promote use of data in monitoring, decision making and sharing

8. POTENTIAL RISKS AND MITIGATION STRATEGY

This framework will feed into the broader framework 'Health in Federalism', which is being developed by the MoH. In the current context where the MoH is still defining the roles of different governments and its service delivery structures/functions are not yet clearly outlined[2], the output of this exercise might need to be adapted based on changes in the future. This is a living document. This taskforce will work very closely with and will be guided by the Technical Working Group and other higher level committees formed at the MoH. This way the output of this initiative will feed to the broader framework 'Health in Federalism'.

REFERENCE

Office of Prime Minister and Council of Ministers. (2017). *Unbudling of Functions of Federal, Province and Local Governments based on the Articles 5, 6, 7,8 and 9 of the*

[2] *The proposed structures and functions described above are still to be endorsed by the Cabinet*

Constitution of Nepal. (Government of Nepal) Retrieved May 25, 2017, from http://www.opmcm.gov.np/federalism-admin/

Annexes

Annex 1a: M&E Functions of Ministry of Health, Local Government
Annex 1b: M&E Functions of Ministry of Health, Provincial Government
Annex 1c: M&E Functions of Ministry of Health, Federal Government
Annex 2: Health Sector Data Needs and Action Points

Framework for improved management of health information in the federal context in Nepal		
Annex 1a: M&E Functions of Ministry of Health, Local Government		
SN	**Local functions**	**Unfolding of M&E functions**
Constitutional Right: Basic health and sanitation		
9.1	Implementation and regulation of policies, laws, standards and plans on basic health and sanitation	▪ Monitor the implementation of basic health package as defined ▪ Monitor the implementation of quality standard of basic health service package ▪ Evaluate effectiveness of basic health package
9.2	Provide and promote basic health services	▪ Monitor equitable distribution of services - institution, infrastructure, logistics, HR, service ▪ Monitor equitable utilization of services
9.3	Establishment and conduction of hospital and other health facilities	▪ Monitor the facilities' compliance to the set criteria for establishment ▪ Monitor the facilities' compliance to the set criteria for operation ▪ Develop a list of existing facilities, HR, equipment ▪ Maintain an updated roster/registry of health facility
9.4	Development and implementation of health service related physical infrastructure	▪ Monitor the compliance of facilities to the set standards for infrastructure development and management ▪ Monitor the compliance of facilities to the operation guideline
9.5	Quality control of drinking water and food products, and control of air and noise pollution	▪ Monitor the compliance of drinking water to the set quality standards ▪ Monitor the compliance of food to the set quality standards ▪ Monitor the compliance of air and sound pollution levels to the set quality standards
9.6	Increase awareness on hygiene and sanitation and management of health care waste management	▪ Monitor the compliance of health care waste management to the set quality standards ▪ Monitor the compliance of general waste management to the set quality standards ▪ Monitor the KAP of general population on sanitation and hygiene
9.7	Health care waste collection, reuse, processing of waste, and determine fee for services and their regulation	*Covered above*
9.8	Blood bank service, local and urban health service	Monitor the access to blood bank and transfusion services
9.9	Conduction and regulation of pharmacy	▪ Monitor the compliance of pharmacy to the set quality standards ▪ Maintain an updated roster/registry of pharmacy ▪ Monitoring of Inter-sectoral coordination/monitoring body and mechanism
Constitutional Right: Health		
3.1	Determine local level targets and standards aligning them with national and province level	Monitoring of localization of national and provincial goals and targets, and quality
3.2	Registration, licensing and regulation of general hospitals, nursing homes, diagnostic centres and other health facilities and clinics as per the national and province level standards	Monitoring of registration, approval and operation of different types and levels of facilities to ensure compliance with province and federal standards

Framework for improved management of health information in the federal context in Nepal		
Annex 1a: M&E Functions of Ministry of Health, Local Government		
SN	**Local functions**	**Unfolding of M&E functions**
3.3	Production and marketing of the medical plants and products at local level	Monitoring of production, processing and distribution of herbal medicines and medical supplies to ensure compliance with the set standards
3.4	Management of social security schemes including health insurance	Monitor the equitable coverage of social health security program
3.5	Determine price levels and their regulation for medicines and other medical products at local level	Monitor the compliance to the set standards - MRP quoted or not,
3.6	Promote rational use of drug at local level and reduce antimicrobial resistance	Monitor the compliance to the rational use of drugs (prescribers, pharmacy, users)
3.7	Procure, store and distribution of medicine and health equipment	Monitor the compliance to the standards set for the procurement, storage and distribution of medicines and medical equipment (supply chain management)
3.8	Management of health information system at local level	▪ Identify the data needs at local level ▪ Develop required infrastructure for data sharing - networking and interoperability at all levels - local, provincial and federal ▪ Develop and operationalize the MISs as per the minimum standards set by the Federal and Provincial government leveraging the ICT tools ▪ Monitor the compliance of health information regulation ▪ Ensure generation, sharing, dissemination and reporting of the data required at the local level and for the provincial and federal level - NHSSRF, SDGs, DLI ▪ Promote use of data for evidence based decision making ▪ Localize the data standards (quality, sharing) ▪ Capacity development - HR, institution
3.9	Public health surveillance at the local level	▪ Develop and implement surveillance systems as per local needs: Integrated disease surveillance, communicable, non-communicable, nutrition, death - MPDSR ▪ Develop and implement surveillance systems as per local needs: Integrated disease surveillance, communicable, non-communicable, nutrition, death - MPDSR
3.10	Provide preventive, promotive, curative, rehabilitative and palliative health service at the local level	Monitor equitable distribution, coverage and utilization
3.11	Promote healthy life styles including those for nutrition, physical exercise, yoga, panchakarma	Monitor equitable distribution, coverage and utilization; monitoring healthy life style
3.12	Management and control of zoonotic and vector borne diseases	Monitor the compliance to zoonotic and vector borne disease prevention and control guideline
3.13	Control of tobacco, alcohol and addictive products and awareness raising	Monitor the localized federal and provincial regulations on tobacco, alcohol and narcotic drug use
3.14	Management of traditional health services including Ayurveda, Unani, Amchi, Homeopathy and natural therapy	Monitor equitable distribution, coverage and utilization
3.15	Planning and implementation of public health emergency, disease control	Develop and implement the surveillance and response (EWARS, RRT)
3.16	Control and prevention of communicable and non-communicable diseases	Situation, surveillance and response
3.17	Provide emergency health services	▪ Monitor equitable access, coverage and utilization of the emergency services ▪ Develop and implement monitoring and evaluation plan

Framework for improved management of health information in the context of federal governance structures in Nepal		
Annex 1b: M&E Functions of Ministry of Health, Provincial Government		
SN	**Provincial functions**	**Unfolding of M&E functions**
Constitutional Right: Health Service		
9.1	Province level health and nutrition policy, law, quality measurement, planning, implementation and regulation	Monitor the implementation policies, laws, quality standards of health and nutrition related activities
9.2	Management of promotive, preventive, curative, rehabilitative and palliative health services at province level	Monitor equitable distribution, coverage and utilization
9.3	Licensing and regulation of academies, occupational and professional associations and institutions for their registration and conduction	Monitor compliance to the set standards
9.4	Registration, licensing, management and regulation of province level treatment centre and services; and their quality assurance	Monitor compliance to the set standards
9.5	Development of standards, registration, licensing and regulation of production of medicine and medical equipment production, their storage, determining maximum retail value, quality standard for disposal	Monitor compliance to the set standards
9.6	Interprovincial and inter-sectoral partnership and coordination	Generate and feed the evidence for effective partnership and coordination
Constitutional Right: Health		
3.1	Registration, licensing and regulation of general hospital and nursing homes, diagnostic centres and other health facilities as per national standards	▪ Monitor the facilities' compliance to the set criteria for establishment ▪ Monitor the facilities' compliance to the set criteria for operation ▪ Develop a list of existing facilities, HR, equipment ▪ Maintain an updated roster/registry of health facility
3.2	Development of quality frameworks and standards for drinking water, food, noise and air quality monitoring and evaluation and their implementation	▪ Monitor the compliance of drinking water to the set quality standards ▪ Monitor the compliance of food to the set quality standards ▪ Monitor the compliance of air and sound pollution levels to the set quality standards
3.3	Implementation, monitoring and evaluation of province level programs	Develop and implement M&E plan for province related activities/programs (including reviews, surveys, etc.)
3.4	Management and regulation of social health security programs including health insurance as per national standards	Develop a system to monitor equitable coverage of social health security program
3.5	Development and management of health human resources at province level	▪ Develop M&E capacities ▪ Monitor the compliance with HR master plan
3.6	Pharmacovigilance, promote rational use of medicine and reduce antimicrobial resistance	Monitor the compliance to the rational use of drugs (prescribers, pharmacy, users)
3.7	Procurement and supply management for quality sensitive medicine and medical products such as family planning and immunization	Monitor the compliance to standards for the procurement of immunization and family planning commodities (supply chain mgmt.)
3.8	Determine province level health research priorities and conduct researches and share information	Identify research priorities and develop and implement a research plan accordingly
3.9	Management of health information system and health accounts at province level	▪ Identify the data needs at provincial level ▪ Develop required infrastructure for data sharing - networking and interoperability at all levels - local, provincial and federal ▪ Develop and operationalize the MISs as per the minimum standards set by the Federal and Provincial government leveraging the ICT tools ▪ Monitor the compliance of health information regulation ▪ Ensure generation, sharing, dissemination and reporting of the data required at the local level and for the provincial and federal level - NHSSRF, SDGs, DLI

Framework for improved management of health information in the context of federal governance structures in Nepal		
Annex 1b: M&E Functions of Ministry of Health, Provincial Government		
SN	**Provincial functions**	**Unfolding of M&E functions**
		▪ Promote use of data for evidence based decision making ▪ Localize the data standards (quality, sharing) ▪ Capacity development - HR, institution
3.10	Public health surveillance management at province level	Develop and implement surveillance systems as per provincial needs: Integrated disease surveillance, communicable, non-communicable, nutrition, death - MPDSR
3.11	Develop standard and management of Ayurveda and other health services at province level	Monitoring the compliance to set standards
3.12	Develop control and regulation standards for tobacco, alcohol and drug control	Monitoring the compliance to set standards
3.13	Registration, licensing and expansion of diagnostic centres and laboratory services	Monitoring the compliance to set standards
3.14	Management of public health emergencies, disaster and epidemic outbreak management	Develop and implement the surveillance and response (EWARS, RRT)
3.15	Prevention and control of communicable and non-communicable diseases	Situation analysis, surveillance and response
3.16	Development and management of physical infrastructure as per the national standard	▪ Monitor the compliance of facilities to the set standards for infrastructure development and management ▪ Monitor the compliance of facilities to the operation guideline
3.17	Formulation and regulation of health care waste management	▪ Monitor the compliance of health care waste management to the set quality standards ▪ Monitor the compliance of general waste management to the set quality standards ▪ Monitor the KAP of general population on sanitation and hygiene
3.18	Management of province level buffer stock of the medicines and supplies for emergency	Monitor equitable distribution, coverage and utilization
3.19	Management of traditional health care services including Ayurveda, Unani, Amchi, Homeopathic and Natural therapy	Monitor equitable distribution, coverage and utilization
3.20	Provide emergency health services	▪ Monitor equitable access, coverage and utilization of the emergency services ▪ Develop and implement monitoring and evaluation plan
10.1	**Constitutional Right: Planning**	
10.1.1	Formulation, implementation, monitoring and evaluation of province level projects/ programmes	Develop M&E framework and implement
10.1.2	Evaluation of the outcome of projects/ programmes	Develop project/programme M&E plan and execute
10.2	**Constitutional Right: Family planning and population management**	
10.2.1	Implementation and regulation of population and family planning policies, laws and plans at province level	Support policy planning with evidence
10.2.2	Province level population study, research and projection	Develop survey plan to meet the data needs and execute
10.2.3	Analysis of province level migration	Develop a system to track migration
10.2.4	Maintain population density index and profile at province level	Define population density index, prepare population profile and update regularly
10.2.5	Capacity building on population issues at province level	
10.2.6	Maintain contact and coordination among national and province level health institutions	Establish system to report vertical and horizontal reporting to national and province level health institutions
10.2.7	Establishment and conduction of province level population information system	Develop province level population information system and regularize
Constitutional Right: Legal business, audit, engineering, medical, Ayurveda medicine, animal health, Amchi and other professions		

Framework for improved management of health information in the context of federal governance structures in Nepal		
Annex 1b: M&E Functions of Ministry of Health, Provincial Government		
SN	**Provincial functions**	**Unfolding of M&E functions**
12.1	Professional licensing based on the standard and classification formation by provincial level	Develop and implement on-line system of licensing based on the standards

Framework for improved management of health information in the context of federal governance structures in Nepal		
Annex 1c: M&E Functions of Ministry of Health, Federal Government		
SN	**Federal functions**	**Unfolding of M&E functions**
Constitutional Right: Health policy, health services, health measurement, quality and monitoring, national and specialist service providing hospital, traditional treatment service, infectious disease control		
16.1	National health and nutrition policy, law, quality measurement, planning and regulation	Generate and feed the evidence for formulating health and nutrition policy, law, quality measurement, planning and regulation
16.2	Development and expansion of promotive, preventive, curative, rehabilitative and palliative health services at national level	▪ Generate and feed the evidence in programme development and expansion process ▪ Develop a mechanism to monitor the effectiveness and feed the findings to the decision making process
16.3	Develop and regularize standards for health related academic, professional and occupational associations	Develop a system to monitor compliance to the set standards
16.4	Establishment, implementation and regulation of health institutions	Develop a system to monitor compliance to the set standards
16.5	Accreditations of hospitals and health institutions	Develop a system to monitor compliance to the set standards
16.6	Registration, license to run facility, physical infrastructure, management and regulation of national and specialist service providing hospitals	Develop a system to monitor compliance to the set standards
16.7	Formulation of standards and regulation of medicine, production of health material and technology and health equipment, storage, sales- distribution and disposal	Develop a system to monitor compliance to the set standards
16.8	International Health Regulation, health related agreement, communication, coordination and partnership with development partners	Develop a system to monitor compliance to the set standards
16.9	Formulation of policy, standards, classification and regulation related to Ayurveda, Unani, homoeopathic, naturopathy and other traditional treatments	Develop a system to monitor compliance to the set standards
16.10	Formulation of policy, standards and regulation to prevent and control of communicable and non-communicable diseases	Develop a system to monitor compliance to the set standards
Constitutional Right: Health		
3.1	Formulation of policy, legislation, standards and regulation related to health tourism	▪ Generate and feed the evidence for formulating policy, legislation related to health tourism ▪ Develop a system to monitor compliance to the set standards
3.2	Formulation of policy, legislation, standards and regulation related to social security such as health insurance	▪ Generate and feed the evidence for formulating policy, legislation, standards and regulation related to social security such as health insurance ▪ Develop a system to monitor compliance to the set standards
3.3	Development and management of human resources for health	Develop health work force registry and projection system
3.4	Development of national standards and regulation of cost assessment and price setting for health services and health related materials	Generate and feed the evidence for developing national standards and regulation of cost assessment and price setting for health services and health related materials Develop a system to monitor compliance to the set standards
3.5	Pharmacovigilance and regulation	Develop a system to monitor compliance to the regulation
3.6	Development of standards and regulation related to medicine procurement and logistics	▪ Generate and feed the evidence in planning process ▪ Develop a system to monitor compliance to the set

Framework for improved management of health information in the context of federal governance structures in Nepal		
Annex 1c: M&E Functions of Ministry of Health, Federal Government		
SN	**Federal functions**	**Unfolding of M&E functions**
	management	standards
3.7	Health studies, research and regulations	Generate and feed the evidence in planning process
3.8	Research of herbal medicine	Generate and feed the evidence in planning process
3.9	Health information system management and health accounting system	▪ Develop inter-operability framework ▪ Develop unified codes for facilities, services, HR ▪ Develop national standards, guidelines, specifications for MISs ▪ Define basic data needs at different levels (NHSSRF, SDGs, DLIs, etc.) and ensure effective mechanism for generation, use and dissemination at all levels ▪ Develop national survey plan and execute
3.10	Surveillance of Public health issues of national and international concerns	Develop surveillance systems and operationalize linking them with the response mechanism
3.11	Develop standards for basic health services	▪ Generate and feed the evidence to develop the standards ▪ Develop a system to monitor compliance to the set standards
3.12	Development of health service protocols required at different levels	▪ Generate and feed the evidence to develop the health service protocols required at different levels ▪ Develop a system to monitor compliance to the set protocols
3.13	Establishment and conduction of National references laboratory and diagnostic centre	Develop a system to monitor compliance to the set standards
3.14	Development of national referral system	Develop a system to monitor compliance to the set guideline
3.15	Development of quality standardized for Drinking water, food, air quality monitoring and evaluation frameworks	Develop and execute the M&E framework for Drinking water, food, air quality in collaboration with other stakeholders
3.16	Development, implementation, coordination and regulation of climate change adaptation framework for health sector	Develop and execute the M&E framework
3.17	Management of public health emergencies, disaster in health sector and outbreaks	Develop surveillance guidelines, plan and ensure compliance at provincial and local level
3.18	Maintain buffer stock of medicine and medical supplies for health emergencies	Develop a system to monitor compliance to the set standards
3.19	Determine scope of basic health services	Generate and feed the evidence in defining the scope of basic health services
3.20	Provide emergency health services	
Constitutional Right: Planning, family planning and population management (Included in article 5 (5))		
10.1	Planning, family planning and population management	
10.2	National level Policy, law, standard, planning and regulations for Population, migration and family planning	Generate and feed the evidence for formulating policy, law, standard, planning and regulations for Population, migration and family planning
10.3	Population related studies, researches and projections at national level	Develop and execute the survey plan to meet the data needs
10.4	Migration survey and situation analysis	Develop and execute the survey plan to meet the data needs
10.5	Communication and coordination with national and international agencies	Develop a national database of national and international agencies and ensure its regular update mechanism
10.6	Management of human resources related with population	Develop and implement human resource management information system and ensure its compliance at all levels
10.7	Establishment and maintenance of population based information system at national level	Establish and ensure compliance to the population based information system at province and local level
Constitutional Right: Legal business, audit, engineering, medical, Ayurveda medicine, animal health, Amchi and other professions		
12.1	Legal business, audit, engineering, medical, Ayurveda medicine, animal health, Amchi and other professions	
12.2	Formation of policy, standards, classifications related to Legal profession, financial audit,	Generate and feed the evidence for formation of policy, standards, classifications related to Legal profession, financial

Framework for improved management of health information in the context of federal governance structures in Nepal		
Annex 1c: M&E Functions of Ministry of Health, Federal Government		
SN	**Federal functions**	**Unfolding of M&E functions**
	engineering, medicine, Ayurveda, animal health, Amchi and other professions, and their regulations	audit, engineering, medicine, Ayurveda, animal health, Amchi and other professions, and their regulations
12.3	Professional licensing as per standard and classification	Develop a system to monitor compliance to the set standards

Annex 2: Health Sector Data Needs and Action Points

SN	Indicator	NHSS RF	SDG	DLI	Source	Data Gap	Action point
NHSS Goal: Improved health status of all people through accountable and equitable health delivery system							
1	Maternal mortality ratio (per 100,000 live births)	G1	3.3.1		NDHS	No nationally representative data collected on regular basis – NDHS estimates every 10 years National estimates relies on global estimates	Strengthen maternal and perinatal mortality surveillance and response system
2	Under five mortality rate (per 1,000 live births)	G2	3.2.1		NDHS	XX	
3	Neonatal mortality rate (per 1,000 live births)	G3	3.2.2		NDHS	XX	
4	Total fertility rate (births per women aged 15–49 years)	G4	3.7.1d		NDHS	XX	
5	% of children under-5 years who are stunted	G5	2.2.1		NDHS	XX	
6	% of women aged 15-49 years with body mass index (BMI) less than 18.5	G6			NDHS	XX	
7	Life lost due to road traffic accidents (RTA) per 100,000 population	G7	3.6.1		Nepal police database	Nepal Police and Road Department collect data. Not reported to MoH	Collaborate with Road Department and Nepal Police to establish and operate routine MIS and build linkage with MoH
8	Suicide rate per 100,000 population	G8	3.4.2		Nepal police database	Nepal Police collects data. Not reported to MoH	Collaborate with Nepal Police to establish and operate routine MIS and build linkage with MoH
9	Disability adjusted life years (DALY) lost: Communicable, maternal, neonatal & nutritional disorders; non-communicable diseases; and injuries	G9			IHME estimates	Lack of mortality data on communicable, maternal, neonatal and nutritional disorder; non communicable diseases; and injuries in a consistent reference period. Global estimates are used.	Strengthen sources of information to generate the mortality data on communicable, maternal, neonatal and nutritional disorder; non communicable diseases; and injuries
10	Incidence of impoverishment due to OOP expenditure in health	G10	3.8.2a		NLSS	No data to estimate out-of-pocket expenditure for health.	Develop survey plan to meet the data needs and execute
OC1: Health system: Infrastructure, HRH management, Procurement and Supply chain management							
11	% of health facilities meeting MoH infrastructure standard by type of health facility – HP, PHCC, hospitals	OC1.1			HIIS	No systematic system to monitor the compliance to the MoH standards	Update HIIS to generate this data routinely
12	Number of hospitals retrofitted for earthquake safety			DLI12	HIIS		
13	% of health institution buildings completed as planned for the year – by type of facilities – Hospitals, PHCCs, HPs, Ayurvedic health facilities, other health institutions	OP1a1.1			HIIS		
14	% of damaged health facilities rebuilt	OP1a2.1			HIIS		
15	% of health buildings maintained annually as per the maintenance plan – by type of facilities – Hospitals, PHCCs, HPs, Ayurvedic health facilities, other health institutions	OP1a3.1			HIIS	No systematic system to monitor health infrastructure maintenance status and the plan Operational definition of maintenance	Define 'maintenance' and update HIIS to generate this data routinely
16	Health worker population ratio	OC1.2			HRH database	No scientific system of monitoring production, employment, deployment of health work force	Develop a scientific system of monitoring production, employment, deployment of health work force and build interoperability with other MISs.
17	Skilled health professional density (per 10 000 population) (doctor, nurse and paramedics ration per 1000 population)		3c.1 (3c.1a, 3c.1b,		HRH database		

SN	Indicator	NHSS RF	SDG	DLI	Source	Data Gap	Action point
			3c.1c)				
18	% of sanctioned posts filled – MDGP, medical officer, nursing, paramedics – by type of facilities – district hospital, PHCC, HP	OP1b1.1			HRH database		
19	% of health workers working at their own deputed (Durbandi) institution	OP1b1.2			HuRIS		
20	% of health facilities with no stock out of tracer drugs	OC1.4	3b.3		LMIS	XX	
21	% reduction of stock-outs of tracer drugs			DLI5	LMIS	XX	
22	% of district stores reporting based on the LMIS			DLI4	LMIS	XX	
23	% of health facilities receiving tracer commodities within less than two weeks of placing the order	OP1c2.1			LMIS	LMIS has the information of all tracer commodities by health facilities but system is not updated to generate the information including reference period when the order was placed.	Update LMIS to include this
24	% of health facilities complying good storage practices for medicines	OP1c2.2			LMIS	XX	
25	% of health academic institutions meeting minimum standards of respective councils	OP1b2.1			Councils	No system within the Councils and health academic institutions to monitor this	Councils to develop MISs and link with the MoH/national data base
26	Success rate of council examinations in their first attempt (Medical and nursing)	OP1b2.2			Councils		
27	% of procurement contracts awarded against Consolidated Annual Procurement Plan	OP1c1.1			LMD report	XX	
28	% of procurements completed within the planned timeline as per consolidated procurement plan	OC1.3			LMD report	XX	
29	% of contracts managed by LMD through PPMO's online e-procurement portal			DLI1	LMD report	E-procurement portal is not effectively implemented	Support to implement e-procurement portal effectively
30	% of procurements using standard specifications			DLI2	LMD report		
OC2: Quality of care at point of delivery							
31	% of health facilities meeting minimum standards of quality of care at point of delivery	OC2.1			NHFS	XX	
32	% of clients provided with quality services as per national standards (composite indicator for tracer services)	OC2.2			NHFS	XX	
33	Inpatient mortality rate (by level of hospitals: specialized, regional, district)	OC2.3			HMIS	HMIS coverage is low and quality of data is compromised	Strengthen HMIS to generate complete (coverage) and quality data
34	% of tracer drugs meeting quality standard at different levels (at hospital, PHCC, HP and district store)	OC2.4			DDA	No routine monitoring system	DDA to establish monitoring system and link with MoH/ national data base
35	% of infection rate among surgical cases	OC2.5			HMIS	HMIS coverage is low and quality of data is compromised	Strengthen HMIS to generate complete (coverage) and quality data
36	% of health workers complying service delivery standard protocols/guidelines for tracer services (sick child treatment, ANC check-up, FP)	OP2.1.1			NHFS	No routine system to monitor the compliance	Develop and operationalize routine system
37	% of pharmaceutical companies with good laboratory practices	OP2.1.2			DDA	No routine monitoring system to get the	Work with DDA to establish monitoring

SN	Indicator	NHSS RF	SDG	DLI	Source	Data Gap	Action point
	(GLP) and good manufacturing practices (GMP)					information regularly for measurement	system
38	% of health facilities with capacity to provide selected laboratory services as per standard	OP2.1.3			NHFS	XX	
39	% of hospital based maternal deaths reviewed	OP2.2.1			FHD/MPDSR	Mortality data in HMIS and the review data in MPDSR are incomplete. The coverage of private facilities is weak.	Expand and strengthen MPDSR with focus on response
40	% of registered laboratories accredited	OP2.2.2			NPHL	No MIS system for registration and update.	NPHL to establish MIS
41	% of health facilities segregating health care waste at the time of collection	OP2.3.1			NHFS	XX	
42	% of health facilities safely disposing health care waste	OP2.3.2			NHFS	XX	
OC3: Equitable utilization of health care services							
43	% of clients who received basic health services free of cost (tracer services)	OC3.1			NHFS	XX	
44	% of children fully immunized	OC3.2	3b.1		NDHS	XX	
45	% of children aged 12-23 months who received DPT3 vaccines		3.8.1d		NDHS	XX	
46	% improvement in effective vaccine management (EVM) score over 2014			DLI6	DDA	No recording and reporting to monitor all components of EVM as defined by WHO.	Develop and operationalize the system
47	% of institutional delivery	OC3.3	3.8.1b		NDHS	XX	
48	Proportion of births attended by skilled health personnel (%)		3.1.2		NDHS	XX	
49	Antenatal Care (ANC) coverage (at least four visits) (%)		3.8.1a		NDHS	NDHS gives the information for at least four visits but does not give the data for 4 ANC visit as per (MoH) protocol. National surveys don't disseminate the information.	Further analysis will be made of MICS/NDHS data to generate this
50	% of women attending three PNC as per protocol		3.8.1c		NDHS/HMIS	XX	
51	% of demand satisfied for family planning	OC3.4	3.7.1a		NDHS	XX	
52	Unmet need for family planning (%)		3.7.1b		NDHS	XX	
53	Contraceptive prevalence rate (modern methods) (%)		3.7.1c		NDHS	XX	
54	Adolescent birth rate (per 1000 women aged 15–19 years)		3.7.2		NDHS	XX	
55	Number of new outpatient visits per 1,000 population	OC3.5			HMIS	XX	
56	% of eligible clients currently receiving anti-retroviral therapy (adults and children)	OC3.6			HMIS/NCASC	XX	
57	HIV prevalence for the overall population aged 15-49 years (%)		3.3.1b		HMIS	XX	
58	Number of new HIV infections per 1,000 population		3.3.1a		HMIS	XX	
59	Proportion of people living with HIV receiving Antiretroviral combination therapy (%)		3.8.1h		HMIS	XX	
60	% of health facilities providing all basic health services by level	OP3.1.1			NHFS	XX	
61	% of households within 30 minutes travel time to health facility	OP3.1.2	3.8.1k		NLSS	XX	
62	% of districts with at least one CEONC site	OP3.1.3			HMIS	XX	
63	Number of community health units	OP3.2.1			PHCRD/DoHS	XX	
64	% of referral hospitals providing fast track services for referred	OP3.2.2			HMIS/DoH	No system developed to monitor referral cases	Establish a system to monitor this

SN	Indicator	NHSS RF	SDG	DLI	Source	Data Gap	Action point
	clients				S		
65	% of public health facilities providing both modern and Ayurveda services by level of facilities	OP3.2.3			DoHS	No system developed to monitor the integrated services	Establish a system to monitor this
66	% of public hospitals with own pharmacy service by level of facilities	OP3.2.4			NHFS/DDA	No proper system of reporting. Administrative reports are in use	DDA to establish system and link with MoH/ national data base
67	Utilisation rate of selected health care services by income, gender, geography, and ethnicity			DLI13	HMIS/NDHS/NMICS	xx	
68	Improved equity access to immunization services in targeted districts			DLI14	HMIS/NDHS/NMICS		
69	Number of laboratory confirmed cases of Influenza (H1N1)		3.3.7		HMIS	Coverage and quality of HMIS data	Upgrade HMIS to improve coverage and quality
70	Hepatitis B incidence per 100,000 population		3.3.4		HMIS	XX	
71	TB incidence (per 100 000 population)		3.3.2		HMIS/NTC	XX	
72	Tuberculosis treatment success rate		3.8.1g		HMIS/NTC	XX	
73	Malaria incidence (per 1000 population		3.3.3		HMIS	XX	
74	Prevalence rate (per 10,000 of population) of leprosy		3.3.5a		HMIS	XX	
75	Total number of Kala-azar (Leishmaniasis) cases		3.3.5b		HMIS	XX	
76	Average prevalence of Lymphatic Filariasis (%)		3.3.5c		HMIS	XX	
77	Number of cases of Dengue		3.3.5d		HMIS	XX	
78	Number of active Trachoma cases		3.3.5e		HMIS	XX	
79	Average prevalence of Soil Transmitted Helminthes among children aged 5 to 14 years (%)		3.3.5f		Survey	No national level data on regular basis	Develop a survey plan to generate this and execute
OC4: Decentralised planning and budgeting							
80	% of MoHP's district budget disbursed as block grant	OC4.1			MoH	xx	
81	Number of districts (DHO & DPHO) submitting DDC approved annual plan to DoHS on specified time by development region	OP4.1.1			DoHS		
82	% of grant receiving hospitals submitting the progress report to MoHP (above district hospitals)	OP4.1.2			PPICD		
83	% of flexible budget provided to districts (DPHO/DHO) in total district programme budget	OP4.1.3			PPICD		
84	Proportion of district development fund (DDF) allocated for health	OC4.2			MoFALD		
85	% of MoH spending entities submitting annual plan and budget using eAWPB			DLI7	MoH	No systematic system for submitting annual plan and budget	Develop and operationalize the system
OC5: Sector management and governance							
86	Budget absorption rate (% expenditure of budget)	OC5.1			FMR	All spending units do not report regularly	Enforce reporting from all spending units
87	% of activities of the restructuring plan executed	OP5.1.1			PPICD		
88	% of health posts with laboratory services	OP5.1.2			HIIS	Do not generate the information regularly	Update HIIS to generate this data routinely – annually
89	% of private hospitals complying MoH guidelines	OP5.2.1			PHAMED	No monitoring system established	Establish a system to generate this data regularly
90	% of private hospitals accredited	OP5.2.2			PHAMED		
91	% of multiyear committed aid disbursed by development	OP5.3.1			PPICD	Do not have a systematic reporting system;	Establish a system to generate this data

SN	Indicator	NHSS RF	SDG	DLI	Source	Data Gap	Action point
	partners					using administrative report for data	systematically
92	% of health official development assistance (ODA) reflected in national budget	OP5.3.2			PPICD		
93	% of districts with functional District Health Coordination Committee	OP5.4.1			DoHS	Do not have system to generate this data	Support DoHS to establish a system to generate this data regularly
94	% of external development partners reporting their health expenditure to MoHP/AMP	OP5.4.2			PPICD	MoH have not systematic upgrading system for this information	Support to establish the systems
95	% of irregularities (Beruju) cleared	OC5.2			FMR	No proper system in the MoH	Establish and operationalize systems
96	% of irregularities (Beruju) in MoHP expenditures	OP5.5.1			FMR		
97	% of MoHP expenditure captured by TABUCS	OP5.5.2		DLI 8	TABUCS/LMIS		
98	% of audited spending units responding to the OAG's primary audit queries within 35 days			DLI9	FMR		
99	Production and submission of annual report on grievances received and addressed			DLI2	FMR		
100	Operationalization of the citizen feedback mechanisms and systems for public reporting			DLI11	DoHS	No system to generate this information	Establish and operationalize the system
OC6: Health sector financing							
101	Government health expenditure as percentage of GDP	OC6.1	3c.2		Redbook/ Budget analysis	XX	
102	Incidence of catastrophic health expenditure	OC6.2	3.8.2b		NLSS	Do not have analysis to generate the indicator	Further analysis of NLSS
103	% of health budget in total government budget	OP6.1.1			Redbook	XX	
104	% of health budget in total budget of Local Government	OP6.1.2			HRFMD	No data; need to establish a system to generate this information	Support HRFMD in generating this data annually
105	% of districts receiving budget based on identified needs and output criteria	OP6.1.3			HRFMD		
106	% of OOP expenditure in total health expenditure	OP6.2.1	3.8.2c		NHA	To measure this indicator requires household out-of-pocket expenditure for health and total household income for specific reference periods. A population based survey including measuring questions for standard measurement is required.	Analyze NLSS 2011 data for baseline; and ensure appropriate source for 2020
107	% of population covered by social health protection schemes (free delivery, basic health service, insurance enrolment)	OP6.2.2			MoH	Fragmented information systems.	Develop and integrated system for monitoring of social health protection schemes.
108	% of ultra -poor people enrolled in health insurance		3.8.1l		MoH	Health insurance program is just introducing phase. Not available the sufficient to generate this	Support for national coverage surveys to generate the information
OC7: Healthy lifestyles and environment							
109	Mortality rate attributed to ambient air pollution		3.9.1a		GBD study	No basic information to estimate these indicators	Strengthen sources of information to generate the data in consultation with MoH
110	Mortality rate attributed to household air pollution		3.9.1b		GBD study		

SN	Indicator	NHSS RF	SDG	DLI	Source	Data Gap	Action point
111	Mortality rate attributed to exposure to unsafe WASH services (per 100 000 population)		3.9.2		GBD study		
112	Mortality rate attributed to unintentional poisoning (per 100 000 population)		3.9.3		GBD study		
113	Mortality rate between ages 30 and 70 from Cirrhosis (per 1000)		3.4.3		GBD study		
114	Prevalence of diarrheal diseases among children under five years (%)	OC7.1	3.3.6		NDHS	XX	
115	Prevalence of wasting in children under 5(%)		2.2.2a		NDHS	XX	
116	Prevalence of overweight in children under5 (%)		2.2.2b		NDHS	XX	
117	Prevalence of anemia among children under 5		2.2.2d		NDHS	XX	
118	Prevalence of anemia among women of reproductive age (15-49 years)	OC7.2	2.2.2c		NDHS	XX	
119	% of people aged 15–69 years who are obese (BMI >=30)		2.2.2e		NDHS/Micronutrient Survey	Population based surveys do not disseminate BMI related information for all people aged 15-69	Further analysis of NDHS/Micronutrient survey data
120	Proportion of children aged 6-23 months who consume Minimum Acceptable Diet (MAD)		2.2.2f		NDHS	XX	
121	% of people aged 15-69 years with raised blood pressure (above normal)	OC7.3			NDHS	XX	
122	Proportion of population aged 15 years and above with raised blood pressure who are currently taking medication		3.8.1i		NDHS	Do not analyse the existing data to generate this information as per required disaggregation	Further analysis of NDHS2016 data
123	Proportion of population aged 15 years and above with raised blood glucose who are currently taking medication		3.8.1j		NDHS		
124	Prevalence of tobacco use among people aged 15-29y	OP7.1.1			NDHS	XX	
125	Age-standardized prevalence of tobacco smoking among persons 15 years and older female (%)				NDHS	Do not analyse the existing data to generate this information as per required disaggregation	Further analysis of NDHS2016 data
126	Age-standardized prevalence of current tobacco use among persons aged 15 -69 years		3a.1		NDHS		
127	% of households with a specific place for hand washing where water and cleansing agents are present	OP7.1.2			NDHS	XX	
128	% of population using an improved drinking water source	OP7.1.4			NDHS	XX	
129	% of women aged 15-49 who have experienced gender based violence in the last one year	OP7.1.3			NDHS	Do not have the complete information (experienced of economic violence, sexual violence etc) to generate this indicator from national surveys	Support to improve the national surveys questionnaires
130	% of people who received pharmacological treatment for substance use disorders among the estimated target population		3.5.1a		HMIS	No information system to generate it	Update the HMIS system to generate the information
131	DALYs attributed to Mental and substance abuse disorders (per 100000 population)		3.4.4		GBD study	Data from the service providers/facilities not reported to MoH	Establish and operationalize systems in collaboration with the stakeholders
132	% of people who received psychosocial treatment for substance use disorders among the estimated target population		3.5.1b		MoHA		

SN	Indicator	NHSS RF	SDG	DLI	Source	Data Gap	Action point
133	% of people who received rehabilitation and aftercare services for substance use disorders among the estimated target population		3.5.1c		HMIS		
134	Harmful use of alcohol (defined according to the national context) among people aged 15-69 years (%)		3.5.2		STEPS		
135	Number of hard drug users		3.5.3		MoHA		
136	Prevalence of uterine prolapsed among women of reproductive age (15-49 years) who ever gave birth		3.8.1e		NDHS	National surveys do not cover the information	Generate the information through national surveys
137	Proportion of women aged 30-49 years screened for cervical cancer		3.8.1f		NDHS		
OC8: Management of public health emergencies							
138	Case fatality rate per 1000 reported cases due to public health emergencies (natural disaster, disease outbreaks and events)	OC8.1			DSS	No systematic information system to generate this	Establish a system
139	% of natural disasters and disease outbreaks responded within 48 hours (disaster, disease outbreak)	OC8.2			DSS		
140	Number of districts having health emergency response plan	OP8.1.1			EDCD	No systematic information system. Currently administrative reports are used.	Update HMIS to generate this data routinely
141	Number of hospitals with trauma management capacity	OP8.1.2			MoH		
142	% of public health emergency events notified at least within 24 hours	OP8.2.1			EDCD		
143	% of designated hub hospitals with response readiness to manage mass casualty events and severe disease outbreaks		3d.1b		EDCD	Lack of data to generate the indicators	Support EDCD to generate this data routinely
OC9: Availability and use of evidence in decision-making processes at all levels							
144	% of health facilities electronically reporting to national health reporting systems: HMIS and LMIS	OC9.1			HMIS/LMIS	XX	
145	% of districts which have all facilities reporting annual disaggregated data using DHIS2			DLI10	HMIS/LMIS	XX	
146	Number of health information systems that have functional linkages with national database	OP9.1.1			PHAMED	No national data base and interoperability among the MISs	Develop national data base and interoperability among the MISs
147	Number of districts with functional integrated disease surveillance system	OP9.1.2			EWARS/EDCD	No integrated disease surveillance system in practice	Establish and operationalize the system
148	% of national level surveys and researches producing policy briefs	OP9.2.1			PHAMED	Do not have the recording system to generate this information regularly	Establish a system to generate this data regularly
149	Number of grants provided to public health institutions for innovation	OP9.2.2			NHRC	No systematic reporting system, administrative documents are being used	Establish and operationalize a system to generate it
150	% of RF indicators reported on specified frequency	OP9.3.1			PHAMED	Do not have a system to generate this information	Establish a system to generate this data regularly
151	% of programme budget allocated for M&E	OP9.3.2			PHAMED		Support HRFMD to generate this data routinely
152	% of prioritized action points agreed during national review reflected in AWPB	OP9.3.3			DoHS		Establish a system to generate this data regularly
153	Percentage of health sector budget for research and development		3b.2a		NHA	Don't generate the information for the indicator in a schedule	Support to NHRC and MoH to develop a system to generate it

SN	Indicator	NHSS RF	SDG	DLI	Source	Data Gap	Action point
154	Percentage of ODA spent in health system research & development		3b.2b		NHA		
155	% of children below one year whose births are registered	OC9.2			CRVS	Birth registration system is established but not effectively implemented to generate this information	Our civil registration system effectiveness is very low so need to strengthen the civil registration system to improve the coverage of vital events registration.
156	Overall score of health information system performance index (%)	OC9.3			PHAMED	No health information system performance index (HISPIX) developed as recommended by WHO	Develop health information system performance index (HISPIX) as recommended by WHO.
157	IHR Core Capacity Index		3d.1a		WHO Assessment report	No IHR Core capacity Index developed as recommended by WHO	Develop IHR Core capacity Index as recommended by WHO