
HEAL Group
Babarmahal, Kathmandu

REPORT ON

ASSESSMENT OF ICD – 10 IMPLEMENTATION AND CAPACITY IN HEALTH FACILITIES OF NEPAL

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CAPACITY IN HEALTH FACILITIES OF NEPAL**

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We hope this assessment improves the implementation of ICD-10 in Nepal.

Acronyms and Abbreviations

BPKIHS	B.P Koirala Institute of Health Sciences
MBBS	Bachelor of Medicine, Bachelor of Surgery
C4ie	The Center for Implementation Efficiency
DoHS	Department of Health Service
DHIS	District Health Information Software
The HEAL Group	The Health Education Agriculture and Logistics Group
HMIS	Health Management Information System
HP	Health Post
IPD	Inpatient Department
IHIMS	Integrated Health Information Management Section
ICD	International Statistical Classification of Disease
ICD-MM	International Classification of Diseases—Maternal Mortality
ICD-PM	International Classification of Diseases—Perinatal Mortality
IMRCCD	The Institutional Medical Record and Certification of Cause of Deaths
MD	Management Division
MoHP	Ministry of Health and Population
MoSD	Ministry of Social Development
NHSS-IP	Nepal Health Sector Strategy – Implementation Plan
OPD	Outpatient Department
PHCC	Primary Health Care Center
PHD	Public Health Directorates
QRSD	Quality Standards and Regulations Division
SEARO	South East Asia Regional Office
SMoL	Start-Up Mortality List
SPSS	Statistical Package for Social Sciences
WHO	World Health Organization

EXECUTIVE SUMMARY

An assessment team studied ICD-10 implementation and capacity in the health facilities of Nepal. The goal of this assessment was to identify ways to support the full implementation of the International Statistical Classification of Disease (ICD) through improvements in national policies, resource allocation, and capacity building. This assessment produced clear recommendations for improving ICD-10 implementation in Nepal.

The Team conducted a mixed-method cross-sectional study of health facilities. Respondents included: Hospital Chiefs and Medical Recorders from one hospital in each Province; all Health Section Chiefs in the Provincial Ministry of Social Development (MoSD); Directors of the Provincial Health Directorates (PHD); Registrars of the Nepal Medical Council, Nepal Nursing Council, and Nepal Health Professional Council; former Health Management Information System (HMIS) Chiefs; Directors of the Management Division (MD); and other representatives from the Ministry of Health and Population (MoHP). Interviews were conducted using a structured questionnaire and some in-depth and group discussions. Additionally, forty-nine Medical Recorders were interviewed online through a structured questionnaire.

The assessment was carried out from November to December 2019, with the informed consent of participants. Quantitative data were analyzed using the Statistical Package for Social Sciences (SPSS), Version 20. Qualitative data were coded using NVivo Pro, Version 12, and thematically analyzed. The study team also reviewed national policy documents, available academic curricula, and national and international best practices for ICD implementation.

The findings revealed that all the surveyed hospitals only recorded and reported Inpatient Department (IPD) morbidity cases, while all the Outpatient Department (OPD) cases were left unrecorded and unreported. The emergency cases were partially recorded. Examples of incomplete reporting occur most often when posts are vacant. Mortality codes have not yet been implemented throughout the health system, and only a small minority of facilities have received training in these codes to date.

Sanctioned posts for Medical Recorders are insufficient, and additional trained Medical Recorders are needed in hospitals and the Integrated Health Information Management Section (IHIMS) of the DoHS. There is virtually no way to monitor ICD-10 implementation systematically. The findings revealed a critical vulnerability: although private and non-

governmental hospitals treat a majority of patients presenting with illnesses, they often fail to use the ICD-10 coding system or report to the national government.

HMIS forms incorporate recording and reporting of ICD codes in OPD and IPD registers. However, emergency registers only record cases, without ICD codes. Hence, emergency cases are not coded with ICD codes. Additionally, the B.P Koirala Institute of Health Sciences (BPKIHS), the only training center for ICD-10 in the country, uses 5-digit ICD codes that do not harmonize with the 4-digit codes used in the national HMIS computerized reporting system.

BPKIHS has been providing an 8-day training on ICD-10 morbidity codes and an additional 4-day training on mortality codes. The typical training period was found to be inadequate, and participants received insufficient practical experience. These problems hamper the implementation of the ICD-10 disease classification system.

In summary, this research found that substantial improvements are required to improve recording and reporting practices, current HMIS tools, and training materials. It will also be necessary to more fully integrate the many private and non-government hospitals into the national ICD disease classification system, to improve systematic recording and reporting of morbidity and mortality.

Recommendations

ICD Training:

- ICD training package needs to be revisited and revised as per the requirements of medical recorders with focused on practical knowledge based WHO ICD guidelines contextualizing according to the country needs.
- Training program should be expanded to the relevant health workers other than hospital medical recorders. The health professionals should be well oriented on the importance of clearly written and well defined diseases diagnosis and cause of death in recording and reporting forms
- Considering current contexts in the country, the training centers should expanded to at least one in all provinces.

HR Management:

- The requirement of medical recorders as per present situations needs to be well assessed and positioned accordingly in health facilities of all level.
- Roadmap for carrier opportunities needs to be developed to motivate and retain medical recorders in particular in the health facilities of remote areas.

ICD 10 and Reporting:

- Uniform software package and electronic recording and reporting should be developed and gradually extended to all hospitals/health facilities (Public Health Act 2075, clause 59 and 60.1)

- HMIS tools should be revised for better implementation of ICD 10 and also to incorporate ICD morbidity coding in emergency reporting and cause of mortality in all reporting system (Public Health Act 2075, clause 38).
- For strengthening private sector reporting system, ICD recording and reporting should be made one of the mandatory criteria while providing permission to establish and to renew hospital/health facilities by non-public sectors (Public Health Act 2075, clause 59 and 60.1).
- Coordination of ICD coding system with Civil Registration and Vital Statistics (CVRS) is established.

Health Professional Curricula:

- Greater efforts are required to incorporate ICD in health professionals curricula. Ministry of Health and Population can take a lead to coordinate with various academic institutions, ministry of education, professional councils and public service commission to incorporate adequate information on ICD in their respective curriculum.
- ICD training program needs to be expanded to all seven provinces and refresher training should be given at regular intervals.

CHAPTER I – INTRODUCTION

1.1 Background

People around the world speak about 7000 languages. As such, it becomes virtually impossible to analyze the information on diseases and health-related problems uniformly. However, the International Statistical Classification of Disease and Health-Related Problems (ICD), developed by the WHO, provides a shared vocabulary for recording, reporting, and monitoring health problems. (1) The ICD defines the universe of disease, disorders, injuries, and other health-related conditions, using a unique code for each condition. The ICD system allows the world to compare and share information using a common language. It allows for easier storage, retrieval, and analysis of health information to support evidence-based planning. ICD similarly permits countries to monitor health trends over time. (2)

The users of ICD include doctors, nurses, health workers, policymakers, researchers, health information managers, and insurers. Countries use ICD to monitor the health of their population, to plan how services are delivered, and to determine how to allocate resources. ICD also allows countries to track changing disease patterns.

ICD has gone through a series of changes since its inception. The International Statistical Institute adopted the first international classification edition in 1893. The ICD has been revised, updated, and published multiple times, reflecting advancements in health and medical science. WHO incorporated morbidity codes for the first time in ICD-6. The WHO Nomenclature Regulations, adopted in 1967, stipulated that Member States use the most current ICD revision for mortality and morbidity statistics. (1)

ICD-10 was endorsed by the Forty-third World Health Assembly in 1990 and was first used by member states in 1994. More than 100 countries around the world now use the ICD code to monitor the health of their populations and to guide health financing decisions, including decisions about how to administer national health insurance. An eleventh revision, ICD-11, was produced in 2019 to reflect progress in science and medicine over the past 30 years. (1)

1.2 History of ICD in Nepal

ICD-9 was first introduced in Nepal in about 1993. In 1996, representatives from Nepal attended a two-week ICD training course in Thailand. The BPKIHS was designated as the training center for ICD-10 and continues to be the only designated training center until today. In 1996, BPKIHS began with a 14-day ICD-10 morbidity training for 40 participants. Beginning in 1999, BPKIS also began to provide an 8-day refresher course.

The National Health Service delivery system adopted ICD-10 coding in 1998 for use in its routine health management information systems with a focus on hospital medical records. Nepal's Civil Registration and Vital Statistics Systems had also been designed to capture the cause of deaths. As such, the causes of death are not always assigned by medical professionals, introducing some inaccuracy.

1.3 Current Situation

1.3.1 Regulatory and guiding documents

Quality implementation of ICD requires that health facilities and agencies have sufficient management and record-keeping capabilities. First and foremost, a regulatory framework should be in place to ensure the implementation of ICD. Currently, no national policies and regulations guide the use of ICD in health data management. However, the national HMIS guidelines (2075) and Nepal's Health Strategy (2063) include discussions of the ICD code. Current HMIS tools apply the ICD codes when capturing morbidity and mortality events. However, the HMIS does not, at present, cover emergency morbidity reporting. There is no formal regulatory document for private sector hospitals to guide and direct ICD use.

1.3.2 Capacity

A majority of Medical Recorders who trained in ICD-10 have either transferred to other sectors or have left their jobs. BPKIHS is the only center that provides ICD training, and the center struggles to meet the demand for training. The quality of training sometimes also suffers. Except for a few physicians, other health professionals have not trained in the ICD-10 implementation. Medical curricula in Nepal do not provide adequate information about the ICD system. Every tier of the reporting system lacks capacity and will require substantial technical assistance inputs to achieve an acceptable standard of quality.

1.3.3 ICD implementation

HMIS tools capture morbidity and mortality events and apply the ICD code. Health personnel record out-patient visits using pre-coded forms, while inpatient records are coded manually in hospitals. Morbidity and mortality data presented in annual reports use ICD classifications. Recently, the MoHP issued a guideline, The Institutional Medical Record and Certification of Cause of Deaths (IMRCCD), to improve the management of mortality statistics. However, these tools require further revision to provide quality information.

1.4 Problem Statement

Although the health system introduced the classification system almost 21 years ago, ICD coverage, completeness, and quality continue to be problematic. The IHIMS Section strives hard to implement ICD in Nepal's health facilities. Yet, many hospitals submit reports that do not employ ICD codes: their data must be recorded by Medical Recorders for entry in the

IHIMS. Reporting from large hospitals and private health institutions is weak, and data from these facilities are not reflected often in national reports.

Medical Recorders in public hospitals have all received training in the ICD code. Yet, Nepal's new governance system has resulted in many staffing changes and transfers, and many ICD-trained staff now work in other sectors. As a result, compliance is sometimes deficient. BPKIHS has developed a two-week training package on coding and reporting, which includes a 4-day training on mortality.

Further assessment is needed to identify problems in ICD system knowledge and use. The adequacy of the training package, teaching approach, duration of the training, and follow-up actions should all be assessed. The scope, comprehensiveness, and interoperability of ICD morbidity and mortality codes should be considered in light of an increased need for data to support plans for national health insurance and universal health coverage.

1.5 Objectives

1.3.1 General Objective

The major objective of this assessment is to find gaps in ICD implementation in Nepal and make recommendations to achieve better quality and improve sustainability.

1.3.2 Specific Objectives

- Assess the ICD training package and make recommendations for improvement
- Assess the gaps in human resources, medical record management, institutional settings, and ICD compliance and suggest solutions for improvement
- Review the various codes and find ways to improve synchronization with ICD
- Assess the curriculums of health professionals, professional councils, and public service commissions and identify opportunities to improve ICD knowledge
- Review the HMIS tools and their adequacy for ICD compliance and find ways to improve them
- Review the medical education curriculum and suggest ways to build knowledge of ICD sustainably
- Make recommendations for operational improvements in capacity building, recording, and reporting
- Recommend a comprehensive training modality, methodology, and resource materials.

Chapter 2 – Methodology

2.1 Study Design and Study Site

The assessment team designed and conducted a mixed-method, cross-sectional study of health facilities in Nepal to look for gaps in ICD-10 implementation and capacity. Hospital Chiefs, Medical Recorders in hospitals, Provincial Health Directors, Health Section Chiefs of the MoSD, and PHCC/HP in-charges were sampled purposively, with one of each type of health professional included in each of seven provinces. In total, 35 interviews were conducted.

Additionally, all Medical Recorders working in district- or higher-level hospitals participated in an online survey. The Registrars of the Nepal Medical Council, Nepal Nursing Council, and Nepal Health Professional Council were interviewed. Similarly, the assessment team conducted interviews with the IHIMS Chief, MD Director, four former IHIMS Chiefs, the current Chief of the Policy, Planning and Monitoring Division, and the current Chief of Quality Standards and Regulations Division (QSRD) from MoHP. The BPKIHS team also participated in a group interview.

2.2 Data Collection Tools

The assessment team held a meeting to discuss the study instruments. The Director of the MD, the IHIMS Chief, a National Planning Officer of WHO/SEARO, an ICD expert, and a consultant, attended the meeting. The ICD expert drafted the data collection tools, including structured questionnaires and checklists, as suggested by meeting participants. The assessment team shared the data collection tools with the WHO and the IHIMS of DoHS. The Team received feedback and used it to revise the study instruments. Before the research, the MD of the DoHS approved the study instruments.

The study team developed structured questionnaires to administer to Medical Recorders, Hospital Chiefs, present and former IHIMS Chiefs, the Directors of the Provincial Health Directorates, Health Chiefs of MoSD, health facility in-charges of PHCC/ HP, and registrars of health professional councils. The Team developed an online questionnaire using Google Forms for interviewing Medical Recorders at district- and higher-level hospitals. Researchers also developed checklists for assessing the status of HMIS reporting and for observing ICD coding practices in hospitals.

2.3 Orientation and Field Work

The assessment team provided a one-day orientation to prepare the field team for data collection, which was facilitated by consultants. Roleplay was done among the field teams to prepare for face-to-face interviews with the respondents.

Interviewers completed fieldwork between December 1st and December 24th, 2019. The field team consisted of a research officer, IHIMS representative, and a documentation officer. A consultant periodically monitored the work of the field team.

2.4 Quality Assurance

For data quality assurance, the team leaders checked completed questionnaires on the same day as the interview. Then the data was entered in Microsoft excel and checked once again for recording errors.

2.5 Response Rate

The response rate for face-to-face interviews was 100%. All Medical Recorders, Health Directors of PHD, Health Section Chiefs of the MoSD, Hospital Chiefs were interviewed.

The study team achieved an overall response rate of 78%. The online questionnaire was sent to 63 Medical Recorders by email from the IHIMS of the MD, DOHS. The email address list was obtained from the IHIMS database. After the first email, a follow-up was done within a week by contacting non-responders by phone using the number they had listed in the IHIMS. Among the non-responders, a total of three Medical Recorders were unreachable. Four Medical Recorders had retired, and six had transferred to other health or municipality offices. These respondents provided contact addresses for the newly assigned Medical Recorders. The Team then reached out to the new contacts, increasing the study response rate. Three respondents couldn't complete the online interview form by the deadline because they lacked internet access in their region during the study period.

2.6 Data Management and Analysis

The assessment team entered quantitative data in Microsoft Excel and coded the data using NVivo Pro, Version 12 software. The online questionnaire forms were exported to Microsoft Excel. To resolve inconsistencies in the data, researchers first cleaned the data then exported them to the Statistical Package for Social Sciences (SPSS), Version 20 for analysis. Data obtained from the HMIS database were also exported to SPSS for analysis.

Study team members collaborated closely on the analysis of qualitative interview data. The Team used a content analysis approach to analyze qualitative interview data thematically.

2.7 Ethical Consideration

Interviewers obtained informed consent from all respondents before conducting interviews. The assessment team assured participants that their responses were private and confidential and that their data would be used only for research. Interviewers did not record identifying information. All files were securely stored and made accessible only to authorized members of the assessment team.

2.8 Limitations of Assessment

This assessment does not directly assess ICD implementation in private hospitals. The research also only included one purposively selected government hospital from each province. The sample may not represent the situation of all hospitals in each Province or the country overall.

CHAPTER III – DESK REVIEW

The assessment team reviewed a variety of sources. The team accessed primary research literature using PubMed and Google Scholar searches. The team obtained government and multilateral policies, standards, and guidelines on institutional websites using Google searches. They located academic curriculums and public service curriculums primarily using Google searches. Additionally, some syllabi were obtained directly from teachers in educational institutions.

3.1 ICD implementation around the world

Clinicians and researchers increasingly use the ICD system to define diseases and study disease patterns, as well as manage health care, monitor outcomes, and allocate resources. ICD has been translated into 43 languages worldwide. More than 100 countries use the system to report mortality data as a primary indicator of health status. (3)

Since WHO holds the copyrights to ICD-10, those who would like to modify the system must request permission before doing so. All modifications to ICD-10 must conform to WHO conventions for the disease classification system. Certain restrictions apply, whereby WHO limits the type of modification to prevent changes in the concept and meaning of three-digit categories and four-digit codes. Over the last several years, several countries have received such authorizations and modified the ICD-10. These include Australia (ICD-10-AM), Canada (ICD-10-CA), Thailand (ICD-10-TM), United States (ICD-10-CM), Germany (ICD-10-GM), among others. (4)

About 70% of the world's health expenditures (\$3.5 billion US) are currently allocated by applying the ICD classification system for reimbursement. (3) As in other countries, as Nepal implements its national health insurance program, the ICD system becomes increasingly important. The higher specificity of the new ICD-10-CM code will require improved documentation and record-keeping by providers, increasing physicians' workload by approximately 3-4% of provider time. This change will have some one-time costs, for example, training costs for most staff. The government will need to develop "Super Bills" that include ten times as many codes, new templates, and insurance contracts to reflect changes in payments and coverage. (5) The IT systems that support the national IHIMS, National Health Insurance Program, and current hospitals' recording and reporting practices will need to be established.

3.2 Sustainable Development Goals

Sustainable Development Goal 3 requires that, by 2030, all births are registered by civil registration as soon as possible after delivery. More specifically, 80% of deaths must be reported, registered, medically certified, and disaggregated by age and sex. Causes of death should be reported using the ICD code by all hospitals based on verbal post-mortems conducted by medical personnel.

3.3 The National Health Act, Policies, and Guidelines

The assessment team reviewed national strategies and guidelines for mention of the ICD coding system, including the HMIS Guidelines (2075), the Nepal Health Strategy (2063), the National Health Policy (2076), the Public Service Act 2075, and the Nepal Health Sector Strategy – Implementation Plan (NHSS-IP) (2016/17-2020/21).

Only the HMIS guidelines (2075) and the Nepal Health Strategy (2063) mentioned ICD coding. The HMIS guidelines (2075) incorporated the ICD code throughout, with discussions of the system appearing in multiple sections (Sections 1.3, 2.4, 7.4, 8.2, 8.3, 9.3, and 9.4.) Furthermore, the HMIS guidelines require health facilities to use ICD coding when categorizing morbidity and mortality events and while recording and reporting. Therefore, HMIS guidelines effectively strengthened ICD implementation in Nepal. Similarly, the Nepal Health Strategy (2063) employed ICD-10 Coding while surveilling a representative sample of hospitals. This sentinel report observes trends in common health conditions.

A Minimum Service Standard checklist was also developed by the Quality Standards and Regulation Division, as the basis for identifying gaps and improving the quality of primary hospitals, hospitals with basic services, hospitals with higher services, and tertiary hospitals. Among other things, the checklist verified whether or not Medical Recorders were trained on ICD and the District Health Information Software (DHIS-2). The checklist also confirmed if the ICD system is used routinely in the diagnoses recorded in OPD and IPD registers.

3.4 ICD in academic curriculums

The assessment team reviewed the academic curriculum from a range of institutions, including schools granting Bachelor of Medicine and Bachelor of Surgery (MBBS), General Medicine, Bachelor of Science in Nursing, Bachelor of Nursing, and Proficiency Certificate Level in Nursing degrees. In addition to BPKIHS, the sample included the Institute of Medicine, Kathmandu University, Purbanchal University, Pokhara University, Patan Academy of Health Sciences, the National Academy of Health Sciences, and the Council for Technical Education and Vocational Training. With some exceptions, these institutes did not include the ICD system in their courses of study. One university did choose to employ the ICD, yet it limited its use to Psychiatry and Mental Health degree programs. As such, medical and

nursing programs only rarely train students in the ICD system, hampering its implementation in Nepal.

3.5 Syllabus of Health Professional Councils

Health professional councils have not yet incorporated ICD in their syllabi. The assessment team reviewed the syllabi of the Nepal Medical Council, the Nepal Nursing Council, and the Nepal Health Professional Council. These professional councils conduct examinations and recruit health professionals for positions in the national government. Thus, efforts are needed to equip these councils to deploy the ICD coding system.

3.6 Syllabus of Public Service Commission

The assessment team reviewed the Public Service Commission's syllabi for Medical Recorders at the 5th and 7th levels. Although ICD coding is not in the curriculum for the 5th Level, the Hospital Management topic area includes a sub-heading, "Hospital-based HMIS tools." The curriculum for Medical Recorders, 7th Level directly includes a sub-heading, "ICD-10 Coding System." This sub-heading appears under Section A, "Medical Records and Medical Records Department."

No other Public Service Commission syllabus includes training on ICD coding. The following curricula do not provide training to students in the ICD system: Health Assistants; Senior Auxillary Health Worker, 5th Level; Staff Nurse, 5th Level; General or Community Health Nursing, 7th Level; and Health Inspector, 7th Level. The ICD reporting system can be strengthened through the revision of these syllabi.

3.7 ICD Training Package

BPKIHS is the only training center that provides training on the ICD system. The training center uses a training manual prepared by C.L Walker and Marian Lewis of Queensland University, Brisbane. BPKIHS has been providing an eight-day ICD-10 morbidity training and an additional four-day mortality training. Currently, the training package needs to be revisited and revised to meet the requirements of Medical Recorders better and to suit the country context. Additional training packages should be developed for other health professionals to strengthen the implementation of ICD-10 Coding and to ensure standardized recording and reporting of mortality and morbidity data.

CHAPTER IV – FINDINGS AND DISCUSSION

The assessment team interviewed a total of 56 Medical Recorders. The Team conducted face-to-face interviews with seven respondents employed in Provincial Hospitals (one per province). Additionally, 49 Medical Recorders employed by government hospitals completed online surveys. The findings from these quantitative interviews are presented below.

4.1 Background and characteristics of Medical Recorders

The majority of respondents were Medical Recorders (77%); the remaining 23% were Computer Operators, Health Assistants, Auxiliary Health Workers, and Logistics Management Officers.

Table 1: Background of the Medical Recorders - n= 56

General Information	Frequency	%
Designation		
Medical Recorder (holding the position)	43	76.8
Non-Medical Recorder (Computer Operator/HA/AHW, etc.)	13	23.2
Academic Qualification		
Intermediate level	4	7.1
Above intermediate	52	92.9
Major subject of the study		
Health	13	23.2
Non-health	43	76.8
Hospital address (Province)		
Province 1	11	19.6
Province 2	4	7.1
Province 3	13	23.2
Gandaki Province	6	10.7
Province 5	6	10.7
Karnali Province	9	16.1
Sudurpaschim Province	7	12.5
Type of hospital		
Primary Hospital	4	7.1
District Hospital	26	46.4
Provincial Hospital	16	28.6
Federal Hospital	10	17.9

A majority (93%) of the respondents had academic qualifications above the intermediate level. A majority of respondents (77%) had not completed health degrees; instead, these

respondents most often reported studying math and science as their main subject area. A majority of Medical Recorders reported a medium level of satisfaction with their work. One (of seven) Medical Recorder reported being satisfied with his/her profession. The remaining six said that they were moderately satisfied (Medium Level of Satisfaction.)

4.2 ICD-10 Training

25 (of 56) Medical Recorders had received ICD-10 training. Only 6 of the trained Medical Recorders had received ICD mortality training. All but one Medical Recorder had received their training at BPKIHS. One respondent had received ICD training in Sri Lanka. Only seven of the 25 trained Medical Recorders reported that their training in ICD coding and reporting was insufficient.

Table 2: ICD Training for Medical Recorders -n=56

Training related information	Frequency	%
ICD-10 Training received (n=56)	25	44.6
ICD Mortality training received (among 25 students who received ICD-10 Training)	6	24
Place of ICD-10 training received (n=25)		
BPKIHS	24	96
Sri Lanka	1	4
Frequency of ICD training received (n=25)		
Once	29	93.5
Twice	2	6.5
Sufficiency of the training package in supporting ICD coding and reporting (of 25 students who received ICD-10 Training)	7	28

4.2.1 Content of the training

Of the 25 trained Medical Recorders, a majority (18) were not satisfied with the content of the training. Three mentioned that, although they felt that the theoretical content was adequate, practical training was limited. They asked for more practical exposure to the ICD system during training.

17% of respondents asked for better preparation in basic anatomical and physiological terminology and abbreviations before ICD training. One respondent felt they would have benefited from training in Nepalese language medical terminology.

Respondents suggested that ICD training could be divided into two phases: Phase 1, basic anatomical and physiological terminology and abbreviations, and Phase 2, practical

applications of the ICD code. Respondents asked for more opportunities for practical exposure in hospitals so that trainees would be more ready to apply ICD in the workplace upon completion of the course.

4.2.2 Duration of the training

Among the eighteen respondents who thought that training could be improved, 44% claimed that the training duration was inadequate. They did not specify a better length of training.

4.2.3 Coverage of training

Many workers need basic knowledge of the ICD-10 code. 11% of all respondents thought that ICD training should not be limited to Medical Recorders and doctors. Instead, all workers who were directly or indirectly involved with the coding system should be trained, for example, IPD In-charges, OPD staff, and other paramedics. Many Medical Recorders felt that it was insufficient to have only one medical center providing training in ICD to cover the needs of the country. According to them, Provincial Hospitals could be equipped to provide ICD training also.

4.2.4 Quality of the training

About 13% of respondents said that the quality of training would be improved by increasing the number of qualified, experienced trainers. 32% of all Medical Recorders in the sample said there was a need for refresher training on ICD -10. Seven percent said that software for ICD coding needed to be updated.

4.3 Availability of logistics

A majority of the respondents reported that the training materials and other resources were adequate. For example, they felt that the training rooms, computers, internet access, safety racks for document storage, and patient charts were sufficient. Six Medical Recorders said that they had not discussed logistics with their chief before the interview.

More than half of the respondents (66%) reported shortages in medical dictionaries, anatomy, physiology, and terminology books. Five (of seven) hospitals had all three volumes of the ICD book. Only one hospital had a copy of the mortality decision table book (Vital Statistics ICD-10 ACME Decision Tables for Classifying Underlying Cause of Death). Despite the good availability of the ICD volumes in most hospitals, Medical Recorders reported that they did not tend to use these reference materials in their work. The ICD books were viewed as "showpieces" in Medical Section Rooms. The respondents did not fully recognize the importance of using the book as a reference.

4.4 Implementation

4.4.1 Knowledge and Practice of the ICD system

This section summarizes the major findings from qualitative interviews at different levels of ICD implementation. It also includes insights from current and former public health leaders. The results are summarized under five heading, 1) Medical Recorders, 2) Hospital Chiefs, and 3) Health Section Chiefs, MoSD and Directors of PHDs, 4) The BPKIHS ICD Training Team, and 5) Current and Former Public Health Leaders. This rich set of data provides detailed observation into what is working well in ICD implementation and where improvements are needed.

Medical Recorders

The assessment team assessed how well Medical Recorders understand ICD terms in an online survey (N=49). The assessment covered the International Classification of Diseases, Maternal Mortality (ICD-MM), Perinatal Mortality (ICD-PM), and the Start-Up Mortality List (SMoL). The Team also assessed Knowledge of ICD-11. Out of 49 respondents, only seven were familiar with the term ICD-MM, five were familiar with the term ICD-PM, and only one was familiar with the term SMoL. Only eight were familiar with the term ICD-11.

The Team assessed respondents' knowledge of ICD coding among the six medical recorders who had received ICD-10 mortality training. Among them, three knew the definition of clinical coding, one knew the numbers of volumes and chapters in the ICD book, and two knew that roman numerals identify book chapters. Similarly, only three knew the lead term and modifier in chronic bronchitis.

During interviews, Medical Recorders expressed concerns about medical registers. None of the seven hospitals maintained proper OPD registers, including even those with partially maintained medical registers. IPD and emergency registers tend to report only general information on patients and diagnoses. ICD coding is used only on discharge cards, which are completed by Medical Recorders. One Medical Recorder said that the diagnoses recorded in emergency registers often were not the same as the diagnoses reported on the HMIS forms.

Six (of seven) Medical Recorders said that mortality events are not coded in their hospitals, even though the cause of death is specified on death certificates. Medical Recorders said it was often challenging to understand doctors' handwriting and abbreviations. Medical Recorders often encounter unclear and uncommon diagnoses written by the doctors. However, the study team also noticed the ICD coding Reference Volume R69 was often not at hand, which suggests that coding is usually done extemporaneously.

Online survey findings suggest that the working environments for Medical Recorders are generally supportive. For example, 26% of Medical Recorders valued their pre-service training. However, ten (of 56) Medical Recorders said that supervision and monitoring functions need to be strengthened and more strictly regulated to improve ICD-10 implementation in health facilities.

Three respondents stated that there is no sanctioned post for a Medical Recorder in their hospitals. Some Medical Recorders further said that there should be additional sanctioned posts, for example, at the MoHP, DoHS, Health Directorate, and Health Offices. Some suggested that a separate section in the MoHP was needed to focus on health data issues.

A few respondents said that Medical Recorders needed opportunities for career development. Moreover, their scope of the work could be broadened to other areas, for example, health research. Some Medical Recorders requested incentives in recognition of the additional work they performed often.

Hospital Chiefs

Interviews with seven Hospital Chiefs confirmed the results from Medical Recorders. Hospital Chiefs noted time constraints that limit ICD coding. They said that their staff members frequently lacked knowledge of ICD coding. Four Hospital Chiefs emphasized high patient flows and staffing constraints. Medical Recorders could be motivated by creating enabling environments and, more specifically, by providing Medical Recorders with the necessary equipment, software, recording and reporting tools, and training. Some felt that doctors would benefit from having an assistant to help maintain registers.

Hospital Chiefs called for regularly scheduled reviews of medical recording practices. ICD coding standards and practices should be taught to all health cadres as part of their academic curricula. Three thought that higher authorities could supervise and monitor Medical Record Sections better and more often.

Health Section Chiefs, MoSD and Directors of PHDs

The assessment team also interviewed a total of 14 Health Section Chiefs from the MoSD and Directors of PHDs. Four (of 14) said they could not comment on monitoring and supervision practices, because they had not yet participated in these activities.

A majority of Health Section Chiefs of MoSD and directors of PHDs reported that ICD implementation in most health facilities is currently unsatisfactory. A director from a PHD said that even where reporting rates are high, ICD coding is incomplete and unreliable. Current reporting covers only IPD morbidity. Some called for more advanced diagnostic tools and a protocol for verifying ICD coding.

Health Section Chiefs of MoSD and directors of PHDs thought that human resources were not sufficient for the workload. Doctors do not have time to maintain OPD records, given massive patient flows.

Some respondents noted that only a small minority of employees had received training on ICD. Staff who had received training had not always transferred ICD skills to their replacements when they left for other jobs. Some emphasized inadequate academic curricula that rarely cover ICD standards. Others concluded that health training should emphasize the importance of ICD and how to implement the coding system.

A respondent highlighted the leadership of Hospital Chiefs and Hospital Management Committees in ICD implementation. Many health workers are not aware of the importance of ICD coding. As such, Provincial Governments can play a role in orienting all concerned health workers, especially Hospital Chiefs, Medical Recorders, Inpatient In-charges, and emergency staff of the importance of implementing ICD codes. Hospital Management Committees should recognize the importance of medical record keeping, and they should be relied on to improve coordination with the MoSD and PHDs. Medical Recorders can also contribute to local and Provincial planning processes.

A majority of respondents thought that Provincial Governments should work better to increase the number of sanctioned posts for Medical Recorders and improve their working environments. Better team facilitation and stricter supervision and monitoring would help to maintain the quality of recording and reporting by hospitals. Improved feedback mechanisms would support further improvements.

Five of the respondents called for improved career opportunities for Medical Recorders, to enhance their motivation, and to retain the most competent workers. Hospital data is necessary for research and dissemination purposes, and Medical Recorders can support these functions. Federal departments also need experts skilled in ICD implementation.

According to a PHD Director, it would be good to complete a more detailed study of ICD recording, reporting, and coding. Moreover, the Provincial Health Act should place greater emphasis on the importance of ICD.

A representative from the MoSD called for the development of an explicit data policy covering ICD implementation and medical recording and integrated supervision guidelines. The representative thought that a country-specific ICD code would better reflect the local context. Additionally, the IHIMS should take the lead and give more priority to ICD implementation. Further, hiring highly skilled specialists to work at the central level would strengthen the IHIMS.

Some respondents emphasized human resource constraints and the need for more skilled workers. Although the Professional Councils were unaware of ICD implementation in Nepal, they readily recognized the importance of ICD coding when the team explained it to them. They saw the need to include ICD in training curriculums for all types of health workers.

The BPKIHS ICD Training Team

The BPKIHS ICD Training Team has trained more than 220 participants since 1997. BPKIHS began mortality coding training only in 2018, and 2 groups of students have participated to date. In a group interview, the BPKIHS team expressed concern for what they perceived to be a weak enabling environment for ICD, and they believed that the IHIMS should give higher priority to ICD coding.

The BPKIHS team identified a problem limiting system interoperability. BPKIHS's coding software supports ICD codes with five characters; however, the government's DHIS-2 software has the capability to support only four characters. They felt that BPKIHS's coding system is more advanced than the DHIS-2 software, creating problems in data synchronization. Therefore, BPKIHS suggested aligning the coding systems in accordance with WHO guidelines. They foresee problems as Nepal adopts ICD-11, with its more advanced technical requirements.

Current and Former Public Health Leaders

The assessment team also interviewed four former IHIMS Chiefs, the Chief of the Quality Standards and Regulation Division, MoHP, the Chief of the Policy, Planning and Monitoring Division, MoHP, and the Director of the MD, DoHS.

This leadership group was mostly satisfied with recording and reporting practices at governmental health facilities. Although the recording and reporting practices in IPD's seemed satisfactory, recording and reporting practices in OPDs and emergency departments were often inadequate. They suggested areas for improvement, for example, orientations and training on hospital recording and reporting, improved utilization of ICD codes, and programs to improve the motivation of Medical Recorders.

A former IHIMS Chief, who had himself received a Master of Trainers Training in ICD coding, suggested the formation of a robust medical unit with well-trained Medical Recorders in all provincial and federal hospitals. These units should be equipped with adequate resources for recording and reporting. The former IHIMS Chief said that hospital data could be employed to plan and develop the hospitals. Hospital data could also be used better in planning services, monitoring and evaluation, health systems research, to determine workers incentives and penalties, and to improve feedback and coordination. One

respondent noted that different hospitals use different types of software, resulting in coding discrepancies. He suggested that all hospitals should employ the same software.

This group of current and former public health leaders agreed that human resources for ICD coding were not sufficient in governmental hospitals; neither do current staff members possess the necessary competencies. A former IHIMS chief suggested that there should be sanctioned posts for Medical Recorders in the municipal, district, provincial, and federal hospitals. He further recommended that the career ladder for Medical recorders be extended to the 10th level, creating a path for career development. He recommended hiring a group of statisticians with the designation of Medical Recorder.

One respondent believed that Medical Recorders should be provided with ICD-10 training before being posted and that some exposure to work in a range of different hospitals would help them learn. A respondent suggested developing a resource center in each Province and a mechanism for online ICD training and certification. Furthermore, two respondents indicated that federal hospitals in each Province could be developed as ICD training centers.

A representative from the MoHP suggested the implementation of a Minimum Service Standard Assessment at the hospital-level to measure staff performance, adequate infrastructure, availability of supplies, and information management. The goal of this assessment would be to ensure routine reporting and good ICD coding practices. This respondent also noted that multiple diagnoses by doctors were creating confusion for Medical Recorders. This problem, and others, could be resolved when hospital management teams and Medical Recorders engaged in regular discussions to find solutions.

This group of current and former public health leaders understood the close relationship between ICD coding, disease tracking, and surveillance. They emphasized the importance of developing a mandatory mortality coding system and review mechanism for verification. The respondents called for close coordination with the Civil Registration and Vital Statistics system. Three respondents said that an ICD coding course should be included in MBBS, nursing, and paramedical curriculums.

A former IHIMS chief recommended the creation of a data communication system involving the DoHS, MoHP, and Federal Ministries, with an assigned focal institution and a dedicated workforce. A Management Division Director recommended the development of an IHMIS road map to address problems in recording and reporting systematically.

4.4.2 ICD 10 Coding in Non-governmental and Private Hospitals

Respondents at the national level recognized an important problem; private and non-governmental hospitals currently manage the majority of morbidity cases, and they typically do not participate in data reporting and management systems. Greater efforts are required

to bring them into the national information management system. They called for stricter regulatory mechanisms to register and renew private and non-governmental hospitals, including reporting standards that must be met. These respondents similarly called for closer linkages between federal, provincial, and municipal reporting systems.

4.4.3 ICD 10 Coding in Primary Health Facilities

Seven health facilities, one facility from each Province, were included in the assessment. Leaders from PHCCs and five HPs were interviewed.

In face-to-face interviews with seven PHCC/HP In-charges or other HP representatives, six knew about ICD coding. No one in the PHCC/HP had received any training on ICD-10. Notably, Auxiliary Nurse Midwives was not aware of ICD coding. Primary health facilities use precoded forms for ICD morbidity classification. Four (of 7) health facilities, including one PHCC and three HPs, partially practiced ICD coding in their registers. Two HPs wrongly applied ICD codes in their register. One PHCC did not employ ICD codes in the OPD register.

No health workers in primary health facilities had ever received ICD morbidity or mortality training. Five (of seven) facilities had DHIS-2 software, and the remaining two health facilities practiced manual reporting. A respondent said that, although their health facility had DHIS-2 software, no one had been trained in how to use it. All respondents but one noted that the HMIS form was inadequate for their health facility and that the ICD morbidity codes included on the form were insufficient. Two health facilities complained that some diagnoses were unclear and that they coded unclear diagnosis as R69.

In short, these respondents believed that training is the leading solution to solve problems in recording, reporting, and software utilization for all concerned health workers. They believed that training would resolve current issues in completing HMIS reporting tools. Additionally, diagnostic guidelines and Standard Treatment Protocols are needed at the PHCC/HP level. They suggested that it would be easier for health workers if 232 ICD codes are listed in a large flex board and kept in OPD rooms.

4.5 HMIS Reporting Status for ICD Compliance

The assessment team reviewed HMIS reporting for the last three fiscal years (i.e., 2072/73, 2073/74, and 2074/75) by extracting and analyzing data from the national database. The team analyzed data from 120 government hospitals, including primary, district, zonal, provincial, teaching, and federal hospitals, but excluded specialized and general hospitals.

Analysts further categorized hospitals into two categories: Category A, including district-level hospitals and lower-level facilities, and Category B, including all hospitals working above the district-level. Overall, there are 68 hospitals in Category A and 52 hospitals in Category B.

In each hospital, the Assessment Team reviewed data from four departments, including the inpatient, outpatient, and emergency departments, and prevention programs. Reporting was characterized as Full or 12 reports per year, Partial or less than 12 reports per year, or No Reporting. No hospitals had complete reporting. All category A hospitals and 98% of category B hospitals reported partially.

4.5.1 HMIS Reporting Status

In 2072/73, IHMIS reporting by prevention programs was not satisfactory, with only 4% of Category B hospitals fully reporting. The status of HMIS reporting by prevention programs improved in both 2073/74 and 2074/75. However, prevention programs in higher levels of the health care system were more likely to report than at lower levels. In 2073/74, 84% of Category A hospitals had full prevention program reporting, while only 44% of Category B hospitals had full reporting. Reporting in 2074/75 showed a similar trend, with 82% of Category A and 56% of Category B hospitals with full prevention program reporting.

Table 3: HMIS Reporting Status of Preventive Program

Hospital	#	2072/73		2073/74 (%)		2074/75	
		Full (%)	Partial (%)	Full (%)	Partial (%)	Full (%)	Partial (%)
Category A	68	0	7	84	6	82	9
Category B	52	4	4	44	23	56	21

In 2072/73, HMIS reporting status of OPD services was good, with only 78% of Category A hospitals and 21% Category B fully reporting. In other years there is almost similar reporting in 2073/74 and 2074/75

Table 4: HMIS Reporting Status of OPD Services

Hospital	#	2072/73		2073/74		2074/75	
		Full (%)	Partial (%)	Full (%)	Partial (%)	Full (%)	Partial (%)
Category A	68	78	12	79	15	71	25
Category B	52	21	27	23	25	29	25

Category B hospitals only accounted for 2% of fully reporting inpatient facilities in 2072/73. The majority (81%) of Category A hospitals in 2073/74 reported partially, whereas a minority (44%) of Category B hospital reported partially. Reporting status improved in 2074/75, with 44% and 17% of full reporting occurring among Category A and Category B hospitals, respectively.

Table 5: HMIS Reporting Status of IPD Services

Hospital	#	2072/73		2073/74		2074/75	
		Full (%)	Partial (%)	Full (%)	Partial (%)	Full (%)	Partial (%)
Category A	68	0	4	0	81	44	37
Category B	52	2	10	4	44	17	27

HMIS reporting status by emergency services seems satisfactory in all three years. However, Category A hospitals had the highest proportion of full reporting, with 75%, 79%, and 82% of hospitals reporting in 2072/73, 2073/74 and 2074/75, respectively. In comparison, Category B hospitals accounted for 42%, 54%, and 58% of full reporting in 2072/73, 2073/74, and 2074/75, respectively.

The status of HMIS full reporting among OPD service units fluctuated over the last three fiscal years. Although full reporting among IPD and emergency service facilities seems to be increasing, the results remained unsatisfactory. Incomplete reporting results in underreported morbidity cases.

Table 6: HMIS Reporting Status of Emergency Services

Hospital	#	2072/73		2073/74		2074/75	
		Full (%)	Partial (%)	Full (%)	Partial (%)	Full (%)	Partial (%)
Category A	68	75	13	79	15	82	15
Category B	52	42	31	54	29	58	27

4.5.2 Practice of ICD codes reported by hospitals

Medical Recorders are responsible for recording and reporting data on morbidity and, where possible, mortality using the ICD codes. The assessment team selected 100 diagnostic records from each of 7 hospitals to test whether or not the ICD codes used by Medical Recorders were in compliance with the WHO ICD standard. The ICD data was extracted from the HMIS 9.4 form using MiDas software or from HMIS 9.4 forms.

Table 7: Practice of ICD Coding

Hospital	Percent
Koshi Hospital	99%
Janakpur Hospital	81%
Hetauda Hospital	62%
Pokahra Academy of Health Sciences	94%
Lumbini Provincial Hospital	97%
Surkhet Provincial Hospital	75%
Seti Provincial Hospital	100%

Seti Provincial Hospital and Koshi hospital achieved nearly perfect compliance with WHO ICD standards. High rates of compliance were achieved at the Lumbini Provincial Hospital (97%) and the Pokahra Academy of Health Sciences (94%). Janakpur (81%), Surkhet Provincial Hospital (75%), and Hetauda (62%) lagged somewhat behind.

Different types of coding errors occurred. For example, a common source of error was when different diagnoses were grouped incorrectly under the same ICD code. An example of this phenomenon would be when Acute Gastroenteritis (AGE) with pneumonia, AGE with meningitis, AGE with septic shock, AGE with Urinary Tract Infection (UTI) were all coded under one ICD code.

4.6 Supervision and Monitoring

Responsible parties in Provincial Health Directorates and the Ministry of Social Development reported routinely monitoring hospitals and their recording and reporting practices. Yet, none mentioned that they took steps to verify ICD codes in the HMIS systems.

As per hospital norms, medical doctors are supposed to write complete patient histories with diagnosis in OPD registers, but in reality, they rarely comply. Health system authorities typically fail to visit Medical Record Sections during supervision and monitoring visits.

Although health authorities reported making supervision visits during the last three months to five PHCC and HPs, none of them had provided any feedback on ICD coding.

Integrated supervision is an important strategy for health systems seeking to improve the utilization and quality of health data. However, supervision and monitoring practices appear to be weak and inadequate. More specifically, medical record-keeping practices in hospitals need to be supervised far more closely.

CHAPTER V –RECOMMENDATIONS

These recommendations are based on desk reviews of relevant policy documents and academic curriculum interviews with key informants and field observations.

5.1 ICD Training:

- ICD training package needs to be revisited and revised as per the requirements of medical recorders with focused on practical knowledge based WHO ICD guidelines contextualizing according to the country needs.
- Training program should be expanded to the relevant health workers other than hospital medical recorders. The health professionals should be well oriented on the importance of clearly written and well defined diseases diagnosis and cause of death in recording and reporting forms
- Considering current contexts in the country, the training centers should expanded to at least one in all provinces.

5.2 HR Management:

- The requirement of medical recorders as per present situations needs to be well assessed and positioned accordingly in health facilities of all level.
- Roadmap for carrier opportunities needs to be developed to motivate and retain medical recorders in particular in the health facilities of remote areas.

5.3 ICD 10 and Reporting:

- Uniform software package and electronic recording and reporting should be developed and gradually extended to all hospitals/health facilities (Public Health Act 2075, clause 59 and 60.1)
- HMIS tools should be revised for better implementation of ICD 10 and also to incorporate ICD morbidity coding in emergency reporting and cause of mortality in all reporting system (Public Health Act 2075, clause 38).
- For strengthening private sector reporting system, ICD recording and reporting should be made one of the mandatory criteria while providing permission to establish and to renew hospital/health facilities by non-public sectors (Public Health Act 2075, clause 59 and 60.1).
- Coordination of ICD coding system with Civil Registration and Vital Statistics (CVRS) is established.

5.4 Health Professional Curricula:

- Greater efforts are required to incorporate ICD in health professionals curricula. Ministry of Health and Population can take a lead to coordinate with various academic

institutions, ministry of education, professional councils and public service commission to incorporate adequate information on ICD in their respective curriculum.

- ICD training program needs to be expanded to all seven provinces and refresher training should be given at regular intervals.

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Annex I: Study Tools

Tool 1: Structured Questionnaire for Medical Recorders

Assessment of ICD – 10 Implementation and Capacity in health facilities of Nepal

अस्पतालका मेडिकल रेकर्डर अधिकृत तथा सहायकलाई सोधिने प्रश्नावली

परिचय – नमस्ते । मेरो नाम _____ हो । म HEAL (Health, Education, Agriculture and Logistics) Group संस्थाबाट आएको हु । HEAL group एउटा स्वास्थ्य क्षेत्रमा काम गर्ने गैर नाफामुखी संस्था हो । हामी स्वास्थ्य तथा जनसङ्ख्या मन्त्रालयको स्वास्थ्य सेवा विभाग अन्तरगत व्यवस्थापन महाशाखा (MD) को स्वास्थ्य व्यवस्थापन सूचना प्रणाली (HMIS) शाखाको नेतृत्वमा, नेपालका सातै ओटा प्रदेशमा ICD (International Statistical Classification of Disease) कार्यान्वयन सम्बन्धि अध्ययन गरिरहेका छौं ।

उद्देश्य – यस अध्ययनको मुख्य उद्देश्य भनेको ICD कार्यान्वयनको क्रममा आएका विभिन्न सफल पक्ष र अवसर तथा कमी कमजोरी र चुनौतीहरू पत्ता लगाई तिनीहरूको सुधार तथा दिगो कार्यान्वयनको लागि सल्लाह तथा सुझाव पेश गर्नु हो।

गोपनीयताको सुनिश्चिता –तपाईंको सहभागिता र तपाईंले दिनुभएका सम्पूर्ण जानकारीहरू अत्यन्त गोप्य राखिनेछन्। गोपनीयता कायम गर्नको लागि तपाईंको नाम कुनै पनि प्रतिवेदन, प्रकाशन र प्रस्तुतिमा उल्लेखित गरिनेछैन।

मञ्जुरी

(यदी सहमत भएमा कोठाभित्र “✓” चिन्ह लगाउनुहोस ।)

मैले यस अध्ययनको आशय र उद्देश्य बुझेको छु र यस अध्ययनमा सहभागी हुन पूर्ण सहमत छु ।

फाराम नं.:

पहिलो खण्ड: उत्तरदाताको विवरण

परिचयात्मक विवरण	कोड		
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अन्तर्वार्ता दिनेको नाम			
अस्पतालको नाम र ठेगाना			
अन्तर्वार्ता दिनेको शैक्षिक योग्यता			
क) शैक्षिक तह			
ख) मुख्य विषय			
मेडिकल रेकर्डमा काम शुरू गरेको कार्य अवधि/मिति (ग/म/सा)	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;">शुरू मिति/...../.....</td> <td style="width: 50%; border: none;">यस अस्पतालमा शुरू गरेको मिति/...../.....</td> </tr> </table>	शुरू मिति/...../.....	यस अस्पतालमा शुरू गरेको मिति/...../.....
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१००: दोश्रो खण्ड: ICD कार्यान्वयन र क्षमता समबन्धि प्रश्नावली
(निर्देशन: सहि कोडमा गोलो चिन्ह लगाउनुहोस र खुल्ला प्रश्नको हकमा उत्तर टिपोट गर्नुहोस ।)

प्रश्न नं.	प्रश्नावलीहरु	कोड	Skip to
१०१	के तपाईंलाई Medical Recorder को Job मा प्रवेश गर्नु पूर्व ICD -10 coding को बारेमा ज्ञान थियो ?	(क) थियो .....१ (ख) आंशिक .....२ (ग) थिएन .....३	
१०२	के तपाईंले ICD-10 coding को morbidity and mortality coding training लिनु भएको छ ? (Multiple answer question)	(क) morbidity मात्र .....१ (ख) mortality मात्र .....२ (ग) छैन.....३	→ प्र.नं.११५
१०३	यदि training लिनु भएको थियो भने कुन संस्थाबाट लिनु भएको थियो ?	(क) BPKIHS.....१ (ख) अन्य (खुलाउनुहोस) _____ _____ २	
१०४	यदि लिनुभएको छ भने कति पटक लिनुभयो ?	.....
१०५	सबै भन्दा पछिल्लो तालिम कुन वर्षमा लिनुभयो? (वि.स )	.....
१०६	एक भन्दा बढी पटक लिनुभएको भए कुन कुन संस्थाबाट लिनु भएको थियो ? स्वदेश वा विदेश खुलाउनु होला ।.....	.....
१०७	यदि BP KIHS बाट training लिनु भएको थियो भने कति दिनको training package थियो?	_____ (दिन)	
१०८	के training का content बुझिने थियो?	(क) थियो .....१ (ख) आंशिक .....२ (ग) थिएन .....३	
१०९	के training package ले तपाईंलाई ICD coding र reporting गर्न पर्याप्त सहयोग पुर्याएको छ?	(क) छ.....१ (ख) छैन.....२	
११०	Training पश्चात प्रशिक्षकद्वारा तपाइहरुको कसरी मुल्यांकन गरिएको थियो? (Multiple answer question)	(क) Pre-test .....१ (ख) During session evaluation .....२ (ग) Daily review session .....३ (घ) Post test .....४ (ङ)अन्य (खुलाउनुहोस) _____ _____ ५	
१११	के तपाइहरुको Training पश्चात onsite coaching भएको थियो?	क) थियो .....१ (ख) थिएन .....२	
११२	के ICD-10 training package medical record assistant तथा medical record officer को लागि प्रयाप्त छ ?	(क) छ.....१ (ख) छैन.....२	→ प्र.नं.११४
११३	छैन भने के के content थप गर्नु पर्छ ?		
११४	नेपालको BP KIHS धरान ICD-10 training center को रुपमा develop गर्न तथा सुधार गर्ने पक्षमा संस्थालाई केहि feedback दिन चाहानुहन्छ?		

प्रश्न नं.	प्रश्नावलीहर	कोड	Skip to
११५	के तँपाईको संस्थामा ICD-10 का volume 1, volume 2 र volume 3 का सेट छन् ?	(क) छन्.....१ (ख) छैनन्.....२	→ प्र.नं.११७
११६	यदि छ भने कसरी प्राप्त भएको हो ?		
११७	के तँपाईले तँपाईको अस्पतालमा mortality coding गर्ने गर्नु भएको छ ?	(क) छ.....१ (ख) छैन.....२	
११८	के तँपाईको संस्थामा mortality decision table book छ ?	(क) छ.....१ (ख) छैन.....२	
११९	के तँपाईको संस्थामा मेडिकल रेकर्डरलाई चाहिने निम्न सामग्री तथा सेवा अस्पताल प्रशासनले व्यवस्थापन गरिदिएको छ ?		
११९.१	आवश्यक कोठा	(क) छ.....१ (ख) छैन.....२	
११९.२	कम्प्युटर	(क) छ.....१ (ख) छैन.....२	
११९.३	Internet	(क) छ.....१ (ख) छैन.....२	
११९.४	Patient chart	(क) छ.....१ (ख) छैन.....२	
११९.५	आवश्यक सामग्री राख्ने सुरक्षित च्याक	(क) छ.....१ (ख) छैन.....२	
११९.६	Medical dictionary	(क) छ.....१ (ख) छैन.....२	
११९.७	Anatomy and Physiology terminology का books	(क) छ.....१ (ख) छैन.....२	
१२०	यदि गरिदिएको छैन भने यी आवश्यकताको बारेमा प्रमुखसँग कुरा गर्नु भयो?	(क) गरे.....१ (ख) गरिन.....२	→ प्र.नं.१२२
१२१	यदि गरेको भए प्रमुखले के सल्लाह दिन भयो ?		
१२२	ICD coding गर्ने क्रममा के कस्ता समस्या आइपरेको छ?		
१२३	के तँपाइलाई ICD-10 coding गर्न आइपरेका समस्याको समाधानमा सहयोग तथा अभ्र राम्रो गर्न सुझावहरु अस्पताल प्रमुखले दिनु भएको छ ?	(क) छ.....१ (ख) छैन.....२	→ प्र.नं.१२५
१२४	यदि छ भने के सल्लाह दिनुभयो?		
१२५	के तँपाईको अस्पतालमा Doctor हरूले final diagnosis स्पष्ट र पूर्ण रुपमा लेखिदिने गर्नु भएको छ ?	(क) छ.....१ (ख) छैन.....२	
१२६	के अस्पतालको OPD रजिस्टरमा Doctor ले विरामीहरुको complete provisional diagnosis लेखिदिनु भएको छ ? (अवलोकन गर्नुहोस)	(क) छ.....१ (ख) आंशिक .....२ (ग) छैन .....३	
१२७	के तँपाइलाई ICD-10 code R69 का बारेमा राम्रो ज्ञान छ ?	(क) छ.....१ (ख) छैन.....२	
१२८	तँपाईको अस्पतालमा ICD-10 coding R69 को volume कति छ ?	(संख्या)	

प्रश्न नं.	प्रश्नावलीहरू	कोड	Skip to
१२९	यदि छ भने कतै top ten disease मा आउने गरेको छ ?	(क) छ .....१ (ख) छैन.....२	
१३०	R69 को impact को बारेमा doctor लाई बुझाउने प्रयास गर्नु भएको छ ?	(क) छ.....१ (ख) छैन.....२	
१३१	के Doctor ले final Diagnosis लेखा ICD-10 code को coding गर्ने गर्नु भएको छ?	(क) छ.....१ (ख) छैन.....२	
१३२	के Doctor हरूले medical record तथा death certificate मा complete रूपमा “cause of death” लेख्ने गर्नु भएको छ ?	(क) छ.....१ (ख) छैन.....२	
१३३	तँपाईको अस्पतालमा birth र death certificate WHO को standard format अनुसारमा तयार गरिएको छ?	(क) छ.....१ (ख) छैन .....२	
१३४	ICD-10 training manual कति वटा module मा छन्?	(क) 21 .....१ (ख) 27 .....२ (ग) 29 .....३	
१३५	अन्य province मा पनि ICD को training center विकास गर्न के सुझाव दिन उपयुक्त ठान्नु हुन्छ?		
१३६	तपाइलाई कस्तो प्रकारको training आवश्यक छ ?		
१३७	तँपाईको विचारमा medical recorder कुन background को भयो भने राम्रो हुन्छ ?	क) Health Professionals.....१ (ख) Mathematical/statistical background..२	
१३८	के तँपाईको अस्पतालमा medico auditing system develop भएको छ ?	(क) छ.....१ (ख) छैन.....२	
१३९	अस्पतालमा medico legal (medico सम्बन्धि कानून) को कतिको आवश्यकता महसुस गर्नु भएको छ ?		
१४०	के यस अस्पतालमा माथिल्लो निकायबाट अनुगमन भएको थियो ?	(क) थिया .....१ (ख) थिएन.....२	प्र.नं.१४३
१४१	के गत ३ महिनामा माथिल्लो निकायबाट अनुगमन भएको थियो ?	(क) थिया .....१ (ख) थिएन.....२	प्र.नं.१४३
१४२	यदी थियो भने कति पटक?	.....
१४३	यदि थियो भने ICD-10 coding सम्बन्धि लिखित feedback दिएको थियो ?	क) थिया .....१ (ख) थिएन.....२	
१४४	के तँपाईको job मा प्रवेश गरेदेखि आफ्नो पेशाप्रति पूर्णरूपमा सन्तुष्ट हुनु हुन्छ ?	(क) धेरै .....१ (ख) मध्यम .....२ (ग) छैन.....३	
१४५	ICD-10 coding लाई अझ राम्रो गर्न यहाँको सुझाव केहि छ?		

के तपाइले ICD-10 सम्बन्धि तालिम लिनुभएको छ ? यदि लिनुभएको छ भने कोठाभित्र “✓” चिन्ह लगाउनुहोस ।

१०२ को प्रश्नको आधारमा यदि सहभागीले तालिम लिनुभएको छ भने तलका प्रश्नहरू सोध्नुहोस अन्यथा नसोध्नुहोस ।

तेश्रो खण्ड: ICD-10 सम्बन्धी training लिनुभएका सहभागीहरूलाई प्रश्नावली

सहि कोडमा गोले चिन्ह लगाउनुहोस । बहुउत्तर प्रश्नहरू (Multiple choice question) मा एक भन्दा बढी options मा चिन्ह लगाउन सक्नुहुनेछ ।

प्रश्न नं	प्रश्नावलीहरू	कोड
२०१	What is clinical coding? *(Multiple answer question)	a. The translation of diseases b. Health related problems and procedural concept from text to alphabetic/ numeric codes for storage c. Retrieval and analysis
२०२	Which of the following statement is used for a classification? *(Multiple answer question)	a. To allow easy storage, retrieval and analysis of data b. To allow comparisons of data between hospital, provinces, countries
२०३	What are the main elements to the structure of the ICD-10? *(Multiple answer question)	a. There are 3 volumes b. There are 21 chapters c. The structure of the code is alphabetic
२०४	What are the names of the ICD-10 volumes?	
२०५	Which of the following volume is the comprehensive alphabetical index of the diseases and conditions found in the tabular list? *(Multiple answer question)	a. Volume 1 b. Volume 2 c. Volume 3
२०६	The ICD-10 contains 21 chapters, each of which is identify by	a. A roman numeral b. Number c. Alphabetical Letter d. Any of them indicates
२०७	The structure of the 3 character category is.....	
२०८	One letter is split between two chapters. Which one is it?	a) "H" is shared by chapter VII and VIII b) "H" is shared by chapter V and VI c) "H" is shared by chapter III and IV d) None of the above
२०९	How many letters does chapter xx use?	a. 4 letters v, w, x, y b. 3 letters v, w, y c. 3 letter w, x, y

		d. 3 letter v, w, x
२१०	Identify the lead term and modifier in the diagnosis of chronic Bronchitis.	a. Lead term..... b. Modifier
२११	A 75 years old woman admitted for cataract extraction (ophthalmology specialty) the procedure was performed but the patient had fall a few days following surgery. She suffered a fractured hip and remained in hospital for treatment (orthopedic specialty) how many episode of care occurred during this admission?	a. One episode b. Two episode

धन्यवाद !

अन्तर्वार्ता लिनेको नाम र दस्तखत:

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Tool 2: Structured Questionnaire for Hospital Chief

Assessment of ICD – 10 Implementation and Capacity in health facilities of Nepal

अस्पतालका प्रमुख/उपप्रमुख/निमित्त प्रमुखलाई सोधिने प्रश्नावली

परिचय – नमस्ते । मेरो नाम _____ हो । म HEAL (Health, Education, Agriculture and Logistics) Group संस्थाबाट आएको हु । HEAL group एउटा स्वास्थ्य क्षेत्रमा काम गर्ने गैर नाफामुखी संस्था हो । हामी स्वास्थ्य तथा जनसङ्ख्या मन्त्रालयको स्वास्थ्य सेवा विभाग अन्तरगत व्यवस्थापन महाशाखा (MD) को स्वास्थ्य व्यवस्थापन सूचना प्रणाली (HMIS) शाखाको नेतृत्वमा, नेपालका सातै ओटा प्रदेशमा ICD (International Statistical Classification of Disease) कार्यान्वयन सम्बन्धि अध्ययन गरिरहेका छौं ।

उद्देश्य – यस अध्ययनको मुख्य उद्देश्य भनेको ICD कार्यान्वयनको क्रममा आएका विभिन्न सबल पक्ष र अवसर तथा कमी कमजोरी र चुनौतीहरू पत्ता लगाई तिनीहरूको सुधार तथा दिगो कार्यान्वयनको लागि सल्लाह तथा सुझाव पेश गर्नु हो ।

गोपनीयताको सुनिश्चिता –तपाईंको सहभागिता र तपाईंले दिनुभएका सम्पूर्ण जानकारीहरू अत्यन्त गोप्य राखिनेछन्। गोपनीयता कायम गर्नको लागि तपाईंको नाम कुनै पनि प्रतिवेदन , प्रकाशन र प्रस्तुतिमा उल्लेखित गरिनेछैन।

मञ्जुरी

(यदी सहमत भएमा कोठाभित्र “✓” चिन्ह लगाउनुहोस ।)

मैले यस अध्ययनको आशय र उद्देश्य बुझेको छु र यस अध्ययनमा सहभागी हुन पूर्ण सहमत छु ।

फाराम नं.:

पहिलो खण्ड: उत्तरदाताको विवरण

परिचयात्मकविवरण	कोड
अन्तर्वार्ताको मिति:	.....ग.....।.....म.....।.....सा...
अन्तर्वार्ता दिनेको नाम:.....	अस्पतालको नाम:.....
पद:.....	प्रदेश नं.

१००: दोश्रो खण्ड: ICD कार्यान्वयन र क्षमता सम्बन्धि प्रश्नावली

प्रश्न नं.	प्रश्नावलीहरू	कोड	Skip to
१००	यस अस्पतालमा कहिले देखि कार्यरत हुनुहुन्छ?	.....
१०२	अस्पतालमा मेडिकल रेकर्ड राख्ने प्रणालीको व्यवस्थापन कस्तो छ?	क) राम्रो .....१ ख) सुधार गर्नु पर्ने.....२	→ प्र.नं.१०४
१०३	सुधार गर्नुपर्ने भए कुन कुन कुरामा सुधार गर्नुपर्ने होला?		
१०४	अस्पतालका विभिन्न विभागहरूको अनुगमन तथा सुपरभिजन गर्दा के के समस्याहरू पाउनु भयो ?		

प्रश्न नं.	प्रश्नावलीहरू	कोड	Skip to
१०५	के अस्पतालमा वार्षिक कार्यक्रम तर्जुमा गर्दा विरामीहरूको तथ्याङ्कका आधारमा स्रोत र साधन छुट्याउने गर्नु भएको छ?	क) छ.....१ ख) छैन.....२	→ प्र.नं. १०७
१०६	यदि छ भने : उदाहरण.....		
१०७	के अस्पतालको OPD रजिस्टरमा डाक्टरले विरामीहरूको complete provisional diagnosis लेखिदिनु भएको छ?	क) छ.....१ ख) छैन.....२ ग) थाहा छैन.....३	→ प्र.नं. १०९ → प्र.नं. १०९
१०८	यदि छैन भने कसरी सुधार गर्न सकिएला?		
१०९	के यस अस्पतालले HMIS मा रिपोर्टिंग गर्छ?	क) गर्छ.....१ ख) गर्दैन.....२	→ प्र.नं. ११३
११०	के यस अस्पतालले morbidity सम्बन्धित सेवाहरू रिपोर्टिंग गर्छ?	क) Inpatient only .....१ ख) Emergency only.....२ ग) Outpatient only.....३ घ) All services.....४ ङ) गर्दैनौ .....५	
१११	यदि reporting गर्नुहुन्छ भने के ICD coding पनि गरिरहनु भएको छ?	क)गर्छौ.....१ ख) गर्दैनौ .....२ ग) थाहा छैन.....३	
११२	यस अस्पतालमा data management र reporting गर्नको लागि कुन software प्रयोग गर्नुहुन्छ ?		
११३	अस्पतालमा भर्ना भएका विरामीहरूको discharge chart मा final diagnosis, सो अनुसार को ICD- 10 morbidity coding लेखिदिने गर्नु भएको छ?	क) छ.....१ ख) छैन.....२	→ प्र.नं. ११६
११४	यदि छैन भने के कारणले ?		
११५	कसरी सुधार गर्न सकिएला?		
११६	अस्पतालमा भर्ना भएका patient को death भएमा death certificate मा complete cause of death को साथै mortality coding doctor ले लेखिदिने गर्नु भएको छ ?	क) छ.....१ ख) छैन.....२	→ प्र.नं. ११८
११७	यदि छैन भने कसरी सुधार गर्न सकिएला?		
११८	अस्पतालको विभिन्न विभागबाट आएको विरामीहरूको medical record keeping तथा reporting मा सुधार गर्न यहाँको सुझाव केही छन् ?		

धन्यवाद

अन्तर्वार्ता लिनेको नाम र दस्तखत:

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.....

Tool 3: Structured Questionnaire for health section chief of MoSD and director of PHD

Assessment of ICD – 10 Implementation and Capacity in health facilities of Nepal Interview with Health Directorate/ Health Division Chief of Ministry of Social Development (MoSD)

परिचय – नमस्ते । मेरो नाम _____ हो । म HEAL (Health, Education, Agriculture and Logistics) Group संस्थाबाट आएको हु । HEAL group एउटा स्वास्थ्य क्षेत्रमा काम गर्ने गैर नाफामुखी संस्था हो । हामी स्वास्थ्य तथा जनसङ्ख्या मन्त्रालयको स्वास्थ्य सेवा विभाग अन्तरगत व्यवस्थापन महाशाखा (MD) को स्वास्थ्य व्यवस्थापन सूचना प्रणाली (HMIS) शाखाको नेतृत्वमा, नेपालका सातै ओटा प्रदेशमा ICD (International Statistical Classification of Disease) कार्यान्वयन सम्बन्धि अध्ययन गरिरहेका छौं ।

उद्देश्य – यस अध्ययनको मुख्य उद्देश्य भनेको ICD कार्यान्वयनको क्रममा आएका विभिन्न सबल पक्ष र अवसर तथा कमी कमजोरी र चुनौतीहरू पत्ता लगाई तिनीहरूको सुधार तथा दिगो कार्यान्वयनको लागि सल्लाह तथा सुझाव पेश गर्नु हो ।

गोपनीयताको सुनिश्चिता –तपाईंको सहभागिता र तपाईंले दिनुभएका सम्पूर्ण जानकारीहरू अत्यन्त गोप्य राखिनेछन्। गोपनीयता कायम गर्नको लागि तपाईंको नाम कुनै पनि प्रतिवेदन , प्रकाशन र प्रस्तुतिमा उल्लेखित गरिनेछैन।

मञ्जुरी

(यदी सहमत भएमा कोठाभित्र “✓” चिन्ह लगाउनुहोस ।)

मैले यस अध्ययनको आशय र उद्देश्य बुझेको छु र यस अध्ययनमा सहभागी हुन पूर्ण सहमत छु ।

फाराम नं.:

पहिलो खण्ड: उत्तरदाताको विवरण

परिचयात्मकविवरण	कोड
अन्तर्वार्ताको मिति:	.....ग.....।.....म.....।.....सा.....
अन्तर्वार्ता दिनेको नाम:	.....
पद:.....	प्रदेश नं.

१००: दोश्रो खण्ड: ICD कार्यान्वयन र क्षमता सम्बन्धि प्रश्नावली

प्रश्न नं.	प्रश्नावलीहरू	कोड
१०१	के तपाईंले अस्पतालको recording र reporting अनुगमन गर्नुहुन्छ ?	क) सबै अस्पतालको गर्छौं.....१ ख) प्रदेश अस्पतालको मात्र .....२ ग) गर्दैनौ .....३ घ) थाहा छैन.....४
१०२	के तपाईंले अस्पतालले पठाएको रिपोर्ट HMIS मार्फत verify गर्नुहुन्छ?	क) गर्छौं .....१ ख) गर्दैनौ .....२ ग) थाहा छैन .....३

प्रश्न नं.	प्रश्नावलीहरू	कोड
१०३	के तपाईं अस्पतालले रोग वर्गीकरणको लागि ICD coding गरेको छ कि छैन भनेर रिपोर्ट जाँच गर्नुहुन्छ?	क) गछौं सबैको लागि १ ख) प्रदेश अस्पतालको लागि मात्र गछौं २ ग) गर्दैनौं ३ घ) थाहा छैन ४
१०४	तपाइको प्रदेशमा ICD-10 कार्यन्वयनमा अहिलेको वर्तमान अवस्थामा कस्तो छ ? उत्तर.....	
१०५	तपाइको प्रदेशमा medical recorder हरूको performance कस्तो छ ? उत्तर.....	
१०६	आफ्नो प्रदेश अन्तरगतका सरकारी तथा प्राइभेट अस्पताल र मेडिकल शिक्षण अस्पतालहरूको मेडिकल रेकडिङ रिपोर्टिङ सम्बन्धि अनुगमन तथा सुपरभिजनका क्रममा के कस्ता समस्या देखनुभयो? उत्तर.....	
१०७	समाधानको लागि के के प्रयास गर्नुभयो? उत्तर.....	
१०८	आफ्नो प्रदेश अन्तरगतका अस्पतालहरूको ICD-10 coding सम्बन्धि समस्याको समाधान तथा सुधार गर्न प्रदेश सरकारलाई केहि सुझावहरु दिन चाहनुहुन्छ? उत्तर.....	
१०९	विभिन्न स्तरमा ICD -10 को रेकडिङ रिपोर्टिङमा सुधार गर्न के कस्तो नीतिगत सुझाव दिन चाहनुहुन्छ? उत्तर.....	

धन्यवाद!

अन्तर्वार्ता लिनेको नाम र दस्तखत:

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Tool 4: Structured Questionnaire for PHCC/HP in-charge

Assessment of ICD – 10 Implementation and Capacity in health facilities of Nepal

प्राथमिक स्वास्थ्यउपचार केन्द्र वा स्वास्थ्य चौकी प्रमुखलाई सोधिने प्रश्नावली

परिचय – नमस्ते । मेरो नाम _____ हो । म HEAL (Health, Education, Agriculture and Logistics) Group संस्थाबाट आएको हु । HEAL group एउटा स्वास्थ्य क्षेत्रमा काम गर्ने गैर नाफामुखी संस्था हो । हामी स्वास्थ्य तथा जनसङ्ख्या मन्त्रालयको स्वास्थ्य सेवा विभाग अन्तरगत व्यवस्थापन महाशाखा (MD) को स्वास्थ्य व्यवस्थापन सूचना प्रणाली (HMIS) शाखाको नेतृत्वमा, नेपालका सातै ओटा प्रदेशमा ICD (International Statistical Classification of Disease) कार्यान्वयन सम्बन्धि अध्ययन गरिरहेका छौं ।

उद्देश्य – यस अध्ययनको मुख्य उद्देश्य भनेको ICD कार्यान्वयनको क्रममा आएका विभिन्न सबल पक्ष र अवसर तथा कमी कमजोरी र चुनौतीहरू पत्ता लगाई तिनीहरूको सुधार तथा दिगो कार्यान्वयनको लागि सल्लाह तथा सुझाव पेश गर्नु हो।

गोपनीयताको सुनिश्चिता – तपाईंको सहभागिता र तपाईंले दिनुभएका सम्पूर्ण जानकारीहरू अत्यन्त गोप्य राखिनेछन्। गोपनीयता कायम गर्नको लागि तपाईंको नाम कुनै पनि प्रतिवेदन, प्रकाशन र प्रस्तुतिमा उल्लेखित गरिनेछैन।

मञ्जुरी

(यदी सहमत भएमा कोठाभित्र “✓” चिन्ह लगाउनुहोस ।)

मैले यस अध्ययनको आशय र उद्देश्य बुझेको छु र यस अध्ययनमा सहभागी हुन पूर्ण सहमत छु ।

फाराम नं.:

पहिलो खण्ड: उत्तरदाताको विवरण

परिचयात्मकविवरण	कोड
अन्तर्वार्ताको मिति:	.....ग.....।.....म.....।.....सा....
जिल्लाको नाम:	
अन्तर्वार्ता दिनेको नाम :	पद :
स्वास्थ्य संस्थाको नाम:.....	
स्वास्थ्य संस्थाको किसिम:	(क) प्राथमिक स्वा.केन्द्र १ (ख) स्वास्थ्य चौकी..... २

१००: पहिलो खण्ड: अत्तरदाताको विवरण

(निर्देशन: सहि कोडमा गोलो चिन्ह लगाउनुहोस् र खुल्ला प्रश्नको हकमा उत्तर टिपोट गर्नुहोस् ।)

प्रश्न नं.	प्रश्नावलीहरु	कोड	Skip to
१०१	के तपाइलाई ICD – 10 का बारेमा जानकारी छ ?	(क) छ..... १ (ख) छैन २	→ प्र.नं.१०३
१०२	जानकारी छ भने, कहिले देखि नेपालमा ICD – 10 coding को सुरुवात भयो ? वर्ष		
१०३	के तपाईको सँस्थाबाट DHIS 2 मा रिपोर्टिङ गर्ने गर्नु भएको छ ?	(क) छ.....१ (ख) छैन २	
१०४	के तपाईको सँस्थामा ICD Coding गर्ने गर्नु भएको छ ?	(क) छ.....१ (ख) छैन २ (ग) थाहा छैन..... ३	→ प्र.नं.१०६ → प्र.नं.१०६
१०५	यदि छ भने कसले ICD-10 कोडीङ्ग गर्छ ? (नाम र पद)		
१०६	के तपाईले सँस्थाको OPD रजिष्टरमा provisional diagnosis लेख्ने गर्नु भएको छ ?	(क) छ.....१ (ख) छैन २	→ प्र.नं.१०८
१०७	यदि लेख्ने गरेको छ भने provisional diagnosis को ICD – 10 coding आफैले ICD – 10 को volume बाट खोजि लेख्नु भएको छ ?	(क) छ.....१ (ख) छैन २	
१०८	यदि छैन भने कसरी confirm गरी लेख्ने गर्नु भएको छ ?		
१०९	तपाईको सँस्थाले रिपोर्टिङ गर्ने HMIS कति नं. को फाराम हो ?	(क) ९.३ १ (ख) ९.१ २	
११०	फाराममा कतिवटा diseases को ICD- 10 coding गरेको छ ?		
१११	तपाई वातपाईको सँस्थाका कनै कर्मचारीले ICD–10 morbidity तथा mortality coding training लिनु भएको थियो ? (Multiple answer question)	क) morbidity मात्र .....१ (ख) mortality मात्र २ (ग) छैन..... ३	→ प्र.नं.११४
११२	यदि थियो भने कुन सँस्थाले दिएको		
११३	कहिले लिनु भएको थियो		
११४	के तपाईको सँस्थाको OPD रजिष्टर / DHIS 2मा रिपोर्टिङ गरेको रिपोर्टिङ्ग format मा verify गर्न दिनु हुन्छ ?(गएको ६ महिनाको verify गर्ने ।) (यदि दुबै मिलेमा “क”Code मा गोलो लगाउनुहोस्) OPD रजिष्टर DHIS2.....	(क) मिलेको .....१ (ख) नमिलेको २	
११५	ICD - 10मा प्रयोग हुने अंग्रेजी Alphabet मध्ये कुनचाहिँ Alphabet ICD – 10 मा प्रयोग भएको छैन ?		
११६	के HMIS Reporting tools मा data भर्दा केहि समस्या छ ?	(क) छ .....१ (ख) छैन..... २	→ प्र.नं.११९

प्रश्न नं.	प्रश्नावलीहरु	कोड	Skip to
११७	यदि समस्या छ भने के के ?		
११८	समस्याको समाधान कसरी होला ?		
११९	गत ३ महिनामा माथिल्लो निकायबाट अनुगमनभएको थियो ?	(क) थियो .....१ (ख) थिएन.....२	→ प्र.नं.१२१
१२०	यदि थियो भने ICD-10 coding सम्बन्धि लिखित feedback दिएको थियो ?	क) थियो१ (ख) थिएन२	
१२१	ICD-10 coding लाई अब राम्रो गर्न यहाँको सुझाव केहि छ?		

धन्यवाद

अन्तर्वार्ता लिनेको नाम र दस्तखत:

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Tool 5: Structured Questionnaire for HMIS chief

Assessment of ICD – 10 Implementation and Capacity in health facilities of Nepal

हाल वाहालवाला वा गत समयका स्वास्थ्य व्यवस्थापन सूचना प्रणाली (HMIS) शाखा प्रमुखलाई सोधिने प्रश्नावली

परिचय – नमस्ते । मेरो नाम _____ हो । म HEAL(Health, Education, Agriculture and Logistics) Group संस्थाबाट आएको हु । HEAL group एउटा स्वास्थ्य क्षेत्रमा काम गर्ने गैर नाफामुखी संस्था हो । हामी स्वास्थ्य तथा जनसङ्ख्या मन्त्रालयको स्वास्थ्य सेवा विभाग अन्तरगत व्यवस्थापन महाशाखा (MD) को स्वास्थ्य व्यवस्थापन सूचना प्रणाली (HMIS) शाखाको नेतृत्वमा, नेपालका सातै ओटा प्रदेशमा ICD (International Statistical Classification of Disease) कार्यान्वयन सम्बन्धि अध्ययन गरिरहेका छौं ।

उद्देश्य– यस अध्ययनको मुख्य उद्देश्य भनेको ICD कार्यान्वयनको क्रममा आएका विभिन्न सबलपक्ष र अवसर तथा कमी कमजोरी र चुनौतीहरू पत्ता लगाई तिनीहरूको सुधार तथा दिगो कार्यान्वयनको लागि सल्लाह तथा सुझाव पेश गर्नु हो ।

गोपनीयताको सुनिश्चिता– तपाईंको सहभागिता र तपाईंले दिनुभएका सम्पूर्ण जानकारीहरू अत्यन्तगोप्य राखिनेछन् । गोपनीयता कायम गर्नको लागि तपाईंको नाम कुनै पनि प्रतिवेदन, प्रकाशन र प्रस्तुतिमा उल्लेखित गरिने छैन ।

मञ्जुरी

(यदी सहमत भएमा कोठाभित्र “✓” चिन्ह लगाउनुहोस ।)

मैले यस अध्ययनको आशय र उद्देश्य बुझेको छु र यस अध्ययनमा सहभागी हुन पूर्ण सहमत छु

फाराम नं.:

परिचयात्मक विवरण	कोड
अन्तर्वार्ताको मिति:	.....ग.....।.....म.....।.....सा...
अन्तर्वार्ता दिनेको नाम	
संस्थाको नाम र ठेगाना	

प्रश्न नं.	प्रश्नावलीहरू	कोड
१०१	तपाईंले HMIS मा कति अवधि कार्य गर्नु भयो ?	..... देखि सम्म
१०२	सार्वजनिक (सरकारी) स्वास्थ्य संस्थाहरूले हाल गरिरहेका सेवाको अभिलेखन (Recording) को अवस्था समग्रमा कस्तो छ ?	क) अति राम्रो १ ख) संतोषजनक २ ग) कमजोर ३ घ) थाहा छैन ४
१०३	सार्वजनिक (सरकारी) स्वास्थ्य संस्थाहरूले हाल गरिरहेका सेवाको प्रतिवेदन (Reporting) को अवस्था समग्रमा कस्तो छ ?	क) अति राम्रो १ ख) संतोषजनक २ ग) कमजोर ३ घ) थाहा छैन ४
१०४	निजी र गैर सरकारी स्वास्थ्य संस्थाहरूले हाल गरिरहेका सेवाको	क) अति राम्रो १

प्रश्न नं.	प्रश्नावलीहरु	कोड
	सेवाको अभिलेखन (Recording) को अवस्था कस्तो छ ?	ग) कमजोर ३ घ) थाहा छैन ४
११७	निजी र गैर सरकारी अस्पतालहरुले हाल गरिरहेका Emergency सेवाको प्रतिवेदन (Reporting) को अवस्था कस्तो छ ?	क) अति राम्रो १ ख) संतोषजनक २ ग) कमजोर ३ घ) थाहा छैन ४
११८	सार्वजनिक (सरकारी) अस्पतालहरुमा ICD प्रयोगको अवस्था कस्तो छ ?	क) अति राम्रो १ ख) संतोषजनक २ ग) कमजोर ३ घ) थाहा छैन ४
११९	निजी र गैर सरकारी अस्पतालहरुमा ICD प्रयोगको अवस्था कस्तो छ ?	क) अति राम्रो १ ख) संतोषजनक २ ग) कमजोर ३ घ) थाहा छैन ४
१२०	सार्वजनिक (सरकारी) अस्पताल हरुमा ICD Coding गर्ने जनशक्तिहरु कति छन ?	क) पर्याप्त १ ख) ठिक्क २ ग) न्यून ३
१२१	निजी र गैर सरकारी अस्पताल हरुमा ICD Coding गर्ने जनशक्तिहरु कति छन ?	क) पर्याप्त १ ख) ठिक्क २ ग) न्यून ३
१२२	सार्वजनिक (सरकारी) अस्पताल हरुमा ICD Coding गर्ने जनशक्तिको क्षमता कस्तो छ ?	क) पर्याप्त १ ख) ठिक्क २ ग) न्यून ३
१२३	ICD संबंधी तालिम कुन संस्था बाट दिने गरिएको छ ?	.....
१२४	ICD संबंधी तालिम को गुणस्तर कस्तो देखिनुहुन्छ ?	..... ..... .....
१२५	सार्वजनिक (सरकारी) अस्पताल हरुमा ICD Coding गर्ने जनशक्तिको क्षमता बढाउन के गर्नु पर्ला ?	..... ..... .....
१२६	निजी र गैर सरकारी अस्पतालहरुमा ICD Coding गर्ने जनशक्तिको क्षमता बढाउन के गर्नु पर्ला ?	..... ..... .....
१२७	सार्वजनिक (सरकारी)अस्पतालहरुमा ICD प्रयोगको अवस्था राम्रो गर्न के गर्नु पर्ला ?	..... ..... .....
१२८	निजी र गैर सरकारी अस्पतालहरुमा ICD प्रयोगको अवस्था राम्रो गर्न के गर्नुपर्ला ?	..... ..... .....
१२९	ICD संबंधी तालिम राम्रो गर्न के सुझाव दिनुहुन्छ ?	..... ..... .....
१३०	ICD Coding र मृत्युका कारणहरुको विश्लेषणको बीच कस्तो	.....

प्रश्न नं.	प्रश्नावलीहरु	कोड
	सम्बन्ध देख्नु हुन्छ ?	..... ..... .....
१३१	समुदाय स्तरका स्वास्थ्य संस्थाहरुमा ICD को प्रयोग कसरी भई रहेको छ ?	..... ..... .....
१३२	समग्रमा ICD Coding लाई सूदृढ गर्न के के गर्नुपर्ला ?	..... ..... .....
१३३	समग्रमा अस्पताल को अभिलेखन र प्रतिवेदन लाई लाई सूदृढ गर्न के के गर्नुपर्ला ?	..... ..... .....
१३४	थप सुझावहरु	..... ..... ..... ..... ..... ..... ..... .....

Tool 6: Structured Questionnaire for registrars of Council

Assessment of ICD – 10 Implementation and Capacity in health facilities of Nepal

Nepal Medical Council/Nursing Council/Health Professional Council Registrar लाई सोधिने
प्रश्नावली

परिचय – नमस्ते । मेरो नाम _____ हो । म HEAL (Health, Education, Agriculture and Logistics) Group संस्थाबाट आएको हु । HEAL group एउटा स्वास्थ्य क्षेत्रमा काम गर्ने गैर नाफामुखी संस्था हो । हामी स्वास्थ्य तथा जनसङ्ख्या मन्त्रालयको स्वास्थ्य सेवा विभाग अन्तरगत व्यवस्थापन महाशाखा (MD) को स्वास्थ्य व्यवस्थापन सूचना प्रणाली (HMIS) शाखाको नेतृत्वमा, नेपालका सातै ओटा प्रदेशमा ICD (International Statistical Classification of Disease) कार्यान्वयन सम्बन्धि अध्ययन गरिरहेका छौं ।

उद्देश्य – यस अध्ययनको मुख्य उद्देश्य भनेको ICD कार्यान्वयनको क्रममा आएका विभिन्न सबल पक्ष र अवसर तथा कमी कमजोरी र चुनौतीहरू पत्ता लगाई तिनीहरूको सुधार तथा दिगो कार्यान्वयनको लागि सल्लाह तथा सुझाव पेश गर्नु हो।

गोपनीयताको सुनिश्चिता –तपाईंको सहभागिता र तपाईंले दिनुभएका सम्पूर्ण जानकारीहरू अत्यन्त गोप्य राखिनेछन्। गोपनीयता कायम गर्नको लागि तपाईंको नाम कुनै पनि प्रतिवेदन , प्रकाशन र प्रस्तुतिमा उल्लेखित गरिनेछैन।

मञ्जुरी

(यदी सहमत भएमा कोठाभित्र “✓” चिन्ह लगाउनुहोस ।)

मैले यस अध्ययनको आशय र उद्देश्य बुझेको छु र यस अध्ययनमा सहभागी हुन पूर्ण सहमत छु ।

फाराम नं.:

परिचयात्मक विवरणसोधिन्छ	कोड
अन्तर्वार्ताको मिति:	.....रा.....।.....म.....।.....सा.....
अन्तर्वार्ता दिनेको नाम	
संस्थाको नाम र ठेगाना	

प्रश्न नं.	प्रश्नावलीहरू	कोड	Skip to
१०१	के यस परिषदले license को जाच लिने गर्न भएको छ ?	(क) छ.....१ (ख) छैन .....२	→ प्र. नं १०४
१०२	यदी licence को जाच लिने गरेको छ भने यस परिषदको जाचमा ICD Code को प्रयोग सम्बन्धि प्रश्न सोधिन्छ ?	(क) सोधिन्छ.....१ (ख) सोधिदैन .....२	
१०३	यदी सोधिदैन भने किन ?		
१०४	के यस परिषदले सरकारी तथा Private अस्पतालको अनुगमन गर्ने क्रममा रेकोर्डिङ तथा रिपोर्टिङ हेरिन्छ ?	(क) हेरिन्छ .....१ (ख) हेरिदैन .....२	
१०५	नेपालको अस्पतालमा ICD Code को प्रयोग भएको छ ?	(क) छ .....१ (ख) आंशिक .....२ (ग) छैन .....३ (घ) थाहा छैन .....४	→ प्र.नं १०८ → प्र.नं १०८

प्रश्न नं.	प्रश्नावलीहरु	कोड	Skip to
१०६	प्रयोग भएको छ भने कस्तो छ ?		
१०७	सुधार गर्नु पर्छ भने के के मा र कसरी ?		
१०८	के एम.बि.बि.एस वा नर्सिङ वा प्यारामेडिक्सको curriculum मा ICD – 10 समावेश गरिएको छ ?	(क) छ.....१ (ख) छैन .....२	→ प्र. नं ११०
१०९	यदि छैन भने, एम.बि.बि.एस वा नर्सिङ वा प्यारामेडिक्सको curriculum राख्नको लागि यहाँहरुको सुझाव के छ ?		

Tool 7: Structured Questionnaire for BPKIHS ICD-10 Trainer

Assessment of ICD – 10 Implementation and Capacity in health facilities of Nepal BPKIHS - Faculty of Public Health and Community Medicine लाई सोधिने प्रश्नावली

परिचय – नमस्ते । मेरो नाम _____ हो । म HEAL (Health, Education, Agriculture and Logistics) Group संस्थाबाट आएको हु । HEAL group एउटा स्वास्थ्य क्षेत्रमा काम गर्ने गैर नाफामुखी संस्था हो । हामी स्वास्थ्य तथा जनसङ्ख्या मन्त्रालयको स्वास्थ्य सेवा विभाग अन्तरगत व्यवस्थापन महाशाखा (MD) को स्वास्थ्य व्यवस्थापन सूचना प्रणाली (HMIS) शाखाको नेतृत्वमा, नेपालका सातै ओटा प्रदेशमा ICD (International Statistical Classification of Disease) कार्यान्वयन सम्बन्धि अध्ययन गरिरहेका छौं ।

उद्देश्य – यस अध्ययनको मुख्य उद्देश्य भनेको ICD कार्यान्वयनको क्रममा आएका विभिन्न सबल पक्ष र अवसर तथा कमी कमजोरी र चुनौतीहरू पत्ता लगाई तिनीहरूको सुधार तथा दिगो कार्यान्वयनको लागि सल्लाह तथा सुझाव पेश गर्नु हो ।

गोपनीयताको सुनिश्चिता – तपाईंको सहभागिता र तपाईंले दिनुभएका सम्पूर्ण जानकारीहरू अत्यन्त गोप्य राखिनेछन् । गोपनीयता कायम गर्नको लागि तपाईंको नाम कुनै पनि प्रतिवेदन, प्रकाशन र प्रस्तुतिमा उल्लेखित गरिनेछैन ।

मञ्जुरी

(यदी सहमत भएमा कोठाभित्र “✓” चिन्ह लगाउनुहोस ।)

मैले यस अध्ययनको आशय र उद्देश्य बुझेको छु र यस अध्ययनमा सहभागी हुन पूर्ण सहमत छु ।

फाराम नं.:

पहिलो खण्ड: उत्तरदाताको विवरण

परिचयात्मक विवरण	कोड
अन्तर्वार्ताको मिति:	.....ग.....।.....म.....।.....सा.....
अन्तर्वार्ता दिनेको नाम :	पद :

१००: दोश्रो खण्ड: ICD कार्यान्वयन र क्षमता सम्बन्धि प्रश्नावली

(निर्देशन: सहि कोडमा गोलो चिन्ह लगाउनुहोस र खुल्ला प्रश्नको हकमा उत्तर टिपोट गर्नुहोस ।)

प्रश्न नं.	प्रश्नावलीहरू	कोड	Skip to
१०१	तपाईंहरूले मेडिकल रेकर्डर, तथ्याङ्क सहायक/तथ्याङ्क अधिकृतहरूलाई ICD-10 morbidity training को सुरु कहिले देखि गर्नु भएको हो ?		
१०२	ICD-10 training center स्थापना भएदेखि हालसम्म कति जनालाई ICD-10 को training दिनु भयो ?		
१०३	त्यसको एकिन गर्न सकिने name list सहितको प्रतिलिपि (soft copy or hard copy) दिन सक्नुहुन्छ? (दिएको भए-“✓” र नदिएको भए“×”चिन्ह लगाउनुहोसा)		
१०४	Training संचालन हुदा medical recorder हरुको कसरी मुल्यांकन गरिएको थियो?	(क) Pre-test .....१ (ख) During session	

प्रश्न नं.	प्रश्नावलीहरु	कोड	Skip to
	* (Multiple answer question)	evaluation.....२ (ग) Daily review session .....३ (घ) Post test.....४ (ङ) अन्य (खुलाउनुहोस) _____ _____५	
१०५	यस training सेन्टरले अहिलेसम्म mortality coding training दिएको छ?	(क) छ.....१ (ख) छैन.....२	→ प्र.नं.१०७
१०६	यदि छैन भने किन होला?	(क) त्यसको माग नभएर .....१ (ख) training दिने जनशक्ति नभएर.....२ (ग) अन्य (खुलाउनुहोस) _____ _____३	
१०७	यस प्रतिष्ठानको medical education syllabus मा कुन कुन level मा ICD-10 coding समावेश गरिएको छ? * (Multiple answer question)	(क) Medical recorder – Credit hrs _____ (ख) MBBS – Credit hrs _____ (ग) Others: (_____) – Credit hrs _____	
१०८	के यस training center मा mortality coding decision table book हरु छन् ?	(क) छ.....१ (ख) छैन.....२	
१०९	के यस training center ले Doctor हरुलाई cause of death लेख्न सिकाउने training को सुरु गर्ने योजना छ ?	(क) छ.....१ (ख) छैन.....२	
११०	के यस training center ले Doctor हरुलाई cause of death को mortality coding लेख्न सिकाउने training को सुरु गर्ने योजना छ?	(क) छ.....१ (ख) छैन.....२	→ प्र.नं.११२
१११	छ भने कहिले देखि		
११२	Medico legal को आवश्यकताका वारेमा बताइदिनु हन्छ कि?		
११३	के यस training center को training module and work book training मा procedure classification लाई समावेश गरिएको छ?	(क) छ.....१ (ख) छैन.....२	→ प्र.नं.११५
११४	यदि छैन भने समावेश नगर्नका कारण बताइदिनु हन्छ ?		
११५	ICD-10 morbidity coding training लिएका मेडिकल रेकर्डरहरुले ICD-10 training package मा कुनै content थप घट गर्न feedback दिएका छन्?	(क) छन् .....१ (ख) छैनन् .....२	→ प्र.नं.११७
११६	यदि छन् भने के के ?		
११७	के मेडिकल रेकर्डरको लागि ICD-10 training package पर्याप्त छ ?	(क) छ.....१ (ख) छैन.....२	→ प्र.नं.११९
११८	यदि छैन भनेके के को कमी छ?		

प्रश्न नं.	प्रश्नावलीहरु	कोड	Skip to
११९	के यस अस्पतालले सम्बन्धित निकायमा HMIS रेकर्डिङ्ग रिपोर्टिङ्ग गरिरहेको छ?	(क) छ.....१ (ख) छैन.....२	प्र.नं.१२१
१२०	यदि छैन भने किन?		
१२१	तँपाइ प्रशिक्षकको हैसियतले ICD-10 training package को सुधारको लागि के कस्ता सुझाव दिन चाहनुहुन्छ ?		

धन्यवाद

अन्तर्वार्ता लिनेको नाम र दस्तखत:

.....

.....

Tool 8: Online Structured Questionnaire for Medical Recorders

Assessment of ICD – 10 Implementation and Capacity in health facilities of Nepal

Dear survey participant,

Integrated Health Information Management Section (IHIMS) request you to fill in the questionnaire and submit for the study purpose. Your responses would be kept confidential and used for statistical purposes only in this study.

(It will take around 10 minutes to fill up the form.)

* Required

1. Email address * _____
2. Full Name * _____
3. Designation * _____
4. Contact Number * _____

S.N	Question	Code	Skip
1.	Highest degree of academic qualification *	a) Diploma level b) Bachelor level c) Masters level	
2.	Major subject of the study *	a) Mathematics/Statistics b) Other: _____	
3.	Hospital Name *	_____	
4.	Hospital address (Province) *	_____	
5.	Hospital Address (Municipality) *	_____	
6.	Hospital Address (Municipality) *	a) Primary Hospital b) District hospital c) Provincial Hospital d) Federal Hospital e) Other: _____	
7.	Have you received HMIS training? *	a) Yes b) No	
8.	Have you received DHIS training? *	a) Yes b) No	
9.	If yes, then what is the name of institution that you received DHIS training from?	_____	
10.	Have you received ICD-10 training? *	a) Yes b) No	→ 12
11.	If yes, then what is the name of institution that you received ICD-10 training from?	_____	
12.	Have you received any other training? *	a) Yes b) No	→ 14

13.	If yes, then what trainings have you received and from which institution have received the training from?	_____	
14.	Have you ever received ICD related training? *	a) Yes b) No	→ 22
15.	If yes, please specify. *	_____	
16.	Where did you receive ICD 10 training? *	a) BPKIHS b) Other: _____	
17.	How many times did you receive ICD 10 training? *	a) Once b) Twice c) Thrice d) Other: _____	
18.	In which year did you receive last ICD 10 training? (in B.S) *	_____	
19.	Was the training package sufficient to support your work on ICD coding and reporting? *	a) Yes b) No	
20.	What are the strong aspects of BPKIHS provided training package?*	_____	
21.	What are the weak aspects of BPKIHS provided training package?*	_____	
22.	Does the curriculum of syllabus of Public Service Commission covers the requirement for medical record professionals?	a) Yes b) No	
23.	Are you known to the followings? *		
23.1	ICD MM	a) Yes b) No	
23.2	ICD PM	a) Yes b) No	
23.3	SMoL	a) Yes b) No	
23.4	ICD 11	a) Yes b) No	
24	How is the office environment for medical records? *	a) Supportive b) Not supportive c) Neutral	
25	How is the office environment for ICD coding? *	a) Supportive b) Not supportive c) Neutral	
26	Is hospital administration supportive for medical recorders? *	a) Supportive b) Not supportive	

		c) Neutral	
27	Do you have these resources and materials: room, computer, internet, patient chart, safe rack, medical dictionary and anatomy and physiology terminology books, required for the medical recorder? Please mention the resources you have in your health facility. *	_____ _____ _____	
28	How can we improve ICD implementation? (maximum 100 words) *	_____ _____ _____	
29	How can we improve ICD training? *	_____ _____ _____	
30	Comments (if any)	_____ _____ _____	

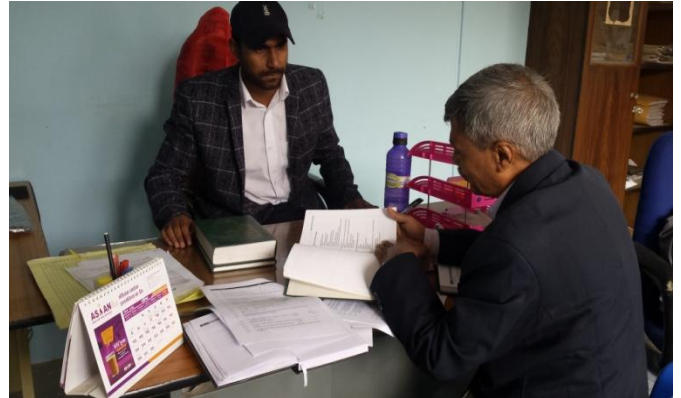
Annex II: Work plan

S.N	Activities	Week							
		November				December			
		1	2	3	4	1	2	3	4
1.	Recruitment of staff								
2.	Meeting with WHO/IHIMS Section to finalize the plan								
3.	Review HMIS tools and ICD manuals								
4.	Desk review of ICD manuals, health policy and act, guidelines, academic curriculums in health, syllabus of health professional council exams, ICD training package and relevant resource								
5.	Explore best practices in the country and abroad using available resources including web resources								
6.	Three years HMIS data analysis for coverage, completeness and consistency of morbidity and mortality data.								
7.	Development of study tools with guidelines to interview intuitions head and information manager								
8.	Development of study tools with guidelines to interview with PHC or Health Post								
9.	Online survey of all medical records								
10.	Formal discussion with the ICD training team, BPKIHS Dharan								
11.	Visit to Province 1 and interview Provincial health division chief, hospital (head and MR) and PHC or Health Post Chief								
12.	Visit to Province 2 and 3, and interview Provincial health division chief, hospital (head and MR) and PHC or Health Post Chief								
13.	Visit to Province 4 and 5, and interview Provincial health division chief, hospital (head and MR) and PHC or Health Post Chief								
14.	Visit to Province 6 and 7 interview Provincial health division chief, hospital (head and MR) and PHC or Health Post Chief								
15.	Key informant interviews with HMIS chief, former HMIS chiefs, M and E section chief of MoHP, QSRD section chief of MoHP, MD Director, WHO, registrars of NMC, NHPC and NNC								
16.	Data Entry and Analysis								
17.	Report Preparation								
18.	Submission of Report								

ANNEX III – Photographs



Group Discussion at BPKIHS



Interview with Medical recorder at Hetauda Hospital



*Observation of OPD register for ICD coding at Parroha HP,
Butwal*



Group photo with health workers of Geta HP, Kailali