

The 7th WHO-FIC Asia-Pacific Network Meeting
June 29-30, 2015
Siem Reap, Cambodia

Day 1, June 29, 2015

1. Opening Remark

Dr. Hiroyoshi Endo, the Co-Chair of the Asia-Pacific Network (APN), welcomed all the participants to the 7th WHO-FIC Asia-Pacific Network Meeting on behalf of both Co-Chairs, the other Co-Chair being Professor Sukil Kim.

2. Welcome Speech

On behalf of the Ministry of Health of Cambodia, Dr. Lo Veasnakiry, Director of Planning and Health Information of the Ministry of Health of Cambodia, welcomed the participants to the 7th WHO-FIC Asia-Pacific Network Meeting. He noted that the meeting afforded the opportunity for sharing information and knowledge on development and implementation of ICD and spreading awareness of the benefits of ICD among countries, and encouraged countries to consider the use of the ICD-10 APN Simplified Version to promote ICD implementation.

Dr. Hiroyuki Suenaga, Vice President of Japan Hospital Association (JHA), welcomed the participants and expressed his appreciation to the Government of Cambodia for hosting the 7th APN meeting. He explained that JHA had been supporting WHO for improvement and implementation of ICD since 2006 and expressed delight at the significant turnout the APN meetings have had. He expressed hope that the ICD-10 APN Simplified Version would be adopted in many countries to promote information sharing and ICD implementation.

Dr. Bedirhan Ustun, Coordinator of WHO Headquarters, highlighted the importance of the APN in promoting ICD, which underpins improvement in the quality of health information and hence the improvement of health. He welcomed the development of the ICD-10 APN Simplified Version, which should be aligned with ICD-11 in terms of direction and approach, in particular ICD-11 Primary Care version.

3. Introduction of Participants

All the participants briefly introduced themselves.

4. Adoption of Agenda

The agenda was approved as proposed.

5. Keynote Speech

Dr. Veasnakiry delivered the keynote speech on the development of health management information system (HMIS) in Cambodia. The HMIS, which was first introduced in a few provinces in 1993, was expanded nationwide in 1995 as a paper-based system and then upgraded into a web-based system in 2011. Meanwhile, several rounds of system assessment were conducted with technical and financial support of the Health Metrics Network (HMN). The patient medical record system (PMRS) was introduced in 2012-2014 with the financial support of the United States Agency for International Development (USAID). Data are collected from hospitals and health centers both in the public and private sectors and used for quarterly and annual performance reviews and annual planning and budgeting. With the financial support of the HMN and technical support of WHO Headquarters and country office, Cambodia conducted assessment of the quality of facility reported data, using the WHO data quality report card, both at the national and provincial/district levels in 2012-2014.

Future priorities include development of better infrastructure and human resources, improving reliability of data, and strengthening international capacity and monitoring.

Cambodia began considering the implementation of ICD in 2015 for mortality and morbidity statistics, improvement of clinical care, and monitoring of outcomes of Millennium Development Goals (MDGs) and post-2015 development agenda. With the support of Futures Group and the APN, a workshop was held in Phnom Penh in April 2015 to review key factors in introducing ICD in Cambodia. Dr. Veasnakiry concluded by expressing hopes for future collaboration in ICD implementation in Cambodia.

6. ICD Implementation in Cambodia

Dr. Khol Khemery, of the Ministry of Health of Cambodia, gave a presentation on ICD implementation in Cambodia. Cambodia began exploring the use of ICD in 2012 by conducting assessment of most frequent diseases of inpatients at the hospital level and applying relevant ICD-10 codes to the diseases. The assessment produced a list of 300 most frequent diseases and corresponding ICD-10 codes for pre-coding. However, corresponding ICD codes could not be identified for some of the diseases, such as diarrhea without dehydration and suspected/probable cases of dengue hemorrhage, and for injuries by weapon/mine.

On April 27-28, 2015, a workshop was held in Phnom Penh to discuss implementation of the ICD-10 APN Simplified Version with the support of the APN and Futures Group. The workshop recognized the ease of use of the Simplified Version. The questions of who should do the coding and at which level of institutions should ICD-10 be introduced (central government level or health facility level) remained to be answered. It was also noted that the Simplified Version can only be applied to outpatient departments and not to inpatient departments. There were also needs for resources, better infrastructure and training in introducing ICD.

As for the future steps, the Ministry of Health of Cambodia plans to review the list of most frequent diseases for integration into the HMIS monthly reporting format, introduce medically certified causes of death coding for improvement of CRVS, and pilot the Simplified Version.

Discussion

While currently non-existent, it is essential that there be an ICD shortlist that primary care workers can use for mortality coding. Australia is moving towards the use of an ICD shortlist for emergency care coding, primarily because of an insufficient number of coders to cover this need.

A question was asked on the benefits of ICD that would serve as incentives for Cambodia to adopt ICD. ICD has many uses, including better and fuller capture of mortality, morbidity and hospital discharge information as well as international data comparability based on which countries can learn from each other. It was up to a country to decide which of these uses have more relevance and priority. It was noted that integrating ICD in the reimbursement process was a powerful incentive to engage various stakeholders, as in the case of South Korea where the use of ICD is legally mandated for health insurance reimbursement.

Dr. Sovanratnak Sao explained that as currently there was no insurance to which ICD could be applied in Cambodia. However, Cambodia envisaged using ICD for better capture of mortality and morbidity data, international data comparability, and monitoring of interventions in priority diseases. Dr. Veasnakiry suggested Cambodia implement ICD on a limited scope at first for monitoring progress of interventions in key communicable and non-communicable diseases.

7. Health Information System Project by Futures Group in Cambodia

Dr. Dineke Venekamp, of Futures Group, made a presentation of the activities of Futures Group in Cambodia. Futures Group is carrying out the 5-year Health Information, Policy and Advocacy (HIPA) Project, which is funded by the United States Agency for International Development (USAID) to support the Department of Planning and Health Information (DPHI) of the Ministry of Cambodia from 2014 to 2019. The project aims to enhance HMIS

performance, introduce evidence-based decision-making, monitor health sector performance, and improve quality and use of data. It also includes integration of ICD-10 in HMIS, strengthening of CRVS in cooperation with the Ministry of the Interior, and targeted prevention activities for TB and HIV.

Establishment of national task team has been proposed by Futures Group and it will be chaired by MOH (Ministry of Health) -DPHI and include technical supporting partners, WHO Cambodia and MOI (Ministry of Interior)-CRVS. The task team will deal with ICD-10 integration addressing such technical issues as introduction of the ICD-10 APN Simplified Version in primary care, use of additional codes for inpatients in the Simplified Version, review of the Khmer version of the Simplified Version once it is ready, review of the Simplified Version for relevance in the Cambodian setting, and identification of resources and IT solutions. It will provide support in training and the piloting.

Discussion

The HMIS system will first need to be updated to accommodate ICD-10. In particular, the basic patient registration format for data collection will need to be modified. At the hospital level, the ICD-10 code capture feature is already incorporated so that data can be collected once a decision is made on which classification to use and the classification is used consistently. At the primary care level, the HMIS needs to be upgraded to include a register book.

In transitioning to a classification, it would be helpful to have a priority disease code set, an easy-to-use coding system, and quality assurance; areas where WHO is prepared to provide assistance. Existing registries could be examined to extract priority code sets for particular uses.

Futures Group is conducting similar projects in African and Asian countries to address growing demands for enhanced use of digitized data, including improving data access for analysis and data dissemination.

8. Country Reports on Implementation of ICD-10

(1) India

Mr. Umed Singh, of the Central Bureau of Health Intelligence (CBHI), gave a country report on India. CBHI was established under the Ministry of Health of India in 1961 with a mission to strengthen India's health information system to enable evidence-based decision-making for improvement in population health and to develop human resources for scientific management of medical records and use of WHO-FIC. Through two training centers and six Field Survey Units (FSUs), CBHI provides training in ICD-10 and ICF and health information management to medical record officers and technicians, health care professionals, and non-medical personnel. Since 2011, FSUs have conducted 129 sensitization workshops for more than 11,000 physicians, paramedics, and other personnel to raise awareness about and to impart basic knowledge on the use of ICD and ICF.

As the WHO-FIC Collaborating Centre in India, CBHI also advances WHO-FIC dissemination strategy, provides training, promotes ICD and ICF implementation and monitoring, and produces coding manuals and advocacy materials. It collaborates with state/district health authorities, WHO and other UN agencies, and other WHO-FIC Collaborating Centres.

(2) Laos

Dr. Luexay Phadouangdeth, of the Ministry of Health of Laos, provided a country report on Laos. Since 2013, Laos has been carrying out health sector reform with the goal of attaining health-related Millennium Development Goals by 2015, graduating from the least developed country status by 2020, and introducing universal health coverage by 2025. In the area of health information system, which is one of the five pillars of the reform, the ministry has introduced a web-based system and has worked to strengthen its health information system capacity, using

existing HMIS forms to track MDG outcomes and promoting statistics reporting and planning. It is also developing an eHealth strategy with funding from UNICEF.

In terms of ICD implementation, six Lao ICD trainers were trained in Thailand in 2012 and further training was provided at three hospitals in Vientiane. The use of ICD-10-TM at the hospitals, however, did not work well. Challenges in ICD implementation include the fact that there is no decree in Laos mandating the use of ICD and no budget allocated for ICD implementation, shortage of trainers and ICD handbooks, and the lack of a Laos version of ICD. Future plans include establishing a project for ICD implementation and carrying out training with the support of Thailand and WHO. Laos also hopes to conduct training in ICD-10 Simplified Version in 2016 at central hospitals and then expand the use of ICD to provincial hospitals, particularly for use in CRVS.

(3) Malaysia

Dr. Syed Aljunid, of National University of Malaysia, gave a country report on Malaysia. Since 1999, ICD-10 has been used for mortality and morbidity reporting in public hospitals and clinics for both outpatients and inpatients. In 2003, private hospitals began using ICD-10. In 1995, ICD-9-CM was used for the first time in a pilot case mix project. Today, 27 hospitals in 13 provinces have adopted the case mix system for reimbursement. There are, however, major issues related to the use of ICD in case mix systems, including the quality of coding of diagnoses and procedures, poor medical record documentation, and lack of understanding and expertise on the case mix system. A study at a hospital that has introduced the case mix system found 87% coding errors out of 175 cases; 55% of these errors required a change in DRG codes, which translated into a sizable loss in hospital revenues. Efforts will have to be made to address all issues related to ICD coding.

9. Country Reports on Support in ICD Implementation in the Asia-Pacific Region

(1) Australia

Ms. Vera Dimitropoulos, of University of Sydney, provided a country report on Australia's support of ICD implementation in the region. The Brisbane Accord Group (BAG), established in 2010 with Australian development assistance, has supported 15 Pacific Island Countries and Territories (PICTs) in country-led efforts to establish CRVS and build capacities in health performance monitoring and policy development. In this context, a bid was made to AusAID Global Partnerships for Development funding on a project to establish a mobile team of mortality coding experts to support the PICTs. Australia also takes part in the Global Health Workforce Council (GHWC), an initiative of AHIMA and IFHIMA with funding from the U.S. Department of Commerce to establish a global health information curricula and competency standards for the health information management, health informatics, and health ICT professional workforce.

Based on its considerable experience in transitioning from ICD-9-CM to ICD-10-AM, Australia has been providing transitioning assistance particularly to 15 countries that have introduced ICD-10-AM, including Ireland and Singapore. In the case of Singapore, Australia supported Singapore's migration to ICD-10 for mortality and ICD-10-AM for morbidity coding, providing training modules, organizing workshops and forums, and responding to queries. Australia also helped Singapore successfully adopt AR-DRG in January 2012.

*Ms. Dimitropoulos informed that Ms. Nicola Fortune would be circulating a questionnaire on public health interventions for ICHI. Those receiving the questionnaire are kindly requested to answer and return the questionnaire to Ms. Fortune and copying in Dr. Wansa Paoin of Thailand.

(2) Japan

Ms. Yukiko Yokobori, of Japan Hospital Association, gave a country report on ICD use in

Japan and support for ICD implementation in the region. With the advancement of information technology in the health sector, almost all health insurance claims are now processed electronically in large hospitals in Japan, and the focus on the role of health information managers at hospitals has shifted to medical record auditing and statistics production.

Japan participates in IFHIMA. Last year, IFHIMA donated health information management textbooks to 15 countries. Japan also participates in GHWC. Since 2006, Japan Hospital Association has been a sponsor of the APN. In October 2016, Japan will simultaneously host the annual WHO-FIC Network meeting, IFHIMA Congress, and the annual meeting of Japan Society of Health Information Management to promote the international classifications and health information management. The WHO-FIC Network meeting will include a revision conference on ICD-11 and the meeting of the APN.

Anniversary

(3) South Korea

Ms. Joon Hong, of WHO-FIC Korea Collaborating Center, reported on Korea's support for ICD implementation in Mongolia. In December 2012, Korea provided training on mortality statistics, non-communicable diseases, and cancer registration to 15 countries, including Mongolia, in a WPRO project. At the request of the Ministry of Health of Mongolia, Korea subsequently organized a 1-week workshop on cancer registration and ICD coding in Mongolia in March 2013 and 2-week train-the-trainer program on ICD coding in Seoul in 2013 and 2014 mainly for female physicians from Mongolia. Up until then, Mongolia coded data using only Volume 1 of ICD-10, which was the only volume that had been translated into Mongolian. This had resulted in the use of a limited number of ICD categories and in coding errors. Based on the advice of the Korean team, Mongolia published the translated Mongolian version of Volume 3 of ICD-10. The participants are now running ICD coding programs in various provinces of Mongolia. Additionally, ICD-10 coding was taught at the Korean Cancer Center for seven countries in another WPRO cancer registration program in 2013 and 2014.

(4) Thailand

Dr. Wansa Paoin, of the Ministry of Health of Thailand, provided a country report on its support for ICD implementation in 2014 and 2015. Thailand conducted five workshops on basic ICD coding for Thai coders and a 2-week ICD coding course for Sri Lankan coders in 2014, and seven ICD coding workshops, including four on advanced coding, for Thai coders and a 2-week ICD coding course for Myanmar coders in 2015. Thai coders were mainly physicians and nurses who code data in hospitals on the side.

In 2014, Thailand updated ICD-10-TM Classification for Health Interventions and ICD-10-TM Standard Coding Guidelines on documenting and coding information on discharge summaries, death certificates, and diagnosis statements.

10. ICD-10 APN Simplified Version Beta 2

(1) Introduction of beta 2 version

Dr. Paoin demonstrated the differences in the code assignment process between the full ICD-10 and the ICD-10 APN Simplified Version and how to code using the Simplified Version. The Simplified Version adopts the form of a restructured index for coding data. Its layout, a table consisting of a list of diagnosis terms and corresponding ICD-10 codes for different patient categories (i.e. general, congenital, perinatal/neonatal, pregnancy, childbirth, and postpartum), avoids confusion in code assignment for different categories of patients. It also eliminates some of the code assignment steps required in the full ICD-10, reducing coding time by about a half. Coding is done in three steps: (1) selecting the appropriate section of the Simplified Version; (2) finding the diagnosis term; and (3) assigning a code from the table. The Simplified Version contains a coding guide with examples.

Dr. Paoin noted some limitations of the Simplified Version. First, the coder may still want to refer to Volume 1 of ICD-10 to validate the code or to use 4th or 5th character ICD codes. Second, because the Simplified Version is based on ICD-10-TM for PCU, which is used only in outpatient departments, it was not suitable for use in inpatient departments.

Discussion

Discussion centered around the need to strike a balance between simplicity and complexity of a classification and on whether the Simplified Version, with around 2,500 categories and a table for patient categories, was sufficiently simplified. It was noted that for use of the classification in the primary care setting, the number of categories of 2,500 was more than sufficient.

A question was asked on what a coder should do if he or she could not find a diagnosis terms in the Simplified Version. Dr. Paoin suggested coders to either refer to Volume 1 of ICD-10 or look up the Simplified Version using a more generic term if available. He also suggested setting up an online support system for coders and using feedback from coders to improve the classification.

(2) Translation tool

Professor Sukil Kim gave a presentation on the translation tool for the Simplified Version. The tool was developed originally to address Korean medical terminology problems in translating ICD-10 into Korean. The translation model comprises medical term constructs expressed in extensible markup language (XML) and medical terminology. The medical term constructs in XML can be used uniformly across languages. The medical terminology is machine translated to produce a specific country version of the Simplified Version. The Khmer version is being validated by two Cambodian physicians, including Dr. Sovanratnak, for correctness of syntax and terminology.

Discussion

Dr. Veasnakiry and Dr. Sovanratnak expressed profound appreciation to the efforts of the Korean team in producing the Khmer version of the Simplified Version. Dr. Sovanratnak reported that the validation work using medical books and other internet sources (PubMed, MedlinePlus, etc), and inquiries to specialists were about 50% complete and that he expected the work to be completed in two to three weeks. However, both Dr Veasnakiry informed that the translation should be reviewed and approved by the medical academic committee (not yet been established) prior to publication.

(3) Training for the Simplified Version

Ms. Hong made a presentation on the required training for the Simplified Version. Based on the core curriculum for mortality and morbidity coding developed by the WHO-FIC Network's Education and Implementation Committee, Ms. Hong proposed a minimum curriculum for the Simplified Version, consisting of medical terminology (including basic anatomy and pathology), ICD-10 and the Simplified Version, and others (including confidentiality and privacy principles and healthcare data contents and structure). She estimated the time required for training at around 25 hours, which were dependent on trainees' educational background and eagerness to learn and which could be adjusted after implementation of training.

Discussion

While there was potentially a risk of different levels of support among coders for implementation of the Simplified Version to impact the quality of coded data, it was noted that such a risk may be mitigated by a data quality audit system such as the one introduced in Thailand.

As for the development of the Simplified Version for inpatient departments, it was suggested

to retain the basic Simplified Version to which countries could add additional categories to suit their needs.

Day 2, June 30, 2015

11. Wrap-up of Day 1

Prof. Kim wrapped up the activities of Day 1.

Following on from discussions on Day 1, Prof. Kim invited the participants to discuss ways to implement the ICD-10 APN Simplified Version in Cambodia. Dr. Veasnakiry suggested the Ministry's HMIS team draw up a roadmap for checking readiness of the translation, field testing, training of coders, and implementation. The implementation should start small with a pilot at a few hospitals that have existing databases of patient medical records. The technical support of ICD experts from countries already using ICD was necessary. Ms. Chetna Chawla, of Futures Group, emphasized the importance of adapting the Simplified Version to the Cambodian context.

As for development of a Simplified Version for inpatients in Cambodia, Dr. Paoin suggested working with the Cambodians to identify categories that needed to be added to the Cambodian version.

Ms. Chawla agreed to check with the USAID if technical support could be provided for the implementation of ICD-10 APN Simplified Version in Cambodia.

It was agreed that the Co-Chairs and the Cambodians will resume discussion on this issue after the meeting.

Dr. Endo informed that Laos had shown interest in adopting the Simplified Version and that the Co-Chairs have been in discussion with Dr. Phadouangdeth, of Laos, on supporting Laos. Dr. Paoin suggested Laos draw up an implementation plan and send it to the Co-Chairs. Ms. Dimitropoulos agreed to talk to the Brisbane Accord Group (BAG) for availability of funding for the project.

12. Status of Revision to ICD-11 and ICHI

Dr. Ustun gave a presentation on the status of ICD revision and ICHI. Simplification of ICD is essential in addressing the issue of "information paradox," a paradox where information is lacking from countries where information is most needed, by capturing actual data rather than estimated data. With digitization of EHR and health information systems, computerization is a key feature of the ICD revision, which introduces ontology as knowledge representation that computers can understand. ICD-11 is being developed as a Foundation Component, from which various Linearizations are derived for specific uses of mortality, morbidity, and primary care. The main linearization for mortality and morbidity uses has around 15,000 categories. There will also be two sets of primary care linearizations with around 2,000 and 1,300 categories, respectively. These will form the backbone of health information systems for use in reimbursement, capturing clinical information, and evaluation. As for the timelines, the field test version will be completed in 2015, field trials will be conducted, information on ICD revision will be presented to the World Health Assembly (WHA) in 2016, and the final version will be submitted to the WHA for approval in 2018.

Discussion

The linearizations for mortality, morbidity, and primary care and specialized linearizations are all compatible and can be used together in a country.

13. Field Trial of ICD-11

Mr. Nenad Kostanjsek, of WHO, gave a presentation on ICD-11 field trials via teleconference facility. The field trials (FT) will be conducted to further enhance the beta version of ICD-11 and compile data as evidence of improvement made in ICD-11 over ICD-10. The results of the field trials will also be used to increase feasibility for countries to transition to ICD-11. For

these purposes, (1) basic questions, (2) bridge coding, and (3) reliability tests will be conducted to assess the fitness of the classification for multiple purposes, ensure continuity from ICD-10 to ICD-11, and identify the added benefits of ICD-11 over ICD-10.

In Phase 1 (Nov. 2015-Dec.2016), the field trials will be limited in scope to specific chapters and the mortality and morbidity use cases of ICD-11. In Phase 2 (Jan.-Dec. 2017), comprehensive usage validation of the entire classification will be carried out for the mortality and morbidity linearization and possibly other linearizations.

Preparations leading up to Phase 1 will include translation of the beta version and the interface used in the FT data entry platform, development of training materials for effective, meaningful implementation of the field trials, and identification of FT centers and participants. Piloting of the FT instruments and protocols was conducted last year in the Chinese Collaborating Centre. APN countries are encouraged to conduct translation and to provide feedback on existing problems in ICD-10.

Ms. Dimitropoulos provided a follow-up on the development of the training materials. Training is needed to increase awareness and knowledge of ICD-11 globally among stakeholders and to enable FT participants to plan and take part in the field trials. The proposed training materials will have four components. Module 1, an introduction to ICD-11, will explain the purpose, use, and benefits of ICD-11 and the architecture and key features of the classification. Module 2, on the tooling environment, will allow participants to use the tools of ICD-11 for review and field trials. Module 3, on ICD-11 coding, will explain the structure and rationale of each chapter and show participants how to code using ICD-11 with coding examples and self-evaluation. Module 4, on FT instruments and protocols, will walk participants through the actual field trials. It is envisaged that the training materials will be customized for different stakeholders.

Discussion

From the APN, China, Korea, Japan, Australia, Malaysia, and Thailand are currently expected to participate in the field trials.

14. Use of ICD in reimbursement systems

Dr. Aljunid highlighted some of the issues in coding of data in copayment, case mix, and DRG systems, which require accurate morbidity coding of diagnoses, procedures, and costing data. In many countries, there is a lack of implementation and understanding of morbidity coding rules and morbidity coding, which has resulted in incorrect primary diagnosis capture and incompatible links between diagnosis and procedures, among others. There is a need to strengthen training in ICD morbidity coding specifically for reimbursement purposes. Countries' monitoring and evaluation systems could also be reinforced to provide feedback to coders and reduce errors.

15. Next Step

Based on the expression of interest by Laos to adopt the ICD-10 APN Simplified Version, the Co-Chairs have been in discussion with Dr. Phadouangdeth of Laos on the possibility of Laos to host the next annual APN meeting. It was tentatively agreed to hold the next annual APN meeting in Laos at around the same time of the year as this annual meeting. Dr. Phadouangdeth will check with the ministry and keep in touch with the Co-Chairs and the Secretariat. APN members will be kept informed of the progress.

There will also be a luncheon meeting of the APN during the annual WHO-FIC Network meeting in October 2015 in Manchester.

Prof. Kim thanked the participants and closed the meeting.