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Name of the University, Hospital, Research Institute, Academy or Ministry

Regional Central Health Directorate

Name of the Division, Department, Unit, Section or Area

Classification Area, General Directorate

City Udine Reference Number ITA-85

Title WHO Collaborating Centre for Family of International Classifications

Report Year 07-2012 to 07-2013

1. Please briefly describe the progress made in the implementation of your agreed workplan as WHO collaborating centre during the past 12 months (or the reporting period listed above). Please report on how each workplan activity was implemented, if any outputs have been delivered, if any results have been achieved and if any difficulties have been encountered during this time. If an activity has previously been completed, has not started yet, or been placed on hold, please indicate this.

Activity 1

Title: Revision of International Classification of Diseases (ICD-11).

Description: Provision of technical expertise for the ICD-11 revision process until the end of the beta phase and particularly carrying out the following work:

1. To review added concepts, their definition and position in the classification for matching the criteria of a classification element.
2. To work on the transition from ICD-10 to ICD-11 identifying on iCAT the relevant issues raised by URC.
3. To work on the coding rules for morbidity.
4. To review imported definitions for categories for congruency with the meaning of the relevant category of ICD.
5. To work on the application of ICF to the content model of ICD, and propose solutions for alignment on either side, in collaboration with the relevant groups.
6. To review added concepts, and their position in the classification for matching the criteria of a classification element.
7. To review relevant parts of ICD-11 previous to their publication as an alpha draft, for content and structure.
8. To participate TAG Functioning, TAG Mortality and TAG Paediatrics.
9. To support the population of the ICD-11 content model and the development of IT tools.
10. To develop use cases and conduct field trials on ICD-10 to ICD-11 bridge coding and case mix groupings (DRGs, Primary Care, Territorial Groups).

The expertise will be made available to WHO by the ItCC according to annual specific agreements.

The Italian CC, in the period July 2012 – June 2013, provided expertise on 4 main areas:

ICD VERSIONS COMPARISON TOOL

ICD-11 is now being developed, to be used in electronic health records and information systems. Member States have to use the most current ICD revision for mortality and morbidity statistics but one of the development goals of ICD-11 is to contain, in its foundation layer, all the different adaptations of ICD. In 2013 a first prototype of an informatic tool was developed by the Italian WHO-FIC CC (Vincenzo della Mea & Omar Vuattolo with Francesco Gongolo, Lucilla Frattura, Andrea Simoncello) to help experts in identifying ICD-10 candidate extensions from other available sources, including ICD-11 beta morbidity linearization, national modifications of ICD-10, and possibly other resources such as ICD-9CM translations and the Orphanet inventory. Starting from ICD-10 entities, candidate extensions are prompted from the available modifications, sorted, and when possible, merged according to lexical rules. A web-based interface is available for the user, that shows an ICD-10 tree browser and on its side the set of candidate extensions, identified as above mentioned. For each ICD-10 entity, the user views appropriate candidates for modification, and in a second step, can select subsets of extensions

assigning them a code. Imaging to develop a new clinical modification or to maintain an existing one, the set of selected extensions can eventually be submitted via Web Services, in form of an update proposal, to a classification management platform and be adopted in the respective classification. To foster ICD-11 compatibility, ICD-11 entities always appear as first choices among extensions. Considering the possibility to use the tool for the Italian scenario, the English extensions of ICD-10, were linked to the Italian translation of ICD9-CM, currently used for morbidity coding. The tool should enable the development and maintenance of clinical modifications of ICD-10 and facilitates their representation as linearizations of ICD-11. Such representation simplifies the transition from any ICD-10 based system to ICD-11.

Concrete outcomes

A tool was designed to compare different adaptations and different revisions of ICD thus making immediately available existing resources (eg. extensions and translations) for the design of an ICD adaptation that takes into account classification possibilities already explored by other national modifications and at the same time incorporates the novelties of ICD-11.

INFORMATICS-RELATED PROJECTS

Vincenzo Della Mea continued his collaboration with WHO headquarters, participating in a number of informatics-related projects, including:

- definition of the URI API and its experimentation. ICD11 identifiers will be based on the URI mechanism, which also provides for a web-service based method of access to entity properties;
- definition of Comments, Proposals and Reviews API and its experimentation;
- social network integration of the ICD11 browser: design and implementation of applications for Twitter and Facebook, aimed at stimulating collaborative work around ICD11.

On these topics, Omar Vuattolo made a number of exploratory software pieces, including:

- he tested experimental versions of the various APIs, contributing to its debugging and definition;
- he developed Twitter and Facebook applications.

Finally, Vincenzo Della Mea designed and drove the development of a prototype ICHI Browser and Authoring tool that might be the basis of the official ICHI platform.

ICD-11 Z CODES: REVIEW OF THE CHAPTER AND NEW ORGANIZATION OF THE CONTENT

As member of the Topic Advisory Group on functioning (fTAG) and of the Working group on Z codes, Francesco Gongolo participated in the drafting of a new structure of the Z codes chapter starting from the alignment of the revised ICD and ICF but also taking into account all the possibilities given by the joint uses of the WHO-FIC. Current debate on Z codes and suggestions for change were collected through a search of scientific literature and through the commenting features of the WHO ICD-11 beta browser. The ICD-10 chapter XXI, exported in spread sheet format from the revision collaborative platform (iCAT), was taken as starting point for redrafting the chapter. The different blocks of chapter XXI were reviewed in teleconferences, highlighting the relevance of the single classification entities in terms of their relevance as post-coordination categories of ICD-11, as contextual factors of the International Classification of Functioning Disability and Health (ICF), or as categories of the International Classification of Health Interventions (ICHI, now under development).

Work on the revision of the structure of ICD-10 chapter XXI in the context of development of ICD-11 will continue and is a great possibility of testing the actual integration of the Family of International Classifications in terms to effectively represent, beyond the disease, all dimensions of health. The involvement in this project, through the collaborating centres, of other experts in all WHO reference classifications is highly desirable.

Concrete outcomes

Draft structure of ICD-11 chapter 23 on Excel spreadsheet. Recommendations for updating the ICF in terms of contextual factors, for the definition of postcoordination dimensions in ICD-11 and for ICHI development. Poster for the WHO-FIC 2013 annual meeting

MAIN CONDITION WITH ICD

Starting from a review of the documents delivered at international level, Lucilla Frattura, Francesco Gongolo and Flavia Munari proposed a new perspective on the coding rules to assign the main condition, taking into account the work done by the Italian WHO-FIC Collaborative Centre (CC) within an Italian inter-regional cooperation in the field of children and youth neuropsychiatry. The main condition workflow produced by the Morbidity Reference Group (MbRG) in 2010 was taken as the starting point to develop three separate trees to identify the conditions, code them, and sort out the condition, recognized at the end of the episode of care, primarily responsible for the patient's need for treatment or investigation (reason for encounter vs condition generating the greater use of resources). The perspective of clinicians was adopted according to, while the clinicians are coding, are keen to keep their diagnosis-oriented approach. The logic of the Italian WHO-FIC CC proposal was tested against the coding guidelines adopted in Australia, Canada, Germany, and US. The materials showed that the definitions adopted in the above-mentioned Countries for hospital discharges, were different, although they all were specifications of the WHO definition, which has also been largely modified and updated during the course of the years. This lively and interesting discussion on the coding of the main condition in the hospital setting, is in contrast with the lack of any debate on main condition coding in the ambulatory setting. The three trees developed were a tentative systematization that takes into account both hospital and ambulatory settings and is compatible with some of the most common case-mix systems adopted in the world. The issue is relevant not only to achieve a more standardized and comparable use of ICD-10 but also to implement ICD-11 in the future, since the new revision of the International Classification of Diseases will easily allow customization for primary care settings.

Concrete outcomes

Three separate decisional trees were tested to identify conditions, code them, and sort out the condition, recognized at the end of the episode of care, primarily responsible for the patient's need for treatment or investigation (reason for encounter vs condition generating the greater use of resources).

Dissemination of the results

Della Mea V, Vuattolo O, Celik C, Ustun B. Social network integration of the ICD11 Revision Platform. In: Proc. of The 14th World Congress on Medical and Health Informatics, Copenhagen, 2013, accepted.

Gongolo F., Bang S., Sykes C. ICD-11 and the "Factors influencing health status and contact with health services": a test of integration for the Family of International Classifications. WHO-FIC Annual Meeting, Beijing, 2013, submitted.

Della Mea V., Vuattolo O., Gongolo F., Frattura L. Smartly up-to-date: an electronic tool to compare ICD, its revisions and adaptations. WHO-FIC Annual Meeting, Beijing, 2013, submitted.

Frattura L., Gongolo F., Munari F. Identification and coding of the main condition using ICD: suggested workflows. WHO-FIC Annual Meeting, Beijing, 2013, submitted.

Activity 2

Title: Development of a case mix application for ICD-11.

Description: The activity aims to develop and validate a case mix application of ICD-11, starting from the analysis of the current Italian ICD-9CM DRG system and its possible translation to other case mix systems, and load the corresponding groupings into iCAT also considering ICF for continuity of care applications. Those groupings should be then validated in suitable field trials. This activity not only leads to the development of a case mix use case of ICD-11 but potentially leads to the development of ICHI in case of a strong request coming from interested Countries.

The Italian CC provides expertise in the International Classification of Health Interventions (ICHI) development process. Andrea Martinuzzi participated in the Technical Working Group on functioning interventions (TWG). ICHI is the third WHO reference classification, and among its scope is to provide a framework systematically describing health interventions to allow comparison in provision of health interventions, assist in the development of health policies, contribute to evaluation of effectiveness. The interventions aimed at body functions, activities or environmental factors (functioning interventions) typically delivered, e.g., in rehabilitation and mental health sectors, are growing in weight and complexity worldwide, but they are paradoxically represented in a very sketchy and non-systematic way in the intervention list of ICD9-CM and in intervention classifications used in some countries. The work of the TWG for functioning interventions commenced in Sydney Australia in 2011 and led to the first listing of functioning interventions which consistently applied the three-axes (target, action, mean) upon which the ICHI framework is built. This initial list was included in the ICHI alpha draft presented at the 2012 Brasilia WHO-FIC annual meeting. The Functioning TWG defined 3 goals to be reached within 2013: 1) revising and enriching the ICHI axes to enhance the descriptive capacity of the system; 2) address mental health, neuropsychology, Physical therapy and Occupational therapy as areas of particular relevance and complexity; 3) perform a first revision of the functioning interventions. These goals were pursued with face to face meetings and teleconferences, in which the TWG included contributors from experts and practitioners in the selected areas, and reached agreement through discussion and audit. Vincenzo Della Mea also participated in ICHI development through the development of software aimed at translating current ICHI Excel files into a format more suitable for electronic representation and usage.

Concrete outcomes

At the end of this first round of refinement, 782 functioning interventions were listed. A process for systematically checking of the present list for completeness and significance was planned, with the goal to bring the functioning intervention list to a degree of stability.

Dissemination of the results

Almborg A.H., Salvador-Carulla L., Sykes C., Berg L., Cumerlato M., Madden R., Martinuzzi A. The growing tree of Functioning Interventions within ICHI. WHO-FIC Annual Meeting, Beijing, 2013, submitted.

Activity 3

Title: IT and Ontological development for WHO-FIC.

Description: Provision of technical expertise, in presence as well as through teleworking, to support the IT and ontology-based developments of the WHO classifications, focused on the ontological redefinition of ICF, the building conceptual and operational linkages between ICD-11 and ICF through the modelling of functioning properties, the mapping of ICF to other terminologies or ontologies (SNOMED-CT, FMA, upper ontologies) and the mapping of measurement scales to ICF in OWL format (FIM, FAM, Barthels, and eventually others).

The activity consists in the following actions:

- (i) Updating of the analysis of the current status of ICF and discover underlying ontological principles on which is founded with reference to other basic ontologies;
 - (ii) Design of a ICF-based functioning properties model to be embedded in ICD11 content model;
 - (iii) Continuity of the Mapping of ICF to other knowledge bases and terminologies and represent mappings in formal languages like OWL;
 - (iv) Representation, by using formal languages, of the links between measurement scales and ICF;
 - (v) Exploration of new ways of ICF usage by means of knowledge based software;
 - (vi) Design of a collaborative project with other WHO-FIC network research centres and fund raising.
- The actions will be carried out in close cooperation with the Ontology Working Group of the WHO-FIC Informatics & Terminology Committee and the domain experts group provided by the WHO-FIC Functioning and Disability Reference Group.

In the last year, efforts were directed mainly to IT support for ICD11 revision and implementation, with some strategic involvement in activities related to the ontological development of ICF, as detailed below.

(i) The collaborative work behind classification revision and update can be truly defined as a social experience, with the participating community of experts behaving like a social network in the traditional sense. Since in the last years novel web-based tools started to appear, replicating online the features of social networks, we started some experiments to bridge the gap between classification revision and social networking.

(ii) In June 2012 Vincenzo Della Mea was nominated by WHO-FIC Headquarters as member of the WHO- IHSTDO Joint Advisory Group (JAG). JAG meets once a month through teleconferencing, and twice a year face-to-face. Inside JAG, he also participates into the Common Ontology Joint Working group that works on ICD - SNOMED-CT harmonization. This working group meets twice a month through teleconferencing. V. Della Mea participated to most meetings of both, and recently started the development of the software needed to carry out an exploratory mapping and common ontology definition on the Cardiovascular chapter of ICD11. The JAG group also proposed and had successfully been accepted a workshop at the World Congress on Medical Informatics.

(iii) Vincenzo Della Mea has been acting as secretary of the Informatics and Terminology Committee (ITC) until October 2012, and then was elected as co-chair of the Committee in 2012. In this role, he participated in all activities involving committee chairs, including preparing the Strategic Workplan, participating to WHO-FIC Council meetings, and teleconferencing with the co-chair Karen Carvell. To simplify the management of submissions for the annual network meetings, in the Brasilia V.Della Mea proposed as a task of the ITC the development of a submission web site. He then selected an open source software for doing that, modified it to suit WHO-FIC purposes, and implemented it on his own web server at the University of Udine. The submission web site is being used experimentally starting from this year.

(iv) In 2010 the World Health Organization (WHO) and the International Health Terminology Standards Development Organisation (IHTSDO) signed a collaboration agreement to harmonize WHO classifications and SNOMED CT. Francesco Gongolo is member of a Joint Working Group (JWG), set up by WHO and IHTSDO, through their Joint Advisory Group (JAG), to collect and discuss relevant information on the topic of the harmonization between the International Classification of Functioning Disability and Health (ICF) and SNOMED CT. The members of the JWG, working in pairs (one from IHTSDO and one from WHO), independently reviewed all the ICF categories of Activities and Participation (A&P), excluding residuals: concept, definition and relationship to other concepts were considered. Equivalence to SNOMED CT concepts was searched in terms of Lexical, Semantic (content) and Hierarchical matching. For every ICF A&P category it was defined whether or not a gap existed with SNOMED CT. In the event of concept ambiguity, items were flagged either to WHO or IHTSDO for consideration. The pairs documented their independent reviews and then came together to discuss their findings. Weekly teleconferences were used to seek additional feedback and to review the methodology. Recommendations to WHO and IHTSDO on how to update respectively ICF and SNOMED CT were formulated.

Disseminations of the results

Rodrigues Jm, Schulz S, Rector A, Spackman K, Ustun B, Chute C, Della Mea V, Millar J, Brand Persson K. Sharing Ontology between ICD 11 and SNOMED CT will enable seamless re-use and semantic interoperability. In: Proc. of The 14th World Congress on Medical and Health Informatics, Copenhagen, 2013, accepted.

Della Mea et al Report ITC. WHO-FIC Annual Meeting, Beijing, 2013, submitted
Karlsson D., Gongolo F., Robinson M.M., Millar J. ICF- SNOMED CT Harmonization - a gap analysis. WHO-FIC Annual Meeting, Beijing, 2013, submitted.

Simoncello A., Girardello M., Della Mea V., Cabroni A., Frattura L . An HL7-CDA2 standard template for the ICF-based electronic biopsychosocial record. WHO-FIC Annual Meeting, Beijing, 2013, submitted.

Activity 4

Title: Coordination and management of the ICD-10 and ICF update process.

Description: Provision of URC co-chair and secretariat functions, together with the other URC co-chair and secretariat, for 2011-2012 and offer availability for 2013- 2014 to ensure, with cross sectional competence both in ICD and ICF, an integrated approach to the update of the WHO-FIC members. More in detail this activity consists of the overall coordination of the update process done by the co-chair together with the secretariat and in other activities such as refinement of the workflow, clarification of membership and further elaboration of the user guide for the update platform, production of documentation such as desiderata and practical guidance for submission of updated proposal, and in the development and maintenance of policies of update in the perspective of the transformation from ICD-10 to ICD-11.

(i) The Italian CC provided for the Update and Revision Committee co-chair and secretariat functions, together with the other URC co-chair and secretariat. In the timeframe July 2012- July 2013, the Italian CC continued to support the ongoing process of ICF update on the items coming from the ICF-CY. Purpose of the Update and Revision Committee (URC) is to support WHO and WHO-FIC Network in keeping the WHO Family of International Classifications "Reference Classifications" up to date in line with current knowledge. The functions of the URC are the development of Update policies, Update coordination & decision making and the participation in the revision work in order to ensure synchronization from one revision to the other and consistency within the members of Family of International Classification. The URC work is mainly conducted through the update and revision platforms which are workflow engines designed to facilitate communication within expert workgroups and ensure transparency of the processes. Work and communications are also carried out via e-mail, conference calls and meetings, including an annual meeting during the WHO-FIC Annual Meeting. Key deliverable of the URC work include the lists of updates for WHO-FIC member classifications.

(ii) An ICF update workshop was convened in Paris March 2013 by the French CC, to which Andrea Martinuzzi participated as FDRG Co-Chair and as representative of the Italian CC. The workshop allowed the definition of 67 recommendations to URC for pending proposals. A poster on this work will be presented at the annual WHO-FIC meeting.

Concrete outcomes

In year 2012, 32 updates to ICD and 7 updates to ICF were approved by the URC and endorsed by the WHO-FIC Council at the annual meeting held in Brasilia, Brazil 13-19 October, 2012. In 2013, in terms of annual updates to ICD, 120 proposals have been moderated and put to vote by members. In terms of updating ICF, 78 proposals have been reviewed by the FDRG and put to vote by URC members: the majority of these updates still regards ICF-CY items reviewed in order to become part of a foundation ICF In terms of developing and maintaining the update policy, a new version of the ICF update platform user guide has been finalized. Functions, activities and completeness of deliverables are represented in the latest version of the Strategic Work Plan submitted to the WHO-FIC Council.

Dissemination of the results

Gongolo F., Vogel U., Moskal L. URC Annual Report. WHO-FIC Annual Meeting, Beijing, 2013, submitted.

Sykes C., Martinuzzi A. FDRG Annual Report. WHO-FIC Annual Meeting, Beijing, 2013, submitted.

Activity 5

Title: National work on WHO-FIC.

Description: Translation of WHO-FIC materials into Italian. The Italian Centre serves as a focal point for translation and publication of WHO classifications and related documents in Italy. It promotes the adoption, on the basis of the work plan agreed with the Italian Ministry of Health, of the translated versions of the WHO-FIC materials of national relevance.

Design and diffusion of WHO-FIC training tools and guidelines to describe functioning/disability profiles. The Italian Centre serves as a focal point for translation, publication and training of WHO-FIC training tools. The Italian Centre is also specifically committed to WHO and national and local institutions for the development of training tools and guidelines on how to use ICF in disability assessment and eligibility according to ICF disability/functioning definition. It acts as a national reference point for training on WHO-FIC use.

Software applications for using WHO-FIC in national data collection and analysis. Design and develop software that implement new ways of interacting with FIC-based data, including collection, usage, visualization, decision support. This includes software to: - Support social networking-based update of WHO classifications (e.g. ICD-11); - Collect coded data in health and social information systems; - Deliver codes from local information systems to general repositories; - Provide software modules for other WHO -compliant software. In the design process, exploitation of current standards might be involved, as well as development of specifications for communication standards.

ICF implementation in national disability policies and development and deployment of national ICF implementation knowledge database.. This line of work is a national priority. The Italian CC officially supports four national Ministries to introduce ICF in disability evaluation at different levels and in different policies. The Centre ensures adherence and coherence to ICF conceptual framework in multiple application and implementation areas informing the development and product refinement on how to document and code with ICF at national level.

The workline consists of the following:

- (i) use of WHO-FIC and health terminologies within the National Health System and the National Health Informative System, in close cooperation with the Italian Ministry of Health;
- (ii) set up and implementation of guidelines introducing ICF-CY in primary schools, in close cooperation with the Italian Ministry of Education, University and Research;
- (iii) ICF based data collection for job inclusion of persons with disabilities, in close collaboration with the Italian Ministry of Welfare and social Policies and the Italian Workers' Compensation Authority (INAIL)
- (iv) Definition of ICF based items to use in national administrative data and population survey on children disability, in close cooperation with the Italian Ministry of Education, University and Research.

ICD implementation strategy in Italy. On behalf of the Italian Ministry of Health, ItCC will be responsible for the coordination and implementation of a national work plan aimed to introduce ICD-10 and modify the current classification of interventions and procedures, in order to pay for hospital products through Italian DRGs (Government funded four-year project "Progetto di un nuovo sistema di misurazione e valorizzazione dei prodotti delle strutture ospedaliere. New measurement and paying systems for hospital products." IT.DRG). An analysis of the current Italian DRG system will be carried out, new case mix applications will be developed, and, upon WHO approval, groupings will be loaded into iCAT. Training programs will be realized focused on the use of the new classifications by clinicians and statisticians starting from field trials to routine.

Development of a first draft of a children version of WHODAS 2.0 and its validation through the clinical activities of the ItCC research branches Car

MORTALITY CODING

(i) In Italy, ICD-10 is used by the Italian National Institute of Statistics (Istat) for Causes of Death (CoD) coding since data year 2003. Version 2009 is being now used. Nevertheless, the version available for users is based on 1999 WHO updates produced by the Minister of Health as paperback. In order to provide metadata of CoD documentation and to provide a valid support for coders, Istat made an effort in the dissemination of ICD-10 through the newly implemented System of Classifications, a web based tool for browsing classifications used in official statistics. The availability of the Italian

translation of the ICD-10 updated according to the WHO version used for mortality statistics in Italy, provides innovative opportunity for users of mortality data, for data producers and health researchers. A web application was developed in order to navigate the ICD-10 and provide all the useful information for coding: hierarchic structure of the classification, inclusions, exclusions, dagger/asterisk codes. Moreover, a module for the string search has been developed, based both on the Volume I and the Volume III. In this module, a system of string standardization and synonyms has been developed in order to return the largest number of search results. The development of the tool requested a database with all the contents of the ICD-10 compatible with the Istat System of Classifications. The Istat System of Classifications for ICD-10 database contains more than 12,400 records represented by ICD Chapters, blocks, categories and subcategories. More than 16,000 examples, inclusions and exclusions are linked to the main records. All this information is made available in the ICD-10 browser for Volume I. The links, developed within the browsing form, allow the user to navigate the classification. The string text, besides the Volume I, operates on more than 52,700 terms of the Volume III. The synonyms tool helps to code the very complex Italian medical terminology. Results of the index search are displayed with the same structure of the paperback volume. This visualization provides an effective help during coding. The ICD-10 Online in Italian represents an essential tool for documenting statistics based on this Classification. Moreover, thanks to possibility of updating the database according to the version used for mortality statistics and the powerful search tool it can be used by experts for coding practices. Finally, the availability of the Online Classification is an opportunity for Italy to implement ICD-10 in new fields. In the production of causes of death (CoD) statistics, the introduction of new coders can affect data series. The impact can be limited by an appropriate training.

(ii) Five research assistants, recruited in October 2012 by the Italian National Institute of Statistics (Istat), were trained on the use of ICD-10 for CoD coding. The effect of the training course was analyzed on the reliability of underlying cause of death coding performed by the recently trained coders. The ICD-10 course was scheduled in 13 teaching days (January-February 2013, 6 hours per day) with a following period of 4 months of training on the job. In the first two days production, dissemination and use of mortality data was thought. Successively the course focused on the use of ICD-10: rules of multiple cause (MC) modifications; selection and modification rules. Learning material was based on ICD-10 volume 2, WHO training tool, USA (NCHS) training. For each topic, ad hoc exercises were provided. During the training on the job all students coded 4,050 death certificates rejected by the automated coding system and previously coded by senior coders. The coding was computer assisted and requested the completion of MCs. For certificates with complete MC, Acme software was used to select the UC; manual selection was performed on certificates with incomplete MC, certificates containing complications of surgery or external causes. The reliability of cause-of-death coding was measured by the agreement between the five younger coders and senior coders. Some special cases were also analyzed such as certificates containing complication of surgery. The agreement percentage of CoD coding between the new coders and the senior coders was 79% at four digit level, ranging from 76% to 80% by coder. The indicator increased over time, from 71% in the first working week to 80% at the end of training course. The number of certificates coded per day by certifier improved progressively from 17 to 100 certificates. The analysis by cause of death category showed the lowest inter-coder agreement for trivial conditions, sequelae, cancer of undetermined origin or secondary, hepatitis and rheumatic heart diseases. The study shows the effectiveness of the training to increase the reliability of UC and to correct errors in coding practices. Nevertheless a certain amount of inter-coder variability is unavoidable. This highlights the needs of clearer instructions on some topics such as sequelae and surgery.

MORBIDITY CODING

(i) Although ICD-10 is not mandatory for morbidity coding in Italy, Italian scientific societies have adopted the derived Multiaxial Classification (MC) of Child and Adolescent Psychiatric Disorders as a diagnostic tool. This has led to two misconceptions on ICD-10: ICD-10 is only a diagnostic tool and is limited to the categories of the MC (chapter V, some codes of chapter XXI, few codes from other Chapters). Lucilla Frattura, Francesco Gongolo and Flavia Munari carried out activities to implement the full use of ICD-10 in the Piedmont region (Italy), where MC is used for epidemiologic purposes in the NPI.net, the regional information system collecting data from child/adolescent neuropsychiatry services. By formal agreement, the Italian WHO-FIC CC provided the Piedmont region with support in

the training of professionals and in the revision of NPI.net. The training aims were: (i) to overcome the use of the MC; (ii) to avoid the use of codes invented to fill the gaps of the MC in the clinical practice; (iii) to replace the sixth axis of the MC with an ICF profile. The first ICD-10 training (14 hours, two consecutive days) was for a restricted group of health services directors (N=30) and was held in November 2012 in Turin. The second ICD-10 training course (14 hours, two consecutive days) was held in May 2013 for 90 health professionals (psychiatrists, neurologists, and psychologists). An appropriate use of ICD-10 allowed users to keep the classification as a diagnostic tool and to fully code all conditions and reasons for encountering health services. The Italian translation of the WHO ICD-10 training tool is highly encouraged, although specific users needs should be considered. In the framework of the Italian WHO-FIC CC/ Piedmont region collaboration, a web application (FABER) will be implemented for an ICF-based evaluation of functioning, formerly described using the sixth axis of the MC. Although limited to the Piedmont region, the experience has national relevance as it is the first implementation of ICD-10 in a morbidity setting.

Concrete outcomes

New education materials were developed, including coding exercises, tailored to the requirements of child/adolescent neurologists, psychiatrists, psychologists and rehabilitation operators; coding errors due to the outdated and approximate translation of the MC were addressed; wrong coding habits were corrected; codes invented for conditions not present in the ICD-10 Tabular List as such were avoided by appropriate use of the ICD-10 Index.

ICF IN BIO-PSYCHO-SOCIAL RECORD

The Italian CC developed software applications for using WHO-FIC in data collection and analysis. New ways of interacting with FIC-based data were implemented, including collection, usage, visualization, and decision support. Since 2011, the alpha version of a new web application has been used in three field trials in Friuli Venezia Giulia Region. FABER uses ICF and other medical terminology systems as a basis for a flexible standards-based bio-psycho-social record. Since 2011, three field trials using the tool have been carried out in the Friuli Venezia Giulia Region. The analysis of the data collected in the regional field trials was developed in order to contribute to use ICF in population studies, with the cooperation of the University of Udine (Dept. of Economics and Statistics).

(i) The operationalization of the disability and functioning constructs based on the analysis of Environmental Factors (EF) roles in the Activity and Participation (AP) domains is presented here. 213 outpatients were enrolled (mean age 34, range 1-92): 41.8% females, 18.8% <18 years. Two subsamples, the 53 patients aged < 18 and the 51 patients in charge to mental health services (MHS), were considered separately. EF citation frequency and EF roles in AP domains were analyzed. Performance qualifier values were also considered to partially assess a negative EF-individual interaction (disability) versus a positive one (functioning) with the following levels: positive interaction (performance qualifier 0), extension (or presence) of a negative interaction (performance qualifier 1-4), alarming negative interaction (performance qualifier 3-4), and absolute negative interaction (qualifier 4).

Most cited EF were: e310, e110, e355, and e575. EF in chapters e1, e3 and e5 were more frequently cited as facilitators (94%, 96% and 97%, respectively), while those in e2 were generally cited as barriers. These results were confirmed in the subsamples. When we considered only AP items with some coded EF, in younger patients, most positive interactions were seen in chapters d5, d6 and d9, whereas in MHS patients, the highest percentages of positive interactions were seen in chapters d1, d3, d4 and d9.

In the younger subsample, high percentages of negative interactions were seen in chapters d1, d2, d3, d7 and d8, whereas in MHS patients, negative interactions were more frequent in chapters d2 and d7. Alarming negative interactions were still more frequent in chapters d1 and d4, among younger patients, and in chapters d7 and d8, among MHS patients. High percentages of absolute negative interactions were found in chapters d3, d5 and d8 among younger patients, and in chapters d7 and d8 among MHS patients.

The median of individual frequencies of negative interactions was higher (100% of AP items with performance qualifier 1-4) for chapters d1, d2, d3 and d7 in younger patients and for chapters d2, d5 and d7 in MHS patients; the median of individual frequencies of positive interactions was higher

(100% of AP items with qualifier 0) for chapters d5 and d6 in the younger group.

(ii) Analysing the role of Environmental factors

In a specific study, generalized linear models were estimated to analyse the "roles" of some Environmental Factors (EF) within the Activity and Participation (AP) domains.

The whole enrolled sample of 213 outpatients and two subsamples (the 53 patients < 18 years and the 51 patients in charge to mental health services (MHS)) were considered separately. After an exploratory analysis of coded EF, generalized linear models were used to evaluate the probability of particular "roles" for the four most cited EF. These "roles", based on specific conditions (events) related to the AP qualifiers, were: real facilitator (EF had a qualifier equal to 3 or 4), real barrier (EF had a qualifier equal to .3 or .4), relative facilitator (EF coded as a facilitator and performance qualifier smaller than the capacity qualifier), absolute facilitator (EF coded as a facilitator, performance qualifier equal to 4, and capacity qualifier greater than 0) and not improving environmental factor (performance qualifier greater than the capacity qualifier, given the EF coded). The probability of these roles was assessed using logit models. Fixed effects were included into the models for the AP chapters, the subsamples of patients and gender. EF related to AP categories were 14,765: 4,343 for patients < 18 years and 3,387 for MHS patients. The most cited EF were: e310 (3,431), e575 (1,609), e355 (1,477), e340 (1,395) and e110 (1,338). In patients < 18 years, the most cited EF were: e310 (1,319), e575 (496), e355 (349), e580 (308) and e360 (250). In MHS patients, the most cited EF were: e110 (743), e355 (702), e580 (416), e340 (292) and e310 (288). The analysis of the roles of the most cited EF pointed out manifold results. The role of real facilitator was more likely covered by e355 (health professionals) within subgroups. EF e310 (immediate family) and e110 (products or substances for personal consumption) were more likely real barriers in MHS patients. e310 was more likely a relative facilitator and an absolute facilitator among males.

(iii) Comparative analysis in longitudinal studies of both the Environmental Factors (EF) role on the Activity and Participation (AP) limitation presence and/or extent is presented.

A sample of 126 patients was selected and evaluated both in 2011 and 2012 (mean age, 33 years in 2011 and 35 in 2012; 41% females). A descriptive analysis of coded EF in the AP domains allowed to deepen the EF effectiveness, comparing it by year. The assessment protocol considered an ad hoc checklist of 67 AP categories from all AP chapters. EF were coded in the AP component for every selected item. The intervals of AP qualifier values were defined according to the exploratory analysis. EF related to the AP categories considered were 8,734 in the 2011 sample and 7,848 in the 2012 sample: 93% in 2011 and 95% in 2012 were coded as facilitators. Analysis of EF citations showed that in AP chapters d2, d5 and d6 the number of categories with EF was larger than the number of categories without; furthermore, EF were more frequently coded when the performance qualifier value was equal to 1, 2 or 3. In both years and limited to AP items with some coded EF, chapters d5 and d6 showed the largest reduction in the proportion of persons with performance qualifier values 1-4 compared to the same capacity qualifier values. Considering only a qualifier value of 3 or 4, such a reduction was large in all AP chapters, even larger than that observed with qualifier value 4 only. This was confirmed in both years. The analysis was explorative. EF resulted to be coded mainly in items of chapters d2, d5, and d6 and when the performance qualifier value was equal to 1, 2 or 3. Considering AP items with some coded EF and performance qualifier values 1-4, we found the highest frequency of EF effectiveness in chapters d5 and d6. When considering only a qualifier value of 3 or 4, we found a high frequency of EF effectiveness in every AP chapter. The same results were obtained in both years.

ICF AND CHILDREN WITH DISABILITY INCLUSION POLICIES

a) In 2011, Lucilla Frattura was appointed as a member of the National ICF Technical Group set up at the Italian Ministry of Education, University and Research (MEUR) under the "ICF Project". The national two-year project entered its final phase. The aim was to support the use of ICF in the assessment of educational environments for their ability to accommodate diverse student populations and facilitate participation for all children. The goal was to collect inputs to recommend how to use ICF, especially in order to identify educational barriers and facilitators in participation, thus avoiding the risk of a Babel of languages, and how to better accommodate diverse students. Guidelines for using ICF-CY in the Italian education system are in progress by the national ICF technical group.

b) The Medea Research Branch guided the re-evaluation of the ICF-CY based form for children with

disability in the school inclusion process for the Province of Treviso. The appraisal of a 5 year experience of this form use allowed a verification of impact and a revision which focused on broader and more precise annotation of environmental factors. A poster has been submitted to the WHO-FIC annual meeting 2013.

ICF AND JOB INCLUSION POLICIES

ICF-based data collection for job inclusion of persons with disabilities, in close collaboration with the Italian Ministry of Welfare. The implementation of ICF-based assessment tools to realise the targeted employment of people with disabilities started in Italy in 2004 and it represents a work in progress. Matching a person's features with company's requirements is the key factor for a successful work placement. The common language provided by the ICF was tested to verify how the ICF model of disability could be useful to facilitate such a matching process. In 2012, a new national programme was launched on the evaluation of functioning/disability of disabled persons in order to study the conditions necessary for their inclusion in a work setting and to include a study sample. Italia Lavoro is the governmental body responsible for the programme on behalf of the Ministry of Labour. The WHOFIC Italian CC, with Lucilla Frattura as the work line coordinator, supported Italia Lavoro in the development of the assessment protocols, and in the definition of how the information system can use ICF as a standard. Two ICF-based evaluation tools (Worker Assessment Protocol, Company Assessment Protocol) were revised.

ICF AND NATIONAL ACTION PLAN FOR PERSONS WITH DISABILITIES

The Italian National Observatory on the Condition of Persons with Disabilities represents a complex instrument created to analyze, improve and enhance information about disability; at the same time, the Observatory aims at improving the level of effectiveness and adequacy of relevant policies. The Observatory acts as a consulting, technical and scientific body for the elaboration of National policies in the field of disability, with particular regard to: the promotion of the implementation of the UN Convention on the Rights of Persons with Disabilities,; the promotion of collection of statistical data and the production of studies and research on this issue; the preparation of the report on the state of the art of the implementation of disability-related policies; the preparation of a two-year action plan for the promotion of rights and the integration of persons with disabilities, in order to enact National and International legislation. The Italian Disability Action Plan is the result of an intense work of collection and evaluation of information. Data and information, normative and impact-based evaluations of policies are constantly updated with the elaboration carried out under the direct or indirect supervision of the Ministries involved and this work is based on the ICF framework and the UN Convention on the Rights of Persons with Disabilities articles. The general structure of the National Action Plan is organized as a synthesis of normative and policy-related problems, as well as the distance from the principles and the Convention, which requires the legislator of Governmental bodies to take a position. The Plan reports indication of priorities for normative and policy-oriented revision of legislative and governmental action and provides the pathway for Italian Government for next two years of policy development on disability.

COTEAM PROJECT

A collaborative project named "COTEAM" which gathers partners involved in various stages/levels of care provision for this population in different Italian health service providers was launched Nov 2012. To appropriately describe the functioning profile of a representative sample of the transitioning population we selected five typical situations of potential gaps in service provision: access and orientation in the services, emergency handling, diagnosis, information and update with the latest information on the disease, patient and caregiver empowerment, continuity of care. 39 ICD diagnoses typically associated with long-term care needs were selected. As functioning descriptor ICF was recognized as the best tool to map the functional status and the environment responses for this cohort. Persons encountered by any of the five clinical participating units aged 14 to 20 years between Jan 2010 to Dec 2012 and carrying one of the selected ICD diagnoses have been identified and will represent the population from which a sample of 250 subjects distributed across the entire

age span will be selected for the functioning evaluation. The ICF based assessment method (protocol/web application), which has been developed by the Friuli Venezia Giulia Region / Italian WHO-FIC CC, will be employed for the first time out of the Region, in order to verify its usability in describing everywhere the functioning profile of each subject and of a whole sample. The balance between functioning and disability will be evaluated for persons below age 18 and compared to that obtained for persons aged above 18, and will provide a proxy for met and unmet needs. The results of this project will provide the first systematic recognition of the functional profile of persons with disability transitioning from adolescence into adulthood. By offering a reasoned view of met and unmet needs it may be used as a guide in designing models of care minimizing gaps and obstacles in this critical phase.

Dissemination of the results

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Martinuzzi A., Pizzighello S., Piccoli S., Canciani M., Leonardi M., Meucci P., Scarpa M., Agosto C., Benini F., Bassi G., Simoncello A., Frattura L. Mapping met and unmet needs of persons with complex health conditions in the transition from childhood into adulthood with an ICF-based protocol. WHO-FIC Annual Meeting, Beijing, 2013, submitted.

Activity 6

Title: Awareness building and implementation support of WHO-FIC in WHO regions.

Description: Promotion of the WHO-FIC members as reference framework in disability assessment, data collection and eligibility, including monitoring of the UN Convention on the Rights of Persons with Disabilities within international initiatives on health and disability policies.

The main networks in which the present activity is executed are the following:

(i) The Assembly of European Regions: attendance as a WHO-FIC reference to Committee n. 2 Social Policy and Public Health (current president: the Friuli Venezia Giulia Minister of Health and Social Policies, V. Kosic).

(ii) Alps Adriatic Working Community. It counts 10 member Countries and Regions: Friuli-Venezia Giulia Region, Baranya (AUT), Burgenland (AUT), Carinthia (AUT), Croatia, Lombardy (ITA), Slovenia, Styria (AUT), Vas (HUN), Veneto Region (ITA).

(iii) Network promoted by the RHETI Project and financed by the EU PROGRESS Programme on the implementation of the objectives of the European Union in employment, social affairs and equal opportunities.

(iv) The Eastern European Countries (primarily Albania and Kosovo) involved in the implementation of the Friuli Venezia Giulia Operational Plan 2010 - 2013 "The international dimensions of FVG Regional Health Policy" on five priority fields of action: a) disability; b) social and psychosocial disadvantage; c) motherhood and childhood; d) advanced biomedical technologies; e) healthcare management.

(v) EUREGHA: open network of regional and local authorities, including the Friuli Venezia Giulia regional Ministry of Health and Social Policies, focused on public health.

(vi) Clinical Network of "Eugenio Medea" Scientific Institute for Research in extra-European Countries. Serve as resource of persons for WHO-FIC related training and capacity building activities as requested by WHO-HQ or Regional Offices.

The Italian Collaborating Centre takes part in the COURAGE Project in Europe, for development and validation in three European countries of ICF-based measures of health and health-related outcomes for an ageing population.

KOSOVO

Since 2011, Lucilla Frattura has coordinated a project to support the implementation of the Disability action plan of Kosovo, in strict cooperation with the Italian Ministry of Foreign Affairs - Italian Cooperation for Development. The project is funded by the Friuli Venezia Giulia Region, under the regional multiannual plan for international health policies. The activities have been carried out by Lucilla Frattura, Flavia Munari and Francesco Gongolo in order to implement the use, recommended by the Kosovar action plan, of the International Classification of Functioning, Disability and Health (ICF). The activities were carried out at municipal and central level to set up a work plan to implement a national recommendation for evaluating and overcoming disability according to a biopsychosocial model. At municipal level (Gjilan) three types of activities were carried out: (i) methodological assistance to an "ICF working group" to design a door-to-door survey on 300 families with children with disabilities and to analyse the collected data (2012); (ii) multiple training sessions to use ICF methodology for the evaluation of children with disabilities (2011-2013); and (iii) an 8-day training course for 30 nurses to develop communication and counselling skills useful to manage patients with disability experiences (2012-2013). At central level, three types of activities were carried out: (i) the realization of an international Autumn school on ICF in Udine (Italy) for an intersectorial Kosovar delegation (2011); (ii) the provision of technical assistance to the start-up of an interministerial working group for the adoption of ICF in Kosovo (2012-2013); and (iii) the provision of technical assistance to the start-up of a Kosovar association for the implementation of ICF in Kosovo (2012-2013). Data collected at municipal level were analysed and reported; an interministerial working group was established by the Kosovar Office of Good Governance, comprising the Ministry of Education, Science and Technology, the Ministry of Health, the Ministry of Labour and Social Welfare, a WHO representative, a UNICEF representative, and the representative of the Gjilan ICF working group. The Italian WHO-FIC CC support was requested to the Italian Ambassador. A professional association was formed in 2013, named OKiNF (where KNF in the acronym is the Albanian translation of 'ICF'). A 2013 work plan was submitted to support the two new social bodies to be run by the Italian WHO-FIC CC.

POLAND

Istituto Besta organized a course in 9 May 2013 in collaboration with the WHO European Office. In

Poland the ICF is a crucial component of the tool for monitoring the implementation of the United Nations Convention on the Rights of Persons with Disabilities, which was signed and ratified by Poland in October 2012. A Polish version of ICF was also launched in that occasion. The next steps were identified as: introducing training standards and training trainers in the ICF; selecting pilot areas for testing the ICF and conducting a study/trial; establishing a national leadership structure for ICF implementation.

EGYPT

An ICF course was organized by the Ain Shams University - Faculty of Medicine in collaboration with the WHO Euro Office. The Ain Shams University seeks continued development of programs and courses, supports and develops scientific research with the expansion of applied scientific research and health care programs to serve the needs of society and environment development. In this frame the Faculty of Medicine organized an "Interprofessional Training in Neurodisability". The training was done having as a framework the ICF-CY biopsychosocial model to analyze Neuropsychiatric disorders i.e. ADHD, Tourette Syndrome, Conduct disorders and Autism spectrum disorders. The main objective was the creation of a framework for the development of a network connecting hospital, university and primary health care professionals dealing with children with disabilities.

COURAGE in EUROPE project developed and validated ICF-based tools to measure health outcomes, quality of life (QoL), and well-being (WB) in ageing populations and, thereby, to find and empirically substantiate determinants of ageing across populations, looking also at the role of the built environment and social networks as health and disability determinants. The protocol is composed of multiple sections and instruments addressing different aspects of health, WB and QoL in adult population. The survey was administered to 10800 individuals: 1976 from Finland, 4071 from Poland, and 4753 from Spain.

Difficulties in functioning increase with age and with levels of household wealth, with older subjects and those with lower wealth reporting more difficulties in ADLs, IADLs and higher disability. An inverse relationship between health state and age was observed, with older subjects showing lower health. QoL was perceived better in Finland and in Spain than in Poland. The levels of QoL decrease with age, and in Poland this decrease is more pronounced. QoL was higher with increased income.

People from Finland showed the highest WB, and those from Poland the lowest, with Spain in the middle. Life evaluation worsens with age in the three countries, while affect tends to improve with age only in Finland and Spain. The developed and validated COURAGE Protocol for Ageing Studies has proven to be a valid tool for collecting comparable data in ageing populations. It is therefore recommended that future studies exploring determinants of health and disability in ageing use the COURAGE-derived methodology.

Dissemination of the results

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Frattura L. La crescita delle competenze in ambito inclusivo e l'implementazione di ICF. Forum PA, Rome 29 May 2013

Frattura L., Munari F., Gongolo F. Three years of ICF implementation in Kosovo under the national disability action plan 2010-2012. WHO-FIC Annual Meeting, Beijing, 2013, submitted.

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Activity 7

Title: Strengthening of Italian WHO-FIC Network and contribution to WHO-FIC network activities.

Description: Italian CC maintains, on the basis of an institutional agreement, an Italian network between the institution designated as WHO-FIC Collaborating Centre and three research branches, throughout two steering bodies: the Italian WHO-FIC CC network Scientific Committee, made by the Italian CC Head (coordination) and the three scientists delegated by the three institutions; the Italian WHO-FIC CC Steering Committee, made by the legal representatives of the four parts of the ItCC network and coordinated by the legal representative of the Institution designated as ItCC. The Italian WHO-FIC CC Network Scientific Committee organizes annual face to face meetings, in order to verify, prior reporting to WHO, full adherence to the WHO vision and scopes in the different planned activities.

Contribution to the key products of Committees and Reference Groups. Providing technical expertise to assist WHO in the development, testing, implementation, use, improvement, update and revision of WHO-FIC members within the WHO-FIC network.

More in detail this activity allows the ItCC members to contribute through all the ItCC planned activities and in particular the following are not already mentioned in other relevant activities of the present form: statistical implementation of ICF classification according to international and national experience on health and social statistics; development of contents and statistical implementation of ICD according to international and national experience on mortality statistics; dissemination and training in mortality statistics.

ItCC members actively participating in the network activities, through face-to-face and on-line meetings as well as remote work, according to the specific work plans of each group and specific agreements.

Moving from the 2011-2015 terms of reference (TORs) of the Italian WHO-FIC CC, a performance monitoring plan was defined to yearly assess the CC's performance. Five main criteria were used: (1) adherence to the relevant lines of work of the WHO-FIC Strategic Work Plan (SWP); (ii) outcomes of the activities; (iii) new partnerships; (iv) communication power; and (v) resource consumption.

In the second year (21 July 2012-21 July 2013), the Italian WHO-FIC CC was active on five lines of work at international, national and regional level: (i) revision of the International Classification of Diseases (ICD-11); (ii) IT and ontological development for WHO FIC; (iii) coordination and management of the ICD-10 and ICF update process; (iv) national work on WHO-FIC; (v) awareness building and implementation support of WHO-FIC in WHO regions. Some results are presented in an interactive map (QR accessible) that allows browsing through all the posters presented by the CC at the 2013 WHO-FIC annual meeting.

Starting from the 2012 Brasilia WHO-FIC meeting, the CC has provided three co-chairs to the WHO-FIC Network: URC (2nd mandate), ITC and FDRG (1st mandate). ICF updates approved by the WHO-FIC Council in 2010, 2011 and 2012 were translated into Italian and the relevant ClAML file was maintained both in English and Italian. New partnership agreements were signed with the Italian Federation for Overcoming Handicap, the Fondazione Bruno Kessler, the University of Aosta Valley, and the National Research Council - Institute for informatics and telematics. The CC is formally engaged, as leader of the ICD-10-related line of work, in the national project of revision of the Italian case-mix system (IT-DRG project). A second field trial was carried out, and a third is on progress, to test, in the Friuli Venezia Giulia Region, the electronic bio-psycho-social assessment tool designed by the Italian CC (VILMA/FABER). The communication power was evaluated considering presentations, seminar and meeting organization, and active users of the Italian Portal of Classifications. The activities of the Italian Collaborating Centre are linked to the relevant lines of work of the WHO-FIC SWP according to the CC's TORs. All activities carried out by the Centre were possible thanks to the deep understanding by regional and national funders.

The Italian CC contributed to the key products of Committees and Reference Groups and provided technical expertise to assist WHO in the development, testing, implementation, use, improvement, update and revision of WHO-FIC members within the WHO-FIC network. Moving from the 2011-2015 terms of reference of the Italian WHO-FIC Collaborating Centre, a performance monitoring plan (PMP) was defined in order to yearly assess the Centre's performance.

Dissemination of the results

Frattura L., Gongolo G. Updates on the performance monitoring plan of the Italian WHO-FIC Collaborating Centre. WHO-FIC Annual Meeting, Beijing, 2013, submitted.

2. Please briefly describe your collaboration with WHO in regards to the activities of the WHO collaborating centre during the past 12 months (e.g. means of communication, frequency of contact, visits to or from WHO). Please feel free to mention any difficulties encountered (if any) and to provide suggestions for increased or improved communication (if applicable).

See the activities as described above for a full specification of the persons and time made available to WHO at WHO-HQ and to WHO-EURO for other missions. As far as the means of communication are specifically concerned, the collaboration took advantage of e-mails (contacts on average on a daily basis), shared work-spaces (iCAT collaborative platform for ICD-11, iCAT users' group, RSG shared workspace, Mayo Clinics Redmine, ICF Update Platform, ICD Update Platform and telephone including conference calls facilities used on average on a biweekly basis.

3. Please briefly describe any interactions or collaborations with other WHO collaborating centres in the context of the implementation of the above activities (if any). If you are part of a network of WHO collaborating centres, please also mention the name of the network, and describe any involvement in the network during the last 12 months.

The interactions with other WHO Collaborating Centres took place almost completely within the general framework of the WHO-FIC Network Strategic Work Plan as illustrated per every single above described activity.