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WHO Family of International Classifications (FIC)

NEWSLETTER

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Contents

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2014 WHO-FIC Annual Network Meeting

Driving improvement in healthcare: from data to eHealth tools

The 2014 Annual Meeting of the WHO Family of International Classification (WHO-FIC) Network will be held in Barcelona, Spain, from 11 to 17 October 2014.

The WHO-FIC network is an international collaboration that aims to promote the appropriate selection of classifications in the range of settings in the health field across the world. The primary mandate of the Collaborating Centres for the WHO Family of International Classifications (WHO-FIC) is to support and promote the development and use of WHO classifications, such as ICD (the International Classification of Diseases) and ICF (the International Classification of Functioning and Disability) in support of health and health services.

The Barcelona meeting will consist of two events under the theme "Driving improvement in healthcare: from data to eHealth tools":

- The WHO-FIC **Collaborating Centres Annual Meeting 2014** from 11 to 15 October 2014. These sessions provide the framework for intensive face-to-face meetings of each of the WHO-FIC committees and reference groups; a conference component, which provides the opportunity to share experiences related to the conference theme; and for the WHO-FIC Network Advisory Council to meet to review progress in relation to the strategic work plan of the WHO-FIC network and plan for the future (*participation is by invitation only*).
- An **Open Meeting** on the Family International Classification as well as the storage, retrieval, analysis, and interpretation of data held from 16 to 17 October 2014. The Open Meeting will be a good opportunity for all those professionals interested in the conference theme to attend to the sessions with key international speakers and to share knowledge and experiences on the WHO Family of International Classifications as well as the storage, retrieval, analysis, and interpretation of data.

The meeting will be hosted by the Agency for Health Quality and Assessment of Catalonia (AQuAS), the Catalan Ministry of Health, the Office of Health of the Barcelona City Council and Fundació TicSalut. This and other information, such as preliminary meeting timetable, registration form, venue and accommodation, can also be found at the meeting website: http://www.whofic-bcn2014.org/

Editorial

Our June 2013 newsletter started with a front page article called "A new concept of health; and its relationship with ICF"*. As we noticed that the article caused rather a stir, we invited readers to send us their comments on the article. In this issue we publish a contribution made by Seija Talo from Finland, and we have also asked the original authors to respond. Please feel free to continue to send us your feedback on Newsletter articles should you feel compelled to do so.*

Other articles in this issue involve ***ICF core set development for lymphedema****,* ***ICF application in general practice*** *(x2) and* ***ICD migration in Singapore****. Regarding some other members of the family we unfortunately do not have enough substantial information for the time being. Also, we have included excerpts of both EIC and the FDRG midyear meetings. As always, the last pages are filled with ICF literature references from our ICF literature database.*

The annual meeting of the WHO-FIC Network in October 2014 in Barcelona will undoubtedly raise a lot of new items regarding the family (FIC) and we will be happy to report on them for you in the next issue of this newsletter. In the meantime, as with maintaining WHO classifications in a joint international context, we see producing the WHO-FIC Newsletter as a joint international pleasure! So please share your thoughts and experiences on using WHO classifications with us, and send us your contributions! Enjoy reading and let us know your WHO-FIC news!

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Latest News

On June 9th 2014, on the occasion of the birthday of Her Majesty Queen Elizabeth II, **Mrs Rosamond H. Madden**, graduate and Research stream leader for the Centre for Disability Research and Policy at the University of Sydney and valued member of the WHO-FIC Network, was appointed Member in the General Division of the Order of Australia for significant service to leadership and reform in the disability sector as an administrator, statistician and academic. In the Australian honours system appointments to the Order of Australia confer the highest recognition for outstanding achievement and service. We would like to extend our warm congratulations to Ros on this extraordinary honour, on behalf of the WHO-FIC Network.

In april 2014, WHO Headquarters has conditionally approved the revised content of the **ICF eLearning Tool!** In addition, WHO has approved the acquisition of Articulate Storyline, the software that will be used to develop the revised version of the ICF eLearning tool up to publication on the WHO website. WHO will provide translating collaborating centres with details on setting up an agreement for the translation work in due time. It is planned to have the revised eLearning tool using the new software ready for use at the WHO-FIC Network Meeting in Barcelona.

Early 2014, the International Council of Nurses (ICN) and the International Health Terminology Standards Development Organization (IHTSDO) published an **equivalency table** between the **International Classification for Nursing Practice** (ICNP) concepts and **SNOMED CT** concepts. The table contains ICNP Diagnosis and Outcomes Statements that have semantic equivalencies with SNOMED CT concepts.

ICNP is an international standard that facilitates the description and comparison of nursing practice locally, regionally, nationally and internationally. The ICNP terminology serves a critical role in facilitating evidenced based quality nursing practice and care. ICNP provides nurses with content solutions for electronic health records (EHRs) at all levels to support data-based information for use in practice, administration, education and research. SNOMED CT, a multidisciplinary international healthcare terminology, is designed to support the entry and retrieval of clinical concepts in electronic record systems and the safe, accurate, and effective exchange of health information.

This new product advances the collaboration on terminology development agreed between ICN and IHTSDO in their 2010 harmonization agreement by allowing ICN to make the equivalency table available through its website at the ICNP Download page (http://www.icn.ch/pillarsprograms/icnp-download-redirection/icnp-download-redirection-1708.html). Although this table is not formally endorsed by IHTSDO, persons interested in using it should review the terms of the SNOMED CT Affiliate License before downloading (www.ihtsdo.org/licence.pdf). The product can be a useful resource to nurses and healthcare facilities interested in using SNOMED CT for documentation in EHRs and using ICNP to help identify clinically relevant content for use in documentation of nursing care.

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Letter to the Editor regarding ‘A New Concept of Health’ (Heerkens & Huber, WHO-FIC Newsletter, vol. 11, number 1)

I had not seen the article by Huber et al. in BMJ (2011) when my opinion concerning ‘A new definition of Health’ was asked about for the first time . I was astonished: ‘What!? Is there a new one?’ I was given details, which made me shake my head. As a psychologist, I could have been positively impacted by hearing that ICF personal factors, many of which are theorized to be psychological by nature (i.e. to be measured from psychological point of view as cognitive type of activities, such as behavior styles and coping, belief system and the concept of social coherence) were given a position in this new ‘Health Definition’. As a learner of ICF classification describing the structure of functioning and health, however, I knew that the theoretical proposition for the health definition had been based by international working groups on the philosophical assumption about the biopsychosocial existence of the human being. Accordingly, no single component, such as personal factors, can define health and functioning alone. This type of theorizing also fits well to the health definition by WHO 1948.

Support from bottom up

Learning more about the article by Huber et al. made me see what was described also in RIVM newsletter 2013-1 by Heerkens. That by working ’from bottom up’ the authors actually supported the validity of ICF theoretical structure, because the concepts selected in their study to represent meaningful indicators of health were shown to be linked to ICF functioning and health concepts (by Cieza et al. method), mostly to personal factors (about 40%).

However, calling these indicators, dimensions and aspects as ‘a new definition of health’ makes one feel that the same wheel (ICF) was started to be constructed again. It was sad to realize how ‘thin’ the dissemination of ICF must have been so far (ICF in English was published already in 2001). Clearly, in order to avoid this type of overlapping work ICF educational courses should get more formal, unified basis in different countries.

Finnish situation

Luckily, compared to past years in Finland, there have been more efforts to make people learn about ICF and its applications. It is also worth mentioning that the so called BPS-ICF model developed by the Finnish multiprofessional team (Talo S, Rytökoski U, Hämäläinen A) to assess Functioning, Disability and Health actually includes the main elements of ‘the New Definition of Health’ presented by Huber et al., but only as one component out of nine different types of definers for health components (i.e. ICF Body functions and structures, Activities and Participation measured from three perspectives, physical, psychological and social). Psychologically measured personal factors are important definers of functioning , disability and health indeed, but giving too strong position to one component (titled as Mental activities in the BPS-ICF model) among other eight types of definers would point an accusing finger at an individual making the personal characteristics alone responsible for the level of functioning and health. Obviously, we could give the same label of ‘new definition of health’ to all other eight health components if we selected only certain types of categories into the arsenal of collected ‘meaningful health indicators’. It is true, however, that the personal factors should soon find their place in ICF classification.

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Authors’ response by Heerkens & Huber

We regret that our article in the Newsletter and the poster presented during the WHO-meeting in October 2013 have evoked some confusion. It is not at all our intention to ‘attack’ the theoretical structure of the ICF, but to indicate that the dimensions and aspects which were found by Huber et al., fit well into the ICF dimensions.

ICF involvement

The first author has been involved in the ICF (and the ICIDH) for 20 years, is a member of the ICF-team of the Dutch ICF Collaborating Centre and a rather ‘fanatic’ user of the ICF in research and education. In the Netherlands the dissemination of the ICF is not ‘thin’ at all. Especially in rehabilitation, but also in allied health care and nursing, the ICF is used widely. But we must be realistic, there are also flaws in the ICF, like the lack of a list of personal factors and among the environmental factors the lack of many work-related factors, which makes it sometimes difficult to use the ICF in research.

Advantages of a new concept

When the first author learned about the work of Machteld Huber her first reaction was also a feeling of ‘resistance’ ("this can't be true"), but she soon realized the advantages. The described concept of health 'as the ability to adapt and to self-manage in the face of social, physical and emotional challenges' offers a more positive attitude regarding health instead of the nearly impossibility to be healthy when using the old definition of the WHO from 1948.

Also, it aims to broaden the perception from health as a static 'state' towards a dynamic perspective, with attention for the human faculty of (learning) to cope. This might also explain the broad support for the new concept of health in the field and in the literature.

Furthermore, the follow-up work of Machteld Huber gives input for the list of personal factors, which is urgently needed. And finally the work also gives opportunities to discuss how to deal with concepts like quality of life, self-management and resilience, also with regard to the ICF framework.

Dimensions and aspects

As you can see in the article in the Newsletter as well as on the poster, Machteld Huber and her coworkers have tried to operationalize their new concept of health by asking a wide range of stakeholders in healthcare, like professionals, patients and policy makers, how they perceive health. In 2013 the results were presented of this follow-up study to operationalize this general concept 'bottom-up'. The observations found were categorized into six dimensions of health:

1. bodily functions
2. mental functions and perceptions
3. spiritual dimension
4. quality of life
5. social and societal participation, and
6. daily functioning.

The six dimensions are specified in 32 different aspects and there are 12 'other' aspects which are not part of the dimensions. For simplicity we left out these 'other' aspects in the article and on the poster, but we include them here. To study the relation between the aspects and the domains and classes of the ICF, the aspects were linked to the most appropriate ICF-categories using the linking rules of Cieza et al.[1]

Mapping results

The 32 different aspects resulted in 46 meaningful concepts and the linking of the 12 'other' aspects resulted in 13 meaningful concepts. Of these 59 meaningful concepts:

- 13 could be linked to 12 different categories of the classification of functions;
- 2 could be linked to 1category of the classification of structures;
- 15 could be linked to 10 different categories of the classification of activities and participation;
- 6 could be linked to 6 different categories of the list of environmental factors;
- 25 could be coded as personal factor 'pf';
- 2 were coded as health condition 'hc';
- 1 was coded as non-definable 'nc';

(some of the meaningful concepts were linked to more than one code!).

In summary, most of the aspects found by Huber et al. can be linked to ICF-categories or to personal factors and all domains of the ICF are represented. The work offers opportunities to look at health from a more positive as well as dynamic angle and to include in the ICF all those aspects, especially personal factors, that are named by a wide range of persons in describing how they perceive health.

We're looking forward to more discussion on this topic!

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International Organizations

World Health Organization

WHO-FIC Education and Implementation Committee (EIC)

The EIC recently held its midyear meeting in Lyon, France on 9 -10 April, 2014. During the sessions, the EIC members updated progress towards meeting the targets in its annual Strategic Workplan. Important outcomes from the discussions included:

WHO-FIC database – The EIC supports the development and completion of data in the WHO-FIC implementation database. The aim of the database is to provide information to support the Global Health Observatory (GHO) by providing metadata about the classifications used to populate the GHO. The EIC has been asked to improve the level of completion and currency of the data in the database. Materials will be developed to support user completion of the database.
The current version of the database is available at http://beta.who-fic.nl. In order to update material in the Implementation database, please apply to Huib ten Napel by

email on huib.ten.napel@rivm.nl to request a username, password and a link to the database. Wherever possible, there should be only one person per country with the responsibility for gathering country information, accessing the database and making the updates.

Training tools - The EIC has been engaged in the development of web-based training tools for both the ICD and ICF. The ICD training tool has recently been updated with more international coding examples, and is available at http://apps.who.int/classifications/apps/icd/icd10training/. The EIC also provides a training tool support group that allows users of the ICD training tool to submit questions relating to the training materials.
An e-learning tool has recently been finalized for the ICF and will soon also be uploaded to the WHO website. It has been developed as an introductory training package with further educational materials planned. The current version is available at http://icf.ideaday.de/.

Assessment materials - The EIC has worked on standard exam questions to allow testing of the knowledge of morbidity and mortality coders who use the WHO version of the ICD-10. The exams are available to Ministries of Health, Collaborating Centres and other organizations. There is a requirement that the exams are offered under the terms and conditions established by the EIC. Although no certification is possible for individuals who pass the exam, coders interested assessing in their skills against an international coding benchmark will be issued letters of acknowledgement.

Support for ICD-11 - A significant new activity for the EIC is to develop case studies and educational materials to support the field trials for the ICD-11. The EIC also discussed the need for implementation support documents.

Other EIC materials –The EIC has a suite of 'Information Sheets' on various classification and coding-related topics. These Information Sheets are freely available to the public for copying and translation. They can be downloaded from the EIC website at http://www.cdc.gov/nchs/icd/nacc_education_committee.htm. Suggestions for additional Information Sheets are always welcome.

Co-Chairs – all WHO-FIC committees and groups have two co-Chairs from different organisations. The co-Chairs are elected for two year terms at annual meetings and represent expertise in both of the current reference classifications, ICD and ICF. At the upcoming meeting to be held in Barcelona in October 2014, Cassia Buchalla and Sue Walker, current co-Chairs of the EIC, will step down. Eligible representatives from the WHO-FIC Network are encouraged to apply for these positions.

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WHO-FIC Functioning and Disability Reference Group (FDRG)

The FDRG held its midyear meeting in London, UK, on 3 - 5 May, 2014. During the sessions, the FDRG members updated progress towards meeting the targets in its annual Strategic Workplan. Important outcomes from the discussions included:

ICF Ontology – Background information was provided by WHO, and various work packages for ICF ontology have been identified: modelling, content linkages, terminology linkages, content development, and review of qualifiers. It was noted and well understood that the FDRG role is to advise and to contribute to this work where it is relevant. Several other bodies are also involved with this work (ITC, FDC, IHTSDO etc.). The FDRG Ontology Work Group agreed upon work packages relevant for FDRG and to priorities and timelines for these:

1. Development of use cases
2. Stock taking and clarification of terms
3. Development of content model
4. Reviewing the history of ICF updates

ICF Updates – Marie Cuenot and Jennifer Jelsma, the moderators of the update and revisions process for the ICF, presented the progress made in the revision process last year. They explained that proposals had been clustered together (combination proposal) and entered under a different code on the platform, this reduced the number of proposals from 104 in November 2013 to 52 in the open discussion layer, right before the meeting. Hands-on work sessions for the ICF updates were held during the meeting in several groups. In all, 12 combination proposals were reviewed during the course of the meeting which took much longer than anticipated. But this is partly because the proposals were complex and their adoption required relooking at the parent ICF. Also, some proposals are suggested to link with the ontology work and could therefore not be processed adequately yet. WHO advised that a new platform interface which will be introduced to facilitate the URC process. The new platform will be in use by the URC for ICD updates in June 2014 and will then be adapted to meet the needs of the ICF update process.

Criteria to review ICF literature – In the WHO-FIC Network meeting of Beijing the FDRG decided to continue a small, limited project that would investigate criteria to assist in the evaluation of ICF-related literature. In the midyear meeting these criteria were drafted based on existing initiatives. These criteria could also assist journals that are publishing papers on ICF in the peer-review process.

Development of mobile application for ICF (mICF) – At the annual meeting of the Functioning and Disability Reference Group (FDRG) of the World Health Organization's Family of International Classifications

(WHO-FIC) in Beijing 2013, it was agreed to encourage the development of a collaborative to investigate the development of a mobile application for the ICF. Its' aim is to build an international collaborative of ICF specialists, as well as experts in health informatics and information technology to investigate the development of a user-friendly mobile application to I) assist providers and users of health services in the front line to identify a person's problems in terms of the ICF, and II) to amalgamate ICF-related data centrally. At the FDRG midyear meeting in London:

- great interest was expressed in the project
- it was added to the Strategic Workplan
- the proposed timeline was accepted.
- a pre-meeting workshop in Barcelona for 9-10 October was approved
- the importance to also involve the EIC and ITC was expressed

Currently 40 collaborators from 17 countries indicated their interest to collaborate in developing the mICF. Anyone interested in joining the collaborative is encouraged to complete an online questionnaire at http://tiny.cc/icfmobile. During the first year of this three-year project, the requirements for the mICF will be determined by conducting a survey, literature review and two workshops. In the second year the prototype will be developed and field tested, before the end product is launched in 2016. Thereafter the efficacy of mICF will be evaluated regarding the improvement of patient-centred health outcomes, communication across continuum of care, patient satisfaction and cost effectiveness of service delivery.

Harmonization – Several topics that fall under more than one WHO-FIC groups or committees were discussed here. *ICF practical manual*: The last day to comment on the Exposure Draft is 31 May 2014. The comments received so far were incorporated and any that may come in before the deadline will be considered for the final version. The "final" text will be given to WHO, who will then put it through internal editorial product. The aim is for publication in time for the Barcelona meeting. fTAG: WHO reported that good progress has been made with the fTAG with 120 conditions completed but there is still much to do. Haejung Lee and Catherine Sykes are FDRG members of this group. *ICHI*: Alpha 1 was released in Brasilia (2012), Alpha 2 in Beijing (2013), and during the London midyear meeting the plans were to release Alpha 3 this year in Barcelona. These plans may change, however, as new funding opportunities might arise. The role of the FDRG in the development of ICHI is to: 1) provide expert opinion on functioning intervention through field trials, 2) develop common strategies to include useful functioning targets in the ICF foundation layer (e.g. behaviours, caregivers, other environmental factors), and 3) provide review expertise for next versions (alpha 3 and following). *ICF Education*: Catherine Sykes presented the results of ICF Education Requirements Survey. Results were also presented to EIC in Lyon.

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FIC around the World

Netherlands

The development of an ICF Core Set for Lymphedema

On the 4th of June 2014 an International conference on the development of ICF Core Sets for lymphedema took place in Glasgow (UK). Twenty-three invited international experts in the field of lymphedema came to a final consensus. They determined the results on the data of 5 preparatory studies: a literature review, a qualitative research based on focus group meetings, an international e-mail based survey on experts and a clinical research which took place both in The Netherlands and in Australia.

Core sets for three regions
Because lymphedema can be present in different specific locations, eventually Core Sets for three regions were developed; upper limb, lower limb and midline, respectively. After a plenary session with presentations about the preparatory studies and explanation of the rules of engagement, the group was divided in three sub-groups who discussed the frequency tables, which represented the most occurring ICF codes originated from the studies. The results of the sub-groups (i.e. a Comprehensive and Brief Core Set), were then discussed in a plenary session. In this session members of the other groups could discuss the draft versions of the groups in which they did not participated. After full discussion, Comprehensive and Brief Core Sets for all three regions were determined. These results will be discussed in the steering committee, after which the core sets will be made public.

The conference was conducted by members of the steering group: Yvonne Heerkens, Dorine van Ravensberg and Huib ten Napel (all members from the ICF-team from the Dutch WHO-FIC Collaborating Centre), Janine Hidding (Radboud University, Nijmegen) and Martino Neumann (Erasmus Medical Centre, Rotterdam). Project leader is Peter Viehoff (Erasmus Medical Centre, Rotterdam).

A poster on the ICF Coreset for Lymphedema will be presented at the WHO-FIC Network annual meeting in Barcelona, 11-17 October 2014.

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Registration of personal factors of patients in the general practice: which are important to register according to general practitioners? A Delphi study

Introduction

Personal factors are very important in everyday general practice. Demographic variables, socio-economic factors, biographic data, lifestyle factors, life events and personal work related factors are the main personal factors which form the background of the actual contact between patient and the health care professional. Personal factors can have an influence on the policy of a treatment and therefore contribute to patient centred care.

General practitioners (GPs) know most of their patients well and are aware of the personal factors and circumstances of the patient. Sometimes, these personal factors are not documented, but are only remembered by the GP. Only a few personal factors are consistently registered in the EMR, others are stored in patient episodes or in free text.

More and more doctors work part time. The exchange and sharing of personal factor related information is necessary for patient centred care. Therefore the use of a classified set for registration of patient factors becomes important.
Up to now, no study was conducted to propose a list of personal factors, which can be used in the daily practice of the GP. Furthermore, not only the GP can register personal factors. Patients, as primary custodians of this information, could help collect and register these factors too. Our aim is to create this list of personal factors in this study.

Methods

We limited our research to develop a list of factors in 5 categories: General personal data, social context, lifestyle factors, life events and work related personal factors. These categories are derived from a proposal, developed by members of the ICF-team of the Dutch Collaborating Centre and presented at the WHO-FIC Network Meeting in Brazil, 2012[1]. This proposal was based on an exploration of international articles concerning this subject. Also, a literature study was conducted to propose a first draft of a list of personal factors for initial use in our study. Geyh et al. published a systematic review in 2011[2], which provides an overview of the literature regarding personal factors used in the ICF. Also the article by Heerkens in the WHO-FIC newsletter which proposed a concept list of personal factors was used[3]. Eventually, after confrontation and discussions on relevance for the general practice within our team, 60 items were selected for our study.

Delphi method

Using the Delphi method, a group of 26 GPs completed three succeeding rounds in which personal factors were included or excluded. In each round GPs were asked to evaluate each factor and if this factor should be registered for each adult patient. Also, a clarification for the chosen answer was asked. In the first round, GPs were asked to contribute new items in each category.
After all GPs completed the questionnaire in each round, the results were analysed using SPSS by the research group. A cut-off point of 75% was used to include (≥ 75% 'yes') or exclude (≥ 75% 'no') items. All remaining items were used in the next round for evaluation. Included or excluded items were not re-examined in the following rounds. Figure 1 describes the process of the selection of items.

Results

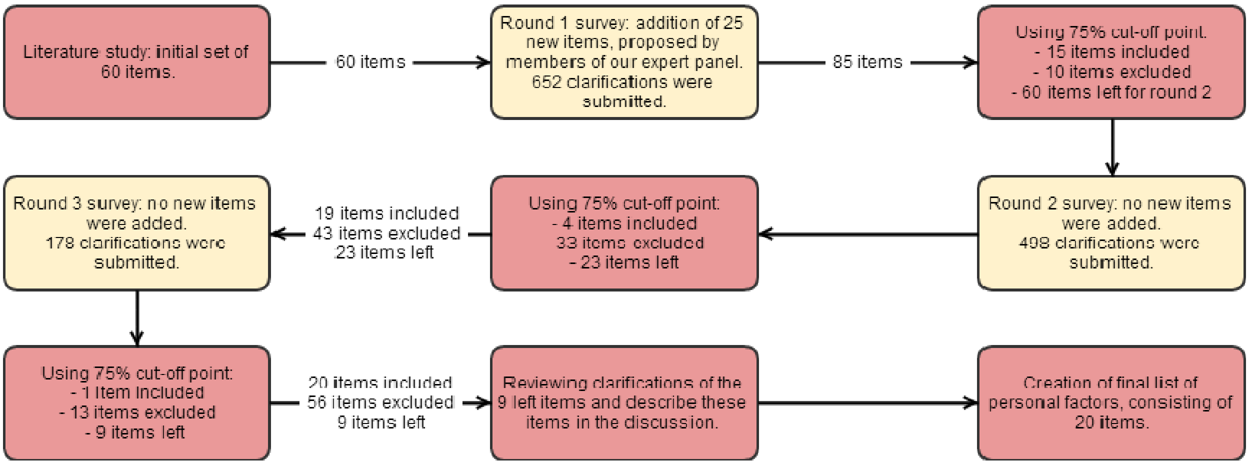
Eventually, 20 items were included during the three rounds. These are listed in table 1. Consensus was not achieved for 9 items, which are listed in table 2.

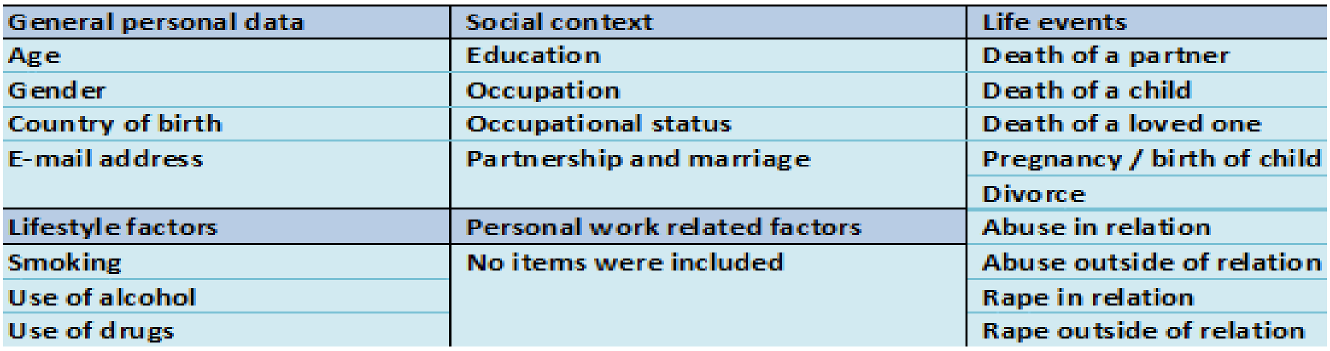
Discussion

In this Delphi study we identified 20 personal items, which should be routinely registered for every adult patient in general practice according to the GP.

All personal work related items were excluded from the final list. In the Netherlands, occupational health physicians are responsible for work related health. This is the most submitted reason for exclusion of all items in the category 'personal work related factors'. The items 'genetic factors' and 'current socioeconomic status' were valued very

Figure 1: Overview of number of items, included or excluded during each round. Red boxes describe activities performed by the study group, yellow boxes describe activities performed by GPs.





General personal data	Social context	Life events
Age	Education	Death of a partner
Gender	Occupation	Death of a child
Country of birth	Occupational status	Death of a loved one
E-mail address	Partnership and marriage	Pregnancy / birth of child
		Divorce
Lifestyle factors	**Personal work related factors**	Abuse in relation
Smoking	No items were included	Abuse outside of relation
Use of alcohol		Rape in relation
Use of drugs		Rape outside of relation

Table 1: Final list of the included 20 personal factors

important by GPs. However,some GPs expressed their concern for registration of these factors by the patient him/her self. The information should be objective and based on facts. If a patient provides this information, it could be inaccurate when inadequately asked. Therefore, the GPs suggested that the genetic factors should only be registered by the GP and not by the patient.

Some items were excluded because they were not specific enough or are not suitable to ask in a questionnaire. Other items were excluded because they were not suitable to register for every adult patient (‘migration history’, ‘residence status’ and ‘war and disasters’). We found it remarkable that the GPs want to register the item ‘divorce’, but do not want to register the item ‘marriage’ in the category ‘life events’.

Recommendations for future projects

The research group will explore solutions to integrate the final list of personal factors in the TransHis EMR system. This EMR system is used in several GP practices in the Netherlands. To implement this list of personal factors, other aspects should be explored. It is interesting to explore which factors are valued important by patients to register in the GP practice. A Delphi study could be conducted, using the same method as we did, only this time with a selection of patients as members of the expert panel. Combining the results of our study with the results of this new study, it is possible to create a balanced list of items both GP and patient value important.
Also, a study could be conducted to explore how patients could be motivated to update the registered items. An app could be used on the smartphone or tablet for this purpose.

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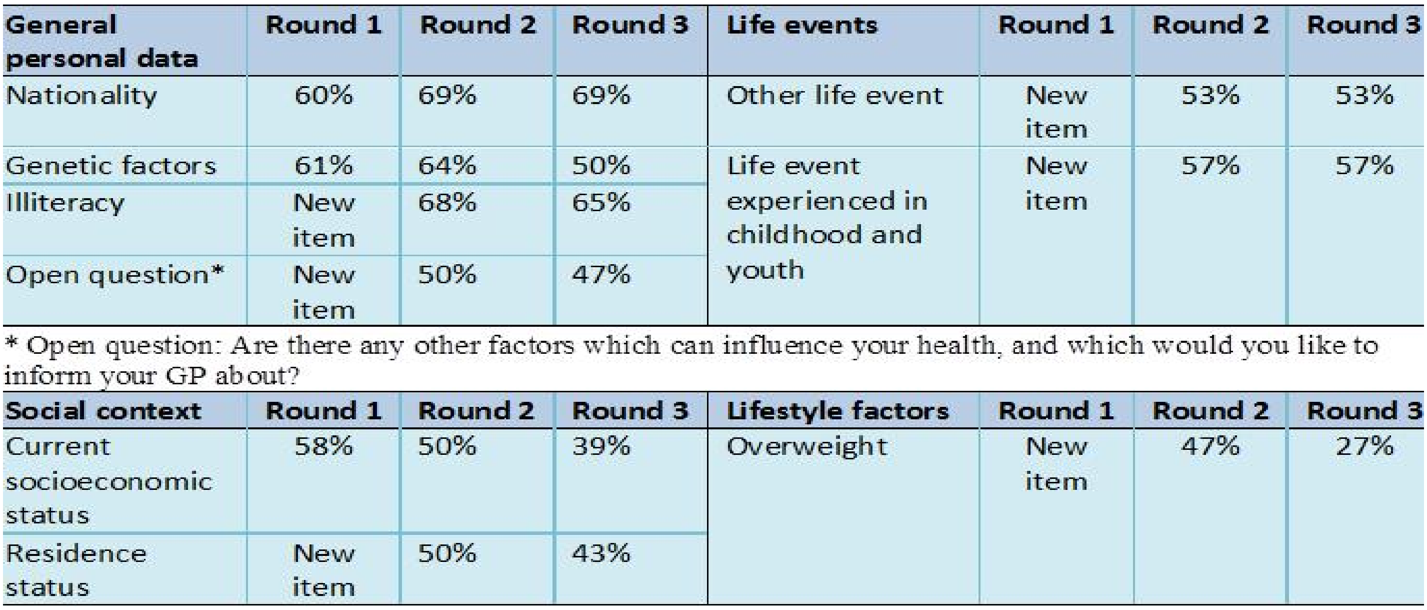
3 WHO FIC Newsletter, volume 9, number 2, november 2011.

Table 2: Items for which no consensus was achieved. The percentages show which part of the expert team answered ‘yes’ in consecutive rounds.



General personal data	Round 1	Round 2	Round 3	Life events	Round 1	Round 2	Round 3
Nationality	60%	69%	69%	Other life event	New item	53%	53%
Genetic factors	61%	64%	50%	Life event experienced in childhood and youth	New item	57%	57%
Illiteracy	New item	68%	65%				
Open question*	New item	50%	47%				

* Open question: Are there any other factors which can influence your health, and which would you like to inform your GP about?

Social context	Round 1	Round 2	Round 3	Lifestyle factors	Round 1	Round 2	Round 3
Current socioeconomic status	58%	50%	39%	Overweight	New item	47%	27%
Residence status	New item	50%	43%				

Exploring the desired content of an ICF item set for multimorbid patients in General Practice

One of the key benefits of using the ICF for patients and clients is the integration of the medical and social aspects of his or her health condition. All aspects of a person's life (development, participation and environment) are incorporated into the ICF, instead of solely focusing on his or her diagnosis. A diagnosis reveals little about one's functional abilities. Diagnoses are important for defining the cause and prognosis, but identifying problems in functioning is often the key information that is being used to plan and implement interventions.

All about functioning

After 13 years of ICF, people's functioning is increasingly becoming a big issue. In The Netherlands the ICF is mainly used in rehabilitation medicine because there is no clear way to use it in general practice. The full list of items (about 1500) is too lengthy for everyday use in the consulting room and brief core sets have not been developed for general medicine.

But what do General Practitioners (GPs) want to know about a patient in terms of functioning? There is no existing literature describing or exploring the desired content of such an item-set or core set, to be used in General Practice. Therefore a number of studies will be undertaken to assess the usability of ICF for General Practice. The first of these studies is focused on which ICF items are considered relevant by GPs' to be registered, including the willingness to register them.

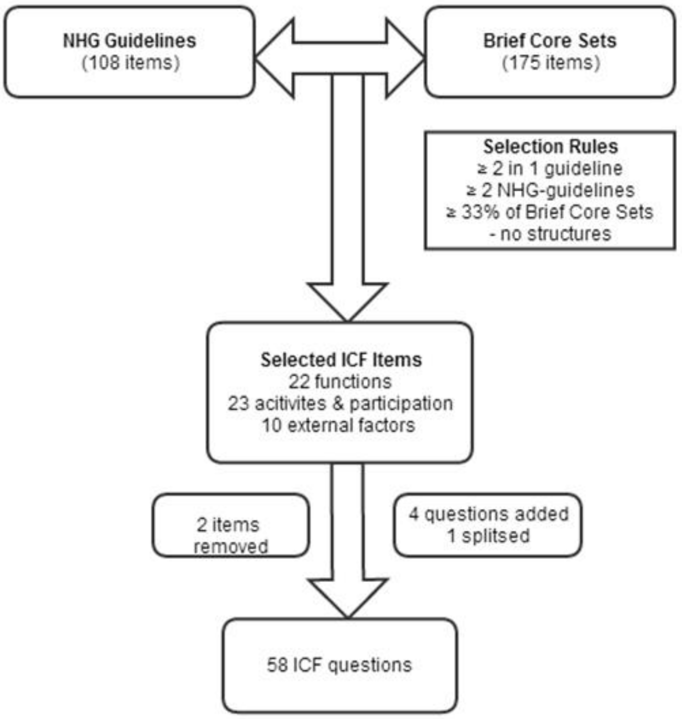


Figure1: selection mechanism of relevant ICF items

Methods

To condense the number of items to propose to GP's, a selection plan needed to be developed. Items were selected through studying a random set of GPs'- National guidelines (on diabetes, heart failure and not-traumatic knee problems) in order to discover which ICF-like items are already used in practice. Those items were assigned to an ICF-code. Also, existing ICF Brief Core Sets were studied. A final list of 108 items was composed from guidelines and ICF-Core Sets, based on selection of assigned scores by the research team. For example: problems with vision were assigned to ICF-item b210 (seeing functions). In the end they were combined and consensus was achieved. An item was considered to be relevant when it was scored twice or more in the NHG-guidelines and if it was used in 3 or more of the Brief Core Sets used in Rehabilitation Medicine. Body structures, which describe anatomical properties of organs and limbs, were excluded (figure 1).

From items to daily practice

This list only covered so called 'items'. For example: d540 is the ICF item concerning dressing. If one is completely unable to dress oneself it is scored as d540.4. For GPs not trained in using the ICF it is not easily to explain this way of classifying, and registering this way is not practical. This list was converted into patient-questions to make a clear picture what an item set would mean in daily practice.

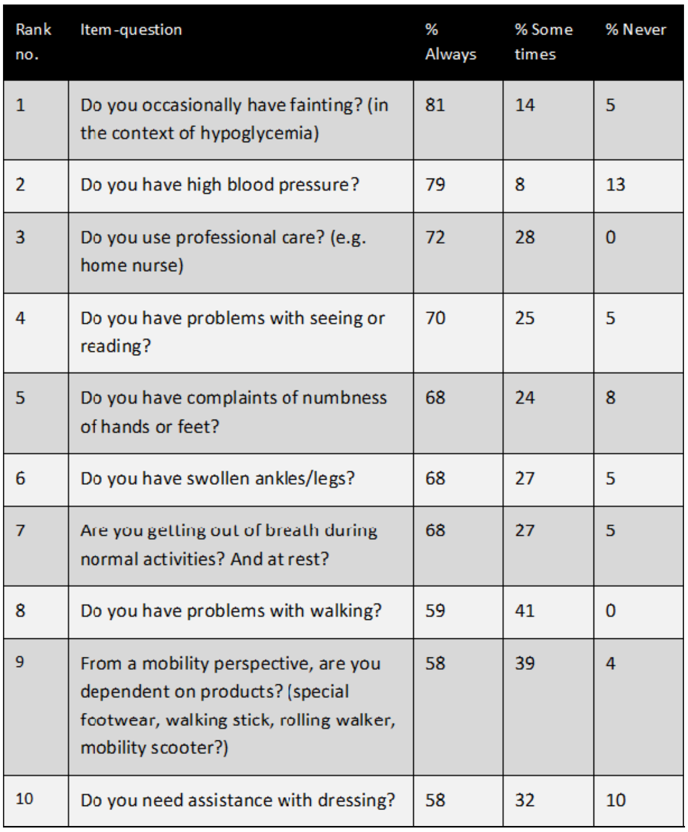
Some frequently used and clinically important questionnaires have already been linked to the ICF using the updated linking rules (Cieza et al., 2005). We extracted questions from two of these linked questionnaires; the WHO Disability Assessment Schedule II (WHODAS 2.0) and the EASY-CARE (a multi-dimensional assessment tool of the physical mental and social functioning of the elderly). For the items for which a linked question didn't exist they were developed. This was done in consultation with a former GP focusing on the clinical usability of the answers.

These questions were presented to the participating GPs. They received a short introduction to the ICF via a movie (in Dutch; scan QR-code on the left, or use url: http://youtu.be/9FkcHwaO0iY). They were asked to rate a question on a scale to have the item registered: never, sometimes or always. This was done by doing a semi-qualitative explorative online survey.

Results

224 GP's were approached. In total 77 GP's responded (34%) of which 56 responses were complete (25%). A percentage for each answer-category was calculated for each question. We sorted them in 3 different ways.
Table 1 shows the top ten questions when sorted descending on percentage of answered with 'I always want to have this item registered'. Table 2 gives the top 10 of items 'never to

Table 1: Items always to have registered.

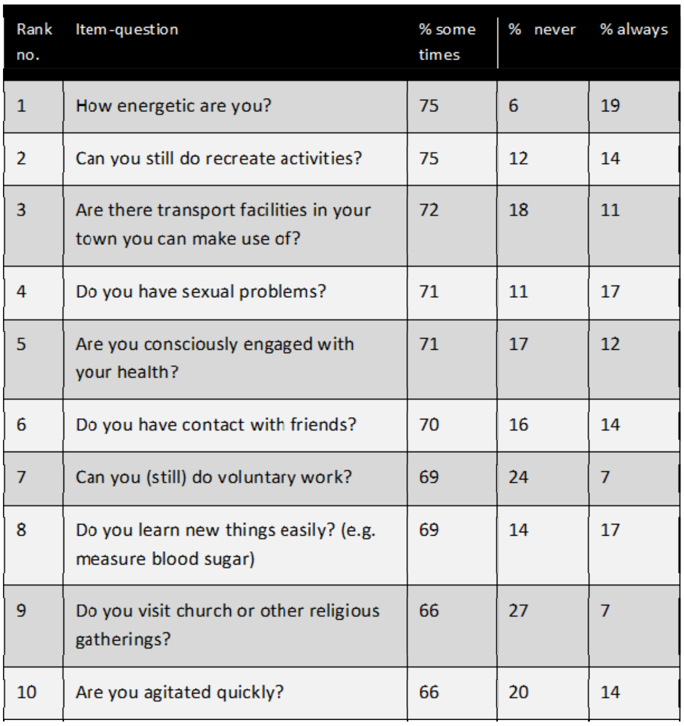


Rank no.	Item-question	% Always	% Some times	% Never
1	Do you occasionally have fainting? (in the context of hypoglycemia)	81	14	5
2	Do you have high blood pressure?	79	8	13
3	Do you use professional care? (e.g. home nurse)	72	28	0
4	Do you have problems with seeing or reading?	70	25	5
5	Do you have complaints of numbness of hands or feet?	68	24	8
6	Do you have swollen ankles/legs?	68	27	5
7	Are you getting out of breath during normal activities? And at rest?	68	27	5
8	Do you have problems with walking?	59	41	0
9	From a mobility perspective, are you dependent on products? (special footwear, walking stick, rolling walker, mobility scooter?)	58	39	4
10	Do you need assistance with dressing?	58	32	10

be registered'. And table 3 gives the top 10 of items 'sometimes to be registered'.

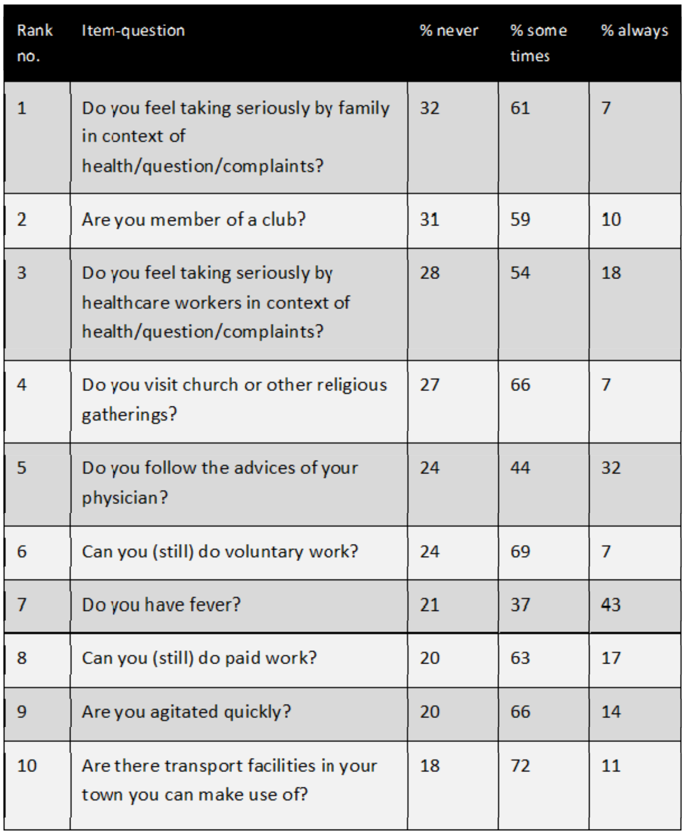
A large number of items score high on the scale of registering sometimes, 'only when relevant'. If the items that score 25% or higher on 'never to be registered' are removed from the selected list, a list of 54 items (out of 58) remains.

Table 3: Items to have registered sometimes



Rank no.	Item-question	% some times	% never	% always
1	How energetic are you?	75	6	19
2	Can you still do recreate activities?	75	12	14
3	Are there transport facilities in your town you can make use of?	72	18	11
4	Do you have sexual problems?	71	11	17
5	Are you consciously engaged with your health?	71	17	12
6	Do you have contact with friends?	70	16	14
7	Can you (still) do voluntary work?	69	24	7
8	Do you learn new things easily? (e.g. measure blood sugar)	69	14	17
9	Do you visit church or other religious gatherings?	66	27	7
10	Are you agitated quickly?	66	20	14

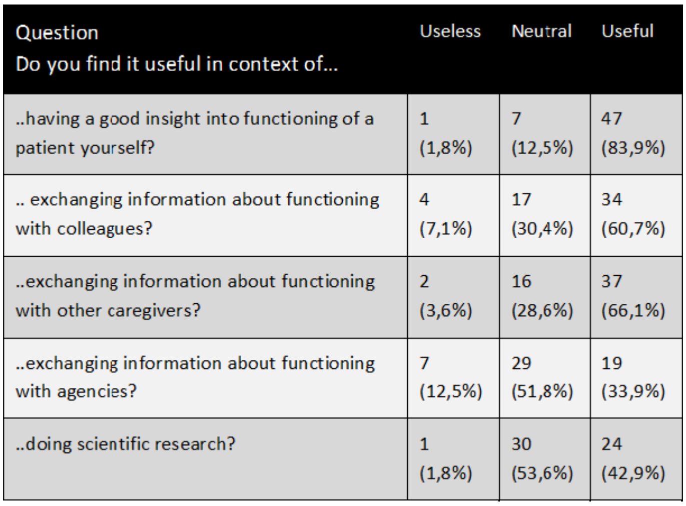
Table 2: Items never to have registered



Rank no.	Item-question	% never	% some times	% always
1	Do you feel taking seriously by family in context of health/question/complaints?	32	61	7
2	Are you member of a club?	31	59	10
3	Do you feel taking seriously by healthcare workers in context of health/question/complaints?	28	54	18
4	Do you visit church or other religious gatherings?	27	66	7
5	Do you follow the advices of your physician?	24	44	32
6	Can you (still) do voluntary work?	24	69	7
7	Do you have fever?	21	37	43
8	Can you (still) do paid work?	20	63	17
9	Are you agitated quickly?	20	66	14
10	Are there transport facilities in your town you can make use of?	18	72	11

Concerning the second research question (What is the usefulness of registering items about functioning according to the GP?), the question 'Do you find it useful having items regarding functioning to be registered?' was answered by 26 GPs as 'useful', 29 answered 'neutral' and 1 answered 'useless'. GPs that filled in useful or neutral were asked some more questions about when they thought having registered these items was useful (See table 4).

Table 4: Usefulness of registering functioning items in GP practice



Question Do you find it useful in context of…	Useless	Neutral	Useful
..having a good insight into functioning of a patient yourself?	1 (1,8%)	7 (12,5%)	47 (83,9%)
.. exchanging information about functioning with colleagues?	4 (7,1%)	17 (30,4%)	34 (60,7%)
..exchanging information about functioning with other caregivers?	2 (3,6%)	16 (28,6%)	37 (66,1%)
..exchanging information about functioning with agencies?	7 (12,5%)	29 (51,8%)	19 (33,9%)
..doing scientific research?	1 (1,8%)	30 (53,6%)	24 (42,9%)

Discussion

A clear item-list to always be filled in by the elderly multi-morbid patient in general practice cannot be made out of this research. There are no items of which 100% of the surveyed GPs say they always want to have them registered. Even though, there is a clear indication as to which items are more important compared to others. A low response percentage was achieved so conclusions cannot be translated to the overall GP in The Netherlands. For developing a definitive item set to be used more research is needed.

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Singapore

Singapore's migration to a new health classification system

The World Health Organization's (WHO) International Classification of Diseases (ICD) has been used in Singapore since the 1970s as a basis for planning health programmes, specialty development, clinical research and healthcare cost control measures. The sources of ICD-coded data are mainly healthcare providers (hospitals and clinics) which use a combination of ICD Ninth Revision (ICD-9) and ICD-9's Australian Clinical Modification (ICD-9-CM) codes to generate Australian National Diagnosis Related Groups (AN-DRGs) v3.1 for casemix-based funding.

Preparation phase

Following a Readiness Assessment project that was conducted in 2009, the Ministry of Health (MOH) of Singapore made the decision to adopt the Australian Refined Diagnosis Related Groups (AR-DRG) Classification System, which incorporates AR-DRG Version 6.0 grouper system along with its building blocks, the ICD Tenth Revision, Australian Modification (ICD-10-AM) Sixth Edition, the Australian Classification of Health Interventions (ACHI) and the Australian Coding Standards (ACS) as the next coding and classification system for Singapore. It was determined that the improved specificity and revised terminology of ICD-10-AM/ACHI Sixth Edition would equate more closely with the vocabulary and application of current medical practice in Singapore. This would therefore enable more detailed and accurate classification of diseases and interventions; leading to more efficient and effective data retrieval and more appropriate AR-DRG allocation.

Implementation of this new system occurred on 1 January 2012 for morbidity coding. The move from ICD-9 to ICD-10 for mortality coding also took place at the same time.

Migration Strategy

Engaging a migration partner

The Singapore MOH in conjunction with the Ministry of Health Holdings (MOHH) undertook a competitive process to determine their migration partner. The process commenced in the first half of 2010 and after a request for proposal (RFP) process was completed, the University of Sydney (UOS) was awarded the role of Singapore's migration partner in July 2011.

Recommendations

At the conclusion of the project, The UOS Project team made the following recommendations:

ICD and Grouping Systems Steering Committee and work groups.

The longer term governance required for the classification and casemix system in Singapore could be addressed by a committee, perhaps named the 'ICD and Grouping Systems Steering Committee'. This committee could take on a continuing oversight role in light of the importance of the system to health finance in Singapore.

It was recommended that a technical working group be formed under the leadership of the ICD and Grouping Systems Steering Committee to assist it with decisions regarding maintenance and update of the classification systems used and AR-DRG Singapore cost weight development. After discussion of issues, relevant recommendations could be made to the ICD and Grouping Systems Steering Committee.

Morbidity Coding Queries and Communication Process

MOH should formalize the governance of the coding queries process to ensure standardized answers to coding queries.

It was recommended that a system of continuing coder education be implemented at least on an annual basis. The areas of continuing coder education will be informed by the queries received at the Coding Expert Panel (CEP) level. Continuing coder education should also include regular clinical updates in specific areas of medicine/surgery so that coders remain abreast of changes in diagnosis and treatment.

For new clinical coders, it is recommended that they undertake a medical terminology/medical science course (unless they already have a background in medicine or nursing) and then complete the Migration Kit exercises. Once this is done a system of mentoring should be put into place where the new clinical coder's work is gradually increased in complexity from simple day surgery cases to complex cases (e.g. diabetes, circulatory, sepsis and obstetrics). The mentoring process will require the mentor to continually audit the new coder's work until such time as the mentor feels that the new coder has gained the skills necessary to be left unattended and audited along with other coders during an internal formalized coding quality assurance program.

Clinician education regarding documentation and the impact on coding quality
As well as coder education, it is imperative that hospitals implement regular internal clinician education sessions regarding the importance of good clinical documentation and the impact that it has on coding quality and appropriate AR-DRG allocation.

Continuing national coding audits
As well as formal internal coding quality assurance programs within hospitals, it was recommended that this be followed up with national coding audits on an annual basis. A DRG compliance audit should be undertaken once the Singapore cost weights have been developed and the coders have been coding using the new system for at least one year. This type of audit should be undertaken every two years with an educational audit undertaken in alternate years. It is important that any recommendations from these audits, including the educational post-implementation audit performed in July/August 2012, be followed up with the objective of improvements in coding quality and appropriate AR-DRG allocation.

ICD-11
The WHO launched the Development of ICD-11 in 2007. A beta version of the revised classification was released in May 2012. Singapore should stay abreast of the developments so that it can consider, along with other countries, the implications for national statistical and financing systems in coming years. More active participation in the WHO Family of International Classifications (WHO-FIC) network would be one way to achieve this goal.

Conclusion

Casemix is not new to Singapore; the skill base however, has been in ICD-9-CM and AN-DRG Version 3.1. Internationally, classification and casemix has been dynamic, with many countries moving to their own adaptations of the World Health Organization's (WHO) ICD-10; and have moved forward with regard to more recent versions of DRGs. MOH/MOHH recognized that in order for Singapore to successfully migrate from ICD-9-CM to ICD-10-AM it would be necessary to secure the services of a migration partner with the latest classification expertise. The University of Sydney as the migration partner, in conjunction with MOH and MOHH has now successfully introduced a new classification system. Processes have been put into place that will allow Singapore to move forward and tailor the system to their needs; specifically in relation to cost weights (as done in the past with AN-DRG Version 3.1). Read more at:
http://himaa2.org.au/HIMI/sites/default/files/HIMI%204-1%20Dimitropoulos%20et%20al.pdf

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