World Organization of Family Doctors International Classification Committee



# Where have we come from and where are we going?

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| 1972                 | WONCA<br>inaugural<br>meeting, | working party established<br>Convenor Robert Westbury,<br>Canada)   | 'develop an agreed<br>classification of disease in<br>general practice to be clearly<br>related to the ICD'. | Robert Westbury         |  |  |  |  |
|----------------------|--------------------------------|---|--|-------------------------|--|--|--|--|
| 1975                 | ICHPPC                         | International Classification of health Problems in primary Care   | Retained ICD-8 structure,<br>Endorsed by WHO   | Robert Westbury         |  |  |  |  |
| 1979                 | ICHPPC-2                       |   | Upgrade to align with ICD-9;<br>endorsed by WHO  | Robert Westbury         |  |  |  |  |
| 1983                 | ICHPPC-@<br>DEFINED            | Contained the International<br>Glossary of Primary Care   | With inclusion and exclusion criteria; endorsed by WHO   | Jack Froom (US)         |  |  |  |  |
| 1979                 | REF-C work began               | Reasons for encounter<br>Classification   | WHO working group –<br>included many WICC members  | NA                      |  |  |  |  |
| 1983                 | RFE-C Trial                    |   | 18 countries involved  | Led by Henk<br>Lamberts |  |  |  |  |
| 1986                 | IC-Process-<br>PC              | International Classification of<br>Process in Primary Care  |  | Jack Froom              |  |  |  |  |
| Late 80s to late 90s |                                | Also worked on <b>Functional Status Measures</b> (Published by the Research Committee of Wonca), and on <b>Severity of Illness</b> measurement, in association with Duke University |  |                         |  |  |  |  |



| orld family docto | ors Caring for people |  |  |   |
|-------------------|-----------------------|--|--|---|
| 1987              | ICPC                  | International Classification<br>of Primary Care                | <ul> <li>Broke from ICD format</li> <li>Component 1: Drew on the NAMCS<br/>Reason for visit classification; the<br/>RFE-C (WHO working party)</li> <li>Components2&amp;3: broadly<br/>corresponds with ICD-( procedures in<br/>Medicine; but also with IC-Process-<br/>PC;</li> <li>Chapters P and Z drew on WHO<br/>sponsored Triaxial Classification<br/>Group work</li> <li>Component 7: based on ICD-9, most<br/>the same as in ICHPPC -2 Defined</li> </ul> | Chair: Maurice<br>Wood (US)                       |
| 1995              | Glossary              | Wonca International glossary<br>for general/family<br>practice |  | Ed: Neil Bentzen                                  |
| 1998              | ICPC-2                |  | Now included inclusion and exclusion<br>criteria for each rubric   | Chair: Charles<br>Bridges-<br>Webb<br>(Australia) |
| 2003              | Dictionary            | Wonca Dictrionary of<br>General/Family practice                |  | Ed: Neil Bentzen                                  |
| 1998              | ICPC-2                |  | Now included inclusion and exclusion<br>criteria for each rubric   | Chair: Charles<br>Bridges-<br>Webb<br>(Australia) |



#### What has WICC accomplished since 1998 release of ICPC-2?

#### • ICPC-2 update Group has:

- completed regular updates which include
  - corrections to rubric inclusions and exclsuion and cross references;
  - corrections to maps to ICD 10.
  - Updates to map to ICD-10 in response to WHO changes in ICD10.
- Kept good list of issues that can't be solved with ICPC-2, must be fixed in ICPC-3
- 2003-4: Produced the 2 pager with colour designation of correct Components in English, French and Spanish + template for other languages. More languages added over the years (now available on Kith Web site)
- Established arrangement with **KITH** to hold electronic versions of ICPC.
- Established version control for ICPC-2 versions held on Kith

#### Had very interesting discussions about:

- how we should deal with patient risk factors
- difficulties with current Process codes and proposals to perhaps limit to a single set in core ICPC-3 with links to other systems.
- quaternary prevention
- What changes are needed for ICPC-3.



#### Brasov: 2008

Need for ICPC-3 was recognised: reasons included—

- to correct errors in ICPC-2 (that cannot be corrected in updates)
- to correct allocation of rubrics to true component (like 2 pager)
- the need to merge chapters X and Y-(agreed) into chapter G-Genital
- to accommodate new rubrics for which no space available in ICPC-2
- to incorporate data elements not now included in ICPC
- to resolve some data retrieval problems.
- -- Michel De Jong proposed a **2 Alpha+2 numeric (2A2N)** structure



## Florianopolis---2009

- Eric Falcoe and Marianne Rosendal presented paper proposing uptake of deJonghe 2A2N structure (with further developed second alpha meaning)
- Clear consensus for Falkoe/Rosendal/de Jonghe proposal with second alpha to designate TYPE (infection, trauma etc)
- Unanimous vote to adopt this structure for ICPC-3



Ghent--2010

- ICPC-2 Update group re-established -recognised that some people will want to continue to use ICPC-2 and maps to ICD-10 would need to be updated with changes in ICD 10.
- Draft application of agreed structure (2A2N) applied to proposed Chapter G –resulted in some changes to second alpha code- changes all agreed.
- Agreed by acclamation that WICC 'move ahead with development of 2A2N structure for ICPC-3'.
- White paper on **Data Model** (Menneret) distributed +presented.
- Risk-factor working group proposed a classification for this area NERI group formed.



## Barcelona--2011

- Presentation of the XY chapter (Chapter G) full draft
- Draft version of revised **Process** component of ICPC-2, with inclusion and exclusion criteria, presented for discussion.
- General discussion on ICPC coding rules; group formed to develop white paper
- Risk –factors v's diagnoses discussion more work needed
- Prevention and screening classes in ICPC-2 were discussed (T Kuehlein)



#### 2012 Ravello meeting

- Mike Klinkman had distributed ICPC-3 BluePrint
- Gojo (Zorg) had reviewed Chapter G draft and made suggestions for some changes in inclusions.
- Michel had applied the 2A2N structure to all chapters (content of rubrics same as ICPC-2 at this stage) as a test
- Daniel Pinto had started to assess chapters with a different approach.
- We moved through the proposed method by which ICPC-3 would be developed.
- I was asked to prepare a white paper on the agreed 2 alpha + 2 numeric (2A2N) structure
- and to work on the technical side of the process.
- Agreed that all chapter groups would report in on progress at WICC meeting in Jo'burg in 2013.
- Began the voluntary allocation of individuals ( and leaders) to each chapter



#### *Summary of need a new coding* <u>structure</u> for ICPC-3 New rubrics are needed for:

- New problems of increasing frequency needing own rubric (e.g. Chronic kidney disease)
- But there is little space for new rubrics in current structure
- You cannot re-use a code from versions and give it a new name in version 3 because the validity of longitudinal data (e.g. a patient EHR) will be vastly compromised
- In move from ICPC-1 to ICPC-2, some chapters ran out of space so the components are not necessarily correct (e.g. skin chapter, many symptoms and complaints are currently place in the Diagnoses/disease component.
- Altogether this means we need more space NOW, and space for updates in future as new knowledge necessitates changes & additions to ICPC-3.



### The planned ICPC-3 core structure

- proposes no change to the original principals of:
  - Chapter component structure
  - Localisation/manifestation takes priority over aetiology.
  - the importance of the episode of care/POMR (Weed) model ( ie the value of following the problem over time in the record)

# The proposed code structure

- Two Alpha codes + two numeric codes
  - 1st alpha = chapter
  - 2nd alpha = component or subcomponent
  - Numeric range of
    - 01-99 in Symptoms/complaints component
    - 01-99 in Diagnosis/disease component
  - Sub-components defined by numeric ranges within the 0-99 component range

SYMPTOMS & COMPLAINTS

Specific symptoms and complaints

Fear of .....

fear of..... other NEC,

Concern about.....

Concern about ...other NEC

Limited function/disability

... .symptom complaint, other NEC

#### DIAGNOSES/DISEASES

Infections ... infections other NEC Neoplasms Malignant neoplasms Malignant neoplasm ....other NEC Benign neoplasms Benign neoplasm ....., other NEC Uncertain neoplasms Uncertain neoplasms... other NEC Neoplasms, ..... other NEC Injuries Injuries .....other NEC **Congenital anomalies** Congenital anomaly.....other NEC Other diagnoses/diseases Other .....diagnosis/disease NEC

| For each of the Chapters            | Second Alpha           | Full ICPC-3 codes available |
|-------------------------------------|------------------------|-----------------------------|
| SYMPTOMS & COMPLAINTS               | S (symptoms)           | CHAPTER + S+ 01-99          |
| Specific symptoms and complaints    | S                      | Chapter +S + 01 – 69        |
| Fear of                             | S                      | Chapter + S70-78            |
| fear of other NEC,                  | S                      | Chapter + S79               |
| Concern about                       | S                      | Chapter +S80-88             |
| Concern about other NEC             | S                      | Chapter + S89               |
| Limited function/disability         |                        | Chapter +S90 – 98           |
| symptom complaint, <i>other</i> NEC | S                      | Chapter +S99                |
| DIAGNOSES/DISEASES                  | (G+N+H+A+D)            |                             |
| Infections                          | G (germ)               | Chapter alpha +G01–98       |
| infections other NEC                |                        | Chapter alpha + G99         |
| Neoplasms                           | N (neoplasms)          | Chapter + N 01-99           |
| Malignant neoplasms                 | · <u>-</u> ·           | Chapter +N01 – 28           |
| Malignant neoplasmother NEC         |                        | Chapter +N29                |
| Benign neoplasms                    |                        | Chapter + $N30 - 58$        |
| Benign neoplasm, other NEC          |                        | Chapter +N59                |
| Uncertain neoplasms                 |                        | Chapter + N60-88            |
| Uncertain neoplasms other NEC       |                        | Chapter +N89                |
| Neoplasms, other NEC                |                        | Chapter + N99               |
| Injuries                            | H (harm)               | Chapter +H01 – 98           |
| Injuriesother NEC                   | if needed              | Chapter +H99                |
| Congenital anomalies                | A (anomolies)          | Chapter + A01 – 98          |
| Congenital anomaly other NEC        | if needed              | Chapter + A99               |
| Other diagnoses/diseases            | D<br>(diagnos/disease) | Chapter +D01 – 98           |
| Otherdiagnosis/disease NEC          |                        | Chapter+D99                 |



- Chapter team working groups further developed and finalised.
- White paper draft has reviewed by Marianne, being finalised
- XL insufficient to track changes
- Access database being developed, now in Beta test phase.
- Still need to develop instructions for use of the database for each step of process.

|  |                 |   |          |          | <b>1</b> 20 |         |    |    |    |          |   |    |    |    |          |          | 24 K.S.  |       |
|--|-----------------|---|----------|----------|-------------|---------|----|----|----|----------|---|----|----|----|----------|----------|----------|-------|
| Wonca                                  | [               | 1 | <u> </u> | <u> </u> |             | 1       |    |    |    | <u> </u> | 1 |    |    |    | <u> </u> | <u> </u> | <u> </u> | JOB   |
| orld family doctors. Caring for people | NAME CHAPTER(s) | A | В        | D        | F           | Genital | н  | к  | L  | N        | Р | R  | s  | Т  | U        | w        | z        | COUNT |
|  | Anders          |   |          | -        |             |         |    |    | _  |          | - |    | -  | _  |          |          |          | 0     |
|  | Bob             |   |          |          |             |         |    |    |    |          |   |    |    |    |          |          | X        | 1     |
|  | Daniel          |   |          |          |             | Х       |    |    |    |          |   |    |    |    |          |          |          | 1     |
|  | Diego           |   |          |          |             |         |    |    |    | X        |   |    |    |    |          |          |          | 1     |
|  | Dimitris        | X |          |          |             |         |    |    |    |          |   |    |    |    |          |          |          | 1     |
|  | Ferdinando      |   |          |          |             |         |    |    |    |          |   |    |    |    | X        |          |          | 1     |
|  | Francois        |   |          |          |             |         |    |    | Х  |          |   |    |    |    |          |          |          | 1     |
|  | Gojo            |   |          |          |             | Х       |    |    | xx |          |   |    |    |    |          |          |          | 2     |
|  | Graeme          | 1 |          | X        |             |         |    | X  |    |          |   |    |    |    |          |          |          | 2     |
|  | Gustav          |   | XX       |          |             |         |    | X  |    |          |   |    |    |    |          |          |          | 2     |
|  | Gustavo         |   |          |          |             |         |    | X  | Х  |          |   |    |    |    |          |          |          | 2     |
|  | Helena          |   |          |          | xx          | XX      |    |    |    |          |   |    |    |    |          |          |          | 2     |
|  | Ines            |   |          |          |             |         |    |    |    |          |   |    |    | XX |          |          |          | 1     |
|  | Jean Karl       | X |          |          |             |         |    |    |    |          | X |    |    |    |          |          |          | 2     |
|  | Julie           |   |          |          |             |         |    |    |    |          |   |    | xx |    |          |          |          | 1     |
|  | Kees            | X |          | xx       |             |         | XX |    |    |          |   |    |    |    |          |          |          | 3     |
|  | Laurent         |   |          |          |             |         |    |    |    |          |   |    |    |    |          | xx       |          | 1     |
|  | Maria           |   |          |          |             |         |    |    |    |          |   |    |    | Х  |          |          |          | 1     |
|  | Marianne        |   |          |          |             |         |    |    |    |          | X |    |    |    |          |          |          | 1     |
|  | Martin          |   |          |          |             |         |    | XX |    |          |   | Х  |    |    |          |          |          | 2     |
|  | Michael         |   |          |          |             |         |    |    |    |          |   |    |    |    |          |          |          | **    |
|  | Mike            |   |          |          |             |         |    |    |    |          | X |    |    |    |          |          | Х        | 2     |
|  | Mohan           |   |          |          |             |         |    |    | Х  |          |   |    |    |    |          |          |          | 1     |
|  | Nick            |   |          |          | Х           |         |    |    |    |          |   |    |    |    |          |          |          | 1     |
|  | Nicola          |   |          |          |             |         |    |    |    |          |   |    |    |    | XX       |          |          | 1     |
|  | Ray             |   |          |          |             |         |    |    |    | X        |   |    |    |    |          |          |          | 1     |
|  | Shabir          | X | Х        |          |             |         |    |    |    |          |   |    |    |    |          |          | XX       | 3     |
|  | Sebastian       |   |          |          |             |         |    |    |    |          |   |    | X  |    |          |          |          | 1     |
|  | Shin            |   |          | X        |             |         |    |    |    |          |   |    |    |    |          |          |          | 1     |
|  | Susan Dovey     |   |          |          |             |         | X  |    |    |          |   |    |    |    |          | X        |          |       |
|  | Thomas          | 1 |          | X        |             |         |    |    |    |          |   | XX |    |    |          |          |          | 2     |
|  | Tuija           | 1 |          |          |             |         |    | 1  | Х  |          | 1 | 1  |    |    |          |          |          | 1     |
|  | No. people      | 4 | 2        | 4        | 2           | 3       | 2  | 4  | 5  | 2        | 3 | 2  | 2  | 2  | 2        | 2        | 3        |       |



- At the University of Sydney we have been developing an Access database for each chapter group to work with.
- It is in Beta test phase.
- It provides the following information:





- There is an individual chapter database for each chapter group-- Component 1 and Component 7 rubrics only
- It provides (from the most recent KITH version)
  - the ICPC-2 code
  - Its rubric label,
  - Its current inclusions,
  - Its current exclusions
  - (where avaiable) current critieria,



- 1. Comments about this rubric.
- issues raised about the rubric, its inclusions or exclusions, its relationship to other rubrics, or to another chapter.
- Originator of the comments (e.g. Update group, a individual, or a country)
- These will largely have been generated by the ICPC-2 Update committee over the last 10 years or so.
- They are issues that could not be 'fixed' in ICPC-2 because it was too large a change or because the individual change had too many repercussions across other rubrics within and/or outside this chapter.
- Kees has kindly entered these into a prepared Access database in April this year.



## When considering a rubric

You also need to consider if the current rubric is used so you can:

- identify any individual ICPC-2 rubric rarely or never used, &
- therefore should be considered for possible removal and inclsion in an other 'group' concept (e.g. 'other....')



- For this you need information about how often and how widely the rubric is used (i.e. how many countries and which ones?)
- From each chapter you can link to data about the usage of each of rubrics in your chapter
- A file shows usage of individual rubrics –
   by each of about 12 countries (n & % of chapter)
   + total n, % across all countries).





- Particularly useful for –99 or –29 codes (and other rag-bags). Although we only have **term** usage data for a few countries, It will allow you to consider whether a specific health concept is using up a lot of the rag-bag (in this case K99), and whether you should consider if this concept should have its own rubric.
- For example in creating the G chapter (combining chapters X and Y), Endometriosis( which in ICPC-2 was an inclusion in X99), accounted for 27% of X99, and Ovarian cyst accounted for 36% of X99. The next most frequent term in X99 accounted for only 5%.
- These concepts therefore stood out for possible inclusion as their own rubric.



- To allow you to consider the content of rag bags, there is a link to individual country's **TERM** usage data **within** the INDIVIDUAL rubric you are currently considering,
- expressed as a % of total usage of individual terms in a rubric by separate countries.



## Other facets of the development database

- There is space to enter comments, change inclusion criteria, correct or change exclusions, inclusions etc
- All will link the old to the new code so we have a track of changes between ICPC-2 and ICPC-3.
- This will allow us to later check internal validity (e.g. exclusion versus inclusion criteria across all chapters), and create the ICPC-2 to ICPC-3 map.



## ICPC-2 update group - New components?

- Health maintenance and prevention
  - Screening for specific diseases
  - Chapter W: contraception etc
- Procedures
  - pap smears, sterilisations, immunisations (pertinent to above)
- Abnormal test results/findings -----Should we have new component in each chapter?



## *Other issues for discussion*

- Are the current chapters right? E.g. chapter K vs N; K vs T Vascular, cardiac, cerrebravascular? Where does skin start in terms of: Digestive: perianal area; mouth 🛚 Genital: e.g. vulva Ear
  - Needs to be defined for all chapters



# Try to demonstrate some aspects of the ICPC-3 development database.

- Currently at the internal beta test phase (our Centre)
- White paper will be circulated in a few weeks. Currently editing in response to comments for Marianne.