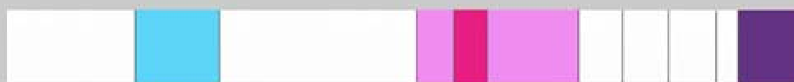
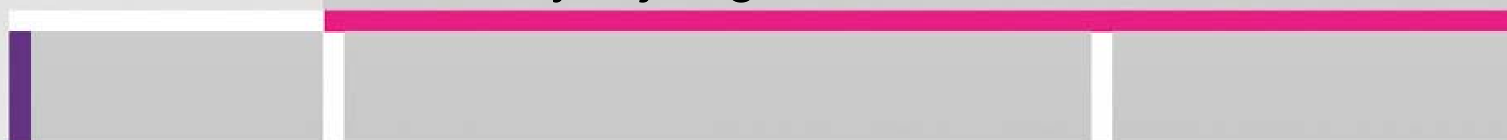
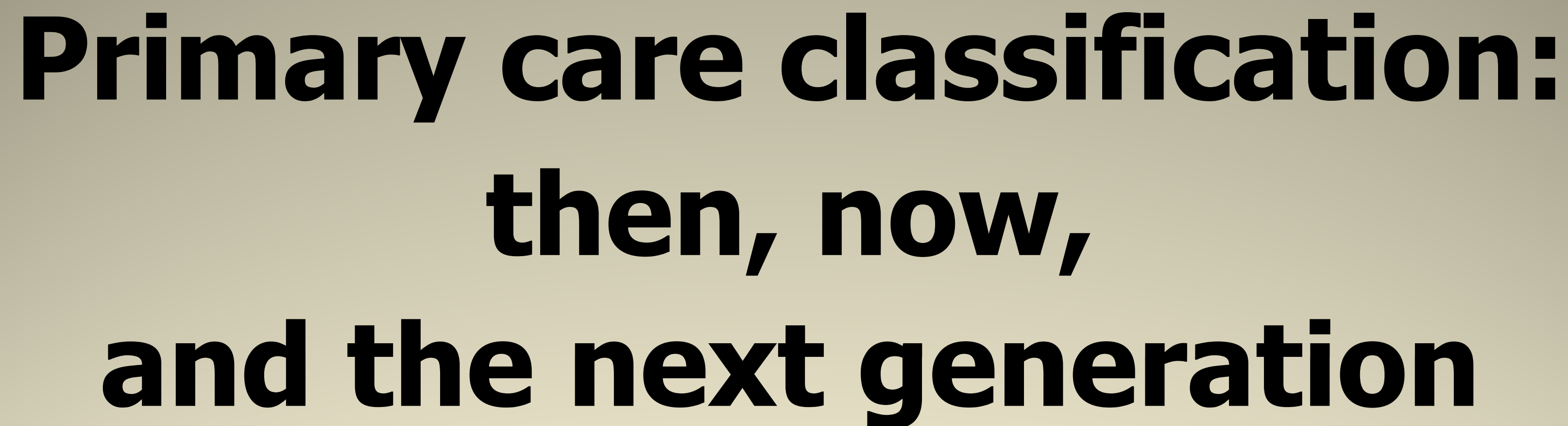


An Introduction to the ICPC and towards ICPC-3

Friday 22th May 2010 – Presentation of ICPC
“Cancun Mexico

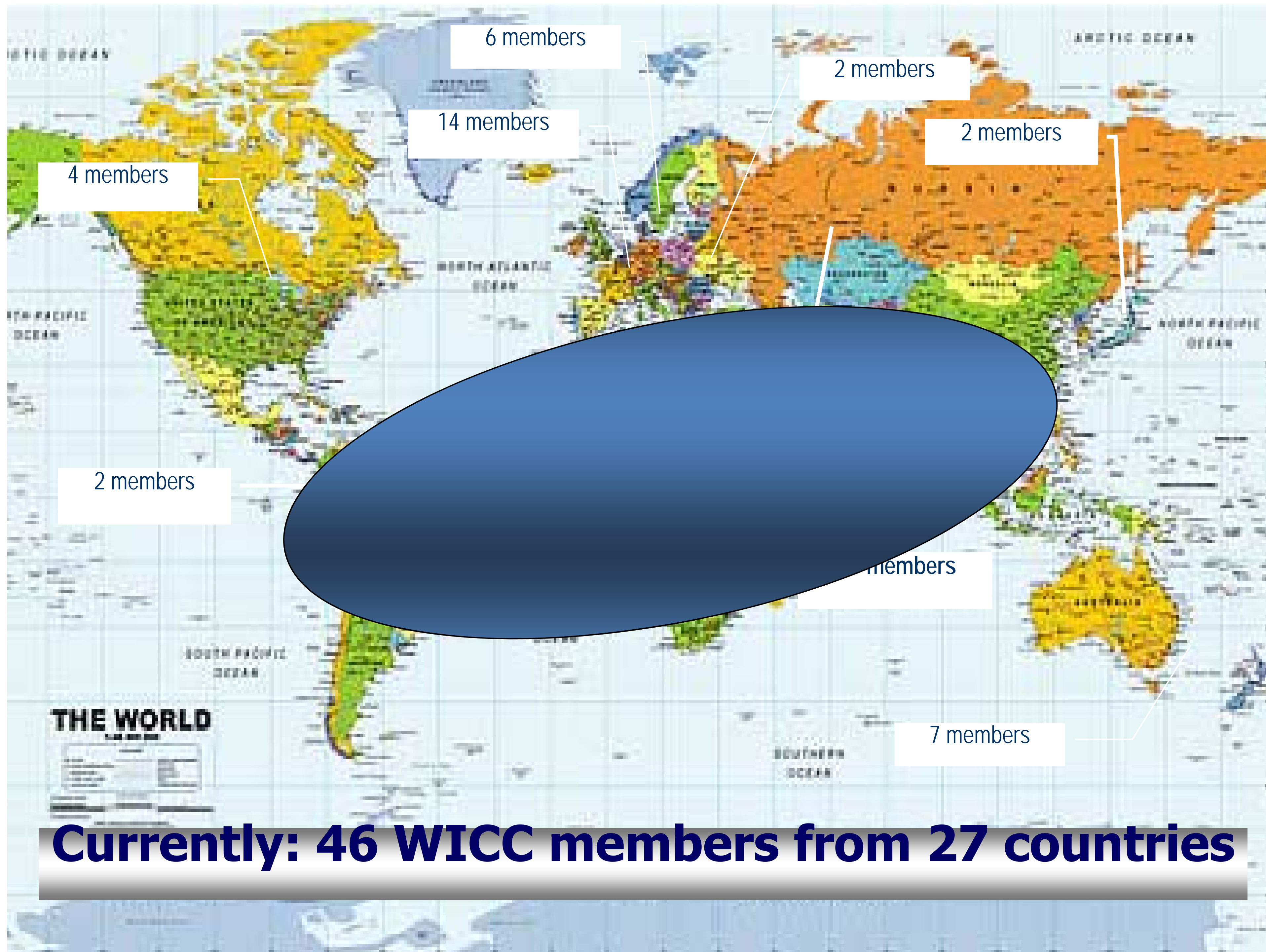
Kees van Boven, General Practitioner, Senior researcher at
Department of Primary and Community Care, Radboud
University Nijmegen Medical Centre



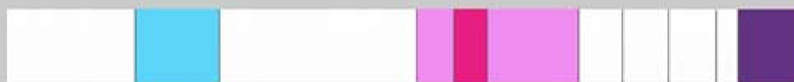


Michael Klinkman, MD, MS
University of Michigan
Wonca International Classification Committee

Wonca International Classification Committee
Dunedin, 2007


6 members
2 members
14 members
2 members
4 members
2 members
members
7 members
THE WORLD
ARCTIC OCEAN
NORTH ATLANTIC OCEAN
NORTH PACIFIC OCEAN
SOUTH PACIFIC OCEAN
SOUTHERN OCEAN
Currently: 46 WICC members from 27 countries

Henk Lamberts



Now (2009)

ICPC formally licensed in 10 countries

Mandated standard in 6 countries

In use in over 20 countries

Core tasks of primary care

- Understand the full range of clinical problems
- Know the social and personal context
- Take into account patients' own priorities and goals
- Carry out preventive services
- Help patients identify and manage health risks

….in a stream of short clinical encounters over time, where circumstances, priorities, clinical knowledge, and "rules" are all moving targets

Primary care doctors help persons with problems over time

We give advice – not orders

Persons, not "patients"

Problems, not diagnoses ---

Many, not one

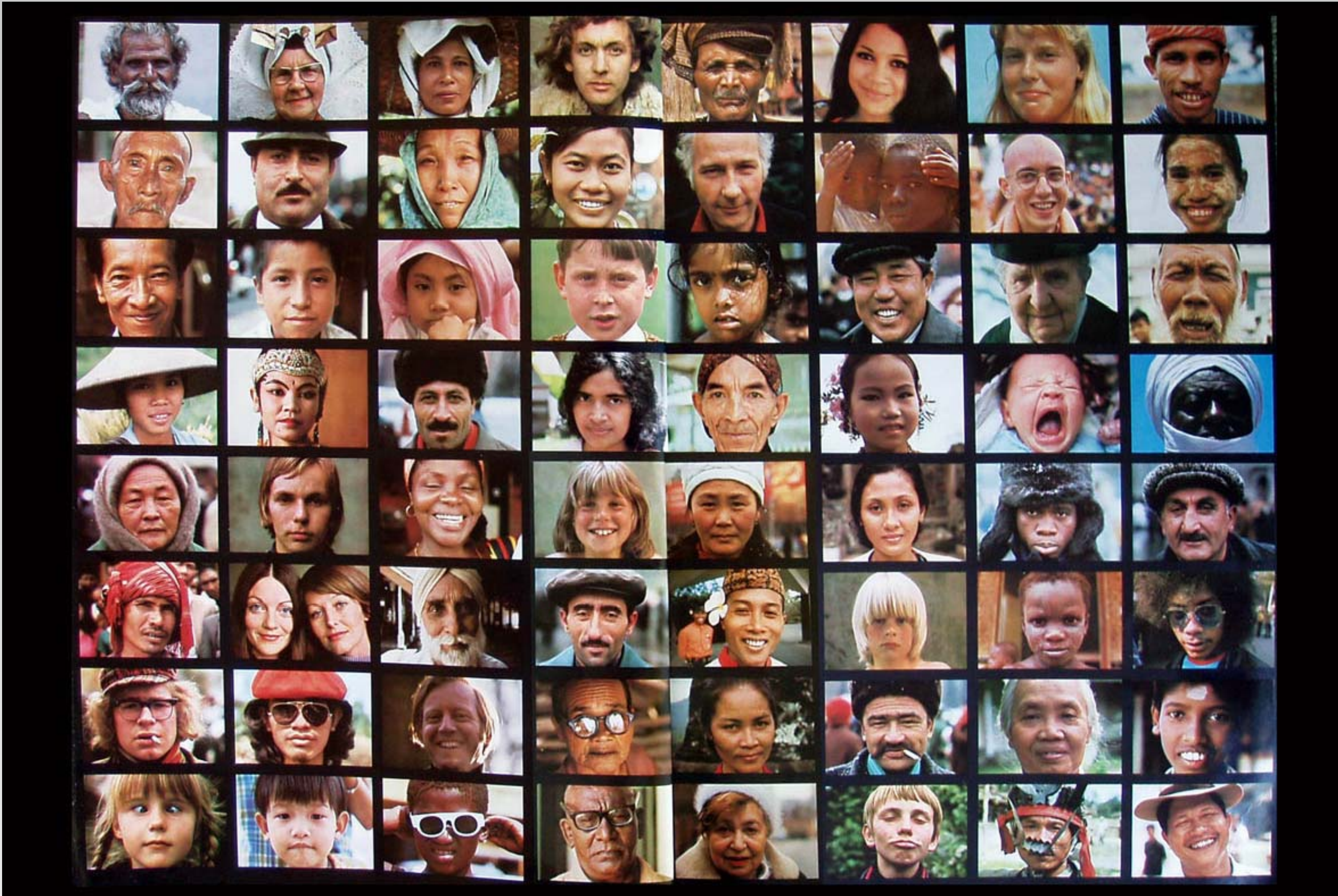
Episodes of care, not single visits

The constraints of primary care

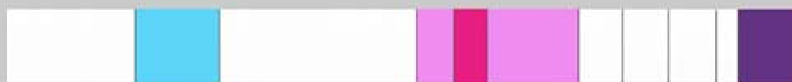
- Between 7 and 20 minutes for typical encounter
- Between 2 and 6 problems addressed per encounter
- Average 2-4 minutes per problem
- …plus prevention (screening), documentation, administrative services
- …plus negotiation and education
- **We use shortcuts.**
  We don't care so much about precision.
  We don't care so much about diagnosis.

Core questions to answer: primary care classification

- What domains must be included to accurately capture the work of primary care?
- How can data capture work within the constraints of primary care practice?
- Who collects it? Who uses it? For what?
- How does it link to other sources of information?
- How do we accommodate the perspective of the patient – and does it matter?



Embrace the diversity



The importance of epidemiology

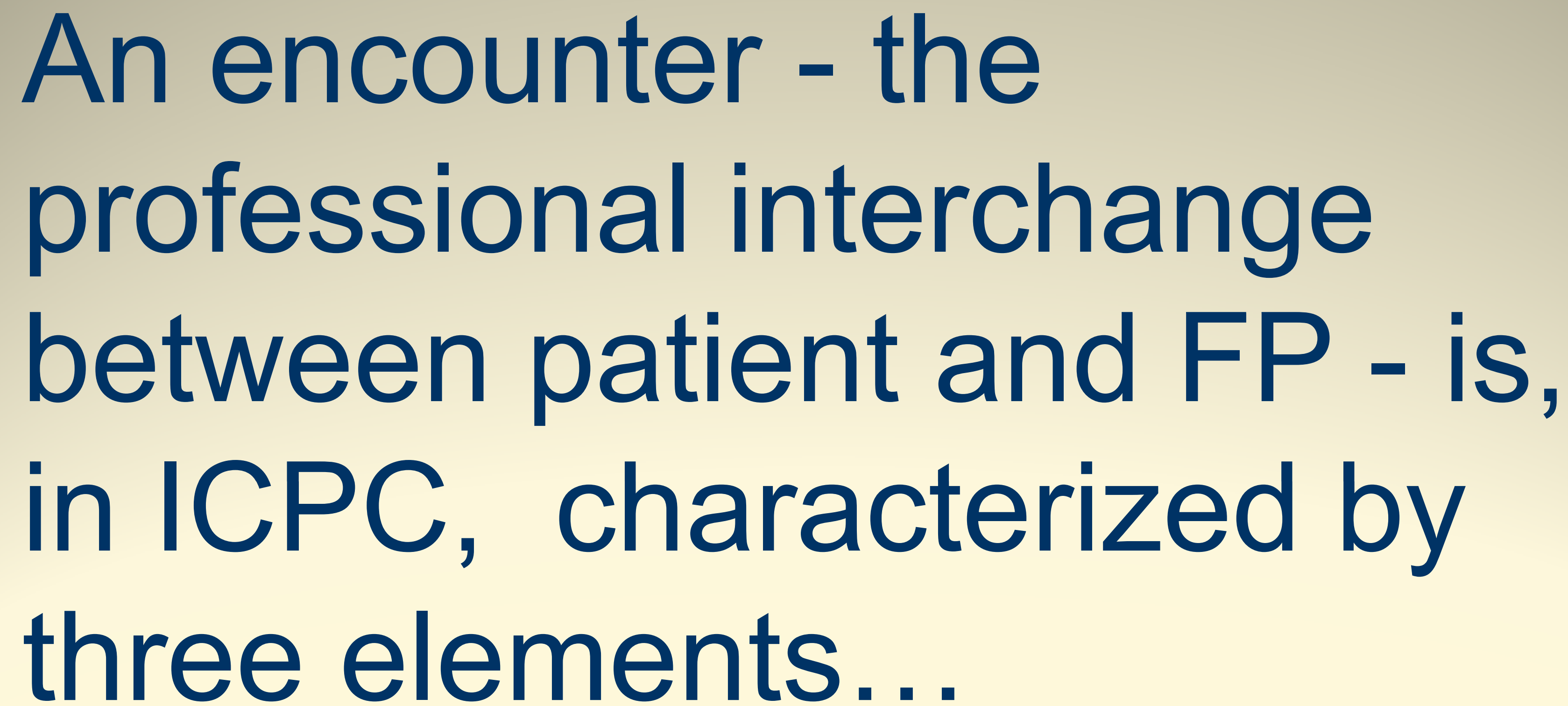
INTERNATIONAL CLASSIFICATION OF PRIMARY CARE (ICPC), NOW

ICPC-1: 1987, ICPC-2: 1998,
ICPC-2-E: 2000, ICPC-2-R: 2005

A classification is the ordering principle of a defined domain

ICPC
orders the domain
of primary care
(family medicine)

.. and allows the coding of encounters in an episode of care structure


An encounter - the
professional interchange
between patient and FP - is,
in ICPC, characterized by
three elements…

1. patient's reason(s) for encounter (RFE): why has s/he come?
2. FP's diagnosis/es: what's the patient's problem?
3. process: what is done?

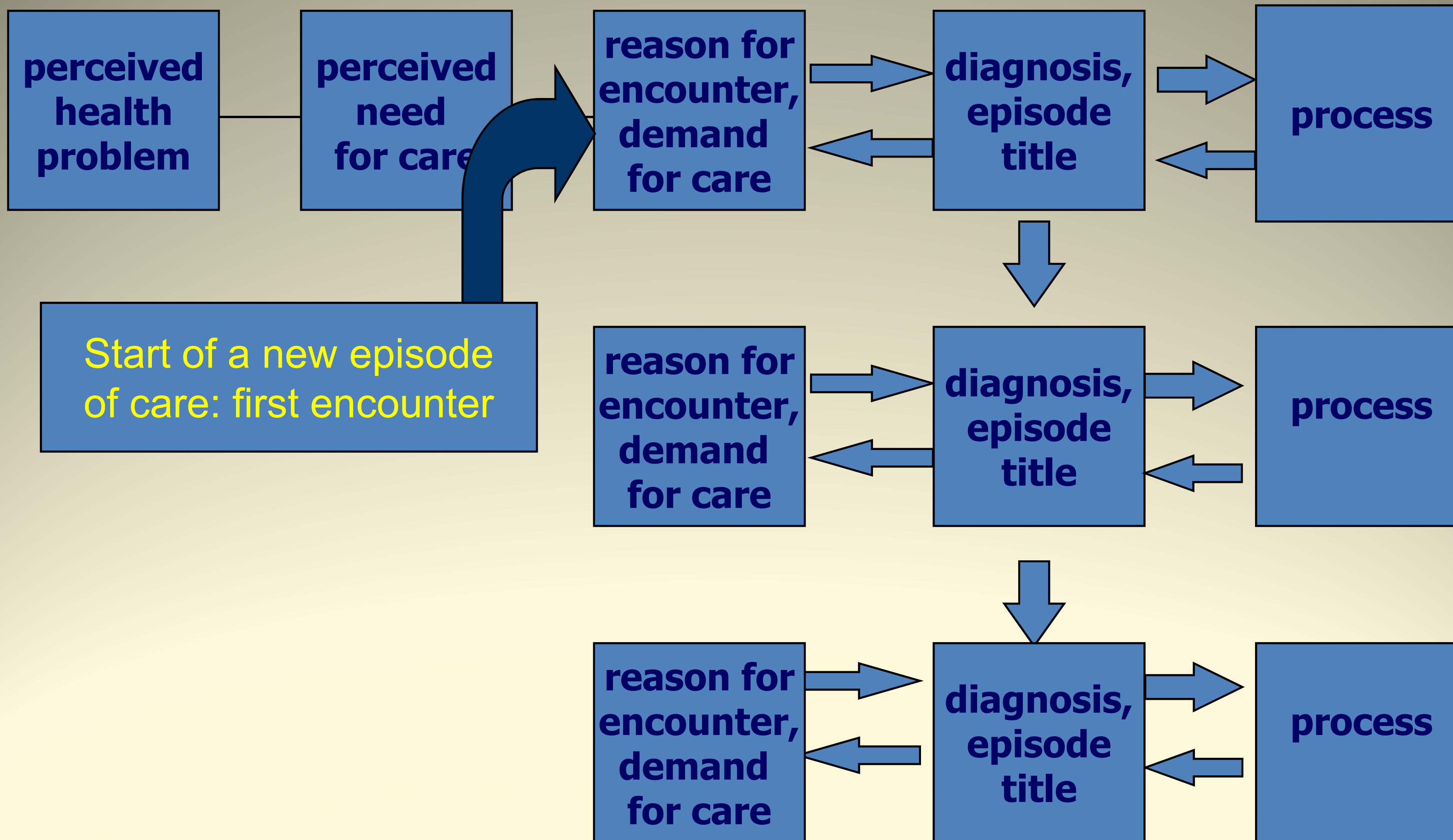
An episode of care is a health problem from its first presentation to a health care provider until (and including) the last encounter for it

At an encounter,
more than 1 episode of care
may be dealt with, e.g.
diabetes and
hypertension…

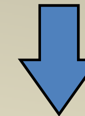
..in such a case, diabetes and hypertension are the two sub-encounters in that encounter

An episode of care can be dealt with in a single encounter, or extend over a long period of time, with any number of encounters

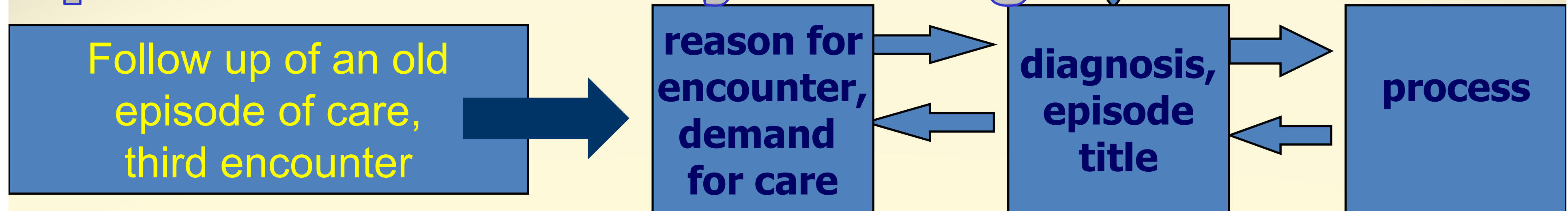
EPISODE OF CARE



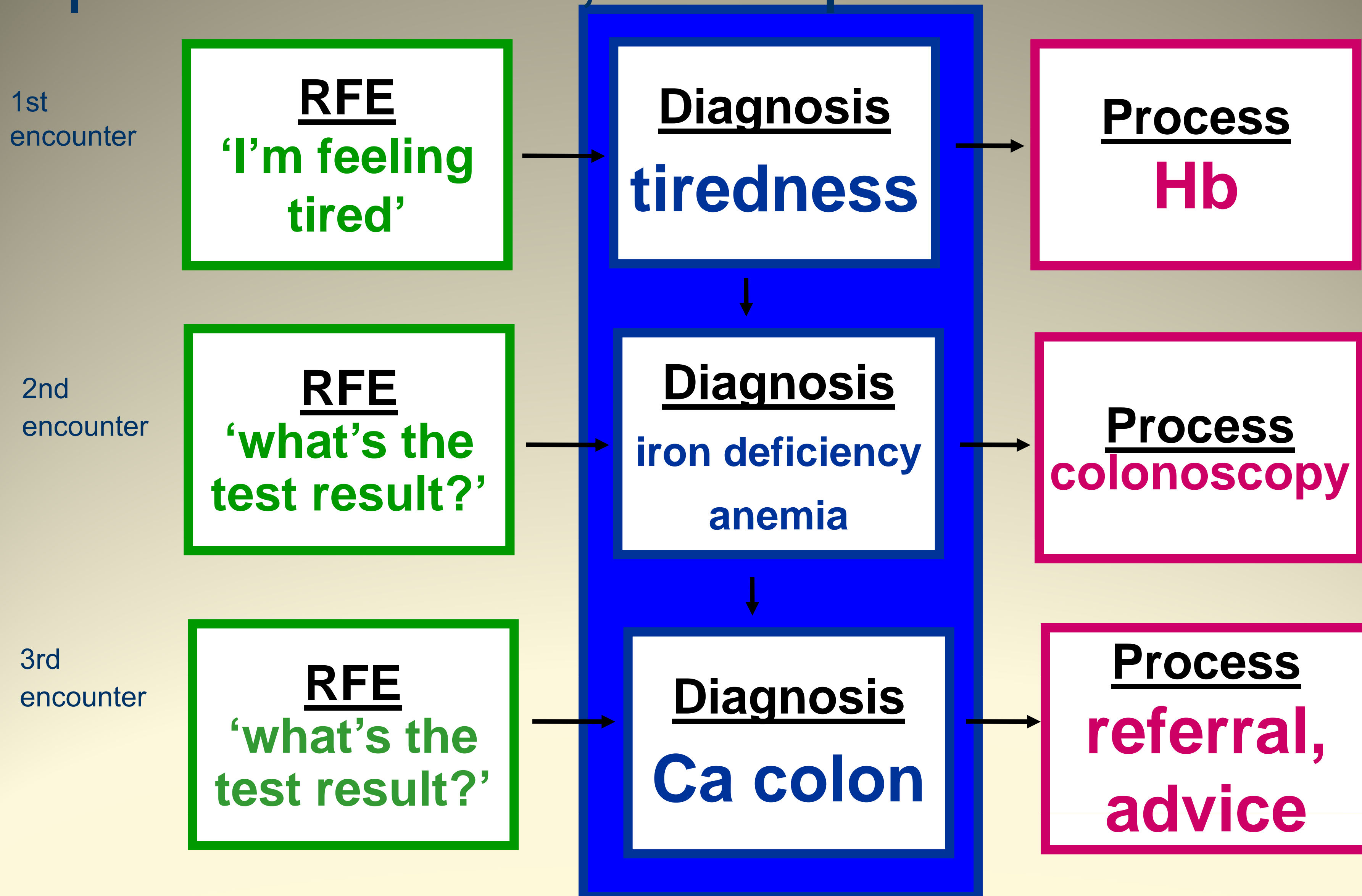
EPISODE OF CARE



Episode title may change over time!



Episode of care, example



ICPC structure

- bi-axial
- one axis: 17 chapters with an alpha code based on body systems/problem areas
- second axis: 7 identical components, with rubrics bearing a two-digit numeric code

ICPC CHAPTERS

A General and unspecified
B Blood/bloodforming organs, lymphatics (spleen, bone marrow)
D Digestive
F Eye (Focal)
H Ear (Hearing)
K Circulatory
L Musculoskeletal (Locomotion)
N Neurological
P Psychological
R Respiratory
S Skin
T Endocrine, metabolic and nutritional (Thyroid)
U Urological
W Pregnancy, child bearing, family planning (Women)
X Female genital (X-chromosome)
Y Male genital (Y-chromosome)
Z Social problems

ICPC COMPONENTS

(standard, if possible, for all chapters)

1.	Symptoms and complaints	1-29
2.	Diagnostic and preventive procedures	30-49
3.	Treatment procedures, medication	50-59
4.	Test results	60-61
5.	Administrative	62
6.	Referral and other reasons for encounter	63-69
7.	Diseases:	70-99

- infectious diseases
- neoplasms
- injuries
- congenital anomalies
- other specific diseases

Chapters and components together form a 'chessboard'..

Structure of ICPC: chapters and components

\ Chapters Components	A	B	D	F	H	K	L	N	P	R	S	T	U	W	X	Y	Z
1.Symptoms and complaints																	
2.Diagnostic, screening prevention																	
3.Treatment procedures, medication																	
4.Test results																	
5.Administration																	
6.Other																	
7.Diagnoses, diseases																	

Chapter List:
A. General
B. Blood, blood formi
D. Digestive
F. Eye
H. Ear
K. Circulatory
L. Musculoskel
N. Neurologica
P. Psychologic
R. Respiratory
S. Skin
T. Metabolic, endocrine nutritional
U. Urinary
W. Pregnancy, child beari family plan
X. Female geni
Y. Male genita
Z. Social

An ICPC code always has an alpha for the chapter, and two digits for the rubric in the component, e.g.:

Heartburn
Chapter D(igestive), symptom/complaint → component 1: D03

Pneumonia
Chapter R(espiratory), disease → component 7: R81

ICPC provides separate codes for RFEs, diagnoses, and interventions that are frequent in primary care (≥1/1000 ppy)…

…which is, for diagnoses, only a small proportion of all known diseases…

Distribution of prevalences

per 1000 patients per year

Prevalence	Number of diagnoses
> 5	150
1-5	250
0.1-1	1500
0.01-0.1	2000
< 0.01	4000

In ICPC, entities without a separate code are included in rag-bag rubrics at the end of each (sub)section, where the diseases included in that rag-bag are listed..

e.g. S99: other skin disease....

WICC: ICPC-2 - [ICPC2ReadOnlyForm]

File Edit View Insert Format Records Tools Window Help

PickList S99

CODE S99 Component: 7 ICPC2? Yes

TEXT SKIN DISEASE OTHER

SHORT SKIN DISEASE OTHER

ICD-10: L10, L11, L12, L13, L14, L26, L28, L30.2, L30.5, L41, L43, L44, L45, L51, L52, L53.0, L53.1, L53.2, L53.3, L53.8, L54, L60.2,

INCL dermatitis artefacta, discoid lupus erythematosus, erythema multiforme, erythema nodosum, granuloma, granuloma annulare, hyperkeratosis, keloid, keratoacanthoma, lichen planus, neurodermatitis, onychogryphosis, rosacea, rhinophyma, scar,

more text upon scro

EXCL

CRITERIA

CONSIDER

NOTE

ICPC orders the domain of primary care

….but has insufficient granularity to document all individual patients’ diagnoses

SYMPTOMS	DIAGNOSES		
n≈100	n≈300	ICPC2	>1/1000 PPY
n≈600	n≈13.000	ICD10	<1/1000 PPY

For hierarchical expansion of ICPC, ICD-10 is recommended; the ICPC2-ICD10 Thesaurus on allows…

easy, semi-automatic double coding

by the simultaneous use of:

- ICPC-2 as an ordering principle (based on the high prevalence of common diagnoses in family practice),
- and of ICD-10 as a nomenclature (based on the wide range of ‘known’ diagnoses)

- Missing pieces
-
  - *Severity and function*
  - *Staging / multimorbidity / confusion*
  - *Prevention and risk factors*
  - *Patient preferences, goals…*
  - *But the ICPC-2 will at least meet the needs of most countries for the next 7 years!*

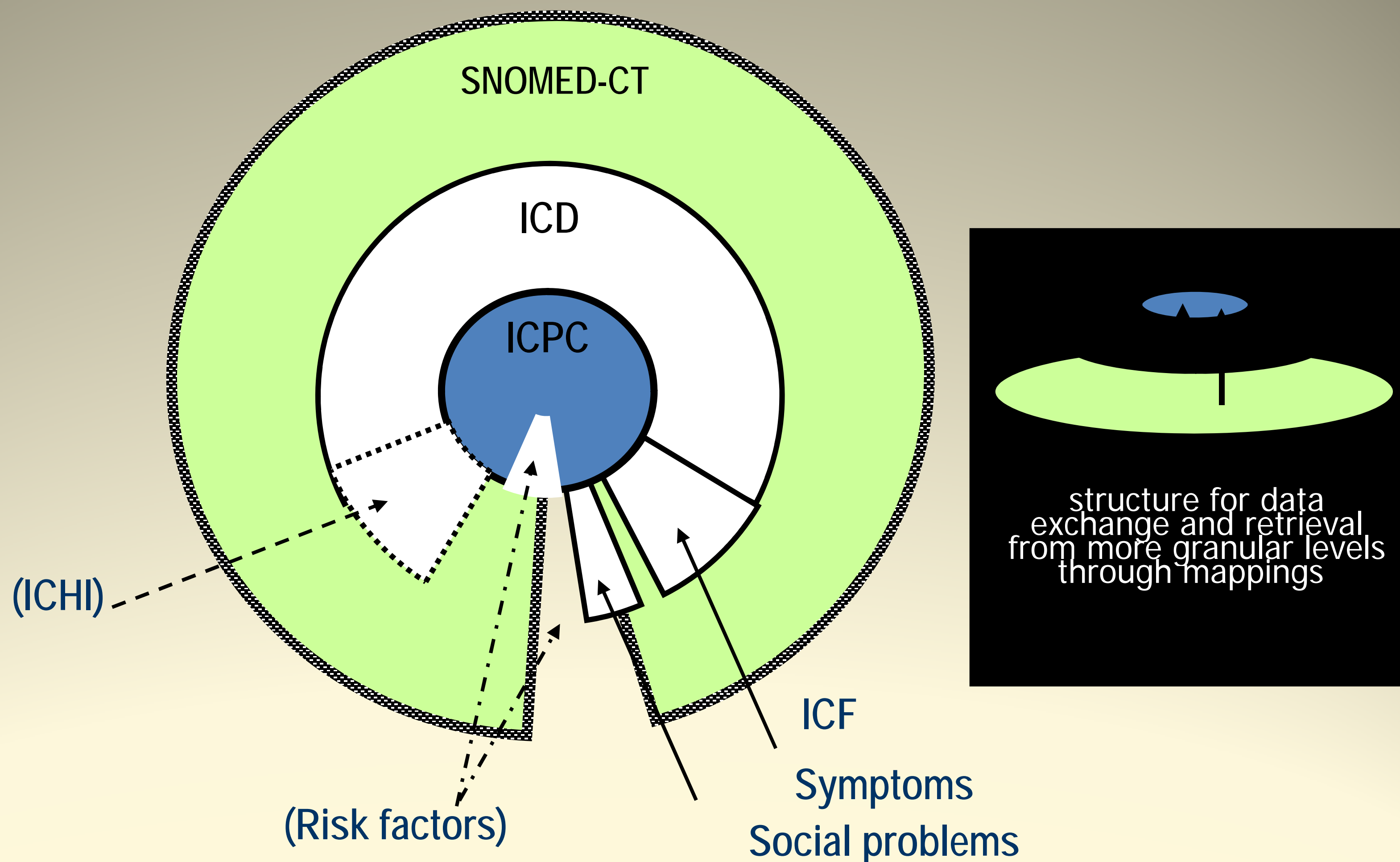
the primary care use case(s), 2010

- Multiple clinical settings - integrated health systems to electronic practices to developing countries without infrastructure (with a need for a two pager classification like the ICPC)
- Community-based continuity practices *plus* urgent care *plus* community or regional health clinics
- Multiple philosophies of care (W. Europe, US, developing, traditional medicine…)
- Need for interoperability between diverse electronic systems

What we need to answer core questions: now (2010)

- domains?
  - ***SYMPTOMS, DIAGNOSIS, SOCIAL PROBLEMS, PROCESS, TIME + RISK FACTORS , FUNCTION, SEVERITY***
- data capture?
  - ***ROBUST SIMPLICITY + DATA EXCHANGE***
- who collects? uses? for what?
  - ***CLINICIANS . TO UNDERSTAND THEIR PRACTICE. + ALL CAREGIVERS, THIRD PARTIES TO ASSESS QUALITY***
- how does it link?
  - ***DATA EXCHANGE, INTEROPERABILITY, MAPPING***
- patient perspective?
  - ***RFE + GOALS/PREFERENCES***

Fitting existing classifications/terminologies together to support primary care.



Let's go!