

WHO-FIC annual meeting
mICF meeting, Barcelona, Spain, 9-10 Oct 2014

VilmaFABER system for describing biopsycosocial outcomes

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Presenting VilmaFABER

1. Name of the application:

- VilmaFABER



2. Current status of the application:

- in limited use, not for profit, public authorities in Italy
- in development an international version, starting from Finland and South Africa

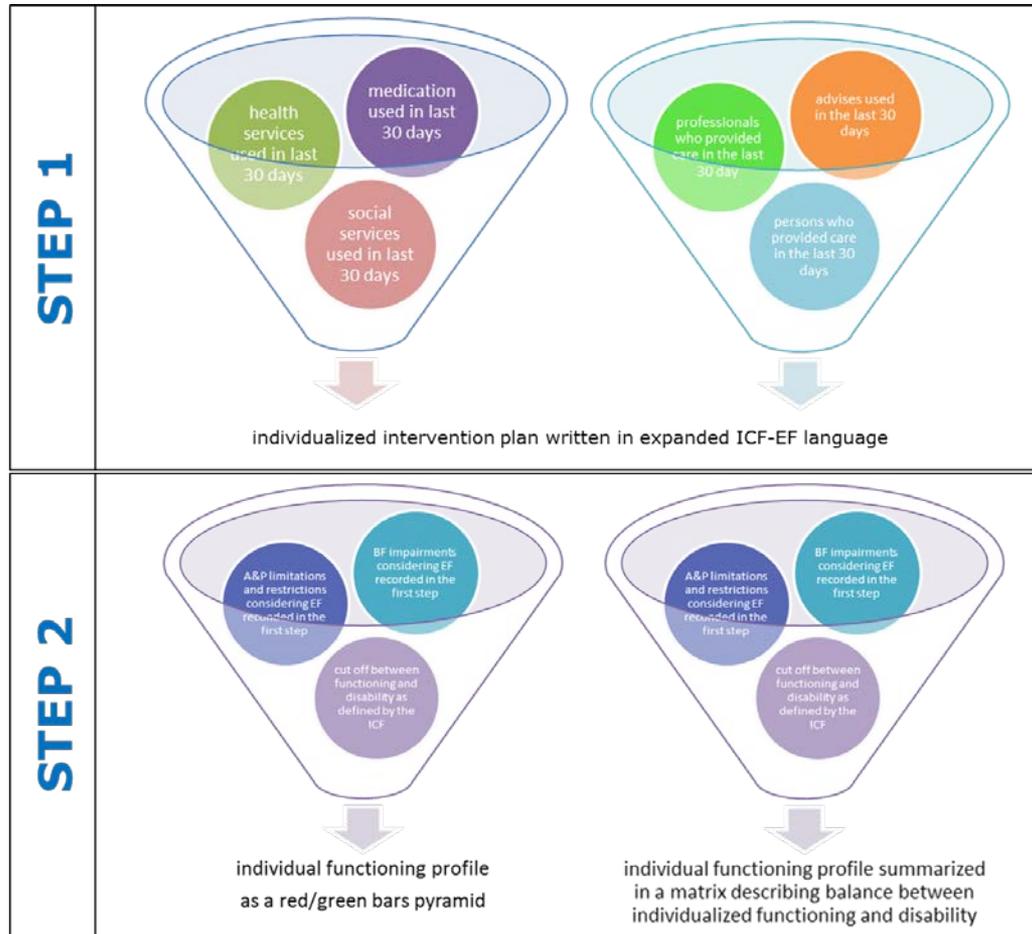
3. Owners of the application and IP:

Central Health Directorate, Friuli Venezia Giulia Region/Insiel

- www.vilmafaber.eu
- www.vilmafaber.eu/fin
- www.vilmafaber.eu/za

4. Short overview of the application's functions, especially what may be of value for mICF

**VilmaFABER
assessment system
works like a
concrete mixer**



Friendly Alimentering, Biopsychosocial, Electronic Record



4. Short overview of the application's functions, especially what may be of value for mICF

Concrete mixer: Step 1



Standard terms concerning care and living environment (ATC, ISO9999 and national terminologies) were mapped to three digit categories of ICF-EF, Chapters 1, 3, 5 and compared with the semantic content of the titles and definitions (including inclusions and exclusions) of the ICF categories.

Automatically mapped to ICF



**Some examples:
ISO9999 Expanded ICF-EF terms**

- e115** Assistive products for administering medicines (**ISO 03 18**)
- e120** Wheelchairs (**ISO 12 21**)
- e125** Assistive products for seeing (**ISO 21 03**)
- e130** Assistive products for training in the arts (**ISO 03 69**)
- e135** Industrial transportation vehicles (**ISO 24 39**)
- e140** Musical instruments (**ISO 30 12**)
- e150** Assistive products for vertical accessibility (**ISO 18 30**)
- e155** Construction elements in the home and other premises (**ISO 18 24**)

Distribution on three samples of Italian outpatients (N=600).

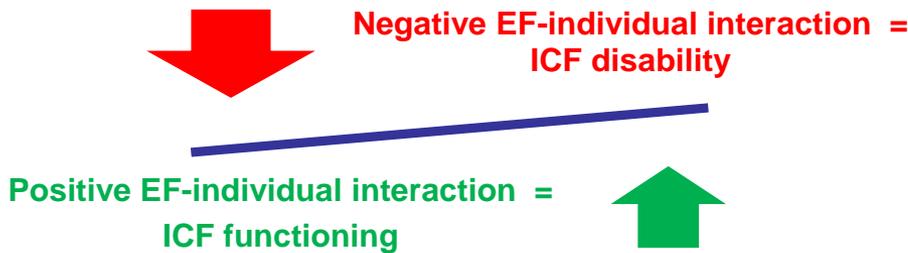
4. Short overview of the application's functions, especially what may be of value for mICF

Concrete mixer: Step 2

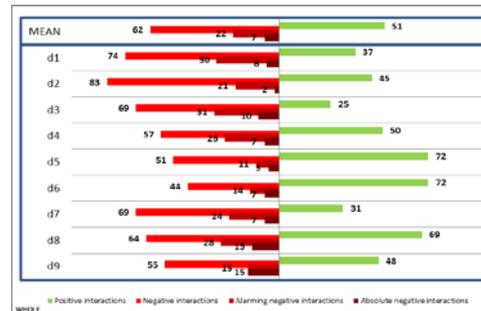
Data on positive/negative aspects of the EF-individual interactions are collected **in natural language** (new tools are on testing this year); schema for **semiautomated ICF coding** have been developed



Automatically distinguishing functioning and disability
(operationalization of these ICF concepts presented at WHO-FIC Network Annual meeting 2013)



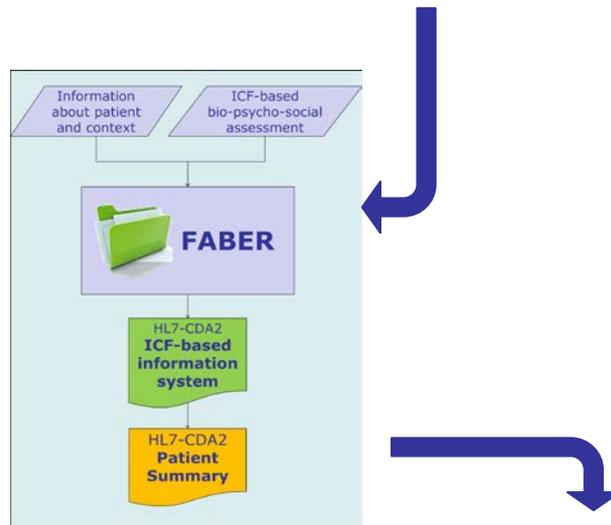
- Positive interaction**
 - Performance qualifier = 0
- Negative interaction**
 - Performance qualifier = 1-4
- Alarming negative interaction**
 - Performance qualifier = 3-4
- Absolute negative interaction**
 - Performance qualifier = 4



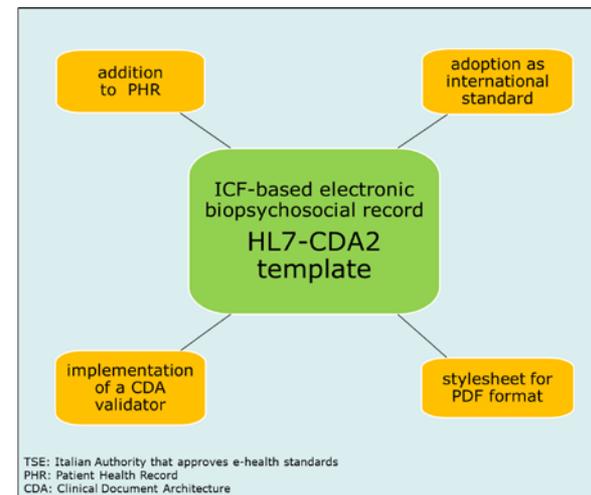
**4 Field tests in Italy
Distribution on
samples of Italian
outpatients (N=620)**

4. Short overview of the application's functions, especially what may be of value for mICF

An HL7-CDA2 template for the ICF-based electronic biopsychosocial record (FABER) has been developed by the Italian WHO-FIC collaborating centre (it has been presented at the **WHO-FIC annual meeting 2013**)

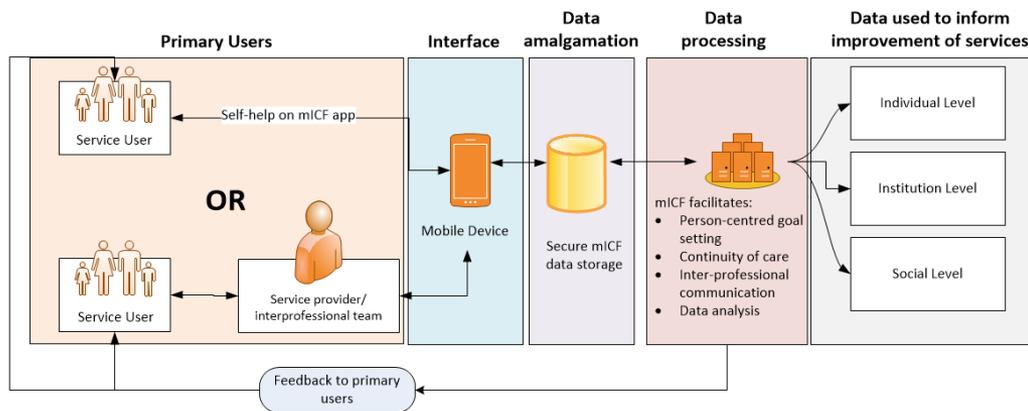


Information included in an electronic biopsychosocial record can also be used into the Patient Summary



1. approval by the TSE and addition into the Patient Health Record
2. proposal for its adoption as an international standard template
3. implementation of a stylesheet for the PDF format to deliver to patients
4. implementation of a specific CDA validator.

5. Lessons learnt in developing your app that should not be repeated (let us learn from your mistakes)



Weaknesses

1. Training people to think in biopsychosocial way takes time
2. Training people to carry out a biopsychosocial assessment does not correspond to train people to use ICF
3. Adapting the web application according to the users needs is not possible just in time
4. Data storage requires anonymity

Strengths

1. VilmaFABER does exist (in Italian and is on restricted use)
2. Natural language for assessing outcomes
3. Electronic map to ICF (semantic mapping already done)
4. First release of semi-automatized coding rules (to test on field test)
5. Choose different assessment options
6. Visualization of the functioning profile
7. Automatized recommendations for individual planning
8. Regionalization of the content model
9. **Report available immediately for multiple users**
10. **Use automatic suggestions**
11. **Report on aggregated data**

Opportunities

1. To develop a mobile application is not a problem
2. How to use ICF without coding using ICF is the challenge)
3. Tools which facilitate biopsychosocial assessment are needed to efficiently share information coded using ICF
4. We need to develop rules for semi/automatizing coding using ICF (to facilitate users and policy makers)

VilmaFABER system: interface for collecting information in the first assessment step and the final output «Individualized intervention plan»



Friendly, Alimentering, Biopsychosocial, Electronic, Record

USERNAME: USER_A (user_amm) CHANGE PASSWORD LOGOUT

PATIENTS ASSESSMENTS

Patient: DICIASSETTESIMO CHIAVARI Tax number: CHVDST71024C621H Birth date: 24/04/1971

Place of residence: VIA CHIAVARI, GE - CHIAVARI Regional patient identification number: N.D.

Record number: 20140929 12561 Date of start of assessment: 24/09/2014

Individualized intervention plan

Assessment team

Personal data

Individualized intervention plan

Socio-demographic data

Professionals and people associated with the patient

Medico-legal assessments

Exemptions

Health services in Essential Assistance Levels (LEAs)

Drugs

Products and technologies

Social services and interventions

Ongoing judicial orders

Work grant

Helps received in the last month for ADL and IADL

Individualized intervention plan

Health status

Results of the individualized intervention plan

Functioning components

Place of living*

In owned house/flat
 In a private rented house/flat
 In a public rented house/flat
 In a house/flat in usufruct
 In istituto o in convivenze di comunità
 Without dwelling
 Other

Highest education level*

Currently attending

Enrolled in a school/course* YES NO

Current occupation*

Social cooperation and associative activities

Member of a social cooperative* YES NO

Type A
 Type B
 Mixed or multiple

Member of an association* YES NO

Holder of a driving licence* YES NO

Vehicle with adaptations* YES NO

Economic status

Not available	Value in euros	Year of reference	Date of ISE/ISEE certification
<input type="checkbox"/>	1146,4	2013	16/05/2014

Individual Indicator of Economic Situation corrected by the equivalence scale

Individualized intervention plan

Health interventions/health policies

e580 - LEA: 2.F - Assistenza protesica - Liguria - s.c. Centri di responsabilità M.M.G. - s.c. Distretto Sanitario Savonese - Fornitura di protesi e ausili a favore di disabili fisici, psichici e sensoriali

e580 - Esenzione per invalidità

e580 - LEA: 2.G - Assistenza territoriale ambulatoriale e domiciliare - Liguria - s.c. Centri di responsabilità M.M.G. - s.c. Distretto Sanitario Savonese - Attività riabilitativa sanitaria e socio-sanitaria rivolta alle persone con disabilità fisica, psichica e sensoriale

Welfare social interventions / policies, education and labour

e570 - Handicap: Handicap grave di cui al comma 3, art. 3 della Legge 104/92

e570 - Condizioni visive: Cieco con residuo visivo non superiore a un ventesimo in entrambi gli occhi con eventuale correzioni, 332/70 e L. 139/01

e570 - Indennità di accompagnamento da invalidità civile

e570 - Indennità di comunicazione da sordità

e570 - Indennità speciale ai ciechi parziali (c.d. 'ventisimisti') da condizioni visive

e570 - Invalidità civile: Minore con difficoltà persistenti a svolgere i compiti e le funzioni proprie della sua età (o ipocucico)(art 1, L. 289/90)

e570 - Pensioni: Pensione Ai Ciechi Civili Parziali (c.d. 'ventisimisti')

e570 - Sordità: Sordo minorato sensoriale dell'udito affetto da sordità congenita o acquisita durante l'età che gli abbia compromesso il normale apprendimento del linguaggio parlato (L.381/70 e L.65/06)

e575 - Erogazione dei servizi sociali: Sostegno socio-educativo territoriale - Liguria -

e575 - Erogazione dei servizi sociali: Trasporto sociale - Liguria -

e585 - Titolo di studio: Nessun titolo - non sa ne leggere ne scrivere

e585 - Frequenta:(EN) Scuola primaria

Professionals in charge of the patient and persons related to the patient

e310 - Decimo Madre (Madre caregiver principale)

e310 - Decimo Padre (Padre)

e310 - Decimo Nonna (Nonna)

e325 - Decimo Conoscente (Conoscente)

e355 - Dott. Caterina Caffarena (PLS)

e355 - Ombretta Gardella (Assistente sociale ASL4 Dipartimento Riabilitazione e Disabilità S.S.D. Riabilitazione Infantile)

e355 - Pierpaolo Rizzo (Neuropsichiatra infantile ASL4 Dipartimento Riabilitazione e Disabilità S.S.D. Riabilitazione Infantile)

e355 - Elena Simonetto (Assistente sociale Distretto Sociale DS 15 Chiavese ATS 56 Chiavari)

e355 - Serenella Orsini (Neuropsichiatra infantile Terzo settore Altro)

Products and technologies in use

e110 - DEPAKIN CHRONO*300MG30CPR RP (via:Orale, freq:2 v.die, dose:900 MG)

e110 - MOGADON*5MG 20 CPR (via:Orale, freq:1 v.die)

e110 - ARTANIE*2MG 50CPR BL (via:Orale, freq:2 v.die, dose:6 MG)

e115 - Ausili che assorbono l'urina (ISO 09 30)

e105 - Isee

e105 - Indennità di accompagnamento da invalidità civile

e105 - Indennità di comunicazione da sordità

e105 - Indennità speciale ai ciechi parziali (c.d. ventisimisti) da condizioni visive

e105 - Pensioni: pensione ai ciechi civili parziali (c.d. 'ventisimisti')



VilmaFABER system: interface for coding (step 2) and one of the final outputs / Body Functions

Save

Body Functions | **Body Structures** | Activities and Participation (main living environment)

b1 MENTAL FUNCTIONS 0/147
b110-b139 GLOBAL MENTAL FUNCTIONS 0/58
b110 Consciousness functions 0/6
b114 Orientation functions 0/11
b117 Intellectual functions

Add a note:

Extent of impairment.* 0 1 2 3 4

Environmental factors.* YES NO

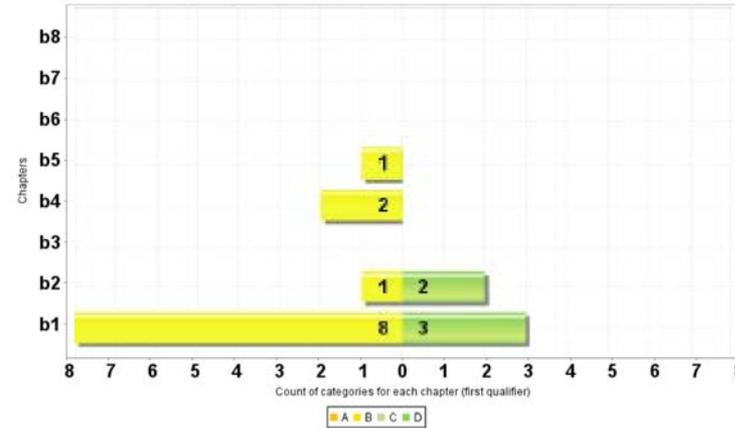
Data source.* OE CE I O

Abort
Clear data
Save

b122 Global psychosocial functions
b125 Dispositions and intra-personal functions 0/8
b126 Temperament and personality functions 0/10
b130 Energy and drive functions 0/7
b134 Sleep functions 0/7

Coded categories

Body functions



Chapter	A	B	C	D
b8	0	0	0	0
b7	0	0	0	0
b6	0	0	0	0
b5	1	0	0	0
b4	2	0	0	0
b3	0	0	0	0
b2	1	2	0	0
b1	8	3	0	0

VilmaFABER system: interface for coding (Step 2) and final output / A&P

Save

Body Functions
Body Structures
Activities and Participation (main living environment)

Nome ambiente di vita principale: home Modifica

Mandatory categories list Attività e Partecipazione

d1. LEARNING AND APPLYING KNOWLEDGE

d110 Watching

Add a note:

	0	1	2	3	4
Performance:*	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Environmental factors:*	<input type="radio"/> YES		<input type="radio"/> NO		
Capacity:*	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Performance without assistance:*	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	OE	CE	I	O	
Data source:*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Abort
Clear data
Save

d115 Listening

d132 Acquiring information

d137 Acquiring concepts

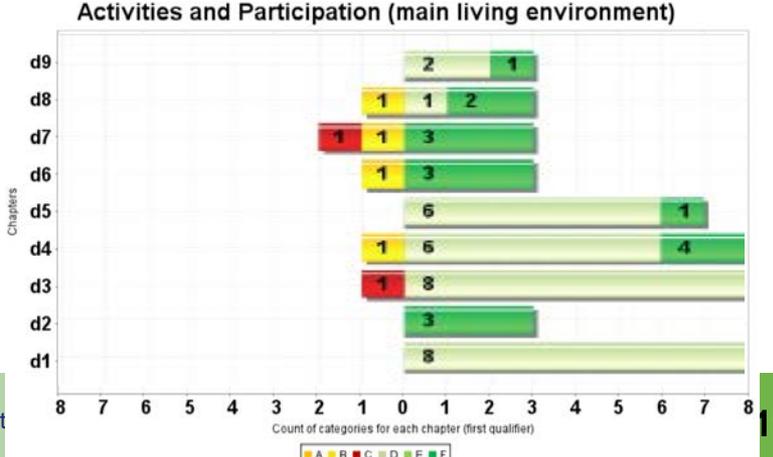
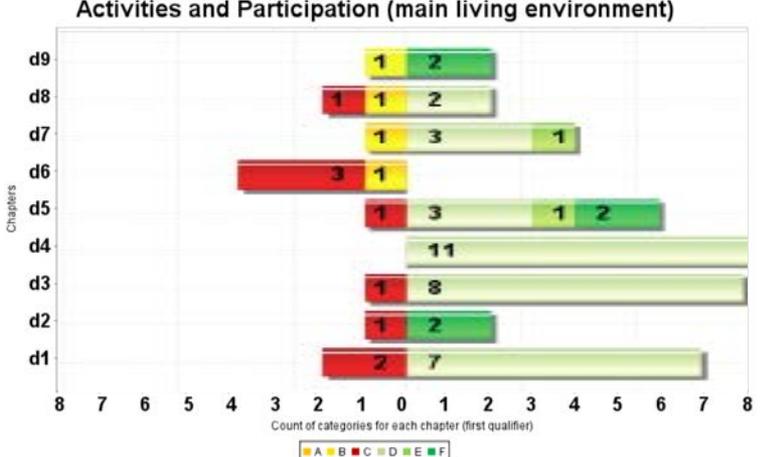
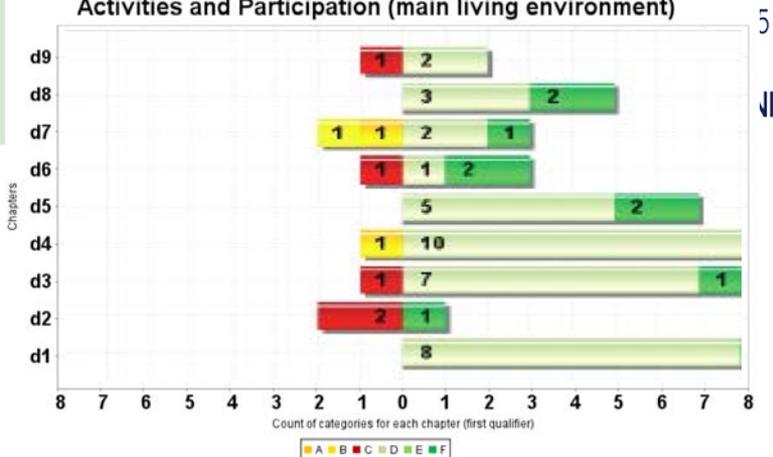
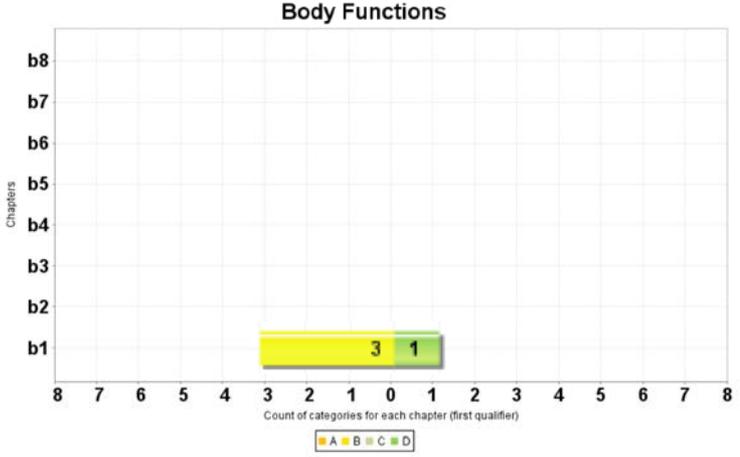
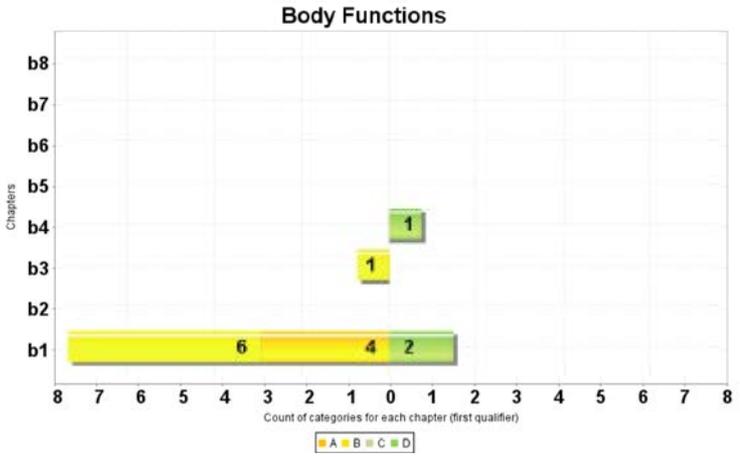
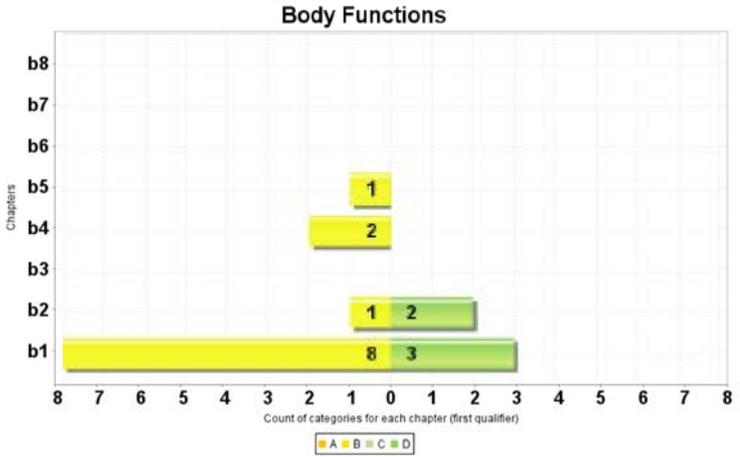
d140 Learning to read

Coded categories

Activities and Participation (main living environment)

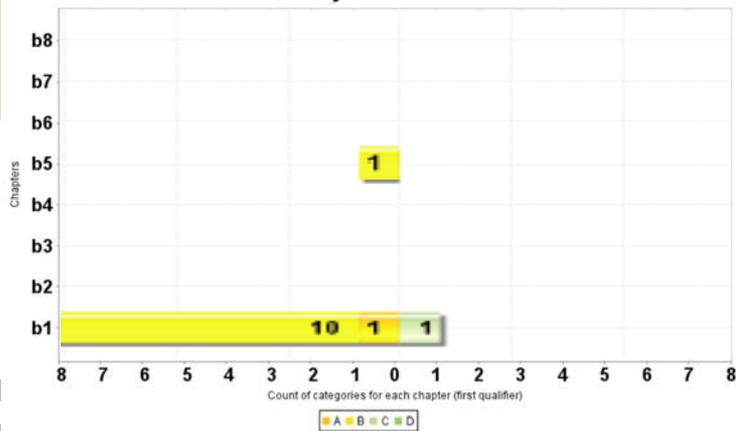
Chapter	A	B	C	D	E	F
d9	1	2				
d8	1	1	2			
d7	1	3	1			
d6	3	1				
d5	1	3	1	2		
d4			11			
d3	1	8				
d2	1	2				
d1	2	7				

VilmaFABER system: examples of functioning profiles of 3 Adults (visualization by Body Functions and A&P)

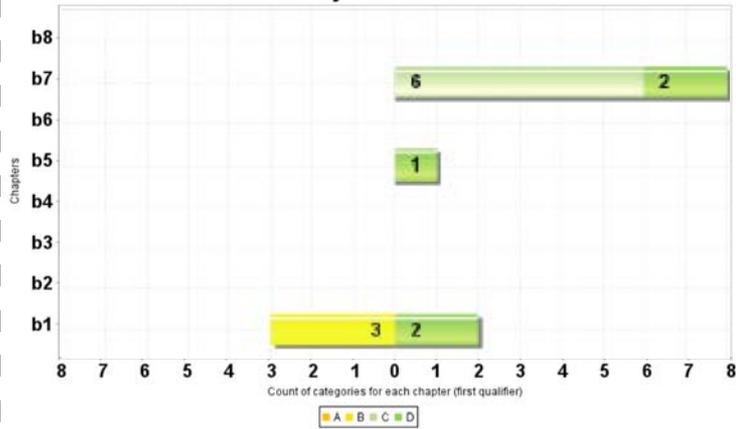


VilmaFABER system: examples of functioning profiles of 3 children (visualization by Body Functions and A&P)

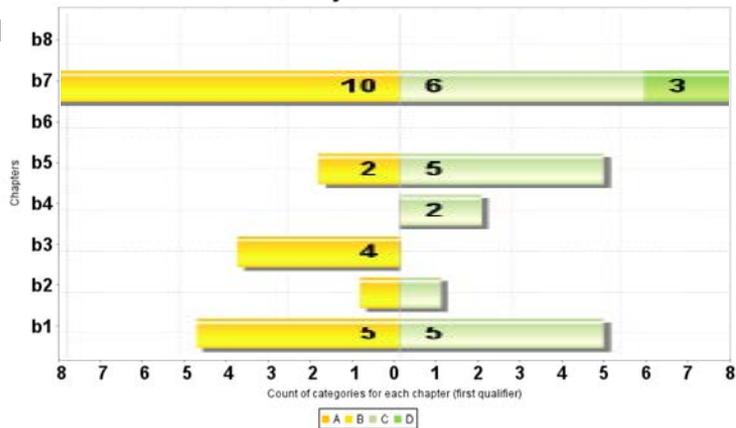
Body Functions



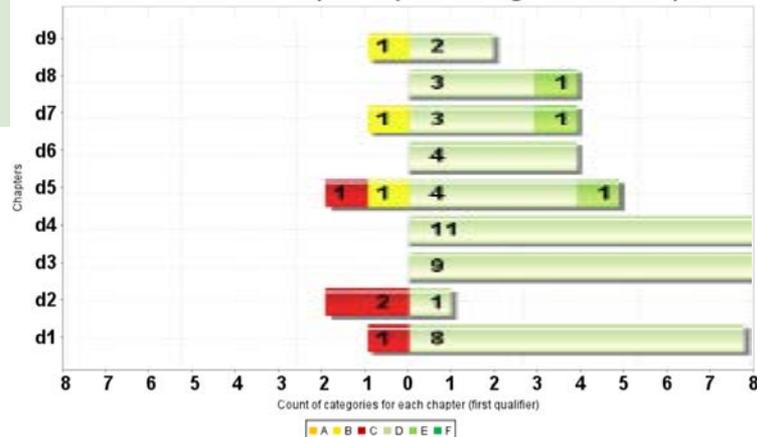
Body Functions



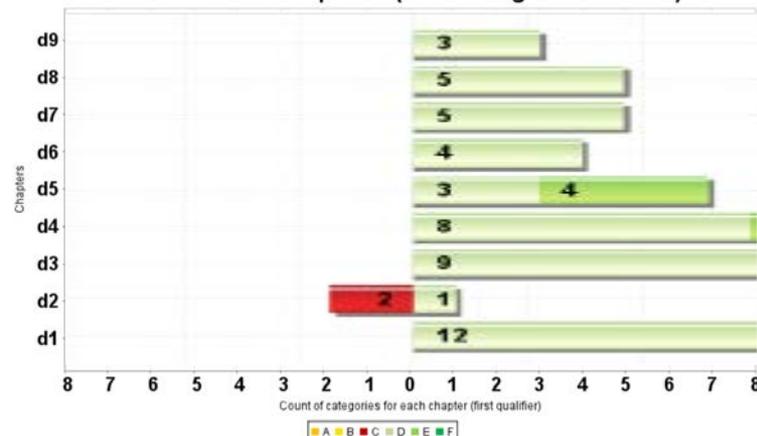
Body Functions



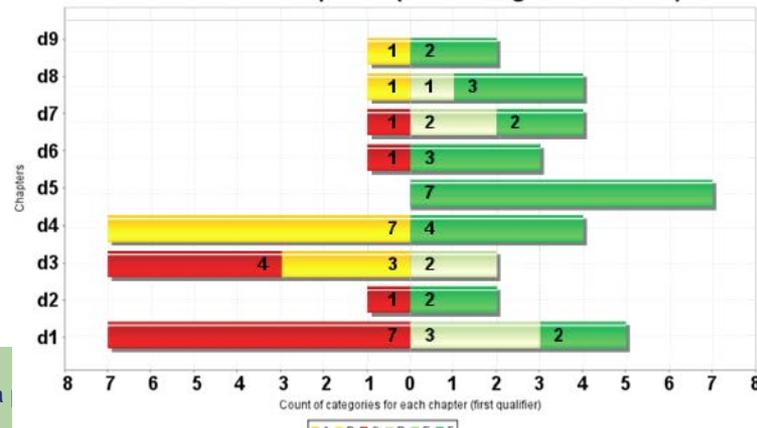
Activities and Participation (main living environment)



Activities and Participation (main living environment)



Activities and Participation (main living environment)



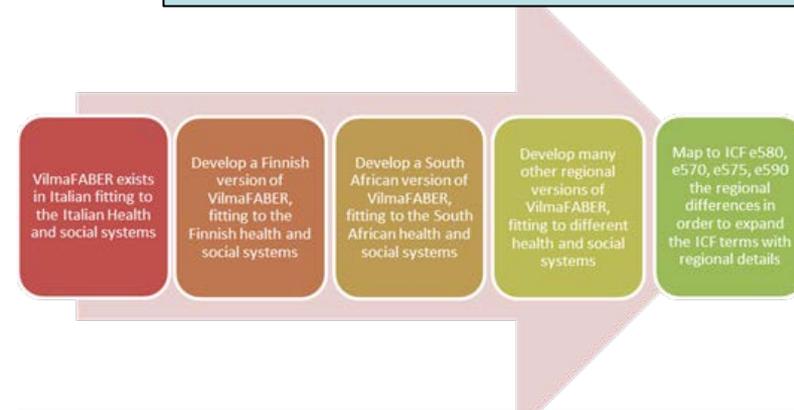
6. How may you be willing to collaborate in the development of the mICF

- Sharing you IP (on what condition)
- Collaborating with others mICF technology partners to collectively develop the mICF
- What are the particular strengths and weakness you are bringing to the potential collaborative?

WFABER cooperation project

There are currently no collaborative studies inside the WHO-FIC network on biopsychosocial determinants of outcomes at community level to facilitate decision-making, continuity of care, and welfare planning.

A three-country collaboration was born in London (FDRG mid-year meeting 2014) aimed at launching an international version of VilmaFABER in a multicenter “naturalistic outcome” study inside the WHO-FIC network.



How to automatically expand ICF-EF in order to better describe care and living environment factors at country level: steps toward a multicenter project on the biopsychosocial determinants of outcomes.

Frattura L.¹, Anttila P.², Nurmi-Koikkalainen P.², Snyman S.³, Green S.⁴, Bassi G.¹, Simoncello A.¹, Terreni S.⁵, Soranzio A.⁵

¹Central Health Directorate, Classification Area, Friuli Venezia Giulia Region, IT WHO-FIC CC, Italy; ²Service System Department, National Institute for Health and Welfare (THL), Finland; ³Faculty of Medicine and Health Sciences, Stellenbosch University, South Africa; ⁴Department of Social Work, Stellenbosch University; ⁵Insiel, Trieste, Italy

6. How may you be willing to collaborate in the development of the mICF

WFABER cooperation project

First results:

list of the country-specific terminologies relating to services in order to provide country-specific expansion of ICF-EF categories e575 (General social support services, systems and policies) and e580 (Health Services, systems and policies)



Italy *		Finland **		South Africa ***	
Italian Health System	Italian expanded ICF-EF	Finnish Health System	Finnish expanded ICF-EF	South African Health System	South African expanded ICF-EF
2.A Assistenza sanitaria di base	e580 LEA:2.A - Assistenza sanitaria di base	E Perusterveydenhuollon palvelut	e580 E Perusterveydenhuollon palvelut	2.1.1.1 Primary Healthcare services: Community-based services (CBS)	e580 2.1.1.1 Primary Healthcare services: Community-based services (CBS)
2.B Attività di emergenza sanitaria territoriale	e580 LEA:2.B - Attività di emergenza sanitaria territoriale	A Hätä-, ensiapu- ja päivystyspalvelut	e580 A Hätä-, ensiapu- ja päivystyspalvelut	2.3.5.1 Specialised services: Emergency medical services	e580 2.3.5.1 Specialised services: Emergency medical services
2.C Assistenza farmaceutica erogata attraverso le farmacie territoriali	e580 LEA:2.C - Assistenza farmaceutica erogata attraverso le farmacie territoriali	SI Apteekkipalvelu	e580 SI Apteekkipalvelu	1.8 Essential Drugs Programme (EDP)	e580 1.8 Essential Drugs Programme (EDP)
2.F Assistenza protesica	e580 LEA:2.F - Assistenza protesica	HGA Apuvälinepalvelu	e580 HGA Apuvälinepalvelu	2.3.2.3 Provision of assistive devices	e580 2.3.2.3 Provision of assistive devices
2.G Assistenza territoriale ambulatoriale e domiciliare	e580 LEA:2.G - Assistenza territoriale ambulatoriale e domiciliare	O Kotihoito, kotipalvelut ja omaishoidon tukipalvelut	e580 O Kotihoito, kotipalvelut ja omaishoidon tukipalvelut	2.1.1.1 Home and community-based care	e580 2.1.1.1 Home and community-based care
2.G.3 Attività sanitaria e sociosanitaria rivolta alle persone con problemi psichiatrici e alle loro famiglie	e580 LEA:2.G.3 - Attività sanitaria e sociosanitaria rivolta alle persone con problemi psichiatrici e alle loro famiglie	J Päihde- ja mielenterveyspalvelut	e580 J Päihde- ja mielenterveyspalvelut	2.3.1.1 Mental health & psychiatric service: Community-based service	e580 2.3.1.1 Mental health & psychiatric service: Community-based service
3.A Pronto soccorso	e580 LEA:3.A - Pronto soccorso	AA Hätäkeskuspalvelu	e580 AA Hätäkeskuspalvelu	2.3.5.1 Emergency medical services	e580 2.3.5.1 Emergency medical services
3.B Degenza ordinaria	e580 LEA:3.B - Degenza ordinaria	F Erikoissairaanhoidon palvelut	e580 F Erikoissairaanhoidon palvelut	2.2.1 District hospitals services	e580 2.2.1 District hospitals services

**Thank you very much for your attention!
Muchas gracias por vuestra atención
Moltes gràcies per la vostra atenció**

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