Matching Needs of Older People with Health Care Management Tools

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Programme de recherche sur l'intégration des services de maintien de l'autonomie

Programme of Research to Integrate the Services for the Maintenance of Autonomy

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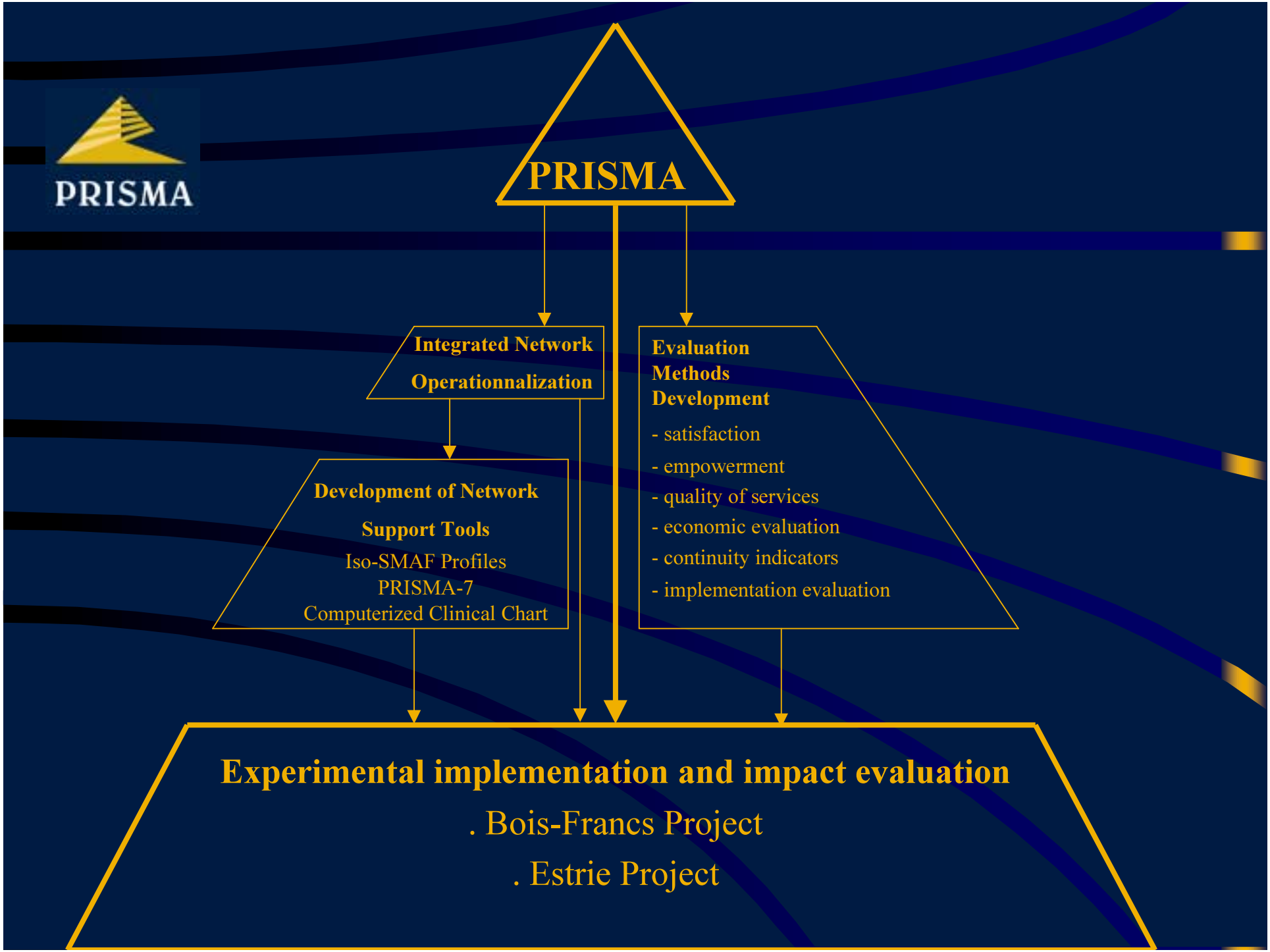
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Integrated Network
Operationnalization
Evaluation
Methods
Development
- satisfaction
- empowerment
- quality of services
- economic evaluation
- continuity indicators
- implementation evaluation
Development of Network
Support Tools
Iso-SMAF Profiles
PRISMA-7
Computerized Clinical Chart
Experimental implementation and impact evaluation
. Bois-Francs Project
. Estrie Project

Integrated Network of Services

- Coordination between services
- Single point of entry
- Case-management
- Individualized Service Plan
- Unique assessment tool with a Casemix system
- Information tool (Computerised Chart)

Assessment Problems

- Multiple entry points
- Services determined by the provider rather than the needs
- Multiple redundant assessments (different tools)
- Information sharing
- Partial response to the needs

System « schizophrenia »

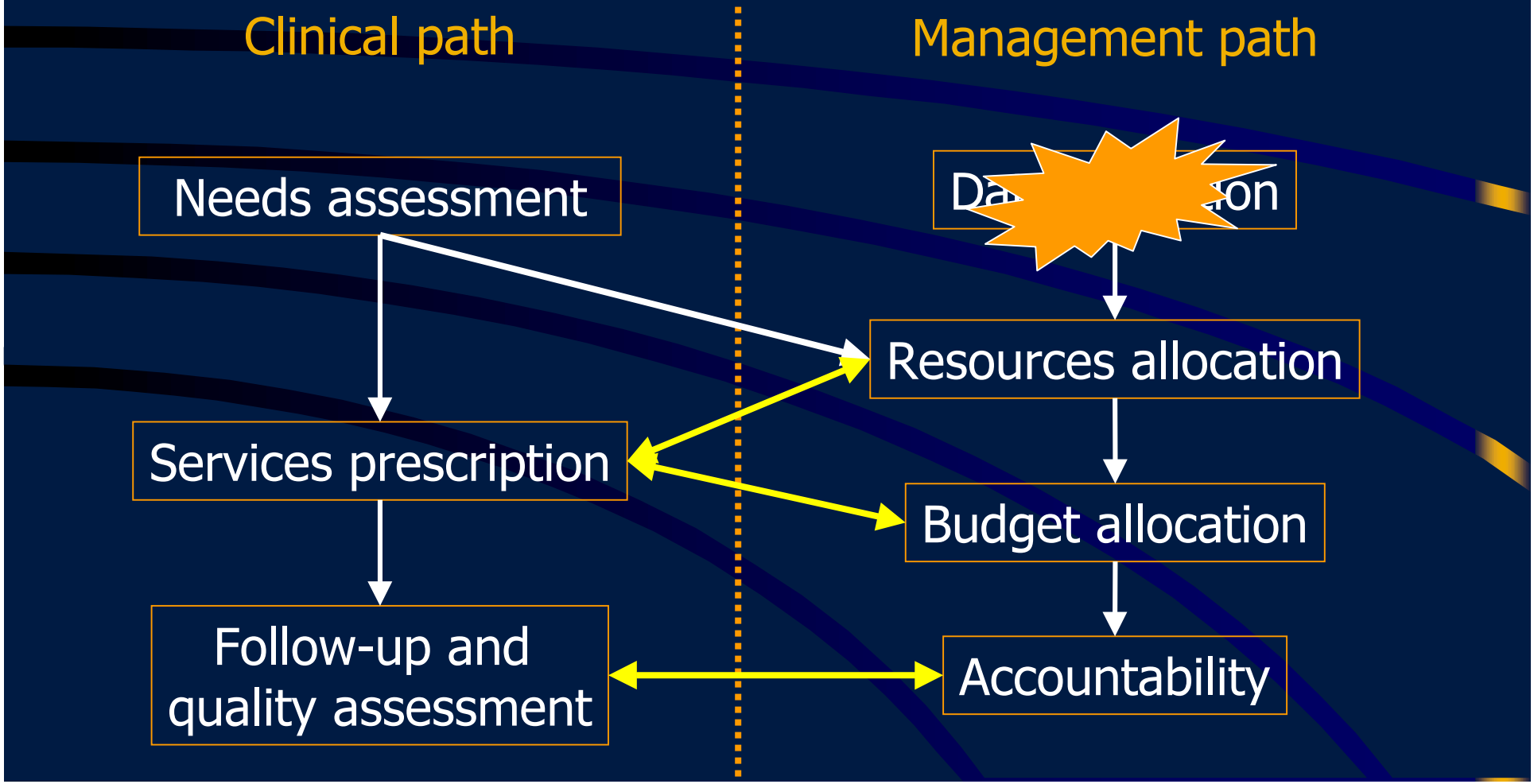
Clinical path

- Needs assessment
- Services prescription
- Follow-up and quality assessment

Management path

- Data collection
- Resources allocation
- Budget allocation
- Accountability

Reconciliating clinical and management



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Advantages

- Avoid redondant evaluation
- Data collection for management less fakable
- Accountability and quality assessment are more consistent

SMAF

- Système de Mesure de l'Autonomie Fonctionnelle (Functional Autonomy Measurement System)
- Developed according to the WHO Classification of disabilities
- 29 items on a 5-point scale
  - 0: autonomous
  - -0.5: with difficulty
  - -1: need supervision
  - -2: need help
  - -3: dependent

Items of the SMAF

- Activities of Daily Living
  - eating
  - washing
  - dressing
  - grooming
  - urinary continence
  - fecal continence
  - using the bathroom
- Mobility
  - transfers
  - walking outside
  - walking outside
  - donning a prosthesis & orthesis
  - propelling a wheelchair
  - negociating stairs

Items of the SMAF (suite)

- Communication
  - vision
  - hearing
  - speaking
- Mental functions
  - memory
  - orientation
  - judgement
  - behaviour
- Instrumental Activities of Daily Living
  - housekeeping
  - preparing meals
  - shopping
  - doing the laundry
  - using the telephone
  - using public transportation
  - taking medications
  - managing the budget

FUNCTIONAL AUTONOMY MEASURING SYSTEM

AUTONOMY ASSESSMENT SCALE

Name: _____

Dossier: _____

Date: _____ Assessment #: _____

DISABILITIES	RESOURCES 0. Subject himself 2. Neighbour 4. Aides 6. Volunteer 1. Family 3. Employee 5. Nurse 7. Other	HANDICAP	STABILITY*

A. ACTIVITIES OF DAILY LIVING (ADL)

1. EATING

[0] Feeds self independently

[-05] With difficulty

[-1] Feeds self but needs stimulation or supervision
OR food must be prepared or cut

[-2] Needs some help to eat
OR dishes must be presented one after another

[-3] Must be fed by another person
OR has a naso-gastric tube OR a gastrostomy

☐ naso-gastric tube ☐ gastrostomy

Does the subject presently have the resources (help or supervision) necessary to overcome this disability?

☐ Yes → [0]

☐ No → [-1] [-2] [-3]

Resources: ☐ ☐ ☐

HANDICAP: [0]

STABILITY*: [−] [+] [•]

CARE TABLE

(G) INDEPENDENT (B) SUPERVISION OR STIMULATION (T) WITH DIFFICULTY (Y) HELP (R) DEPENDENT

CRITERIA FOR SCORING ON THE BACK

A. ACTIVITIES OF DAILY LIVING

Getting out of bed: | turning:

Putting to bed: Other:
- Hospital gown
- Personal night attire
- Remove dental prostheses

1. EATING

a) b) c) d)

Dishes one at a time

2. WASHING

a) hair:

b) nails:

back front

c) cream:

d)
- bed
- basin
- bath
- shower
- whirlpool bath
- supervision

e) schedule:
mini-wash:
sponge bath:
full bath:

3. DRESSING

except:

a) dirty laundry:

b) change clothes: Su M Tu W Th F Sa

c) look after clothes:

UNDRESSING except:

4. GROOMING

a) b) tongue-sponge c) d)

e) own teeth
upper prosthesis — put in
lower prosthesis — take out

f) mouthwash

5. URINARY FUNCTION

6. BOWEL FUNCTION

Incontinence products D E N

7. TOILETING

toilet bedpan
urinal commode

netting diapercover D E N

other: D E N

catheter ostomy Incontinence undergarment

B. MOBILITY

1. Transferts

3. Prothesis or orthosis N/A

Walking program

2. bedroom unit institution outside

4. N/A bedroom unit institution outside

5. Elevator

Security
- belt WC/GC
- belt other chairs
- other:

- safety vest
- magnetic belt (Segufix)
- wandering bracelet
- bed rails 1. D E N
  2. D E N

C. COMMUNICATION

Language spoken:

1. 2. 3.

R put on
L take out

put on
take out

D. MENTAL FONCTIONS

1. 2. 3. 4. 5.

self
other
runaway

E. INSTRUMENTAL ACTIVITES OF DAILY LIVING

1. Housekeeping 2. Meal preparation

3. Shopping Delivery

4. Laundry 5. Telephone

6. Transportation
- automobile
- adapted vehicle
- taxi
- bus
- paratransit vehicle
- ambulance

7. Medication use
- dispill
- medication dispenser

8. Budgeting

PARTICULARITIES:

NAME: ROOM: DATE:

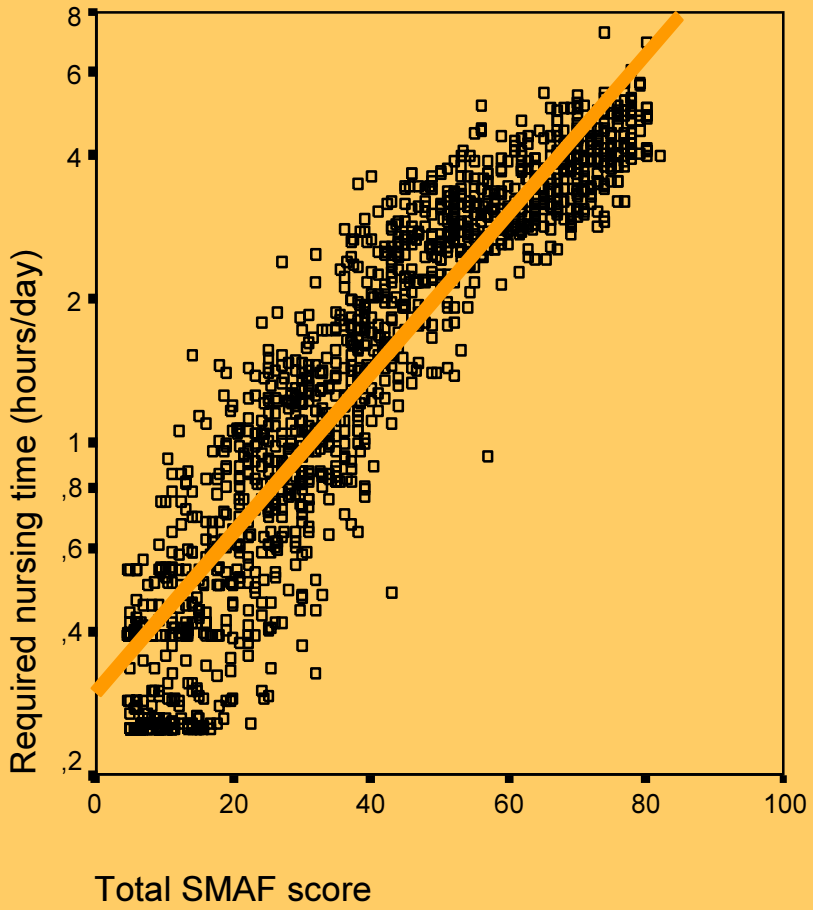
SMAF
Reliability & Responsiveness

- Test-retest reliability (n=39)
  - ICC= 0.95
- Inter-rater reliability (n=45)
  - ICC= 0.96
- Minimal Metrically Detectable Change (measurement error)
  - 5 points and over
- Responsiveness (n = 80)
  - Guyatt index: 14.5
    (FIM: 13.7; Barthel: 12.8)

SMAF Validity

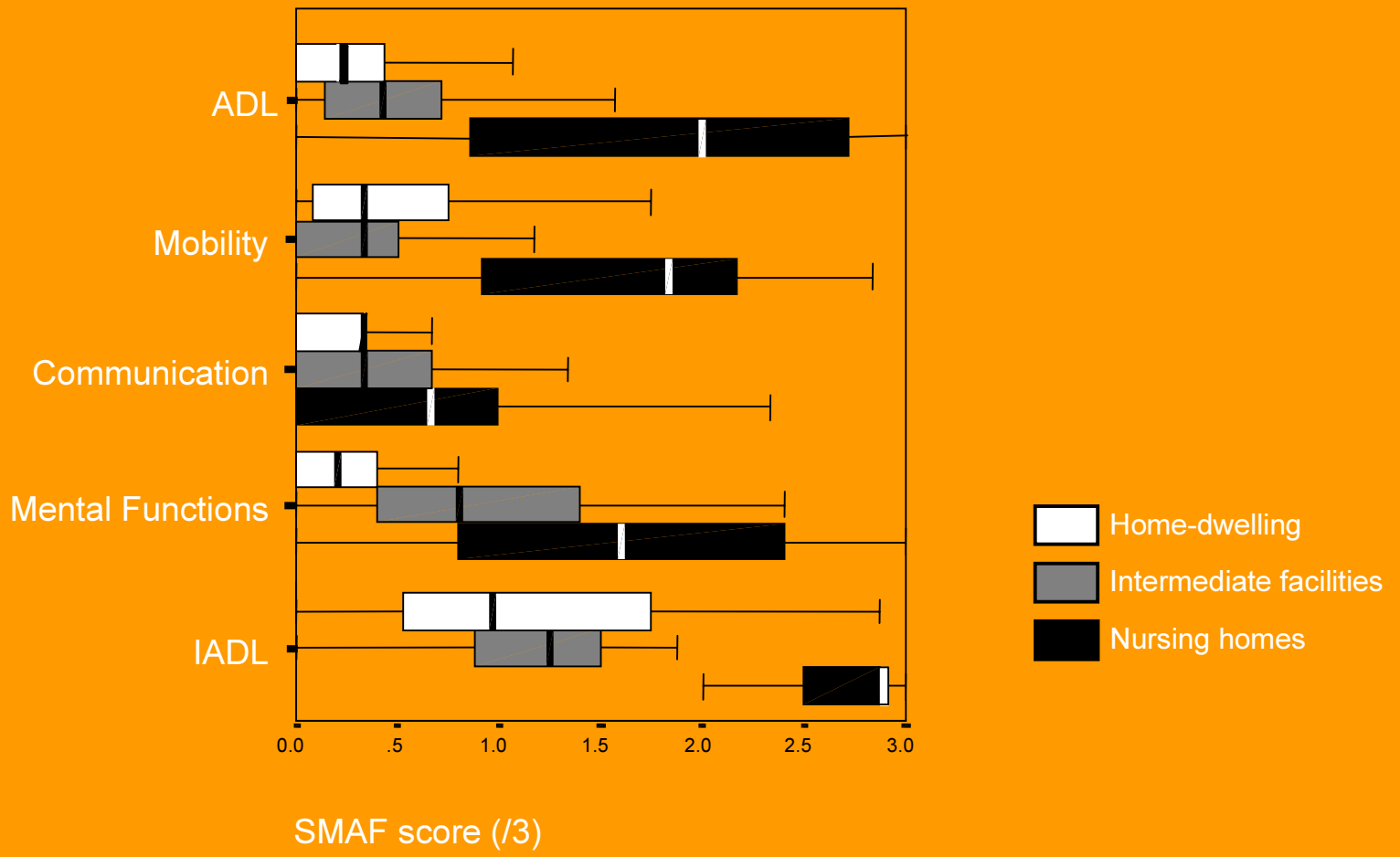
- Content
  - WHO Theoritical framework
  - Consultations with experts
- Construct
  - Correlation with nursing time
    - r=0.92 (n=1997)
  - Correlation with cost
    - r=0.75 (n=1997)
  - Discrimination between institutions
  - Correlation with other func. scales
    - FIM: r= 0.94
    - Barthel: r= 0.92 (n= 80)

Correlation with nursing care time

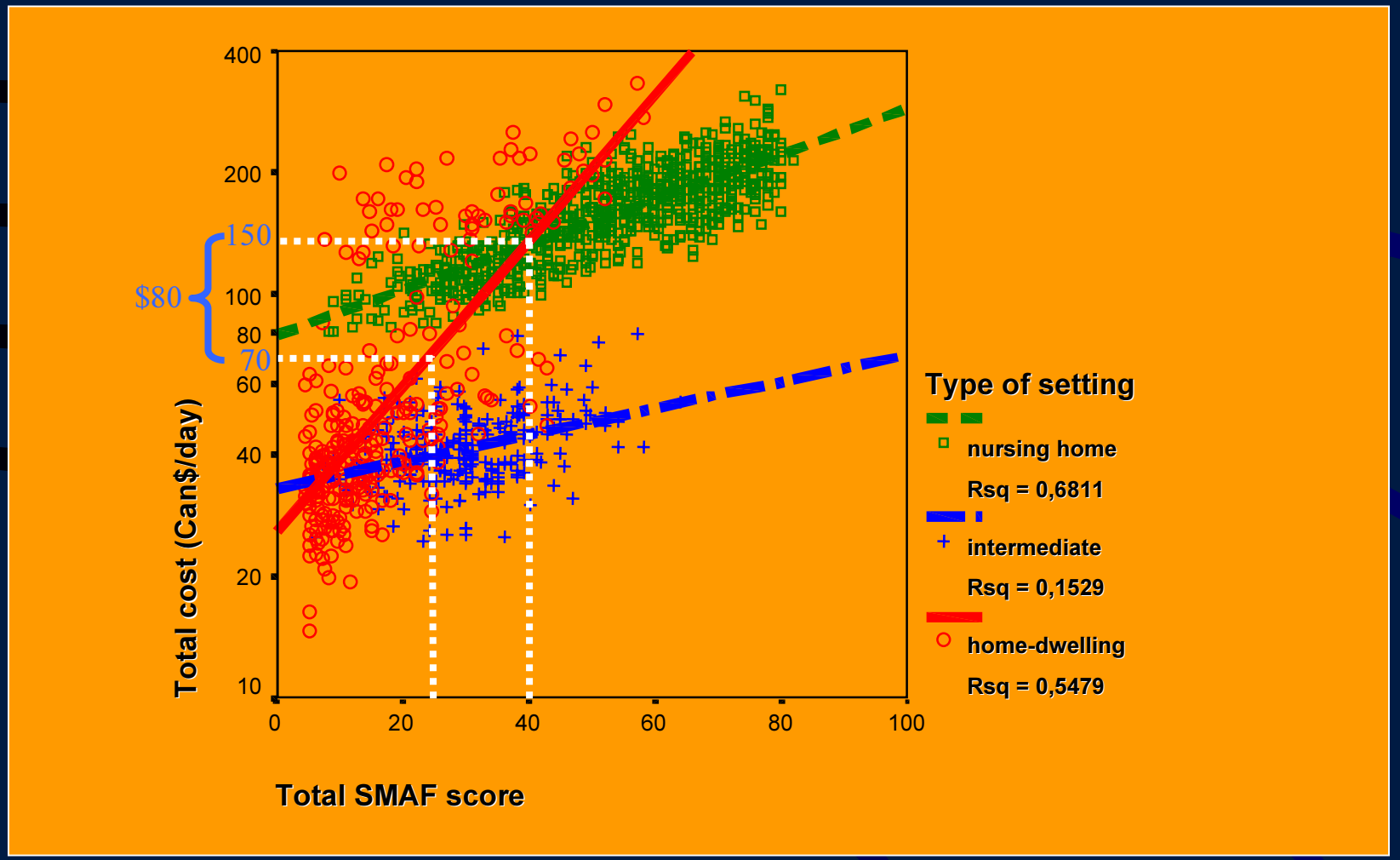


Rsq = 0,8504

Distribution of SMAF scores



Cost associated with disabilities (n=1345)



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Santé et Services sociaux Québec

ÉVALUATION DE L'AUTONOMIE

MULTICLIENTÈLE

SMAF

ÉVALUATION DE L'AUTONOMIE

STABILITÉ DE LA RESSOURCE ▪

INCAPACITÉ	HANDICAP

Préciser, s'il y a lieu, la cause, la déficience responsable de l'incapacité et la réaction de l'usager à cette incapacité

A. ACTIVITÉS DE LA VIE QUOTIDIENNE (AVQ)

1. SE NOURRIR

0 Se nourrit seul

-0,5 Avec difficulté

-1 Se nourrit seul mais requiert de la stimulation ou de la surveillance
OU on doit couper ou mettre en purée sa nourriture au préalable

-2 A besoin d'une aide partielle pour se nourrir
OU qu'on lui présente les plats un à un

-3 Doit être nourri entièrement par une autre personne
OU porte une sonde naso-gastrique ou une gastrostomie

☐ sonde naso-gastrique ☐ gastrostomie

Actuellement, l'usager a les ressources humaines (aide ou surveillance) pour combler cette incapacité

☐ Oui → 0

☐ Non → -1 / -2 / -3

Ressources* : ☐ ☐ ☐

0 – + •

Commentaires (aide technique utilisée, par exemple) : _____

ISO-SMAF Profiles

(Dubuc et al, 2001)

- Case-mix classification system
  - RUG-type
- Developed by Cluster analysis (n=1997) and expert consultation
- Validation
  - internal: split samples
  - external: discrimination of nursing care time and costs
- 14 groups

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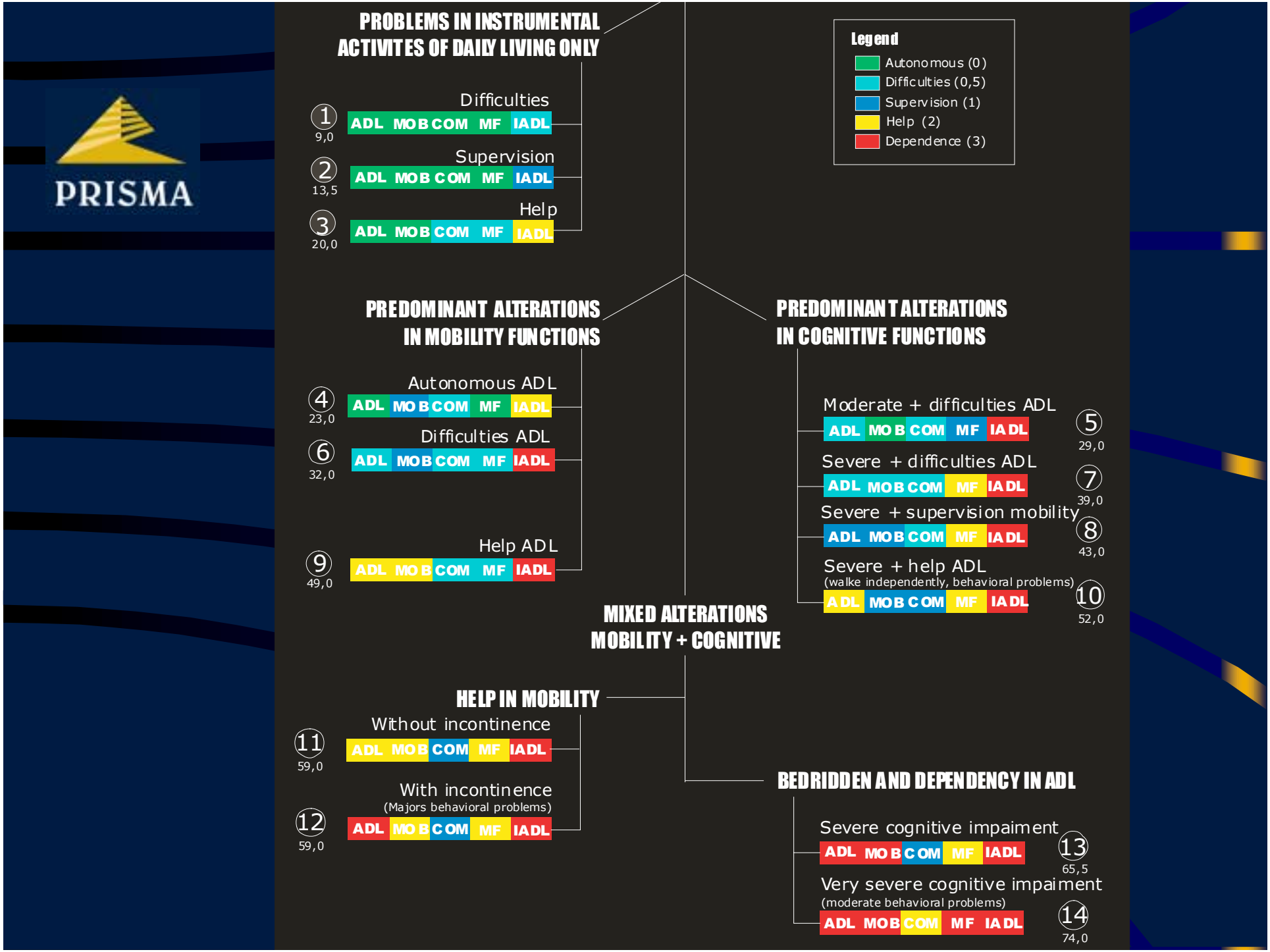
PROBLEMS IN INSTRUMENTAL ACTIVITES OF DAILY LIVING ONLY
Difficulties
1
9,0
ADL MOB COM MF IADL
Supervision
2
13,5
ADL MOB COM MF IADL
Help
3
20,0
ADL MOB COM MF IADL
Legend
Autonomous (0)
Difficulties (0,5)
Supervision (1)
Help (2)
Dependence (3)
PREDOMINANT ALTERATIONS IN MOBILITY FUNCTIONS
Autonomous ADL
4
23,0
ADL MOB COM MF IADL
Difficulties ADL
6
32,0
ADL MOB COM MF IADL
Help ADL
9
49,0
ADL MOB COM MF IADL
PREDOMINANT ALTERATIONS IN COGNITIVE FUNCTIONS
Moderate + difficulties ADL
5
29,0
ADL MOB COM MF IADL
Severe + difficulties ADL
7
39,0
ADL MOB COM MF IADL
Severe + supervision mobility
8
43,0
ADL MOB COM MF IADL
Severe + help ADL
(walke independently, behavioral problems)
10
52,0
ADL MOB COM MF IADL
MIXED ALTERATIONS MOBILITY + COGNITIVE
HELP IN MOBILITY
Without incontinence
11
59,0
ADL MOB COM MF IADL
With incontinence
(Majors behavioral problems)
12
59,0
ADL MOB COM MF IADL
BEDRIDDEN AND DEPENDENCY IN ADL
Severe cognitive impaiment
13
65,5
ADL MOB COM MF IADL
Very severe cognitive impaiment
(moderate behavioral problems)
14
74,0
ADL MOB COM MF IADL

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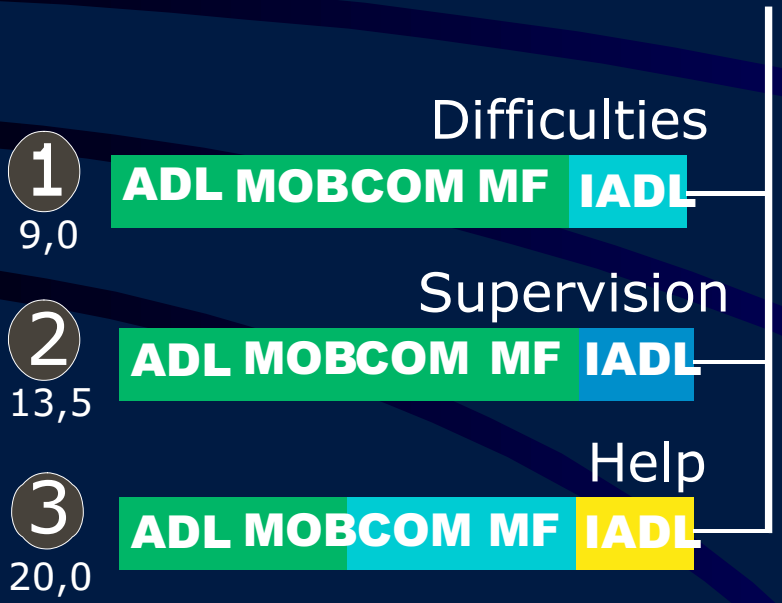
PROBLEMS IN INSTRUMENTAL ACTIVITIES OF DAILY LIVING ONLY



Legend

- Autonomous (0)
- Difficulties (0,5)
- Supervision (1)
- Help (2)
- Dependence (3)

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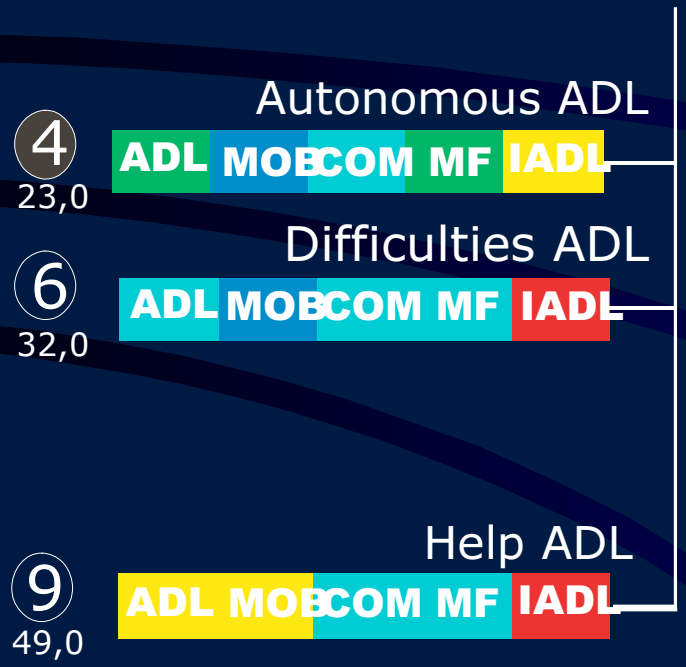
PREDOMINANT ALTERATIONS IN MOBILITY FUNCTIONS



Legend

- Autonomous (0)
- Difficulties (0,5)
- Supervision (1)
- Help (2)
- Dependence (3)

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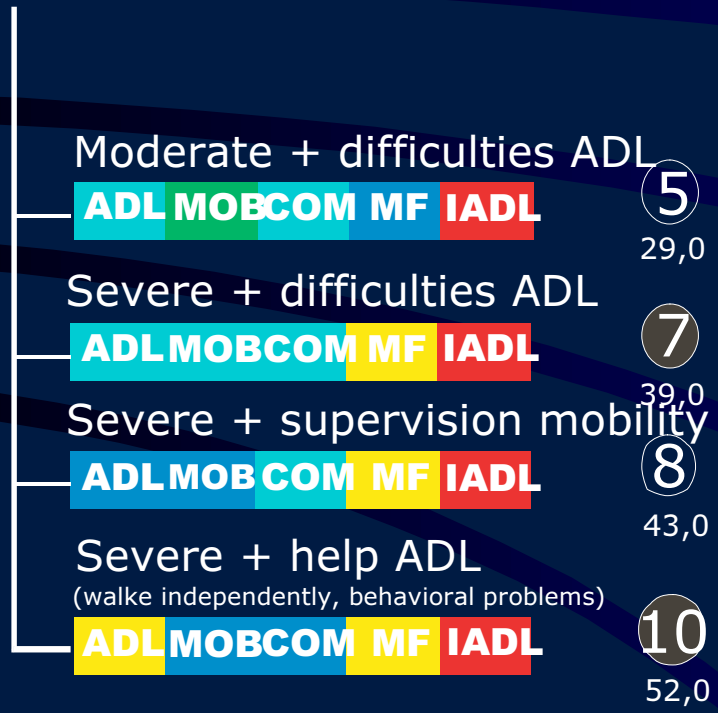
PREDOMINANT ALTERATIONS IN COGNITIVE FUNCTIONS



Legend

- Autonomous (0)
- Difficulties (0,5)
- Supervision (1)
- Help (2)
- Dependence (3)

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HELP IN MOBILITY

Without incontinence

11

59,0

With incontinence

12

59,0

Legend

- Autonomous (0)
- Difficulties (0,5)
- Supervision (1)
- Help (2)
- Dependence (3)

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BEDRIDDEN AND DEPENDENCY IN ADL

Severe cognitive impaiment

ADL MOB COM MF IADL

13

65,5

Very severe cognitive impaiment

(moderate behavioral problems)

ADL MOB COM MF IADL

14

74,0

Legend

- Autonomous (0)
- Difficulties (0,5)
- Supervision (1)
- Help (2)
- Dependence (3)

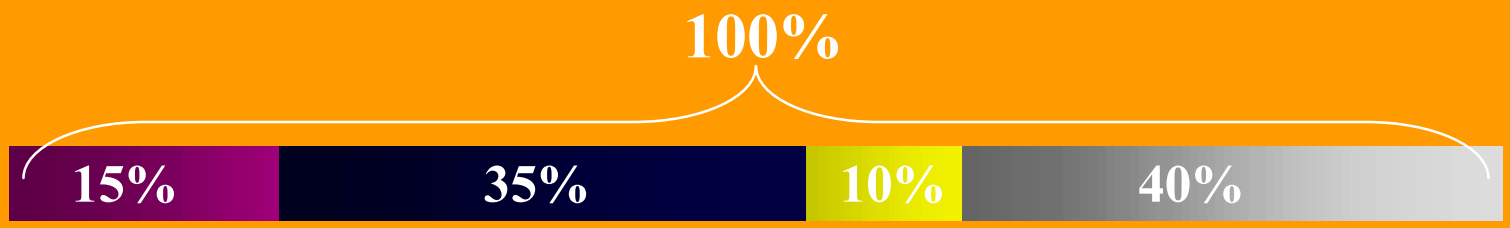
ISO-SMAF Profiles

- Functions:
  - Service prescription: admission criteria
  - Monitoring
  - Management of resources
  - Financing

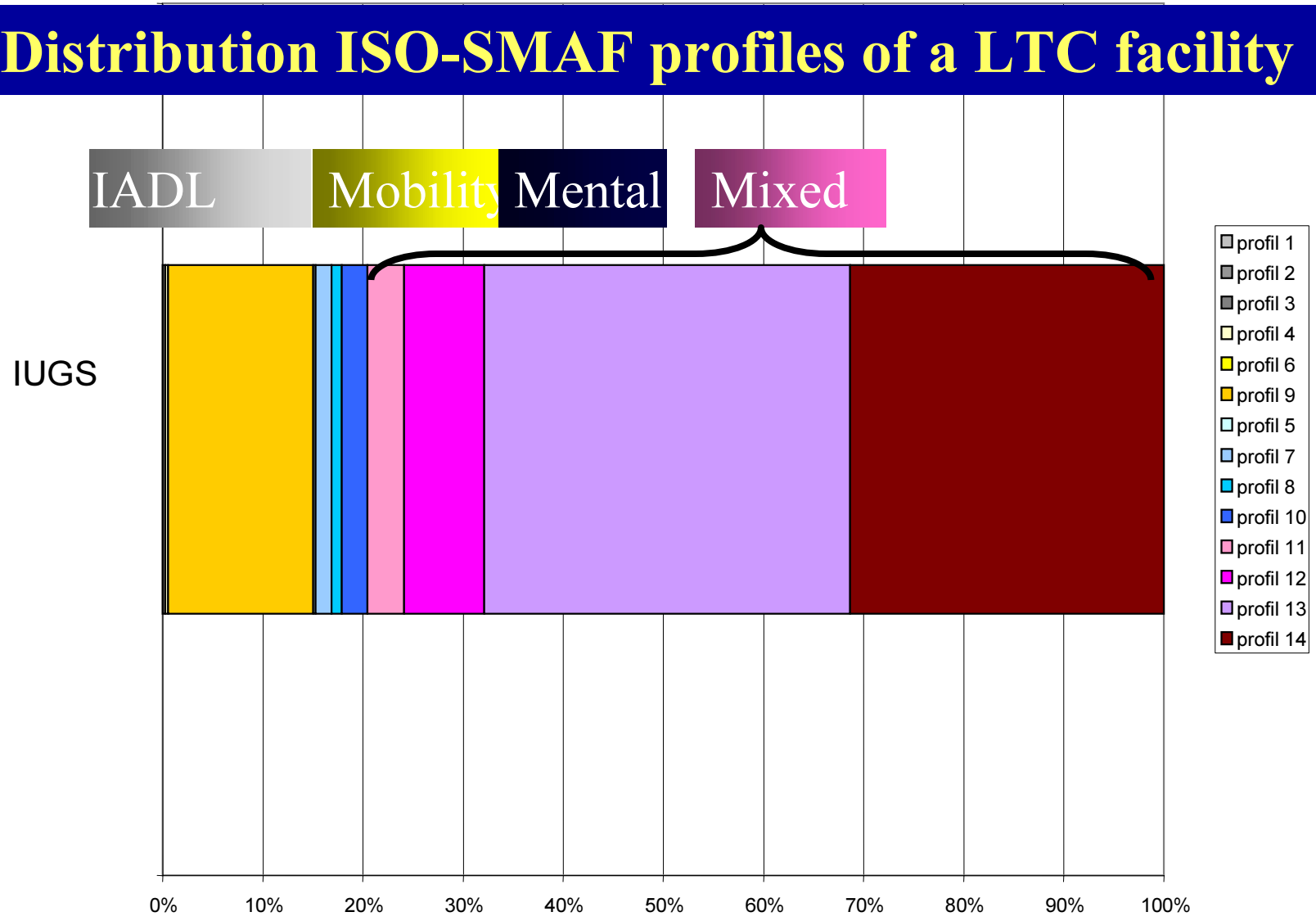
Profile of a LTC facility

(Tousignant et al. Age and Ageing, 2003)

1, 2 and 3	Instrumental activities daily living
4, 6 and 9	Mobility
5, 7, 8 and 10	Mental functions
11, 12, 13 and 14	Mixed and heavy disabilities

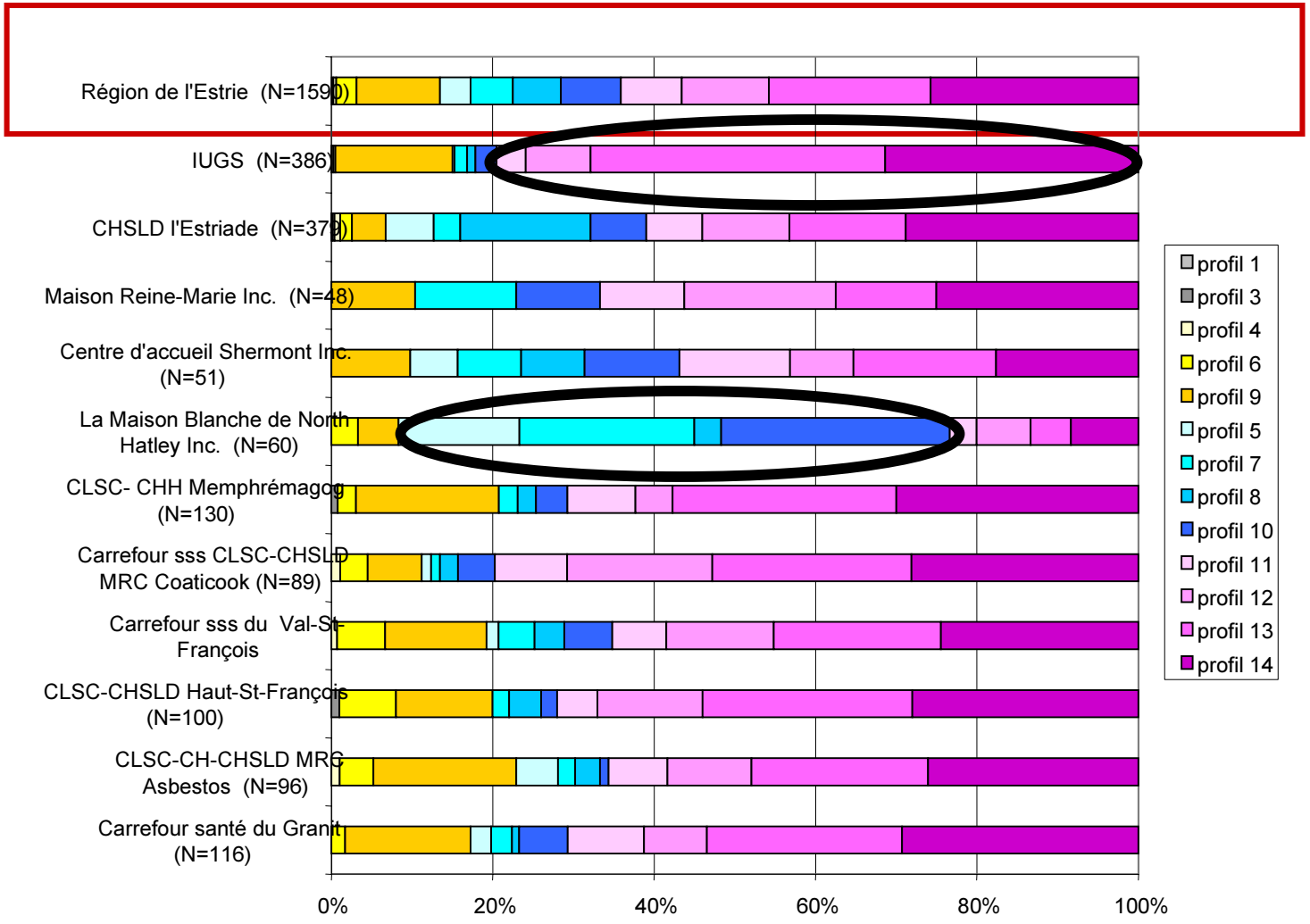


Distribution ISO-SMAF profiles of a LTC facility



IADL Mobilit Mental Mixed

Distribution of ISO-SMAF profiles of a LTC facility



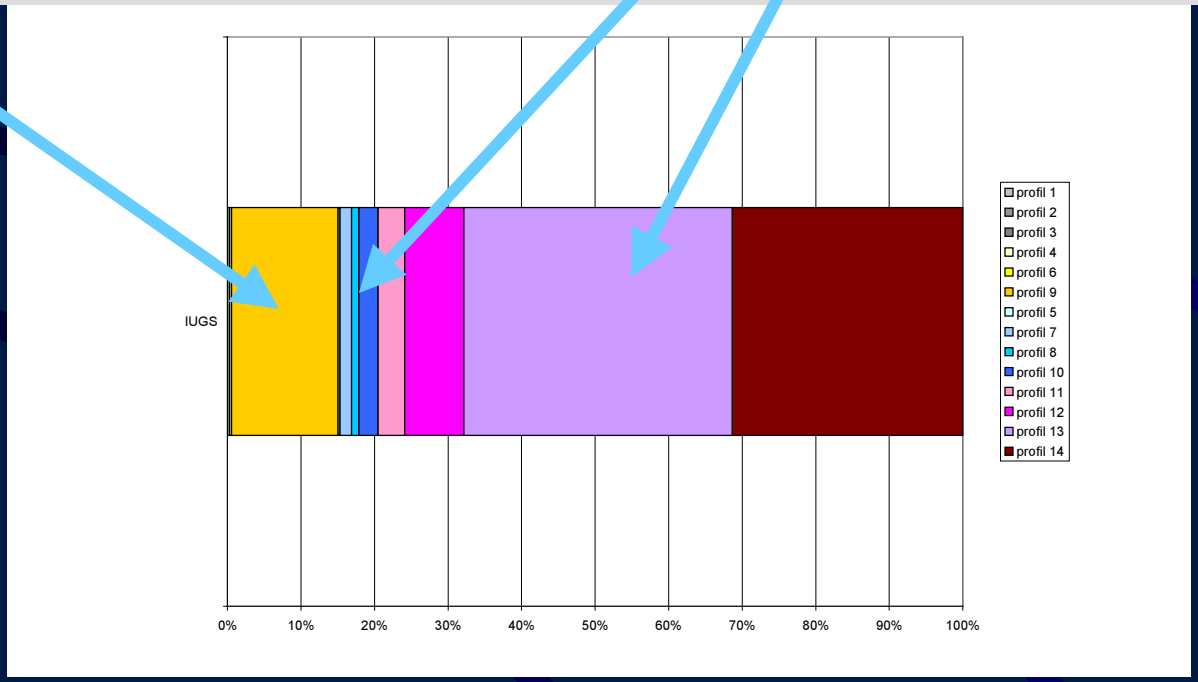
Standard budget (ISOSMAF-based)

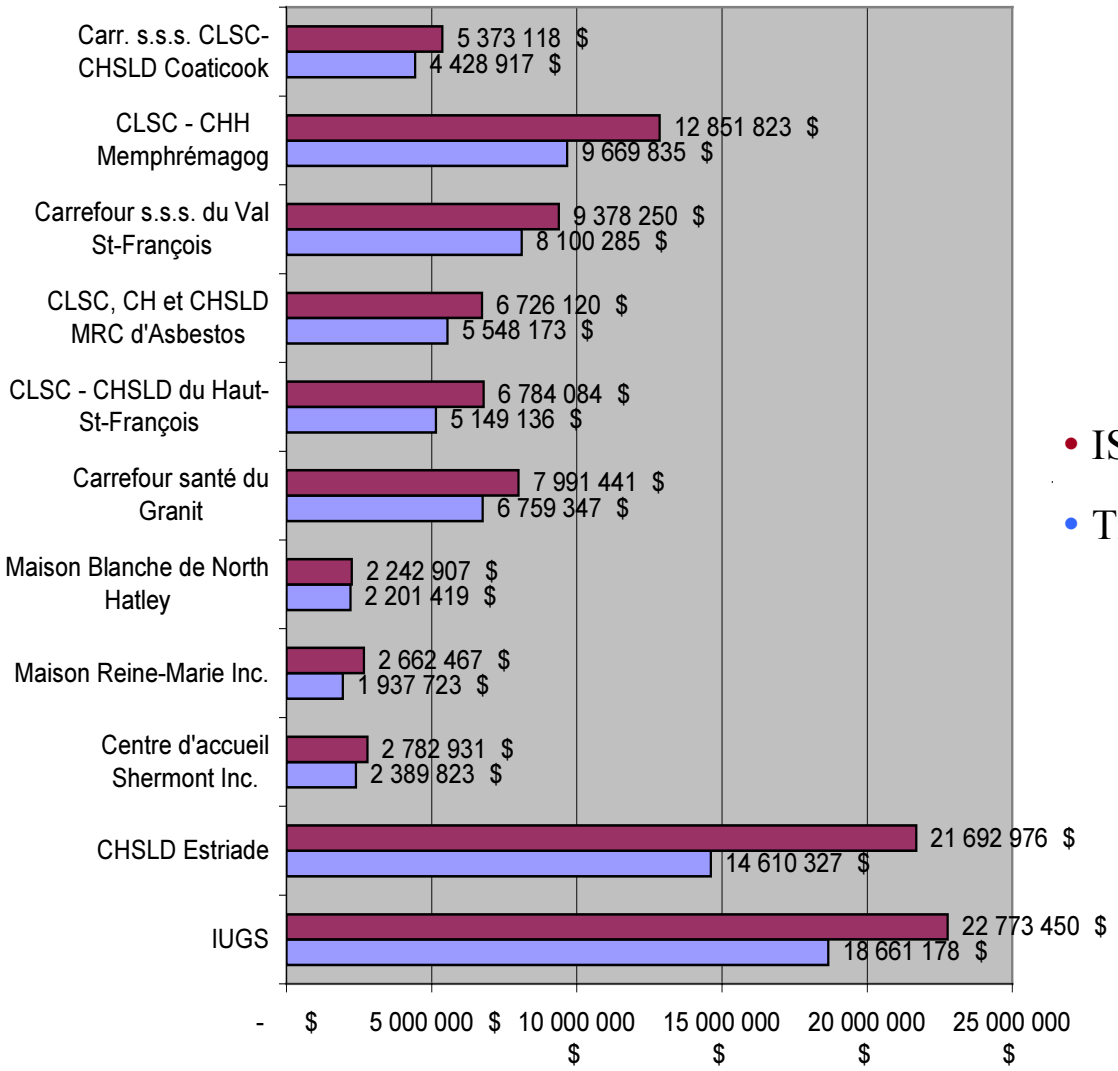
Profile 3 : $ 68.48	**Profile 4 : $ 100.74**	**Profile 5 : $ 78.42**	**Profile 6 : $ 90.89**	**Profile 7 : $ 98.78**	**Profile 8 : $ 114.96**
Profile 9 : $ 147.76	**Profile 10 : $ 129.70**	**Profil e11 : $ 159.02**	**Profile 12 : $ 144.81**	**Profile 13 : $ 169.63**	**Profile 14 : $ 183.19**

50 profiles 9 ⧖ $ 147.76 $

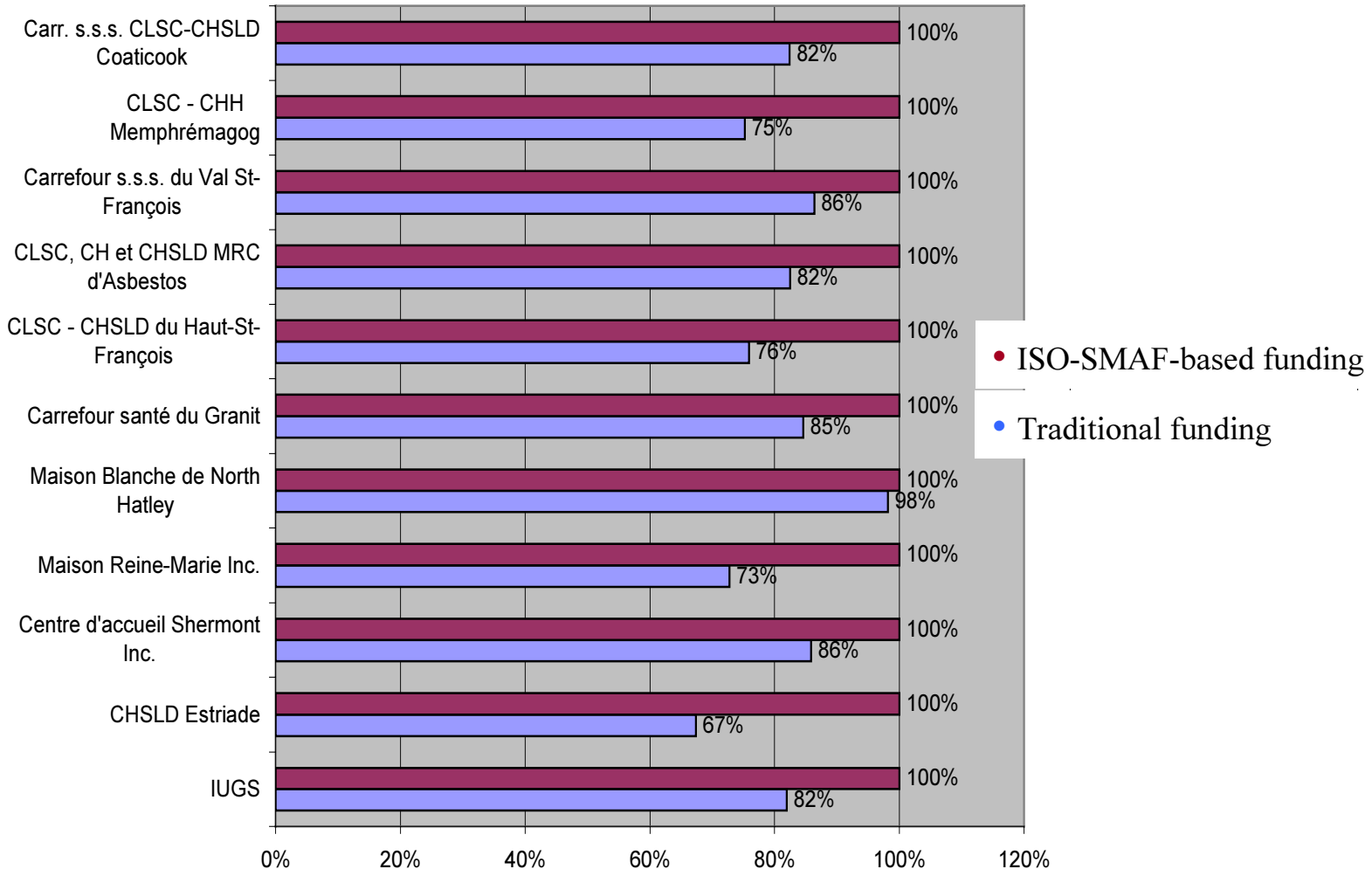
150 profiles 13 ⧖ $ 169.63 $

10 profiles 7 ⧖ $ 98.78 $





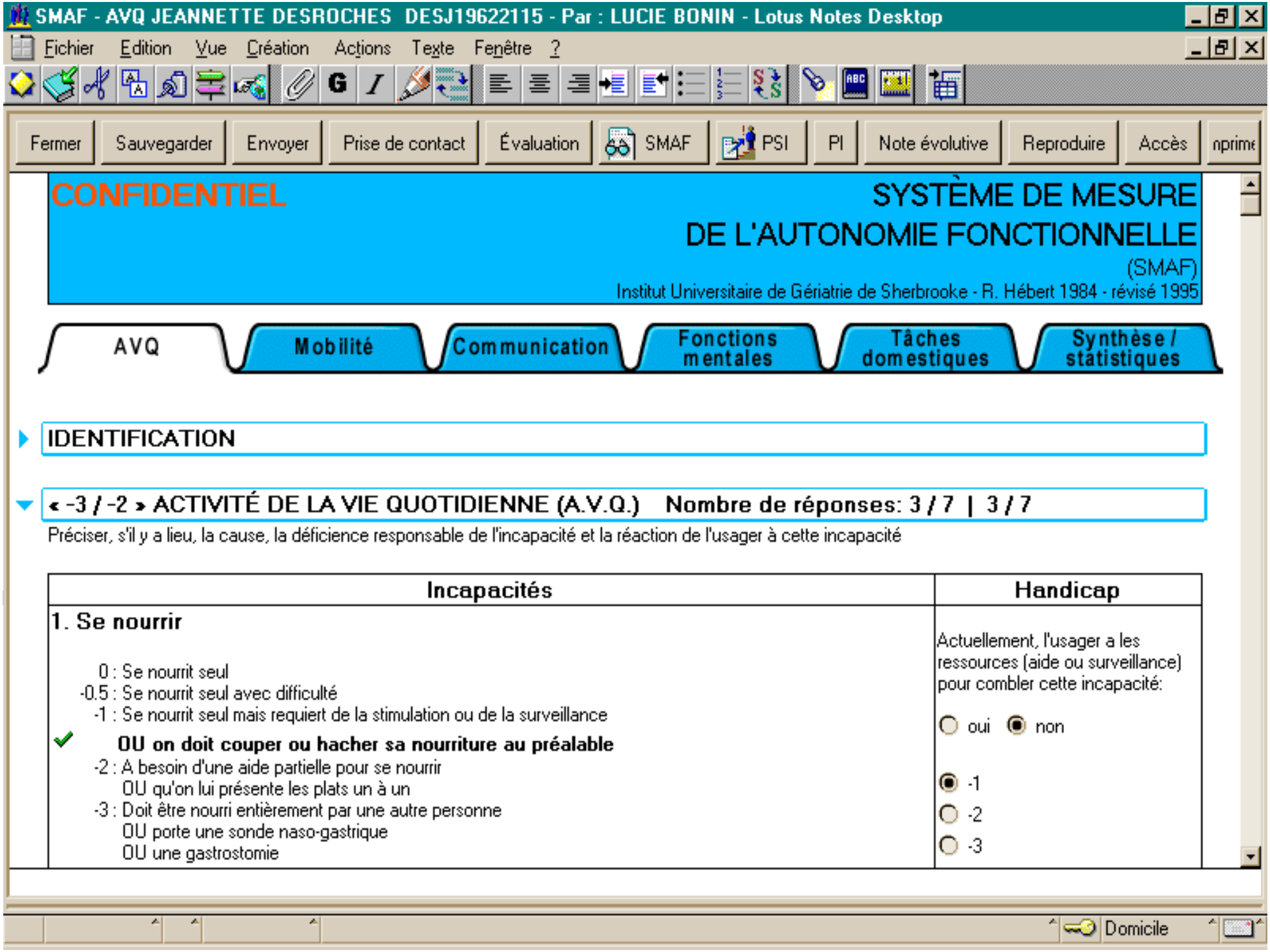
- ISO-SMAF-based funding
- Traditional funding

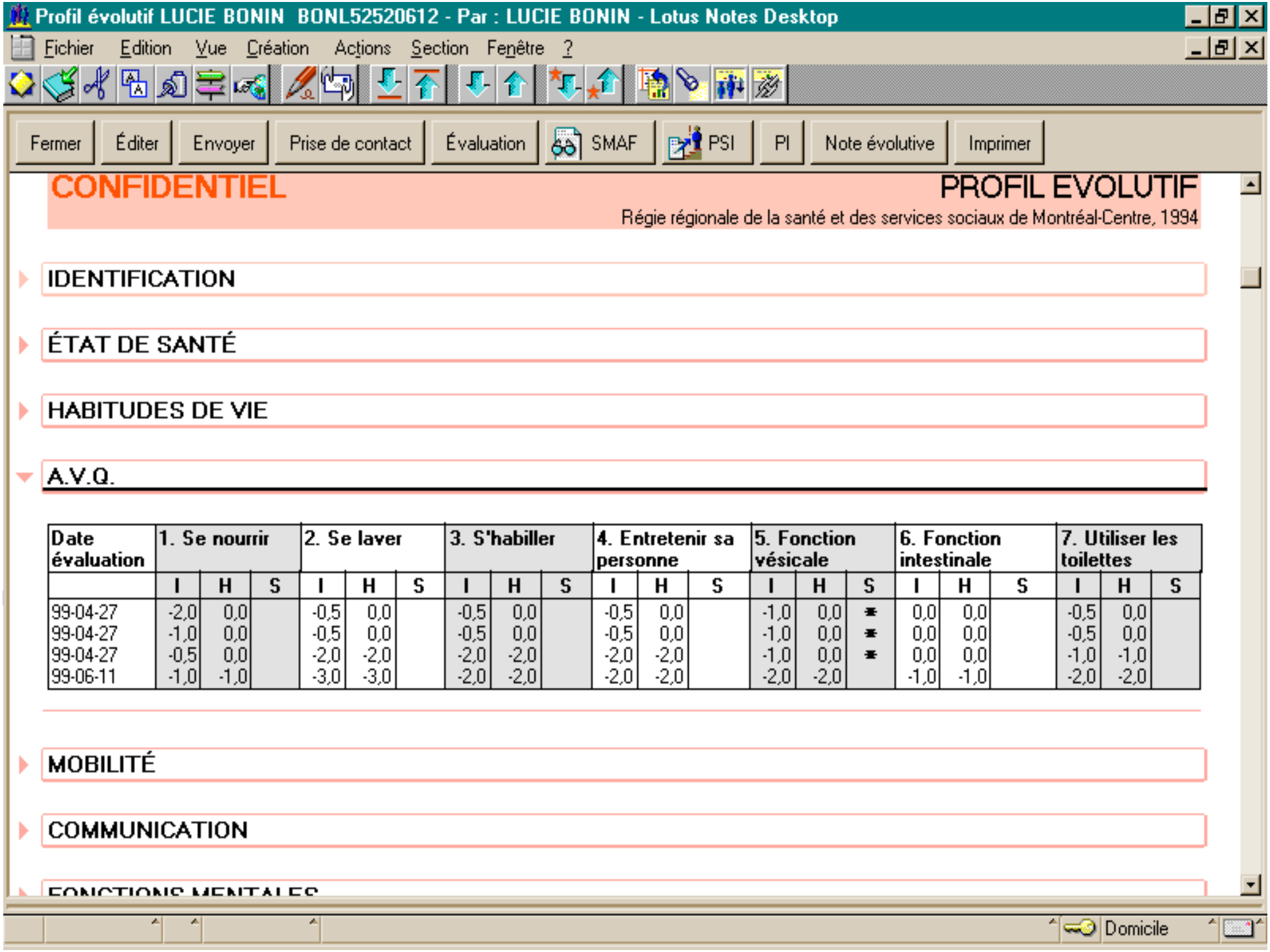

Carr. s.s.s. CLSC-CHSLD Coaticook
100%
82%
CLSC - CHH Memphrémagog
100%
75%
Carrefour s.s.s. du Val St-François
100%
86%
CLSC, CH et CHSLD MRC d'Asbestos
100%
82%
CLSC - CHSLD du Haut-St-François
100%
76%
Carrefour santé du Granit
100%
85%
Maison Blanche de North Hatley
100%
98%
Maison Reine-Marie Inc.
100%
73%
Centre d'accueil Shermont Inc.
100%
86%
CHSLD Estriade
100%
67%
IUGS
100%
82%
0%
20%
40%
60%
80%
100%
120%
ISO-SMAF-based funding
Traditional funding

Computerized clinical chart

(Tourigny et al, 2002)

- SIGG (Système d'information géronto-gériatrique)
- Version 3.0
- Implemented in 2 regions as part of an integrated network
- Continuous monitoring of clients
- linked to administrative data base


SMAF - AVQ JEANNETTE DESROCHES DESJ19622115 - Par : LUCIE BONIN - Lotus Notes Desktop
Fichier Edition Vue Création Actions Texte Fenêtre ?
Fermer Sauvegarder Envoyer Prise de contact Évaluation SMAF PSI PI Note évolutive Reproduire Accès
CONFIDENTIEL
SYSTÈME DE MESURE
DE L'AUTONOMIE FONCTIONNELLE
(SMAF)
Institut Universitaire de Gériatrie de Sherbrooke - R. Hébert 1984 - révisé 1995
AVQ
Mobilité
Communication
Fonctions mentales
Tâches domestiques
Synthèse / statistiques
IDENTIFICATION
« -3 / -2 » ACTIVITÉ DE LA VIE QUOTIDIENNE (A.V.Q.) Nombre de réponses: 3 / 7 | 3 / 7
Préciser, s'il y a lieu, la cause, la déficience responsable de l'incapacité et la réaction de l'usager à cette incapacité
Incapacités
Handicap
1. Se nourrir
0 : Se nourrit seul
-0.5 : Se nourrit seul avec difficulté
-1 : Se nourrit seul mais requiert de la stimulation ou de la surveillance
OU on doit couper ou hacher sa nourriture au préalable
-2 : A besoin d'une aide partielle pour se nourrir
OU qu'on lui présente les plats un à un
-3 : Doit être nourri entièrement par une autre personne
OU porte une sonde naso-gastrique
OU une gastrostomie
Actuellement, l'usager a les ressources (aide ou surveillance) pour combler cette incapacité:
oui non
-1
-2
-3
Domicile



Date évaluation	1. Se nourrir			2. Se laver			3. S'habiller			4. Entretenir sa personne			5. Fonction vésicale			6. Fonction intestinale			7. Utiliser les toilettes		
	I	H	S	I	H	S	I	H	S	I	H	S	I	H	S	I	H	S	I	H	S
99-04-27	-2,0	0,0		-0,5	0,0		-0,5	0,0		-0,5	0,0		-1,0	0,0	*	0,0	0,0		-0,5	0,0	
99-04-27	-1,0	0,0		-0,5	0,0		-0,5	0,0		-0,5	0,0		-1,0	0,0	*	0,0	0,0		-0,5	0,0	
99-04-27	-0,5	0,0		-2,0	-2,0		-2,0	-2,0		-2,0	-2,0		-1,0	0,0	*	0,0	0,0		-1,0	-1,0	
99-06-11	-1,0	-1,0		-3,0	-3,0		-2,0	-2,0		-2,0	-2,0		-2,0	-2,0		-1,0	-1,0		-2,0	-2,0	

Conclusion

- Reconciliate clinical and management needs
- Decrease assessment burden for clients, managers and clinicians
- Continuous monitoring of needs
  - prescription of services
  - resources allocation
  - fair financing
  - accountability
  - planning

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