

Assessing the consequences of chronic diseases on functional health

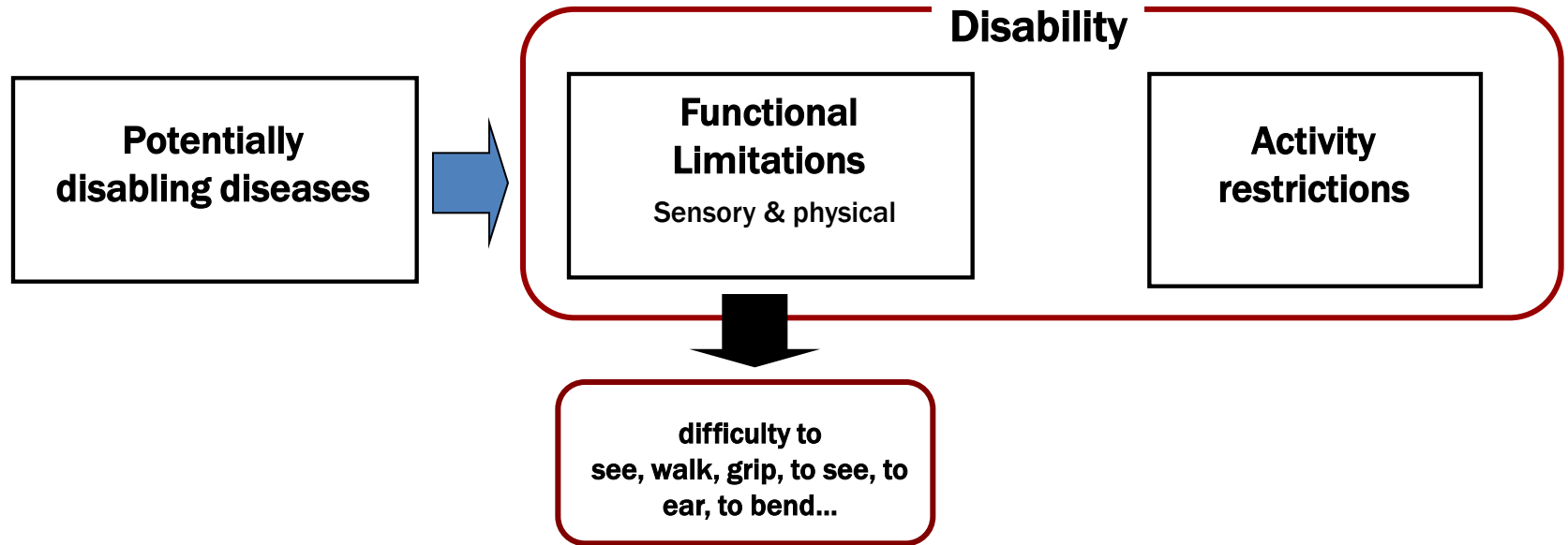
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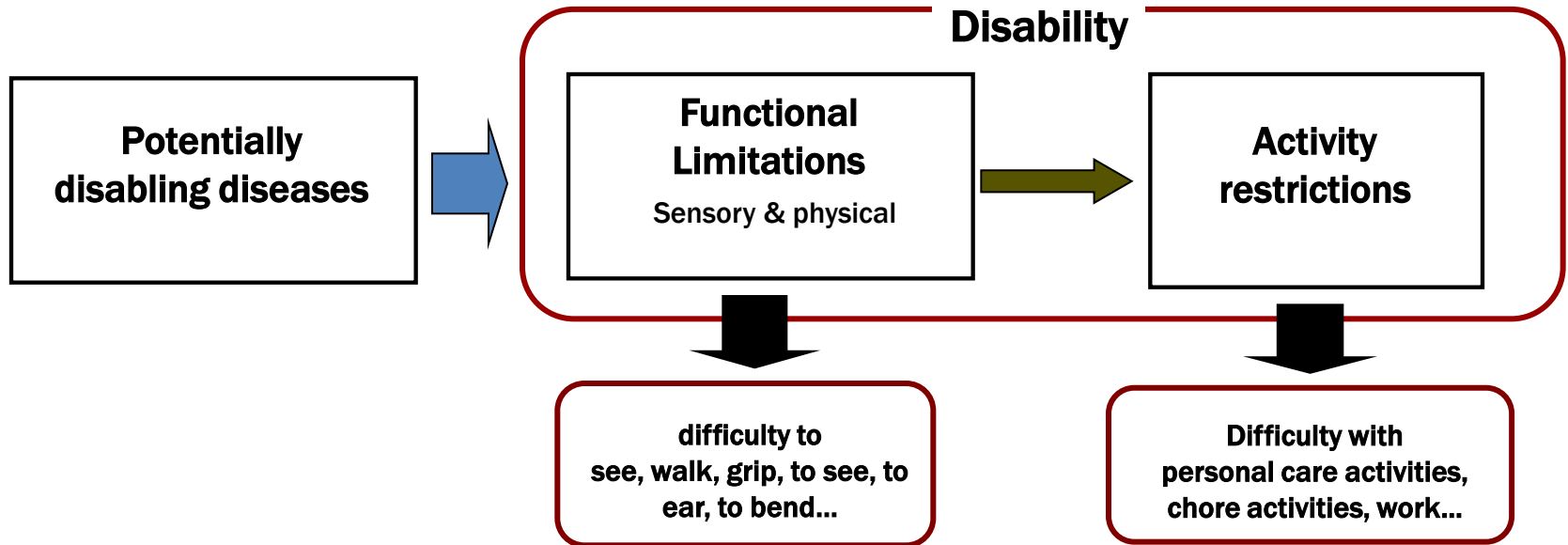
Operationalization of the conceptual framework

Cambois E, Robine JM. *Revue de littérature sur les instruments de mesure des limitations fonctionnelles : approches en population générale et auprès de patients*. Rapport intermédiaire à la Direction Générale de la Santé. Déc 2005, 43p



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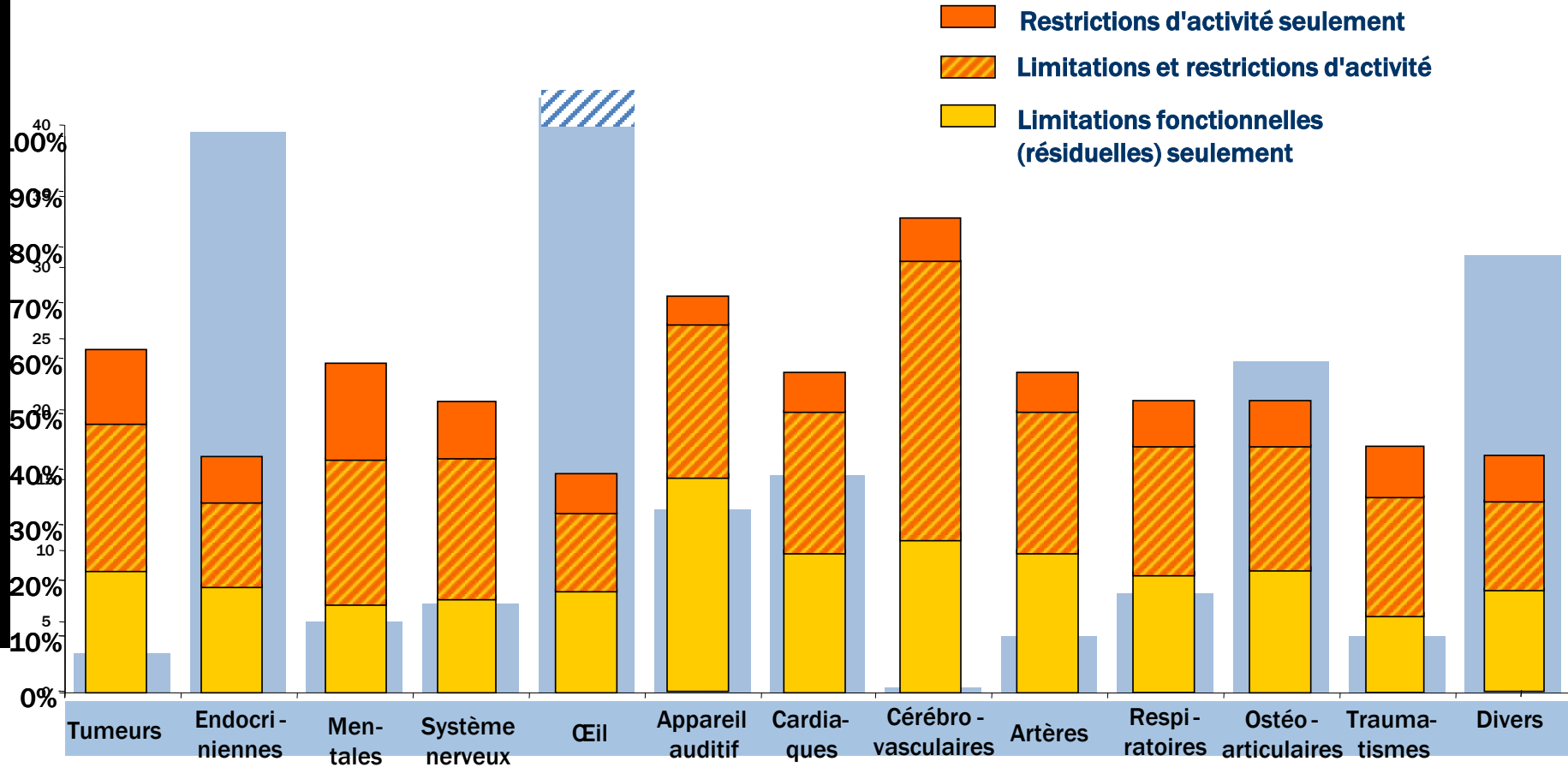


- **Disability: various perceptions, various experiences, various needs**

- ✓ Functional limitations: sensory and physical
- ✓ Self-reported work / domestic / personal care activities

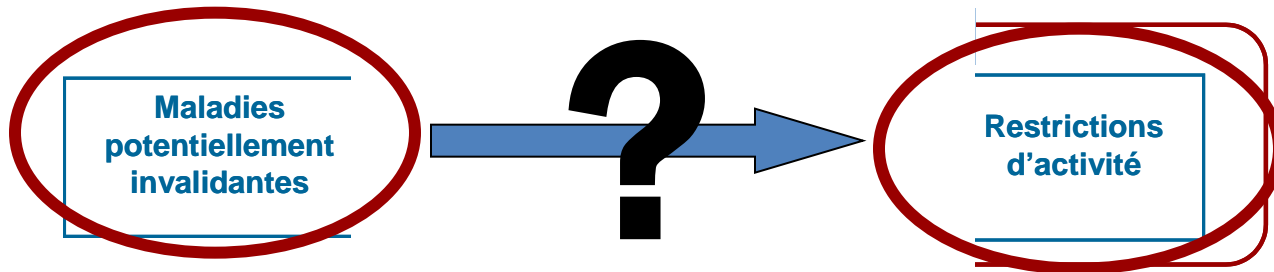
Diseases and disability

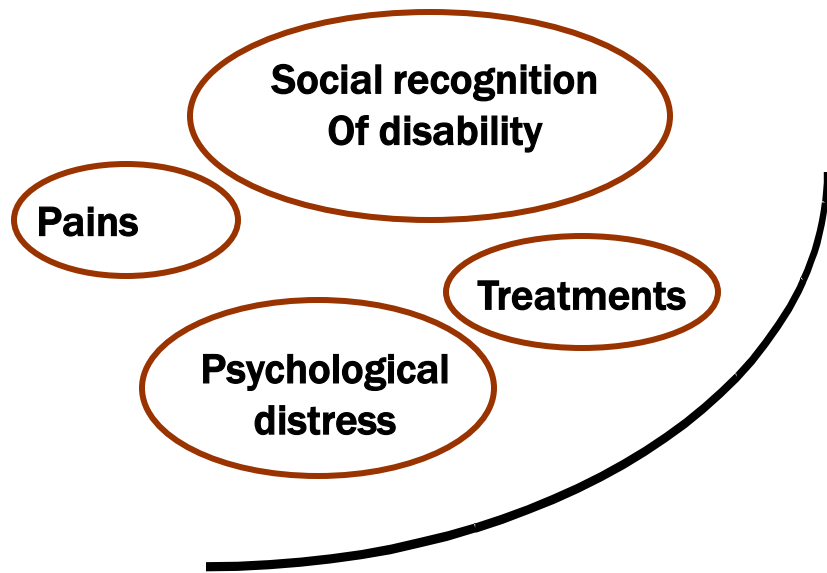
Functional limitations (23%) et activity restrictions ADL, IADL, work (17,5%)



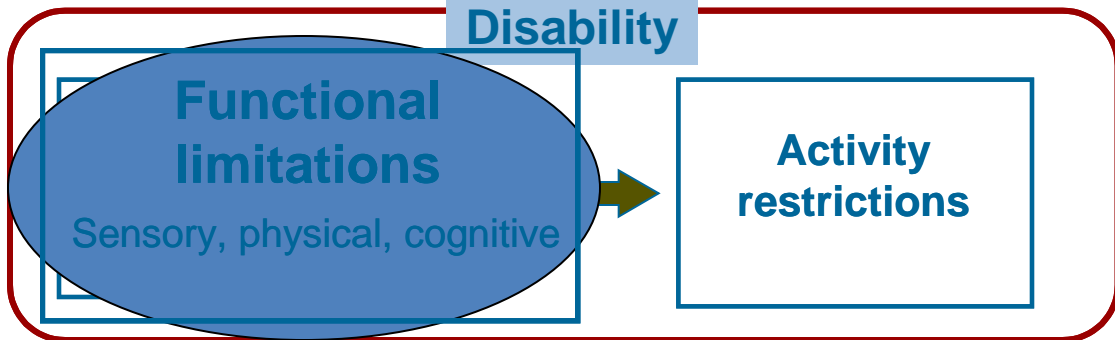
Method

- **Logistic regression** (controlled for age, sex and any other potentially disabling condition)
1. **Diseases and various disability experiences :**
 - Work/household/personal care activity restrictions
 - Personal care





**Potentially
disabling
diseases**



Method

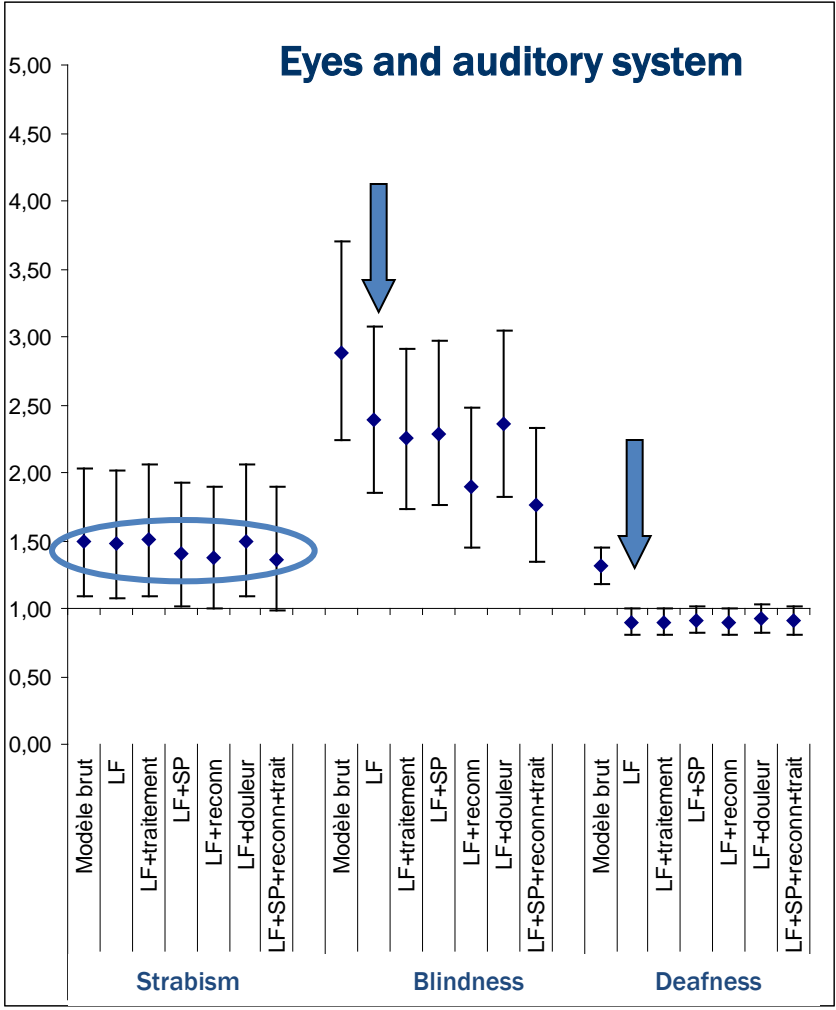
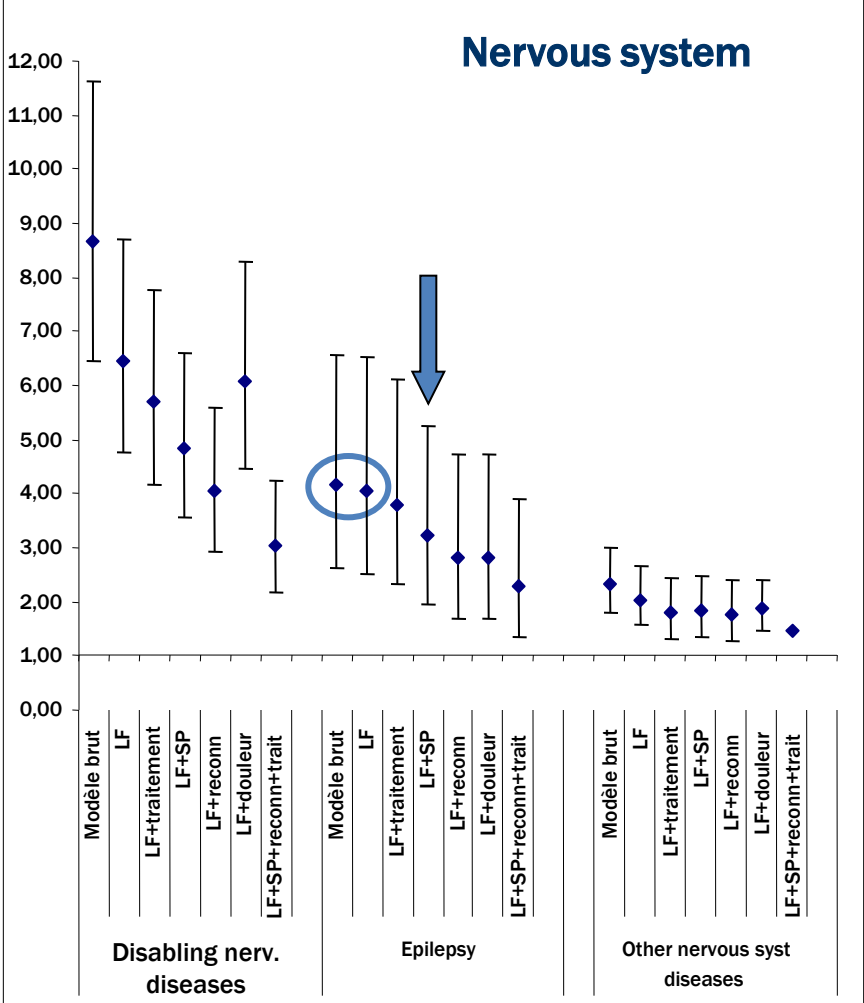
- **Logistic regression** (controlled for age, sex and any other potentially disabling condition)
 1. **Diseases and various disability experiences :**
 - Work/household/personal care activity restrictions
 - Personal care
 2. **Factors: diseases and Work/household/personal care activity restrictions**
 - Functional limitations
 - FL + High numb visit to hospital or physicians
 - FL + Bad SPH
 - FL + Adm disability status
 - FL + Pain
 - FL + High numb vivits + bad SPH + adm status.

The other factors of activity restriction

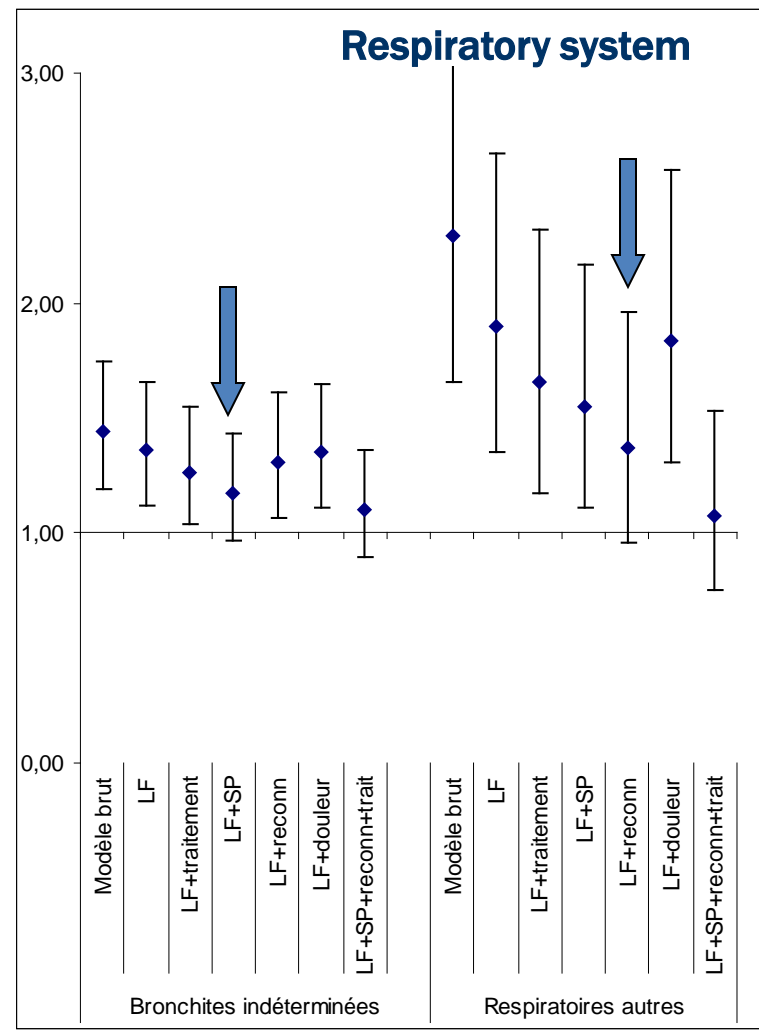
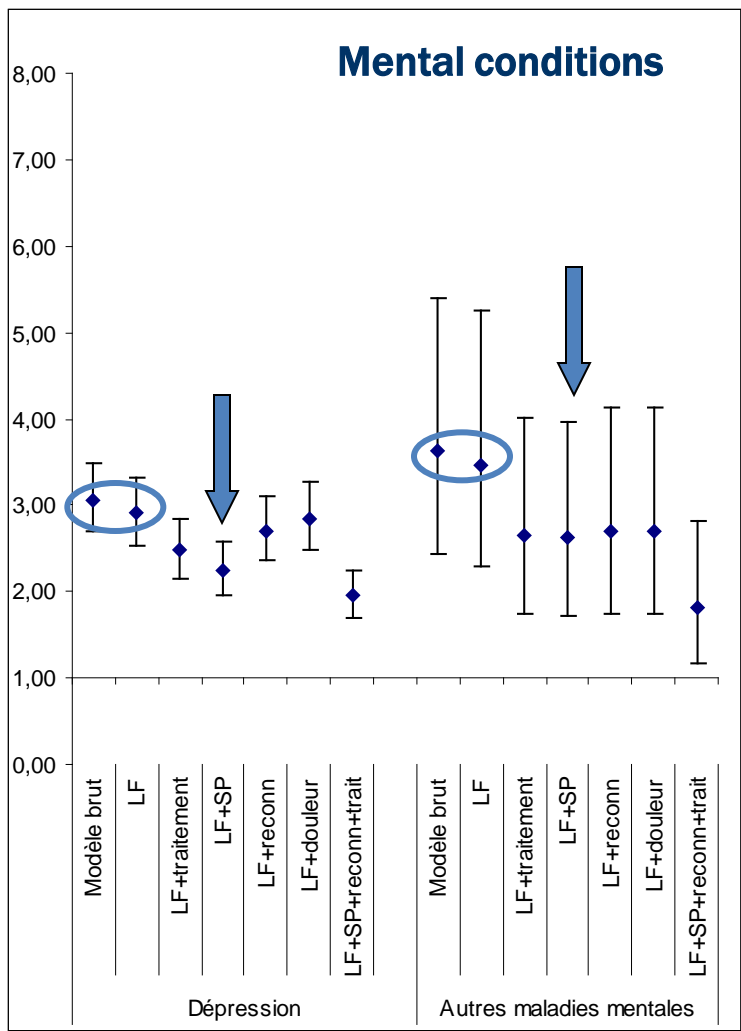
	Odds Ratio / IC 95%					
	Modèle 1	Modèle 2	Modèle 3	Modèle 4	Modèle 5	Modèle 6
LFR	-	4,1 [3,7 ; 4,4]	3,7 [3,4 ; 4,1]	3,1 [2,8 ; 3,4]	2,7 [2,5 ; 3,0]	2,4 [2,1 ; 2,6]
Traitement lourd	-	-	2,6 [2,4 ; 2,8]	2,3 [2,1 ; 2,5]	2,0 [1,8 ; 2,2]	1,9 [1,7 ; 2,1]
Reconnaissance d'un handicap	-	-	-	7,5 [6,6 ; 8,5]	6,4 [5,6 ; 7,3]	6,3 [5,4 ; 7,3]
Santé perçue (mauvaise vs bonne)	-	-	-	-	2,5 [2,3 ; 2,7]	2,3 [2,1 ; 2,5]
Douleurs physiques (oui vs non)	-	-	-	-	-	1,9 [1,7 ; 2,2]
cancer (oui vs non)	2,2 [1,9 ; 2,5]	2,1 [1,8 ; 2,5]	1,9 [1,6 ; 2,2]	1,7 [1,5 ; 2,0]	1,5 [1,3 ; 1,8]	1,6 [1,4 ; 1,9]
maladies endocriniennes	1,1 [1,0 ; 1,2]	1,0 [0,9 ; 1,1]	1,0 [0,9 ; 1,1]	1,0 [0,9 ; 1,1]	1,0 [0,9 ; 1,0]	1,0 [0,9 ; 1,1]
mentales	3,2 [2,9 ; 3,6]	3,1 [2,7 ; 3,5]	2,6 [2,2 ; 2,9]	2,4 [2,1 ; 2,7]	2,0 [1,7 ; 2,3]	2,0 [1,7 ; 2,3]
système nerveux	1,9 [1,7 ; 2,2]	1,8 [1,6 ; 2,0]	1,7 [1,5 ; 1,9]	1,5 [1,3 ; 1,7]	1,3 [1,2 ; 1,5]	1,2 [1,1 ; 1,4]
œil - troubles de la vue	0,8 [0,8 ; 0,9]	0,9 [0,8 ; 1,0]	0,9 [0,8 ; 1,0]	0,8 [0,7 ; 0,9]	0,8 [0,7 ; 0,9]	0,8 [0,7 ; 0,9]
appareil auditif	1,3 [1,2 ; 1,4]	0,9 [0,8 ; 1,0]	0,9 [0,8 ; 0,9]	0,9 [0,8 ; 1,0]	0,9 [0,8 ; 1,0]	0,9 [0,8 ; 1,0]
cœur	1,4 [1,2 ; 1,5]	1,3 [1,2 ; 1,4]	1,1 [1,0 ; 1,3]	1,1 [1,0 ; 1,2]	1,0 [0,9 ; 1,1]	1,0 [0,9 ; 1,2]
cérébro-vasculaires	2,5 [1,7 ; 3,7]	2,1 [1,4 ; 3,1]	1,8 [1,2 ; 2,7]	1,6 [1,0 ; 2,4]	1,4 [0,9 ; 2,2]	1,4 [0,9 ; 2,4]
artères	1,2 [1,0 ; 1,4]	1,1 [1,0 ; 1,3]	1,0 [0,9 ; 1,2]	1,0 [0,9 ; 1,2]	1,0 [0,9 ; 1,2]	1,0 [0,8 ; 1,2]
respiratoires	1,6 [1,4 ; 1,8]	1,4 [1,3 ; 1,6]	1,3 [1,1 ; 1,5]	1,2 [1,0 ; 1,4]	1,1 [0,9 ; 1,2]	1,1 [1,0 ; 1,3]
ostéo-articulaires	2,1 [1,9 ; 2,3]	1,8 [1,6 ; 1,9]	1,7 [1,6 ; 1,9]	1,7 [1,6 ; 1,8]	1,5 [1,4 ; 1,6]	1,4 [1,3 ; 1,6]
traumatismes	2,1 [1,8 ; 2,4]	1,9 [1,6 ; 2,2]	1,8 [1,6 ; 2,2]	1,7 [1,4 ; 2,0]	1,6 [1,4 ; 1,9]	1,6 [1,3 ; 1,9]
divers	1,3 [1,2 ; 1,4]	1,3 [1,2 ; 1,4]	1,2 [1,1 ; 1,3]	1,2 [1,1 ; 1,3]	1,1 [1,0 ; 1,2]	1,1 [1,0 ; 1,2]
âge (1 année supplémentaire)	1,03 [1,03 ; 1,03]	1,02 [1,01 ; 1,02]	1,02 [1,01 ; 1,02]	1,02 [1,02 ; 1,02]	1,02 [1,01 ; 1,02]	1,01 [1,01 ; 1,02]
sexe (F vs H)	1,1 [1,0 ; 1,2]	1,0 [1,0 ; 1,1]	1,0 [0,9 ; 1,1]	1,1 [1,1 ; 1,2]	1,1 [1,1 ; 1,2]	1,2 [1,1 ; 1,3]

2. Factors: some examples

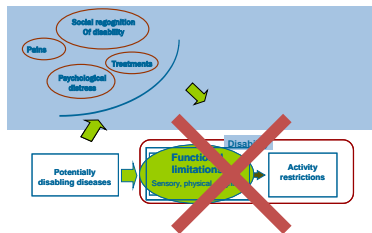
Odds ratios Activity restrictions



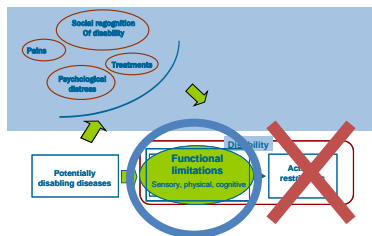
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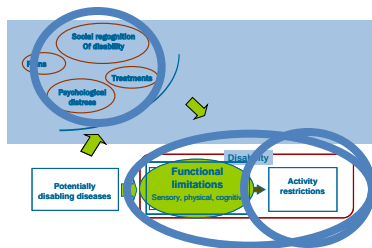
Diseases et disability experiences



- No disability (missing functional limitations / non-disabling diseases)



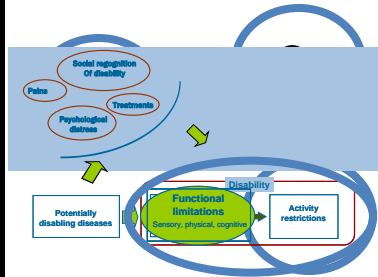
- Functional limitations only (non-malignan cancer, auditory problems other than deafness...)



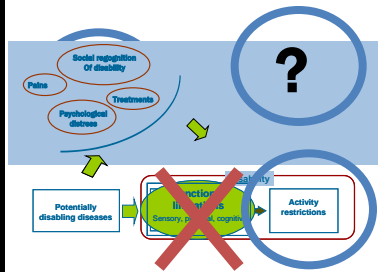
- Activity restrictions explained by body function alterations : overweight, deafness, traumas

... and side factors : circulatory and respiratory diseases (traitments, bad perceived health), mainly among the younger ages (< 50 years old)

Diseases et disability experiences



- Activity restrictions that are not totally explained by our variables : degenerative diseases, diabetes, osteo-articular, malformations...



- Activity restrictions that are not explained by FL (mainly among the youngest) :
 - ✓ Strabism, skin diseases to which our side factors contribute...
 - ✓ cancers, epilepsy which remain largely unexplained
- Diseases are some time evolutive and may go through these different types of experiences

Summary

- **Different disability experiences**
 - ➔ Some appear to be more self-perceived / other more visible (mental diseases, malformations, disabling nervous diseases)
- **Different « causes » for these experiences**
 - ➔ Explained by the associated functional limitations (weight problems, deafness, some traumas...)
 - ➔ Explained by functional limitations and co-factors (circulatory and respiratory diseases) / only partly explained (disabl nerv. syst diseases, diabetes, osteo, dysformations...)
 - ➔ Explained by co-factors only (strabism, skin diseases) / only partly explained (some cancers, epilepsy)



Possibility to describe each disease, regarding the disability experience and its determinants