

THE BIO-PSYCHO-SOCIAL EFFECT OF REHABILITATION OF ADULTS WITH ACQUIRED BRAIN INJURY MEDIATED BY COORDINATED INTERVENTIONS

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Background

Acquired brain injury (ABI) prevalence in DK

- In 2010: 19.543
- Approx. 125.000 live with an ABI

Current situation

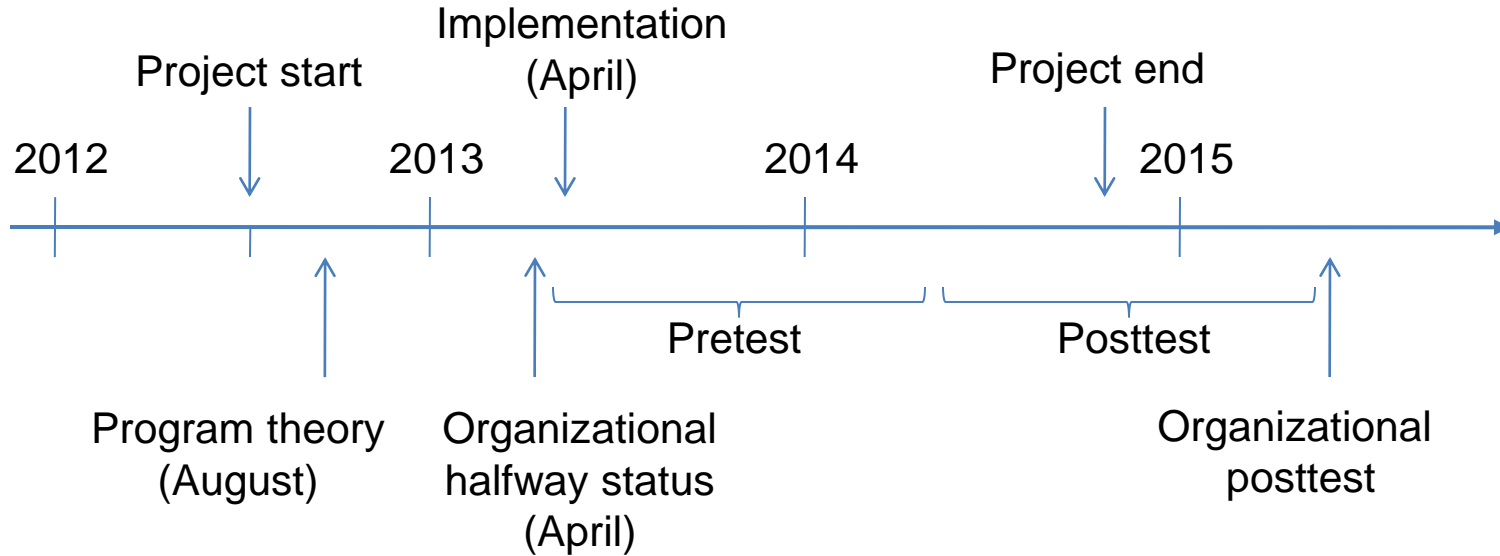
- Rehabilitation is an area of priority to the Danish government
- No research in DK on effects of coordinated rehabilitation
- Very few international studies (9 studies)



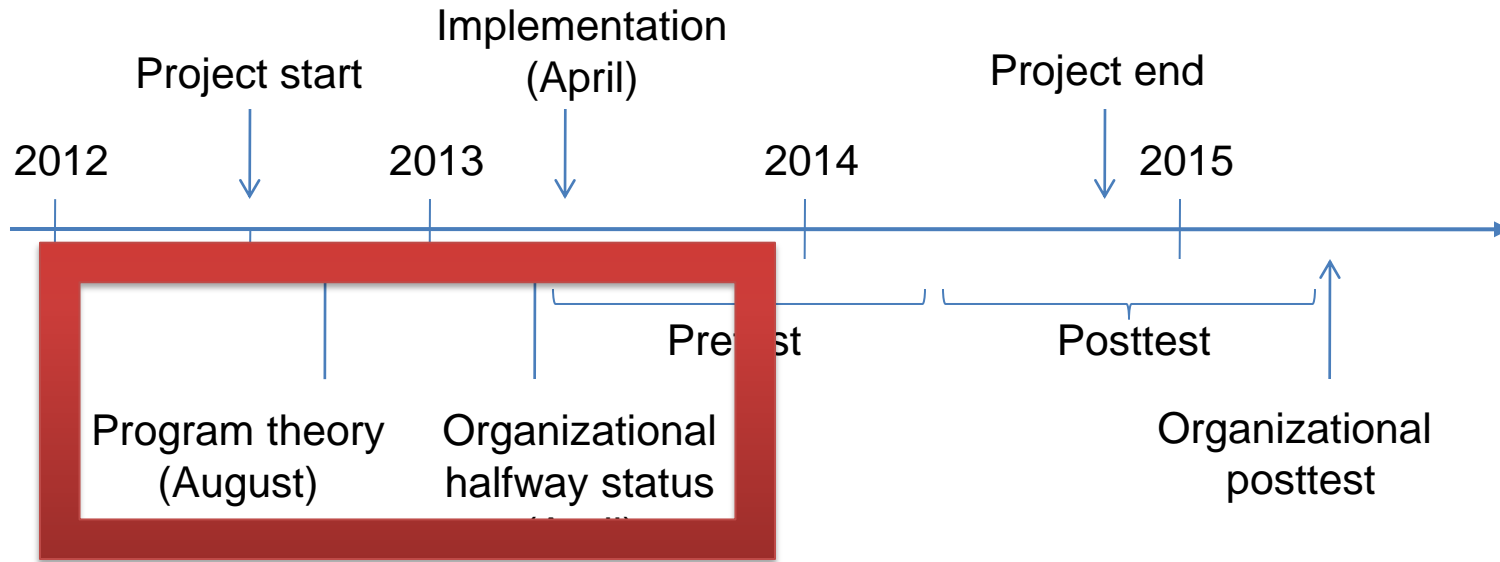
Objective

- To provide an evaluation of a coordinated rehabilitation program
- Evidence-based intervention
 - contribute to the provision of quality service to people suffering from ABI and, thus, to improve their quality of life
 - assist administrators in making program-level decisions
 - economic benefits

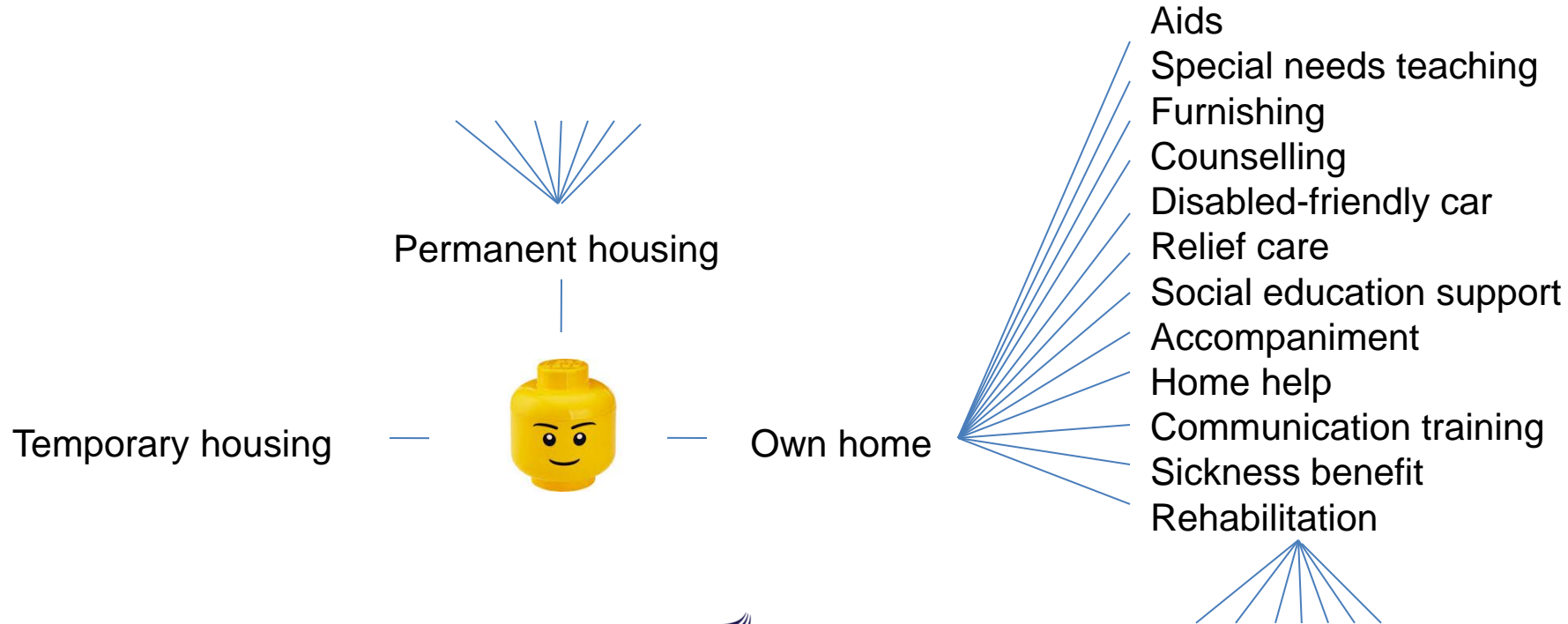
Timeframe



Timeframe – the focus of this presentation



Services provided for a citizen suffering from ABI

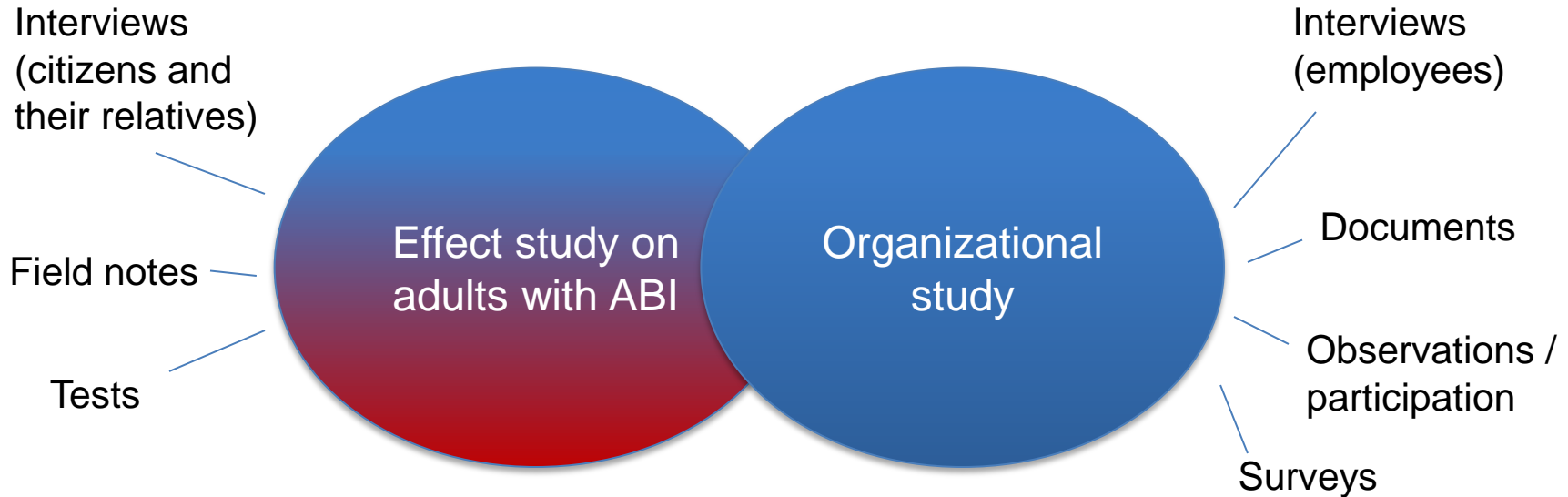


The rehabilitation program that we study

- Heightening the level of the neuro-scientific knowledge
- Coordination internally at the municipal level (establish a coordination center and new ways of working together)
- Interdisciplinary coordination of processes across the primary and secondary sectors
- United efforts (joint outcome measures, tests and rehabilitation plans)
- Based on the bio-psycho-social model (Operationalized by ICF)



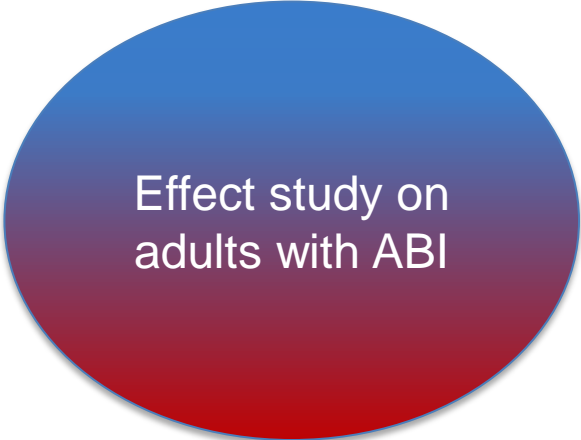
Two integrated projects in a mixed method design



Interviews
(citizens and
their relatives)

Field notes

Tests



Effect study on
adults with ABI

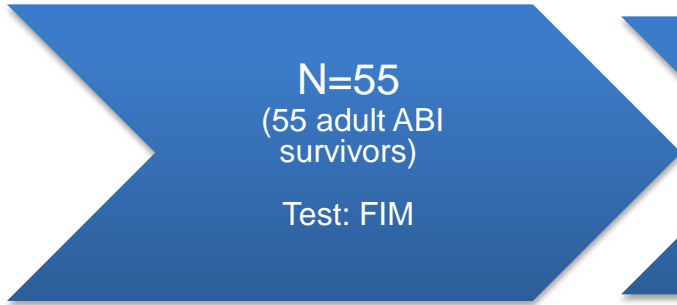
Test measures

- Quality of Life (WHOQOL)
- Major Depression Inventory (MDI)
- Functional Independence Measure (FIM)
- Impact on Participation and Autonomy Questionnaire (IPAQ)

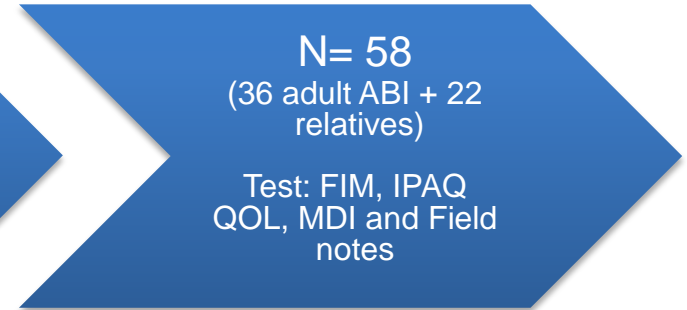


Research design – effect study

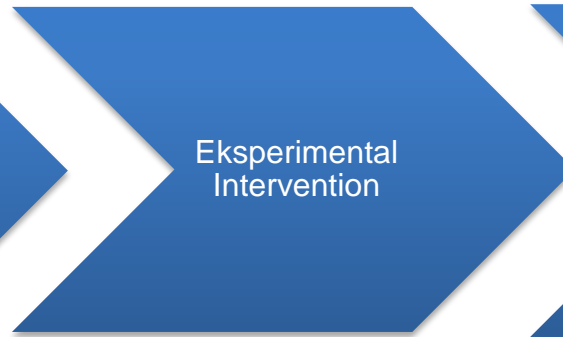
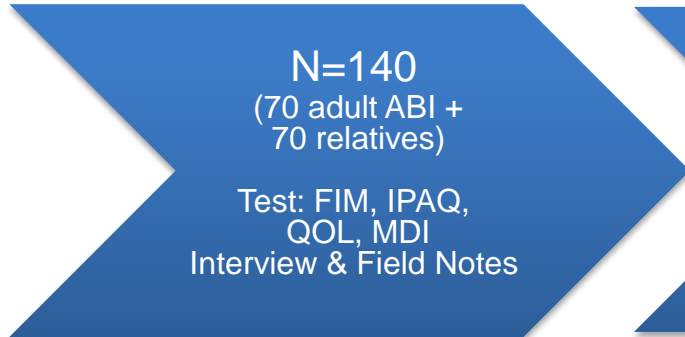
Control group 2011



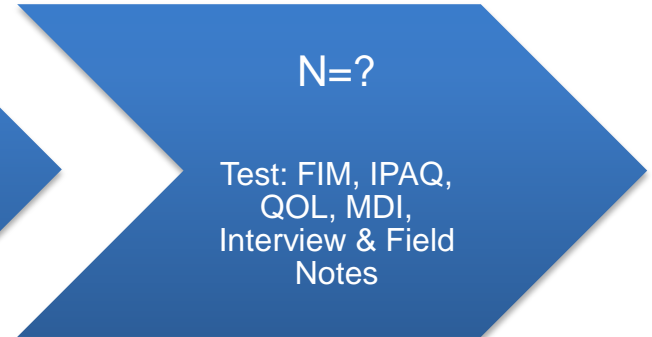
2013

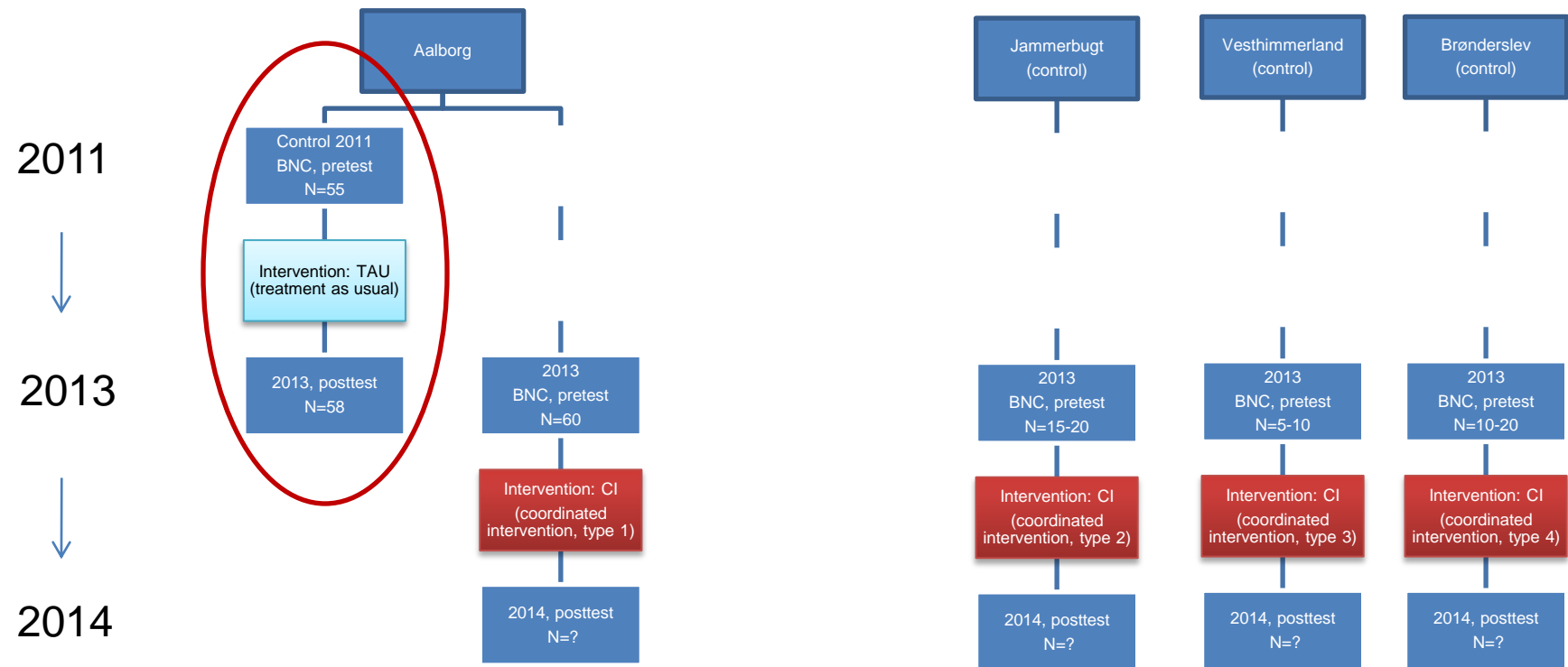


Intervention group 2013



2014





Preliminary results (on an individual level)

Results from control group (2011) with no coordinated rehabilitation:

- **Pre- and post-functional independence**
- **Pre- and post-work situation**
- **Post Depression level**
- Post QOL level
- Themes from field notes

Pre- and post-functional independence

Pre- and post Functional Independence (Score: 18- 126)

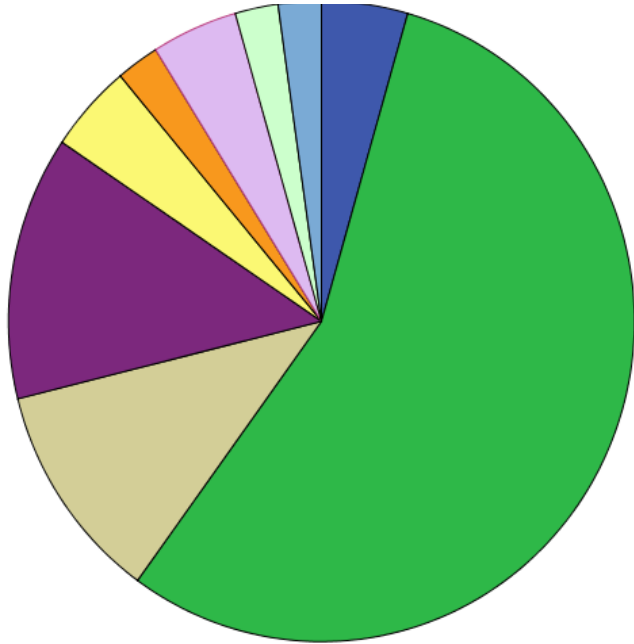
One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
FIM 2011	32	115,50	12,232	2,162
FIM 2013	36	112,36	17,878	2,980



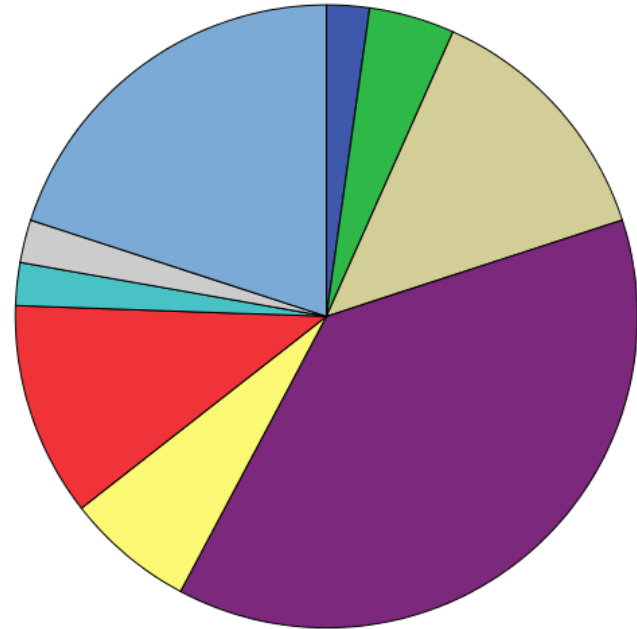
Work situation

2011



- student
- employed
- early retirement
- pension
- social benefit
- sick leave
- vocational rehab
- early retirement and work
- clarification of jobskills
- job seeking
- flexible job
- Missing

2013



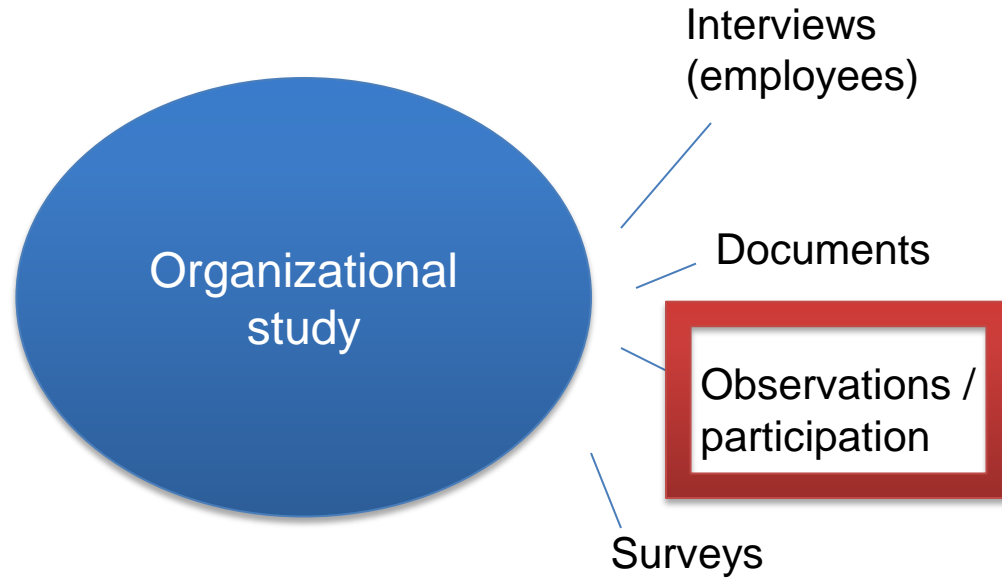
Post Depression level

**Level of Depression
(Score 0-100)**

	N	Minimum	Maximum	Mean	Std. Deviation
Relative	22	0	26	8,41	6,864
Adult w ABI	36	1	39	15,42	9,575
Valid N (listwise)	22				

0 -19: No depression	20- 24: Mild depression	25- 29: Moderate depression	30-100: Severe depression
N =23	N= 5	N= 7	N= 1

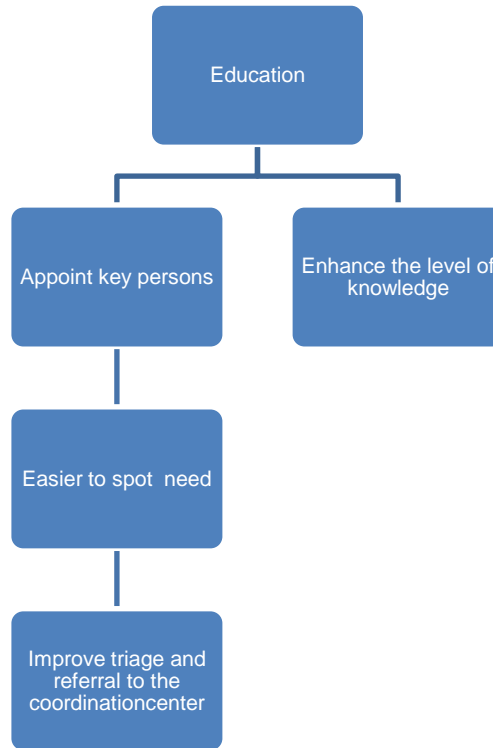


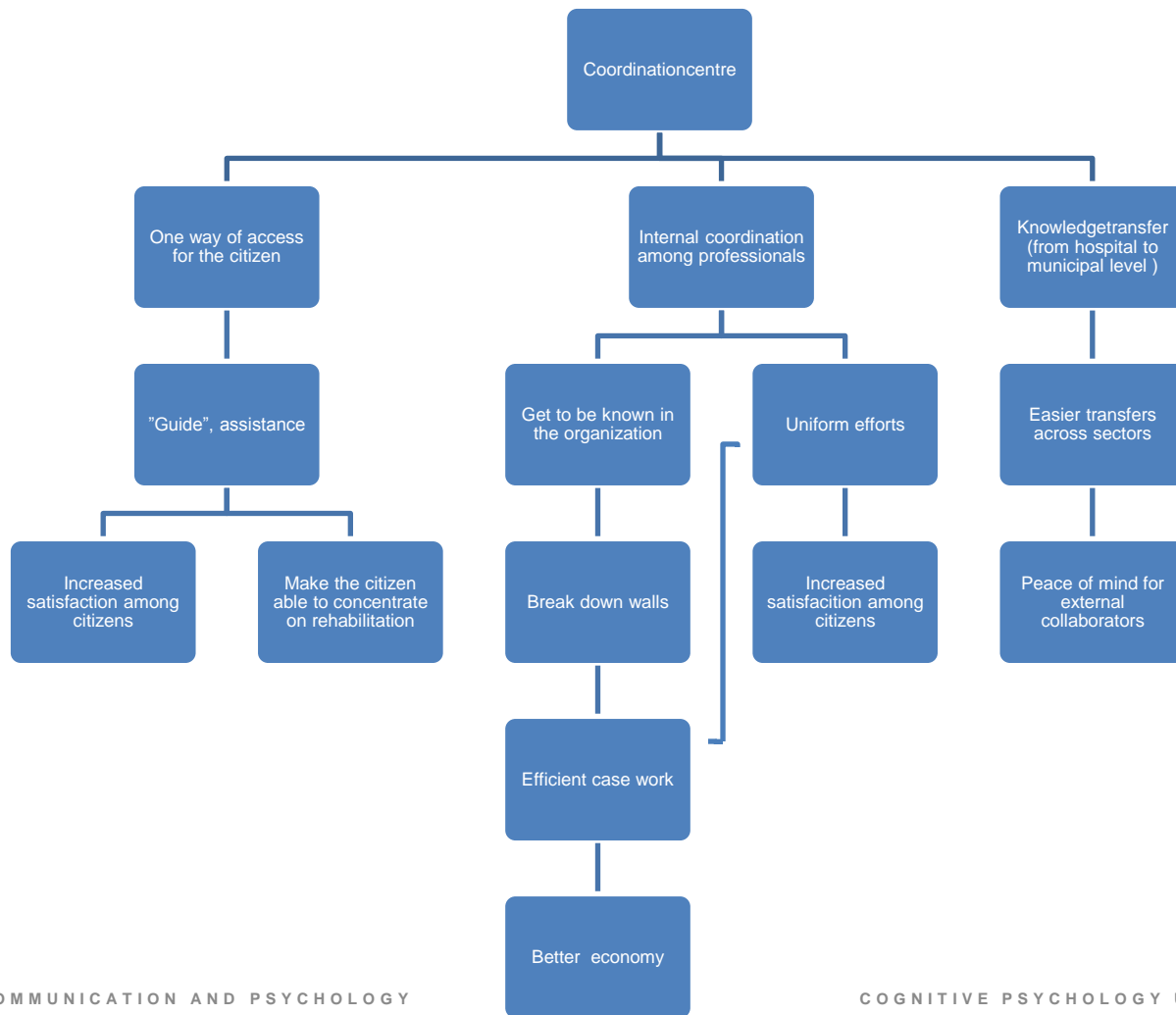


Program theories

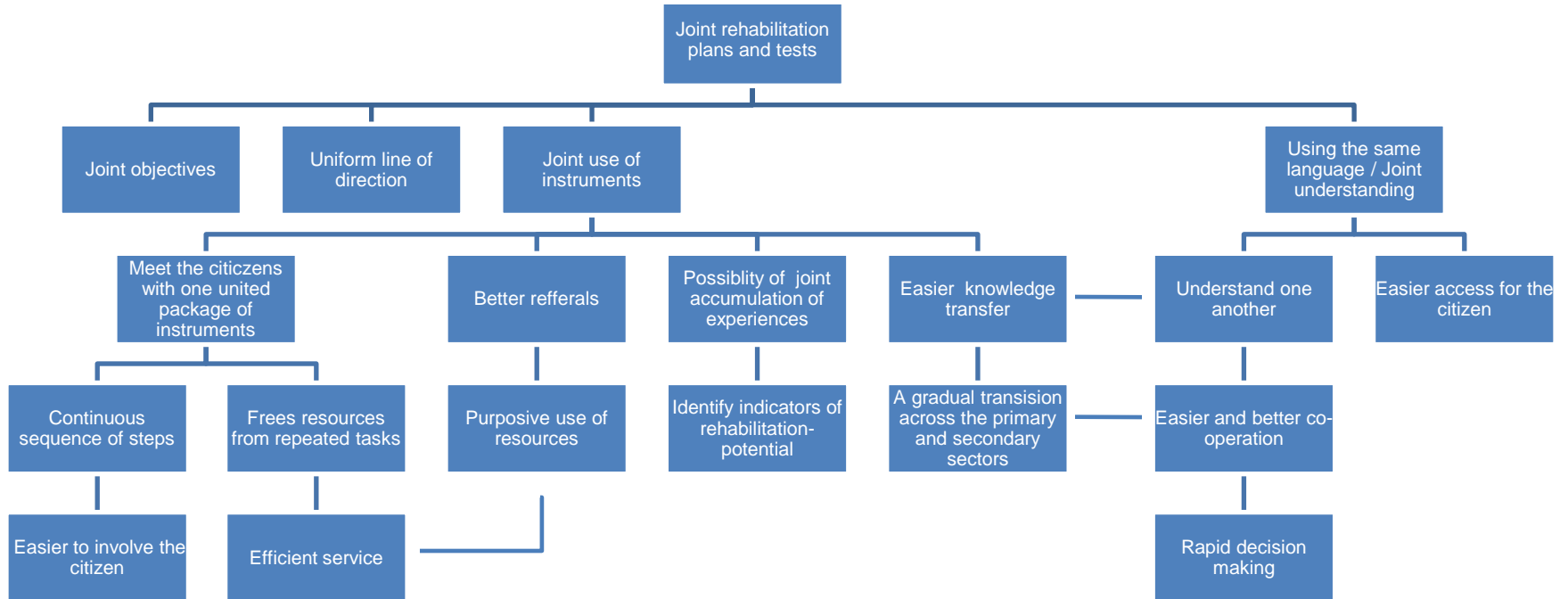
- Synonym: model, conceptual framework linking the interventions to the projected outcomes, articulated logic of programs
- Benefits
 - Clarify their assumptions and implicit theories
 - Detect implausible assumptions
 - Use that theory or model to choose the criteria which are to be measured and that will indicate successful implementation and desirable outcomes
 - Identify the intermediate results rather than just the final outcome



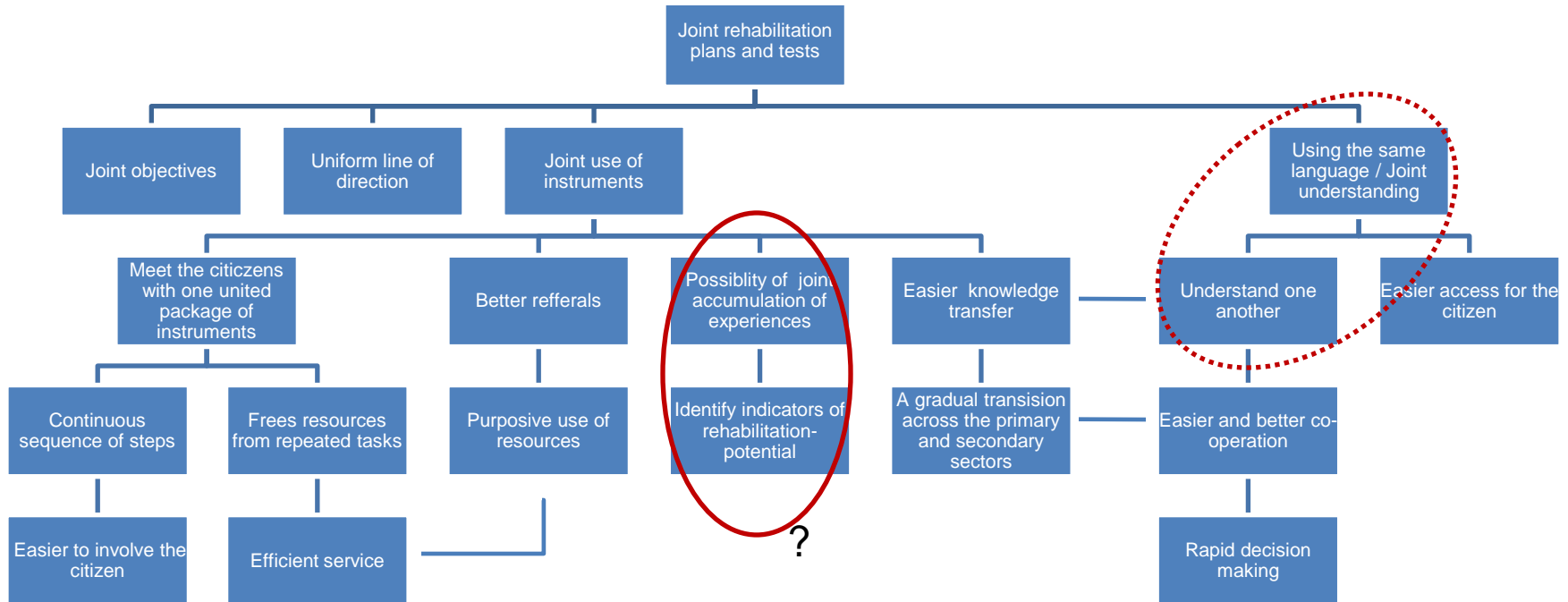




Articulated logic



Halfway evaluation / preliminary results



Conclusion

- Interdisciplinary coordination of processes across the primary and secondary sectors has been established
- There is agreement on joint rehabilitation plans
- A coordination center has been established
- Agreement on a collaboration accord (new ways of working together)
- Educational activities have started

- So far it seems employee satisfaction has improved
- We do not know yet whether or not we will be able to identify indicators of rehabilitation-potential
- The effect on citizens suffering from ABI is still unknown



Questions?



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Communication and
Psychology

Acknowledgement

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- Aalborg Kommune and other stakeholders
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