

Identifying best practices for care-dependent elderly by  
Benchmarking Costs and outcomes of Community Care



# Performance III: Benchmarking Psychosocial Needs

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# Psychosocial factors in personal services

Avedis Donabedian (1966) – Quality:  
three level model

Structure – Process – Outcome



Needs of customers & clients address the

**interpersonal quality:**

Relation between

the care provider and clients (Bruhn, 2008)

# What do we know about this relation?

Indicators that psychosocial needs can be satisfied  
in the **PROCESS** of the production of care.

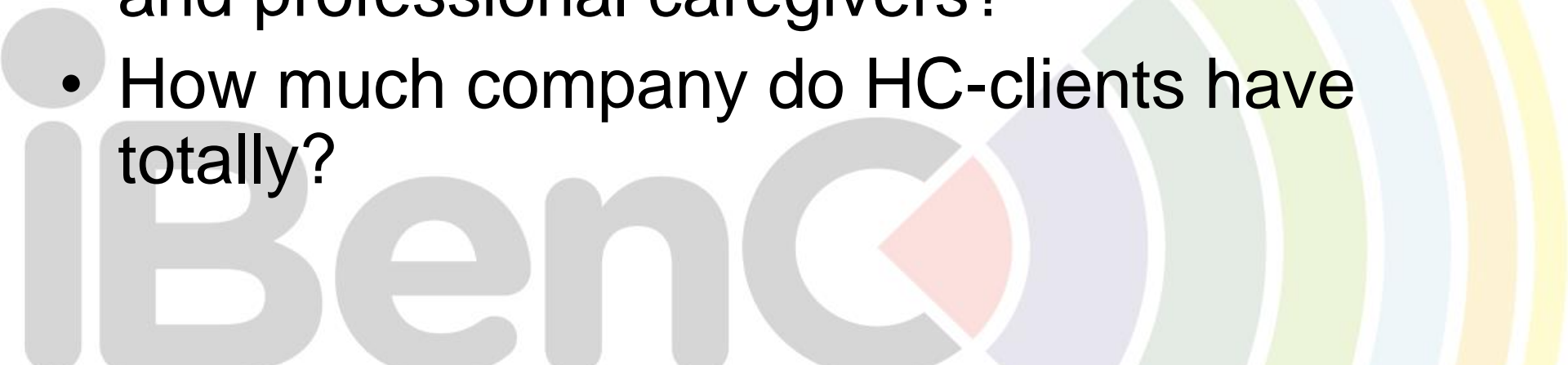
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**Familiarity**  
**Social embedding**  
**Frequency of contacts**  
**Collaboration (formal/informal)**  
**Presence and company**

# Questions

- How familiar are HC-services with their clients?
- What do the social embedding + informal arrangements look like?
- How frequent are the care contacts? Do they depend on collaboration between informal and professional caregivers?
- How much company do HC-clients have totally?



# Method

- Data collected by interRAI Assessment HC
- $T_0$ : n=2884;  $T_2$ : n=1787 (status 28-10-16)
- $T_0$ : 6 countries;  $T_2$ : 5 to 4 countries
- Caution: sample size changes (if multiple regression)
- Statistics: descriptive & multivariate ( $\chi^2$ , ANOVA, logistic and multiple regression); mainly SPSS or R.



# Familiarity

**operationalized** as the duration of care provision (in months) from the opening of the case by this agency until baseline ( $T_0$ ).

Clients were served **45.37 months, on average = 3.8 years**

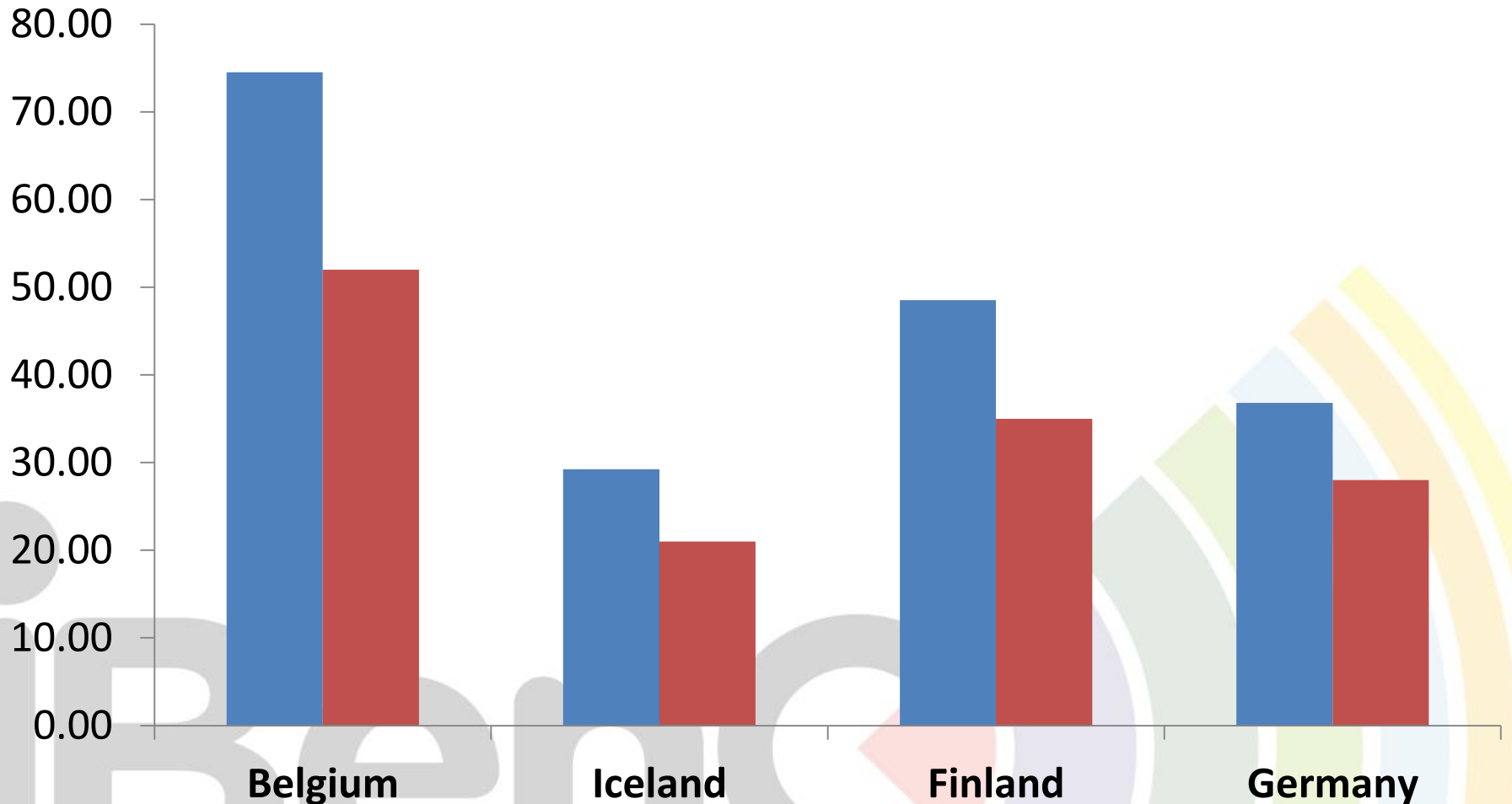
(SD = 44.87, min = 1, max = 319) by the same agency.

**Conclusion: Care providers seem to know their clients!**

However: Differences between countries  
*Caution: only four countries were included.*

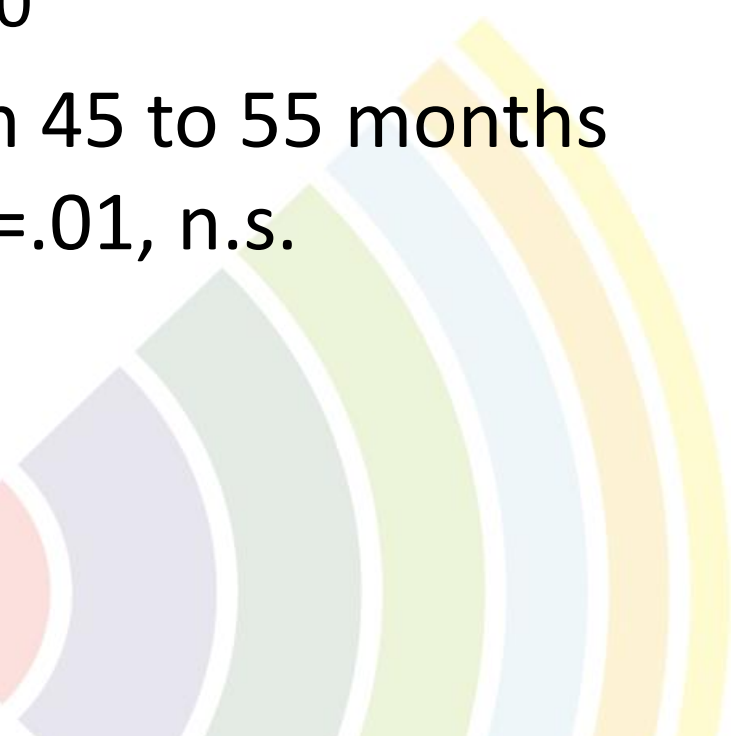
# Duration (month) in four countries

■ Mean ■ Median



## Also within countries huge differences between agencies

- **Belgium:** from 21 to 109 months = 9 years  
 $F(15,92.80)=14.11$ ;  $p=.000$ ;  $\eta^2=.13$
- **Germany:** from 22 to 59 months  
 $F(17,117.09)=2.91$ ;  $p=.000$ ;  $\eta^2=.10$
- Less different: **Finland:** from 45 to 55 months  
 $F(2,285.95)=2,99$ ;  $p=.058$ ;  $\eta^2=.01$ , n.s.
- **Iceland** one agency only!



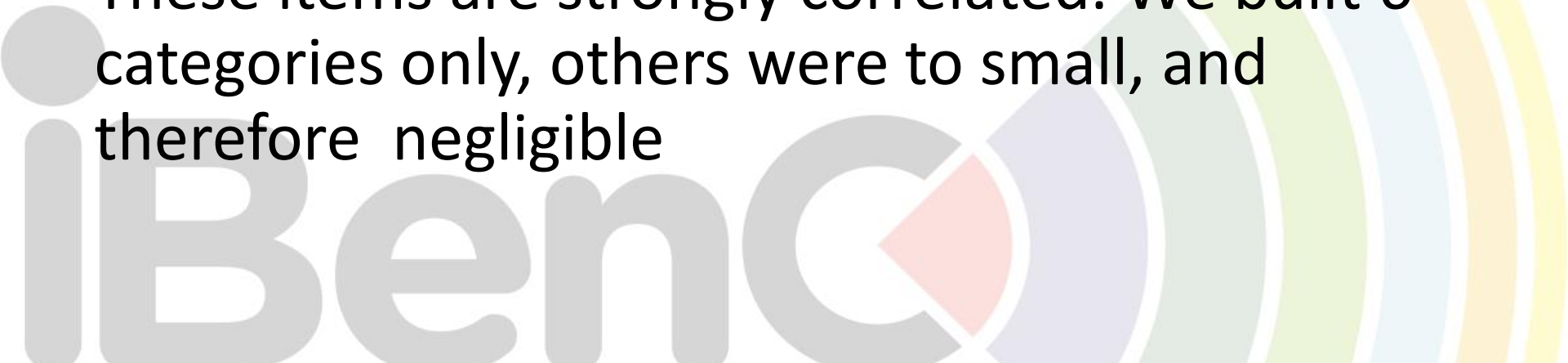


# Social embedding

Categories / patterns created from items:

- Family status,
- Living arrangement,
- Availability of informal caregivers,
- Who helps informally?
- Does the helper live with?

These items are strongly correlated. We built 6 categories only, others were too small, and therefore negligible



## Prevalence of social embedding in the sample

<b>A:</b> Married, partner lives with+helps	21.7%
<b>B:</b> Married, partner lives with, child(ren) help	6.0%
<b>C:</b> Widowed, child(ren) live with+help	12.9%
<b>D:</b> Widowed, live alone, child(ren) live <b>extern+help</b>	40.8%
<b>E:</b> Widowed, live alone, no informal care/help	13.3%
<b>F:</b> Never married, live alone, relatives or non-related help	5.3%

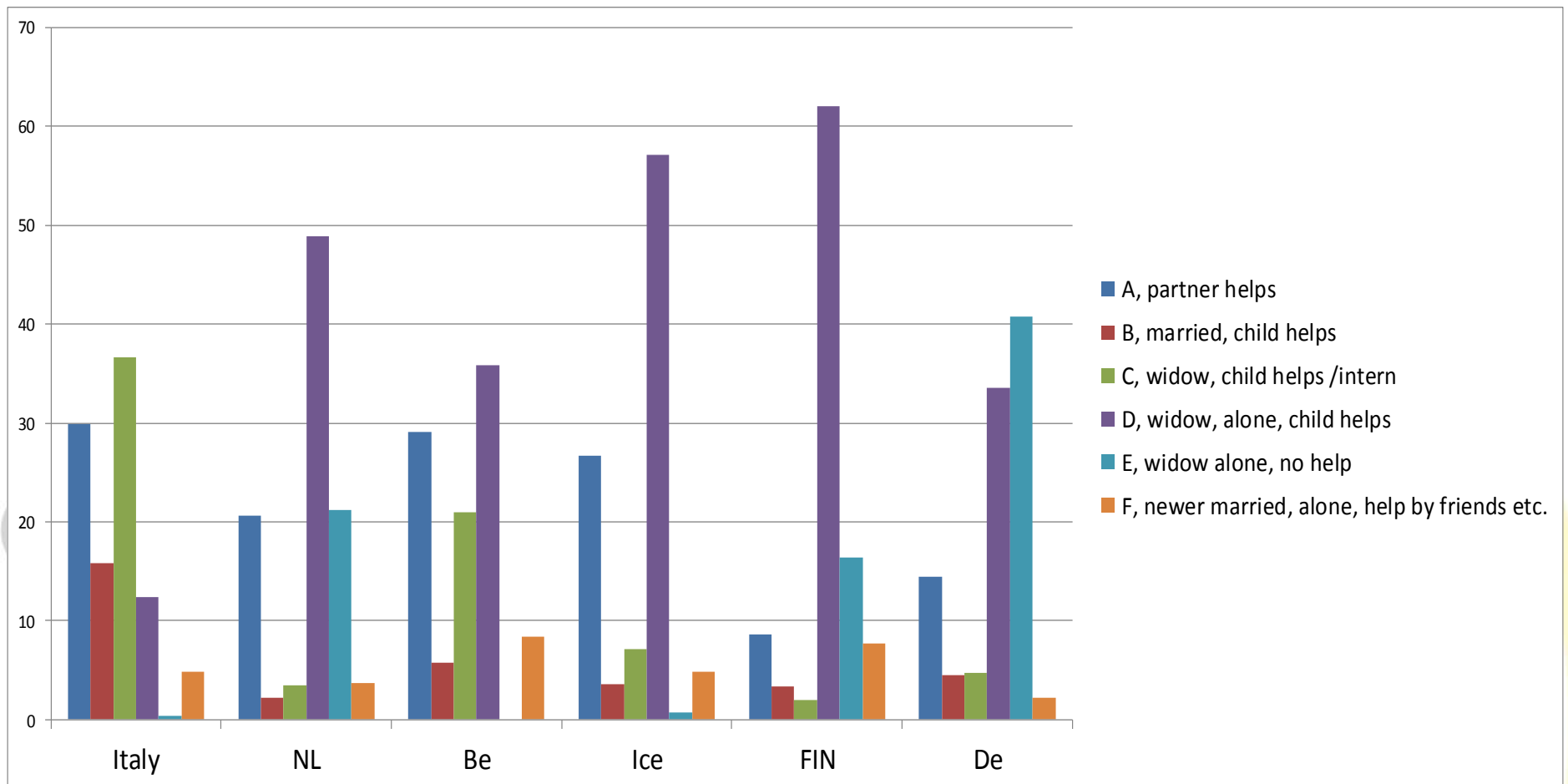
# Embedding: Typical patterns in countries

Embedding varies in countries

n=2884, %,  $\chi^2(df=25)=1250.89$ ,  $p<.001$ , Cramer's  $V=.30$

- Common living in Italy= widowed person live with helping child(ren) in common household
- Separated living in Finland=(widows live alone, externally living child(ren) help(s))
- Single living and housing in Germany (widows, live alone, no informal caregivers)

# Patterns of social embedding in countries



# Back to care DURATION

## Which factors do probably influence it?

We investigated:

- Social status
- Functional health (interRAI scales)
- Selected diseases + health problems  
(probably effectuating need for professional care)



# Results: Factors influencing care duration

(bivariate analysis)

- **Social:** all categories of **social embedding** have effects. Post hoc tests: widows with helping child (extern) + widows alone without help = longest stay. Living with helping partner = shortest stay. **Feeling of loneliness:** slight prolongation.
- **Health:** Incontinence bladder + bowel, risk of falls, pain, risk of PU= longer care duration; diabetes: slight prolongation.

# Results: Factors influencing care duration

(multivariate regression)

- **Social:** social embedding classes predict total care duration. Extension: 5<sup>th</sup> category: widows, no help, 3<sup>rd</sup> category: widows, help by a child-extern (+20.8 or +16.8 months). Reduction: 1<sup>st</sup> category = -5 months.
- **Health:** Extension: Incontinence /bladder = + 9 months. Reduction: Aphasia + high CHES-score.

## Some country differences! E.g.:

- Low BMI cuts the duration by 26 months in Be.
- Delusions doubled the duration in FIN. Extension also: schizophrenia.
- $R^2=.24$ ,  $p.000$

# **Distribution of contacts per week to professional caregivers differs in countries**

Italy: 63.5% no contact last week prior assessment;  
23% get home health aide only

## **Combined services in the same week:**

38.9% German clients get nurse, home health aide + home making (highest number of contacts /week)

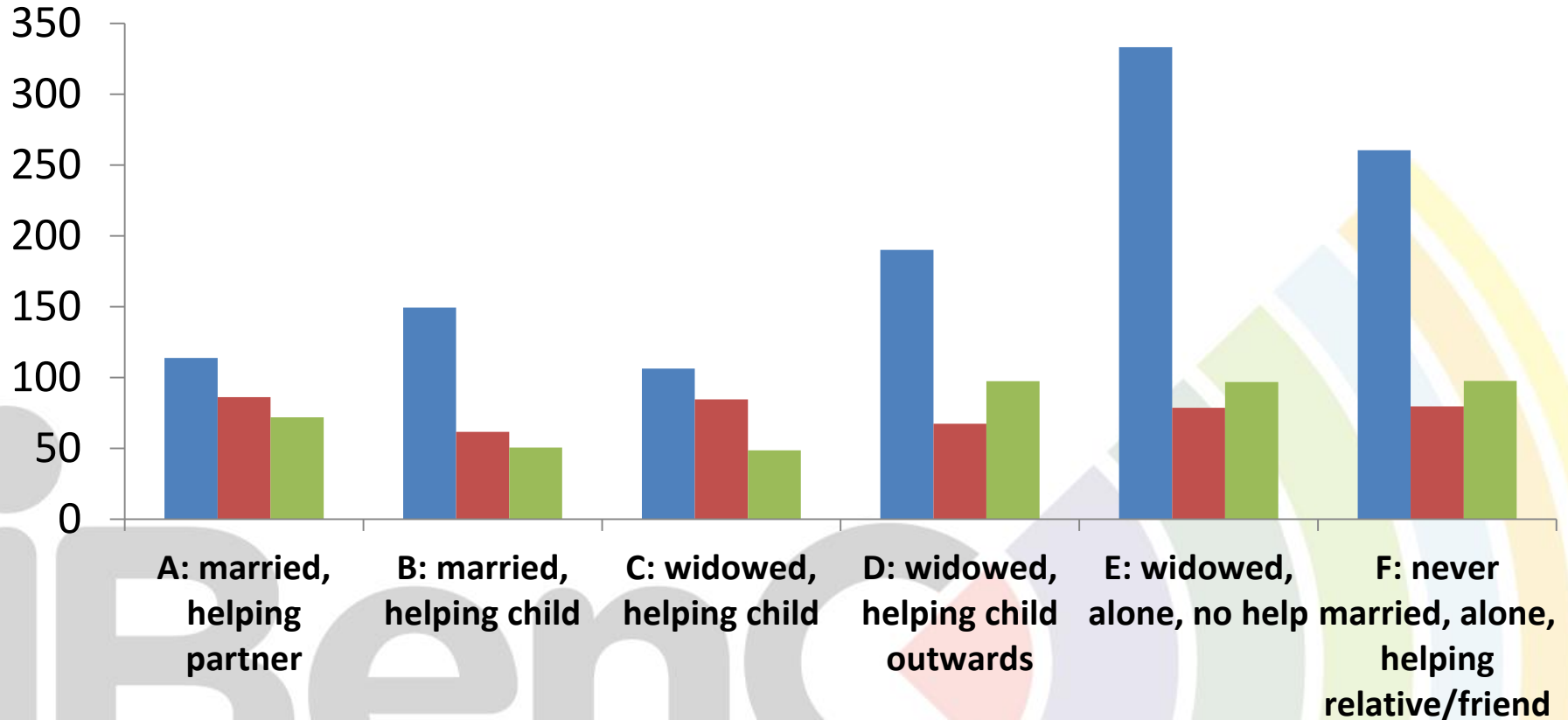
50.7% of NL-clients get nurse + home making

38.2% of Finish clients get nurse + home health aide



# Social Embedding Patterns and Professional Care

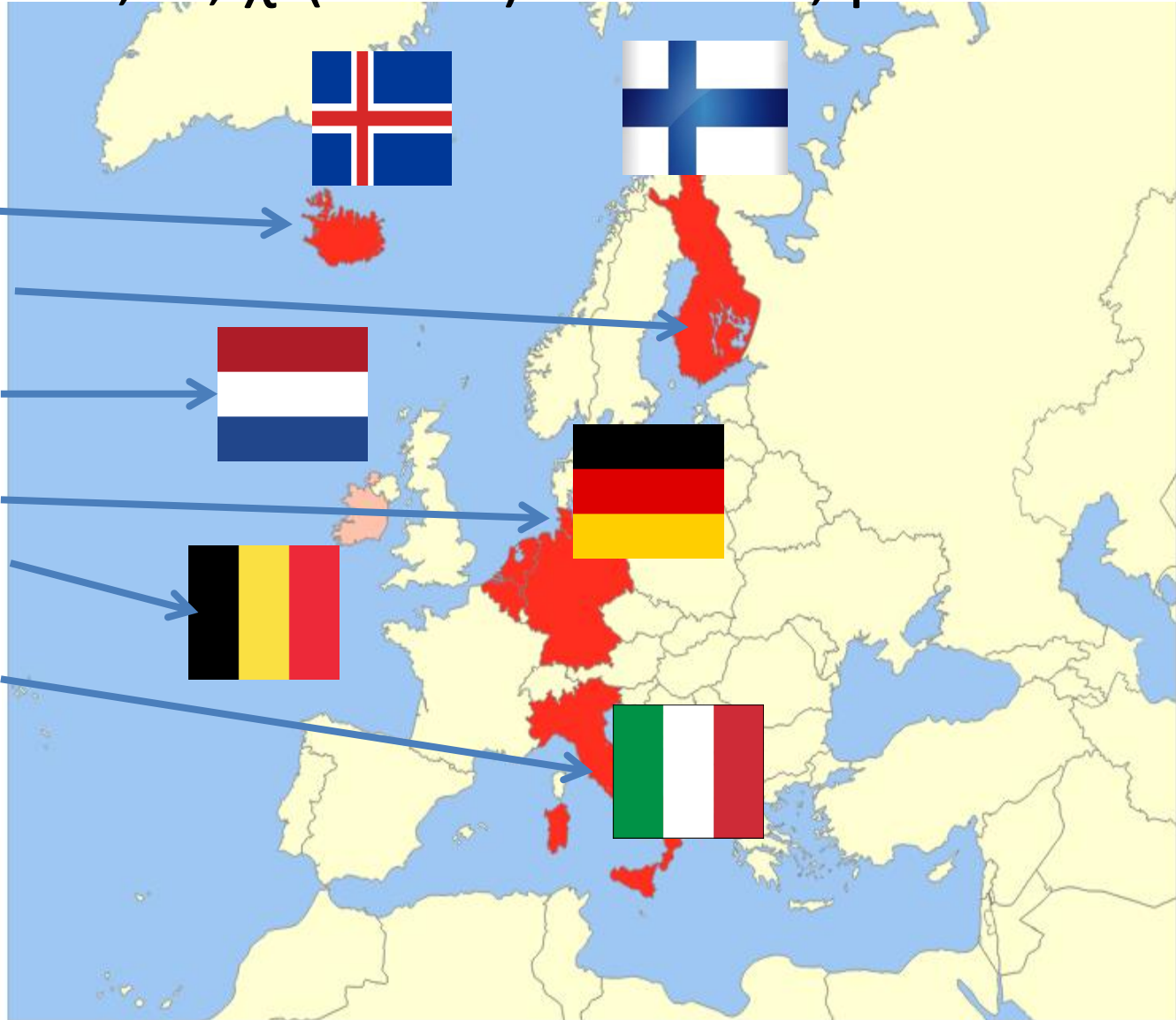
- Home Health Aides: Minutes per Week
- Home Nurse: Minutes per Week
- Home Making: Minutes per Week



# Clients spend >8 hours alone during daytime

n=2853, %,  $\chi^2(df=15)=552.634, p<.001$

Ice	31.0
Fin	38.4
Be	28.4
De	37.0
NL	41.1
Italy	8.5
Ø	30.7



# Feeling of loneliness at baseline

n=2858, %,  $\chi^2(df=5)=84.82, p<.001$



Ice 20.2

Fin 23.3

Be 25.8

De 28.0

NL 31.2

Italy 8.9

∅ 23.5

# Predictors of loneliness at baseline

## „Predictors in a „full model“:

- Time spent alone: OR=2.21,  $p < .001$
- Depression: OR=1.96,  $p < .001$

## Different predictors in countries, e.g.

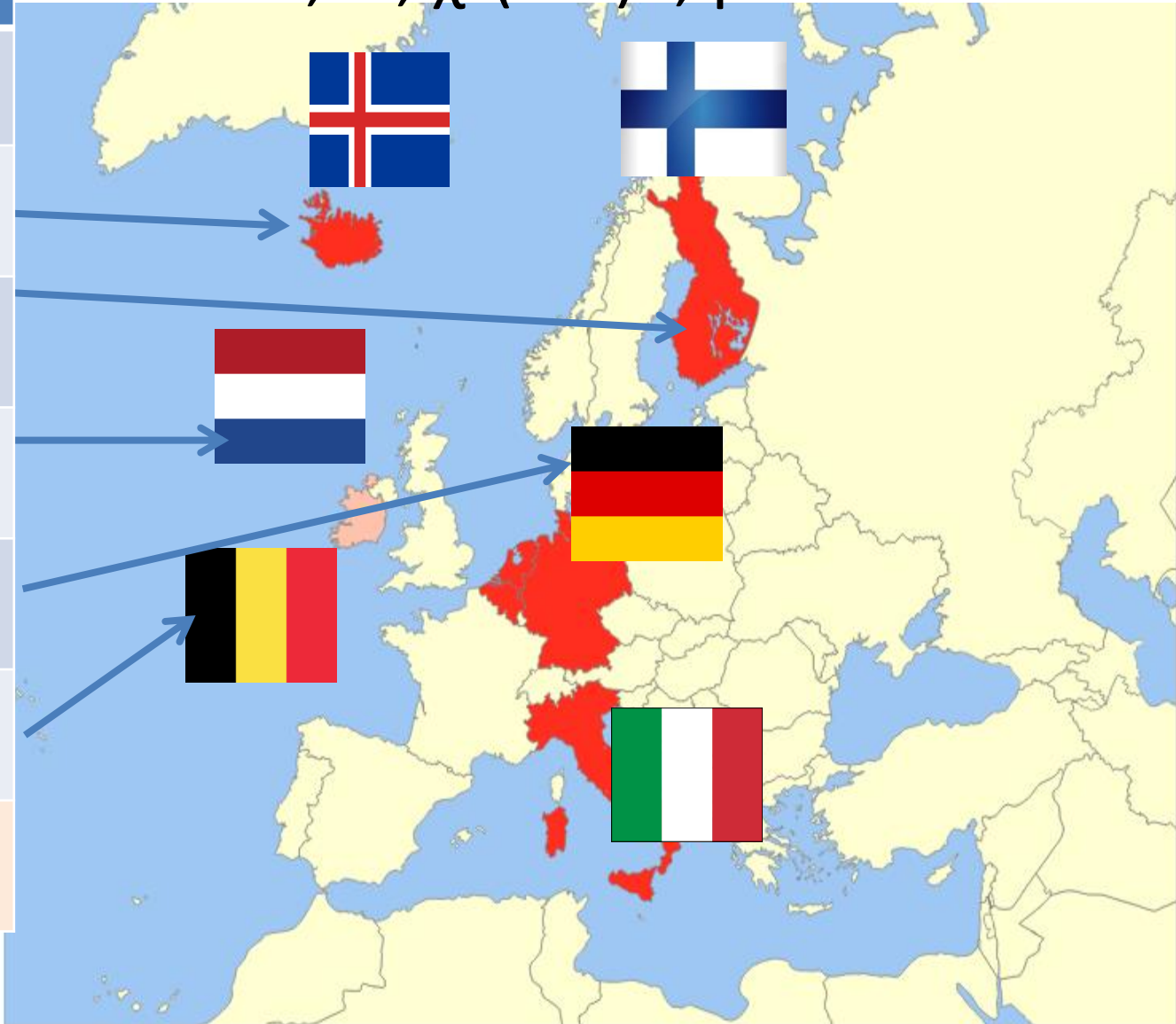
- Age in Italy: OR=0.70,  $p < .005$  (but age increases loneliness in other countries, OR=1.4 to 1.5)
- Depression Finland: OR=3.66,  $p < .03$
- PSW- Need for time algorithm Iceland: OR=2.14,  $p < .04$

Predictor of change after 1 year: DEPRESSION  
OR=0.92,  $p < .03$ , no other factors

# Change after 1 year

n=, %,  $\chi^2$ (df=)=, p<.001

Loneliness		
	Not more	yes now
Ice	12	15.6
Fin	4	10.2
Be	17.8	21.3
De	6.6	4.1
NL	13.8	6.6
∅	10.2	11.7

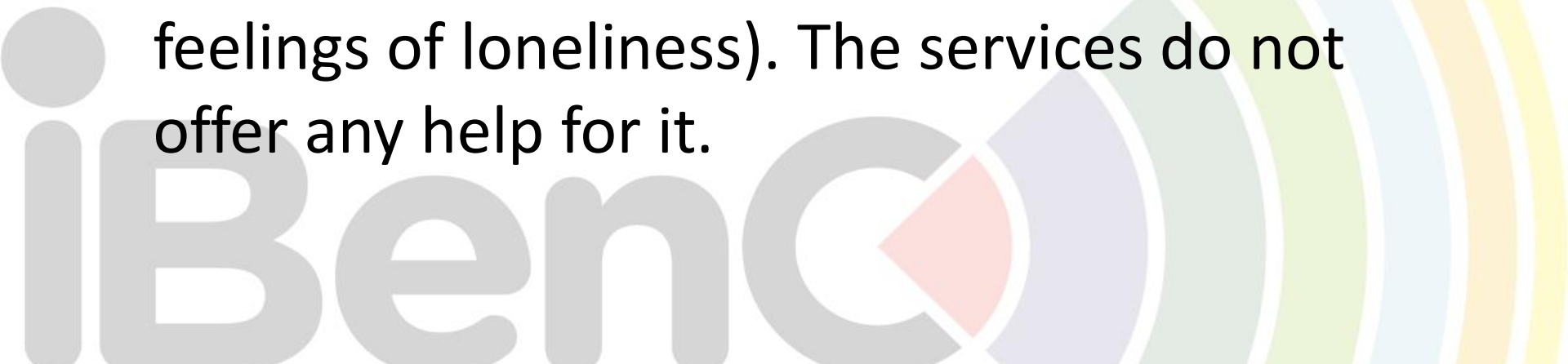


# Conclusion I

- Organizations/agencies are supposed to be familiar with their clients (Reason: duration)
- Care duration depends on social embedding, Incontinence, to a certain degree also on other factors (risk of PU & falls, pain). Care by partner slightly reduces the duration.
- Social embedding differs. In some countries, the responsibility for care is mainly with the informal network, less with professional organizations.

# Conclusion II

- **Future steps of analysis have to address the contribution of the informal network to the QIs.**
- The problem of loneliness remains unsolved, probably because a significant proportion of clients is alone most of the daytime (=staying alone is the most prominent predictor for feelings of loneliness). The services do not offer any help for it.



**Thanks to members of the international IBenC-Team!**

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