Formal and informal care hours provided to elderly home care clients in Finland

Anja Noro, PhD, Research Director, Adjunct professor (gerontology)

Harriet Finne-Soveri, MD, Chief of the Unit, Adjunct professor (geriatrics)

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Aims

- Living at home with or without home care is seen as the best solution for managing the growing number of elderly people in the population

- Increasing the amount of informal care is one aim

- Allocating and targeting services efficiently according to client needs is even more important in home care services

- Purpose of this study is to analyze what kind of care profiles are associated with formal home care hours and informal care hours

Materials and Methods

- The home care client data (n=13502 in 2011) was drawn from the RAI (Resident Assessment Instrument) database kept by National Institute for Health and Welfare (THL).

- RAI home care assessments of home care clients are conducted by home care staff semiannually and copy of these assessments are sent to THL.

- Home care clients in the data set represent about 21 % of all regular home care clients in Finland.

- The dependent variables were
  - formal hours provided during past seven days (n=13502)
  - Informal hours among those having informal care during past 7 days (n=9104).

Need for services assessment in RAI-HC

- Method for Assigning Priority Levels (MAPLe), Hirdes et al. 2008.
  - Developed for assessing service needs for home care clients
    - Algorithm has five main levels (from low service need to very high service needs) and
    - fifteen sub-groups that indicate the type of service needs of the clients
  - Predicts among home care clients
    - Institutionalization
    - Informal carer stress
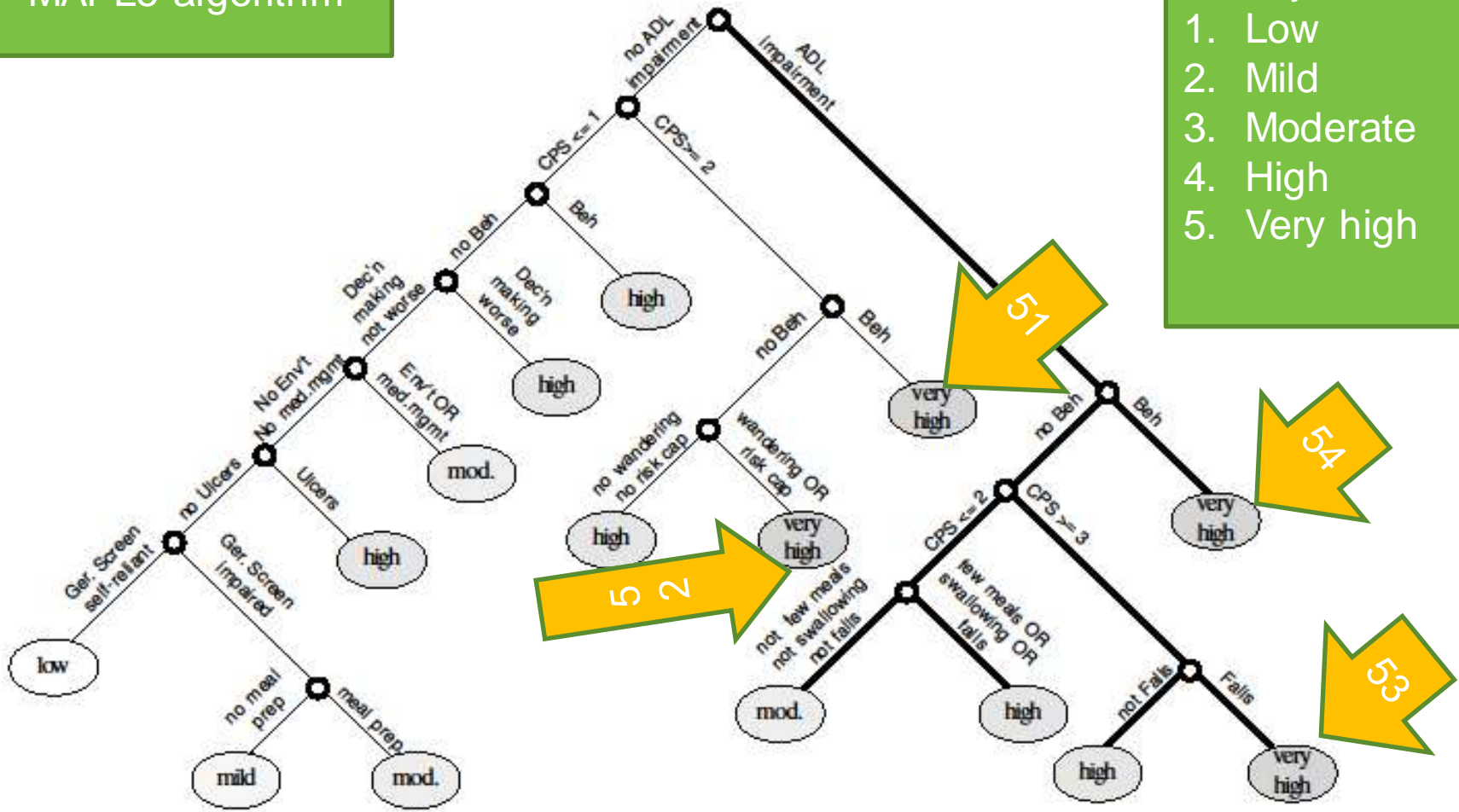   - Mortality

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MAPLe algorithm

Priority Levels
1. Low
2. Mild
3. Moderate
4. High
5. Very high
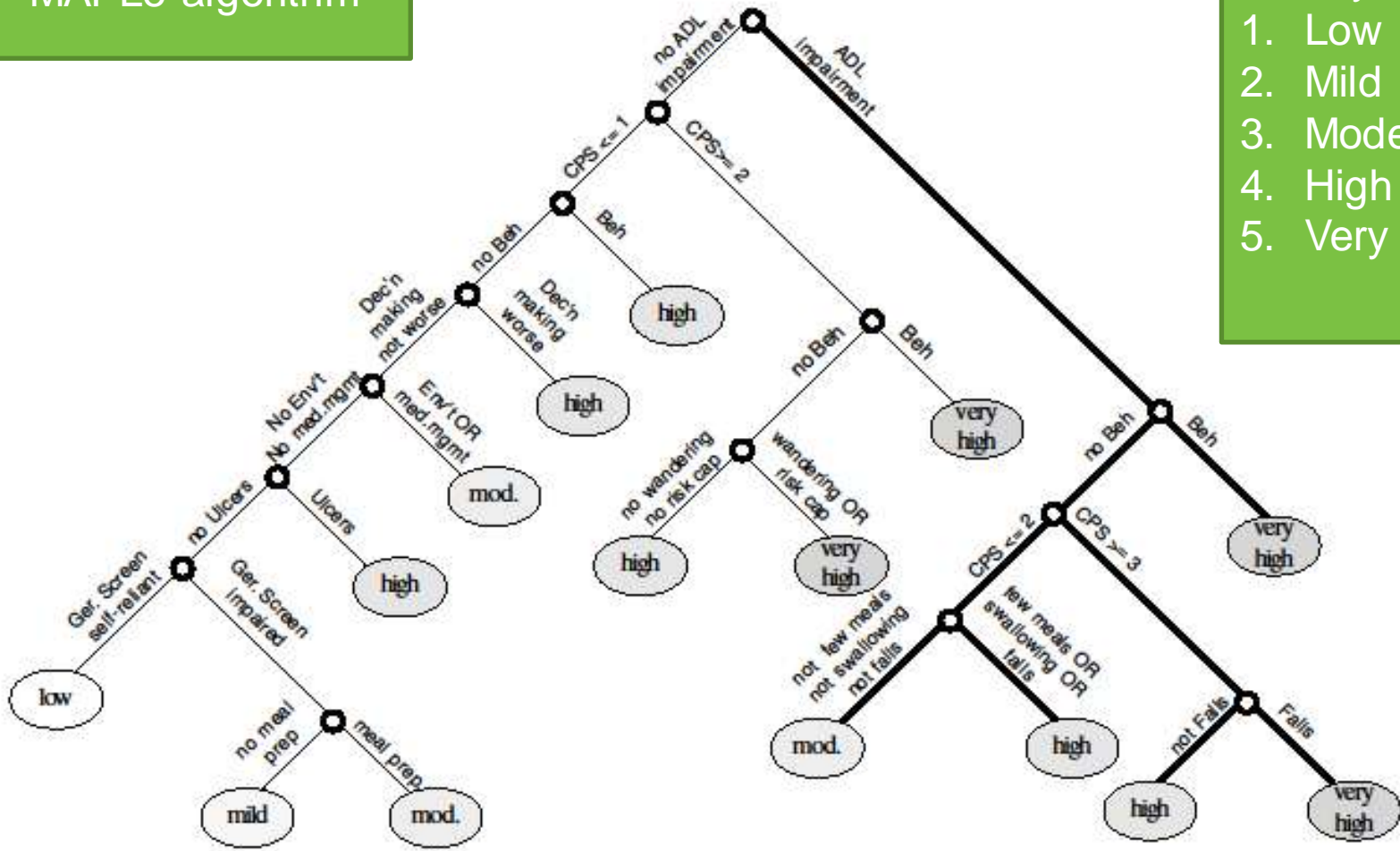
Typology – 1, 2, 31,32,33, 41,42,43,44,45,46, 51,52,53,54
Low Mild Moderate High Very high

Figure 1

Figure 1

Characteristics of home care clients (n=13502) in 2011 in Finland (RAI-HC)

	Has an informal carer (n=9104)	No informal care (n=4398)	All (n=13502)
Age, mean	81.4	77.0	80.2
Sex, women, %	69.0	81.0	71.6
New client, %	11.0	9.0	10.0
Staff time, hours	4.9	4.6	4.8
Informal time, hours	15.5	-	

63,4% had an informal carer

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Does amount of formal home care given to clients with and without an informal carer differ? Results:

A. Home care clients with informal care
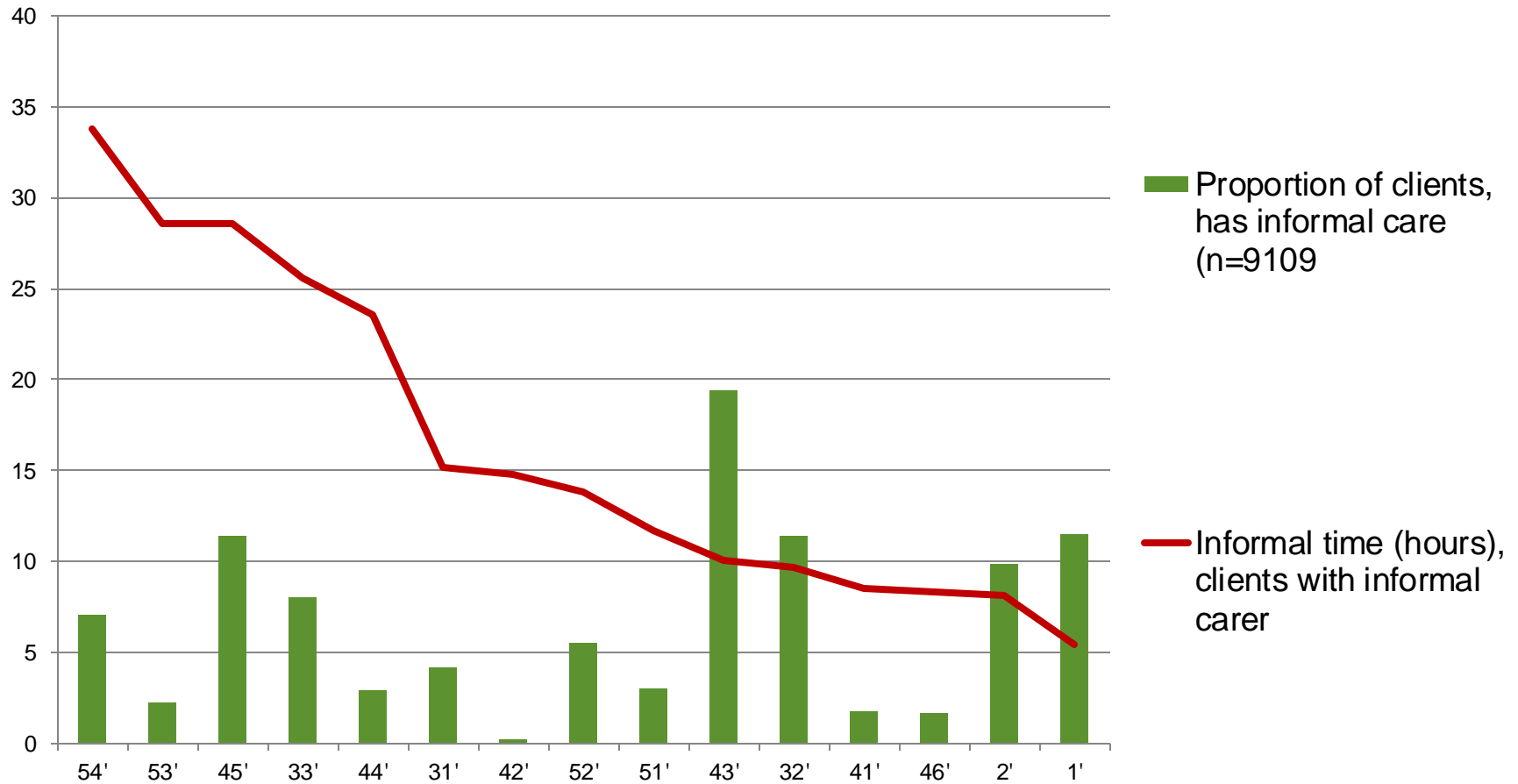
B. Home care clients without informal carer

C. Regression models

    - all home care clients

    - home care clients with informal care

Distribution of home care clients with informal care by MAPLe (15) sorted by amount of informal care hours (n=9104)

Legend:
- **Proportion of clients, has informal care (n=9109**
- **Informal time (hours), clients with informal carer**

Distribution of home care clients with informal care by MAPLe (15) sorted by amount of informal care hours (n=9104)

- 54 decline in ADL and behavioral problems
- 53 moderate decline in ADLs and cognition, and falls
- 45 moderate decline in ADLs and cognition
- 33 mild decline in ADLs and cognition, no special problems
- 44 ADL decline, mild decline in cognition, has nutrition problems or falls

43 mild physical decline, moderate decline in cognition

Proportion of clients, has informal care (n=9109

Informal time (hours), clients with informal carer

Chart x-axis categories: 54' 53' 45' 33' 44' 31' 42' 52' 51' 43' 32' 41' 46' 2' 1'
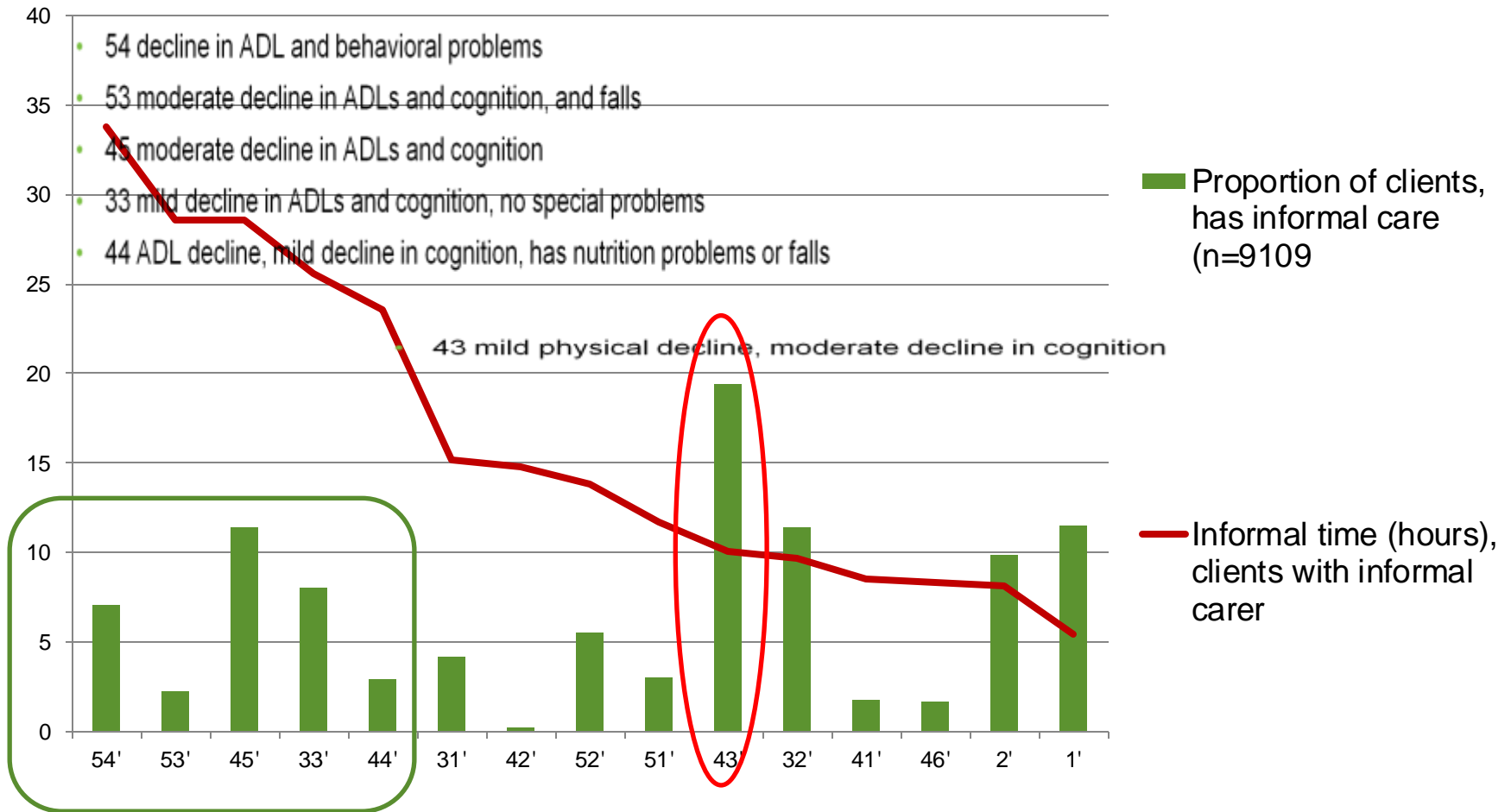
Distribution of home care clients with informal care by MAPLe (15) sorted by amount of informal care hours (n=9104) and amount of staff time (hours) during past 7 days

- 54 decline in ADL and behavioral problems
- 53 moderate decline in ADLs and cognition, and falls
- 45 moderate decline in ADLs and cognition
- 33 mild decline in ADLs and cognition, no special problems
- 44 ADL decline, mild decline in cognition, has nutrition problems or falls
- 43 mild physical decline, moderate decline in cognition

Legend:
- Proportion of clients, has informal care (n=9109
- Informal time (hours), clients with informal carer
- Staff time (hours), clients with informal carer

X-axis categories: 54' 53' 45' 33' 44' 31' 42' 52' 51' 43' 32' 41' 46' 2' 1'

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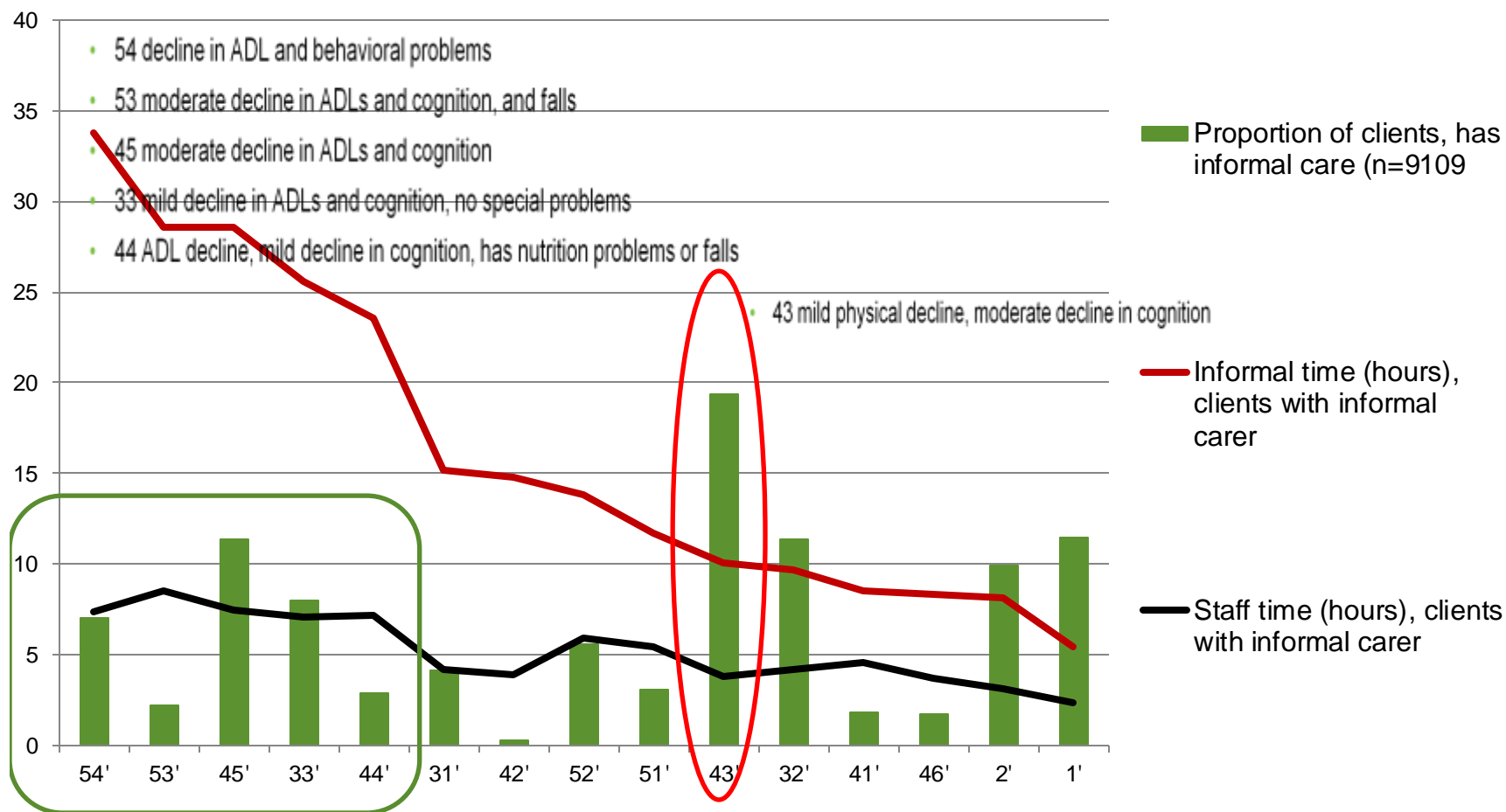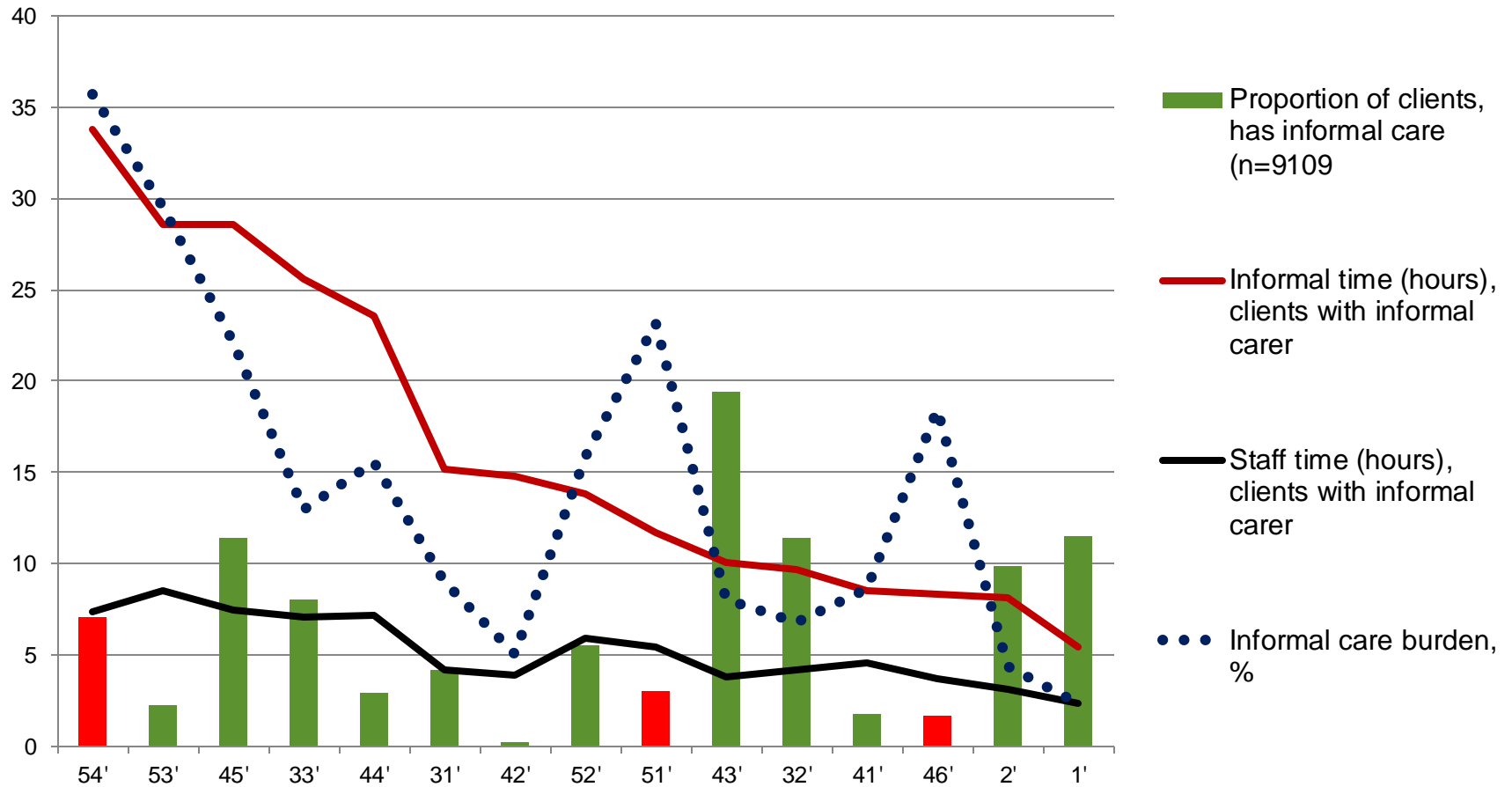
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Distribution of home care clients with informal care by MAPLe (15) sorted by amount of informal care hours (n=9104) and informal care burden (%)

Legend:
- Proportion of clients, has informal care (n=9109
- Informal time (hours), clients with informal carer
- Staff time (hours), clients with informal carer
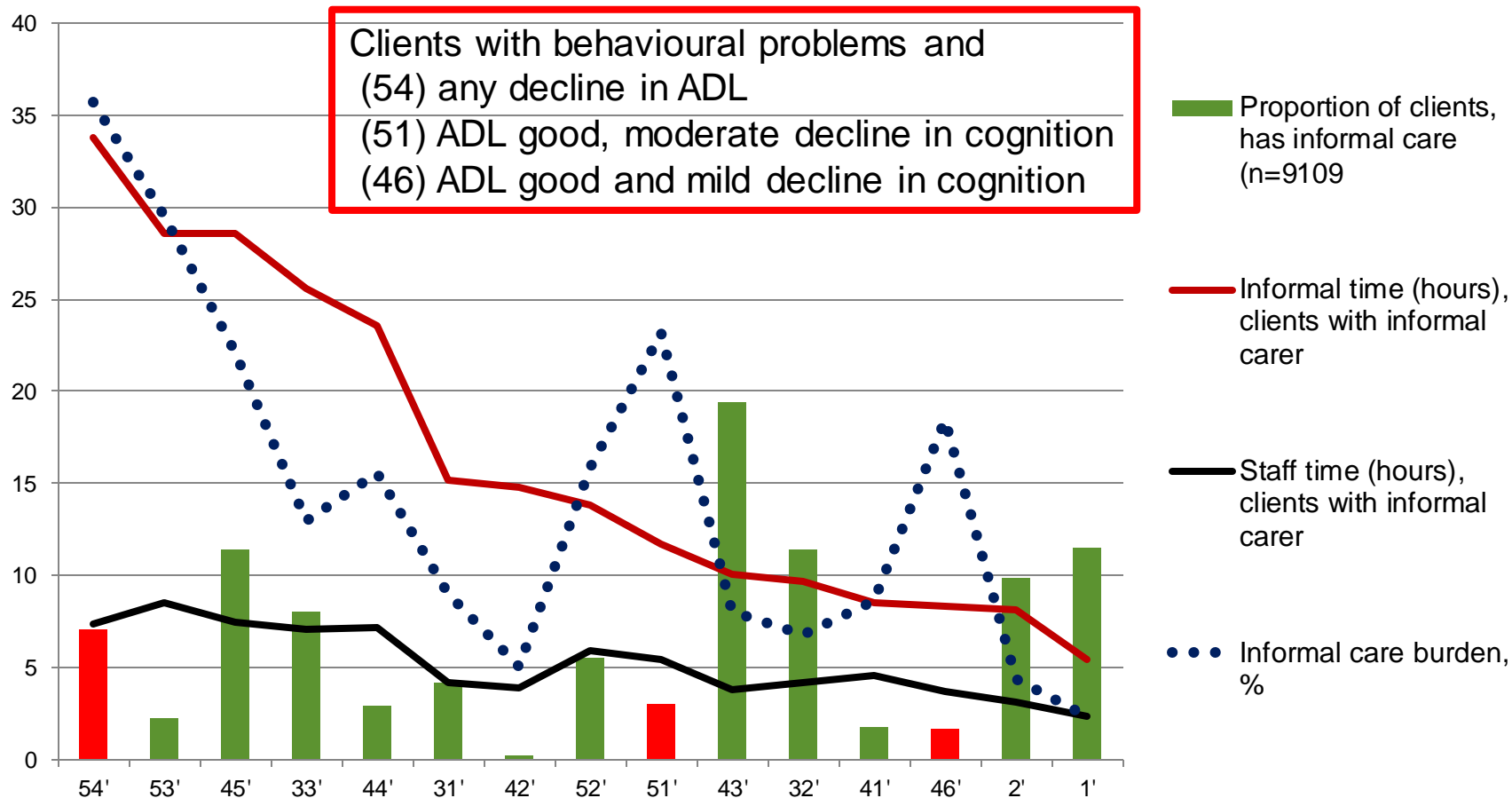- Informal care burden, %

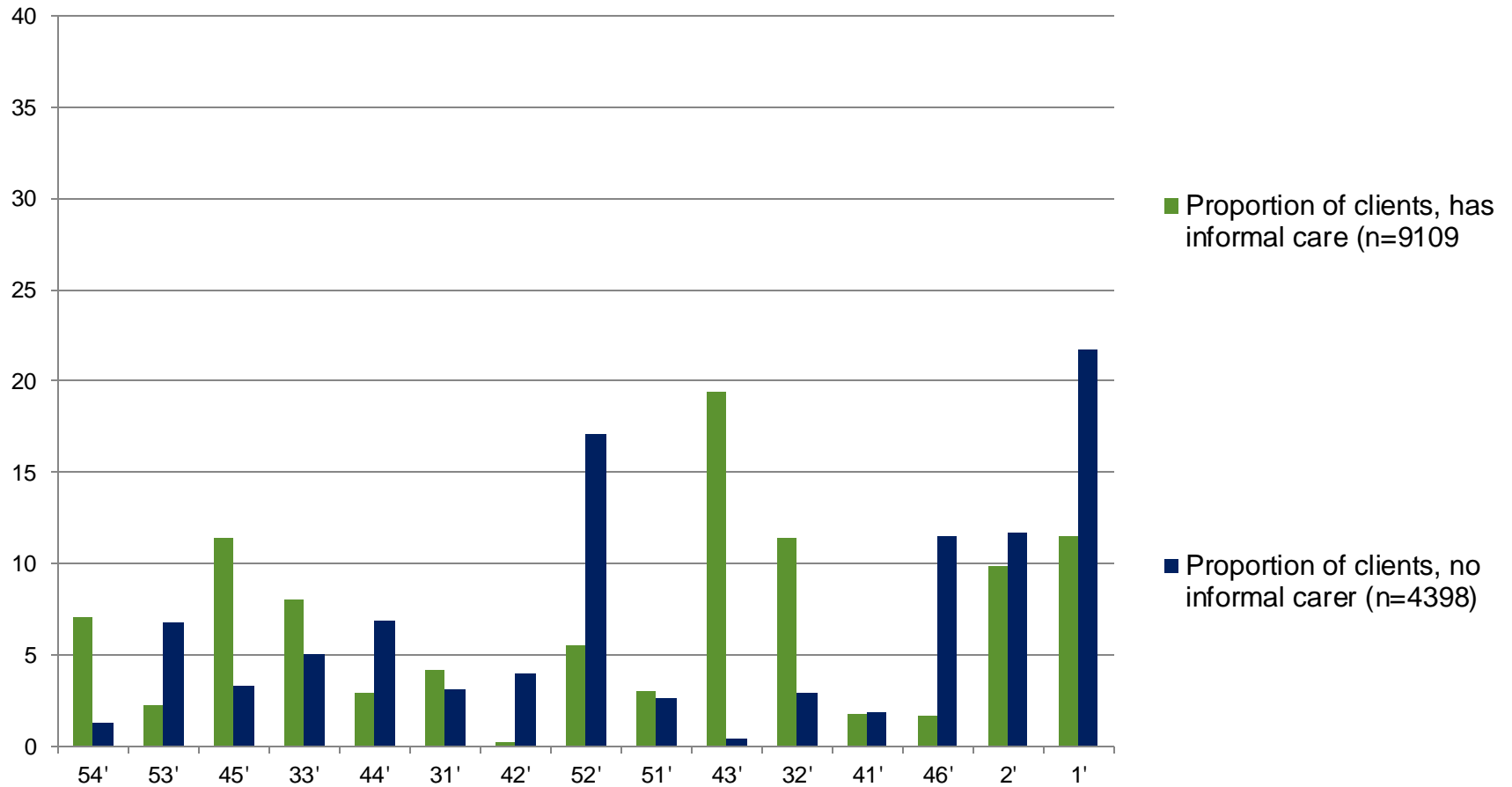NATIONAL INSTITUTE FOR HEALTH AND WELFARE, FINLAND

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Distribution of home care clients with informal care by MAPLe (15) sorted by amount of informal care hours (n=9104) and informal care burden (%)

Clients with behavioural problems and
(54) any decline in ADL
(51) ADL good, moderate decline in cognition
(46) ADL good and mild decline in cognition

Proportion of clients, has informal care (n=9109

Informal time (hours), clients with informal carer

Staff time (hours), clients with informal carer

Informal care burden, %

Distribution of home care clients with informal care by MAPLe (15) sorted by amount of informal care hours (n=9104) and proportion of clients, with no informal carer (n=4398)

Legend:
- Proportion of clients, has informal care (n=9109
- Proportion of clients, no informal carer (n=4398)

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Distribution of home care clients with informal care by MAPLe (15) sorted by amount of informal care hours (n=9104) and proportion of clients with no informal carer (n=4398)
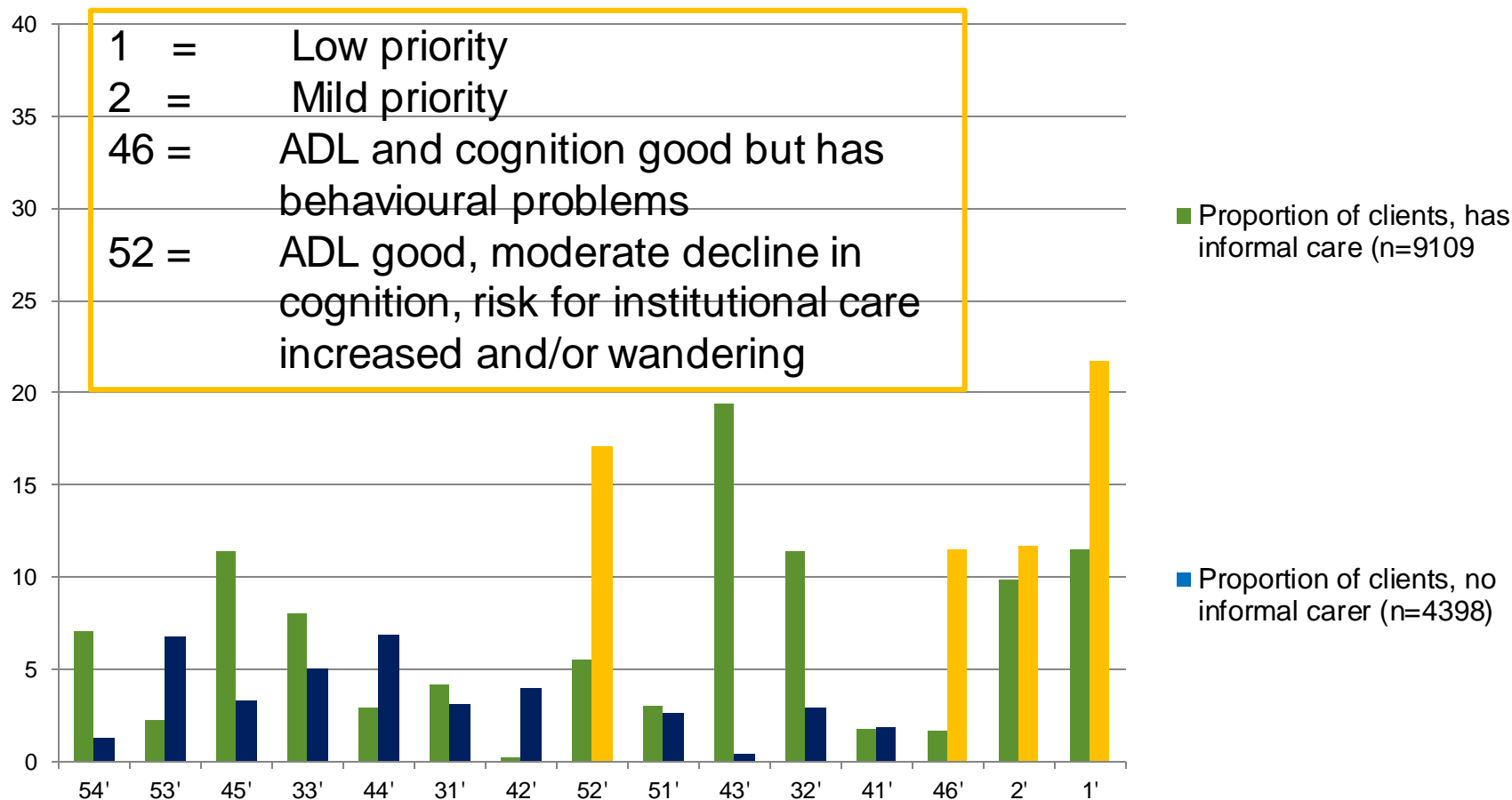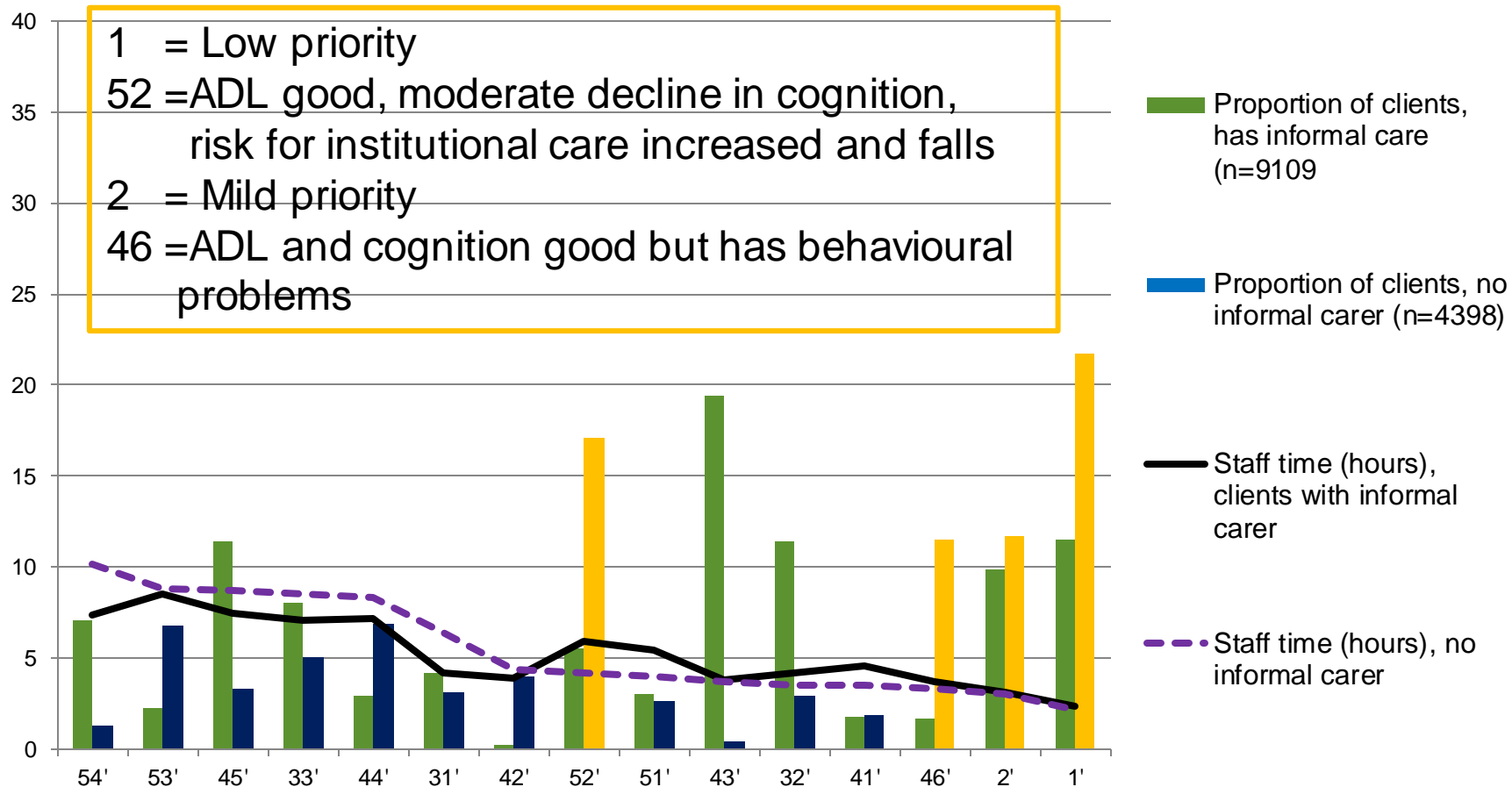

1 = Low priority
2 = Mild priority
46 = ADL and cognition good but has behavioural problems
52 = ADL good, moderate decline in cognition, risk for institutional care increased and/or wandering

■ Proportion of clients, has informal care (n=9109

■ Proportion of clients, no informal carer (n=4398)

Distribution of home care clients with informal care by MAPLe (15) sorted by amount of informal care hours (n=9104) and staff time among those without informal carer (n=4398)

1 = Low priority
52 = ADL good, moderate decline in cognition, risk for institutional care increased and falls
2 = Mild priority
46 = ADL and cognition good but has behavioural problems

Legend:
- Proportion of clients, has informal care (n=9109
- Proportion of clients, no informal carer (n=4398)
- Staff time (hours), clients with informal carer
- Staff time (hours), no informal carer

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Predictors of home care hours and informal care hours in linear regression analyses

Home care hours (n=13502)

	Parameter Estimate	Pr > |t|
Intercept	4.1	<.0001
Woman	0.6	<.0001
Age	0.0	<.0001
New client	-1.0	<.0001
informal carer	-0.3	0.0054
maple1	-5.5	<.0001
maple2	-4.7	<.0001
maple31	-3.5	<.0001
maple32	-3.8	<.0001
maple33	0.0	0.934
maple41	-3.5	<.0001
maple42	-3.5	0.0012
maple43	-3.8	<.0001
maple44	0.2	0.6918
maple45	-0.1	0.7825
maple46	-3.9	<.0001
maple51	-2.7	<.0001
maple52	-1.9	<.0001
maple53	1.2	0.009
R-Square	10.2	

Informal care hours (n=9104)

	Parameter Estimate	Pr > |t|
Intercept	53.9	<.0001
Woman	-5.2	<.0001
Age	-0.1	<.0001
New client	5.5	<.0001
maple1	-28.0	<.0001
maple2	-24.5	<.0001
maple31	-18.3	<.0001
maple32	-23.1	<.0001
maple33	-8.2	<.0001
maple41	-24.6	<.0001
maple42	-19.9	0.0015
maple43	-23.2	<.0001
maple44	-10.5	<.0001
maple45	-5.0	0.0004
maple46	-26.0	<.0001
maple51	-21.8	<.0001
maple52	-18.3	<.0001
maple53	-4.9	0.0272
R-square	11.4	

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Conclusions

- Variation between the needs of individual home care clients were substantial indicated by care profiles

- The differences in allocating formal and informal care hours according to care profiles were huge

- The amount of informal care was significantly higher than the amount of formal care – particularly in the higher priority levels

- Informal care burden was associated with behavioural problems rather than amount of informal time; thus informal carers need more support to handle these difficult situations

- The balance between informal and formal care need to be studied further as well as support mechanisms for informal carers; what is the role of home care agencies in supporting informal care?

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