

# Technology-based support services beneficial for family carers in rural areas.



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# The rural context

- Long distances to service
- Fewer available formal services
- Depopulation
- Large proportion of older people
- Many chronically ill cared for at home by spouse
- Lack of health-care professionals

*There is a need for new ways to support rural carers!*

Can technology-based support be as good as traditional support?



Or at least  
good enough?

# Definitions of Rural

EU/OECD - less than 150 inhabitants per km<sup>2</sup>

Sweden - less than 7 inhabitants per km<sup>2</sup>

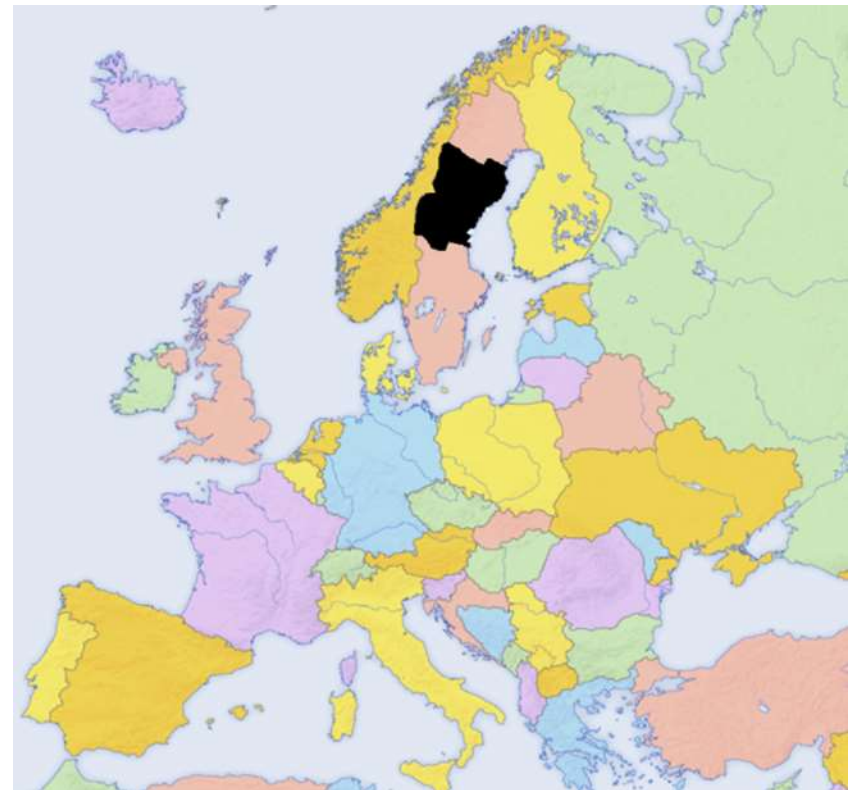


Our area:  
4,5 inhabitants per km<sup>2</sup>



## Europe

Population: 381 552



# A study with comparative design

- Spouse carers > 65 yrs (n=95)
- Intervention group - technology based carer support
- Control group – traditional carer support
- Long term follow up after 1,5 years
- Qualitative and quantitative measures

Data	Analysis
Web-camera interviews Telephone interviews	Content analysis "
Questionnaires	Logistic regressions Comparative statistics

Variable	All Participants n=95	Intervention Group n=63	Control Group n=32
Caregiver age, mean (range)	74(65-85)	74(65-85)	75(65-84)
Care recipient age, mean (range)	76(65-97)	76(65-97)	77(65-89)
Gender of caregiver			
Women	65(68%)	45(71%)	20(62%)
Men	30(32%)	18(29%)	12(38%)
Care recipients with dementia	36(40%)	27(43%)	9(28%)
<b>Previous experience of using computer</b>			
<b>Much experience</b>	<b>3(3%)</b>	<b>2(3%)</b>	<b>1(3%)</b>
<b>Little experience</b>	<b>51(54%)</b>	<b>36(57%)</b>	<b>15(47%)</b>
<b>No experience</b>	<b>41(43%)</b>	<b>25(40%)</b>	<b>16(50%)</b>
Level of education			
Primary school	54(57%)	30(47%)	26(81%)
Secondary school	26(27%)	23(37%)	2(5%)
Higher education	15(16%)	10(16%)	4(14%)

# The intervention

ACTION (Assisting Carers using Telematics Interventions to meet Older People's Needs)

Participants had:

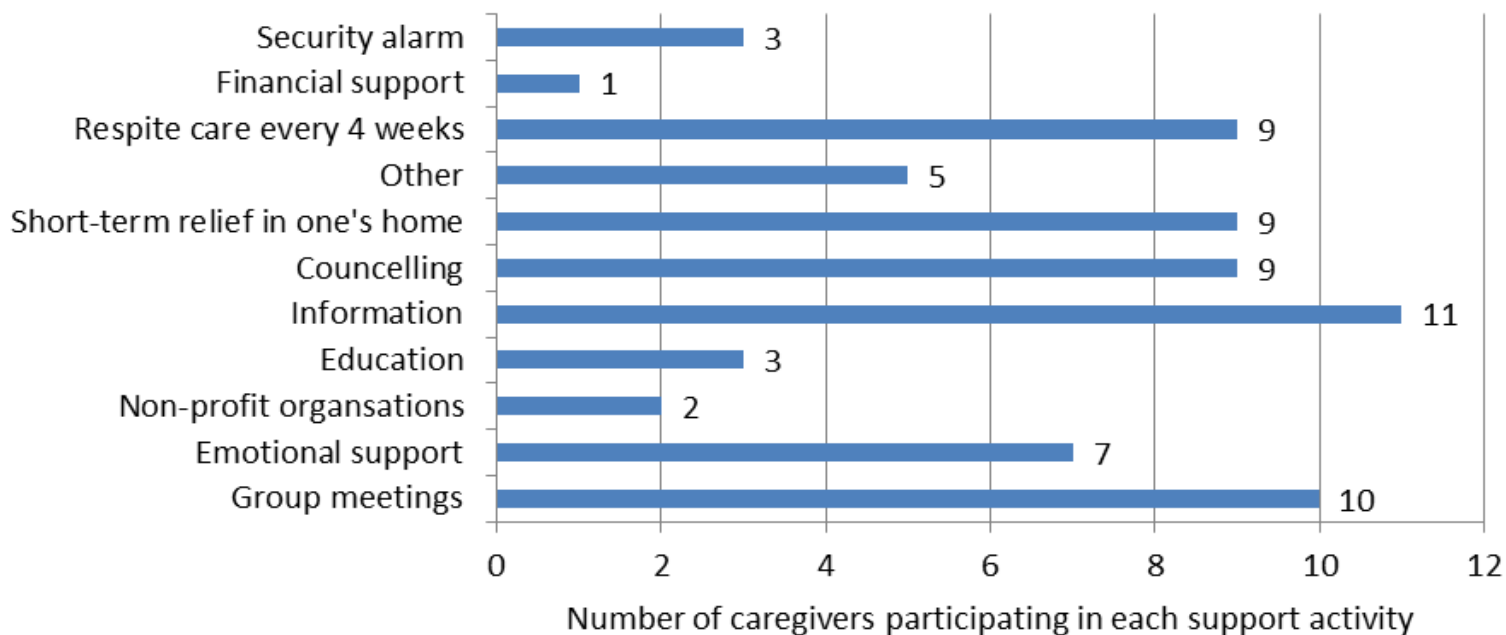
- High speed internet
  - Computer., Webcamera
  - Information- and educational software
  - Games
- 
- Professional support staff
  - On-line community with peers



Foto: Barbro Jansson



## Control group caregiver support



Tot: 69 different support activities.

# Quantitative results - comparison

- Intervention group significantly more satisfied with overall benefits ( $p < 0.002$ )
- Intervention group higher score on
  - preparedness ( $p < 0.008$ )
  - enrichment ( $p < 0.037$ )
  - predictability ( $p < 0.03$ )

Instrument: Carer effectiveness scale CES, (Archbold, Stewart and Miller, 1995)

# Example from content analysis

Comprehensive Theme			
FLEXIBILITY AND AVAILABILITY ESSENTIAL FOR MEETING CARERS NEEDS			
Group	<i>Intervention group</i>		<i>Control group</i>
Category	Flexibility	Availability	Unmet needs
Sub categories	Choosing suitable information	Always someone to ask	Wrong sort of support Limited availability Insufficient support
	Deciding the time of support	Accessible at odd hours	Organisations needs outrank carer's needs
	Matching support activities with current needs	On demand	
..			

# Findings intervention-group

Regaining a position in society

Pride,  
Self esteem,  
Digital inclusion

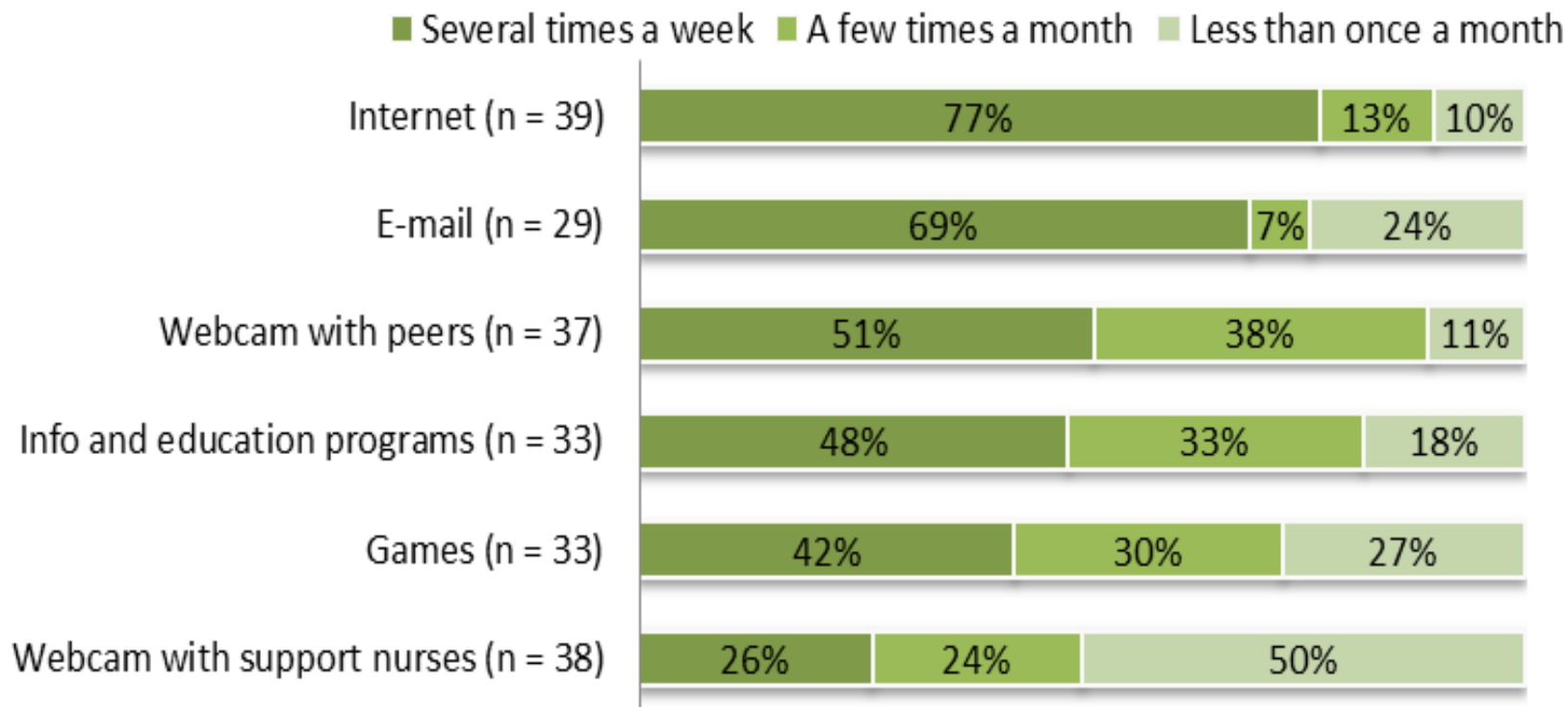
More contact with grandchildren

Improved QoL

A more competent carer



## Frequency of use





# Conclusions

- Technology-based support can be as good as, or even better than, traditional support in rural areas.
- Flexibility and availability are essential for meeting carers needs.
- Technology-based support changes the role of professionals





Thank You!

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## Publications related to ACTION in the North

Blusi M., Asplund K., & Jong M. (2013). Older family carers in rural areas: experiences from using caregiver support services based on Information and Communication Technology (ICT). *European Journal of Ageing*, 10 (3), 191-199. doi: 10.1007/s10433-013-0260-1

Blusi M., Dalin R., & Jong M. (2014). The benefits of e-health support for older family caregivers in rural areas. *Journal of Telemedicine and Telecare*, 20(2), 63-69. doi: 10.1177/1357633x13519901

Blusi M., Kristiansen L., & Jong M. (2015) Internet based caregiver support counteracts isolation among older spouse caregivers in rural areas. *International Journal of Older People Nursing*.

Blusi M., Dalin R., Kristiansen L., & Jong, M. Utilization of e-health caregiver support among older family caregivers in rural Sweden. Submitted 2015.

Blusi, M (2014) E-health and Information- and Communication Technology (ICT) as support systems for older family caregivers in rural areas. Doctoral Thesis no 203, Department of Nursing Sciences, Sundsvall; Mid Sweden University. ISBN 978-91-87557-87-3

Bergström I., Blusi M., & Höijer, C. (2010). Evaluation of ACTION. Family care support in rural areas (In Swedish), Report no. 10210, Swedish Institute for Assistive Technology, Vällingby