



# An educational programme for primary healthcare providers improved functional ability in older people living in the community


Vass M, Avlund K, Lauridsen J, *et al.* Feasible model for prevention of functional decline in older people: municipality-randomized, controlled trial. *J Am Geriatr Soc* 2005;**53**:563–8.


**Q** Does an educational programme for healthcare providers in routine primary care improve functional ability and reduce nursing home admissions and mortality in older people?


## METHODS


 **Design:** randomised controlled trial.


 **Allocation:** {concealed}.\*


 **Blinding:** unblinded.


 **Follow up period:** 3 years.

 **Setting:** 34 municipalities in Denmark.

 **Participants:** 4060 people 75 and 80 years of age who were living at home. 2876 were 75 years of age, and 1184 were 80 years of age.

 **Intervention:** 17 municipalities (2104 people) were allocated to the intervention, which comprised education for all municipality health professionals who conducted routine preventive home visits to people >75 years of age and an introduction for all local general practitioners (GPs) to a short geriatric assessment programme. Twice each year, 2 key persons from each municipality were asked to promote training in the use and interpretation of a standard assessment tool. Visiting professionals were asked to assess functional ability at every visit; tiredness in daily activities was interpreted as an early sign of disability and prompted a search for reasons for tiredness. If a health problem was suspected, visiting professionals were asked to contact the GP. GPs were encouraged to incorporate a short geriatric assessment (ie, delirium, depression, dementia, drugs, and drinks) in their usual clinical practice. 17 municipalities (1956 people) were allocated to the control group, in which professionals conducting home visits and local GPs received no intervention.

 **Outcomes:** functional ability (assessed using a validated mobility scale and reported as a dichotomous variable of ability to manage all activities without help v need of help for  $\geq 1$  activity), mortality, and nursing home admissions.

 **Participant follow up:** none of the 34 municipalities discontinued participation or were lost to follow up. 538 patients (13%) died; data from 3486 of the 3522 survivors (99%) were included in the analysis of functional ability (intention to treat analysis).

\*Information provided by author.

## MAIN RESULTS

At 3 years, people in the intervention group had higher functional ability than those in the control group (adjusted odds ratio [OR] 1.20, 95% CI 1.01 to 1.42); age stratified analysis (adjusted for sex, municipality pairs, functional status, and living alone at baseline) showed similar results in the cohort of people who were 80 years of age at baseline (OR 1.53, CI 1.12 to 2.09) but not in the cohort of people who were 75 years of age at baseline (OR 1.03, CI 0.83 to 1.28). The intervention and control groups did not differ for mortality (adjusted relative risk [RR] 1.06, CI 0.87 to 1.28) or nursing home admissions (adjusted RR 0.74, CI 0.50 to 1.09).

## CONCLUSION

At 3 years, an educational programme for healthcare providers in routine primary care improved functional ability in older people living in the community but did not reduce nursing home admissions or mortality.

## Commentary

The study by Vass *et al* makes an important contribution to our knowledge of the effectiveness of preventive home visits in delaying or preventing functional impairment in elderly people. The study was well designed and had an adequate sample size.

It should be noted that the study was done in Denmark, where all citizens  $\geq 75$  years of age are offered 2 annual preventive home visits. Visiting professionals in the intervention group received instruction on the use and interpretation of a standardised tool for assessing functional ability. The authors did not describe the content of the usual (control) preventive visits, but one would expect healthcare professionals to assess functional decline and offer guidance and support during routine health checks in people  $\geq 75$  years of age. If this were the case, it would tend to mask the benefits of the intervention.

Vass *et al* found that the intervention was more beneficial for participants who were 80 years of age than for those who were 75 years of age. They also recommend focusing on the early triggers of functional decline when function is more modifiable. In contrast, a systematic review by Stuck *et al* concluded that mortality risk was modifiable in people <80 years of age but not in those  $\geq 80$  years of age,<sup>1</sup> although much of the evidence in this review came from countries without routine preventive home visits.

Only 60% of people  $\geq 75$  years of age accepted and received the core preventive home visits. Further research is required to determine why 40% of people refused this service because even the most beneficial intervention will have no effect if it is refused. In most countries, preventive programmes are not routinely offered to elderly people. The study by Vass *et al* supports the use of programmes that include an assessment of functional decline and additional focused education for healthcare professionals working with older people.

Dorothy A Forbes, RN, PhD  
University of Western Ontario  
London, Ontario, Canada

1 Stuck EA, Egger M, Hammer A, *et al.* Home visits to prevent nursing home admission and functional decline in elderly people: systematic review and meta-regression analysis. *JAMA* 2002;**287**:1022–8.

For correspondence: Dr M Vass, Institute of Public Health, University of Copenhagen, Copenhagen, Denmark. [m.vass@dadlnet.dk](mailto:m.vass@dadlnet.dk)

Sources of funding: Danish Ministry of Social Affairs, Danish Medical Research Council, Research Foundation for General Practice and Primary Care, Eastern Danish Research Forum, and County Value-Added Tax Foundation.



## An educational programme for primary healthcare providers improved functional ability in older people living in the community

*Evid Based Nurs* 2005 8: 122  
doi: 10.1136/ebn.8.4.122

---

Updated information and services can be found at:  
<http://ebn.bmj.com/content/8/4/122.full.html>

---

*These include:*

### References

This article cites 2 articles  
<http://ebn.bmj.com/content/8/4/122.full.html#ref-list-1>

### Email alerting service

Receive free email alerts when new articles cite this article. Sign up in the box at the top right corner of the online article.

---

### Topic Collections

Articles on similar topics can be found in the following collections

[General practice / family medicine](#) (245 articles)  
[Long term care](#) (57 articles)  
[Community nursing / community based care](#) (7 articles)  
[Delirium](#) (11 articles)  
[Dementia](#) (79 articles)  
[Memory disorders \(psychiatry\)](#) (105 articles)

---

### Notes

---

To request permissions go to:  
<http://group.bmj.com/group/rights-licensing/permissions>

To order reprints go to:  
<http://journals.bmj.com/cgi/reprintform>

To subscribe to BMJ go to:  
<http://group.bmj.com/subscribe/>