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Physical Activity for Wellbeing and Health in Older Adults

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Physical activity is influenced by many 'environments'- the socio-ecological model

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Benefits of an active lifestyle for older adults

- Maintenance of mobility and independent living
- Improve strength, balance and coordination
- Highly effective in reducing the incidence of falls
- Can help improve the emotional and mental wellbeing
- May improve at least some aspects of cognitive function

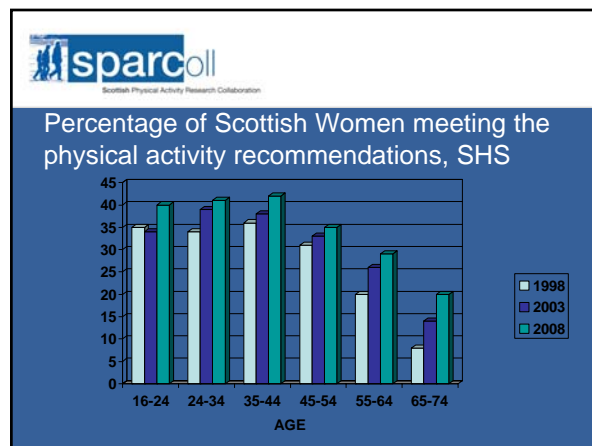
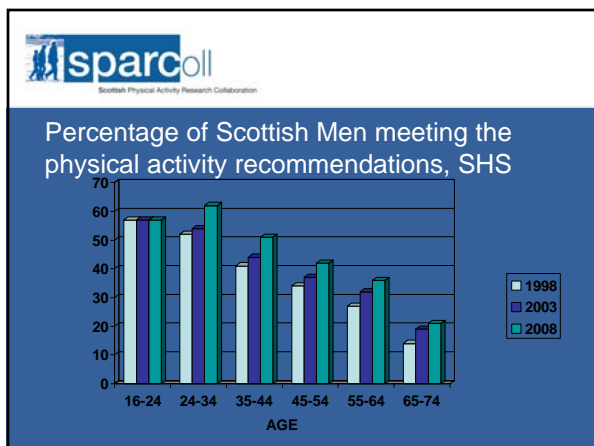
http://www.bhfactive.org.uk/downloads/Older_Adults_PA_guidelines.pdf

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Current Physical Activity Recommendations

- All older adults should achieve a total of at least 150 minutes of moderate-intensity physical activity per week.
- For additional health benefits, older adults should increase the amount of physical activity over the target of 150 minutes a week of moderate intensity.

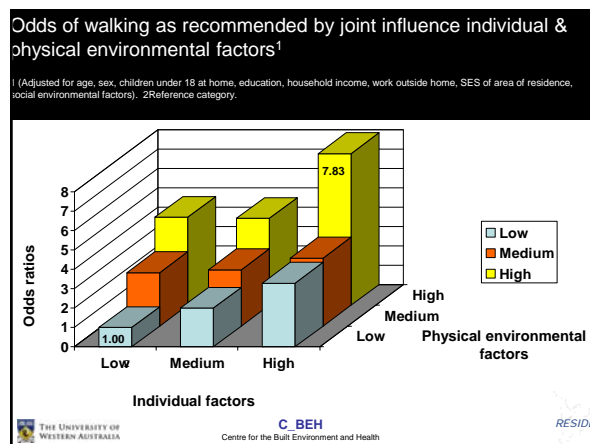
UK Physical Activity Guidelines for Older Adults



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NICE guidance – physical activity and the environment

- National Institute for Health and Clinical Excellence issued guidance in January 2008
- <http://www.nice.org.uk/PH3>
- What can we change in the built environment that might increase physical activity?



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The Challenge of Inactivity

- As well as changing the environment we also need to change people
- There remains a behavioural challenge even when the environment is supportive of physical activity
- Need to evaluate interventions designed specifically with older adults in mind that encourage activity

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Two areas we are currently focusing on:

- Increasing walking
- Reducing sedentary time

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Older adults and walking

- “Walking is the nearest activity to perfect exercise”*
 - Jerry Morris and Adrienne Hardman 1997, 'Walking to Health' in Sports Medicine 23(5):306-332.
- Reviews suggest walking is the most likely mode of activity for the inactive to adopt
 - Accessible
 - Free of injury risk
 - No special skills, facilities or equipment
 - Can be done in leisure time or for transport

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West End Walkers 65+

- To date relatively few studies have explored how to encourage older adults to walk more
- Evidence is currently lacking on the individual support needed to increase walking levels

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West End Walkers 65+

- Funded by the Chief Scientist Office, Scottish Government
- Consider the **feasibility** of a pedometer-based walking programme in combination with a physical activity consultation in Scottish adults aged 65 years and over in a primary care setting

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West End Walkers 65+

- In Scotland:
 - 97% of the population is registered with a GP/health practitioner
 - 82% of patients have visited their local GP team in the last year

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The Intervention

- Testing the use of a pedometer, PA consultation and individual walking programme
- Incremental step targets over 12 weeks.
 - Week 1-2 1500 additional steps on 3 days
 - Week 3-4 1500 additional steps on 5 days
 - Week 5-6 3000 additional steps on 3 days
 - Week 6-12 3000 additional steps on 5 days
- Intervention is received by both groups: Group 1 Immediately, Group 2 after a 12 week delay.

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12 month step counts
Filizsimons, et al on behalf of the WWW research team
Walking for Wellbeing in the West - Maximum versus minimum intervention
Int Society for Behavioural Nutrition and Physical Activity Annual Conference, Lisbon, Jun 2009.

Average daily pedometer steps over 12 months

Time (Weeks)	First group (Steps/day)	Second group (Steps/day)
0	~7000	~6000
12	~10500	~9500
24	~10000	~9000
52	~10000	~8500

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Older Adults and sitting times

- Scottish Health Survey indicates older adults have more sedentary lifestyles than younger adults
- Television viewing time used as an indicator

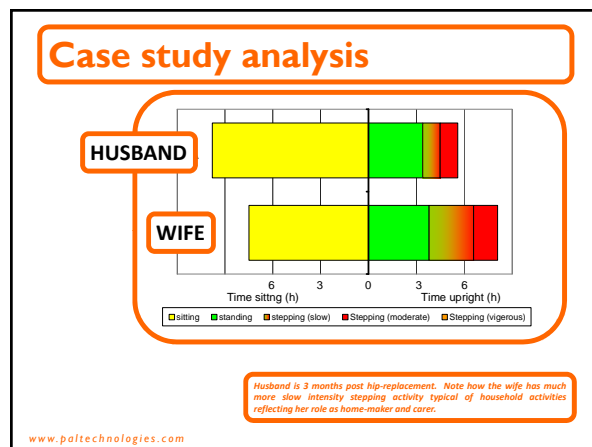
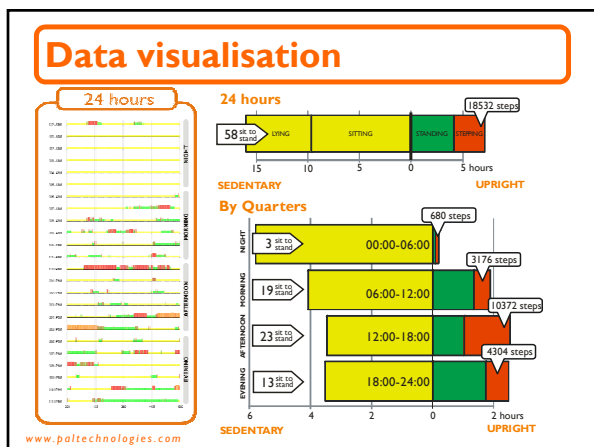
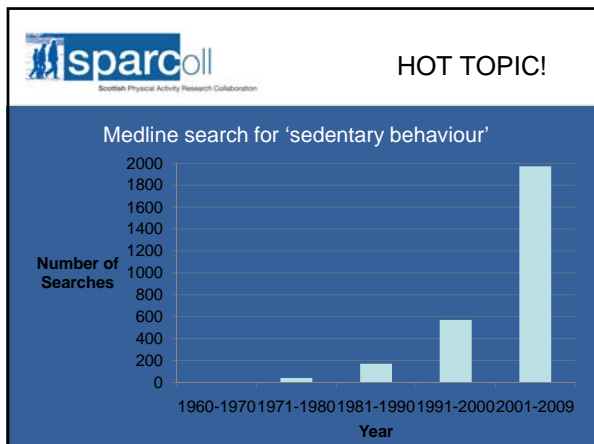
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Sedentary Behaviour

Evidence to suggest a dose-response association between sitting times and mortality from all causes, independent of leisure time physical activity
Katzmarzyk et al., 2009

Recent research from Australia suggests those who spend more time in sedentary behaviour but are sufficiently active (at least 2.5 hrs of activity/week) and those who are insufficiently active but spend less time in sedentary behaviours have a similar risk of being overweight or obese
Sugiyama et al., 2008

Independent of exercise levels, sedentary behaviours are associated with significantly elevated risk of obesity & Type 2 diabetes
Hu et al 2003



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Challenges: how to intervene

- How sedentary are older adults when objectively measured?
- How do older people perceive sedentary behaviour?
- What strategies could be used to help people limit sedentary behaviours?

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Pilot study

- N = 30 middle and older aged men and women
- Mean age of sample 66 years
- Visit One: fitted with an ActivPAL monitor
- Visit Two: 10 days later, fitted with a novel monitor which offers feedback
- Visit Three: 10 days later, return for an interview



Summary

- Small increments in activity over a longer time
- New interventions to target sedentary time then leading onto increased physical activity
- Thank you for listening!