

Active Ageing

Gezondheidsgedrag en self-tracking:

Van gezond opgroeien tot gezond oud worden



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www.hanze.nl/transparantezorgverlening

<http://www.qsinstitute.org/>

Lectoraat Transparante Zorgverlening

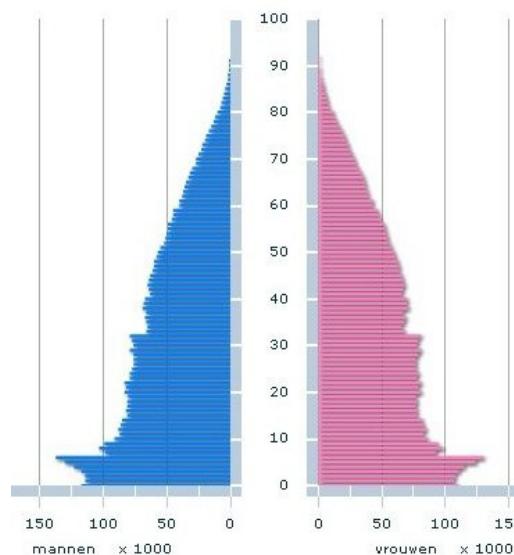


- Demografische ontwikkelingen
- Active Ageing
- Gezondheidsgedrag
- Self-tracking
- Discussie

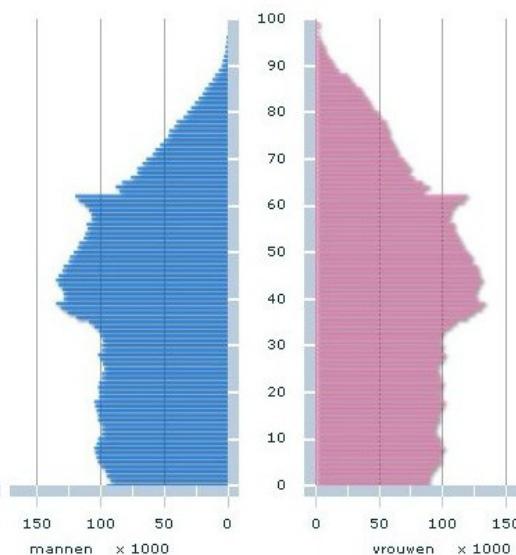


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1953



2009

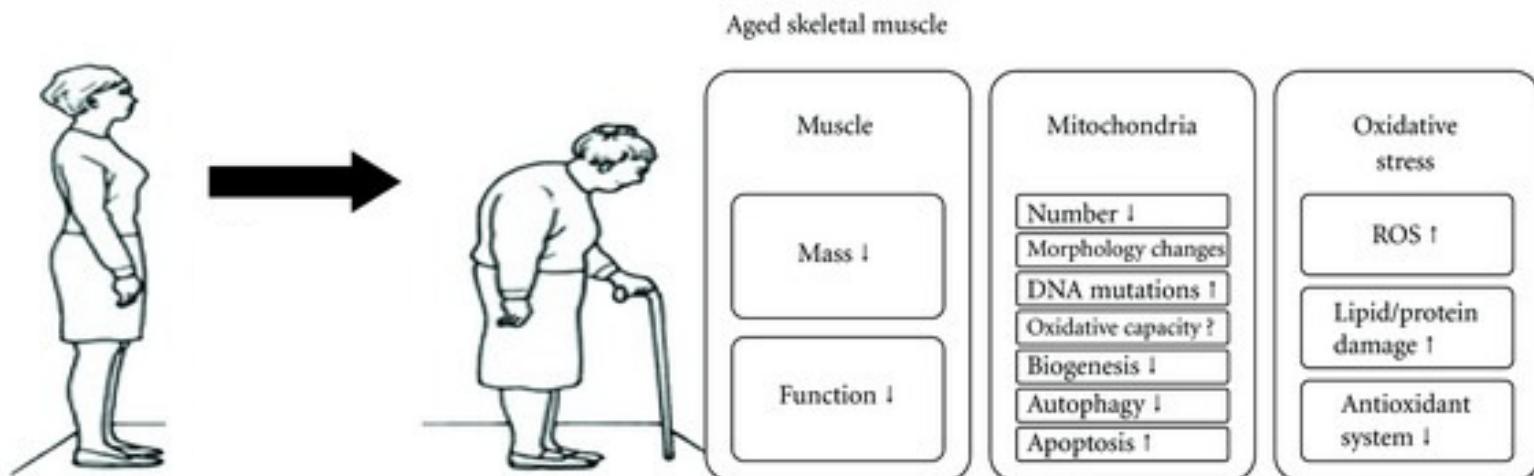


2050



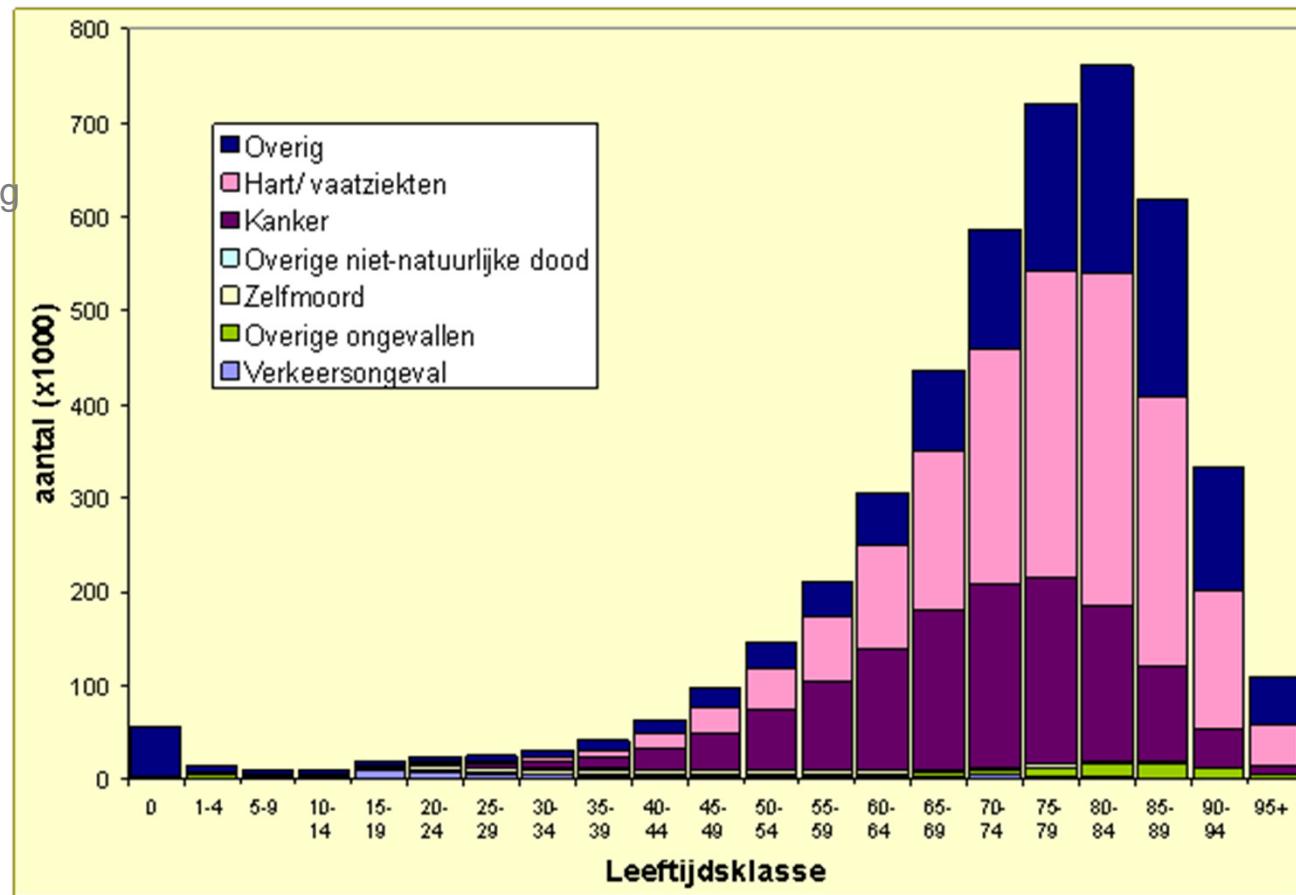


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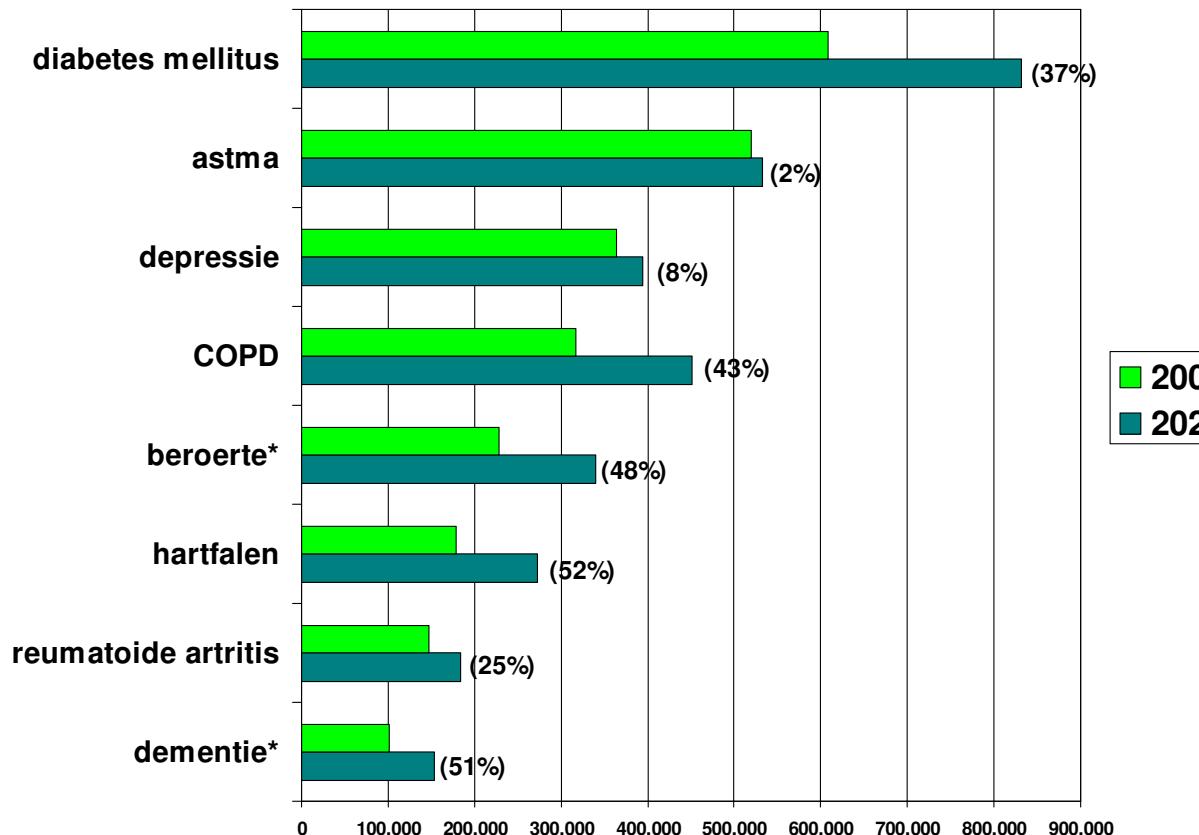


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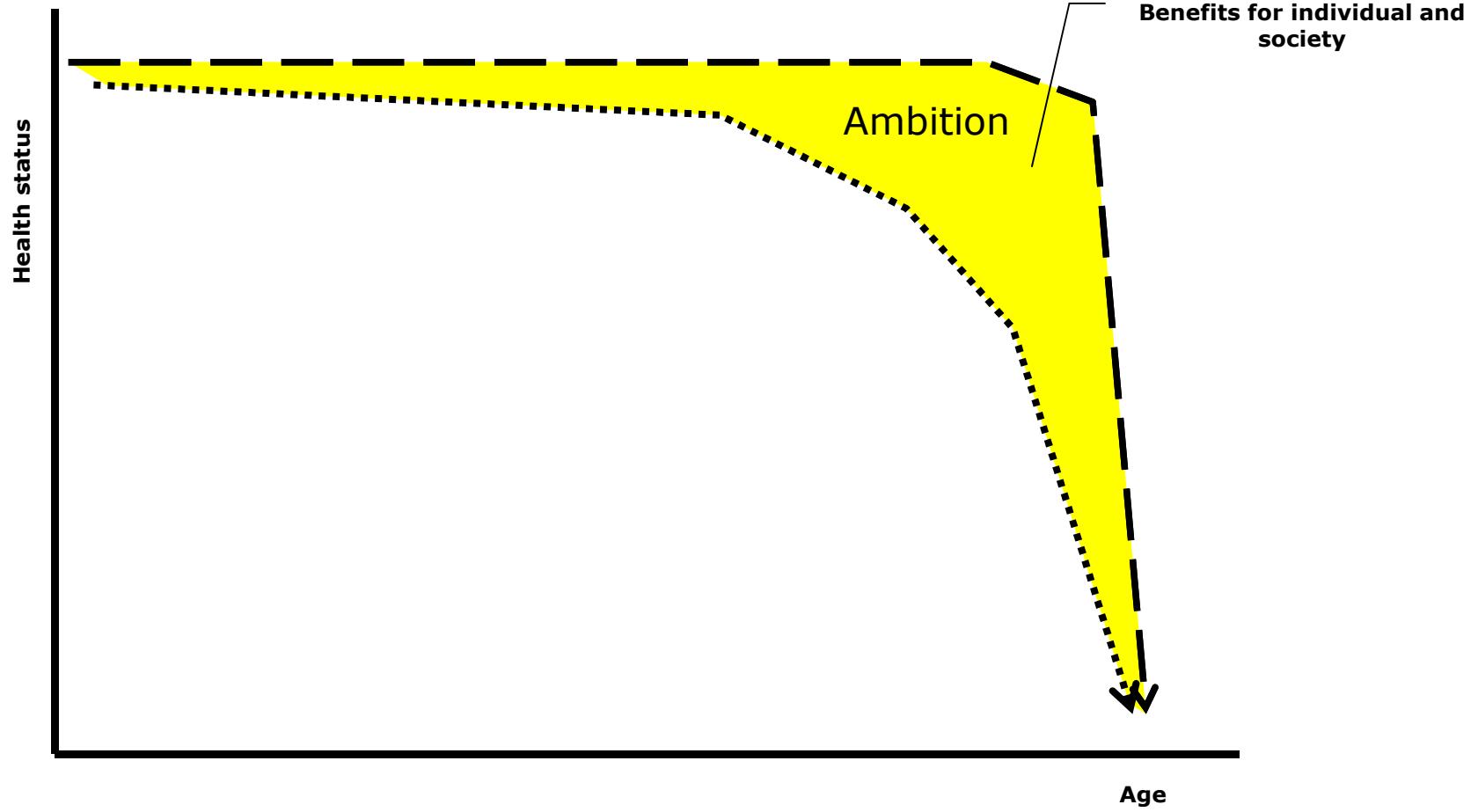


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- 37 % van de 55-plussers heeft twee of meer chronische ziekten
- 70% van de mensen met een chronische ziekte heeft ten minste ook één andere ziekte.

van Oostrom et al. Nederlands Tijdschrift voor Geneeskunde
2011

- fysiologische, mentale, sociale gevolgen van veroudering





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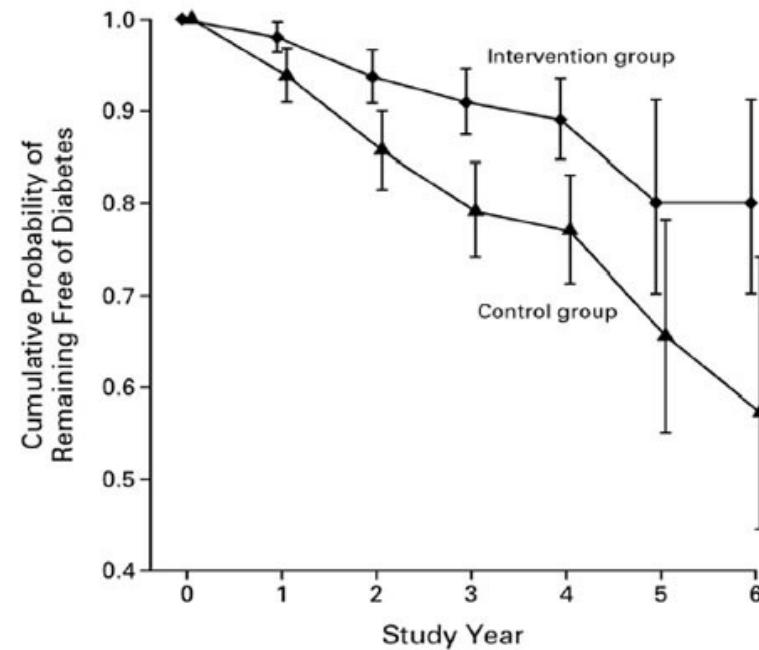


Preventie en actieve leefstijl



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SUBJECTS AT RISK

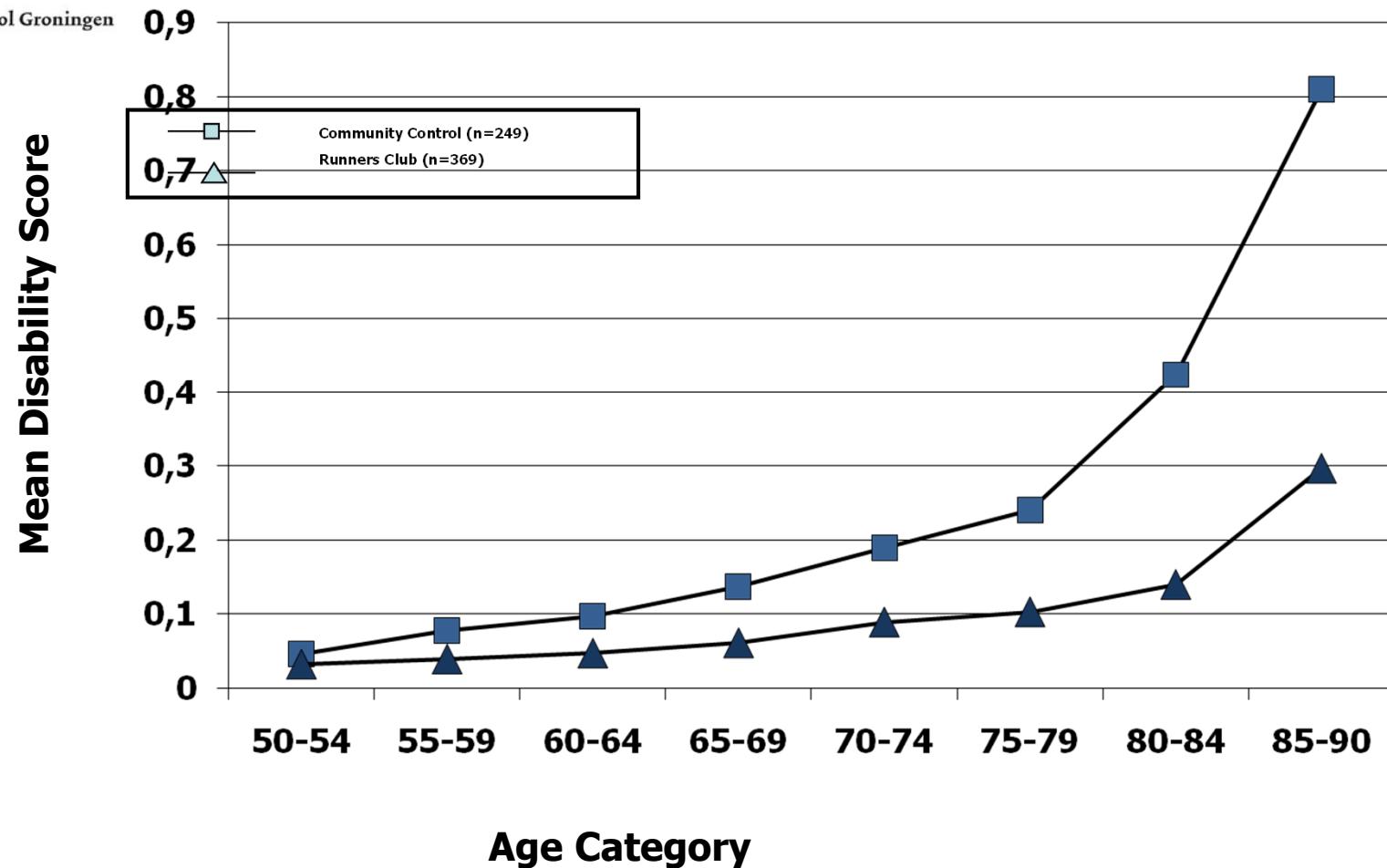
Total no.	507	471	374	167	53	27
Cumulative no. with diabetes:						
Intervention group	5	15	22	24	27	27
Control group	16	37	51	53	57	59

Eriksson K, Lindgrade F. Prevention of type 2 (non-insulin-dependent) diabetes mellitus by diet and physical exercises. Diabetologia 1991; 34: 891-898

Beperkingen en actieve leefstijl



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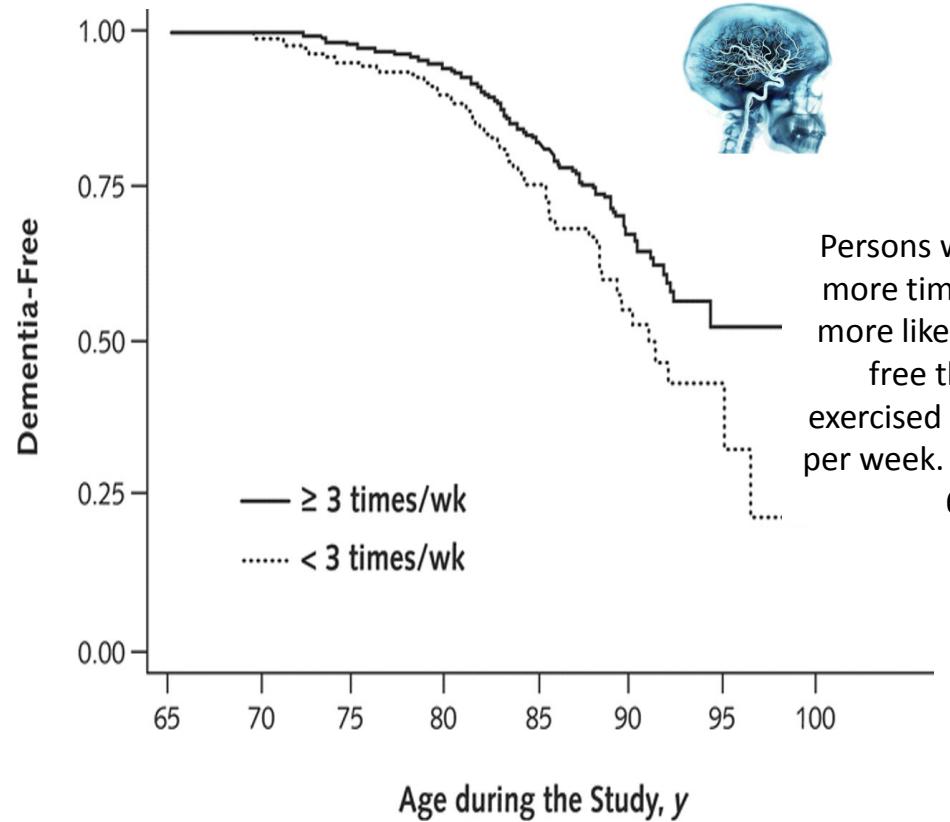
Wang et al, Arch Int Med, 2002

Dementie en actieve leefstijl



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Persons who exercised 3 or more times per week were more likely to be dementia-free than those who exercised fewer than 3 times per week. (N=1740, follow up 6 years)

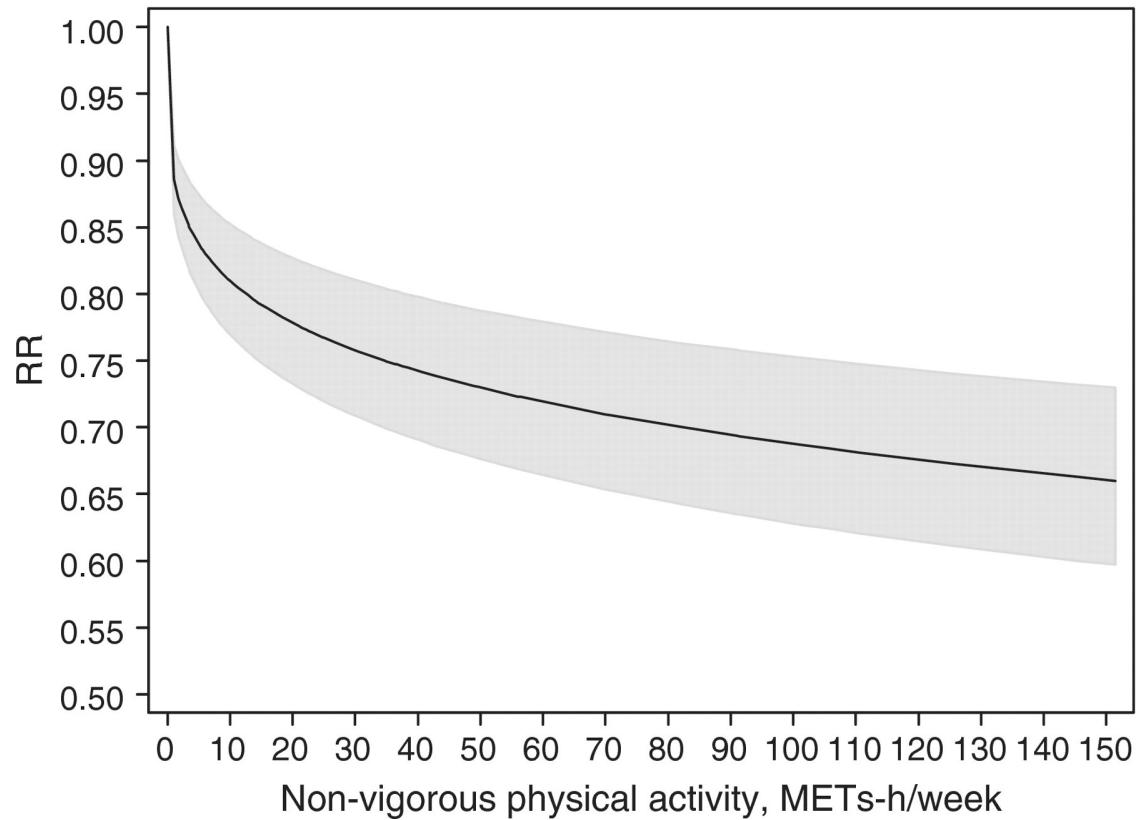
Larson et al, 2006

Relatie tussen licht intensieve activiteit en risico op overlijden



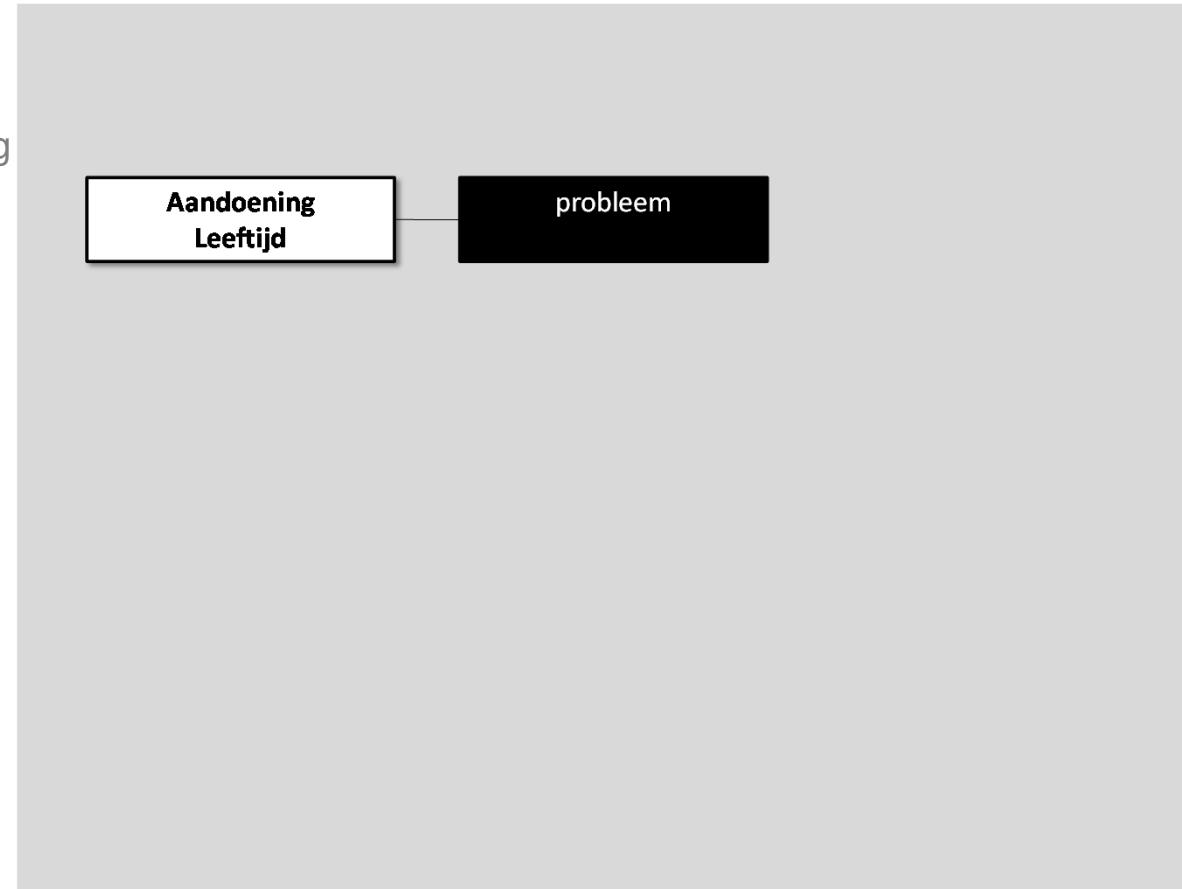
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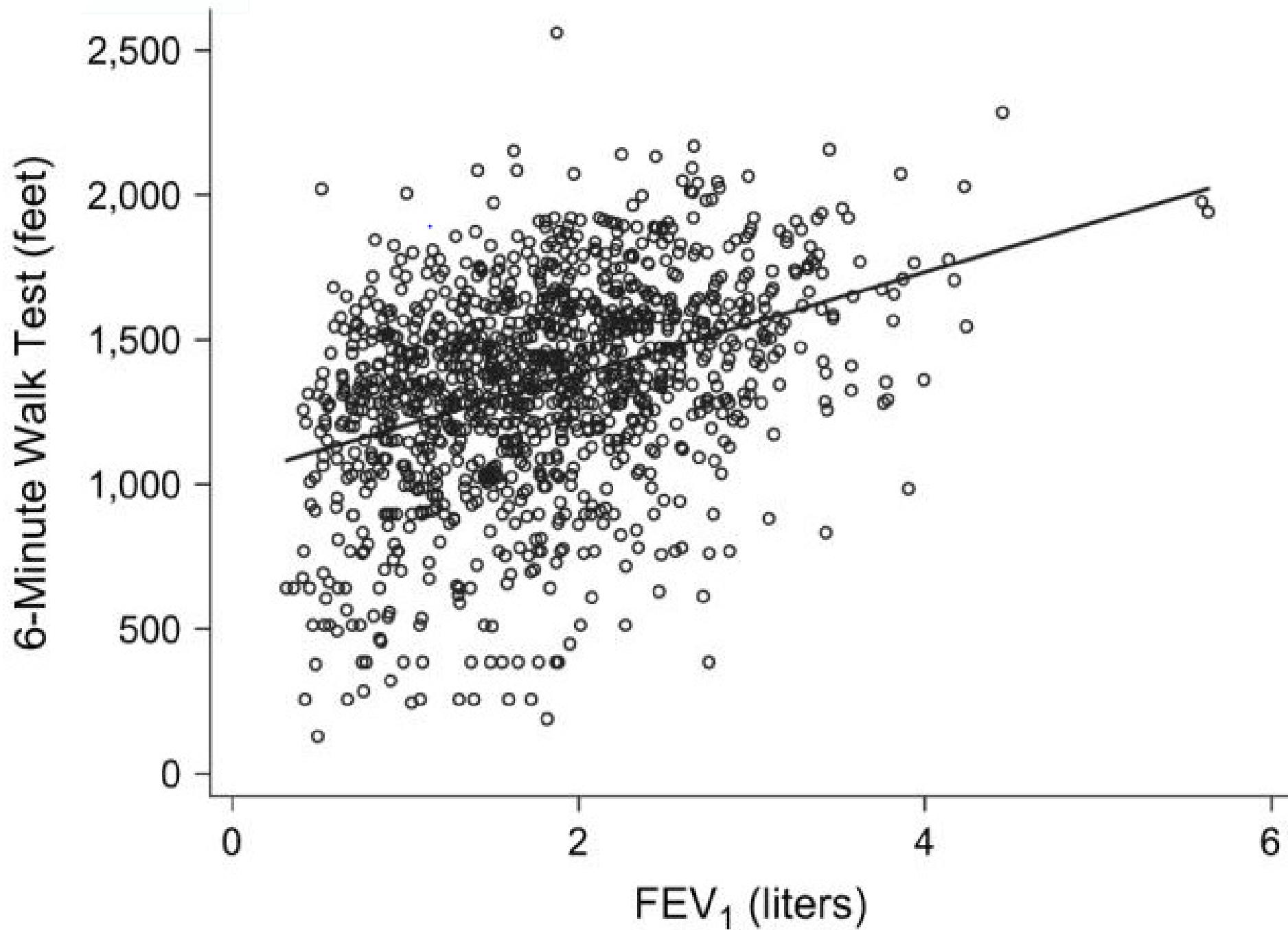
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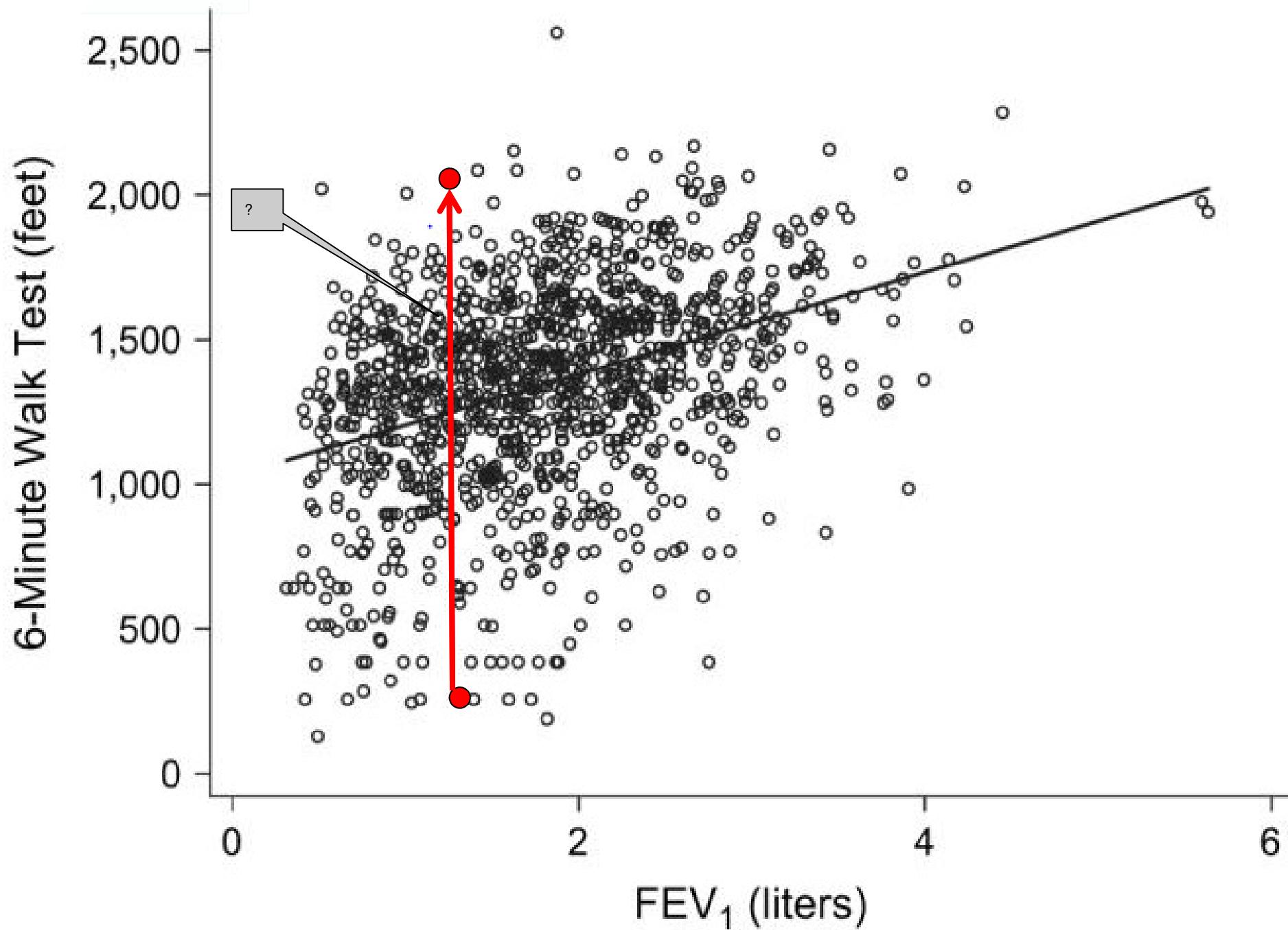




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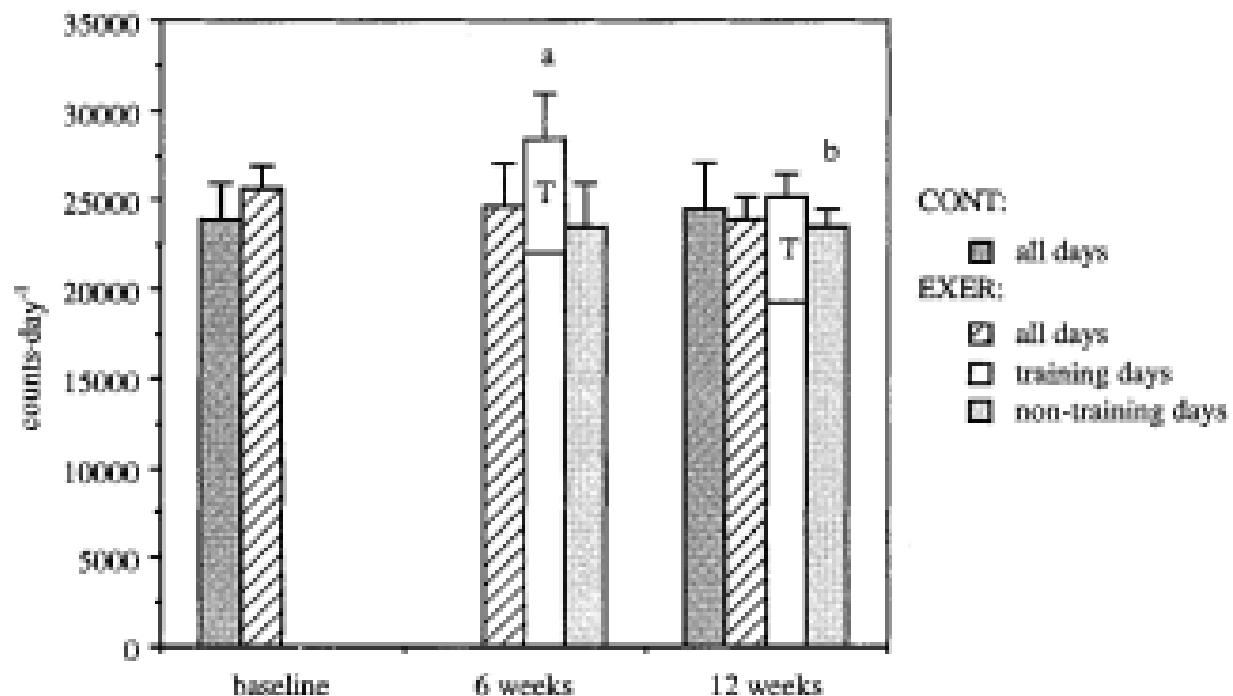


Exercise training



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[European Journal of Applied Physiology and Occupational Physiology](#)

May 1999, Volume 80, [Issue 1](#), pp 16-21

Effect of exercise training on total daily physical activity in elderly humans

Erwin P. Meijer, Klaas R. Westerterp, Frans T. J. Verstappen

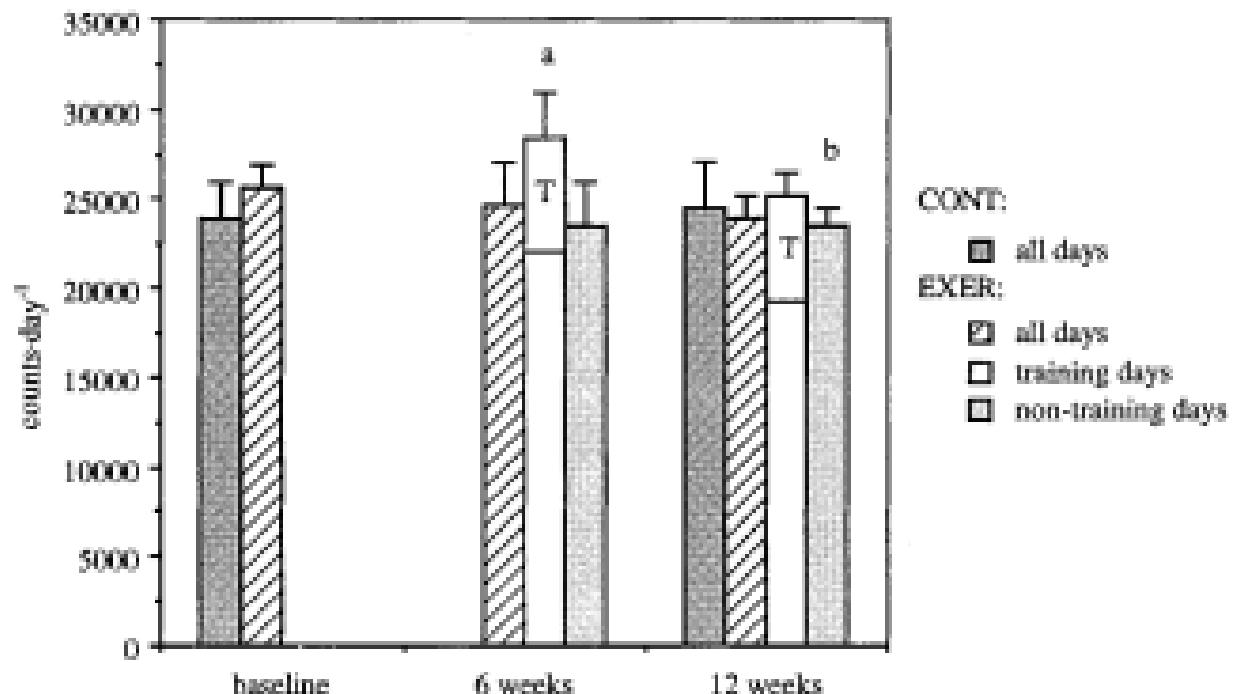
Exercise training



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Training activity was compensated for by a decrease in non-training physical activity.



[European Journal of Applied Physiology and Occupational Physiology](#)

May 1999, Volume 80, [Issue 1](#), pp 16-21

Effect of exercise training on total daily physical activity in elderly humans

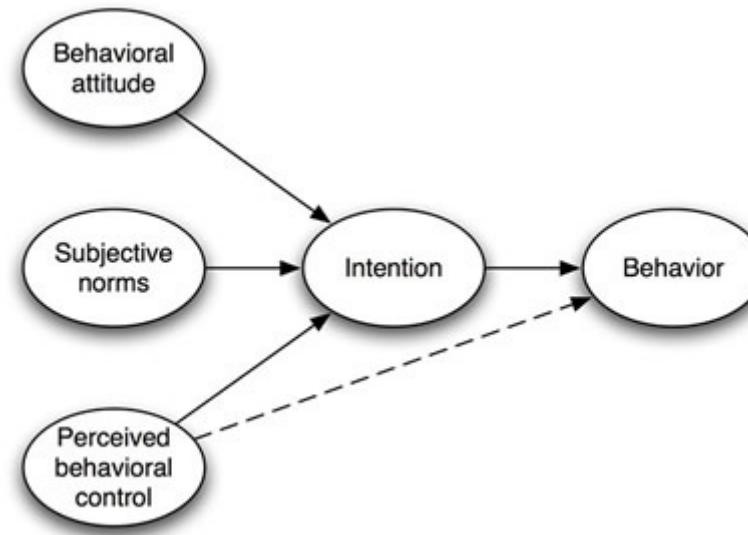
Erwin P. Meijer, Klaas R. Westerterp, Frans T. J. Verstappen

Theory of planned behaviour



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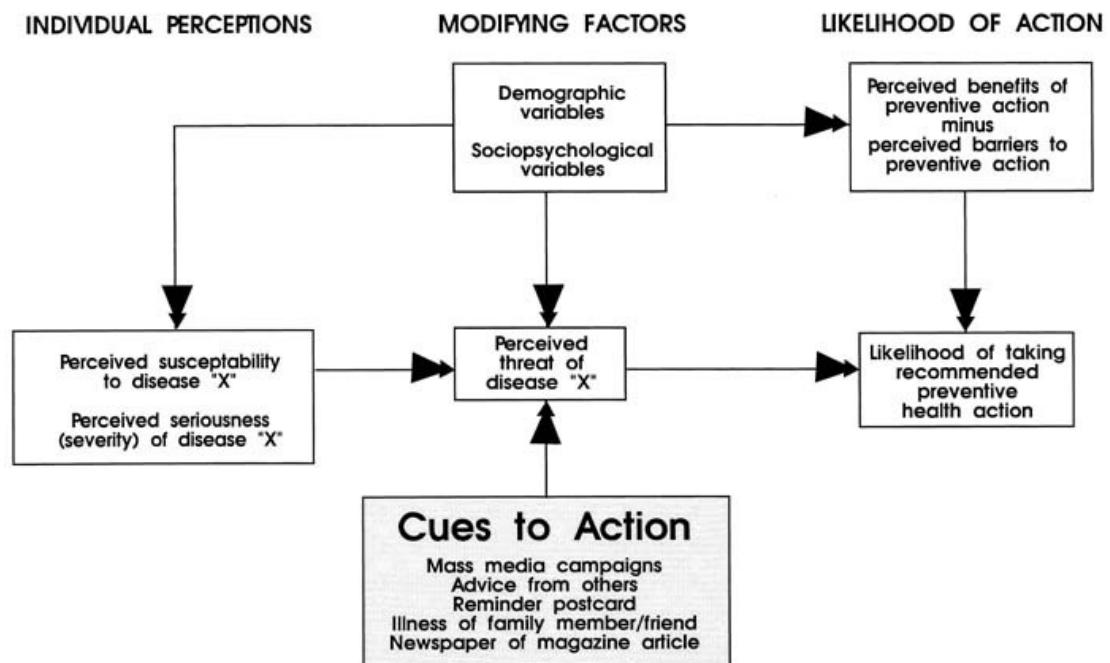


Health Believe Model



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protection motivation theory



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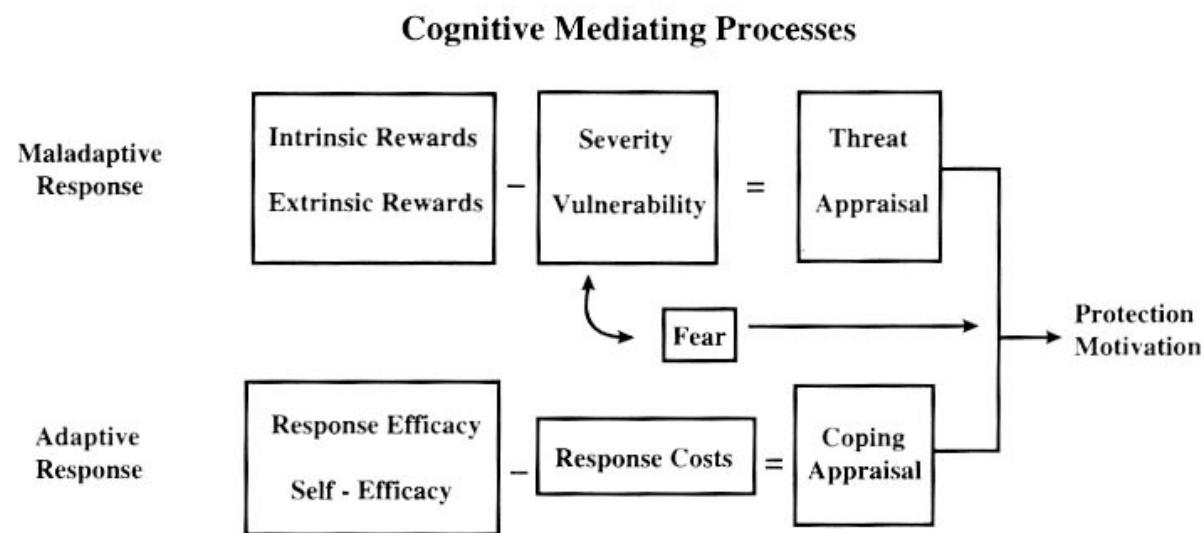


Figure 2. Cognitive mediating processes of protection motivation theory.

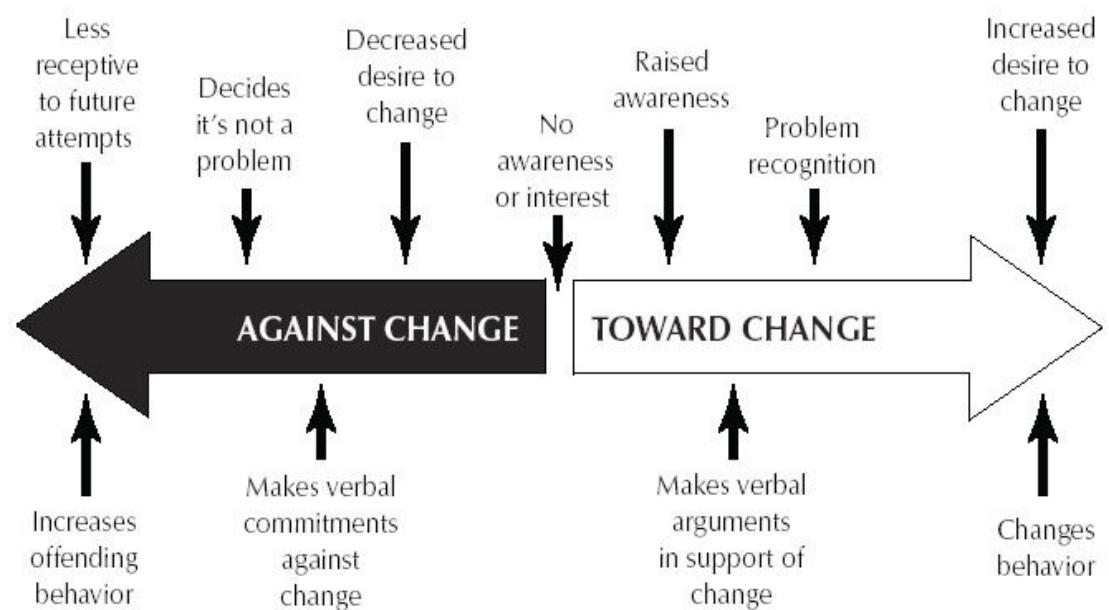
Motivational Interviewing



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FIGURE 1.

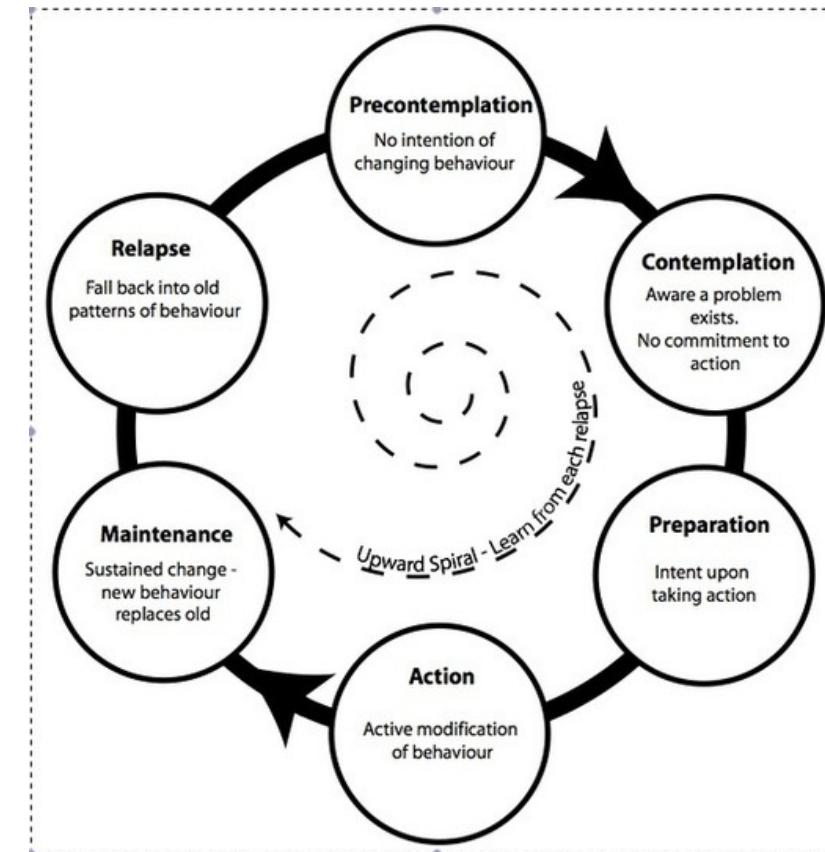


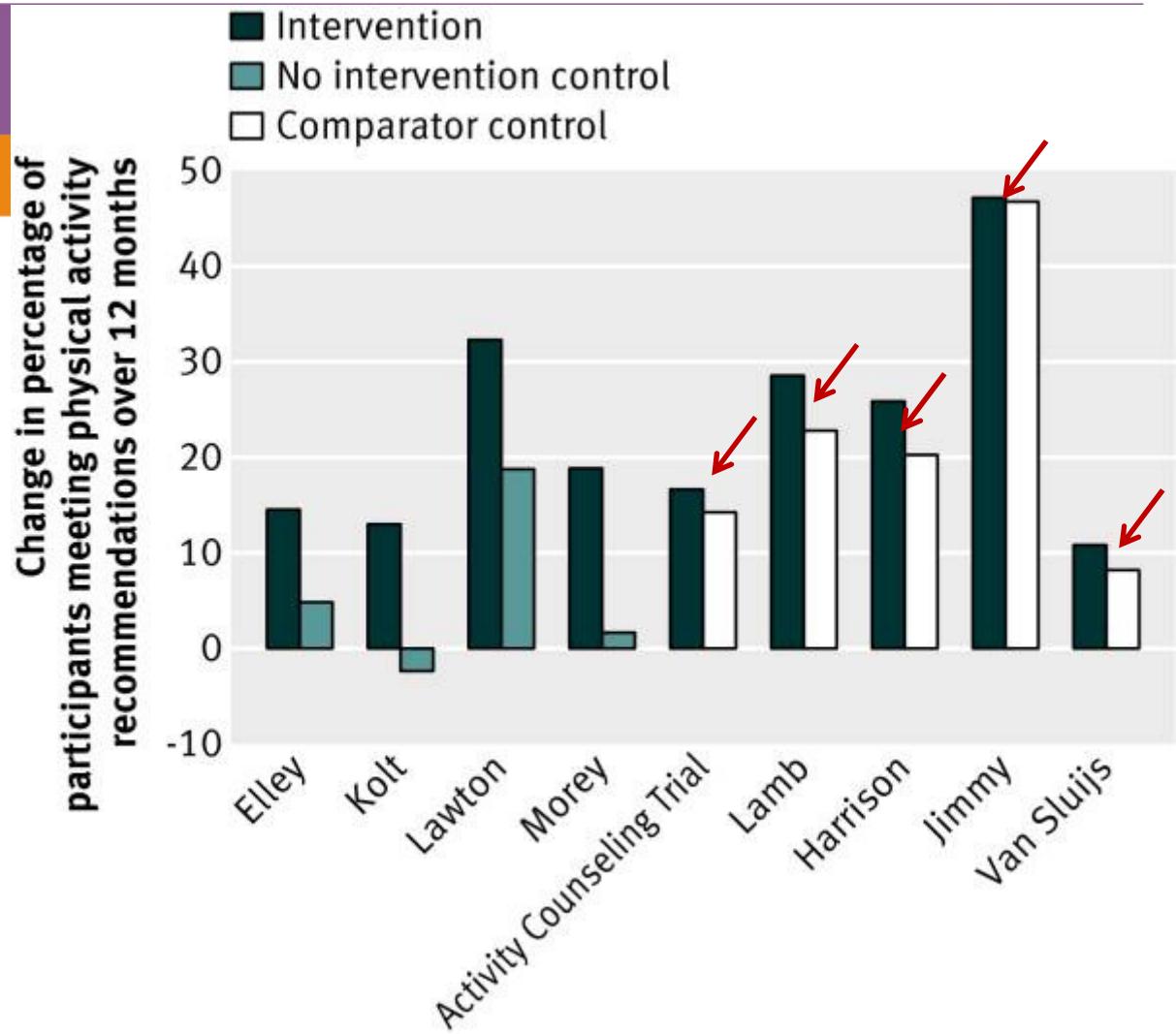
Transtheoretisch model



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QS Community



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Founded by Gary Wolf and Kevin Kelly in 2007

- + 100 groups
- 31 countries



QS Conference Stanford 15-16 sept 2012



QS Conference Amsterdam 26-27 nov 2011

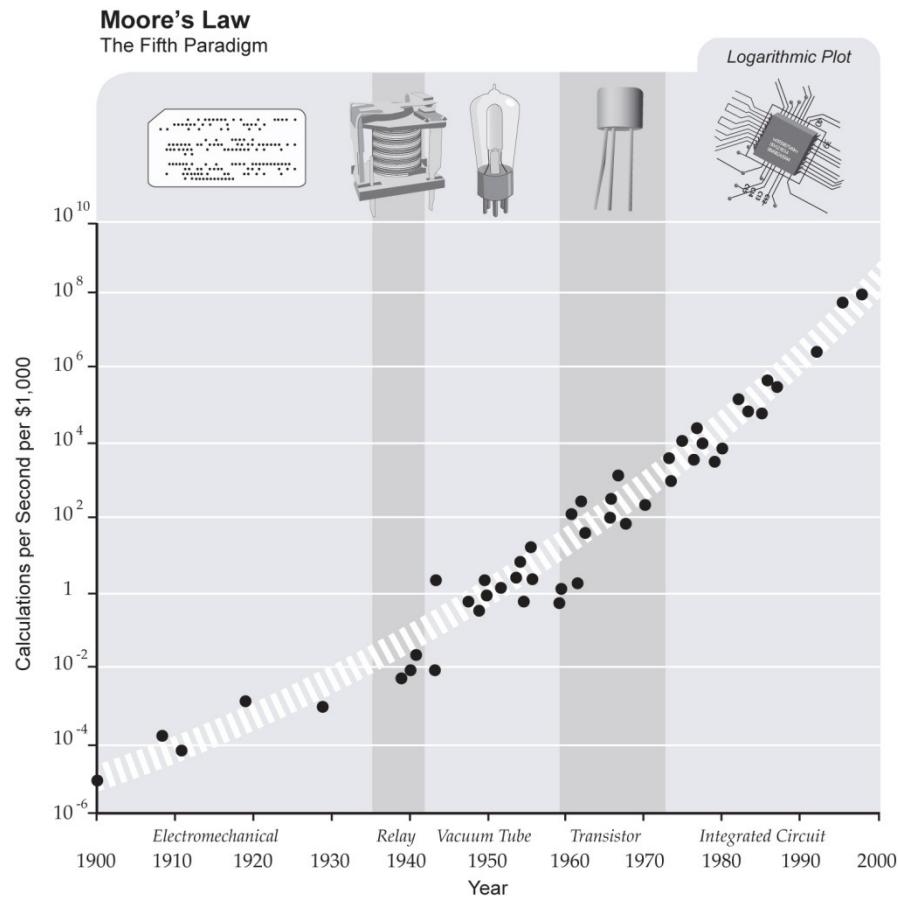


Moore's law



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Quantified Self Institute

self knowledge through numbers



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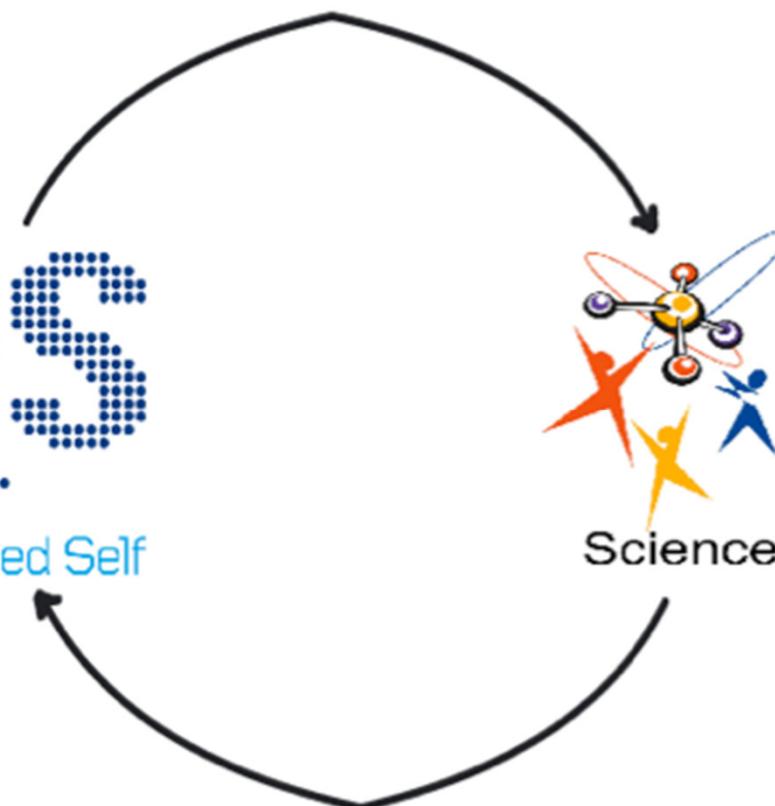
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Quantified Self



Science



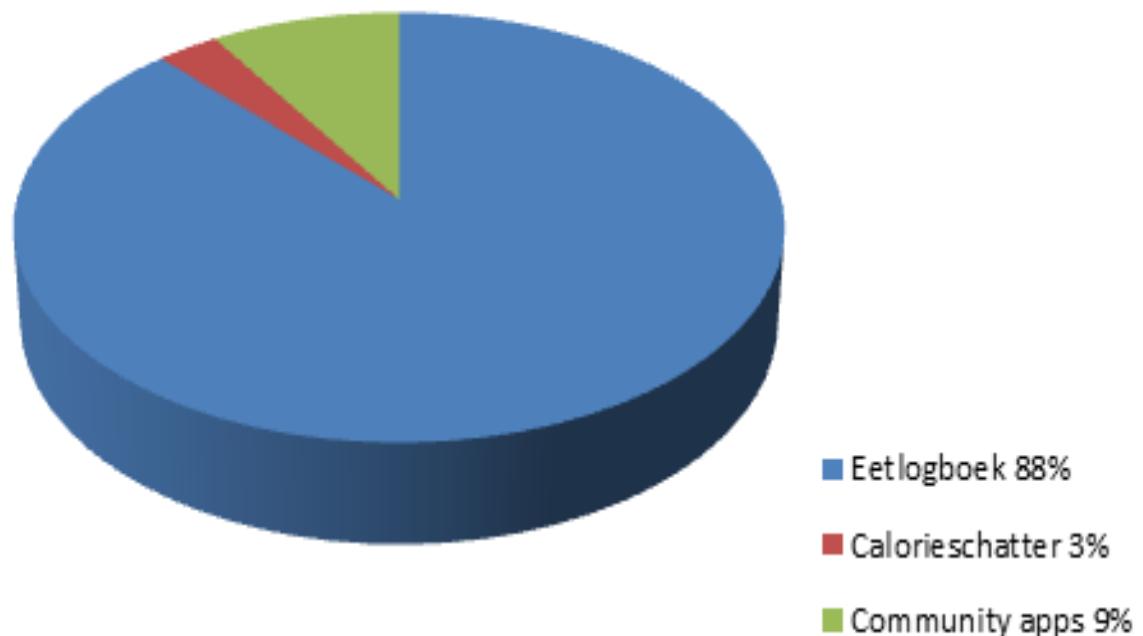
Food-applications



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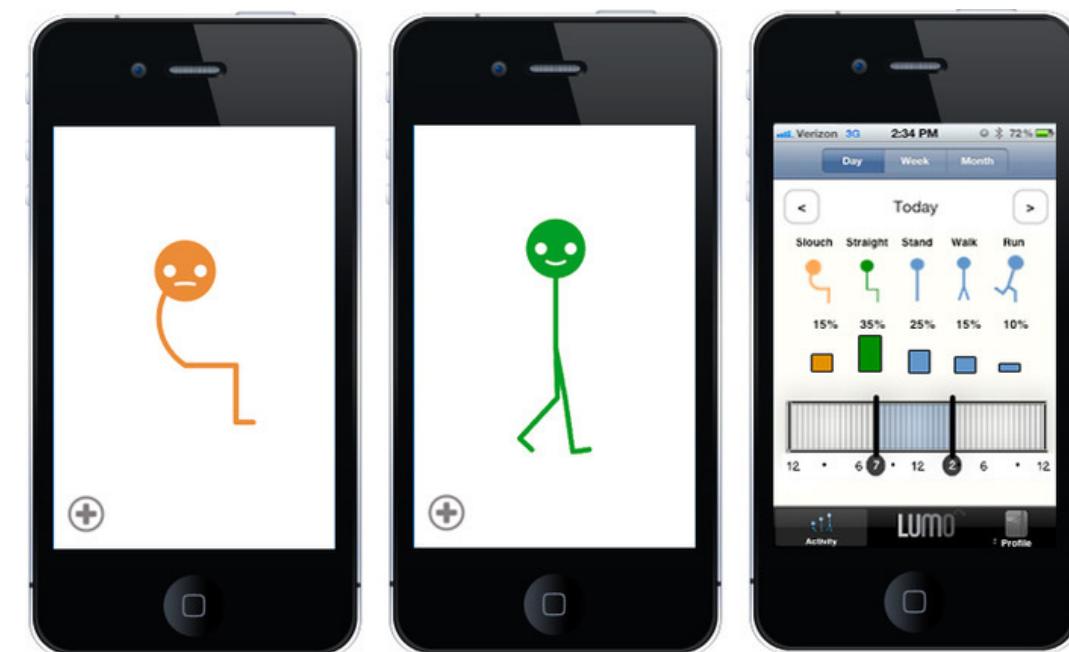
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111 apps, roughly 3 categories





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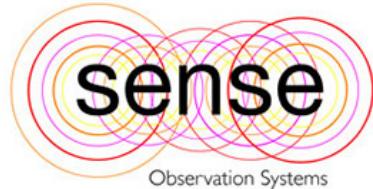
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Activity trackers



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zamzee

Igniting a lifetime of movement in every kid



Physical activity



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Physical activity



Screenshot of a news article from NU.nl titled "Stappenteller helpt daadwerkelijk meer te bewegen" (Step counter helps actually move more) published on June 11, 2013.

The article discusses a study where step counters were used to motivate people to move more. Participants who wore step counters were more active than those who did not. The study involved 4 men and 22 women aged 40 to 66. The step counter registered the movement of their lower limbs. Even if the step counter did not register activity, participants were still encouraged to move. Participants received two emails per week with tips on nutrition and movement. The study lasted 12 weeks.

The article also quotes Jeanne Johnston, co-author of the study, saying it's a simple, cost-effective finding that many people can benefit from. The results of the study were presented at the annual meeting of the American College of Sports Medicine in Indianapolis.

Below the main article, there are sidebar sections for "Wetenschap" (Science) featuring a microscope image and a "Corendon Vliegvakanties" advertisement, and a "Meest gelezen" (Most read) section listing top stories. At the bottom, there is a "Volg NU.nl" (Follow NU.nl) button and a Windows taskbar showing various open applications.

Physical activity



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Physical activity

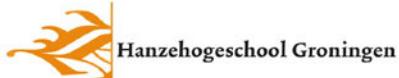


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Fitbit & Withings





Har

Day Week Month Year Today

Activity

updated 8 mins ago

4443 steps taken today (44% of goal of 10,000)

15 floors climbed today (150% of goal of 10)
You have climbed: The Statue of Liberty ★

3.61 km traveled today (45% of goal of 8.05)

1575 calories burned (72% of goal of 2,184)

400 active score (40% of goal of 1,000)

No step badge yet today. Get more steps!

Top Daily Climb Badge
10 floors

Want to challenge yourself to be more active? [Start a free week trial of the Fitbit trainer now!](#)

Calories Burned	Steps	Floors	Time Active
350	4443	15	3.61
300			
250			
200			
150			
100			
50			
0	0	0	0

NEW Fitbit Aria™

Tracks weight, body fat % & more. Syncs through Wi-Fi to Fitbit.com.

[Learn more](#)

Top Badges My Achievements

20,000 3000 km 50

See all badges

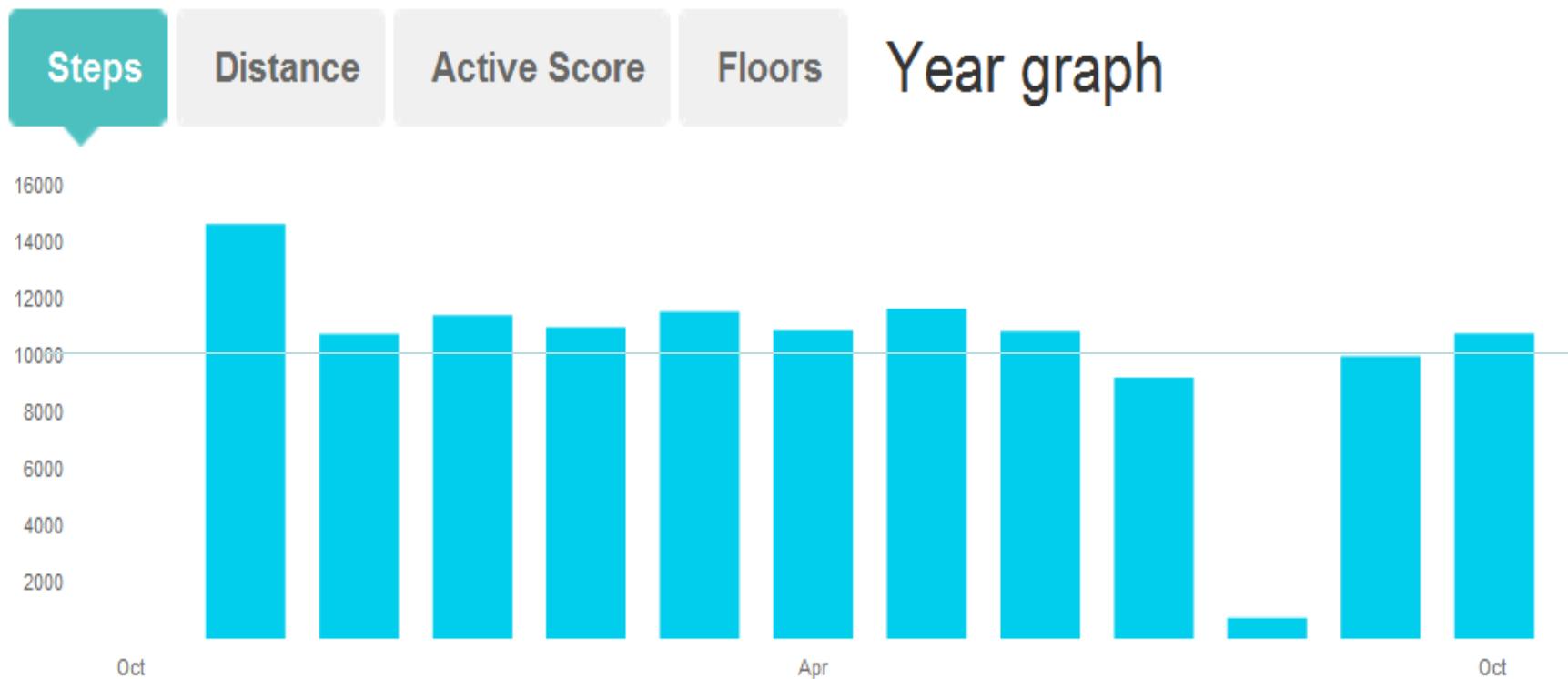
Friends

Rankings based on 7 day step total

Rank	User	Steps
1	You	73,209
2	Roos	70,810
3	Marieke	64,663
4	jplatte1	64,146
5	Rieta A.	30,475

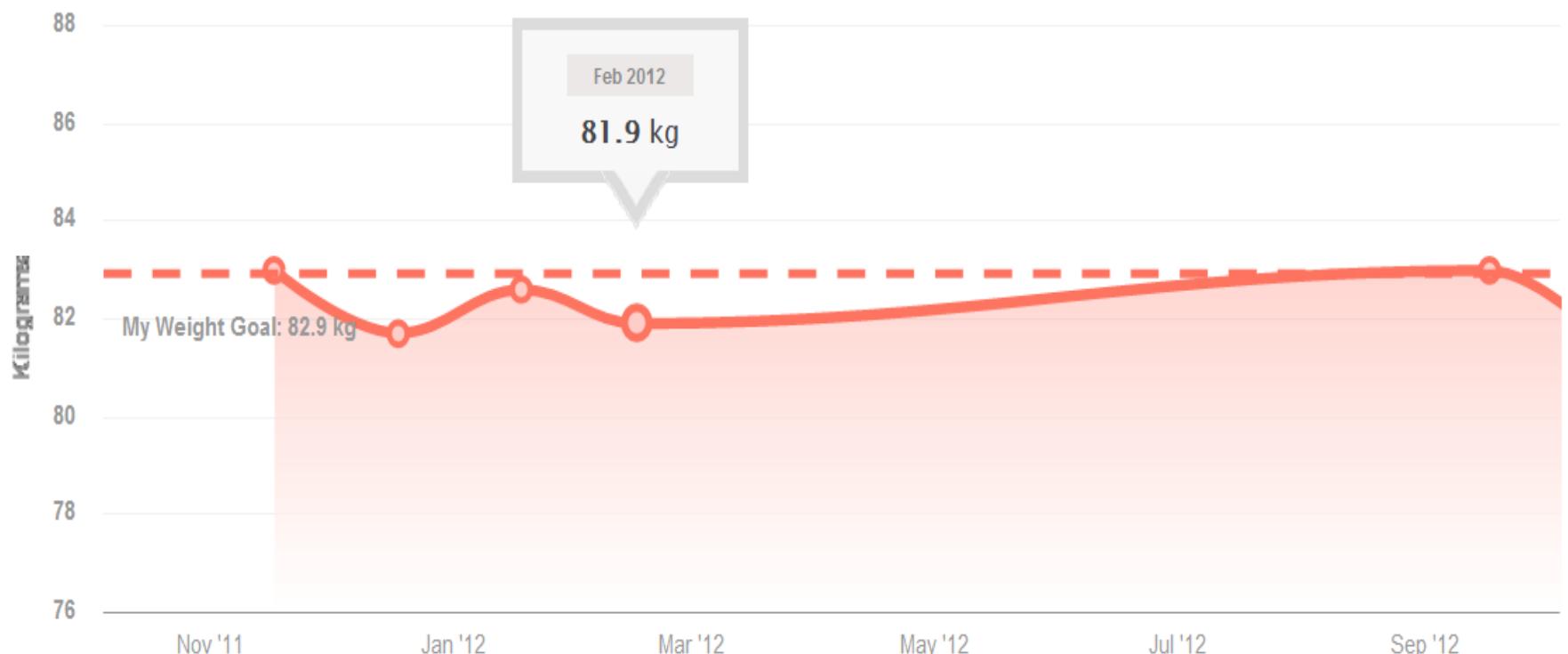


Activity





Weight Lean vs Fat BMI Body Measurements Weight change ↑ 0.0 kg



20 Minutes Logic-Immo Cuisine d'Annie Programme Télévision Mes notices

Accueil Crée un compte S'identifier vendredi 11 janvier 2013 16:50 Newsletter: Email OK ex: gouvernement OK

Accueil / Nous cherchons 1000 volontaires pour une étude unique au monde sur le quantified self

Perdre du poids

Nous cherchons 1000 volontaires pour une étude unique au monde sur le quantified self

13 mai 2013 | 13 commentaires | J'aime 87 Tweeter



Basculez dans le monde du Quantified Self avec notre étude — CLEMENT HALBORN POUR 20 MINUTES

MOTS-CLÉS • étude fitbit

APPEL A CANDIDATURE – 20 Minutes et IDS Santé recherchent 1000 volontaires qui porteront pendant six mois le Fitbit que nous leur offrirons. Objectif: faire avancer la science.

Autres actualités

Des chiffres et des rêves Des chiffres et des rêves

On a testé le Fitbit Flex On a testé le Fitbit Flex

Les applis pour arrêter de fumer : comment ça marche ? Les applis pour arrêter de fumer : comment ça marche ?

20 Minutes 20 Minutes [EN IMAGES] Les animaux de la semaine

20 minutes 20 minutes Les plus belles images d'animaux, c'est par là: <http://bit.ly/NhgomD>

Sociale plug-in van Facebook

Tweets Suivre @20Minutes

20 Minutes 20 Minutes 26m Hockey: Chicago et Boston se disputeront la Coupe Stanley bit.ly/15ZhFdo

Étendre

20 Minutes 20 Minutes 31m

Physical activity



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Steps that count: Be physically active every day.

Physical activity need not be strenuous to be beneficial. A start of just 10 minutes of brisk walking a day can produce immediate benefits such as improved cardiovascular fitness, muscular strength, mood-enhancement and improved self-confidence.

There are many ways to increase your daily steps. Use your imagination and come up with your own list. As a start, here are four useful suggestions:-

1. *Take a walk with your spouse, child, friend or pet*
2. *Use the stairs instead of the lift/escalator*
3. *Park farther from your destination*
4. *Window shop ☺*



[BMC Public Health](#). 2012 Oct 17;12:880. doi: 10.1186/1471-2458-12-880.
Steps that count! The development of a pedometer-based health promotion intervention in an employed, health insured South African population.
[Pillay JD](#), [Kolbe-Alexander TL](#), [Proper KI](#), [van Mechelen W](#), [Lambert EV](#).

Phys



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Steps that active eve

Physical activity needs just 10 minutes of time to benefit such as improved strength, mood-enhancement.

There are many ways to increase physical activity with imagination and creativity. Here are four useful suggestions:

1. Take a walk during your lunch break.
2. Use the stairs instead of the elevator.
3. Park farther away from the entrance of a building.
4. Window shopping.



To...
Cc...
Subject: Steps that count! : How did I do over the past 2 weeks?
Attached: Figure 3.docx (119 KB)

Dear Participant,

Thank you for providing us with your pedometer data and well done on completing the last 2 weeks of pedometer wear.

Below is a summary of your average steps/day information:-

Average daily steps/d accumulated: 5476 steps

Number of days that aerobic steps were accumulated: 03

Average aerobic steps/d (steps that count): 1582 (12 minutes)

Remember, the current public health recommendation for physical activity is a minimum of **30 minutes**

of moderate intensity physical activity (or steps that count!) at least **5 days a week** so keep going.

The suggestion to increase your steps by approximately 10% per week until the target of at least 30 minutes

of **steps that count** is achieved and maintained is a steady way to ensure improvement towards reaching this target.

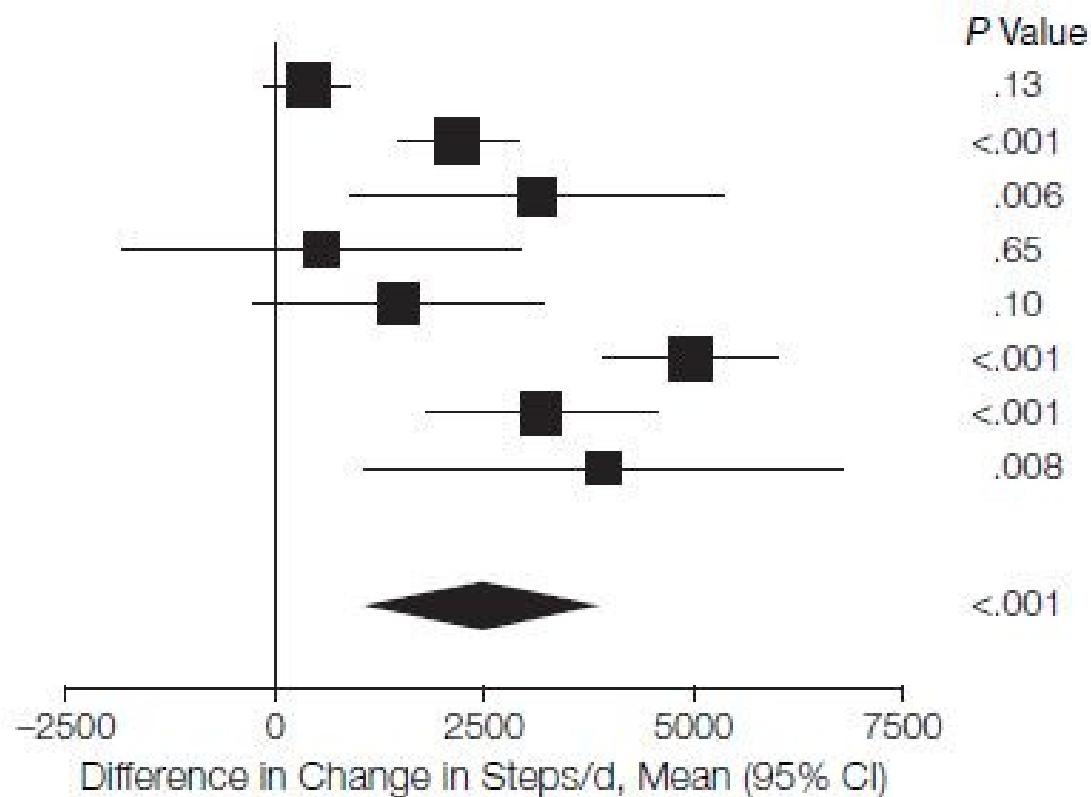
Attached are some further ideas to increase your steps per day.

Steps that count!

YouTube



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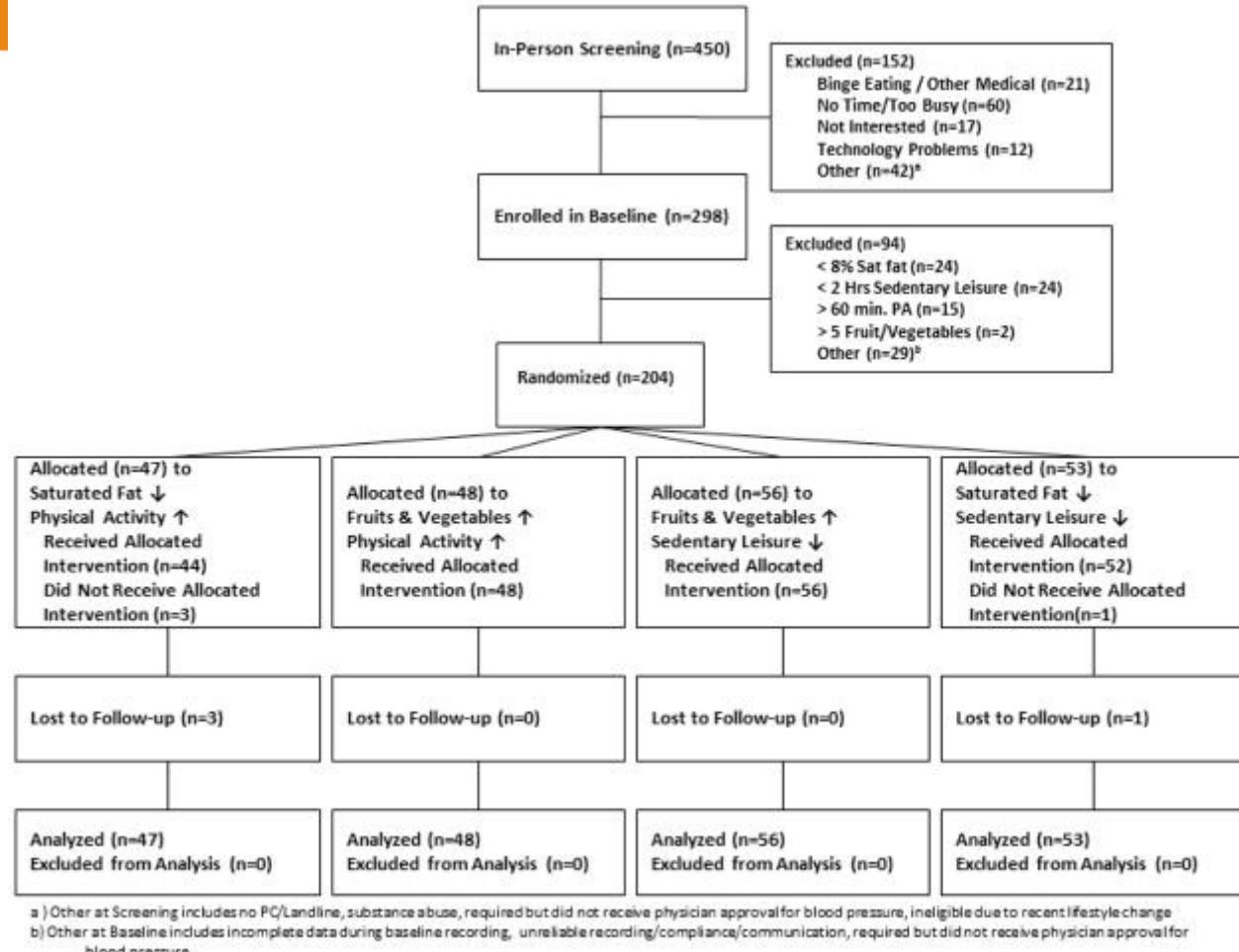


Bravata, D. M., Smith-Spangler, C., Sundaram, V., Gienger, A. L., Lin, N., Lewis, R.,..., & Sirard, J. R. (2007). Using pedometers to increase physical activity and improve health. *JAMA: the Journal of the American Medical Association*, 298(19), 2296-2304.

Physical activity



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a) Other at Screening includes no PC/Landline, substance abuse, required but did not receive physician approval for blood pressure, ineligible due to recent lifestyle change

b) Other at Baseline includes incomplete data during baseline recording, unreliable recording/compliance/communication, required but did not receive physician approval for blood pressure

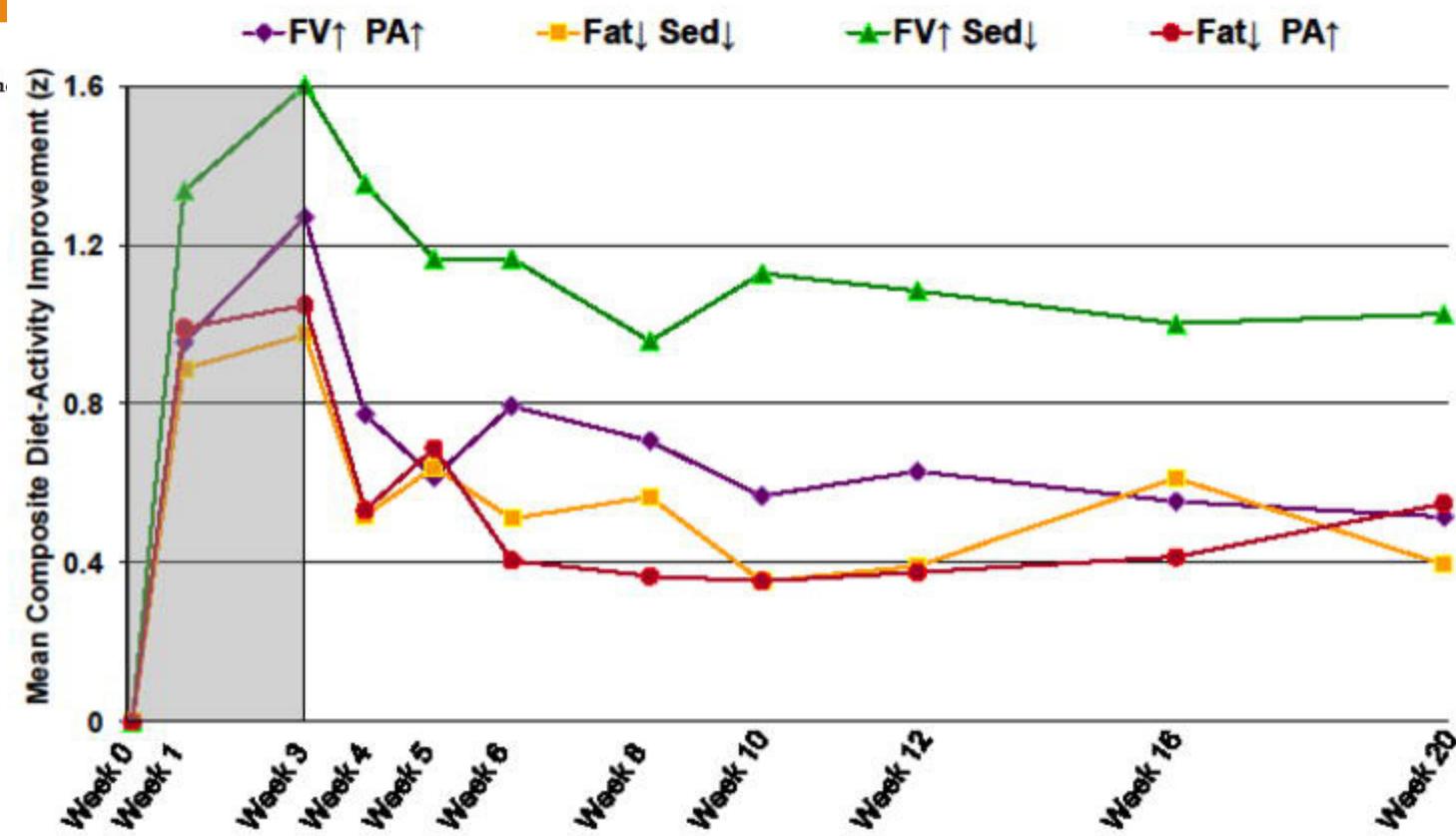
[Arch Intern Med.](#) 2012 May 28;172(10):789-96. doi: 10.1001/archinternmed.2012.1044.

Multiple behavior changes in diet and activity: a randomized controlled trial using mobile technology.

[Spring B, Schneider K, McFadden HQ, Vaughn J, Kozak AT, Smith M, Moller AC, Epstein LH, Demott A, Hedeker D, Siddique J, Lloyd-Jones DM.](#)

Physical activity

Figure 2a



[Arch Intern Med.](#) 2012 May 28;172(10):789-96. doi:

10.1001/archinternmed.2012.1044.

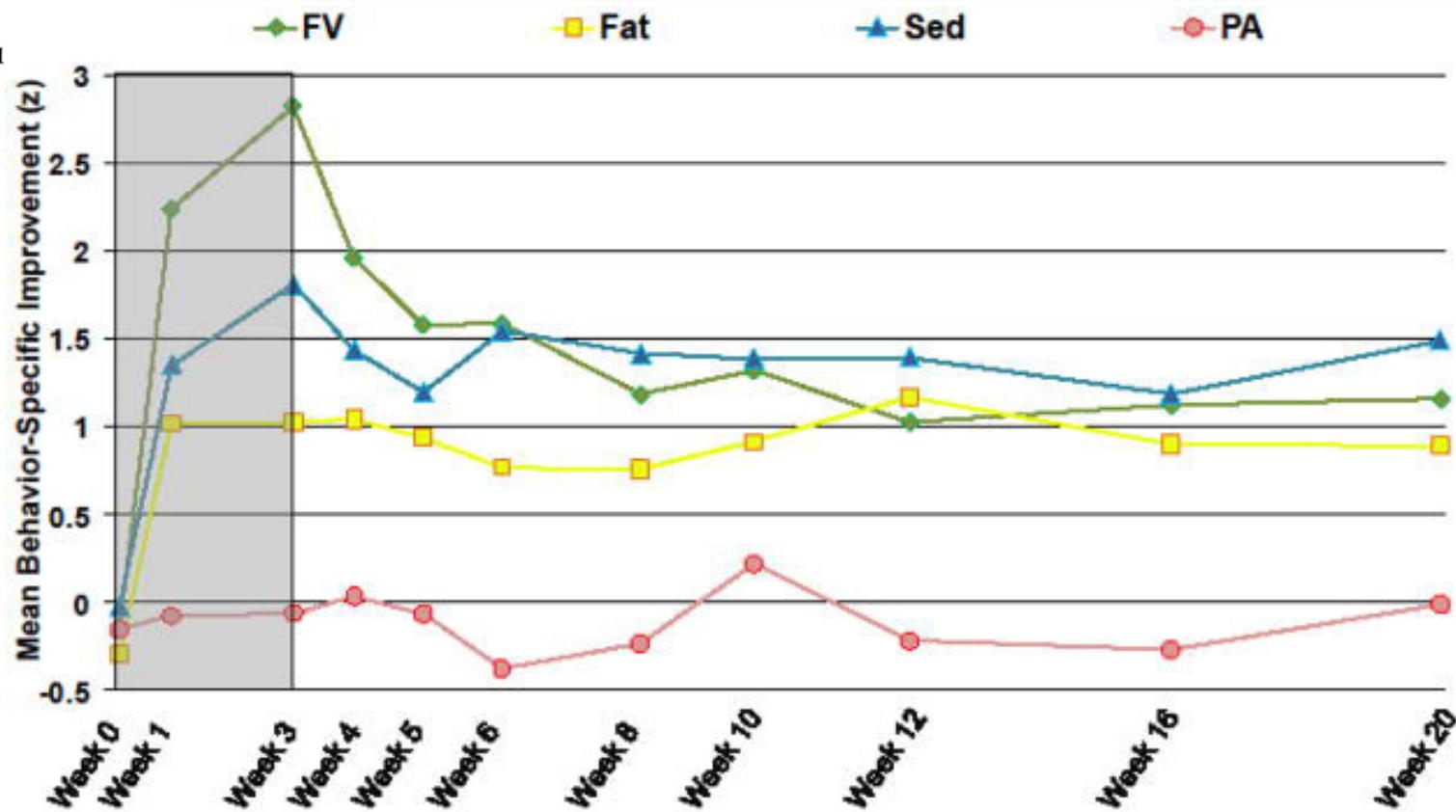
Multiple behavior changes in diet and activity: a randomized controlled trial using mobile technology.

[Spring B](#), [Schneider K](#), [McFadden HG](#), [Vaughn J](#), [Kozak AT](#), [Smith M](#), [Moller AC](#), [Epstein LH](#), [Demott A](#), [Hedeker D](#), [Siddique J](#), [Lloyd-Jones DM](#).

Physical activity



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