THE LOST GENERATION?
COMBATING OBESITY IN OLDER ADULTS

Marjolein Visser    VU University Amsterdam
Weight gain during life
Overweight and obesity in NL

Netherlands Statistics 2012
Obesity in US

CDC/NCHS, National Health and Nutrition Examination Survey, 2009-2010
Reduced physical activity in old age

- work
- transportation
- household
- leisure time
But they seem so active!
Weight gain during life
Generational differences

1992-93
Age 55-65 years
966 men and women

2002-03
Age 55-65 years
1,002 men and women

Longitudinal Aging Study Amsterdam
Obesity trend in older adults NL

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<tr>
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<td>Normal</td>
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<td>Overweight</td>
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<td>Obesity</td>
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Obesity trend in older adults NL

<table>
<thead>
<tr>
<th>Year</th>
<th>Men</th>
<th>Women</th>
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<tr>
<td>1992-93</td>
<td>35,5</td>
<td>36,7</td>
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<td>2002-03</td>
<td>25,5</td>
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<td>2012-13</td>
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</table>

- Normal weight
- Overweight
- Obesity
Obesity trend in older adults US

![Bar chart showing obesity trends in men and women from 1999-2002, 2003-2006, and 2007-2010](chart.png)

CDC/NCHS, National Health and Nutrition Examination Survey, 2007-2010
Intergenerational cycle of obesity

Obese, older adults....

..... the end product of the obesity epidemic.
The lost generation?
ISBNPA abstracts 2014

5% of all abstracts

- Other age groups: 797
- Older adults: 46
- Physical activity: 33
- Nutrition: 10
- Methods: 3
Common beliefs

- Weight gain with aging is natural process, thus being overweight or obese in old age is normal;
- Being obese in old age is not harmful;
- Obesity in old age is protective (‘obesity paradox’);
- Older persons do not mind being obese;
- Older persons cannot change their lifestyle anymore;
- Weight loss in old age is harmful.
Common belief:

Being obese in old age is not harmful
On basis of meta-analysis of studies with measured height and weight
Flegal KM et al. JAMA 2013;309:71-82
Obesity and mortality in BMI 25-50 range

Obesity and incident disease in BMI 25-50 range

Body fat and incident mobility limitations

Cardiovascular Health Study, Age 65+ years

Health ABC Study, Age 70-79 years.
Obesity duration and mobility

3392 men and women aged 55+ years
Obesity and 6-y incidence of pain

Longitudinal Aging Study Amsterdam; Men and women aged 55-85 years with no pain at baseline.
Common belief:

Obese in old age is protective (‘obesity paradox’)

Challenges BMI-mortality relationship

- More smokers
- More (subclinical) disease
- More recent weight loss

Obesity paradox = Statistical bias
Obesity and mortality in diabetics

Normal weight was defined as a BMI of 18.5-24.9; those categorized as overweight/obese had a BMI of ≥25.

Obesity paradox = statistical bias

- Non-obese diabetics were sicker and experienced more weight loss;
- Odds of being smoker between non-obese and obese was much higher in diabetics;
- Among non-smokers, the obesity paradox was eliminated.

Common belief:

Older persons do not mind being obese
Perception of body weight

- Overweight women: 84.1%
- Overweight men: 88.7%

Longitudinal Aging Study Amsterdam. Aged 65-80 y and BMI ≥ 28 kg/m².
Monteagudo C, Dijkstra CS, Viser M. JNHA, in press.
Satisfaction with body weight

Overweight women:
- Satisfied: 56.3%
- Little satisfied: 18.1%
- Not satisfied: 17.6%
- Don't know: 8%

Overweight men:
- Satisfied: 64.4%
- Little satisfied: 19.5%
- Not satisfied: 7.5%
- Don't know: 8.6%

Longitudinal Aging Study Amsterdam. Aged 65-80y, BMI ≥ 28 kg/m². Monteagudo C, Dijkstra CS, Viser M. JNHA, in press.
Body image of obese older women

Current image

%
Body image of obese older women

[Bar chart showing current and ideal images of body types, with percentages indicated for each type.]
Weight management

Longitudinal Aging Study Amsterdam. Aged 65-80y, BMI ≥ 28 kg/m².
Common belief:

Older persons cannot change their lifestyle anymore.
Intentional weight loss and age

* P<0.05 versus 45-55 y, † p<0.05 versus 56-65 y. Look HEAD trial; Obesity 2014;22:5-13.
Intentional weight loss and age

* P<0.05 versus 45-55 y, † p<0.05 versus 56-65 y. Look HEAD trial; Obesity 2014;22:5-13.
Common belief:

Weight loss in old age is harmful
Weight change and mortality

5% weight loss
HR 1.67 (95% CI 1.29-2.15)

4714 older adults, aged 65 and older.
Reason weight loss past 6 mos

- Medical reasons (28%)
- Dieting (27%)
- Social Reasons (18%)
- Unknown / old age (11%)
- Increase physical activity (5%)

Longitudinal Aging Study Amsterdam
N=3554, aged 55+ y
Reason weight loss and 3-y mortality

Intentional weight loss and mortality

Control (N=159)
Mean weight loss = -1.4 kg,
30 deaths.

Intervention (N =159)
Mean weight loss = -4.8 kg,
15 deaths.

Mean age 69 (SD 6) years, BMI 34 (SD 5), 72% female / ADAPT Study, 18 mos intervention.
Intentional weight loss and mortality

Intentional weight loss and mortality

Treatment obesity in old age

27 frail, obese persons, age ≥ 65 y. Villareal DT et al., Arch Intern Med 2006
Benefits of intentional weight loss

in overweight or obese, older persons:

- Prevention of diabetes mellitus (DPT)
- Reduction OA symptoms (Messier 2004)
- Reduction urinary incontinence (Bryer 2014)
- Reduction pain (Messier 2004, Villareal 2006)
- Reduction sexual disfunction (Wing 2013)
- Increase mobility (Mesier 2004, Villareal 2006, Rejeski 2012)
- Increase functional status (Villareal 2006)
- Increase vitality (Villareal 2006)
- ......

With no increase in mortality rate!!
Common beliefs

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Obesity in old age

In sheep’s clothing perhaps, but still a wolf!

Osher E, Stern N. Diab Care 2009;32:S398-402.
Prevention and treatment of obesity... 

...should take place at all ages.
THANK YOU FOR YOUR ATTENTION

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