

# Validation of a web based dietary method in Sweden

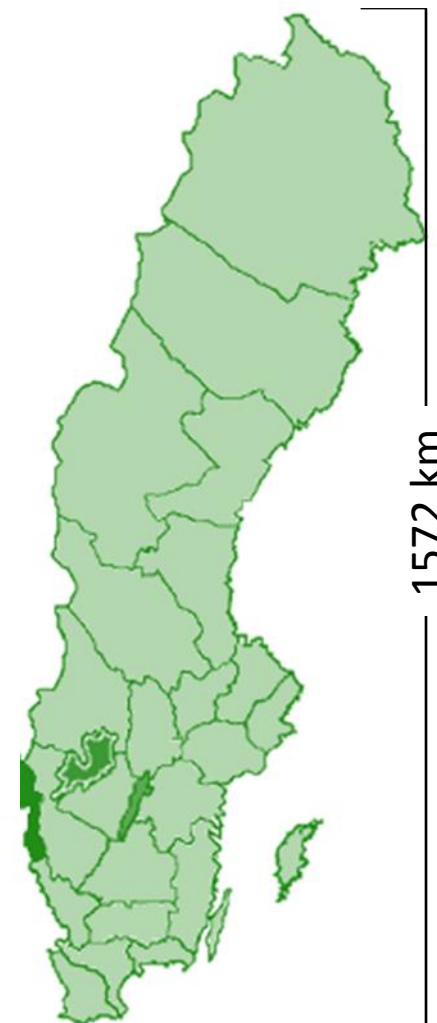
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# New survey – new Challenges

- Adapt to the EU- Menu methodology guidance
- Resources – financial and staff
- Recruitment – difficult to recruit participants



# Guidance on the EU-Menu Methodology

- Two non-consecutive days
- Computer-assisted personal or telephone interview
- Include FoodEx2 classification system
- Food Propensity Questionnaire
- Height and weight (measured in children)
- Physical activity

# Web based method: 24h recalls and 4 questionnaires

## Example

The screenshot shows a web interface for selecting a fish portion. At the top, there is a button labeled 'Avbryt' and a title 'Fisk tillagad'. Below the title is a section 'Ange portion' with a visual representation of a portion size (a salmon fillet on a plate) and a scrollable indicator with five dots, the third of which is filled. Below the image is a section 'Detaljera livsmedel' with a dropdown menu showing 'Fisk' and a blue button 'Spara' at the bottom. Arrows from the text on the right point to the scrollable indicator, the portion size image, the dropdown menu, and the 'Spara' button.

Choose portion size by scrolling

Choose number of portions

Type of fish

- Tested portion sizes incorporated in the method
- Foods reported as consumed – can be converted to raw
- FoodEx2 classification

# Validation study - design

Participants 11, 14, 17 years, recruited in schools

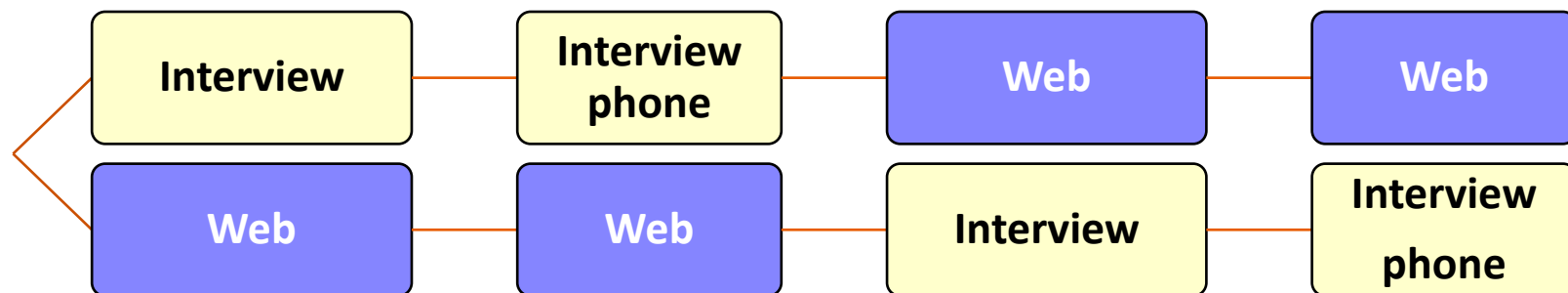
*Visit 1*

*Visit 2*

*Visit 3*

Blood  
Height, weight

Information



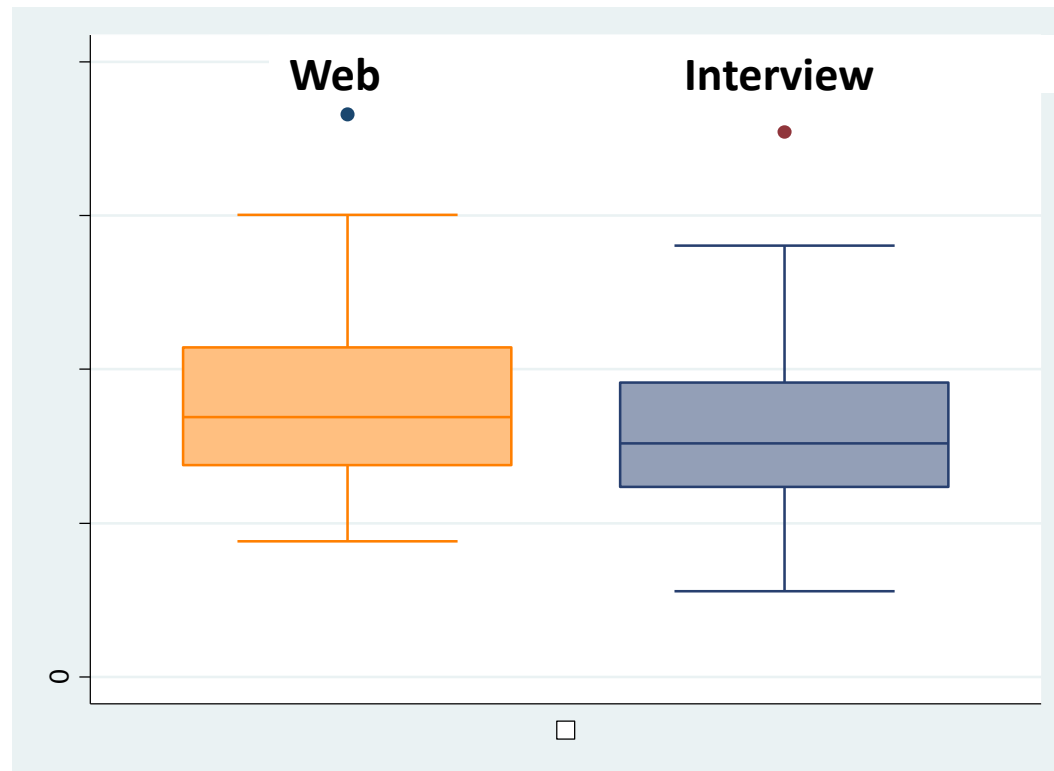
**Objective biomarkers**

plasma carotenoids (fruit and vegetables)

plasma Alkylresorcinols (whole grain)

# Comparison between methods, Energy

Energy, kJ



# Fruit and vegetables (F+V) and Carotenoids

	Web	Interview
<b>F+V, g<sup>b</sup></b>	198 (88; 332)	206 (137; 290)
<b>Tot carotenoids, μmol/L<sup>b</sup></b>	2.42 (1.97, 3.06)	
	<b>r<sub>spearman</sub></b>	<b>r<sub>spearman</sub></b>
<b>F+V vs. tot carotenoids</b>	0.26*	0.21

<sup>a</sup> Non-fasting blood sample

<sup>b</sup> Median, Q1; Q4

\* P<0.05

# Whole grains<sup>a</sup> and Alkylresorcinols (AR)<sup>b</sup>

	Web	Interview
Whole grains, g/MJ <sup>c</sup>	1.1 (0.5; 2.0)	1.0 (0.1; 2.3)
AR total, nmol/L <sup>c</sup>		51 (30; 102)
	$r_{\text{spearman}}$	$R_{\text{spearman}}$
Whole grains vs. AR	0.36**	0.30*

<sup>a</sup> Whole grains from wheat and rye; <sup>b</sup> Non-fasting blood sample; <sup>c</sup> Median, Q1; Q4

\* P<0.05; \*\* P<0.01



# Validation study - conclusions

- The web based 24h recall method was well-received by the adolescents
- The web based 24h recall method provides information on
  - **energy composition**
  - **intake of fruit + vegetables and whole grains**that is as valid as that from interview based 24h recall

Thank you for your attention