

Healthy aging: first insights from the SENPAN-Study, the Wädenswil senior panel

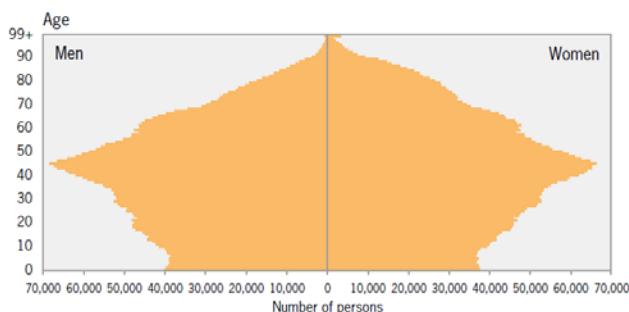
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Background and aims

Demographic change is an important concern in Europe and Switzerland (fig.1), since changes in needs, preferences and habits of the aging population bring new challenges to the public health sector. This emphasizes the urgency of research to understand changes which occur during aging and their effects on both nutrition and health. ZHAW is presently conducting a study to assess physiological, nutritional behavior and sensory changes in elderly people. Study participants, recruited from the region Zürich / Wädenswil, must be at least 64 years old and living independently without additional private health assistance. The survey aims to identify relevant factors and conditions which influence the aging process and subsequently also affect health and well-being. It is the start of an ongoing monitoring study, conducted yearly.



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Fig. 1 Age pyramid of Switzerland in 2009, BFS, 2010

Methods

At yearly intervals study participants will be tested by different nutrition survey methods: A Food Frequency Questionnaire to assess dietary patterns and two online-questionnaires to assess food consumption, social environment, leisure activities, health status and subjective well-being. Physiological changes are followed by anthropometric measurements (bioelectric impedance analysis, Waist Hip Ratio (WHR), Body Mass Index (BMI), upper arm and calf circumference). Timed-up & go- and Chair Rise test are used to determine physical fitness as well as hand grip measurement with a Smedley Dynamometer. Sensory assessment consists of recognition of selected aromas and tastes at different concentrations

Results

In the first survey session (October 2012 - March 2013), 27 (52%) out of 52 participants were female and 25 (48%) male. Ranging from 64 to 80 years of age, the average age was 69,8 ($\pm 3,97$) years. According to BMI ($\text{♀} 23,1 \pm 3,78$; $\text{♂} 26,3 \pm 2,51$) (tab.1) and WHR ($\text{♀} 0,81 \pm 0,06$; $\text{♂} 0,95 \pm 0,05$) the panelists were normal weight; and level of physical activity, estimated by PAL-Sport (Physical Activity Level) was 0,16 ($\pm 0,1$). Although 46% of panel participants suffered from chronic diseases, 91% classified their state of health "good" to "very good" (tab. 2). This is in line with the felt age versus real age of participants. On average participants feel 4.9 years younger than they are. All 52 participants managed an independent household, 81% (N=42) were living in a two-person household, the remainder, in single households. Access to internet and e-mail was available to 98% (N=51). The choice of food products was seasonal with priorities given for freshness (79%) and flavor (73%).

Table 1: Body Mass Index of participants (in women and men)

BMI-classification	total			women			men		
	n	%	$\bar{\phi}$ BMI (in kg/m ²)	n	%	$\bar{\phi}$ BMI (in kg/m ²)	n	%	$\bar{\phi}$ BMI (in kg/m ²)
Under weight	23	44	21,5 ($\pm 1,94$)	19	70	21,1 ($\pm 1,94$)	4	16	23,3 ($\pm 0,13$)
Normal weight	22	42	25,9 ($\pm 1,23$)	6	22	26,23 ($\pm 1,35$)	16	64	25,8 ($\pm 1,21$)
Overweight	7	13	30,8 ($\pm 1,32$)	2	7	32,0 ($\pm 1,41$)	5	20	30,4 ($\pm 1,09$)

Table 2: Subjective rating of health status and felt health status in comparison to others of same age

Question	How do you rate your present health status?			How do you rate your present health status compared to others of your age?		
		n	in %		n	in %
possible answers	very good	16	28	very good	19	33
	good	36	63	good	29	51
	satisfactory	5	9	satisfactory	9	16
	not at all good	-	-	not at all good	-	-

Conclusions

- Results so far are largely descriptive and provide the basis required for future monitoring.
- Study participants are healthy, active and socially well-integrated.
- Future surveys of SENPAN will build upon this basis, recording relevant changes as a function of aging, i.e. intra- and inter-individual changes in physiology, nutrition, and health status as well as well-being during aging.