

Supplemental Table I. Vitamin D intakes in different populations in the Nordic countries.

Country	Study	Cohorts/study year	Study population	Dietary assessment method	Mean (SD) vitamin D intake ($\mu\text{g/d}$): total (habitual diet + supplements)/from habitual diet/from supplements
Adults/general population					
<i>Denmark</i>	Pedersen et al. [25]	Danish National Survey of Dietary Habits and Physical Activity 2011-2013	3016 adults 18-75 y	7-day food record	<i>Dietary intake</i> Women 4.3 (4.0) Men 5.3 (4.7)
<i>Finland</i>	Valsta et al. [23]	FinDiet 2017 Study	1655 adults 18-64 y	2x24h recall	<i>Total intake</i> <i>women:</i> all women 10 (na) supplement non-users 9.1 (na) supplement users 36 (na) (from supplements 26 (na)) <i>men:</i> all men 13 (na) supplement non-users 13 (na) supplement users 36 (na) (from supplements 23 (na))
<i>Iceland</i>	Thorgeirsdottir et al. [27]	National dietary survey (2010-2011)	1311 adults aged 18-80 y	24h recall	<i>Total intake</i> All 8.1 (9.3) Women 6.6 (8.2) Men 9.7 (10.1)
<i>Norway</i>	Totland et al. [22]	Norkost 3 (2010-2011)	1787 adults 18-70 y	2x24h recall	<i>Total/dietary intake</i> Women 10 (na)/4.9 (4.3) Men 12 (na)/6.7 (5.7)
<i>Sweden</i>	Amcoff et al. [24]	Riksmaten 2010-2011	1797 adults 18-80 y	4-day food diary	<i>Dietary intake</i> Women 6.4 (4.2) Men 7.6 (5.4)
Older adults					
<i>Denmark</i>	Pedersen et al. [25]	Danish National Survey of Dietary Habits and Physical Activity 2011-2013	524 elderly 65-75 y	7-day food record	<i>Dietary intake</i> Women 5.4 (5.0) Men 6.3 (4.6)
<i>Finland</i>	Valsta et al. [23]	FinDiet 2017 Study	204 men and 247 women 65-74 y	2x24h recall	<i>Total intake</i> women: 10.0 (na) men 12.6 (na)
<i>Iceland</i>	Thorgeirsdottir et al. [27]	National dietary survey (2010-2011)	167 women and 151 men 61-80 y	24 h recall	<i>Total intake</i> Women 8.6 (8.6) Men 13.4 (12.9)
<i>Norway</i>	Totland et al. [22]	Norkost 3 (2010-2011)	164 women and 217 men 60-70 y	2x24 h recall	<i>Dietary intake</i> Women: 5.8 (5.4) Men: 7.8 (6.7)
<i>Sweden</i>	Amcoff et al. [24]	Riksmaten 2010-2011	367 elderly 65-80 y	4-day food diary	<i>Dietary intake</i> Women 7.6 (4.7) Men 9.1 (5.9)
Infants, children and adolescents					
<i>Denmark</i>	Pedersen et al. [25]	Danish National Survey of Dietary Habits and Physical Activity 2011-2013	421 children 4-9 y, 509 children 10-17 y	7-day food record	<i>Dietary intake</i> 4-9 y 2.8 (2.3) 10-17 y 2.8 (2.4)
<i>Finland</i>	Hauta-alus et al. [57]	VIDI (2014-2015)	739 infants 1 y	3-day food record	<i>Dietary intake</i> non-breast-fed 7.5 (3.2) breast-fed 3.8 (3.0)

	Skaffari et al. [28]	DAGIS (2015-16)	864 children 3-6 y	3-5-day food records + FFQ (supplement intake)	<i>Total intake</i> all 21 (na) supplement users 22 (na) <i>Dietary intake</i> Girls 8.7 (na) Boys 9.6 (na)
<i>Iceland</i>	Thorisdottir et al. [30]	Icelandic children followed up from infancy (2011)	139 children 6 y	3-day food record	<i>Total/dietary intake*</i> 5.0 (2.3, 12.1)/2.3 (1.6, 3.3)
	Thorisdottir et al. [50]	2006	76 infants 1 y	3-day weighted food record	<i>Total intake</i> 8.8 (5.2)
<i>Norway</i>	Hansen et al. in [12]	Ungkost 3 (2015)	636 children 9 y, 687 children 13 y	4-day web-based food diary	<i>Total/dietary intake</i> 9 y 7.0 (5.4)/3.8 (2.7) 13 y 7.0 (6.2)/3.9 (3.4)
<i>Sweden</i>	Åkeson et al. [51]	2012-2013	110 children 5-7 y	FFQ	<i>Dietary intake</i> Northern Sweden 6.7 (2.3) Southern Sweden 5.1 (2.2)
	Warensjö Lemming et al. [29]	Riksmaten Ungdom 2016-2017	11-13 y children at fifth class (n=1049) 12-16 y children at eighth class (n=1050) 2nd class high school 17-21 y (n=1000)	2-day web-based food record	<i>Dietary intake</i> 5th class boys 5.7 (2.2) 5th class girls 5.6 (2.0) 8th class boys 7.2 (3.2) 8th class girls 5.7 (2.5) high school boys 6.5 (3.0) high school girls 4.9 (1.9)
Immigrants					
<i>Denmark</i>	Grønberg et al. [32]	ODIN FOOD 2015	72 Pakistani women 18-50 y	FFQ	<i>Total/dietary intake</i> (median & 95% percentile) 13.0 (6.8-29.3)/1.1 (1.0, 2.0)
<i>Finland</i>	Adebayo et al. [36]	MarwoD (2015)	47 Somali women 21-64 y	interview-administered FFQ	<i>Total/dietary intake</i> 22.5 (12.6)/ 11.3 (5.1)
<i>Iceland</i>	na	na	na	na	na
<i>Norway</i>					
	Kolve et al. [33]	InnBaKost: Nutrition and health among immigrant infants and children (2013-14)	166 infants 12 months with Somali and Iraqi ethnic background	2x24 h recall	<i>Total intake*</i> Somali 12 months: 14 (10,18) Iraqi 12 months: 12 (7,17)
<i>Sweden</i>	Åkeson et al. [51]	2012-2013	98 children 5-7 y	FFQ	<i>Dietary intake</i> Northern Sweden 7.4 (3.1) Southern Sweden 5.4 (2.2)
	Björk et al. [31]	2009	31 female primary health care centre patients with immigrant origin	FFQ	<i>Total/dietary intake</i> 3.1 (2.0-4.7)/3.1 (2.0-4.4)
Pregnant women					
<i>Denmark</i>	Jensen et al. [37]	1996-2002	68 447 pregnant women	FFQ	<i>Total/dietary/supplemental intake</i> 9.2 (5.6)/3.6 (2.1)/5.7 (5.2)
<i>Finland</i>	Meinilä et al. [38]	2008-2011	394 pregnant women, mean age 32 y	3-day food record	<i>Total/dietary intake</i> 12 (8,18)/6 (4,9) (median IQR)
<i>Iceland</i>	Gunnarsdottir et al. [39]	2012-2013	183 pregnant women	4-day weighed food record	<i>Total intake</i> 13.1 (11.3)
<i>Norway</i>	Gustafsson et al. [40]	2007-2009	855 pregnant women, mean age 30.5 y	FFQ	<i>Total/supplemental intake</i> 10.4 (7.0)/5.5 (6.5)
<i>Sweden</i>	Bärebring et al. [55]	2013-2014	1985 pregnant women 17-47 y	FFQ	<i>Dietary intake</i> 1st trimester 2.4 (1.6) 3rd trimester 3.3 (1.7)

*median (25th&75th percentile); FFQ: food frequency questionnaire; na: no data available