

Variable Harmonization Mapping Across DCH, Tromsø, and HUNT Cohorts

Variable	Tromsø 5 ^a	Tromsø 6 ^b	HUNT 3 ^c	DCH ^d	Harmonized variables	Mapping notes ^e
Age	AGE_T5 Continuous, years	AGE_T6 Continuous, years	partagt3blq1 Continuous, years	age_start Continuous, years	Age Continuous, years	
Sex	SEX_T5 0=female; 1=male	SEX_T6 0=female; 1=male	Sexx 0=female; 1=male	kqn 0=female; 1=male	Sex 0=female; 1=male	
Marital status	MARITAL_STATUS_T5 1=single; 2=married/registered partner; 3=widow; 4=divorced; 5=separated	MARITAL_STATUS_T6 1=single; 2=married/registered partner; 3=widow; 4=divorced; 5=separated	maritstatnt3blq1 0=undisclosed; 1=unmarried; 2=married; 3=widow(er); 4=divorced	gCivst 1=married/cohabiting; 2=widow(er); 3=divorced; 4=not married	Marital_status 0=cohabiting; 1=not cohabiting	Tromsø 5&6: 2→0; 1,3,4,5→1 <u>HUNT 3</u> 0→NA; 2→0; 1,3; 4→1 <u>DCH</u> 1→0; 2-4→1
Education	EDUCATION_T5 Continuous, years	EDUCATION_T6 1=Primary/secondary school, modern secondary school; 2=Technical school, vocational school, 1-2 years senior high school; 3=High school diploma; 4=College/university <4 years; 5=College/university 4 years or more	educnt3lu2q 1=Compulsory primary and lower secondary school; 2=Vocational / upper secondary school; 3=General education or sixth form of comprehensive school; 4=College or university, < 4 years; 5=College or university, 4 years or more	gUdda 1=mandatory; 2=secondary; 3=short education; 4=medium education; 5=long education	Education 0=mandatory; 1=secondary/vocational; 2=medium/long	Tromsø 5: 0-10 yrs→0; 11-15→1 16 or more→2 <u>Tromsø 6 & DCH:</u> 1→0; 2-3→1; 4-5→2 <u>HUNT3:</u> Too many missing.
Occupation	a) PAID_WORK_U70_T5 1=yes, full time; 2=yes, part time; 3=no b) PHYSICAL_ACTIVITY_WORK_T5 1=Mostly sedentary work? (e.g. office work, mounting); 2=Work that requires a lot of walking? (e.g. shop assistant, light industrial work, teaching); 3=Work that requires a lot of walking and lifting? (e.g. postman, nursing, construction); 4=Heavy manual labour? (e.g. forestry, heavy farmwork, heavy construction))	a) OCCUPATION_UNEMPLOYED_T6 0=no; 1= yes b) OCCUPATION_RETIRED_T6 0=no; 1= yes c) PHYSICAL_ACTIVITY_WORK_T6 1=Mostly sedentary work? (e.g. office work, mounting); 2=Work that requires a lot of walking? (e.g. shop assistant, light industrial work, teaching); 3=Work that requires a lot of walking and lifting? (e.g. postman, nursing, construction); 4=Heavy manual labour? (e.g. forestry, heavy farmwork, heavy construction))	a) WorCu@NT4BLI 0=no; 1=yes b) WorTitiSCO1@NT4BLI 1=legislators, senior official and managers; 2=professionals; 3=technicians and associate professionals; 4=clerks; 5=service workers, shop and market sales workers; 6=skilled agricultural and fishery workers; 7=craft/trade related; 8=plant & machine operators; 9=elementary occupations (need to create a category for unemployed and retirement)	gOccupation 1=blue collar; 2=low level white collar; 3=high level white collar; 4=unemployed; 5=retired	Occupation 0=white collar ; 1=blue collar; 2=unemployed/retired	Tromsø 5: 1 (b)→0 ; 2-4 (b)→1; 3 (a) → 2 <u>Tromsø 6:</u> 1 (c) → 0; 2-4 (c)→1; 1 in (a, b) → 2 <u>HUNT:</u> 1-5,9 (b)→0; 6-8 (b)→1; 1 (a) → 2 <u>DCH</u> 1→1; 2,3→0; 4,5→2
Smoking status	SMOKE_DAILY_T5 1=current; 2=former; 3=never	SMOKE_DAILY_T6 1=current; 2=former; 3=never	smostatnt3blq1 0=never; 1=former; 2=current; 3=occasional	rygning 1=current; 2=former; 3=never	Smok_status 1= current; 2= former; 3=never	<u>HUNT:</u> 0→1; 1→2; 2-3→3
Smoking intensity	CIGARETTES_NUMBER_T5 Continuous, 0-60	CIGARETTES_NUMBER_T6 Continuous, 0-99	SmoCigPreN@NT4BLQ1 Continuous, no: cigarettes/day	gram_nu Continuous, g tobacco/day (based on cigarettes, cigars, and pipes)	Smok_int Continuous, Tobacco g/day	Tromsø 5, 6 & HUNT: No: of cigarettes→tobacco g/day Source: WHO: European code against cancer ¹ 1 cig =1 g tobacco)
Smoking duration	SMOKE_YEARS_T5 Continuous, years	SMOKE_YEARS_T6 Continuous, years	a) SmoDyDuEd@NT3BLQ1 Continuous, years	varigx Continuous, years	Smok_dur Continuous, years	

			b) SmoOcDuEd@NT3BLQ1 Continuous years			
Smoke exposure at work	a) SMOKE_ROOMS_HOURS_T5 Continuous, hrs (0-24) b) SMOKE_HOME_20_T5 0=no; 1=yes	NA	WorDust@NT3BLI 0=no; 1=sometimes; 2=often	smoke_work Passive smoking at work: categorical (based on hours of exposure to tobacco when person is >=50 years old: 0=0, 1=1-3, 2=4-7, 3=8 or more)	Smok_work 0=no; 1=yes	TROMSØ 5: 0 (b) & ≤1→0 0 (b) & >1→1 HUNT3: 0→0; 1,2→1 DCH: 0→0; 1,2,3→1
Passive smoking at childhood	a) SMOKE_HOME_CHILD_T5 0=no; 1=yes	NA	SmoExpCh@NT3BLQ1 0=no; 1=yes	NA	Smokexp_child 0=no; 1=yes	Unable to fully harmonize the variable across the cohorts.
Alcohol intake	a) BEER_GLASSES_T5 b) WINE_GLASSES_T5 c) SPIRITS_GLASSES_T5 a-c: Continuous, no: glasses/2 weeks d) TEETOTALLER_T5 0=no; 1=yes	ALCOHOL_UNITS_T6 units/week 1=1-2 units/week; 2=3-4 units /week 3=5-6 units/week; 4=7-9 units/week; 5=10 or more units/week	AlcTotGW@NT3BLQ1 Continuous, g/week	alko Continuous, g/day	Alcohol Continuous, g/day	Tromsø 5: 1(c)→0 g/day a+b+c→ g/day Alcohol conversion² Tromsø 6: 1 unit=8 g alcohol Units converted to gms/7 days HUNT3: Divide the g/week by 7
BMI	BMI_T5 Continuous, kg/m²	BMI_T6 Continuous, kg/m²	Bmi@NT3BLM Continuous, kg/m²	BMI Continuous, kg/m2	BMI Continuous, kg/m²	
Physical activity	PHYS_ACTIVITY_LEISURE_HARD_T5 (based on hrs/wk) 1=none; 2=<1; 3=1-2; 4=3 or more	a) EXERCISE_T6 1=never; 2=<once a week; 3=once/week; 4=2-3/week; 5=nearly everyday b) EXERCISE_LEVEL_T6 1=easy; 2=shortwinded & sweaty; 3=exhausted	ExeHarDuLY@NT3BLQ2 0=none; 1= <1 hr/wk ; 2=1-2 hr/wk; 3=3 or more	tsport Continuous (hours of sport per week, different activities considered: walking, cycling, housework, DIY work, gardening, practiced sports)	Phys_act categorical, based on frequency of high-intensity activity 0=never; 1= low/medium; 2=high	Tromsø 5: 1→0; 2,3→1; 4→2 Tromsø 6: 1 (a)→0; 2,3 (a) & 2,3(b)→1 4, 5 (a) & 2,3(b)→2 HUNT3: 0→0; 1,2→1; 3→2 DCH: (based on hours of practiced sports) 0 hrs→0; 0-2 hrs→1; >2 hrs →2
Asthma	ASTHMA_T5 0=no; 1=yes	ASTHMA_T5 0=no; 1=yes	astevnt3blq1 0=no; 1=yes	case_asthma Categorical (yes, no) from hospital registers	Asthma 0=no; 1=yes	
COPD	a) FEV1_T52 Continuous b) FVC_T52 Continuous c) COPD from NPR 0=no; 1=yes	a) FEV1_T62 Continuous b) FVC_T62 Continuous c) COPD from NPR 0=no; 1=yes	a) FEV1FVCR@NT3Lu1M Continuous b) COPD from NPR 0=no; 1=yes	case_copd Categorical (yes, no) from hospital registers	COPD_dx 0=no 1=yes	Tromsø 5&6: (a/b)<0.7+1(c)→1 HUNT3: a<0.7+1(b)→1

Air pollution	NO₂, Ozone, PM_{2.5} Daily averages for the years 1985-2018 based on the voting stations they belonged to at the time of the survey.	NO₂, Ozone, PM_{2.5} Daily averages for the years 1985-2018 based on the voting stations they belonged to at the time of the survey.	NO₂, Ozone, PM_{2.5} Daily averages for the years 1985-2018 based on the voting stations they belonged to at the time of the survey.	NO₂, PM_{2.5}, UFP, EC 1-, 5-, 10-year running means based on the full address history and monthly residential exposure at the time of data collection.	NO₂, PM_{2.5} Exposure at time of data collection	
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^a Tromsø 5 is the 5th survey of the Tromsø study conducted in 2001. The Tromsø study is a longitudinal prospective cohort aimed at investigating the associations between environmental exposures, dietary habits, lifestyle, and different health outcomes. A total of 8130 men and women aged between 30 and 89 participated in this study.

^b The sixth survey of the Tromsø Study (Tromsø6) was conducted in 2007-08. A total of 12984 men and women aged 30-87 took part.

^c HUNT3 (2006-2008) is the third survey of the HUNT study. The purpose of The HUNT Study is to provide a solid basis for research into population health on a wide variety of conditions and life style factors and ranging over research fields from social epidemiology to genetic research. HUNT3 collected information among residents in Nord-Trøndelag who were 13 and older (N=50807).

^d The Diet, Cancer and Health cohort (DCH) aimed at investigating the associations between dietary habits, lifestyle, and cancer development. The participants are men and women (N = 57,053) born in Denmark, living in the greater Copenhagen or Aarhus areas, aged 50-64 years. They were recruited during 1993-1997.

^e Cohort variables categories → New variable categories.

¹ <https://cancer-code-europe.iarc.fr/index.php/en/ecac-12-ways/tobacco/46-table/212-types-of-tobacco>

² <https://www.fhi.no/le/alkohol/alkoholinorge/omsetning-og-bruk/alkoholbruk-i-den-voksne-befolkningen/?term=>