Health behaviours separate measures and sum score (STODS)

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Full name: Health behaviours separate measures and sum score (STODS)
Abbreviated name: HB – STODS
Availability in STODS: survey data collected 1998-2003 and 2005, i.e. SALT and STAGE survey data originally from the Swedish Twin Registry (STR) (twins born 1925-1985)
Short description: Health behaviours, particularly physical inactivity, tobacco use, and alcohol consumption, increase the risk of preventable diseases. This indicates that even modest improvement in health behaviours could markedly affect the disease risk. Poor health behaviours also tend to cluster. For example, smoking has been shown to be associated with alcohol abuse disorders. Furthermore, interventions that target multiple health behaviours at once are shown to be more effective than interventions for a single behaviour. Due to the cost and practical barriers to objective assessments of health behaviours, such are often measured by self-reports and a valid, brief self-report measure is useful in some research contexts. Self-report measures of health behaviours commonly combine items on diet, exercise, smoking, and alcohol consumption.
Note on use of the scale: STODS used items of health behaviours available in the SALT and STAGE surveys, data originally from STR. The script below has been checked. Please note that we do not deliver STODS data outside of the division. Interested researchers are encouraged to contact the PI or Co-PI to initiate collaboration. But, if you have SALT or STAGE data from STR or other data containing health behaviours the syntax may also be used on those. Pay attention on how missing or invalid values are represented (often seen as a dot in the data matrix, 998 or 999). Please check that your data contains only valid values, cf. the coding of the response options below. Computing indices based on incomplete data may result in problems at the analytic stage, including false positive results due to restricted variance. In general, we recommend either complete case analysis or multiple imputation to handle internal missing. It is up to the user to decide whether to use the versions suggested here or to modify the scripts. Health behaviour variables in STODS include information on alcohol use, smoking and physical activity, for use as separate measures as well as a sum score. Alcohol use was measured as grams per week from questions inquiring about type, amount, and frequency of alcohol consumption and the guidelines for “risk use” of alcohol (9 standard drinks per week for women and 14 for men) from the Swedish National Institute of Public Health were used to select cut-off points. Smoking included the categories current smokers and non-smokers, and the questions “Have you ever smoked or used snuff”, “Do you currently smoke cigarettes?” and “Do you currently smoke cigarettes occasionally or at parties?” were used to define the groups. Physical activity was measured using the question “Rate your current physical activity level on a scale from 1 to 10; 1=very low (sedentary, mainly sitting), 5=moderate physical activity (a few walks a week), and 10=very high (sports/jogging several times a week)”. Five categories were used: none (1 to 2), low (3 to 4), moderate (5 to 6), high (7 to 8), and vigorous (9 to 10).

Then these separate measures were also utilized as a *sum score* by using the amount of health behaviours. For each health behaviour, a binary score was created using the median split, where the median was included in the category reflecting positive health behaviour. To obtain the sum score, the subjects received 1 point for each health behaviour if they had never used tobacco, had moderate or high leisure-time physical activity and were light consumers of alcohol, otherwise subjects received 0 points for each factor. The health behavior sum score was assigned by summing the binary scores for each of the three health behaviours ranging from 0 (unhealthy behaviour) to 3 (very healthy behaviour).		
Items (Swedish)	Items (English)	Variable name
1. Har du under det senaste året druckit öl, vin eller sprit? Med öl menas all öl som är starkare än lättöl.	*Have you been drinking beer, wine or liquor during the last year? (With beer do we mean beer stronger than low alcohol)*	ALCPSTYR (STAGE)
2. Ungefär hur mycket öl dricker du vid varje tillfälle?	*About how much beer (not light beer) do you drink each time?*	BEERQNT (STAGE)
3. Hur ofta brukar du vanligen dricka öl? Med öl menas all öl som är starkare än lättöl.	*How often do you drink beer (not light beer)?*	BEERFREQ (STAGE)
4. Hur mycket öl drack du sammanlagt på vardagarna, d v s måndag till torsdag, under en vanlig vecka?	*How much beer (not light/low alcohol beer) did you drink altogether during the week, that is from Monday to Thursday during a usual week?*	BEERWKDY (STAGE) BEER_WEEKDAYS_DRICKER_ALDR_OL (SALT) BEER_WEEKDAYS_INGET (SALT) BEER_WEEKDAYS_ETT_GLAS_EL_MIN (SALT) BEER_WEEKDAYS_1_FLASKA_33CL (SALT) BEER_WEEKDAYS_2_FLASKOR (SALT) BEER_WEEKDAYS_3_FLASKOR (SALT) BEER_WEEKDAYS_4_FLASKOR (SALT) BEER_WEEKDAYS_5_FLASKOR (SALT) BEER_WEEKDAYS_6_FLASK_EL_MER (SALT) BEER_WEEKDAYS_VET_EJ (SALT) BEER_WEEKDAYS_VILL_EJ_SVARA (SALT)
5. Hur mycket öl drack du sammanlagt under en vanlig helg, dvs. fredag till söndag?	*How much beer (not light/low alcohol beer) do you drink altogether during a normal weekend, that is from Friday to Sunday?*	BEERWKEN (STAGE) BEER_WEEKENDS_INGET (SALT) BEER_WEEKENDS_ETT_GLAS_EL_MIN (SALT) BEER_WEEKENDS_1_FLASKA_33CL (SALT) BEER_WEEKENDS_2_FLASKOR (SALT) BEER_WEEKENDS_3_FLASKOR (SALT) BEER_WEEKENDS_4_FLASKOR (SALT) BEER_WEEKENDS_5_FLASKOR (SALT) BEER_WEEKENDS_6_FLASK_EL_MER (SALT)

		BEER_WEEKENDS_VET_EJ (SALT) BEER_WEEKENDS_VILL_EJ_SVARA (SALT)
6. Ungefär hur mycket vin dricker du vid varje tillfälle? Med vin menar vi ej starkvin.	*About how much wine do you drink each time?*	WINEQNT (STAGE)
7. Hur ofta brukar du vanligtvis dricka vin, t ex rött eller vitt vin? Med vin menar vi ej starkvin.	*How often do you drink wine (for example red or white wine)? Not fortified wine*	WINEFREQ (STAGE)
8. Hur mycket vin drack du sammanlagt på vardagarna, d v s måndag till torsdag, under en vanlig vecka?	*How much wine did you drink altogether during the week, that is from Monday to Thursday during a usual week?*	WINEWKDY (STAGE) WINE_WEEKDAYS (SALT)
9. Hur mycket vin drack du sammanlagt under en vanlig helg, d v s fredag till söndag?	*How much wine do you drink altogether during a normal weekend, that is from Friday to Sunday?*	WINEWKEN (STAGE) WINE_WEEKENDS (SALT)
10. Ungefär hur mycket starksprit eller likör dricker du vid varje tillfälle?	*About how much liquor/ liqueur do you drink each time?*	SPIRQNT (STAGE)
11. Hur ofta brukar du vanligtvis dricka starksprit eller likör (oavsett som snaps eller i drink)?	*How often do you drink for example liquor, Swedish punch, sherry or hard liquor etc?*	SPIRFREQ (STAGE)
12. Hur mycket starksprit eller likör (oavsett som snaps eller i drink) drack du sammanlagt på vardagarna, d v s måndag till torsdag, under en vanlig vecka?	*How much liqueur /liquor did you drink altogether during the week, that is from Monday to Thursday during a usual week?*	SPIRWKDY (STAGE) SPIRITS_WEEKDAYS (SALT) SPIRITS_WEEKENDS (SALT)
13. Hur mycket likör starksprit eller likör (oavsett som snaps eller i drink) drack du sammanlagt under en vanlig helg, d v s fredag till söndag?	*How much liqueur/liquor do you drink altogether during a normal weekend, that is from Friday to Sunday?*	SPIRWKEN (STAGE)
14. Röker du cigaretter nu?	*Do you use cigarettes now?*	CGNOW (STAGE)

15. Röker du cigaretter då och då eller på fester nu?	*Do you use cigarettes now and then or at parties now?*	SMPTYNOW (STAGE)
16. Har du någonsin rökt eller använt snus?	*Have you ever smoked or used snuff?*	PARTYCIG (STAGE) REGCIG (STAGE) TRYSM (STAGE) NOTRY (STAGE) SMOK_SNUFF_NEJ_INTE_ENS_PROV (SALT) SMOK_SNUFF_JA_BARA_PROVAT (SALT) SMOK_SNUFF_ROKT_DA_OCH_DA (SALT) SMOK_SNUFF_ROKT_REGELBUNDET (SALT) SMOK_SNUFF_FESTROKT (SALT) SMOK_SNUFF_ROKER_DA_OCH_DA (SALT) SMOK_SNUFF_ROKER_REGELBUNDET (SALT) SMOK_SNUFF_FESTROKER (SALT) SMOK_SNUFF_SNUSAT_DA_OCH_DA (SALT) SMOK_SNUFF_SNUSAT_REGELBUNDET (SALT) SMOK_SNUFF_SNUSAR_DA_OCH_DA (SALT) SMOK_SNUFF_SNUSAR_REGELBUNDET (SALT) SMOK_SNUFF_VET_EJ (SALT) SMOK_SNUFFD_V_E_S (SALT)
17. Ange din nuvarande fysiska aktivitet enligt en skala från 1 till 10, från mycket låg till mycket hög. Med fysisk aktivitet menas både arbete i hemmet och i yrkeslivet samt träning, promenader, cykling, skidåkning etc.	*List your current physical activity on a scale of 1 to 10, from very low to very high. By physical activity is meant both work at home and in professional life as well as training, walking, cycling, skiing etc*	PHACTLEV (STAGE) EXERCISE_HOW_OFTEN (SALT)
Response alternatives (Swedish)	Response alternatives (English)	Coding
Ja	*Yes*	1
Nej	*No*	0
Vet ej/Vill ej svara	*Do not know/Do not want to answer*	998
Ett glas eller mindre	*One glass or less*	1
1 flaska (33 cl)	*1 bottle (33 cl)*	2
2 flaskor	*2 bottles*	3

3 flaskor	*3 bottles*	4
4 flaskor	*4 bottles*	5
5 flaskor	*5 bottles*	6
6 flaskor eller mer	*6 bottles or more*	7
1 burk (45 cl)	*1 can (45 cl)*	8
2 burkar	*2 cans*	9
3 burkar	*3 cans*	10
4 burkar	*4 cans*	11
5 burkar	*5 cans*	12
6 burkar eller mer	*6 cans or more*	13
Inget	*Nothing*	14
Dricker aldrig öl	*Never drink beer*	15
Vet ej/Vill ej svara	*Do not know/Do not want to answer*	998
1. Aldrig	*Never*	1
1 gång om året eller mindre	*Once a year or less*	2
2-6 gånger om året	*2-6 times a year*	3
1 gång i månaden	*Once a month*	4
2 gånger i månaden	*Twice a month*	5
1 gång i veckan	*Once a week*	6
2 gånger i veckan	*Twice a week*	7
Varannan dag	*Every other day*	8
Varje dag	*Every day*	9
Vet ej/Vill ej svara	*Do not know/Do not want to answer*	998
15 cl (1 vinglas)	*15 cl (1 wine glass)*	1
30 cl (2 vinglas)	*30 cl (2 wine glass)*	2
37 cl (1 halvflaska)	*37 cl (1 half bottle)*	3
45 cl (3 vinglas)	*45 cl (3 wine glass)*	4
60 cl (4 vinglas)	*60 cl (4 wine glass)*	5
75 cl (1 helflaska)	*75 cl (1 whole bottle)*	6
Inget	*Nothing*	8
Dricker aldrig vin	*Never drink wine*	9
Vet ej/Vill ej svara	*Do not know/Do not want to answer*	998
4 cl (ca en liten snaps)	*4 cl (about a little snaps)*	1
6 cl (1 stor snaps)	*6 cl (1 big snaps)*	2
8 cl (2 små snapsar)	*8 cl (2 small snaps)*	3
18 cl (3 stora snapsar)	*18 cl (3 big snaps)*	5
37 cl (1 halvflaska)	*37 cl (1 half bottle)*	6
Inget	*Nothing*	7
Dricker aldrig starksprit	*Never drink hard liquor*	8
Vet ej/Vill ej svara	*Do not know/Do not want to answer*	998

Ja	*Yes*	1
Nej	*No*	0
Vet ej/Vill ej svara	*Do not know/Do not want to answer*	998
Nej, inte ens provat	*Never even tried*	1
Ja, men har bara provat röka	*Yes, tried smoking*	2
Ja, men bara provat snusa	*Yes, tried snuff*	3
Röker/rökt då och då eller feströker	*Smoking/smoked occasionally*	4
Röker/rökt regelbundet	*Smoking/smoked regularly*	5
Snusar/snusat då och då	*Used/using snuff occasionally*	6
Snusar/snusat regelbundet	*using/used snuff regularly*	7
Vet ej/Vill ej svara	*Do not know/Do not want to answer*	998
Mycket låg (främst sittande)	*Very low (sedentary, mainly sitting)*	1
.	.	2
.	.	3
.	.	4
Måttlig fysisk aktivitet (några promenader i veckan)	*Moderate physical activity (a few walks a week)*	5
.	.	6
.	.	7
.	.	8
.	.	9
Mycket hög (sport/jogging flera gånger i veckan)	*Very high (sports/jogging several times a week)*	10

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/*code in SAS*/

/** Alcohol consumption**/
/*From STAGE data*/

*Filtering out the abstainers;
    if ALCPSTYR=1 or ALCPSTYR=998 then do;

*Calculating the g of beer. The answers 6 bottles/cans OR MORE was calculated as 6 bottles/cans;

*For infrequent drinkers;
                if BEERQNT=. or BEERQNT=998 then BEERQNTcl=.;
                else if BEERQNT=1 then BEERQNTcl=20;
                else if BEERQNT=2 then BEERQNTcl=33;
                else if BEERQNT=3 then BEERQNTcl=66;
                else if BEERQNT=4 then BEERQNTcl=99;
                else if BEERQNT=5 then BEERQNTcl=132;
                else if BEERQNT=6 then BEERQNTcl=165;
                else if BEERQNT=7 then BEERQNTcl=198;
                else if BEERQNT=8 then BEERQNTcl=45;
                else if BEERQNT=9 then BEERQNTcl=90;
                else if BEERQNT=10 then BEERQNTcl=135;
                else if BEERQNT=11 then BEERQNTcl=180;
                else if BEERQNT=12 then BEERQNTcl=225;
                else if BEERQNT=13 then BEERQNTcl=270;

*Converting to ml;
                BEERml=BEERQNTcl * 10;
*Converting to amount of alcohol (in ml);
                BEERALCml=BEERml * 0.0351;
*Converting to amount of alcohol in grams (density of alcohol compared to water is 0.81);
                BEERQNTgram=BEERALCml * 0.81;

*Creating a variable number of times per year they drink beer. 2-6 times per year was calculated
as 4.5 times per year;
                if BEERFREQ=. or BEERFREQ=998 then BEERFREQperyear=.;
                else if BEERFREQ=2 then BEERFREQperyear=1;
                else if BEERFREQ=3 then BEERFREQperyear=4.5;
                else if BEERFREQ=4 then BEERFREQperyear=12;
                else if BEERFREQ=5 then BEERFREQperyear=24;
                else if BEERFREQ=6 then BEERFREQperyear=52;
                else if BEERFREQ=7 then BEERFREQperyear=104;
                else if BEERFREQ=8 then BEERFREQperyear=182.5;
                else if BEERFREQ=9 then BEERFREQperyear=365;

*Multiplying by number of times per year;
                BEERQNTgramperyear=BEERQNTgram * BEERFREQperyear;

*For frequent drinkers on weekdays;
                if BEERWKDY=0 or BEERWKDY=. or BEERWKDY=998 then BEERWKDYcl=.;
                else if BEERWKDY=1 then BEERWKDYcl=20;
                else if BEERWKDY=2 then BEERWKDYcl=33;
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                else if BEERWKDY=3 then BEERWKDYcl=66;
                else if BEERWKDY=4 then BEERWKDYcl=99;
                else if BEERWKDY=5 then BEERWKDYcl=132;
                else if BEERWKDY=6 then BEERWKDYcl=165;
                else if BEERWKDY=7 then BEERWKDYcl=198;
                else if BEERWKDY=8 then BEERWKDYcl=45;
                else if BEERWKDY=9 then BEERWKDYcl=90;
                else if BEERWKDY=10 then BEERWKDYcl=135;
                else if BEERWKDY=11 then BEERWKDYcl=180;
                else if BEERWKDY=12 then BEERWKDYcl=225;
                else if BEERWKDY=13 then BEERWKDYcl=270;
                else if BEERWKDY=14 then BEERWKDYcl=0;
                else if BEERWKDY=15 then BEERWKDYcl=0;

* Converting to ml;
                BEERml2=BEERWKDYcl * 10;
*Converting to amount of alcohol (in ml);
                BEERALCml2=BEERml2 * 0.0351;
*Converting to amount of alcohol in grams (density of alcohol compared to water is 0.81);
                BEERWKDYgram=BEERALCml2 * 0.81;

*For frequent drinkers on weekends;
                if BEERWKEN=. or BEERWKDY=998 then BEERWKENcl=.;
                else if BEERWKEN=1 then BEERWKENcl=20;
                else if BEERWKEN=2 then BEERWKENcl=33;
                else if BEERWKEN=3 then BEERWKENcl=66;
                else if BEERWKEN=4 then BEERWKENcl=99;
                else if BEERWKEN=5 then BEERWKENcl=132;
                else if BEERWKEN=6 then BEERWKENcl=165;
                else if BEERWKEN=7 then BEERWKENcl=198;
                else if BEERWKEN=8 then BEERWKENcl=45;
                else if BEERWKEN=9 then BEERWKENcl=90;
                else if BEERWKEN=10 then BEERWKENcl=135;
                else if BEERWKEN=11 then BEERWKENcl=180;
                else if BEERWKEN=12 then BEERWKENcl=225;
                else if BEERWKEN=13 then BEERWKENcl=270;
                else if BEERWKEN=14 then BEERWKENcl=0;
                else if BEERWKEN=15 then BEERWKENcl=0;

*Converting to ml;
                BEERml3=BEERWKENcl * 10.;
*Converting to amount of alcohol (in ml);
                BEERALCml3=BEERml3 * 0.0351;
*Converting to amount of alcohol in grams (density of alcohol compared to water is 0.81);
                BEERWKENgram=BEERALCml3 * 0.81;

*Calculating the g of wine;
*For infrequent drinkers;
*Converting to cl;
                if WINEQNT=. or WINEQNT=998 then WINEQNT1=.;
                else if WINEQNT=1 then WINEQNT1=15;
                else if WINEQNT=2 then WINEQNT1=30;
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                else if WINEQNT=3 then WINEQNT1=37;
                else if WINEQNT=4 then WINEQNT1=45;
                else if WINEQNT=5 then WINEQNT1=60;
                else if WINEQNT=6 then WINEQNT1=75;
                else if WINEQNT=7 then WINEQNT1=0;

                if WINEQNT1=. then WINEQNT1=0;
                if WINEQNT2=. then WINEQNT2=0;
                WINEQNTcl=WINEQNT1 + WINEQNT2;

*Converting to ml;
                WINEml=WINEQNTcl * 10;
*Converting to amount of alcohol (in ml);
                WINEQNTml=WINEml * 0.125;
*Converting to amount of alcohol in grams (density of alcohol compared to water is 0.81);
                WINEQNTgram=WINEQNTml * 0.81;

*Creating a variable number of times per year they drink wine. 2-6 times per year was calculated
as 4.5 times per year;
                if WINEFREQ =. or WINEFREQ=998 or WINEFREQ =1 then WINEFREQperyear=.;
                else if WINEFREQ =2 then WINEFREQperyear=1;
                else if WINEFREQ =3 then WINEFREQperyear=4.5;
                else if WINEFREQ =4 then WINEFREQperyear=12;
                else if WINEFREQ =5 then WINEFREQperyear=24;
                else if WINEFREQ =6 then WINEFREQperyear=52;
                else if WINEFREQ =7 then WINEFREQperyear=104;
                else if WINEFREQ =8 then WINEFREQperyear=182.5;
                else if WINEFREQ =9 then WINEFREQperyear=365;

*Multiplying by number of times per year;
                WINEFREQgramperyear=WINEQNTgram *WINEFREQperyear;

*For frequent drinkers on weekdays;
*Converting to cl;
                if WINEWKDY=. or WINEWKDY=998 then WINEQNT1b=0;
                else if WINEWKDY=1 then WINEQNT1b=15;
                else if WINEWKDY=2 then WINEQNT1b=30;
                else if WINEWKDY=3 then WINEQNT1b=37;
                else if WINEWKDY=4 then WINEQNT1b=45;
                else if WINEWKDY=5 then WINEQNT1b=60;
                else if WINEWKDY=6 then WINEQNT1b=75;
                else if WINEWKDY=7 then WINEQNT1b=0;
                else if WINEWKDY=8 then WINEQNT1b=0;
                else if WINEWKDY=9 then WINEQNT1b=0;

                if WINEQNT1b=. then WINEQNT1b=0;
                if WINEQNT2b=. then WINEQNT2b=0;
                WINEQNTcl2=WINEQNT1b + WINEQNT2b;

*Converting to ml;
                WINEml2=WINEQNTcl2 * 10;
*Converting to amount of alcohol (in ml);
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                WINEQNTml2=WINEml2 * 0.125;
*Converting to amount of alcohol in grams (density of alcohol compared to water is 0.81);
                WINEWKDYgram=WINEQNTml2 * 0.81;

*For frequent drinkers on weekends;
*Converting to cl;
                if WINEWKEN=. or WINEWKEN=998 or WINEWKEN=7 or WINEWKEN=8 then
                WINEQNT1c=0;
                else if WINEWKEN=1 then WINEQNT1c=15;
                else if WINEWKEN=2 then WINEQNT1c=30;
                else if WINEWKEN=3 then WINEQNT1c=37;
                else if WINEWKEN=4 then WINEQNT1c=45;
                else if WINEWKEN=5 then WINEQNT1c=60;
                else if WINEWKEN=6 then WINEQNT1c=75;

                if WINEQNT1c=. then WINEQNT1c=0;
                if WINEQNT2c=. then WINEQNT2c=0;
                WINEQNTcl3=WINEQNT1c + WINEQNT2c;

*Converting to ml;
                WINEml3=WINEQNTcl3 * 10;
*Converting to amount of alcohol (in ml);
                WINEQNTml3=WINEml3 * 0.125;
*Converting to amount of alcohol in grams (density of alcohol compared to water is 0.81);
                WINEWKENgram=WINEQNTml3 * 0.81;

*Calculating gram of spirits for those who drink infrequently;
*Calculating cl;
                if SPIRQNT=. or SPIRQNT=998 then SPIRQNT1=.;
                else if SPIRQNT=1 then SPIRQNT1=4;
                else if SPIRQNT=2 then SPIRQNT1=6;
                else if SPIRQNT=3 then SPIRQNT1=8;
                else if SPIRQNT=4 then SPIRQNT1=12;
                else if SPIRQNT=5 then SPIRQNT1=18;
                else if SPIRQNT=6 then SPIRQNT1=37;
                else if SPIRQNT=7 then SPIRQNT1=0;

                if SPIRQNT1=. then SPIRQNT1=0;
                if SPIRQNT2=. then SPIRQNT2=0;
                SPIRQNTcl=SPIRQNT1 + SPIRQNT2;

*Converting to ml;
                SPIRITml=SPIRQNTcl * 10;
*Converting to amount of alcohol (in ml);
                SPIRQNTml=SPIRITml * 0.4;
*Converting to amount of alcohol in grams (density of alcohol compared to water is 0.81);
                SPIRQNTgram=SPIRQNTml * 0.81;

*Creating a variable number of times per year they drink spirit. 2-6 times per year was calculated
as 4.5 times per year;
                if SPIRFREQ=. or SPIRFREQ=998 or SPIRFREQ=1 then SPIRFREQperyear=.;
                else if SPIRFREQ=2 then SPIRFREQperyear=1;
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                    else if SPIRFREQ=3 then SPIRFREQperyear=4.5;
                    else if SPIRFREQ=4 then SPIRFREQperyear=12;
                    else if SPIRFREQ=5 then SPIRFREQperyear=24;
                    else if SPIRFREQ=6 then SPIRFREQperyear=52;
                    else if SPIRFREQ=7 then SPIRFREQperyear=104;
                    else if SPIRFREQ=8 then SPIRFREQperyear=182.5;
                    else if SPIRFREQ=9 then SPIRFREQperyear=365;

*Multiplying by number of times per year;
                    SPIRFREQgramperyear=SPIRQNTgram *SPIRFREQperyear;

* Calculating gram of spirits on weekdays for those who drink frequently;
*Calculating cl;
                    if SPIRWKDY=. or SPIRWKDY=998 then SPIRQNT1b=.;
                    else if SPIRWKDY=1 then SPIRQNT1b=4;
                    else if SPIRWKDY=2 then SPIRQNT1b=6;
                    else if SPIRWKDY=3 then SPIRQNT1b=8;
                    else if SPIRWKDY=4 then SPIRQNT1b=12;
                    else if SPIRWKDY=5 then SPIRQNT1b=18;
                    else if SPIRWKDY=6 then SPIRQNT1b=37;
                    else if SPIRWKDY=7 or SPIRWKDY=8 or SPIRWKDY=9 then SPIRQNT1b=0;

                    if SPIRQNT1b=. then SPIRQNT1b=0;
                    if SPIRQNT2b=. then SPIRQNT2b=0;
                    SPIRQNTcl2=SPIRQNT1b + SPIRQNT2b;

*Converting to ml;
                   SPIRITml2=SPIRQNTcl2 * 10;
*Converting to amount of alcohol (in ml);
                   SPIRQNTml2=SPIRITml2 * 0.4;
*Converting to amount of alcohol in grams (density of alcohol compared to water is 0.81);
                   SPIRWKDYgram=SPIRQNTml2 * 0.81;

*Calculating gram of spirits on weekends for those who drink frequently;
*Calculating cl*;
                    if SPIRWKEN=. or SPIRWKEN=998 then SPIRQNT1c=.;
                    else if SPIRWKEN=1 then SPIRQNT1c=4;
                    else if SPIRWKEN=2 then SPIRQNT1c=6;
                    else if SPIRWKEN=3 then SPIRQNT1c=8;
                    else if SPIRWKEN=4 then SPIRQNT1c=12;
                    else if SPIRWKEN=5 then SPIRQNT1c=18;
                    else if SPIRWKEN=6 then SPIRQNT1c=37;
                    else if SPIRWKEN=7 or SPIRWKEN=8 then SPIRQNT1c=0;

                    if SPIRQNT1c=. then SPIRQNT1c=0;
                    if SPIRQNT2c=. then SPIRQNT2c=0;
                    SPIRQNTcl3=SPIRQNT1c + SPIRQNT2c;

*Converting to ml;
                    SPIRITml3=SPIRQNTcl3 * 10;
*Converting to amount of alcohol (in ml);
                    SPIRQNTml3=SPIRITml3 * 0.4;
```

```
*Converting to amount of alcohol in grams (density of alcohol compared to water is 0.81);
                    SPIRWKENgram=SPIRQNTml3 * 0.81;

*Recoding the beer variables so they can be added;
            if BEERWKDYgram=. then BEERWKDYgram=0;
            if BEERWKENgram=. or BEERWKENgram=0 then BEERWKENgram=0;

*Adding grams per week for frequent drinkers;
            GRAMweekday=BEERWKDYgram + WINEWKDYgram + SPIRWKDYgram;
            GRAMweekend=BEERWKENgram + WINEWKENgram + SPIRWKENgram;
            GRAMweek=GRAMweekday + GRAMweekend;

*Adding the variables for those who drink infrequently;
            if BEERQNTgramperyear=0 then BEERQNTgremperyear2=.;
             else BEERQNTgremperyear2=BEERQNTgramperyear;

            Gramperyear=BEERQNTgremperyear2 + WINEFREQgramperyear +SPIRFREQgramperyear;
            GRAMweek2=Gramperyear / 52;

             if GRAMweek2=. then GRAMweek3=0;
             else GRAMweek3=GRAMweek2;

            ALLGRAMweek=GRAMweek3 + GRAMweek;

*Separating for women and men, and making categories;
                    if sex=2 then WOMENGRAMweek=GRAMweek;
                    if sex=1 then MENGRAMweek=GRAMweek;

                    if WOMENGRAMweek=0 then WOMENdich=.;
                    else if WOMENGRAMweek=. then WOMENdich=0;
                    else if 0.1<=WOMENGRAMweek<=108 then WOMENdich=1;
                    else if WOMENGRAMweek>108 then WOMENdich=3;

                    if MENGRAMweek=0 then MENdich=.;
                    else if MENGRAMweek=. then MENdich=0;
                    else if 0.1<=MENGRAMweek<=168 then MENdich=1;
                    else if MENGRAMweek>168 then MENdich=3;

                    ALLdich=WOMENdich + MENdich;
   end;

*Classify alcohol consumption into abstainers, modest user and heavy user;
                    if ALLdich=. then ALLdich=0;
                    if ALCPSTYR = 0 then Abstainers=10;
                    if Abstainers=. then Abstainers=0;

                    ALCOHOL=ALLdich + Abstainers;

                    if ALCOHOL=0 then ALCOHOL=.;
                    if ALCOHOL=10 or ALCOHOL=11 or ALCOHOL=13 then ALCOHOL=2;
                    if ALCOHOL=. then ALCOHOL=4;
```

```
                if ALCOHOL=1 or ALCOHOL=2 then ALC=1; *Modest user;
                if ALCOHOL=3 then ALC=2; *Heavy user;
                if ALCOHOL=4 then ALC=0; *Abstainers;


/*From SALT data*/

*Recode "beer weekdays" variables to a new variable: beer_weekdays;
*Based on number of bottles;
          BEER_WEEKDAYS_DRICKER_ALDR_OL2=BEER_WEEKDAYS_DRICKER_ALDR_OL;
          BEER_WEEKDAYS_INGET2=BEER_WEEKDAYS_INGET;
          BEER_WEEKDAYS_ETT_GLAS_EL_MIN2=BEER_WEEKDAYS_ETT_GLAS_EL_MIN;
          BEER_WEEKDAYS_1_FLASKA_33CL2=BEER_WEEKDAYS_1_FLASKA_33CL;
          BEER_WEEKDAYS_2_FLASKOR2=BEER_WEEKDAYS_2_FLASKOR;
          BEER_WEEKDAYS_3_FLASKOR2=BEER_WEEKDAYS_3_FLASKOR;
          BEER_WEEKDAYS_4_FLASKOR2=BEER_WEEKDAYS_4_FLASKOR;
          BEER_WEEKDAYS_5_FLASKOR2=BEER_WEEKDAYS_5_FLASKOR;
          BEER_WEEKDAYS_6_FLASK_EL_MER2=BEER_WEEKDAYS_6_FLASK_EL_MER;
          BEER_WEEKDAYS_VET_EJ2=BEER_WEEKDAYS_VET_EJ;
          BEER_WEEKDAYS_VILL_EJ_SVARA2=BEER_WEEKDAYS_VILL_EJ_SVARA;

         if BEER_WEEKDAYS_DRICKER_ALDR_OL2=0 then
         BEER_WEEKDAYS_DRICKER_ALDR_OL2=1;
         if BEER_WEEKDAYS_INGET2=1 then BEER_WEEKDAYS_INGET2=0;
         if BEER_WEEKDAYS_ETT_GLAS_EL_MIN2=5 then
         BEER_WEEKDAYS_ETT_GLAS_EL_MIN2=6;
         if BEER_WEEKDAYS_1_FLASKA_33CL2=6 then BEER_WEEKDAYS_1_FLASKA_33CL2=12;
         if BEER_WEEKDAYS_2_FLASKOR=7 then BEER_WEEKDAYS_2_FLASKOR2=24;
         if BEER_WEEKDAYS_3_FLASKOR2=8 then BEER_WEEKDAYS_3_FLASKOR2=36;
         if BEER_WEEKDAYS_4_FLASKOR2=9 then BEER_WEEKDAYS_4_FLASKOR9=48;
         if BEER_WEEKDAYS_5_FLASKOR2=10 then BEER_WEEKDAYS_5_FLASKOR2=60;
         if BEER_WEEKDAYS_6_FLASK_EL_MER2=11 then
         BEER_WEEKDAYS_6_FLASK_EL_MER2=72;

         If BEER_WEEKDAYS_DRICKER_ALDR_OL2=1 then BEER_WEEKDAYS_copy=1;
         If BEER_WEEKDAYS_INGET2=0 then BEER_WEEKDAYS_copy=0;
         If BEER_WEEKDAYS_ETT_GLAS_EL_MIN2=6 then BEER_WEEKDAYS_copy=12;
         If BEER_WEEKDAYS_1_FLASKA_33CL2=12 then BEER_WEEKDAYS_copy=12;
         If BEER_WEEKDAYS_2_FLASKOR2=24 then BEER_WEEKDAYS_copy=24;
         If BEER_WEEKDAYS_3_FLASKOR2=36 then BEER_WEEKDAYS_copy=36;
         If BEER_WEEKDAYS_4_FLASKOR2=48 then BEER_WEEKDAYS_copy=48;
         If BEER_WEEKDAYS_5_FLASKOR2=60 then BEER_WEEKDAYS_copy=60;
         If BEER_WEEKDAYS_6_FLASK_EL_MER2=72 then BEER_WEEKDAYS_copy=72;
         If BEER_WEEKDAYS_VET_EJ=998 then BEER_WEEKDAYS_copy=998;
         If BEER_WEEKDAYS_VILL_EJ_SVARA=999 then BEER_WEEKDAYS_copy=999;

*Recode "beer weekends" variables to a new variable: beer_weekends;
         BEER_WEEKENDS_INGET2=BEER_WEEKENDS_INGET;
         BEER_WEEKENDS_ETT_GLAS_EL_MIN2=BEER_WEEKENDS_ETT_GLAS_EL_MIN;
         BEER_WEEKENDS_1_FLASKA_33CL2=BEER_WEEKENDS_1_FLASKA_33CL;
         BEER_WEEKENDS_2_FLASKOR2=BEER_WEEKENDS_2_FLASKOR;
         BEER_WEEKENDS_3_FLASKOR2=BEER_WEEKENDS_3_FLASKOR;
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BEER_WEEKENDS_4_FLASKOR2=BEER_WEEKENDS_4_FLASKOR;
BEER_WEEKENDS_5_FLASKOR2=BEER_WEEKENDS_5_FLASKOR;
BEER_WEEKENDS_6_FLASK_EL_MER2=BEER_WEEKENDS_6_FLASK_EL_MER;
BEER_WEEKENDS_VET_EJ2=BEER_WEEKENDS_VET_EJ;
BEER_WEEKENDS_VILL_EJ_SVARA2=BEER_WEEKENDS_VILL_EJ_SVARA;

if BEER_WEEKENDS_INGET2=0 then BEER_WEEKENDS_INGET2=0;
if BEER_WEEKENDS_ETT_GLAS_EL_MIN2=4 then
BEER_WEEKENDS_ETT_GLAS_EL_MIN2=6;
if BEER_WEEKENDS_1_FLASKA_33CL2=5 then BEER_WEEKENDS_1_FLASKA_33CL2=12;
if BEER_WEEKENDS_2_FLASKOR2=6 then BEER_WEEKENDS_2_FLASKOR2=24;
if BEER_WEEKENDS_3_FLASKOR2=7 then BEER_WEEKENDS_3_FLASKOR2=36;
if BEER_WEEKENDS_4_FLASKOR2=8 then BEER_WEEKENDS_4_FLASKOR2=48;
if BEER_WEEKENDS_5_FLASKOR2=9 then BEER_WEEKENDS_5_FLASKOR2=60;
if BEER_WEEKENDS_6_FLASK_EL_MER2=10 then
BEER_WEEKENDS_6_FLASK_EL_MER2=72;

If BEER_WEEKENDS_DRICKER_ALDR_OL2=0 then BEER_WEEKENDS_copy=0;
If BEER_WEEKENDS_INGET2=0 then BEER_WEEKENDS_copy=0;
If BEER_WEEKENDS_ETT_GLAS_EL_MIN2=6 then BEER_WEEKENDS_copy=12;
If BEER_WEEKENDS_1_FLASKA_33CL2=12 then BEER_WEEKENDS_copy=12;
If BEER_WEEKENDS_2_FLASKOR2=24 then BEER_WEEKENDS_copy=24;
If BEER_WEEKENDS_3_FLASKOR2=36 then BEER_WEEKENDS_copy=36;
If BEER_WEEKENDS_4_FLASKOR2=48 then BEER_WEEKENDS_copy=48;
If BEER_WEEKENDS_5_FLASKOR2=60 then BEER_WEEKENDS_copy=60;
If BEER_WEEKENDS_6_FLASK_EL_MER2=72 then BEER_WEEKENDS_copy=72;
If BEER_WEEKENDS_VET_EJ=998 then BEER_WEEKENDS_copy=998;
If BEER_WEEKENDS_VILL_EJ_SVARA=999 then BEER_WEEKENDS_copy=999;

* Add up beer_weekdays and beer_weekends tol beer_week;
if BEER_WEEKDAYS_copy=. then BEER_WEEKDAYS_copy=999;
if BEER_WEEKENDS_copy=. then BEER_WEEKENDS_copy=999;

sum_alcohol_beer_week= BEER_WEEKDAYS_copy + BEER_WEEKENDS_copy;
if sum_alcohol_beer_week>1000 then sum_alcohol_beer_week=.;
if sum_alcohol_beer_week>900 then sum_alcohol_beer_week=0;

*Recode wine variables from glass to gram;
*One glass of wine (15 cl) corresponds to one standard glass, i.e. 12 grams;
*One half bottle (37 cl) corresponds to 30 grams alcohol;
*N.B. More than one bottle is coded as one bottle, i.e. 60 grams alcohol;
WINE_WEEKDAYS_copy=WINE_WEEKDAYS;
WINE_WEEKENDS_copy=WINE_WEEKENDS;

if WINE_WEEKDAYS_copy=3 then WINE_WEEKDAYS_copy=1;
if WINE_WEEKDAYS_copy=6 then WINE_WEEKDAYS_copy=12;
if WINE_WEEKDAYS_copy=7 then WINE_WEEKDAYS_copy=24;
if WINE_WEEKDAYS_copy=8 then WINE_WEEKDAYS_copy=30;
if WINE_WEEKDAYS_copy=9 then WINE_WEEKDAYS_copy=36;
if WINE_WEEKDAYS_copy=10 then WINE_WEEKDAYS_copy=48;
if WINE_WEEKDAYS_copy=11 then WINE_WEEKDAYS_copy=60;
if WINE_WEEKDAYS_copy=12 then WINE_WEEKDAYS_copy=60;
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          if WINE_WEEKDAYS_copy=13 then WINE_WEEKDAYS_copy=0;

          if WINE_WEEKENDS_copy=5 then WINE_WEEKENDS_copy=12;
          if WINE_WEEKENDS_copy=6 then WINE_WEEKENDS_copy=24;
          if WINE_WEEKENDS_copy=7 then WINE_WEEKENDS_copy=30;
          if WINE_WEEKENDS_copy=8 then WINE_WEEKENDS_copy=36;
          if WINE_WEEKENDS_copy=9 then WINE_WEEKENDS_copy=48;
          if WINE_WEEKENDS_copy=10 then WINE_WEEKENDS_copy=60;
          if WINE_WEEKENDS_copy=11 then WINE_WEEKENDS_copy=36;
          if WINE_WEEKENDS_copy=12 then WINE_WEEKENDS_copy=0;

*Recode spirits variables from glass to gram;
*One glass of spirits (4 cl) corresponds to one standard glass, i.e. 12 grams;
*One half bottle (37 cl) corresponds to 111 grams alcohol;
*N.B. More than one half bottle is coded as one bottle, i.e. 111 grams alcohol;
          SPIRITS_WEEKDAYS_copy=SPIRITS_WEEKDAYS;
          SPIRITS_WEEKENDS_copy=SPIRITS_WEEKENDS;

          if SPIRITS_WEEKDAYS_copy=3 then SPIRITS_WEEKDAYS_copy=1;
          if SPIRITS_WEEKDAYS_copy=6 then SPIRITS_WEEKDAYS_copy=12;
          if SPIRITS_WEEKDAYS_copy=7 then SPIRITS_WEEKDAYS_copy=18;
          if SPIRITS_WEEKDAYS_copy=8 then SPIRITS_WEEKDAYS_copy=24;
          if SPIRITS_WEEKDAYS_copy=9 then SPIRITS_WEEKDAYS_copy=36;
          if SPIRITS_WEEKDAYS_copy=10 then SPIRITS_WEEKDAYS_copy=54;
          if SPIRITS_WEEKDAYS_copy=11 then SPIRITS_WEEKDAYS_copy=111;
          if SPIRITS_WEEKDAYS_copy=12 then SPIRITS_WEEKDAYS_copy=111;
          if SPIRITS_WEEKDAYS_copy=13 then SPIRITS_WEEKDAYS_copy=0;

          if SPIRITS_WEEKENDS_copy=5 then SPIRITS_WEEKENDS_copy=12;
          if SPIRITS_WEEKENDS_copy=6 then SPIRITS_WEEKENDS_copy=18;
          if SPIRITS_WEEKENDS_copy=7 then SPIRITS_WEEKENDS_copy=24;
          if SPIRITS_WEEKENDS_copy=8 then SPIRITS_WEEKENDS_copy=36;
          if SPIRITS_WEEKENDS_copy=9 then SPIRITS_WEEKENDS_copy=54;
          if SPIRITS_WEEKENDS_copy=10 then SPIRITS_WEEKENDS_copy=111;
          if SPIRITS_WEEKENDS_copy=11 then SPIRITS_WEEKENDS_copy=111;
          if SPIRITS_WEEKENDS_copy=12 then SPIRITS_WEEKENDS_copy=0;

*Add up weekdays and weekend variables for wine and spirits to:  wine_week and spirits week;
          if WINE_WEEKDAYS_copy=998 or WINE_WEEKDAYS_copy=999 then
          WINE_WEEKDAYS_copy=.;
          if WINE_WEEKENDS_copy=998 or WINE_WEEKENDS_copy=999 then
          WINE_WEEKENDS_copy=.;

          if WINE_WEEKDAYS_copy=. then WINE_WEEKDAYS_copy=999;
          if WINE_WEEKENDS_copy=. then WINE_WEEKENDS_copy=999;

          sum_alcohol_wine_week=WINE_WEEKDAYS_copy + WINE_WEEKENDS_copy;
          if sum_alcohol_wine_week>1000 then sum_alcohol_wine_week=.;
          if sum_alcohol_wine_week>900 then sum_alcohol_wine_week=0;

          if SPIRITS_WEEKDAYS_copy=998 or SPIRITS_WEEKDAYS_copy=999 then
          SPIRITS_WEEKDAYS_copy=.;
```

```
          if SPIRITS_WEEKENDS_copy=998 or SPIRITS_WEEKENDS_copy=999 then
          SPIRITS_WEEKENDS_copy=.;
          if SPIRITS_WEEKDAYS_copy=. then SPIRITS_WEEKDAYS_copy=999;
          if SPIRITS_WEEKENDS_copy=. then SPIRITS_WEEKENDS_copy=999;

          sum_alcohol_spirits_week= SPIRITS_WEEKDAYS_copy + SPIRITS_WEEKENDS_copy;
          if sum_alcohol_spirits_week>1000 then sum_alcohol_spirits_week=.;
          if sum_alcohol_spirits_week>900 then sum_alcohol_spirits_week=0;

*Add up beer_week, wine_week and spirits week to: total_alcohol_week;
          beer_week=sum_alcohol_beer_week;
          if sum_alcohol_beer_week=1 then beer_week=0;

          wine_week=sum_alcohol_wine_week;
          if sum_alcohol_wine_week=1 then wine_week=0;

          spirits_week=sum_alcohol_spirits_week;
          if sum_alcohol_spirits_week=1 then spirits_week=0;

          if beer_week=. and wine_week=. and spirits_week=. then total_alcohol_week=.;
           if beer_week ne . and wine_week ne . and spirits_week ne . then
          total_alcohol_week=beer_week + wine_week + spirits_week;
           if beer_week=. and wine_week ne . and spirits_week ne . then
          total_alcohol_week=wine_week + spirits_week;
           if beer_week ne . and wine_week = . and spirits_week ne . then
          total_alcohol_week=beer_week + spirits_week;
           if beer_week ne . and wine_week ne . and spirits_week = . then
          total_alcohol_week=beer_week + wine_week;
           if beer_week ne . and wine_week = . and spirits_week = . then
          total_alcohol_week=beer_week;
           if beer_week = . and wine_week ne . and spirits_week = . then
          total_alcohol_week=wine_week;
           if beer_week = . and wine_week = . and spirits_week ne . then
          total_alcohol_week=spirits_week;

* Create a total_alcohol_week variable that takes into account gender differences
(total_alcohol_week_sex);
*Recommendations according to the National Institute of Public Health - risky use of alcohol for
men and women;
*No more than 14 standard glasses per week (168 grams) for men and more than 9 standard
glasses per week (108 grams) for women are considered to be associated with a risky use;
*With low alcohol consumption, a maximum of one glass a day is counted (12 * 7 = 84 grams);

          if sex=1 then do;
                if 12<=total_alcohol_week<=84 then total_alcohol_week_sex=0;
                if total_alcohol_week=0 then total_alcohol_week_sex=1;
                if 85<=total_alcohol_week<=165 then total_alcohol_week_sex=2;
                if 168<=total_alcohol_week<=444 then total_alcohol_week_sex=3;
                if total_alcohol_week=. then total_alcohol_week_sex=998;
          end;

          if sex=2 then do;
```

```
                if 12<=total_alcohol_week<=84 then total_alcohol_week_sex=0;
                if total_alcohol_week=0 then total_alcohol_week_sex=1;
                if 85<=total_alcohol_week<=102 then total_alcohol_week_sex=2;
                if 108<=total_alcohol_week<=444 then total_alcohol_week_sex=3;
                if total_alcohol_week=. then total_alcohol_week_sex=998;
          end;

*Classify alcohol consumption into abstainers, modest user and heavy user;
          if total_alcohol_week_sex=0 or total_alcohol_week_sex=1 or total_alcohol_week_sex=2
          then ALC=1;       *Modest user;
          if total_alcohol_week_sex=3 then ALC=2; *Heave user;
          if total_alcohol_week_sex=998 then ALC=0; *Abstainers;


/**Smoking**/
/*From STAGE DATA*/

*Create variable of current smoker;
                if CGNOW=. or CGNOW=998 or CGNOW=0 then CGNOW2=0;
                 else if CGNOW=1 then CGNOW2=1;

                 if SMPTYNOW=. or SMPTYNOW=998 or SMPTYNOW=0 then SMPTYNOW2=0;
                else if SMPTYNOW=1 then SMPTYNOW2=1;

                 CurrentSmoker=CGNOW2 + SMPTYNOW2;

                 if CurrentSmoker=1 or CurrentSmoker=2 then CurrentSmoker=1;
                 else if CurrentSmoker=0 then CurrentSmoker=0;

*Create variable of former smoker;
                 if PARTYCIG=. or PARTYCIG=998 or PARTYCIG=0 then PARTYCIG2=0;
                 else if PARTYCIG=1 then PARTYCIG2=1;

 if REGCIG=. or REGCIG=998 or REGCIG=0 then REGCIG2=0;
                 else if REGCIG=1 then REGCIG2=1;

                 Eversmokers=PARTYCIG2 + REGCIG2;

                if Eversmokers=1 or Eversmokers=2 then Eversmokers=1;
                else if Eversmokers=0 then Eversmokers=0;

                 FormerSmokers=Eversmokers - CurrentSmoker;

                 if FormerSmokers=1 then FormerSmokers=1; else FormerSmokers=0;

*Create variable of never smoke;
                 if TRYSM=. or TRYSM=998 or TRYSM=0 then TRYSM2=0;
                 else if TRYSM=1 then TRYSM2=1;

                 if NOTRY=. or NOTRY=998 or NOTRY=0 then NOTRY2=0;
                 else if NOTRY=1 then NOTRY2=1;
```

```
                NeverSmoker=TRYSM2 + NOTRY2;

                if NeverSmoker=1 or NeverSmoker=2 then NeverSmoker=1;
                else if NeverSmoker=0 then NeverSmoker=0;

               if NeverSmoker=0 then NeverSmoker2=0;
                else if NeverSmoker=1 then NeverSmoker2=10;

                if FormerSmokers=0 then FormerSmokers2=0;
               else if FormerSmokers=1 then FormerSmokers2=100;

               if CurrentSmoker=0 then CurrentSmoker2=0;
               else if CurrentSmoker=1 then CurrentSmoker2=1000;

*Create variable of smoking status;
               SmokingStatus=NeverSmoker2 + FormerSmokers2 + CurrentSmoker2;

               if SmokingStatus=0 then SmokingStatus=.;
               else if SmokingStatus=10 then SmokingStatus=1;
               else if SmokingStatus=100 or SmokingStatus=110 then SmokingStatus=2;
               else if SmokingStatus=1000 or SmokingStatus=1010 then SmokingStatus=3;

*Classify smoking as current smoker vs. non-smoker;
                if SmokingStatus=. then SmokingBin=0;
               else if SmokingStatus=1 or SmokingStatus=2 then SmokingBin=1; *Non-smoker;
               else if SmokingStatus=3 then SmokingBin=2; *Current smoker;


/*From SALT DATA*/

*Recode missing values;
        if SMOK_SNUFFD_V_E_S=999 then SMOK_SNUFFD_V_E_S=998;

        if SALT=. then do;
                array recode [*] SMOK_SNUFF_NEJ_INTE_ENS_PROV
        SMOK_SNUFF_JA_BARA_PROVAT SMOK_SNUFF_ROKT_DA_OCH_DA
        SMOK_SNUFF_ROKT_REGELBUNDET SMOK_SNUFF_FESTROKT
        SMOK_SNUFF_ROKER_DA_OCH_DA
        SMOK_SNUFF_ROKER_REGELBUNDET SMOK_SNUFF_FESTROKER
        SMOK_SNUFF_SNUSAT_DA_OCH_DA  SMOK_SNUFF_SNUSAT_REGELBUNDET
        SMOK_SNUFF_SNUSAR_DA_OCH_DA SMOK_SNUFF_SNUSAR_REGELBUNDET
        SMOK_SNUFF_VET_EJ SMOK_SNUFFD_V_E_S;
                do i=1 to dim(recode);
                 if missing(recode[i]) then recode[i]=999;
        end;
        end;

        array recode2 [*] SMOK_SNUFF_NEJ_INTE_ENS_PROV SMOK_SNUFF_JA_BARA_PROVAT
        SMOK_SNUFF_ROKT_DA_OCH_DA  SMOK_SNUFF_ROKT_REGELBUNDET
        SMOK_SNUFF_FESTROKT SMOK_SNUFF_ROKER_DA_OCH_DA
        SMOK_SNUFF_ROKER_REGELBUNDET SMOK_SNUFF_FESTROKER
        SMOK_SNUFF_SNUSAT_DA_OCH_DA  SMOK_SNUFF_SNUSAT_REGELBUNDET
```

```
        SMOK_SNUFF_SNUSAR_DA_OCH_DA SMOK_SNUFF_SNUSAR_REGELBUNDET
        SMOK_SNUFF_VET_EJ SMOK_SNUFFD_V_E_S;
                do i=1 to dim(recode2);
                 if missing(recode2[i]) then recode2[i]=99;
        end;

*Create variable of smoking status;
        if Salt=. then Tobacco_use=999;
        else if SMOK_SNUFF_NEJ_INTE_ENS_PROV=0 then Tobacco_use=1;
        else if SMOK_SNUFF_JA_BARA_PROVAT=1 then Tobacco_use=1;
        else if SMOK_SNUFF_ROKT_DA_OCH_DA=2 then Tobacco_use=3;
        else if SMOK_SNUFF_ROKT_REGELBUNDET=3 then Tobacco_use=3;
        else if SMOK_SNUFF_ROKER_DA_OCH_DA=8 then Tobacco_use=2;
        else if SMOK_SNUFF_ROKER_REGELBUNDET=0 then Tobacco_use=4;
        else if SMOK_SNUFF_FESTROKER =13 then Tobacco_use=2;
        else if SMOK_SNUFF_FESTROKER =13 then Tobacco_use=2;
        else if SMOK_SNUFF_SNUSAT_DA_OCH_DA=10 then Tobacco_use=3;
        else if SMOK_SNUFF_SNUSAT_REGELBUNDET=5 then Tobacco_use=3;
        else if SMOK_SNUFF_SNUSAR_DA_OCH_DA=4 then Tobacco_use=2;
        else if SMOK_SNUFF_SNUSAR_REGELBUNDET=11 then Tobacco_use=4;
        else if SMOK_SNUFF_VET_EJ =998 then Tobacco_use=998;
        else if SMOK_SNUFFD_V_E_S=999 then Tobacco_use=998;

         if Tobacco_use=. then Tobacco_use=998;

*Classify smoking as current smoker vs. non-smoker;
        if  Tobacco_use=1 or Tobacco_use=3 then  SmokingBin=1; *Non-smoker;
        if  Tobacco_use=2 or  Tobacco_use=4 then  SmokingBin=2; *Current smoker;
        if  Tobacco_use=998 or Tobacco_use=999 then SmokingBin=0;


/** Physical activity**/
/*From STAGE data*/

*Classify physical activity according to physical activity levels;
                if 1<= PHACTLEV <=6 then PHACT = 2; *Non-active;
                else if 7<= PHACTLEV <=10 then PHACT = 1; *Active;
                else PHACT = 0;

/*From SALT data*/

*Classify physical activity according to physical activity levels;
                if 0<= EXERCISE_HOW_OFTEN <=3 then PHACT = 2; *Non-active;
                else if 4<= EXERCISE_HOW_OFTEN <=6 then PHACT = 1; *Active;
                else PHACT = 0;


/*code in SPSS*/

/** Alcohol consumption**/
/*From STAGE data*/
```

```
*Filtering out the abstainers*
DATASET ACTIVATE DataSet1.
USE ALL.
COMPUTE filter_$=(ALCPSTYR = 1 | ALCPSTYR = 998).
VARIABLE LABELS filter_$ 'ALCPSTYR = 1 | ALCPSTYR = 998 (FILTER)'.
VALUE LABELS filter_$ 0 'Not Selected' 1 'Selected'.
FORMATS filter_$ (f1.0).
FILTER BY filter_$.
EXECUTE.

*Calculating the g of beer *The answers 6 bottles/cans OR MORE was calculated as 6 bottles/cans*

*For infrequent drinkers:*
RECODE BEERQNT (SYSMIS=SYSMIS) (998=SYSMIS) (1=20) (2=33) (3=66) (4=99) (5=132) (6=165)
(7=198) (8=45) (9=90) (10=135) (11=180) (12=225) (13=270) INTO BEERQNTcl.
EXECUTE.

*Converting to ml*
COMPUTE BEERml=BEERQNTcl * 10.
EXECUTE.

*converting to amount of alcohol (in ml)*
COMPUTE BEERALCml=BEERml * 0.0351.
EXECUTE.

*Converting to amount of alcohol in grams (density of alcohol compared to water is 0.81)*
COMPUTE BEERQNTgram=BEERALCml * 0.81.
EXECUTE.

*creating a variable number of times per year they drink beer *2-6 times per year was calculated
as 4.5 times per year*
RECODE BEERFREQ (SYSMIS=SYSMIS) (998=SYSMIS) (1=SYSMIS) (2=1) (3=4.5) (4=12) (5=24) (6=52)
(7=104) (8=182.5) (9=365) INTO BEERFREQperyear.
EXECUTE.

*multiplying by number of times per year*
COMPUTE BEERQNTgramperyear=BEERQNTgram * BEERFREQperyear.
EXECUTE.

*For frequent drinkers on weekdays*
RECODE BEERWKDY (SYSMIS=SYSMIS) (998=SYSMIS) (1=20) (2=33) (3=66) (4=99) (5=132) (6=165)
(7=198) (8=45) (9=90) (10=135) (11=180) (12=225) (13=270) (14=0) (15=0) INTO BEERWKDYcl.
EXECUTE.

*Converting to ml*
COMPUTE BEERml=BEERWKDYcl * 10.
EXECUTE.

*converting to amount of alcohol (in ml)*
COMPUTE BEERALCml=BEERml * 0.0351.
EXECUTE.
```

```
*Converting to amount of alcohol in grams (density of alcohol compared to water is 0.81)*
COMPUTE BEERWKDYgram=BEERALCml * 0.81.
EXECUTE.

*For frequent drinkers on weekends*
RECODE BEERWKEN (SYSMIS=SYSMIS) (998=SYSMIS) (1=20) (2=33) (3=66) (4=99) (5=132) (6=165)
(7=198) (8=45) (9=90) (10=135) (11=180) (12=225) (13=270) (14=0) (15=0) INTO BEERWKENcl.
EXECUTE.

*Converting to ml*
COMPUTE BEERml=BEERWKENcl * 10.
EXECUTE.

*converting to amount of alcohol (in ml)*
COMPUTE BEERALCml=BEERml * 0.0351.
EXECUTE.

*Converting to amount of alcohol in grams (density of alcohol compared to water is 0.81)*
COMPUTE BEERWKENgram=BEERALCml * 0.81.
EXECUTE.

*Calculating the g of wine
For infrequent drinkers:*
*Converting to cl*
RECODE WINEQNT (SYSMIS=SYSMIS) (998=SYSMIS) (1=15) (2=30) (3=37) (4=45) (5=60) (6=75) (7=0)
INTO  WINEQNT1.
EXECUTE.

IF  (WINEQNT1=0) WINEQNT2=WINEQNTV.
EXECUTE.

RECODE WINEQNT1 (SYSMIS=0) (ELSE=COPY).
EXECUTE.

RECODE WINEQNT2 (SYSMIS=0) (ELSE=COPY).
EXECUTE.

COMPUTE WINEQNTcl=WINEQNT1 + WINEQNT2.
EXECUTE.

*Converting to ml*
COMPUTE WINEml=WINEQNTcl * 10.
EXECUTE.

*converting to amount of alcohol (in ml)*
COMPUTE WINEQNTml=WINEml * 0.125.
EXECUTE.

*Converting to amount of alcohol in grams (density of alcohol compared to water is 0.81)*
COMPUTE WINEQNTgram=WINEQNTml * 0.81.
EXECUTE.
```

```
*creating a variable number of times per year they drink beer *2-6 times per year was calculated as 4.5 times per year*
RECODE WINEFREQ (SYSMIS=SYSMIS) (998=SYSMIS) (1=SYSMIS) (2=1) (3=4.5) (4=12) (5=24) (6=52) (7=104) (8=182.5) (9=365) INTO WINEFREQperyear.
EXECUTE.

*multiplying by number of times per year*
COMPUTE WINEFREQgramperyear=WINEQNTgram *WINEFREQperyear.
EXECUTE.

*For frequent drinkers on weekdays
converting to cl*
RECODE WINEWKDY (SYSMIS=0) (998=0) (1=15) (2=30) (3=37) (4=45) (5=60) (6=75) (7=0) (8=0) INTO WINEQNT1.
EXECUTE.

IF  (WINEQNT1=0) WINEQNT2=WNWKDYV.
EXECUTE.

RECODE WINEQNT1 (SYSMIS=0) (ELSE=COPY).
EXECUTE.

RECODE WINEQNT2 (SYSMIS=0) (ELSE=COPY).
EXECUTE.

COMPUTE WINEQNTcl=WINEQNT1 + WINEQNT2.
EXECUTE.

*Converting to ml*
COMPUTE WINEml=WINEQNTcl * 10.
EXECUTE.

*converting to amount of alcohol (in ml)*
COMPUTE WINEQNTml=WINEml * 0.125.
EXECUTE.

*Converting to amount of alcohol in grams (density of alcohol compared to water is 0.81)*
COMPUTE WINEWKDYgram=WINEQNTml * 0.81.
EXECUTE.

*For frequent drinkers on weekends
converting to cl*
RECODE WINEWKEN (SYSMIS=0) (998=0) (1=15) (2=30) (3=37) (4=45) (5=60) (6=75) (7=0) (8=0) INTO WINEQNT1.
EXECUTE.

IF  (WINEQNT1=0) WINEQNT2=WNWKENV.
EXECUTE.

RECODE WINEQNT1 (SYSMIS=0) (ELSE=COPY).
EXECUTE.
```

```
RECODE WINEQNT2 (SYSMIS=0) (ELSE=COPY).
EXECUTE.

COMPUTE WINEQNTcl=WINEQNT1 + WINEQNT2.
EXECUTE.

*Converting to ml*
COMPUTE WINEml=WINEQNTcl * 10.
EXECUTE.

*converting to amount of alcohol (in ml)*
COMPUTE WINEQNTml=WINEml * 0.125.
EXECUTE.

*Converting to amount of alcohol in grams (density of alcohol compared to water is 0.81)*
COMPUTE WINEWKENgram=WINEQNTml * 0.81.
EXECUTE.

*Calculating gram of spirits for those who drink infrequently
calculating cl*
RECODE SPIRQNT (SYSMIS=SYSMIS) (998=SYSMIS) (1=4) (2=6) (3=8) (4=12) (5=18) (6=37) (7=0)
INTO SPIRQNT1.
EXECUTE.

IF  (SPIRQNT1=0) SPIRQNT2=SPIRQNTV.
EXECUTE.

RECODE SPIRQNT1 (SYSMIS=0) (ELSE=COPY).
EXECUTE.

RECODE SPIRQNT2 (SYSMIS=0) (ELSE=COPY).
EXECUTE.

COMPUTE SPIRQNTcl=SPIRQNT1 + SPIRQNT2.
EXECUTE.

*Converting to ml*
COMPUTE SPIRITml=SPIRQNTcl * 10.
EXECUTE.

*converting to amount of alcohol (in ml)*
COMPUTE SPIRQNTml=SPIRITml * 0.4.
EXECUTE.

*Converting to amount of alcohol in grams (density of alcohol compared to water is 0.81)*
COMPUTE SPIRQNTgram=SPIRQNTml * 0.81.
EXECUTE.

*creating a variable number of times per year they drink beer *2-6 times per year was calculated
as 4.5 times per year*
RECODE SPIRFREQ (SYSMIS=SYSMIS) (998=SYSMIS) (1=SYSMIS) (2=1) (3=4.5) (4=12) (5=24) (6=52)
(7=104) (8=182.5) (9=365) INTO SPIRFREQperyear.
```

```
EXECUTE.

*multiplying by number of times per year*
COMPUTE SPIRFREQgramperyear=SPIRQNTgram *SPIRFREQperyear.
EXECUTE.

*Calculating gram of spirits on weekdays for those who drink frequently
calculating cl*

RECODE SPIRWKDY (SYSMIS=SYSMIS) (998=SYSMIS) (1=4) (2=6) (3=8) (4=12) (5=18) (6=37) (7=0)
INTO SPIRQNT1.
EXECUTE.

IF  (SPIRQNT1=0) SPIRQNT2=SPIWKDYV.
EXECUTE.

RECODE SPIRQNT1 (SYSMIS=0) (ELSE=COPY).
EXECUTE.

RECODE SPIRQNT2 (SYSMIS=0) (ELSE=COPY).
EXECUTE.

COMPUTE SPIRQNTcl=SPIRQNT1 + SPIRQNT2.
EXECUTE.

*Converting to ml*
COMPUTE SPIRITml=SPIRQNTcl * 10.
EXECUTE.

*converting to amount of alcohol (in ml)*
COMPUTE SPIRQNTml=SPIRITml * 0.4.
EXECUTE.

*Converting to amount of alcohol in grams (density of alcohol compared to water is 0.81)*
COMPUTE SPIRWKDYgram=SPIRQNTml * 0.81.
EXECUTE.

*Calculating gram of spirits on weekends for those who drink frequently
calculating cl*
RECODE SPIRWKEN (SYSMIS=SYSMIS) (998=SYSMIS) (1=4) (2=6) (3=8) (4=12) (5=18) (6=37) (7=0)
INTO SPIRQNT1.
EXECUTE.

IF  (SPIRQNT1=0) SPIRQNT2=SPIWKENV.
EXECUTE.

RECODE SPIRQNT1 (SYSMIS=0) (ELSE=COPY).
EXECUTE.

RECODE SPIRQNT2 (SYSMIS=0) (ELSE=COPY).
EXECUTE.
```

```
COMPUTE SPIRQNTcl=SPIRQNT1 + SPIRQNT2.
EXECUTE.

*Converting to ml*
COMPUTE SPIRITml=SPIRQNTcl * 10.
EXECUTE.

*converting to amount of alcohol (in ml)*
COMPUTE SPIRQNTml=SPIRITml * 0.4.
EXECUTE.

*Converting to amount of alcohol in grams (density of alcohol compared to water is 0.81)*
COMPUTE SPIRWKENgram=SPIRQNTml * 0.81.
EXECUTE.

*Recoding the beer variables so they can be added*
RECODE BEERWKDYgram (SYSMIS=0) (ELSE=COPY).
EXECUTE.
RECODE BEERWKENgram (SYSMIS=0) (0=0) (ELSE=COPY).
EXECUTE.

*Adding grams per week for frequent drinkers *
COMPUTE GRAMweekday=BEERWKDYgram + WINEWKDYgram + SPIRWKDYgram.
EXECUTE.
COMPUTE GRAMweekend=BEERWKENgram + WINEWKENgram + SPIRWKENgram.
EXECUTE.
COMPUTE GRAMweek=GRAMweekday + GRAMweekend.
EXECUTE.

*Adding the variables for those who drink infrequently*
RECODE BEERQNTgramperyear (0=SYSMIS) (ELSE=Copy) INTO BEERQNTgremperyear2.
EXECUTE.
COMPUTE Gramperyear=BEERQNTgremperyear2 + WINEFREQgramperyear +
SPIRFREQgramperyear.
EXECUTE.
COMPUTE GRAMweek2=Gramperyear / 52.
EXECUTE.
RECODE GRAMweek2 (SYSMIS=0) (ELSE=Copy) INTO GRAMweek3.
EXECUTE.
COMPUTE ALLGRAMweek=GRAMweek3 + GRAMweek.
EXECUTE.


*Separating for women and men, and making categories*
IF  (SEX = 2) WOMENGRAMweek=GRAMweek.
EXECUTE.
IF  (SEX = 1) MENGRAMweek=GRAMweek.
EXECUTE.

RECODE WOMENGRAMweek (0=SYSMIS) (SYSMIS=0) (0.1 thru 108=1) (108.1 thru Highest=3) INTO
WOMENdich.
EXECUTE.
```

```
RECODE MENGRAMweek (0=SYSMIS) (SYSMIS=0) (0.1 thru 168=1) (168.1 thru Highest=3) INTO
MENdich.
EXECUTE.

COMPUTE ALLdich=WOMENdich + MENdich.
EXECUTE.

*Turning the filter off*

FILTER OFF.
USE ALL.
EXECUTE.

*Adding the abstainers- if you did not drink alcohol for the last year you are classified as an
abstainer- even if they had answered the other questions.*

IF  (ALCPSTYR = 0) Abstainers=10.
EXECUTE.

RECODE Abstainers (10=10) (SYSMIS=0).
EXECUTE.

RECODE ALLdich (SYSMIS=0) (1=1) (3=3).
EXECUTE.

COMPUTE ALCOHOL=ALLdich + Abstainers.
EXECUTE.

RECODE ALCOHOL (1=1) (3=3) (0=SYSMIS) (10=2) (11=2) (13=2).
EXECUTE.

RECODE ALCOHOL (1=1) (3=3) (2=2) (SYSMIS=4).
EXECUTE.

*testing a different definition of abstainers*
RECODE ALCOHOL (0=SYSMIS) (1=1) (11=1) (3=3) (13=3) (10=2) INTO ALCOHOL3.
EXECUTE.

*Testing separating early or lifetime abstainers*


IF (DRINKALC=1) Abstainers=10.
EXECUTE.

IF (DRINKALC=0) Abstainers2=100.
EXECUTE.

RECODE Abstainers (10=10) (SYSMIS=0).
EXECUTE.

RECODE Abstainers2 (100=100) (SYSMIS=0).
```

```
EXECUTE.

COMPUTE ALCOHOL_2ABS=Abstainers + Abstainers2.
EXECUTE.

RECODE ALLdich (SYSMIS=0) (1=1) (3=4).
EXECUTE.

COMPUTE ALCOHOL3=ALLdich + ALCOHOL_2ABS.
EXECUTE.

RECODE ALCOHOL3 (0=5) (1=1) (10=2) (11=2) (100=3) (14=2) (4=4).
EXECUTE.

RECODE ALCOHOL3 (SYSMIS=SYSMIS) (1=0) (2=0) (3=0) (4=1) INTO AlcBin.
EXECUTE.

/*From SALT data*/

***Recode "beer weekdays" variables to a new variable: beer_weekdays****
***Based on number of bottles***
COMPUTE BEER_WEEKDAYS_DRICKER_ALDR_OL_copy=BEER_WEEKDAYS_DRICKER_ALDR_OL.
COMPUTE BEER_WEEKDAYS_INGET_copy=BEER_WEEKDAYS_INGET.
COMPUTE BEER_WEEKDAYS_ETT_GLAS_EL_MIN_copy=BEER_WEEKDAYS_ETT_GLAS_EL_MIN.
COMPUTE BEER_WEEKDAYS_1_FLASKA_33CL_copy=BEER_WEEKDAYS_1_FLASKA_33CL.
COMPUTE BEER_WEEKDAYS_2_FLASKOR_copy=BEER_WEEKDAYS_2_FLASKOR.
COMPUTE BEER_WEEKDAYS_3_FLASKOR_copy=BEER_WEEKDAYS_3_FLASKOR.
COMPUTE BEER_WEEKDAYS_4_FLASKOR_copy=BEER_WEEKDAYS_4_FLASKOR.
COMPUTE BEER_WEEKDAYS_5_FLASKOR_copy=BEER_WEEKDAYS_5_FLASKOR.
COMPUTE BEER_WEEKDAYS_6_FLASK_EL_MER_copy=BEER_WEEKDAYS_6_FLASK_EL_MER.
COMPUTE BEER_WEEKDAYS_VET_EJ_copy=BEER_WEEKDAYS_VET_EJ.
COMPUTE BEER_WEEKDAYS_VILL_EJ_SVARA_copy=BEER_WEEKDAYS_VILL_EJ_SVARA.
EXECUTE.

Recode BEER_WEEKDAYS_DRICKER_ALDR_OL_copy (0=1)
Recode BEER_WEEKDAYS_INGET_copy (1=0).
Recode BEER_WEEKDAYS_ETT_GLAS_EL_MIN_copy (5=6).
Recode BEER_WEEKDAYS_1_FLASKA_33CL_copy (6=12).
Recode BEER_WEEKDAYS_2_FLASKOR_copy (7=24).
Recode BEER_WEEKDAYS_3_FLASKOR_copy (8=36).
Recode BEER_WEEKDAYS_4_FLASKOR_copy (9=48).
Recode BEER_WEEKDAYS_5_FLASKOR_copy (10=60).
Recode BEER_WEEKDAYS_6_FLASK_EL_MER_copy (11=72).

IF (BEER_WEEKDAYS_DRICKER_ALDR_OL_copy=1) BEER_WEEKDAYS_copy=1.
If (BEER_WEEKDAYS_INGET_copy=0) BEER_WEEKDAYS_copy=0.
If (BEER_WEEKDAYS_ETT_GLAS_EL_MIN_copy=6) BEER_WEEKDAYS_copy=12.
If (BEER_WEEKDAYS_1_FLASKA_33CL_copy=12) BEER_WEEKDAYS_copy=12.
If (BEER_WEEKDAYS_2_FLASKOR_copy=24) BEER_WEEKDAYS_copy=24.
If (BEER_WEEKDAYS_3_FLASKOR_copy=36) BEER_WEEKDAYS_copy=36.
If (BEER_WEEKDAYS_4_FLASKOR_copy=48) BEER_WEEKDAYS_copy=48.
If (BEER_WEEKDAYS_5_FLASKOR_copy=60) BEER_WEEKDAYS_copy=60.
```

```
If (BEER_WEEKDAYS_6_FLASK_EL_MER_copy=72) BEER_WEEKDAYS_copy=72.
If (BEER_WEEKDAYS_VET_EJ=998) BEER_WEEKDAYS_copy=998.
If (BEER_WEEKDAYS_VILL_EJ_SVARA=999) BEER_WEEKDAYS_copy=999.

***Recode "beer weekends" variables to a new variable: beer_weekends****
COMPUTE BEER_WEEKENDS_INGET_copy=BEER_WEEKENDS_INGET.
COMPUTE BEER_WEEKENDS_ETT_GLAS_EL_MIN_copy=BEER_WEEKENDS_ETT_GLAS_EL_MIN.
COMPUTE BEER_WEEKENDS_1_FLASKA_33CL_copy=BEER_WEEKENDS_1_FLASKA_33CL.
COMPUTE BEER_WEEKENDS_2_FLASKOR_copy=BEER_WEEKENDS_2_FLASKOR.
COMPUTE  BEER_WEEKENDS_3_FLASKOR_copy=BEER_WEEKENDS_3_FLASKOR.
COMPUTE  BEER_WEEKENDS_4_FLASKOR_copy=BEER_WEEKENDS_4_FLASKOR.
COMPUTE  BEER_WEEKENDS_5_FLASKOR_copy=BEER_WEEKENDS_5_FLASKOR.
COMPUTE  BEER_WEEKENDS_6_FLASK_EL_MER_copy=BEER_WEEKENDS_6_FLASK_EL_MER.
COMPUTE  BEER_WEEKENDS_VET_EJ_copy=BEER_WEEKENDS_VET_EJ.
COMPUTE  BEER_WEEKENDS_VILL_EJ_SVARA_copy=BEER_WEEKENDS_VILL_EJ_SVARA.
EXECUTE.

Recode BEER_WEEKENDS_INGET_copy (0=0).
Recode BEER_WEEKENDS_ETT_GLAS_EL_MIN_copy (4=6).
Recode BEER_WEEKENDS_1_FLASKA_33CL_copy (5=12).
Recode BEER_WEEKENDS_2_FLASKOR_copy (6=24).
Recode BEER_WEEKENDS_3_FLASKOR_copy (7=36).
Recode BEER_WEEKENDS_4_FLASKOR_copy (8=48).
Recode BEER_WEEKENDS_5_FLASKOR_copy (9=60).
Recode BEER_WEEKENDS_6_FLASK_EL_MER_copy (10=72).

IF (BEER_WEEKENDS_DRICKER_ALDR_OL_copy=0) BEER_WEEKENDS_copy=0.
If (BEER_WEEKENDS_INGET_copy=0) BEER_WEEKENDS_copy=0.
If (BEER_WEEKENDS_ETT_GLAS_EL_MIN_copy=6) BEER_WEEKENDS_copy=12.
If (BEER_WEEKENDS_1_FLASKA_33CL_copy=12) BEER_WEEKENDS_copy=12.
If (BEER_WEEKENDS_2_FLASKOR_copy=24) BEER_WEEKENDS_copy=24.
If (BEER_WEEKENDS_3_FLASKOR_copy=36) BEER_WEEKENDS_copy=36.
If (BEER_WEEKENDS_4_FLASKOR_copy=48) BEER_WEEKENDS_copy=48.
If (BEER_WEEKENDS_5_FLASKOR_copy=60) BEER_WEEKENDS_copy=60.
If (BEER_WEEKENDS_6_FLASK_EL_MER_copy=72) BEER_WEEKENDS_copy=72.
If (BEER_WEEKENDS_VET_EJ=998) BEER_WEEKENDS_copy=998.
If (BEER_WEEKENDS_VILL_EJ_SVARA=999) BEER_WEEKENDS_copy=999.

***Add up beer_weekdays and beer_weekends tol beer_week*******
Recode BEER_WEEKDAYS_copy BEER_WEEKENDS_copy (998=SYSMIS) (999=SYSMIS).

Compute sum_alcohol_beer_week= sum(BEER_WEEKDAYS_copy, BEER_WEEKENDS_copy).

****Recode wine variables from glass to gram*****

**One glass of wine (15 cl) corresponds to one standard glass, i.e. 12 grams ****
***One half bottle (37 cl) corresponds to 30 grams alcohol***
***N.B. More than one bottle is coded as one bottle, i.e. 60 grams alcohol***

COMPUTE  WINE_WEEKDAYS_copy=WINE_WEEKDAYS.
COMPUTE  WINE_WEEKENDS_copy=WINE_WEEKENDS.
```

```
Recode WINE_WEEKDAYS_copy (3=1) (6=12) (7=24) (8=30) (9=36) (10=48) (11=60) (12=60) (13=0)
(998=998) (999=999).
Recode WINE_WEEKENDS_copy (5=12) (6=24) (7=30) (8=36) (9=48) (10=60) (11=36) (12=0)
(998=998) (999=999).

*Recode spirits variables from glass to gram;
*One glass of spirits (4 cl) corresponds to one standard glass, i.e. 12 grams;
*One half bottle (37 cl) corresponds to 111 grams alcohol;
*N.B. More than one half bottle is coded as one bottle, i.e. 111 grams alcohol;

COMPUTE  SPIRITS_WEEKDAYS_copy=SPIRITS_WEEKDAYS.
COMPUTE  SPIRITS_WEEKENDS_copy=SPIRITS_WEEKENDS.

Recode SPIRITS_WEEKDAYS_copy (3=1) (6=12) (7=18) (8=24) (9=36) (10=54) (11=111) (12=111)
(13=0) (998=998) (999=999).
Recode SPIRITS_WEEKENDS_copy (5=12) (6=18) (7=24) (8=36) (9=54) (10=111) (11=111) (12=0)
(998=998) (999=999).

***Add up weekdays and weekend variables for wine and spirits to:  wine_week and spirits
week****

Recode WINE_WEEKDAYS_copy WINE_WEEKENDS_copy (998=SYSMIS) (999=SYSMIS).
Compute sum_alcohol_wine_week=sum(WINE_WEEKDAYS_copy, WINE_WEEKENDS_copy).
Recode SPIRITS_WEEKDAYS_copy SPIRITS_WEEKENDS_copy (998=SYSMIS) (999=SYSMIS).
Compute sum_alcohol_spirits_week=sum(SPIRITS_WEEKDAYS_copy, SPIRITS_WEEKENDS_copy).

***Add up beer_week, wine_week and spirits week to: total_alcohol_week****

RECODE sum_alcohol_beer_week, sum_alcohol_wine_week, sum_alcohol_spirits_week (1=0)
(else= copy) into beer_week wine_week spirits_week.
Compute total_alcohol_week=sum(beer_week, wine_week, spirits_week).

***Create a total_alcohol_week variable that takes into account gender differences
(total_alcohol_week_sex)*****

**Recommendations according to the National Institute of Public Health - risky use of alcohol for
men and women*****
***No more than 14 standard glasses per week (168 grams) for men and more than 9 standard
glasses per week (108 grams) for women are considered to be associated with a risky use*****
***With low alcohol consumption, a maximum of one glass a day is counted (12 * 7 = 84
grams)****

Do If (sex=1).
Recode total_alcohol_week (12 thru 84=0) (0=1) (85 thru 165=2) (168 thru 444=3) (missing=998)
into  total_alcohol_week_sex.
Else if (sex=2).
Recode total_alcohol_week (12 thru 84=0) (0=1) (85 thru 102=2) (108 thru 444=3) (missing=998)
into total_alcohol_week_sex.
End if.

Value labels total_alcohol_week_sex
0 'Light consumers'
```

```
1 'Abstainers'
2 'Moderate consumers'
3 'Heavy consumers'
998 'Internal missing'.

***Create a variable total_alcohol_days****

COMPUTE  total_alcohol_days= total_alcohol_week/7.

***Create a variable total_alcohol_days that takes sex differences into consideration
(total_alcohol_week_sex)*****

*** Recommendations according to the National Institute of Public Health - risky use of alcohol for
men and women *****
*** No more than 4 standard glasses per week (48 grams) for men and more than 3 standard
glasses per week (36 grams) for women are considered to be associated with a risky use *****

Do If (sex=1).
Recode total_alcohol_days (2 thru 12=0) (0=1) (13 thru 48=2) (49 thru 63=3) (missing=998) into
total_alcohol_days_sex.
Else if (sex=2).
Recode total_alcohol_days(2 thru 12=0) (0=1)  (13 thru 36=2) (37 thru 63=3) (missing=998) into
total_alcohol_days_sex.
End if.

Value labels total_alcohol_days_sex
0 'Light consumers'
1 'Abstainers'
2 'Moderate consumers'
3 'Heavy consumers'
998 'Internal missing'.

****Create a total alcohol variable which is based on week consumption (total_alcohol_week_sex)
and alcohol consumption per occasion (total_alcohol_occasion_sex)****

If (total_alcohol_week_sex=1) total_alcohol_consumption=1.
If (total_alcohol_week_sex=0) total_alcohol_consumption=0.
If (total_alcohol_week_sex=2) total_alcohol_consumption=2.
If (total_alcohol_week_sex=3) total_alcohol_consumption=3.
If (total_alcohol_occasion_sex=0) total_alcohol_consumption=4.
If (total_alcohol_occasion_sex=1) total_alcohol_consumption=1.
If (total_alcohol_occasion_sex=2) total_alcohol_consumption=5.
If (total_alcohol_occasion_sex=3) total_alcohol_consumption=6.

Recode total_alcohol_consumption (missing=998).

VARIABLE LABELS total_alcohol_consumption 'Often & seldom drinkers together'.

Value labels total_alcohol_consumption
0 'Light consumers often drinker'
1 'Abstainers'
2 'Moderate consumers often drinker'
```

```
3 'Heavy consumers often drinker'
4 'Light consumers seldom drinker'
5 'Moderate consumers seldom drinker'
6 'Heavy consumers seldom drinker'
998 'Internal missing'.

/** Smoking**/
/*From STAGE data*/

*Current smokers*
RECODE CGNOW (SYSMIS=0) (998=0) (1=1) (0=0) INTO CGNOW2.
EXECUTE.

RECODE SMPTYNOW (SYSMIS=0) (998=0) (1=1) (0=0) INTO SMPTYNOW2.
EXECUTE.

COMPUTE CurrentSmoker=CGNOW2 + SMPTYNOW2.
EXECUTE.

RECODE CurrentSmoker (1=1) (2=1) (0=0).
EXECUTE.

*Former smokers*
RECODE PARTYCIG (SYSMIS=0) (0=0) (998=0) (1=1) INTO PARTYCIG2.
EXECUTE.

RECODE REGCIG (SYSMIS=0) (0=0) (998=0) (1=1) INTO REGCIG2.
EXECUTE.

COMPUTE Eversmokers=PARTYCIG2 + REGCIG2.
EXECUTE.

RECODE Eversmokers (1=1) (2=1) (0=0).
EXECUTE.

COMPUTE FormerSmokers=Eversmokers - CurrentSmoker.
EXECUTE.

RECODE FormerSmokers (1=1) (ELSE=0).
EXECUTE.

*Neversmokers*
RECODE TRYSM (0=0) (1=1) (998=0) (SYSMIS=0) INTO TRYSM2.
EXECUTE.

RECODE NOTRY (0=0) (1=1) (998=0) (SYSMIS=0) INTO NOTRY2.
EXECUTE.

COMPUTE NeverSmoker=TRYSM2 + NOTRY2.
EXECUTE.

RECODE NeverSmoker (0=0) (1=1) (2=1).
```

```
EXECUTE.

*Adding the varaibles*
RECODE NeverSmoker (0=0) (1=10)  INTO NeverSmoker2.
EXECUTE.

RECODE FormerSmokers (0=0) (1=100)  INTO FormerSmokers2.
EXECUTE.

RECODE CurrentSmoker (0=0) (1=1000)  INTO CurrentSmoker2.
EXECUTE.

COMPUTE SmokingStatus=NeverSmoker2 + FormerSmokers2 + CurrentSmoker2.
EXECUTE.

RECODE SmokingStatus (0=SYSMIS) (10=1) (100=2) (1000=3) (110=2) (1010=3).
EXECUTE.

RECODE SmokingStatus (SYSMIS=SYSMIS) (1=0) (2=0) (3=1) INTO SmokingBin.
EXECUTE.

/*From SALT data*/

****Add up SMOK_SNUFF_NEJ_INTE_ENS_PROV; SMOK_SNUFF_JA_BARA_PROVAT;
SMOK_SNUFF_ROKT_DA_OCH_DA;
SMOK_SNUFF_ROKT_REGELBUNDET SMOK_SNUFF_FESTROKT SMOK_SNUFF_ROKER_DA_OCH_DA
SMOK_SNUFF_ROKER_REGELBUNDET SMOK_SNUFF_FESTROKER
SMOK_SNUFF_SNUSAT_DA_OCH_DA
SMOK_SNUFF_SNUSAT_REGELBUNDET SMOK_SNUFF_SNUSAR_DA_OCH_DA
SMOK_SNUFF_SNUSAR_REGELBUNDET
SMOK_SNUFF_VET_EJ SMOK_SNUFFD_V_E_S to a variable with the following categories:

****1. never-user (SMOK_SNUFF_NEJ_INTE_ENS_PROV; SMOK_SNUFF_JA_BARA_PROVAT)
2. current light/occasional user (SMOK_SNUFF_ROKER_DA_OCH_DA;
SMOK_SNUFF_FESTROKER;SMOK_SNUFF_SNUSAR_DA_OCH_DA )
3. past user (;SMOK_SNUFF_ROKT_DA_OCH_DA;SMOK_SNUFF_ROKT_REGELBUNDET;
SMOK_SNUFF_FESTROKT;
SMOK_SNUFF_SNUSAT_DA_OCH_DA;SMOK_SNUFF_SNUSAT_REGELBUNDET )
4. current heavy/regural user (SMOK_SNUFF_ROKER_REGELBUNDET;
SMOK_SNUFF_SNUSAR_REGELBUNDET)*****

***N.B. Recode SMOK_SNUFFD_V_E_S to 998, otherwise it will be coded as 999 i the following
steps****

RECODE SMOK_SNUFFD_V_E_S (999=998).

DO IF (SALT =999).
RECODE SMOK_SNUFF_NEJ_INTE_ENS_PROV SMOK_SNUFF_JA_BARA_PROVAT
SMOK_SNUFF_ROKT_DA_OCH_DA SMOK_SNUFF_ROKT_REGELBUNDET SMOK_SNUFF_FESTROKT
SMOK_SNUFF_ROKER_DA_OCH_DA SMOK_SNUFF_ROKER_REGELBUNDET
SMOK_SNUFF_FESTROKER SMOK_SNUFF_SNUSAT_DA_OCH_DA
SMOK_SNUFF_SNUSAT_REGELBUNDET SMOK_SNUFF_SNUSAR_DA_OCH_DA
```

```
SMOK_SNUFF_SNUSAR_REGELBUNDET SMOK_SNUFF_VET_EJ SMOK_SNUFFD_V_E_S
(MISSING=999).
END IF.
EXECUTE.

RECODE SMOK_SNUFF_NEJ_INTE_ENS_PROV SMOK_SNUFF_JA_BARA_PROVAT
SMOK_SNUFF_ROKT_DA_OCH_DA SMOK_SNUFF_ROKT_REGELBUNDET SMOK_SNUFF_FESTROKT
SMOK_SNUFF_ROKER_DA_OCH_DA SMOK_SNUFF_ROKER_REGELBUNDET
SMOK_SNUFF_FESTROKER SMOK_SNUFF_SNUSAT_DA_OCH_DA
SMOK_SNUFF_SNUSAT_REGELBUNDET SMOK_SNUFF_SNUSAR_DA_OCH_DA
SMOK_SNUFF_SNUSAR_REGELBUNDET SMOK_SNUFF_VET_EJ SMOK_SNUFFD_V_E_S
(SYSMIS=99).
EXECUTE.

Value labels SMOK_SNUFF_NEJ_INTE_ENS_PROV SMOK_SNUFF_JA_BARA_PROVAT
SMOK_SNUFF_ROKT_DA_OCH_DA
SMOK_SNUFF_ROKT_REGELBUNDET SMOK_SNUFF_ROKER_DA_OCH_DA
SMOK_SNUFF_ROKER_REGELBUNDET SMOK_SNUFF_FESTROKER
SMOK_SNUFF_SNUSAT_DA_OCH_DA SMOK_SNUFF_SNUSAT_REGELBUNDET
SMOK_SNUFF_SNUSAR_DA_OCH_DA
SMOK_SNUFF_SNUSAR_REGELBUNDET SMOK_SNUFF_VET_EJ SMOK_SNUFFD_V_E_S
'99 Internal missing- svarade inte på frågan'
'999 External missing ej deltagit i SALT'.

Do if  (SALT=999).
Compute Tobacco_use=999.
Else if (SMOK_SNUFF_NEJ_INTE_ENS_PROV=0).
Compute Tobacco_use=1.
Else if (SMOK_SNUFF_JA_BARA_PROVAT=1).
Compute Tobacco_use=1.
Else if (SMOK_SNUFF_ROKT_DA_OCH_DA=2).
Compute Tobacco_use=3.
Else if (SMOK_SNUFF_ROKT_REGELBUNDET=3).
Compute Tobacco_use=3.
Else if (SMOK_SNUFF_ROKT_REGELBUNDET=3).
Compute Tobacco_use=3.
Else if (SMOK_SNUFF_ROKER_DA_OCH_DA=8).
Compute Tobacco_use=2.
Else if (SMOK_SNUFF_ROKER_REGELBUNDET=9).
Compute Tobacco_use=4.
Else if (SMOK_SNUFF_FESTROKER =13).
Compute Tobacco_use=2.
Else if (SMOK_SNUFF_FESTROKER =13).
Compute Tobacco_use=2.
Else if (SMOK_SNUFF_SNUSAT_DA_OCH_DA=10).
Compute Tobacco_use=3.
Else if (SMOK_SNUFF_SNUSAT_REGELBUNDET=5).
Compute Tobacco_use=3.
Else if (SMOK_SNUFF_SNUSAR_DA_OCH_DA=4).
Compute Tobacco_use=2.
Else if (SMOK_SNUFF_SNUSAR_REGELBUNDET=11).
Compute Tobacco_use=4.
```

```
Else if (SMOK_SNUFF_VET_EJ =998).
Compute Tobacco_use=998.
Else if (SMOK_SNUFFD_V_E_S=999).
Compute Tobacco_use=998.
End if.

Recode Tobacco_use (SYSMIS=998).

Value labels Tobacco_use
1 'Never-user'
2 'Current light/occassional user'
3 'Past user'
4 'Current heavy/regular user'
998 'Internal missing/dont know/dont want to answer'
999 'External missing- did not participate in SALT'.

Recode Tobacco_use (1=1) (2=2) (3=3) (4=2) (998=998) (999=999) into Tobacco_use2.

Value labels Tobacco_use2
1 'Never-user'
2 'Current user'
3 'Past user'
998 'Internal missing/dont know/dont want to answer'
999 'External missing- did not participate in SALT'.

/** Physical activity**/
/*From STAGE data*/

*Classify physical activity according to physical activity levels*
RECODE PHACTLEV (998=SYSMIS) (SYSMIS=SYSMIS) (1=1) (2=1) (3=1) (4=1) (5=2) (6=2) (7=3) (8=3)
(9=4) (10=4)
   INTO PHACTLEV5cat.
EXECUTE.

/*From SALT data*/
COMPUTE pa_frequency=EXERCISE_HOW_OFTEN.

Recode pa_frequency (0=5) (1=5) (2=4) (3=3) (4=2) (5 thru 6=1) (998 thru 999=998) (SYSMIS=998).

Variable labels pa_frequency referensgrupp 'verkligt mycket/mycket'.
VALUE LABELS pa_frequency
1 'Verkligt mycket/mycket'
2 'Ganska mycket'
3 'Inte särskild mycket'
4 'Ganska lite'
5 'Mycket lite/nästan inte alls'
998 'Internal missing- deltog ej i denna fråga alt vet ej eller vill ej svara'.

/**Health behavior sum score**/

/*code in SAS*/
```

```
*Combine these variables into one total health behaviour variable*
HealthBehavior=ALC+ SmokingBin+ PHACT;

if HealthBehavior=0 then HealthBehavior='Unhealthy';
else if HealthBehavior=1 then HealthBehavior='One healthy behaviour';
else if HealthBehavior=2 then HealthBehavior='Two healthy behaviours';
else if HealthBehavior=3 then HealthBehavior='Three healthy behaviours';
else HealthBehavior='Missing';
```

/*code in SPSS*/

```
* Turn the variables into dichotomous variables *
Recode pa_frequency (1 thru 3=0) (4 thru 5=1) (998=SYSMIS) into  pa_frequency_dic.
Recode tobacco_use (1=0) (3=0) (2=1) (998=SYSMIS) into tobacco_use_dic.
Recode total_alcohol_days_sex (0 thru 2=0) (3=1) (998=SYSMIS) into total_alco_days_sex_dic.

VARIABLE LABELS pa_frequency_dic 'fysisk aktivitet dikotom'.
VALUE LABELS pa_frequency_dic
1 'inactive'
0 'active'.

VARIABLE LABELS tobacco_use_dic 'tobak dikotom'.
VALUE LABELS tobacco_use_dic
1 'use tobacco'
0 'dont use tobacco'.

VARIABLE LABELS total_alco_days_sex_dic 'alkohol veckovis dikotom'.
VALUE LABELS total_alco_days_sex_dic
1 'heavy alcohol consumer'
0 'moderate to abstainer'.

*Combine these variables into one total health behaviour variable*

Compute sum_life_style= sum(pa_frequency_dic, tobacco_use_dic, total_alco_week_sex_dic).

VARIABLE LABELS  sum_life_style 'Summa dåliga hälsovanor'.

Recode sum_life_style (missing=998) (else=copy).

Recode sum_life_style (missing=998) (else=copy) into sum_life_style_final.

*No unhealthy behaviour=0 and 1-3 eq number of unhealthy behaviours*

Value labels sum_life_style_final
0 'Inget'
1 'En ohälsosam vana'
2 'Två ohälsosamma vanor'
3 'Tre till fyra ohälsosamma vanor'
998 'Internal missing'.
```

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