

Family Data Dictionary

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Section I: Basic study/participant information

SID_DI	HEIRS participant ID - de-identified	Char \$11.
DVISIT_CCE	Date of CCE (Number of days from a given date)	Num 4.
PREFLANG	Preferred Language 1=English 2=Spanish 3=Mandarin 4=Vietnamese	Num 6.
RACE	Participant Race 1=Hispanic 2=Asian/Pacific Islander 3=African American 4=Caucasian 5=Other: American Indian, Multiple, Unknown	Num 4.
AGE	Calculated Age	Num 8.
GENDER	What is your gender	Char \$20.

Section II: Family

MGS	Was this sample sent to MGS for additional genotyping? 1=Yes	Num 4.
PROBAND	Is this person a proband 1=Yes	Num 4.

Section III: Initial Screening

FIRSTIME	Q6: Is this the first time you have been asked to participate in this study 1=Yes 2=No	Num 4.
HLTHRES	Q7a: (old form)I want to help by taking part in research 1=Important 2=Not important	Num 4.
DRPART	Q7b: (old form)My doctor thought that I should take part in this study 1=Important 2=Not important	Num 4.
IRONPROB	Q7c: (old form)I want to know if I have problems too high or too low 1=Important 2=Not important	Num 4.
HAVEHEMO	Q7d: (old form)I have iron overload or hemochromatosis 1=Important 2=Not important	Num 4.

MIGHT	Q7e: (old form) I think I might have iron overload or hemochromatosis 1=Important 2=Not important	Num 4.
MEDCOND	Q7f: (old form) I have another medical condition 1=Important 2=Not important	Num 4.
RELAHEMO	Q7g: (old form) My blood relative has/had iron overload or hemochromatosis 1=Important 2=Not important	Num 4.
ELSEHEMO	Q7h: (old form) Someone else I know has/had iron overload or hemochromatosis 1=Important 2=Not important	Num 4.
OTHREAS	Q7i: (old form) Other reason 1=Important 2=Not important	Num 4.
TOOMUCH	Q7a: Too much iron in your body, iron overload or hemochromatosis 1=Yes 2=No 3=Not Sure	Num 4.
ARTHRITI	Q7b: Arthritis 1=Yes 2=No 3=Not Sure	Num 4.
DIABETES	Q7c: Diabetes 1=Yes 2=No 3=Not Sure	Num 4.
LIVER	Q7d: Liver disease or liver cancer 1=Yes 2=No 3=Not Sure	Num 4.
HRTFAIL	Q7e: Heart failure 1=Yes 2=No 3=Not Sure	Num 4.
IMPOT	Q7f: Fertility problems or impotence 1=Yes 2=No 3=Not Sure	Num 4.

BLDRELA	Q8: Have any of your blood relatives had iron overload or hemochromatosis, or been treated by having their blood drawn on a regular basis? 1=Yes 2=No 3=Not Sure	Num 4.
ANYONE	Q10: (old form)Have you ever known anyone else who had to donate blood for his or her health 1=Yes 2=No 3=Not Sure	Num 4.
PREGNANT	Q9: For women only: Are you pregnant, have you been pregnant within the past 3 months, or are you breast feeding 1=Yes 2=No 3=Not Sure	Num 4.
HEALTH	Q10: In general, would you say your health is 1=Poor 2=Fair 3=Average 4=Good 5=Excellent	Num 4.
SICKEASY	Q11a: I seem to get sick a little easier than other people 1=Definitely true 2=Mostly true 3=Don't know 4=Mostly false 5=Definitely false	Num 4.
HLTHANY	Q11b: I am as healthy as anybody 1=Definitely true 2=Mostly true 3=Don't know 4=Mostly false 5=Definitely false	Num 4.
HLTHWORS	Q11c: I expect my health to get worse 1=Definitely true 2=Mostly true 3=Don't know 4=Mostly false 5=Definitely false	Num 4.
HLTHEXC	Q11d: My health is excellent 1=Definitely true 2=Mostly true 3=Don't know 4=Mostly false 5=Definitely false	Num 4.

NERVOUS	Q12a: Have you been a nervous person 1=All of the time 2=Most of the time 3=A good bit of the time 4=Some of the time 5=A little of the time 6=None of the time	Num 4.
DOWNDUMP	Q12b: Have you felt so down in the dumps that nothing could cheer you up 1=All of the time 2=Most of the time 3=A good bit of the time 4=Some of the time 5=A little of the time 6=None of the time	Num 4.
CALM	Q12c: Have you felt calm and peaceful 1=All of the time 2=Most of the time 3=A good bit of the time 4=Some of the time 5=A little of the time 6=None of the time	Num 4.
BLUE	Q12d: Have you felt downhearted and blue 1=All of the time 2=Most of the time 3=A good bit of the time 4=Some of the time 5=A little of the time 6=None of the time	Num 4.
HAPPY	Q12e: Have you been a happy person 1=All of the time 2=Most of the time 3=A good bit of the time 4=Some of the time 5=A little of the time 6=None of the time	Num 4.
SHOULDSSH	Q13: Information about a person's genetic risk should be shared with other family members. 1=Strongly Agree 2=Agree 3=Disagree 4=Strongly Disagree	Num 4.
GENETEST	Q14: In general, I think genetic testing to find out about disease risk is a good idea 1=Strongly Agree 2=Agree 3=Disagree 4=Strongly Disagree	Num 4.

GOODTRT	Q15a: There might be a good treatment by the time you developed the disease 1=Strongly Agree 2=Agree 3=Disagree 4=Strongly Disagree	Num 4.
CHGLIFE	Q15b: You could change to a healthier lifestyle to prevent getting the disease 1=Strongly Agree 2=Agree 3=Disagree 4=Strongly Disagree	Num 4.
PREPFUTU	Q15c: You could prepare better for the future 1=Strongly Agree 2=Agree 3=Disagree 4=Strongly Disagree	Num 4.
SHAREINF	Q15d: You could share this information with family members 1=Strongly Agree 2=Agree 3=Disagree 4=Strongly Disagree	Num 4.
INSURE	Q16a: You might have trouble getting or keeping your insurance 1=Strongly Agree 2=Agree 3=Disagree 4=Strongly Disagree	Num 4.
HELPLESS	Q16b: You might feel helpless because you can't change your genes 1=Strongly Agree 2=Agree 3=Disagree 4=Strongly Disagree	Num 4.
FEELELESS	Q16c: Knowing that you had a gene that put you at risk could make you feel less healthy 1=Strongly Agree 2=Agree 3=Disagree 4=Strongly Disagree	Num 4.
BADNEWS	Q16d: You could be bringing bad news into your family 1=Strongly Agree 2=Agree 3=Disagree 4=Strongly Disagree	Num 4.

HEREDITY	Q17a: Heredity (it runs in your family) 1=Very important 2=Somewhat important 3=Not important 4=Not sure	Num 4.
ENVIRON	Q17b: The environment (ex. Water/air pollution) 1=Very important 2=Somewhat important 3=Not important 4=Not sure	Num 4.
FATE	Q17c: Fate or chance (bad luck) 1=Very important 2=Somewhat important 3=Not important 4=Not sure	Num 4.
PSYCHO	Q17d: Psychological factors (ex. Stress) 1=Very important 2=Somewhat important 3=Not important 4=Not sure	Num 4.
LIFESTYL	Q17e: Lifestyle (ex. smoking, drinking, eating a high fat diet) 1=Very important 2=Somewhat important 3=Not important 4=Not sure	Num 4.
DOCVISIT	Q5: I came in for a doctor visit or to have my blood drawn, and found out about it 1=Yes	Num 4.
PHCALL	Q5: I received a phone call or letter from the study, inviting me to participate 1=Yes	Num 4.
CAMEINTO	Q5: I came into the clinic or lab with a friend or family member, and found out about it 1=Yes	Num 4.
NEWSTV	Q5: I learned about it in the newspaper, in the community, on the TV, or on the radio 1=Yes	Num 4.
HEAROTH	Q5: Other 1=Yes	Num 4.
Section IV: Initial Screen Lab Results		
BLDSTORE	Permission to store blood? 1=Yes	Num 4.
HOURS	Hours since last food	Num 10.2
SERUM	Serum Iron Note 0='<5'	Num 7.2

SF	Serum Ferritin Note 7.5 = '<15'	Num 10.2
TS	Transferrin Saturation Note 1.5 = '<3'	Num 7.2
UIBC	Unsaturated Iron Binding Capacity	Num 8.2
TIBC	Total Iron Binding Capacity	Num 8.2
LABRESULT	Participant Genotype	Char \$11.

Section V: Clinical Assessment

HEIGHT	Q7: Height in inches	Num 8.
WEIGHT	Q8: Body weight in pounds	Num 6.1
TEMPER	Q9: Body Temperature in Fahrenheit	Num 7.1
BMI	Body Mass Index	Num 8.
PULSE	Q10: Pulse in beats per minute	Num 4.
SBP	Q11: Systolic Blood Pressure in mmHg	Num 11.
DBP	Q12: Diastolic Blood Pressure in mmHg	Num 11.
HEPATOM	Q13: Liver: Hepatomegaly (liver palpable \geq 2cm below R. costal margin or xiphoid process on deep inspiration) 1-Yes 2-No 3-Not sure	Num 4.
SPLENOM	Q14: Liver: Splenomegaly (spleen palpable below L. costal margin) 1-Yes 2-No 3-Not sure	Num 4.
BRADY	Q15a: Heart Arrhythmia: Bradycardia (<40 beats per minute) 1-Yes 2-No 3-Not sure	Num 4.
TACHY	Q15b: Heart Arrhythmia: Tachycardia (>100 beats per minute) 1-Yes 2-No 3-Not sure	Num 4.

PREMACON	Q15c: Heart Arrythmia: Frequent premature contractions (≥1 ectopic beat per min.) 1-Yes 2-No 3-Not sure	Num 4.
ABNORMAL	Q15d: Heart Arrythmia: Other abnormal rhythm 1-Yes 2-No 3-Not sure	Num 4.
MURMUR	Q15e: Heart Arrythmia: Murmur (any prolonged sound produced by the heart) 1-Yes 2-No 3-Not sure	Num 4.
EDEMA	Q15f: Heart Arrythmia: Edema (symmetrical edema of dependent areas, usually lower extremities, with or without pitting) 1-Yes 2-No 3-Not sure	Num 4.
PIGMENT	Q16: Skin: Increased pigmentation on sun-exposed or unexposed areas (grayish or brownish shades) 1-Yes 2-No 3-Not sure	Num 4.
BLISTER	Q17: Skin: Blistering, ulcers, scarring of sun-exposed skin 1-Yes 2-No 3-Not sure	Num 4.
HYPERTRI	Q18: Skin: Hypertrichosis (excess hair growth in sun-exposed areas) 1-Yes 2-No 3-Not sure	Num 4.
MPJOINTS	Q19: Bones and Joints: MP joints: Swollen or tender 1-Yes 2-No 3-Not sure	Num 4.

Section VI: CCE Lab Values

RETIC	Reticulocyte count (%) Reference Range: 0.4-2.5 %	Num 6.1
TS_CCE	% Iron Saturation iron binding protein (%) Reference Range: 15-50 %	Num 4.

SF_CCE	Serum Ferritin Concentration (ng/mL) Reference Range: 20-300 ng/mL (M) 10-120 ng/mL (F15-45y) 10-300 ng/mL (F45-127y) Note: 7.5 = '<15'	Num 4.
ALT	Serum Activity Alanine Aminotransferase (U/L) Reference Range: 0-31 U/L (F) 0-40 U/L (M) Note: 3 = '<4'	Num 8
AST	Serum Activity Aspartate Aminotransferase (U/L) Reference Range: 0-31 U/L (F) 0-37 U/L (M)	Num 8
CRP	Serum Concentration C-Reactive Protein (mg/dL) Reference Range: 0-0.5 mg/dL Note: 0.2 = '<0.3'	Num 8
LD	Serum activity lactate dehydrogenase (U/L) Reference Range: 94-250 U/L	Num 8
BILT	Serum concentration total bilirubin (mg/dL) Reference Range: 0.0-1.0 mg/dL	Num 8
DBIL	Serum concentration direct bilirubin (mg/dL) Reference Range: 0.0-0.3 mg/dL	Num 8
IBIL	Serum concentration indirect bilirubin (mg/dL) Reference Range: 0.0-0.7 mg/dL	Num 8
HAPT	Serum haptoglobin concentration (mg/dL) Reference Range: 30-200 mg/dL Note: 19 = '<20'	Num 8
HEPATITS	Hepatitis B Surface Antigen or Hepatitis C virus antibody POSITIVE or NEGATIVE	Char \$15
FEBR	Serum iron binding capacity (ug/dL) Reference Range: 228-428 ug/dL	Num 8
FER	Serum iron concentration (ug/dL) Reference Range: 45-160 ug/dL (M) 30-160 ug/dL (F)	Num 8
GGT	Serum activity of gamma glutamyl transferase (U/L) Reference Range: 7-33 U/L (F) 11-51 U/L (M) Note 2 = '<3'	Num 8
GLUC	Serum glucose concentration (mg/dL) Reference Range: 60-115 mg/dL	Num 8
HA1	Hemoglobin A1 (%total hemoglobin) Reference Range: 94.3-98.5 %	Num 8
HA2	Hemoglobin A2 (%total hemoglobin) Reference Range: 1.5-3.7 %	Num 8
HBELP	Abnormal hemoglobin type	Num 8

HCT	Hematocrit (%red blood cells in whole blood) Reference Range: 40-53% (M) 35-47% (F)	Num 8
HF	Hemoglobin F-fetal (%total hemoglobin) Reference Range: 0.0-2.0%	Num 8
HGB	Hemoglobin Concentration (g/dL) Reference Range: 13.3-17.7 g/dL (M) 11.7-15.7 g/dL (F)	Num 8
HGC	Hemoglobin C (%total hemoglobin) Reference Range: 0.0-0.0 %	Num 8
HGE	Hemoglobin E (%total hemoglobin) Reference Range: 0.0-0.0 %	Num 8
HOTHER	Hemoglobin Other (%total hemoglobin) Reference Range: 0.0-0.0 %	Num 8
HS	Hemoglobin S-sickle cell (%total hemoglobin) Reference Range: 0.0-0.0 %	Num 8
INS	Insulin concentration (mIU/L) Reference Range: 0-20 mIU/L	Num 8
MCH	Mean corpuscular hemoglobin/RBC (picograms) Reference Range: 26.5-35.0 pg	Num 8
MCHC	Mean corpuscular hemoglobin conc/RBC (g/dL) Reference Range: 32-36 g/dL	Num 8
MCV	Mean corpuscular volume (femtoliters) Reference Range: 78-100 fL	Num 8
RBC	Red blood cell count (# cells/10 ¹² /L) Reference Range: 4.4-5.9 (M) x10 ¹² /L 3.8-5.2 (F) x10 ¹² /L	Num 8
RDW	Red cell distribution width (%) Reference Range: 10.0-15.0 %	Num 8
WBC	White blood cell count (# cells/10 ⁹ /L) Reference Range: 4.0-11.0 x10 ⁹ /L	Num 8
PLT	Platelet (# platelets/10 ⁹ /L) Reference Range: 150-450 x10 ⁹ /L	Num 8
WNEUT	Neutrophils (%neutrophils in WBC count) Reference Range: 40-75 %	Num 8
WLYMP	Lymphocytes (%lymphocytes in WBC count) Reference Range: 20-48 %	Num 8

WMONO	Monocytes (%monocytes in WBC count) Reference Range: 0-12 %	Num 8
WEOS	Eosinophils (%eosinophils in WBC count) Reference Range: 0-6 %	Num 8
WBASO	Basophils (%basophils in WBC count) Reference Range: 0-2 %	Num 8
ANEUT	Absolute neutrophils (# cells/10 ⁹ /L) Reference Range: 1.6-8.3 x10 ⁹ /L	Num 8
ALYMP	Absolute lymphocytes (# cells/10 ⁹ /L) Reference Range: 0.8-5.3 x10 ⁹ /L	Num 8
AMONO	Absolute monocytes (# cells/10 ⁹ /L) Reference Range: 0-1.3 x10 ⁹ /L	Num 8
AEOS	Absolute eosinophils (# cells/10 ⁹ /L) Reference Range: 0-0.7 x10 ⁹ /L	Num 8
ABASO	Absolute basophils (# cells/10 ⁹ /L) Reference Range: 0-0.2 x10 ⁹ /L	Num 8

Section VII: Medical History

ssFeetSw	Q1: Experienced swelling of feet or ankles 1=Yes 2=No 3=Don't Know	Num 4.
ssSkinCh	Q2: Experienced change in skin color 1=Yes 2=No 3=Don't Know	Num 4.
ssWeight	Q3: Experienced unexplained weight loss 1=Yes 2=No 3=Don't Know	Num 4.
ssAdomSw	Q4: Experienced abdominal swelling or fluid 1=Yes 2=No 3=Don't Know	Num 4.
ssLossDr	Q5: Experienced trouble having an erection or loss of sexual drive 1=Yes 2=No 3=Don't Know	Num 4.
ssChrFt	Q6: Repeatedly bothered by chronic fatigue/weakness 1=Yes 2=No 3=Don't Know	Num 4.

ssShrtBr	Q7:	Repeatedly bothered by shortness of breath 1=Yes 2=No 3=Don't Know	Num 4.
ssJntStf	Q8:	Repeatedly bothered by joint stiffness/pain/ache 1=Yes 2=No 3=Don't Know	Num 4.
ssThirst	Q9:	Repeatedly bothered by excessive thirst 1=Yes 2=No 3=Don't Know	Num 4.
ssPlyUr	Q10:	Repeatedly bothered by polyuria (excessive urination) 1=Yes 2=No 3=Don't Know	Num 4.
ssUnxAdm	Q11:	Repeatedly bothered by unexplained abdominal pain or discomfort 1=Yes 2=No 3=Don't Know	Num 4.
ssUnxCon	Q12:	Repeatedly bothered by unexplained confusion or memory loss 1=Yes 2=No 3=Don't Know	Num 4.
mhHemo	Q13:	Ever told that you have/had iron overload or hemochromatosis 1=Yes 2=No 3=Don't Know	Num 4.
mhAnemia	Q14:	Ever told that you have/had anemia (low iron) 1=Yes 2=No 3=Don't Know	Num 4.
mhSC	Q15:	Ever told that you have/had sickle cell anemia 1=Yes 2=No 3=Don't Know	Num 4.
mhThal	Q16:	Ever told that you have/had thalassemia or other inherited anemia 1=Yes 2=No 3=Don't Know	Num 4.

mhBlood	Q17: Ever told that you have/had unusual blood loss (vomiting or coughing up blood, blood in stool, or blood in urine) 1=Yes 2=No 3=Don't Know	Num 4.
mhDiab	Q18: Ever told that you have/had diabetes 1=Yes 2=No 3=Don't Know	Num 4.
mhDiabMd	Q18a: Are you taking medication for diabetes? 1=Yes 2=No	Num 4.
mhDiabIn	Q18b: Are you taking insulin for diabetes? 1=Yes 2=No	Num 4.
mhDiabPl	Q18c: Are you taking pills for diabetes? 1=Yes 2=No	Num 4.
mhDiabTr	Q18d: At what age was diabetes first treated? 1=Yes 2=No 3=Don't Know	Num 4.
mhLiver	Q19: Ever told that you have/had liver disease? 1=Yes 2=No 3=Don't Know	Num 4.
mhLivFat	Q19a: Ever told that you have/had Fatty liver? 1=Yes 2=No 3=Don't Know	Num 4.
mhLivCir	Q19b: Ever told that you have/had cirrhosis? 1=Yes 2=No 3=Don't Know	Num 4.
mhLivCan	Q19c: Ever told that you have/had liver cancer (cancer that started in the liver)? 1=Yes 2=No 3=Don't Know	Num 4.
mhHep	Q19e: Ever told that you have/had hepatitis A or B or C or other type. 1=Yes 0=No	Num 1.

mhThyr	Q20: Ever told that you have/had thyroid disease (over-active or under-active thyroid)? 1=Yes 2=No 3=Don't Know	Num 4.
mhHrt	Q21: Ever told that you have/had heart failure or weak heart? 1=Yes 2=No 3=Don't Know	Num 4.
mhHrtAb	Q22: Ever told that you have/had abnormal heart rhythm, heart beat, or action/arrhythmia? 1=Yes 2=No 3=Don't Know	Num 4.
mhHrtOth	Q23: Ever told that you have/had other heart disease or heart attack? 1=Yes 2=No 3=Don't Know	Num 4.
mhArth	Q24: Ever told that you have/had arthritis? 1=Yes 2=No 3=Don't Know	Num 4.
mhOsteo	Q25: Ever told that you have/had osteoporosis (weak, thin, or brittle bones)? 1=Yes 2=No 3=Don't Know	Num 4.
mhPorph	Q26: Ever told that you have/had porphyria cutanea tarda? 1=Yes 2=No 3=Don't Know	Num 4.
mhChrInf	Q28: Ever told that you have/had chronic inflammation, chronic infection, autoimmune disease or lupus? 1=Yes 2=No 3=Don't Know	Num 4.
mhCancer	Q29: Ever told that you have/had cancers (other than those starting in the liver)? 1=Yes 2=No 3=Don't Know	Num 4.
mhChemo	Q30: Ever had chemotherapy or bone marrow transplant? 1=Yes 2=No 3=Don't Know	Num 4.

rhMenPr	Q31a: Ever seen a doctor for menstrual problems? 1=Yes 2=No 3=Don't Know	Num 4.
rhBleed	Q31b: Ever seen a doctor for in-between bleeding? 1=Yes 2=No 3=Don't Know	Num 4.
rhStop	Q31c: Ever seen a doctor for early stopping of periods? 1=Yes 2=No 3=Don't Know	Num 4.
rhPreg	Q32: Ever been pregnant? 1=Yes 2=No 3=Don't Know	Num 4.
rhPregNm	Q32a: Number of pregnancies	Num 4.
rhBirths	Q32b: Number of live births	Num 4.
rhPregC	Q33: Are you currently pregnant? 1=Yes 2=No 3=Don't Know	Num 4.
rhMen	Q34: Gone through menopause? 1=Yes 2=No 3=Don't Know	Num 4.
rhMenAge	Q34a: Age at menopause?	Num 4.
rhMenar	Q35: Age at menarche?	Num 4.
rhHyst	Q36: Had a hysterectomy? 1=Yes 2=No 3=Don't Know	Num 4.
rhHysAge	Q36a: Age at hysterectomy?	Num 4.
btEver	Q37: Ever had blood transfusions? 1=Yes 2=No 3=Don't Know	Num 4.
btTotal	Q37a: Number of pints/units transfused in a lifetime?	Num 4.
btWhole	Q38: Ever donated whole blood at a blood bank? 1=Yes 2=No 3=Don't Know	Num 4.

btWholeU	Q38a: Number of whole blood units in lifetime?	Num 4.
liBrRest	Q39a: Get short of breath while resting in a chair? 1=Yes 2=No	Num 4.
liBrLevel	Q39b: Get short of breath while walking on level ground? 1=Yes 2=No	Num 4.
liBrQuik	Q39c: Get short of breath when walking quickly or uphill? 1=Yes 2=No 3=Never do this	Num 4.
liAlcoh	Q40: Ever consumed alcoholic beverages? 1=Yes 2=No	Num 4.
liAlcAge	Q41: Age started consuming alcoholic beverages?	Num 4.
liAlcPr	Q42: Presently drink alcoholic beverages? 1=Yes 2=No	Num 4.
liAlcYr	Q42a: Number of years have been drinking alcoholic beverages?	Num 4.
liAlcYrN	Q42b: Number of years did you drink alcoholic beverages?	Num 4.
liAlcNum	Q42c: Usual number of drinks you had per week before stopping?	Num 4.
dmGrade	Q43: Highest grade of school completed 1=Less than HS 2=HS 3=Some univ. 4=Bachelors 5=Post-graduate	Num 6.
Dmgender	What is your gender (family member)	Num 6.
gt10	Q37b Have you had more than 10 pints/units transfused in a lifetime? 1=Yes 2=No	Num 4.

Section VIII: Additional Medical History Questions

Note: Asked if answered 'YES' to question 13 of the medical history form.

PHLEB	Have you ever had phlebotomy as treatment for your iron overload or HH? 1=No 2=Yes	Num 4.
BIOPSY	Have you ever had a liver biopsy? 1=No 2=Yes	Num 4.

Section IX: Food Frequency - Individual Questions

FOR FOOD ITEMS REGULAR OR DRAFT BEER THROUGH DIET SODAS USE THE FOLLOWING FORMAT:

- Average use during last year
- 1 - Never or hardly ever
- 2 - Once a month
- 3 - 2 - 3 times a month
- 4 - Once a week
- 5 - 2 - 3 times a week
- 6 - 4 - 6 times a week
- 7 - Once a day
- 8 - 2 - 3 times a day
- 9 - 4 or more times a day
- Blank - Not Answered
- * - Multiple Answers

Q368	Regular or Draft Beer Frequency	Char \$1.
Q369	Light Beer Frequency	Char \$1.
Q370	White or Pink Wine Frequency	Char \$1.
Q371	Red Wine Frequency	Char \$1.
Q372	Hard Liquor Frequency	Char \$1.

FOR FOOD ITEMS REGULAR OR DRAFT BEER THROUGH HARD LIQUOR USE THE FOLLOWING FORMAT:

- Usual Serving Size
- 1 - 1 can or bottle or less
- 2 - 2 cans or bottles
- 3 - 3 cans or bottles
- 4 - 4 cans or more
- Blank - Not Answered
- * - Multiple Answers

Q375	Regular or Draft Beer Serving Size	Char \$1.
Q376	Light Beer Serving Size	Char \$1.
Q377	White or Pink Wine Serving Size	Char \$1.
Q378	Red Wine Serving Size	Char \$1.
Q379	Hard Liquor Serving Size	Char \$1.

Section X: Food Frequency Summary Variables

AVERAGE DAILY INTAKE FROM FOODS:

iron	Iron (mg)	Num 15.3
alc	Alcohol (g)	Num 15.3
sIron	Iron from Supplements (mg)	Num 15.3
sIron2	Iron from Supplements where use was >= 2 years (mg)	Num 15.3
DMFPIron	Daily Meat-Fish-Poultry (MFP) Iron (mg)	Num 15.3

Section XI: Liver Biopsy Results Variables

DBIOPSY	Liver biopsy date (Number of days from given date)	Num 4.
DIAGNONE	None indicated 1=Yes	Num 8.
DIAGALCOHOL	Alcoholic liver disease 1=Yes	Num 8.
DIAGCIRRHOSIS	Cirrhosis 1=Yes	Num 8.
DIAGHEP	Hepatitis B,C, or Other POSTIVIVE NEGATIVE	Char \$15.
DIAGNASH	Non-alcoholic steatohepatitis (NASH) 1=Yes	Num 8.
DIAGFATLIVER	Fatty liver 1=Yes	Num 8.
DIAGFIBROSIS	Fibrosis 1=Yes	Num 8.
DIAGPRIME	Primary hemochromatosis 1=Yes	Num 8.
DIAGSECOND	Secondary hemochromatosis 1=Yes	Num 8.
DIAGNOSPEC	Hemochromatosis no specified 1=Yes	Num 8.
DIAGSECIO	Hemosiderosis (secondary iron overload) 1=Yes	Num 8.
DIAGOTHERIO	Other iron overload 1=Yes	Num 8.
DIAGOTHERLD	Other liver disease 1=Yes	Num 8.
BILIARY	Biliary Epithelium: 1=Absent 2=Present 3=Not reported	Num 8.
MALLORY	Mallory bodies: 1=Absent 2=Present 3=Not reported	NUM 8.

KUPFFER	Kupffer cells/Macrophages: 1=Absent 2=Present/not increased 3=Increased 4=Not reported	NUM 8.
HEPAPROSE	Hepatocytes: If prose only 1=Absent 2=Present/not increased 3=Increased 4=Not reported	Num 8.
HEPAGRADE4	Hepatocytes: If graded-Four (4) point scale grade	Num 8.
HEPAGRADE6	Hepatocytes: If graded-Six (6) point scale grade	Num 8.
HEPIRONCONC	Is the hepatic iron concentration available 1=Yes 2=No	Num 8.
DRYWEIGHT1	If HIC is available, indicate dry weight. $\mu\text{mol/g}$	Num 8.
DRYWEIGHT2	If HIC is available, indicate dry weight. $\mu\text{g/g}$	Num 8.
WETWEIGHT1	If HIC is available, indicate wet weight. $\mu\text{mol/g}$	Num 8.
WETWEIGHT2	If HIC is available, indicate wet weight. $\mu\text{g/g}$	Num 8.
PARTAGE	Participants age in years	Num 8.
PHLEBTRT_COUNT	Number of Phlebotomy Treatment Forms submitted	Num 8.

Section XII: Post Results

Told1st	Q1 Who first told you about the HEIRS study?	Num 4.
Knowhemo	Q1 How much did you know about hemo or IO before..	Num 4.

Since you first heard about the HEIRS study, how much have you used each of the following sources to look for information about hemochromatosis or iron overload?

HEIRSMAT	Phone call or written material from the HEIRS study 1=None 2=Some 3=A Lot	Num 4.
FAMEMBER	Family Members 1=None 2=Some 3=A Lot	Num 4.
LIBRARY	The Library 1=None 2=Some 3=A Lot	Num 4.

INTERNET	The Internet 1=None 2=Some 3=A Lot	Num 4.
YOURDOC	You doctor or other health worker 1=None 2=Some 3=A Lot	Num 4.
Hemofam	Q4 Did you know there might be hemo in your family?	Num 4.
Donate	Q5 Did you know of any family members who donate blood regularly For health?	Num 4.
What is your opinion of the information you received from the HEIRS study about hemochromatosis and your test results?		
CLREASY	I found the information I received to be clear and easy to understand 1=Strongly agree 2=Agree 3=Disagree 4=Strongly disagree	Num 4.
ENOUGH	I received enough information 1=Strongly agree 2=Agree 3=Disagree 4=Strongly disagree	Num 4.
STILQUES	I still have questions about hemochromatosis and iron overload or my test results 1=Strongly agree 2=Agree 3=Disagree 4=Strongly disagree	Num 4.
GOODIDEA	In general, I think genetic testing to find out about disease risk is a good idea 1=Strongly agree 2=Agree 3=Disagree 4=Strongly disagree	Num 4.
NOGENES	I do not have any known hemochromatosis gene variations 1=Strongly agree 2=Agree 3=Disagree 4=Strongly disagree	Num 4.
BOTHGENE	I have hemochromatosis gene variations in both my hemochromatosis genes 1=Strongly agree 2=Agree 3=Disagree 4=Strongly disagree	Num 4.

ONEGENE	I have hemochromatosis gene variations in one, but not both of my hemochromatosis genes 1=Strongly agree 2=Agree 3=Disagree 4=Strongly disagree	Num 4.
DONOTIO	I do not have iron overload 1=Strongly agree 2=Agree 3=Disagree 4=Strongly disagree	Num 4.
DOIO	I do have iron overload 1=Strongly agree 2=Agree 3=Disagree 4=Strongly disagree	Num 4.
INFAMILY	I have hemochromatosis gene variations that may also be present in members of my family 1=Strongly agree 2=Agree 3=Disagree 4=Strongly disagree	Num 4.
What were you told to do in response to your test results?		
NORECOMM	There were no specific recommendation made to me 1=Yes 2=No 3=Not sure	Num 4.
TALKMYDR	Talk to my personal physician about my test results 1=Yes 2=No 3=Not sure	Num 4.
MYDRTEST	Have my personal physician test the amount of iron in my blood about once a year. 1=Yes 2=No 3=Not sure	Num 4.
BLDDRAWN	Have my blood drawn to lower the amount of iron in my blood 1=Yes 2=No 3=Not sure	Num 4.
TALKFAM	Talk to family members about their possible risk for hemochromatosis or iron overload 1=Yes 2=No 3=Not sure	Num 4.

RECHHELP Do you think these recommendations will help your health Num 4.
1=Probably not
2=Not sure
3=Probably yes
4=Does not apply

FOLLOWRE Do you feel confident that you can follow the Num 4.
recommendations
1=Probably not
2=Not sure
3=Probably yes
4=Does not apply

Please indicate whether and how much you have experienced each statement since you have received your test results?

UPSET Feeling upset, sad or anxious about your test results Num 4.
1=Never
2=Rarely
3=Sometimes
4=Often

RELIEVED Feeling relieved that no known hemochromatosis gene Num 4.
variations exist in your family
1=Never
2=Rarely
3=Sometimes
4=Often

LOSSCONT Feeling a loss of control because of you test results Num 4.
1=Never
2=Rarely
3=Sometimes
4=Often

PROBJOY Having problems enjoying your life because of your Num 4.
test results
1=Never
2=Rarely
3=Sometimes
4=Often

WORSE Worrying about your risk of developing IO or Hemo. Num 4.
or having your condition get worse
1=Never
2=Rarely
3=Sometimes
4=Often

MORECONT Feeling more in control of you future health Num 4.
1=Never
2=Rarely
3=Sometimes
4=Often

THINKING	Thinking about your test results has caused problems in you work or family life 1=Never 2=Rarely 3=Sometimes 4=Often	Num 4.
FRUSTRAT	Feeling frustrated that no known hemochromatosis gene variations have been found that explain the iron overload in your family 1=Never 2=Rarely 3=Sometimes 4=Often	Num 4.
EASYFOLL	Feeling relieved that the guidelines about how to deal with your particular results are so clear and easy to follow 1=Never 2=Rarely 3=Sometimes 4=Often	Num 4.
WORRYING	Worrying about the confidentiality of your test results 1=Never 2=Rarely 3=Sometimes 4=Often	Num 4.
ASGOODAS	Feeling that people don't think you are as good as they are 1=Never 2=Rarely 3=Sometimes 4=Often	Num 4.
RISKFAM	Worrying about the risk to your family 1=Never 2=Rarely 3=Sometimes 4=Often	Num 4.
FEELGLAD	Feeling glad that you took part in this research 1=Never 2=Rarely 3=Sometimes 4=Often	Num 4.
INFSHARE	Information about a person's genetic risk should be shared with other family members 1=Strongly agree 2=Agree 3=Disagree 4=Strongly disagree	Num 4.

RSKSHARE The person who has the genetic risk should share the info directly with family members Num 4.
 1=Strongly agree
 2=Agree
 3=Disagree
 4=Strongly disagree

DRPERM The doctor of the person at risk should inform family members only if the person at risk gives permission Num 4.
 1=Strongly agree
 2=Agree
 3=Disagree
 4=Strongly disagree

DRINFORM The doctor of the person at risk should inform family members if the person at risk will not share the information Num 4.
 1=Strongly agree
 2=Agree
 3=Disagree
 4=Strongly disagree

With whom would you be most likely to share information about inherited health risk?

SPOUSE Spouse or partner Num 4.
 1=Would not share
 2=Would definitely share
 3=Would share with some but not all
 4=Does not apply

CHILDREN Children Num 4.
 1=Would not share
 2=Would definitely share
 3=Would share with some but not all
 4=Does not apply

PARENTS Parents Num 4.
 1=Would not share
 2=Would definitely share
 3=Would share with some but not all
 4=Does not apply

BROTHERSIS Brothers and sisters Num 4.
 1=Would not share
 2=Would definitely share
 3=Would share with some but not all
 4=Does not apply

OTHRELA Other relatives Num 4.
 1=Would not share
 2=Would definitely share
 3=Would share with some but not all
 4=Does not apply

FRIENDS Close friends Num 4.
 1=Would not share
 2=Would definitely share
 3=Would share with some but not all
 4=Does not apply

DOCTOR Doctor Num 4.
 1=Would not share
 2=Would definitely share
 3=Would share with some but not all
 4=Does not apply

EMPLOYER Employer Num 4.
 1=Would not share
 2=Would definitely share
 3=Would share with some but not all
 4=Does not apply

How likely are you to...

SPOUTEST Encourage your spouse/partner to be tested for Num 4.
 risk of hemochromatosis or iron overload
 1=Very unlikely
 2=Unlikely
 3=Likely
 4=Very likely
 5=Does not apply

PRENATAL Have prenatal testing of your unborn child for Num 4.
 risk of hemochromatosis or iron overload
 1=Very unlikely
 2=Unlikely
 3=Likely
 4=Very likely
 5=Does not apply

NEWBORN Have your future newborn children tested for risk of Num 4.
 hemochromatosis or iron overload
 1=Very unlikely
 2=Unlikely
 3=Likely
 4=Very likely
 5=Does not apply

KIDS18 Have your children under 18 tested for risk of Num 4.
 hemochromatosis or iron overload
 1=Very unlikely
 2=Unlikely
 3=Likely
 4=Very likely
 5=Does not apply

ADULTKID	Encourage your adult children to get genetic testing for risk of hemochromatosis or IO 1=Very unlikely 2=Unlikely 3=Likely 4=Very likely 5=Does not apply	Num 4.
B4MARRY	Encourage your adult children to get genetic testing before they get married 1=Very unlikely 2=Unlikely 3=Likely 4=Very likely 5=Does not apply	Num 4.
B4CHILD	Encourage your adult children to get genetic testing before they have children 1=Very unlikely 2=Unlikely 3=Likely 4=Very likely 5=Does not apply	Num 4.
Please give your opinion on why people get sick.		
HEREDITY_prfam	Heredity (it runs in the family) 1=Very important 2=Somewhat important 3=Not important 4=Not Sure	Num 4.
ENVIRON_prfam	The environment (water or air pollution) 1=Very important 2=Somewhat important 3=Not important 4=Not Sure	Num 4.
FATE_prfam	Fate or chance (bad luck) 1=Very important 2=Somewhat important 3=Not important 4=Not Sure	Num 4.
STRESS	Psychological factors (such as stress) 1=Very important 2=Somewhat important 3=Not important 4=Not Sure	Num 4.
LIFESTYL_prfam	Lifestyle (smoking, drinking, eating a high fat diet) 1=Very important 2=Somewhat important 3=Not important 4=Not Sure	Num 4.

HEALTH_PRfam	In general would you say your health is...	Num 4.
	1=Poor	
	2=Fair	
	3=Average	
	4=Good	
	5=Excellent	
SICKEASY_PRfam	I seem to get sick a little easier than other people	Num 4.
	1=Definitely true	
	2=Mostly true	
	3=Don't know	
	4=Mostly false	
	5=Definitely false	
ASHEALTH	I am as healthy as anybody I know	Num 4.
	1=Definitely true	
	2=Mostly true	
	3=Don't know	
	4=Mostly false	
	5=Definitely false	
GETWORSE	I expect my health to get worse	Num 4.
	1=Definitely true	
	2=Mostly true	
	3=Don't know	
	4=Mostly false	
	5=Definitely false	
EXCELLEN	My health is excellent	Num 4.
	1=Definitely true	
	2=Mostly true	
	3=Don't know	
	4=Mostly false	
	5=Definitely false	
NERVOUS_PRfam	Have you been a very nervous person	Num 4.
	1=All of the time	
	2=Most of the time	
	3=A good bit of the time	
	4=Some of the time	
	5=A little bit of the time	
	6=None of the time	
DOWNDUMP_PRfam	Have you felt so down in the dumps that nothing could cheer you up	Num 4.
	1=All of the time	
	2=Most of the time	
	3=A good bit of the time	
	4=Some of the time	
	5=A little bit of the time	
	6=None of the time	

CALM_PRfam	Have you felt calm and peaceful 1=All of the time 2=Most of the time 3=A good bit of the time 4=Some of the time 5=A little bit of the time 6=None of the time	Num 4.
FELTBUE	Have you felt downhearted and blue 1=All of the time 2=Most of the time 3=A good bit of the time 4=Some of the time 5=A little bit of the time 6=None of the time	Num 4.
HAPPY_PRfam	Have you been a happy person 1=All of the time 2=Most of the time 3=A good bit of the time 4=Some of the time 5=A little bit of the time 6=None of the time	Num 4.
RANKHEMO	Compared to other medical conditions, I would rank hemochromatosis as 1=One of the least serious 2...3...4... 5=One of the most serious	Num 4.
I think genetic testing IS a good idea because...		
GOODTRT_prfam	There might be a treatment by the time you developed the disease 1=Strongly agree 2=Agree 3=Disagree 4=Strongly disagree	Num 4.
REASSURE	You might not have the gene for the disease and would be reassured 1=Strongly agree 2=Agree 3=Disagree 4=Strongly disagree	Num 4.
WHATEVER	It is always good to know whatever you can about your health 1=Strongly agree 2=Agree 3=Disagree 4=Strongly disagree	Num 4.

CURABLE	You could get frequent medical screening to catch the disease at a curable stage 1=Strongly agree 2=Agree 3=Disagree 4=Strongly disagree	Num 4.
CHANGELS	You could change to a healthier lifestyle 1=Strongly agree 2=Agree 3=Disagree 4=Strongly disagree	Num 4.
GENETHER	There might be gene therapy that could prevent you from getting the disease 1=Strongly agree 2=Agree 3=Disagree 4=Strongly disagree	Num 4.
SHAREFAM	You could share this risk information with family members 1=Strongly agree 2=Agree 3=Disagree 4=Strongly disagree	Num 4.
PREPARE	You could prepare better for the future 1=Strongly agree 2=Agree 3=Disagree 4=Strongly disagree	Num 4.
I think genetic testing IS NOT a good idea because...		
INSURANC	You might have trouble getting or keeping your health insurance 1=Strongly agree 2=Agree 3=Disagree 4=Strongly disagree	Num 4.
HELPLESS_PR	You might feel helpless because you can't change your genes 1=Strongly agree 2=Agree 3=Disagree 4=Strongly disagree	Num 4.
FUTUEMP	It could be a problem if an employer or future employer found out about your test results 1=Strongly agree 2=Agree 3=Disagree 4=Strongly disagree	Num 4.

WORRYBAD	<p>You could spend a lot of time worrying about something bad that is still in the future</p> <p>1=Strongly agree 2=Agree 3=Disagree 4=Strongly disagree</p>	Num 4.
LIFEINS	<p>You might have trouble getting life or disability insurance</p> <p>1=Strongly agree 2=Agree 3=Disagree 4=Strongly disagree</p>	Num 4.
LESSHLTH	<p>Knowing that you had a gene that put you at risk could make you feel less healthy</p> <p>1=Strongly agree 2=Agree 3=Disagree 4=Strongly disagree</p>	Num 4.
BADNEWS_PR FAM	<p>You could be bringing bad news into your family</p> <p>1=Strongly agree 2=Agree 3=Disagree 4=Strongly disagree</p>	Num 4.
DROFFICE	<p>Is there one particular clinic, health center or doctor's office that you usually go to if you are sick or need health advice</p> <p>1=Yes 2=No</p>	Num 4.
HOWLONG	<p>How long as it been since you last visited a doctor for a routine check up</p> <p>1=Less than a year 2=1-2 years 3=3-5 years 4=More than 5 years 5=Not sure</p>	Num 4.
CHOLEST	<p>Do you know your cholesterol level</p> <p>1=I know the exact number 2=I know if it's too high or low 3=I was told by I've forgotten 4=I don't remember having my cholesterol checked</p>	Num 4.
SEATBELT	<p>Do you use a seatbelt when driving</p> <p>1=Always 2=Usually 3=Sometimes 4=Rarely 5=Never</p>	Num 4.

SUNSCRN	Do you use a sunscreen product 1=Yes, all year long 2=Yes, but only in the summer 3=Rarely 4=Never	Num 4.
DISABINS	Do you have disability insurance 1=Yes 2=No 3=Don't know	Num 4.
LIFEPOLI	Do you have a life insurance policy 1=Yes 2=No 3=Don't know	Num 4.
HLTHINS	Do you have health insurance (any type) 1=Yes 2=No 3=Don't know	Num 4.
MOSTCOST	If you have health insurance, who pays most of the cost of the insurance 1=Employer 2=Government (state/province) 3=Me or my family 4=Don't know 5=Does not apply	Num 4.
UNEMPLOY	Unemployed 0=No 1=Yes	Num 4.
SELFEMP	Self employed 0=No 1=Yes	Num 4.
FEDGOV	Employed by federal government 0=No 1=Yes	Num 4.
STATEGOV	Employed by state/province 0=No 1=Yes	Num 4.
PRIV50	Private employer (50 or fewer employees) 0=No 1=Yes	Num 4.
PRIV51	Private employer (51 or more employees) 0=No 1=Yes	Num 4.
Hrdother	Q3f Other	Num 4.
ELSI_Fam	Returned ELSI Post Results form?	Char \$1.

Dvisit_prfam	Date of one year follow-up form (Number of days from given date)	Num 4.
GHSCALE_PRfam	SF-36 General Health Scale - Post Results	Num 4.
MHSCALE_PRfam	SF-36 Mental Health Scale - Post Results	Num 4.