

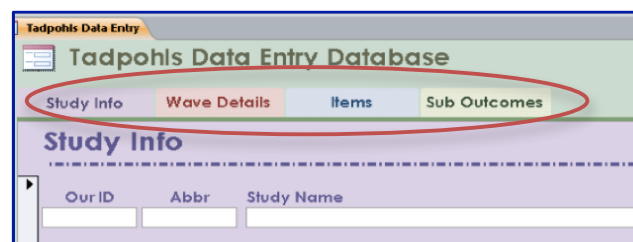
Supplement 1 – TADPOHLS Codebook

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PART 1: BACKGROUND ON DATABASE STRUCTURE

Information was coded into an Access database, which was broken into four main types of information: **Study Info**, **Wave Details**, **Items**, and **Sub Outcomes**. Each of these tabs serves a specific function, as described on the pages below.



The screenshot shows the 'Study Info' tab of the 'TadpoHLS Data Entry Database'. The form is divided into several sections: 'Our ID' (4-letter identifier), 'Abbr' (study abbreviation), 'Study Name' (full name), 'Description' (brief description), 'Start Year' (year of study), 'Location' (country/state/city), 'Website' (project or archived address), 'N at Baseline' (number at start), 'N Males' and 'N Females' (number of males/females), 'Age at Baseline' (average age), 'Years Follow Up' (duration), '# of Assessments' and '# of Sub Waves' (number of assessments/sub-waves), 'Sample Type' (dropdown menu), and 'Researchers' (text field).

On this tab, basic information was coded on the study, as noted below:

Field	Definition	Instructions
Our ID	4 letter identifier	Enter the 4 letter id. These have already been assigned, and are noted in the spreadsheet.
Abbr	Study abbreviation	If applicable, enter the abbreviation used by the study
Study Name	Full name of study	Enter the full name of the study
Description	Brief description of the study (aims, etc.)	Copy and paste the full description <i>This usually comes from the website or other source. Most of these are in our spreadsheet, but you may have to search.</i>
Start Year	Year that study began	Enter the year the study began – i.e., when data collection began
Location	Location of study	Enter country of study. If in specific state, province, or city, include info
Website	Website for information on the study	Enter the best place – either project website, or archived address to obtain information on the study. <i>If 2 or more sites, separate by a semi-colon</i>
N at baseline	Number at start of study	Enter the number at baseline (number field, no text) <i>This should equal N males + N females. If not (i.e., gender unknown for some), note in comment section.</i>
N males	Number of males at start of study	Enter the number at baseline (number field, no text)
N females	Number of females at start of study	Enter the number at baseline (number field, no text)
Age at baseline	Average age of sample at start of study	Enter the average age at baseline (in years – if in months, note mos)

Field	Definition	Instructions
Years follow up	Year of follow-up	If indicated, note how long participants were followed in years (number field, no text). If ongoing study (data collection still in progress), calculate as [2011 minus year study began]. Note that the study should say explicitly that data collection continues. Otherwise, calculate as [year of last wave minus year study began]
# of assessments	Number of measurement occasions/ waves	Enter total number of waves or assessments Only include main waves (when they tried to locate the full sample. If they did a study with a smaller sample chosen from the main set, note this in subwaves)
# of sub-waves	Number of sub-assessments	For smaller assessments with a chosen sub group of the full sample, indicate total number
Sample Type	Description of sample Nationally representative Community representative Community non-representative Convenience sample Specific characteristic Specific population Other	Select one or more from the list. Random sample of nation. Study should note this explicitly Random sample of city, region, state, etc. Local community, non-representative Willing people (e.g., undergrads, snowball technique) Chosen for a characteristic (e.g., autistic children) Specific subset of people (e.g., gifted children in California) Any other. Note in comment section
Researchers	Key people associated with study	Note the primary investigator (PI) of the study. This will be in the original documentation. If there are several important people, note those as well, although if there is a very long list, only include the most important. If it is a long-term study and people have changed, include both the investigator(s) who began the study, and the current PI(s).
Database citation	How to cite the database	Give exact citation information, as noted on website or data source
References	References associated with the database	If there are a few key articles or books, include reference in APA format
Comments		Give any comments or notes we should be aware of. Please make use of this box. If you are unsure of anything, note it here. If information is missing, note it here. Include the date and your initials Format should be [date initials: comment]: 09/17/11 pk: also included 3 subwaves (1986, 1994, and 1998)
Contact info	How to contact study investigators	Include a contact person or email, usually found on the website (or in a journal article, there is usually contact info for the first author).
Contacted	Date of contact	Indicate date attempted to contact study investigators (sent email or called). When you click here, a calendar will appear – click this to select date.
Username	User name for obtaining questionnaires and/or data	If you need to create a username for the study, indicate it here.
Password	Password for obtaining questionnaires and/or data	If you need to create a password to obtain study information, indicate it here.
Questionnaire obtained		Check box if we have obtained (and saved) the questionnaires/ codebooks

Field	Definition	Instructions
Data obtained		Check box if we have obtained the actual data
Access notes/ email communication		Note here any communication, problems, etc. that occur in trying to track down information and/or data Include the date and your initials Format should be [date initials: comment]: 09/17/11 pk: sent email to investigator
Date of entry	Date of initial information entry	Note the date information is first entered. A calendar will appear – click on this and select the date.
Entered by	Initials of person entering initial information	Enter your initials
Date updated	Date of most recent changes	For any changes made to the record, select the new date. If it has been completed in the past, replace with the new date.
Updated by	Initials of person entering updated information	Enter initials if make changes. Note changes in the comments sections
Need to follow up		Check if more needs to be done with this study. This will usually be checked, until we have obtained the information, including questionnaires, coding information, and data, or have decided no to pursue the study.
Follow comments	What needs to be done	Indicate what needs to be done to follow up with the study. If there is information here and you make changes, Add your new comments (e.g., indicating that you completed a task) Include the date and your initials Format should be [date initials: comment]: 09/17/11 pk: missing data for waves 3 and 4
Coding comments	Notes and comments on coding questionnaires	Make note of progress for coding the waves and items. Include the date and your initials.
Coding complete	Coding of questionnaires complete	Check when all waves and questionnaires have been coded.
Date complete	Date coding completed	Select the data coding is complete
Initials complete	Initials of person completing coding	Enter initials when all questionnaires & waves have been coded.

Wave Details

The screenshot shows the 'Wave Details' tab in the 'Tadpohls Data Entry Database'. The form includes fields for 'Our ID' (ESDS), 'Assessment Year' (2000), 'Wave' (6), and 'Data Obtained?' (checked). It also has fields for 'N', 'N males', 'N females', 'Source' (Questionnaire), 'Age' (40-50s), 'Measure Types', and 'Modality' (self-report interview). Below these are 'Entry Date' (9/21/2011), 'Entered by' (AL/SZ), 'Update Date' (9/29/2011), and 'Updated By' (ND/LD). A 'Comments' section contains the text: 'most is an interview, however, section 10 is self completion survey'. At the bottom, there is a table titled 'Items Assessed' with columns for Page #, Item #, Outcome, and Sub Outcome.

Page #	Item #	Outcome	Sub Outcome
114	NumHghDg	Accomplishment	objective success
137	OUTCOME2		hope for future
144	COPEHMB5		psychological

The second tab included information on each measurement occasion, with one record completed for each questionnaire within a given wave.

Field	Definition	Instructions
Our ID	4 letter identifier	Once you have added a study on the study tab, the abbreviation will appear in the drop down list. Select the correct abbreviation. <i>This is vital, as this is the information that links the record to the study.</i>
Assessment year	Year of assessment	Enter the year the assessment was done

Field	Definition	Instructions
Wave	Which wave or assessment this occurred	<p>Enter the number.</p> <p>If the questionnaire comes from a subwave, number with the prior wave and add an a, b, etc. (e.g., if there was a sub assessment between assessment 7 and 8, then label this 7a).</p> <p>For questionnaires that are directed toward an individual other than the main subject, use the following labels:</p> <p> wave number + m mother (or mother figure) wave number + f father (or father figure) wave number + u unspecified parent (or guardian) wave number + t teacher wave number + i interviewer wave number + d doctor/physician/medical personnel wave number + p partner/spouse wave number + s sibling wave number + x family </p> <p>If the questionnaire specifies that the questionnaire may have been filled out by the mother or the father use: wave number + mf mother (mother figure) or father (father figure) </p>
N	Number of participants assessed in this wave	Enter the number assessed at this assessment (number field, no text)
N males	Number of males assessed in this wave	Enter the number assessed in this wave (number field, no text)
N females	Number of females assessed in this wave	Enter the number assessed in this wave (number field, no text)
Source	Questionnaire or codebook	From dropdown menu, select whether you are coding the questionnaire or codebook. Use the codebook if available, otherwise code items from the questionnaire.
Age group	General age of assessment	<p>Select from drop down list the average age of the participants for this assessment</p> <p>Note: the range may span more than one category, but base your classification on the average age.</p>
Measure Types	Types of measures included at this assessment	Check the types of measures included. Each of these should then be included in the table below.
Modality	Assessment modality	<p>Select the best modality for the assessment. See definitions below.</p> <p>Note: A single assessment will fit into a single modality. If more than one modality is included in a single wave, code these as two separate records, always linking back to the study.</p>
Data obtained		Check this box if we have received data for this particular assessment
Entry Date	Date of entering information	Enter the date this information was added by clicking the calendar and selecting the date.
Entered by	Initials of person entering the information	Enter your initials
Date updated	Date of most recent changes	For any changes made to the record, select the date by clicking on the calendar. If it has been completed in the past, replace with the new date.
Updated by	Initials of person entering updated information	Enter initials if make changes. Note changes in the comment section
Comments	Any notes or comments	<p>Enter any comments or notes that we should be aware of.</p> <p>Include the date and your initials</p> <p>Format should be [date initials: comment]:</p> <p>09/17/11 pk: unsure on item #B74 and B76</p>

Field	Definition	Instructions
Items assessed	Table that indicates what items and/ or measures were included in this wave	Complete this table after adding items and measures to the blue items/measures tab. <i>Note: It is very important that this table is completed correctly, as this is how we will select items in the future. If there are multiple items that all access the same sub-outcome, select the best item, and make a note that others are available (indicate how many and type)</i>
Page #	Page number from questionnaire or codebook	If using the questionnaire, indicate the page where the item is located. If using the codebook, indicate the page where the item is located.
Item #	Item number from questionnaire or codebook	If using the questionnaire, indicate the numbered item. If using the codebook, indicate the item (e.g., b36101).
Outcome	Outcomes within the broader types (main outcome)	Select the outcome. <i>Note that if is debatable which category to code, put into the psychological (well-being and ill-being) categories first, then extend to the individual difference or environmental categories.</i>
Sub Outcome	Variable assessed, at the sub-category level (e.g., behavioral engagement, heart-rate variability)	Select the sub outcome. <i>Stick with the sub-outcomes listed, unless there is something that really needs to be included, in which case you should use the other category and make a note in the comment section. If you are stretching to make it fit somewhere, then exclude the item.</i>
Comments	Comments on item	Any comments on the item. If you selected the best item for this suboutcome and there are others available, note it here. <i>Note that this is limited to 255 characters. If there are additional comments, enter in the full comment box above the table.</i>

Sub Outcomes and Items

The screenshot displays the 'Tadpohls Data Entry Database' application. The 'Items' tab is active, showing the 'Item Info' section. This section contains input fields for 'Item ID' (with a '(New)' label), 'Entry Date', 'Entered By', 'Update Date', and 'Updated By'. Below these fields is a large text area labeled 'Comments/ Notes'. Further down, there are three dropdown menus labeled 'Type', 'Outcome', and 'Sub Outcome:'. At the bottom of the form is a table titled 'ItemVariables' with columns: 'Item', 'Format', 'Direction', 'Comment', and 'Entry Date'. The first row of the table has a '+' icon in the 'Item' column, indicating a new entry.

The third tab included the item information, with one record completed for each sub outcome included in the study.

Field	Definition	Instructions
Top Section		
Item ID	Auto number	This is an auto number of the measures. This will appear when you start filling in information – do not change
Entry Date	Date of entering information	Enter the date this information was added by clicking the calendar and selecting the date.
Entered by	Initials of person entering the information	Enter your initials
Date updated	Date of most recent changes	For any changes made to the record, select the date by clicking on the calendar. If it has been completed in the past, replace with the new date.
Updated by	Initials of person entering updated information	Enter initials if make changes. Note changes in the comment section
Comments/ notes	Any notes or comments	Enter any comments or notes that we should be aware of. Include the date and your initials Format should be [date initials: comment]: 09/17/11 pk: unsure on item #B74 and B76
Type	Type of item (main category)	Indicate the type of measure (physical health, well-being, ill-being, health behavior, individual difference, environment, or other).
Outcome	Outcomes within the broader types (main outcome)	Use the definitions below (which are under development) to classify the item. Pick the best possible option. If you are unsure, check with Libby or Peggy.
Sub-Outcome	Specific outcomes or measures for each outcome	This part is under development (especially for physical health). Select the sub-outcome (specific within the broader outcome; e.g., engagement includes behavior, interest/passion, learning, etc.)
Item Table (main part to focus on)		
Item Variants	Specific items	Complete the table as follows:
Item	Specific question associated with sub outcome	Check the existing list. If a similar item is in the table, then nothing more needs to be done. However, if the wording is significantly different, the format is different, or the direction differs, then add a new line.
Format	Format of item Continuous Dichotomous Likert scale Free response Multi-response Quantity Point in time Other	Select from list. For example: Numeric values (e.g., \$, IQ, percentage) Yes/no, male/female Ordinal options (e.g., 5 point scale) Written words Symptom checklist Time variable (e.g., daily, weekly, monthly) When something occurred (e.g., two weeks ago) Any other type – indicate in comment section
Direction	Direction of scale/ measure Positive Negative Bimodal	Select what the measure is getting at (based on wording, not answer choice direction) Positive outcomes (e.g., in general how is your health, How satisfied are you with your life) Negative outcomes (e.g., disease checklist, how often do you feel depressed?) Bimodal: low to high, no valence (e.g., IQ, test score)
Study	Studied where item are used	Note the studies using this item, using our ID numbers coded in the study tab (e.g., ESDS). Separate multiple studies by a semi-colon.
Wave	Waves where item is used	Indicated waves of use. Separate multiple waves by a semi-colon. If multiple waves across multiple studies used this, indicate in some way (e.g., E2, E5)

Field	Definition	Instructions
Comment	Comments on item variant	Enter any comments, including anything you are unsure of, of something we should be aware of, including comments on where the item came from. <i>If you selected the best item and there are others falling within the sub-outcome, make sure and note it here.</i>
Entry Date	Date of entering information	Enter the date this information was added by clicking the calendar and selecting the date.
Entered by	Initials of person entering the information	Enter your initials

PART 2: CATEGORY DEFINITION

Category:

Physical functioning: physiological systems within the body

Positive psychological functioning: positive psychosocial variables, grounded on Seligman's PERMA theory and adjusted to adolescents

Negative psychological functioning: Negative psychological variables, including psychopathology and less severe forms

Health Behaviors: behaviors that either promote or increase risk for health outcomes

Individual Differences: personality and other variables that make us unique as individuals

Socio-environmental factors: social and environmental variables that create the context for development

Other: doesn't fit in any of the categories. *Usually exclude, unless there is a really good reason to include, in which case you should note it in the comment section.*

MODALITY:

Clinical Interview: Based on perception of a trained observer.

Observation: noted by an objective, third party

Other-Report Interview: Outcomes reported by proxy or close other during an interview (e.g., parent's or other's impressions of what the child experiences; spouse report. – in notes section indicate which "other" reported on the question)

Other-Report Survey: Outcomes reported by proxy or close other on a survey (e.g., parent's or other's impressions of what the child experiences; spouse report. – in notes section indicate which "other" reported on the question)

Public Record: birth records, death certificates, marriage license, and other documents publicly available

Self-Completed Test: Test completed by the participant (different from a survey)

Self-Report Interview: Outcomes reported by child or adult participant during an interview

Self-Report Survey: Outcomes reported by child or adult participant on a survey

Specimen: (biological) Requires acquisition of a tissue or body fluid specimen.

Technology enabled measurement: Assessed using a device yielding a value that does not require interpretation by a trained observer (e.g., accelerometer data)

PART 3: DETAILED OUTCOME DEFINITIONS

Categories are broken down into specific outcomes (e.g., body systems, constructs, etc.).

Outcome	Definition¹
Physical Functioning Outcomes	
Cardiovascular	Consists of the heart and blood vessels. It includes a pulmonary circulation loop that carries blood to the lungs for oxygen, and a circulatory loop that carries oxygenated blood cells throughout the body.
Developmental Milestones	Markers of normal human development.
Endocrine	System of glands that secretes hormones into the bloodstream to regulate the body. Effects are slow to initiate and prolonged in their response, lasting from hours to weeks. Includes the hypothalamus, thyroid, pineal gland, pituitary gland, adrenal gland, and hormones secreted by the liver, stomach, duodenum, pancreas, kidneys, reproductive organs, adipose tissue, bone marrow, and heart.
Functional autonomy	Actions that a person does to take care of his or her own health and to function in daily life (mostly applicable to older samples)
Gastrointestinal	Stomach and intestines. Includes the upper GI tract (oesophagus, stomach, duodenum) and the lower GI tract (small intestines, large intestines, anus)
General functioning	Questions or measures related to overall function. Includes some measures (such as DNA or other blood tests) that don't directly fit into a single category.
Genitourinary	Reproductive and urinary systems. These are grouped together, due to their proximity and following similar structures and pathways.
Immune	A system that protects against disease by identifying and killing pathogens and tumor cells.
Musculoskeletal	Also known as the locomotor system, this system provides form, support, stability, and movement to the body. It includes bones, muscles, ligaments, cartilage, tendons, joints, and connective tissue that support and bind the organs together.
Nervous	A network of specialized cells (neurons) that transmit signals throughout the body and coordinate movement. Includes the central nervous system (CNS; brain, spinal cord, retina) and the peripheral nervous system (PNS; sensory neurons, ganglia, nerves). The CNS system includes problems with cognitive function, such as dementia and Alzheimer's disease.
Pain/ fatigue	Usually self-reported experiences of pain or fatigue
Respiratory	System that introduces respiratory gases to the body and exchanges oxygen & carbon dioxide
Sensory	Measures and conditions related to the five senses
Skin	Conditions and measures related to the skin
Weight-related	BMI, obesity, eating disorders, and other conditions related to normal versus abnormal weight
Positive Psychological Functioning	
Accomplishment	Defined in terms of achievement, success, or mastery at the highest level possible within a particular domain. Note that this refers more to subjective or objective outcomes.
Engagement	A psychological state in which individuals report being absorbed by and focused on what they are doing, as well as involvement and interest in life activities or tasks
Happiness/ positive affect	Happiness, positive emotion, positive mood, positive affect.
Life satisfaction	Cognitive based assessment of how much like or dislike life.

¹ Most definitions come from Wikipedia.com

Outcome	Definition ¹
Meaning/ purpose	Feeling of belonging to something greater than yourself; significance of life from point of view of the individual
Optimism	Characterized by a hopefulness and confidence about the future; a tendency to take a favorable view of things; or an explanatory style marked by seeing negative events as temporary , external, and specific to situation.
Perseverance	The ability to pursue one's goals to completion, even in the face of obstacles, sometimes referred to as "grit". Note that this refers more to the process of and capability to stick with things than the accomplishment of the task or challenge.
Relationship/ connectedness	The sense that one has satisfying relationships with others; the belief that one is cared for, loved, esteemed and valued.
Negative Psychological Functioning	
Anxiety	All forms of anxiety
Depression	All forms of depression
Externalizing behaviors	Violent or aggressive actions and behaviors directed toward others, including aggressive behaviors, bullying others, fighting, acting out, juvenile delinquency, incarceration
Negative affect	Indicators of negative emotion, affect, or mood
Other ill-being	Other ill-being measures not included in other categories (typically exclude, unless seemingly very important to include)
Psychopathology	Other psychopathology, not included above, including visits to mental health professionals, medication for mental problems, & psychiatric hospitalization
Stress reactions	The physical sensations, thoughts, and feelings that people experience in response to internal or external challenges
Health Behaviors	
Alcohol	
Diet/ nutrition	The ingestion of food and the way that food nourishes the body.
Drug use	Any type of illegal drug/substance
Other behavior	Other health protective or risky behaviors a person does to protect health or place it at risk
Physical activity	Participation in activities that promote physical fitness.
Sexual behavior	Engagement in behavior that protect a person or places a person at risk for a sexually transmitted disease (STD), HIV/AIDS or unintended pregnancy.
Sleep	
Tobacco/ smoking	Anything with nicotine
Individual differences	
Coping Style	An individual's efforts to master demands that are appraised (or perceived) as exceeding or taxing his or her resources; efforts to prevent or diminish threat, harm, and loss, or to reduce associated distress (Carver & Connor-Smith, 2010)
Intelligence	A very general mental capability that, among other things, involves the ability to reason, plan, solve problems, think abstractly, comprehend complex ideas, learn quickly and learn from experience; ability as measured by a standardized test
Personality	The particular combination of emotional, attitudinal, and behavioral response patterns of an individual
Self-esteem	A person's overall evaluation or appraisal of his or her own worth
Temperament	Aspects of an individual that are often regarded as innate rather than learned. Usually used with children, whereas personality is often used with adults
Socio-Environmental Factors	
Caregiving	Experiences giving care to others
Environment	Work, home, and school psychological and physical environment
Life events	Life events that often can cause stress.

Outcome	Definition ¹
Neighborhood	Neighborhood environment
Parenting	Parenting styles and practices (usually parent reports of their behavior)
Socio-economic status	Indicators of status, income, education, home environment
Victimization/ abuse	Being victimized or abused by others

PART 4: DETAILED SUB OUTCOME DEFINITIONS

Each outcome is then broken down into a series of sub outcomes.

Outcome	Sub Outcomes	Definitions/ Examples/ Variants included in sub-outcome
Physical Functioning		
Respiratory	STRUCTURE	
	Structure, Respiratory System	Trachea, Lungs, Thoracic Cage, Muscles of respiration
		Measure: Chest x-ray, computed tomography (CT) scan; bronchoscopy, Lung ventilation/ perfusion scan (VQ scan)
	FUNCTION	
	Function, Respiration	Respiratory rate, Respiratory Rhythm, Depth of respiration, Hypoxia, academia (respiratory acidosis), alkalemia (respiratory alkalosis), pulmonary hypertension
		Measure: Pulmonary function test (PFT), spirometry, Arterial Blood gas (ABG), Swan-Ganz Catheter
	DISORDERS	
	Respiratory Disorder, Acute	Acute respiratory distress syndrome (ARDS), acute respiratory failure, collapse lung (atelectasis), lung abscess, pulmonary edema, pleural effusion, pneumothorax, pulmonary embolism, pulmonary edema, stridor, dyspnea
	Respiratory Disorder, Chronic	Chronic obstructive pulmonary disease (COPD), Asthma, Chronic bronchitis, Emphysema, Cystic Fibrosis, sarcoidosis, Allergic rhinitis (allergies-seasonal or environmental)
	Respiratory, Infectious Disease	Pneumonia, tuberculosis (TB), Upper/ Lower respiratory infection, Acute nasopharyngitis (common colds), sinusitis, tonsillitis, pharyngitis, laryngitis/tracheitis, acute bronchitis/ bronchiolitis, influenza (flu), pneumonia, pulmonary mycobacterial infections
	Respiratory Disorder, Cancer	Nasal cavity, thymus, glottis/ supraglottis (larynx) neoplasm, trachea, nasal cavity, Adenocarcinoma
Self-Reported Experiences		
	Respiratory experiences	Self-reported trouble/ problems breathing, shortness of breath, croup, coughing, sneezing, yawning, wheezing, snoring, hiccup (hiccup)
Biochemical Indices		
	Respiratory, biochemical	Blood Gas levels, Carbon Dioxide (PaCO ₂), pH, Oxygen content (O ₂ CT), Oxygen Saturation (SaO ₂), Bicarbonate (HCO ₃ ⁻), Alfa 1 Anti Trypsin,
Cardiovascular	STRUCTURE	
	Structure, Cardiovascular System	Heart, Arteries, Veins, Capillaries
		Measures: ECHO

Outcome	Sub Outcomes	Definitions/ Examples/ Variants included in sub-outcome
		FUNCTION
	Function, Heart	Heart rate, heart rhythm, contraction force of ventricular muscles, blood supply to the heart
		Measures: EKG/ ECG, pulse meter, heart rate
	Function, Blood Vessels	arteries, capillaries, veins
		Measures: Doppler
	Function, Blood Pressure	Increased BP, Decreased BP, Maintenance BP
		Measure: blood pressure measurements
		DISORDERS
	CVS Disorders, Heart	<u>Congenital:</u> Congenital Heart Disease <u>Ischemic:</u> Myocardial Infarction (MI)/ heart attack; Cardiac Arrest, Acute Coronary Syndrome (ACS); Atherosclerosis; Coronary heart disease/ Coronary artery disease; Angina; Aortic aneurysm, Arterial embolism/ thrombosis <u>Structural:</u> mitral valve, aortic valve, tricuspid valve stenosis/ insufficiency/failure, <u>Other:</u> Congestive Heart Failure (CHF); cardiomegaly; ventricular hypertrophy; myocardial rupture; pericardial effusion, pericardial tamponade, Atrioventricular block (AV block), cardiomyopathy, tachycardia, arrhythmias
	CVS Disorder, Circulation/blood Vessels	Hypertension, Hypotension, Thrombosis, phlebitis, aneurysm, varicose veins, varices, vasculitis; blood clot; Peripheral vascular disease (PVD), hemorrhoids
	CVS Disorders, Infectious Diseases	Rheumatic fever, pericarditis, myocarditis; endocarditis, carditis,
	CVS Disorders, Cancers	primary tumors or cancers affecting the heart
		Self-Reported Experiences
	CVS Experiences	Self-reports of chest pain, irregular heartbeats, chest tightness
		Biochemical Indices
	CVS, Biochemical Indices	Cholesterol level – HDL, LDL, total, lipids (Apolipoproteins, ApoA1, ApoB), CPK,
Gastrointestinal		STRUCTURE
	Structure, GI	<u>Oral Cavity:</u> Salivary glands, teeth, tongue, jaw, lips <u>Esophagus/ Stomach/ Intestines:</u> , obstruction, ileus, fistula, Intussusception, Volvulus <u>Liver, pancreas, biliary tract/ bile duct, gallbladder</u> Measures: Colonoscopy, Endoscopy, Esophagogastroduodenoscopy (EGD), Barium enema, Barium swallow test, HIDA scan, abdominal X-ray, Ultrasound, CT abdomen, MRCP, ERCP
		FUNCTION
	Function, GI	<u>Ingestion:</u> Chewing, biting, swallowing , salivation <u>Digestion:</u> Peristalsis/ transport food through GI tract <u>Defecation:</u> fecal consistency, frequency Measures: <u>Ingestion:</u> Modified Barium Swallow test (MBS); <u>Digestion:</u> Fecal fat test, Lactose or hydrogen breath test; <u>Defecation:</u> Stool samples (abnormal color stools, bulky stools, mucus stools)
		DISORDERS
	GI Disorders, GI tract	<u>Oral Cavity, salivary glands, jaw:</u> Dental caries, tooth erosion, gingivitis, periodontitis, gingival recession, stomatitis, atrophy/ hypertrophy of salivary gland, Sialolithiasis, Xerostomia, abscess of mouth, Cheilitis, Cheilosis, Leukoplakia, Glossitis, atrophy/ hypertrophy of tongue papillae <u>Esophagus/ Stomach:</u> Esophagitis, Gastro-esophageal reflux (GERD), Ulcer (oral, gastric, duodenal, peptic,

Outcome	Sub Outcomes	Definitions/ Examples/ Variants included in sub-outcome
		gastrojejunal), Gastritis/duodenitis, dyspepsia, gastroenteritis (stomach flu) gastroparesis, upper GI bleed, pyloric stenosis, dysphagia
		<u>Intestines:</u> Ulcerative colitis, Crohn's disease, irritable bowel syndrome (IBD), Celiac disease, gluten intolerance, Tropical Sprue, anal abscess, anal fissure, gastric diverticulum, Diverticulitis, Diverticulosis, Megacolon, rectal prolapsed, dyspepsia, intestinal ulcer, lower GI bleed, Vascular disorders of intestine (intestinal infarction, ischemic colitis, mesenteric embolism/infarction/thrombosis, colitis), paralytic ileus, Intussusception, Volvulus, stenosis (intestinal, anal)
	GI Disorders, GI supporting organs	<u>Liver:</u> Alcoholic liver disease (fatty liver, fibrosis, cirrhosis), steatorrhea, hepatitis, cholestasis, hepatic failure, fibrosis or cirrhosis (non-alcoholic), portal hypertension, Wilson's Disease, jaundice, hepatomegaly
		<u>Gallbladder:</u> Cholelithiasis (gallstones), cholecystitis, obstruction gall bladder (occlusion, stenosis, stricture)
		<u>Biliary tract:</u> Cholangitis, obstruction biliary tract (occlusion, stenosis, stricture), fistula of bile duct, Biliary cyst
		<u>Pancreas:</u> Pancreatitis, Pancreatic pseudocyst, pancreatic insufficiency, Pancreatic fistula
	GI Disorders, Infectious Disease	Cholera, typhoid fever, salmonella, shigellosis, Escherichia coli (E. Coli), clostridium difficile, botulism, foodborne illness, food poisoning (Listeriosis), amebiasis, rotaviral enteritis, acute gastroenteritis, adenoviral enteritis,
	GI Disorders, Cancers	<u>Neoplasm of oral cavity:</u> tongue, lips, gums, cheek, salivary glands, tonsils, oropharynx, nasopharynx <u>Neoplasm of esophagus, stomach</u>
		<u>Neoplasm of intestines:</u> Small (duodenum, jejunum, ileum, Meckel's diverticulum); Colon (Cecum, ascending/descending, transverse colon, splenic flexure, sigmoid colon; Rectum/ Rectosigmoid junction, anal cancer
		<u>Neoplasm Liver/ biliary/ gall bladder/ Pancreas:</u> Liver cell carcinoma, hepatoblastoma, angiosarcoma, other liver sarcomas, extrahepatic bile duct, pancreatic cancer
	GI Disorders, Other	<u>Peritoneum:</u> Peritonitis, peritoneal adhesions, ascites
		<u>Appendix:</u> Appendicitis
		<u>Hernia:</u> Inguinal, femoral, Umbilical, Ventral, Diaphragmatic, abdominal
		Self-Reported Experience
	GI, Experiences	Oral/ Dental Problems: Missing teeth, cavities, tooth pain, dental history Sensations associated with ingestion: Trouble chewing, difficulty swallowing, dry mouth (lack of saliva), reports of vomiting, regurgitation Sensations associated with digestion: Stomach pain, nausea, bloating, abdominal cramps, abdominal pain, flatulence, heartburn Defecation: diarrhea, constipation, fecal incontinence, fecal abnormalities (abnormal stool color, bulky stools, mucus in stools)
		Biochemical Indices
	GI, Biochemical Indices	<u>Liver/ Biliary:</u> Liver Function Test (LFT)-ALT, AST, ALP (alkaline phosphatase), Bilirubin (total and direct), Albumin, Total Protein, GGTP/ Gamma GT, PT, LDH; CMP, Hepatitis A, B, C; Copper, Ceruloplasmin, LDH, INR;
		<u>Pancreas:</u> Amylase, Lipase
Metabolic/ Nutrition		FUNCTION
	Function, Metabolic/ Nutrition	Metabolic: carbohydrate metabolism, protein metabolism, fat metabolism, assimilation including breakdown of food (enzyme production), absorption of nutrients, food tolerance Regulation: weight maintenance, metabolic (basal metabolic rate), thermoregulation, water, mineral,

Outcome	Sub Outcomes	Definitions/ Examples/ Variants included in sub-outcome
		electrolyte balance
		Measure: BMR, body temperature, height, weight, Head circumference, waist-hip ratios, BMI, Percent body fat (BIA), Energy Expenditure (double labeled water technique), measured REE (resting energy expenditure)
		DISORDERS
	Metabolic/ Nutrition Disorders, Over-Under Nutrition	Kwashiorkor, Nutritional Marasmus, Protein-Energy Malnutrition, Obesity, Morbid obesity , Metabolic syndrome
	Metabolic Disorders, metabolism	Deficiencies: Vitamin A deficiency (Bitot's spot), Thiamine deficiency (Beriberi, Wernicke's encephalopathy), Niacin deficiency (Pellagra), Riboflavin deficiency (Ariboflavinosis), Pyridoxine deficiency (Vitamin B6 deficiency), Ascorbic acid deficiency (Scurvy), Vitamin D deficiency (rickets, juvenile or infantile only), Vitamin E deficiency, Vitamin K deficiency, Dietary calcium deficiency, Dietary selenium deficiency, Dietary zinc deficiency, Copper deficiency, Magnesium deficiency, Manganese deficiency, Chromium deficiency, Molybdenum deficiency, Vanadium deficiency, Essential fatty acid deficiency Hyperalimentation: Hypervitaminosis A, hypercarotenemia, Megavitami-B6 syndrome, Hypervitaminosis D
		Amino-acid metabolism: phenylketonuria (PKU), hyperphenylalaninemia, tyrosine disorders (alkaptonuria, hypertyrosinemia, ochronosis, tyrosinemia, tyrosinosis), Albinism (Chediak-Higashi, cross, Hermansky-pudlak), Histidine metabolism disorder, tryptophan metabolism disorder, Cystinuria, Fanconi syndrome, Hartnup's disease, Lowe's syndrome, Cystathioninuria, Homocystinuria, Methioninemia, sulfite oxidase deficiency, Urea cycle metabolism (Argininemia, Citrullinemia, Hyperammonemia), Ornithinemia, Glycine Metabolism (Hyperhydroxyprolinemia, Hyperprolinemia, Sarcosinemia)
		Branch Chain amino-acid and fatty acid metabolism: Maple Syrup Urine disease (MSUD), Hyperleucine-isoleucinemia, hypervalinemia, isovaleric acidemia, methylmalonic acidemia
		Fatty Acid metabolism: Adrenoleukodystrophy (Addison-Schilder syndrome), muscle carnitine palmitoyltransferase deficiency)
		Lactose intolerance (Congenital lactase deficiency, secondary lactase deficiency)
		Carbohydrate metabolism: Glycogen storage disease (Andersen, Cori, Forbes, Hers, McArdle, Pompe, Tauri, von Gierke), Liver phosphorylase deficiency, Fructose metabolism disorders (Fructosuria, Fructose intolerance, Fructose-1,6-diphosphatase deficiency); Galactose metabolism (Galactokinase deficiency, Galactosemia), Glucose-galactose malabsorption, Sucrase deficiency, Pyruvate metabolism, phosphoenolpyruvate carboxykinase deficiency, pyruvate deficiency, Oxalosis, Oxaluria
		Lipid Metabolism Disorders: Sandhoff disease, Tay-Sachs, Gangliosidosis, Fabry Disease, Gaucher Disease, Krabbe Disease, Niemann-Pick, Farber's syndrome, Metachromatic leukodystrophy, Sulfate deficiency, Batten Disease, Jansky-Bielschowsky disease, Kufs disease, Spielmeyer-vogt disease, van Bogaert-scherer-epstein syndrome, Wolman's disease
		Lipoprotein Metabolism: Hypercholesterolemia (familial hypercholesterolemia, Fredrickson's hyperlipoproteinemia, hyperlipidemia, LDL hyperlipoproteinemia, VLDL hyperlipoproteinemia, Lipoprotein deficiency (High density lipoprotein deficiency, Tangier disease)
		Purine and pyrimidine metabolism: Lesch-Nyhan syndrome, xanthinuria
		Bilirubin metabolism: Gilbert's syndrome, Crigler-Najjar syndrome, Dubin-Johnson syndrome, Rotor's syndrome
		Mineral metabolism: Copper (Menkes disease, Wilson's disease), Iron (hemosiderosis), Zinc (Acrodermatitis enteropathica), Phosphorus (Acid phosphatase deficiency, hypophosphatemia), Magnesium (hyper/hypo-

Outcome	Sub Outcomes	Definitions/ Examples/ Variants included in sub-outcome
		magnesemia)
		Volume Depletion: Dehydration, Hypovolemia
		Fluid, electrolyte and acid-base balance: Hyperosmolality, hypernatremia, hypoosmolality, hyponatremia, acidosis, alkalosis, hyperkalemia, hypokalemia, fluid overload
		Self-Reported Experiences
	Metabolic Self-Reported Experiences	Self-reported height, weight, BMI, family history of obesity, weight loss, weight gain, feverish, chills
	Nutrition Self-Reported Experiences	Excessive thirst, lack of thirst, loss of appetite, dietary intake, dietary/ food frequency questionnaires, food diaries, diet history (usual food intake, special diets; intake of vitamins, minerals, herbal medicines
		Biochemical Indices
	Biochemical, Metabolic/ Nutrition	Electrolytes (Sodium, Potassium, Co2, Chloride), osmolality, acid base balance
		blood minerals (Calcium, cobalt, copper, iron, magnesium, zinc), blood vitamin levels
		Tests for amino-acid/ carbohydrate/ lipid metabolism, adiponectin
Nervous System		STRUCTURE
	Structure, Brain	cortical lobes, mid-brain, diencephalon, basal ganglia and related structures, cerebellum, brain stem, cranial nerves
		Measure: MR Imaging of brain, CT Scan of brain
	Structure, Spinal Cord and Spinal Nerves	cervical, thoracic, lumbosacral, cauda equina, meninges
		Measure: MR Imaging of spinal cord or nerves, CT Scan of spinal cord or nerves, Nerve Conduction Tests
		FUNCTION
	Function, Mental (Global / Specific)	Cognition, Executive functioning, Psychomotor, Memory, Attention, Consciousness, Orientation, Intellect, Emotional, Perceptual, Thought, Higher-Level Cognitive, Complex Movement Sequencing, Experience of Time and Self
		Measures: <u>Cognitive memory:</u> WAIS digit span backwards/ forward, word list free recall, MIR memory test, coin test, word list recall, recognition test <u>Cognitive mental speed:</u> figure identification, substitution coding tasks, number copy tasks, identical picture, reaction time, number comparison <u>Executive function/ cognitive attention:</u> Stroop, color trails task, serial 7s <u>Cognitive function :</u> MMSE (mini mental state exam); Blessed test, TICS cognitive function test <u>Sleep Exams:</u> actigraphy
		DISORDERS
	Nervous System Disorders, Central/Peripheral	Cognitive: Alzheimer's, Dementia, amnesia Episodic: Epilepsy, status epilepticus, tension headaches, migraine, cluster headache syndrome, transient ischemic attack, cerebrovascular attack Inflammatory: meningitis, encephalitis, myelitis, encephalomyelitis, intracranial/intraspinal abscess and granuloma, phlebitis, thrombophlebitis Demyelinating CNS disorders: Multiple sclerosis, Neuromyelitis Nerve system: Trigeminal neuralgia, Facial nerve disorders (Bell's palsy, Melkersson's syndrome, Clonic hemifacial spasm), Cranial nerve disorders, mononeuropathies (carpal tunnel syndrome), Hereditary and

Outcome	Sub Outcomes	Definitions/ Examples/ Variants included in sub-outcome
		idiopathic neuropathy (Morvan's disease, Nelaton's syndrome, Sensory neuropathy), inflammatory polyneuropathy (Guillain-Barre syndrome), neuropathy Vascular: Cerebellar stroke syndrome, brain stem stroke syndrome, Cerebral artery syndrome (Middle, anterior, posterior), subarachnoid/ intracerebral/ subdural hemorrhage, Other: Hydrocephalus, Toxic encephalopathy, Brain disorders, Spinal cord disorders, Postprocedural disorders, Anoxic brain damage, Reye's syndrome
	Nervous System Disorders, Movement/Neuromuscular	Atrophic: Huntington's disease, Hereditary ataxia, Muscular Dystrophy Muscle/ Myoneural: Myasthenia gravis, Myotonic disorders, Myopathy Movement: Parkinson's disease, Secondary Parkinsonism, Degeneration of Basal Ganglia, Dystonia, Chorea, TICS, Restless Legs Syndrome, tremors, myoclonus Paralytic (paralysis): cerebral palsy, hemiplegia, paraplegia, tetraplegia
	Nervous System Disorders, Cancer	Brain cancer, spinal cord, meninges, cranial nerves
		Self-Reported Experiences
	Nervous System Disorder, Experiences (general or non-specific test)	Self-report of everyday memory, temperament and personality, disorientation, forgetfulness, dizziness, headache (frequency/ intensity), abnormal involuntary body movements, tremors, twitching, staggering gait (walking)
		Biochemical Indices
	Nervous System, biochemical	
Endocrine		STRUCTURE
	Structure, Endocrine	Pituitary, Thyroid, Parathyroid, Adrenal Gland
		Measures: endocrine structure specific X-ray, CT scan, MRI
		FUNCTION
	Function, Endocrine	Production and regulation of hormonal levels in body
		Measures: oral glucose tolerance test, Pituitary function test
		DISORDERS
	Endocrine Disorders	<u>Thyroid:</u> iodine-deficiency syndrome, goiter, Thyroiditis, Hyperthyroidism/ hypothyroidism
		<u>Diabetes:</u> Type 1 (insulin dependent, juvenile-onset), Type 2 (non-insulin dependent, adult-onset);
		<u>Parathyroidism:</u> hyperparathyroidism/ Hypoparathyroidism
		<u>Pituitary:</u> acromegaly, pituitary gigantism, Cushing's syndrome, Nelson's syndrome, Growth hormone deficiency, short stature, Sheehan's syndrome, Simmonds' disease, diabetes insipidus, hyperpituitarism/ hypopituitarism
		<u>Other:</u> congenital adrenal hyperplasia, hyperaldosteronism, adrenocortical insufficiency/ over activity, polycystic ovarian syndrome, estrogen excess, delayed puberty, precocious puberty, hyperadrenalism/hypoadrenalism, hypergonadism/ hypogonadism, Addison's disease
	Endocrine Disorders, Cancer	Thyroid cancer, adrenal gland cancer, parathyroid cancer, endocrine gland cancer
		Self-Reported Experiences
	Endocrine Experiences	
		Biochemical Indices
	Endocrine, biochemical	blood glucose, urine glucose (glycosuria), insulin, blood or urinary ketones, HgBA1c, TSH, T3, T4, PTH, GH (growth hormone), IGF-1 (insulin-like growth factor-1/ somatomedin C, cortisol, ACTH, DHEAS, prolactin,

Outcome	Sub Outcomes	Definitions/ Examples/ Variants included in sub-outcome
Genitourinary (GU)		STRUCTURE
	Structure, Urinary	Kidneys, Ureters, Bladder, Urethra
		Measures: KUB, cystogram, Cystoscopy, pyelogram, renal/kidney ultrasound or CAT scan
	Structure, Genital & Reproductive	Pelvic floor, Uterus, Breast, Vagina, Vulva, Cervix, Fallopian tubes, Testes, Penis, Prostate, Reproductive system
		Measures: Ultrasound, CAT scan of above structure
		FUNCTION
	Function, Urinary	Urination, filtration
		Measures: urinary function tests
	Function, Genital & Reproductive	Sexual function, fertility, menstruation, reproductive function, sexual function
		DISORDERS
	GU Disorders, Urinary	Renal (Kidney): Nephritic syndrome (glomerular disease, glomerulonephritis, nephritis, nephritic syndrome)
		Renal Tubular Diseases (Nephritis, pyelitis, pyelonephritis, hydronephrosis, nephropathy); prolapsed Kidney, kidney stones (calculi), renal colic, renal cyst, Renal Infarct, Renal artery embolism
		Renal (Kidney) Failure (Acute/ Chronic Renal Failure (ARF/CRF), End Stage Renal Disease (ESRD), neuropathy)
		Ureters, Bladder, Urethra: Urinary Infection, cystitis, Bladder stenosis, vesicorectal fistula, obstruction/ occlusion, Diverticulum of bladder, urethral stricture, urethral fistula, urethral (urethra, urethrocele), prolapsed bladder or urethra, bladder stone or urethra stone (calculi), Urinary retention, Overactive bladder, urinary incontinence, urinary retention, proteinuria, hematuria, neurogenic bladder, hematuria
	GU Disorders, Genital & Reproductive	Male Genital: <u>Prostate disorders:</u> Hyperplasia of prostate, prostate inflammation (prostatitis), abscess of prostate; <u>Penis or Testes disorders:</u> priapism, impotence, penis or testes atrophy, hypertrophy, or thrombosis Male Reproductive: Male infertility
		Female Genital: <u>breast or mammary duct disorders:</u> Dysplasia, breast cyst or abscess, mastitis, atrophy, hypertrophy, galactorrhoea; <u>Pelvic organ disorders:</u> abscess or inflammation of fallopian tube, ovary, cervix, or vagina/ vulva including endo or myometritis, vaginitis, vulvitis; <u>Genital tract disorders:</u> Endometriosis, genital prolapsed, genital fistula, follicular cyst, polyp in genital (uteri, cervix, vagina, vulva), vesicointestinal fistula Female Reproductive: Amenorrhea (absent menstrual periods), Dysmenorrhea (painful menstrual periods), Menorrhagia (heavy menstrual periods), infertility
		Pregnancy: disorders with childbirth, disorders with lactation, menopause, abortion (spontaneous/ medical/ other), ectopic pregnancy, Pre-eclampsia (pregnancy induced hypertension), hyperemesis, gestational diabetes, polyhydramnios, placenta previa, placenta abruptio, hemorrhage
	GU Disorders, Sexually transmitted diseases/ infections (STD/STI)	Syphilis, Chlamydia, gonorrhea, herpes, genital warts, chancroid, lice and trichomoniasis, pubic lice, pelvic inflammatory disease (PID), human papilloma virus (HPV)
	GU Disorders, Cancer	Urinary: Cancers/tumors of the kidney, bladder, urethra; bladder papilloma
		Genital: Cancer/tumors of the uterus, cervix (cervical cancer), vagina, ovarian, placenta, prostate, breast, Penis (penile), testes
		Self-Reported Experiences

Outcome	Sub Outcomes	Definitions/ Examples/ Variants included in sub-outcome
	Urinary Experiences	Self-reported urinary frequency, Urinary Incontinence, urinary discomfort or pain, incomplete voiding of urine, feeling bladder fullness, night time urination frequency (nocturia), blood in urine
	Genital & Reproductive Experiences	Sexual relations/ drive; sexually transmitted diseases, sexual arousal or resolution; use of birth control; Male: Penile discharge Female: Self report of menstruation regularity, abnormalities or pain; child birth history (pregnancy, abortions, pregnancy complications), Self-reported surgeries: Hysterectomy, Oophorectomy, mastectomy, vasectomy
		Biochemical Indices
	Urinary Biochemical	Urinalysis, urine culture, BUN, Creatinine, Creatinine clearance, Urinary protein, estimated GFR, Microalbumin
	Genital & Reproductive, Biochemical	pap smear, STD testing (chlamydia, Gonorrhea, Trichomoniasis, Syphilis, Herpes, HPV, HIV/AIDS), Testosterone, Estrogen, Progesterone, genital organ specimens, FSH, LH
Hematological/ Immune System		STRUCTURE
	Structure, Hematological/ Immune System	Lymphatic vessels, lymphatic nodes, thymus, spleen, bone marrow
		Measure: physical examination of structures
		FUNCTION
	Function, Hematological System	blood production, oxygen-carrying functions, metabolite-carrying functions, clotting functions
		Measure: biopsy of lymph node, thymus, spleen, bone marrow or bone marrow aspirate
	Function, Immunological System	Immune response (specific and non-specific), hypersensitivity reactions, lymphatic vessel functions, lymph nodes functions
		Measure: Cytokines: IL-1, IL-6, TNF-a
		DISORDERS
	Hematological Disorders, blood	Anemia, nutritional deficiencies: Iron, B12, Transcobalamin II, Folate, Megaloblastic, Protein deficiency anemia, chronic anemia
		Anemia, Hemolytic : G6PD, thalassemia, sickle cell anemia, sickle cell trait, spherocytosis, elliptocytosis, idiopathic hemolytic anemia
		Anemia, Aplastic: Aplastic anemia, Blackfan-Diamond syndrome, hypoplastic anemia, Fanconi's anemia, Pancytopenia
		Coagulation defects: Afibrinogenemia, coagulopathy, DIC (disseminated intravascular coagulation), Purpura, Factor VIII deficiency, Factor IX deficiency, Christmas disease, Hemophilia B, Von Willebrand's disease, Factor Deficiencies (I, II, V, VII, X, XII, XIII) dysfibrinogenemia, Owren's disease, Vitamin K deficiency,
		Other: Eosinophilia, disorders of WBC (leukocytosis, lymphopenia, monocytosis, plasmacytosis), Agranulocytosis (neutropenia), Methemoglobinemia, erythrocytosis, polycythemia, thrombocytosis,
		Spleen: Hyposplenism/ atrophy of spleen, hypersplenism. Splenomegaly, cyst/ abscess of spleen, splenic rupture
	Hematological/ Immune system Cancers:	Lymphosarcoma, Acute lymphoblastic leukemia (ALL), Chronic Lymphocytic leukemia, Myeloid Leukemia, Monocytic leukemia, Malignant histiocytosis, B-cell lymphoma, Non-Hodgkin's Lymphoma, Hodgkin's Disease, T-cell Lymphoma, Multiple myeloma,
	Disorders, Immunological System	Immunodeficiency: Hypogammaglobulinemia, IgA deficiency, IgG deficiency, IgM deficiency, SCID (severe combined immunodeficiency), ADA deficiency (Adenosine deaminase), Nezelof's syndrome, PNP deficiency

Outcome	Sub Outcomes	Definitions/ Examples/ Variants included in sub-outcome
		(Purine nucleoside phosphorylase), Wiskott-Aldrich syndrome, DiGeorge syndrome, Hyperimmunoglobulin E syndrome (IgE), B or T-cell deficiency, Sarcoidosis, HIV/AIDS
		Self-Reported Experiences
	Hematological/ Immune Experiences	Easy bruising, bleeding
		Biochemical Indices
	Hematological Biochemical	RBC, WBC, Hemoglobin, Hematocrit, Platelets, MCV, Fe, B12, Folate, albumin, prealbumin, total protein, Ferritin, Serum coagulation factors (fibrinogen, prothrombin, tissue factor, VI, VII, VIII, IX, X, XI, XII, XIII, von Willebrand factor, prekallikrein, HMWK, fibronectin, antithrombin III, heparin cofactor II, protein C, protein S, protein Z, Z-related protease inhibitor (ZPI), plasminogen, alpha 2 anti-plasmin, tPA, urokinase, PAI1, PAI2)
	Immunological Biochemical	Killer T cells, helper T cells, TCRab, CD3, CD4, CD8, NK cells, CD16, CD56, Immunoglobulin A (IgA), G (IgG), M (IgM), E (IgE), RAST test,
Musculoskeletal, Connective Tissue		STRUCTURE
	Structure, Musculoskeletal	bones, joints, muscles, extra-articular ligaments, fasciae, extramuscular aponeuroses, retinacula, septa, bursae
		Measure: Bone x-rays, DEXA/bone densitometry, bone density scan/ dual-energy X-ray absorptiometry/ DXA, bone biopsy
		FUNCTION
	Function, Musculoskeletal	Mobility of joints, stability of joints, mobility of bones, muscle power, muscle tone, muscle endurance, motor reflexes, control of voluntary movement, involuntary movement
		Measure: flexibility, strength, flexion, timed walk, gait, extension, coordination
		DISORDERS
	MSK disorders, Skeletal	Inflammatory: Osteoarthritis, Rheumatoid arthritis, Juvenile arthritis (rheumatoid, JRA), gout, Ankylosing spondylitis, osteomyelitis
		acquired or congenital deformities of joints, fingers, toes, limbs, nose, cauliflower ear, head, neck, rib, chest, pelvis, Kyphosis, lordosis, scoliosis, Spinal osteochondrosis, torticollis, Paget's disease, slipped epiphysis
		Bone density/ structure: osteoporosis, osteomalacia, bone fracture or dislocation, fluorosis, hyperostosis, bone cyst, osteonecrosis, osteolysis, hypertrophy of bone, osteochondrosis, chondromalacia, chondrolysis, osseous stenosis, arthrosis, degeneration of joints, spinal stenosis, stress fracture of vertebra, ossification, cervical/ intervertebral disc disorders, dorsoopathies, sciatica, spondylosis
	MSK disorders, Tissue	Connective tissue disorders: Systemic lupus erythematosus (SLE), dermatomyositis, sclerosis, CREST syndrome, Sjogren's syndrome, Behcet's disease, Polymyalgia, Fasciitis, Weber-Christian disorder, Hypermobility syndrome (Ehlers-Danlos syndrome), enthesopathy
		Soft tissue: Myositis, calcification/ ossification of muscle, myalgia (fibromyalgia), diastasis of muscle, muscle wasting or atrophy, muscle strain, bursitis, fibromatosis, tendinitis, bone spur, capsulitis, periarthritis,
	MSK disorders, Cancer	Skeletal: Neoplasm of bone or cartilage including skull, face, jaw (mandible), head and neck cancer, vertebral column, ribs, sternum, clavicle, pelvic bones, sacrum, coccyx, mediastinum,
		Soft Tissue: Connective tissue cancers, soft tissue of head, face or neck, muscles, tendons, tissue of abdomen, groin, upper or lower limbs
		Self-Reported Experiences

Outcome	Sub Outcomes	Definitions/ Examples/ Variants included in sub-outcome
	MSK experiences	lower back pain, trouble walking-non neurological (staggering, falling, lack of coordination), bone fractures
		Osteoporosis Self-Assessment Screening Tool (OST score)
		Biochemical Indices
	Biochemical, MSK	Serum bone-specific alkaline phosphatase (B-ALP), serum osteocalcin, serum propeptide of type I procollagen (PINP or PICP), Osteocalcin (OC,BGP), Urine and serum cross-linked N-telopeptide (NTX), urine total free deoxypyridinoline (DPD), urine and serum cross-linked C-telopeptide (CTX), Hydroxyproline total or dialyzable (OH-Pro, OHP), Pyridinoline (PYD, Pyr), Cross-linked C-terminal telopeptide of type I collagen (ICTP), Hyddroxylysine-glycosides (Hyl-Glyc), Bone siloprotein (BSP), Tartrate-resistant acid phosphatase (TR-ACP), Free gamma carboxyglutamic acid (GLA), Anti CCP
Skin		STRUCTURE
	Structure, Skin and related structures	areas of skin (head, shoulder, upper extremity, pelvic, lower extremity, trunk and back), skin glands, nails, hair
		Measure: Physical exam/ report of structures, skin biopsy
		FUNCTION
	Function, Skin	protective functions (skin/hair/nails), repair functions, sensation
		DISORDERS
	Skin and related structure Disorders	<u>Bullous disorders:</u> Pemphigus, Acantholytic (keratosis follicularis, acantholytic dermatosis), Pemphigoid, Duhring's disease, Sneddon-Wilkinson disease
		<u>Dermatitis/ Eczema:</u> Atopic dermatitis, Seborrheic dermatitis, Diaper dermatitis, Allergic/Irritant contact dermatitis, Hebra's pityriasis, Lichen simplex chronicus or prurigo
		<u>Papulosquamous disorders:</u> psoriasis, parapsoriasis, pityriasis rosea, lichen planus
		<u>Nails:</u> Ingrown nails, onycholysis, onychogryphosis, nail dystrophy, yellow nail syndrome <u>Hair:</u> (hair loss) alopecia areata, androgenic alopecia, hypertrichosis, <u>Glands:</u> acne, rosacea, follicular cysts, sweat disorders (bromhidrosis, chromhidrosis, Fox-Fordyce disease, miliaria rubra)
		<u>other:</u> Urticaria(hives) and erythema (rash/redness), Sunburn, cyanosis, petechiae, vitiligo, freckles, cafe au lait spots, melanin hyperpigmentation, angioma serpiginosum, Leser-Trelat disease, acanthosis nigricans, Callus, corn, bunion, clavus, Ichthyosis, decubitis ulcer, skin ulcer, gangrene
	Skin Disorders, Infectious Disease/Viral	<u>Infectious:</u> Ritter's disease, Impetigo, Boil, Cutaneous abscess, cellulitis, Pilonidal cyst, septic/purulent dermatitis, Erythrasma, Athlete's foot (tinea pedis)
		<u>Viral:</u> Herpes simplex, cold sore, Varicella (chicken pox), Zoster herpes (shingles), smallpox, monkey pox, measles, rubella, viral warts (verruca simplex/vulgaris), Exanthema subitum (sixth disease), Erythema infectiosum (fifth disease), enteroviral lymphonodular pharyngitis, foot and mouth disease, Tanapox virus disease, Yaba pox virus disease
	Skin Disorders, Cancer	Melanoma, basal cell carcinoma of lip, eyelid, skin of ear, external auricular canal, pace, scalp and neck, skin of trunk, skin limbs; Mesothelioma, Kaposi's sarcoma,
		Self-Reported Experiences
	Skin, Experiences	rash, skin eruptions including acne, clammy skin, flushing (excessive blushing), scaling
Infectious and Parasitic Disease		DISORDERS
	Infectious Disease, Viral	Poliomyelitis (polio), Creutzfeldt-Jakob disease, encephalitis, leukoencephalitis, Rabies, Viral encephalitis, Tick-

Outcome	Sub Outcomes	Definitions/ Examples/ Variants included in sub-outcome
		borne viral encephalitis, viral meningitis, Coxsackievirus, Dengue fever, West Nile Virus, Sandfly fever, Yellow fever, Hemorrhagic fever, Hepatitis A, Hepatitis B, Hepatitis C, Cytomegalovirus (CMV), Mumps, Viral conjunctivitis
	Infectious Disease, Bacterial	Zoonotic: Plague, Tularemia, anthrax, brucellosis, glanders and melioidosis, Rate-bite fevers (spirillosis, Haverhill fever), Erysipeloid, Leptospirosis, Cat-scratch Fever,
		Other: Leprosy, Tetanus, Diphtheria, Whooping cough, Scarlet Fever, Meningococcal infection, Streptococcal septicemia (strep throat), septicemia, actinomycosis, nocardiosis, bartonellosis, erysipelas, Legionnaires disease, toxic shock syndrome, Purpuric fever, bacterial meningitis
		Rickettsioses: Typhus fever, spotted fever, Q fever, Trench fever, Rickettsialpox
	Infectious Disease, Mycoses (fungal)	Candidiasis, Histoplasmosis, Aspergillosis, Cryptococcosis, Fungemia
	Infectious Disease, Parasitic	Protozoal: Malaria, Leishmaniasis, Chagas disease, toxoplasmosis
		Helminthiasis: tapeworm, Trichinellosis, Hookworm disease
		Head lice (pediculosis), scabies, myiasis,
Sensory	STRUCTURE	
	Structure, Eye	Eye socket, eyeball (conjunctiva, cornea, iris, retina, lens, vitreous body), lachrymal gland, eyelid, eyebrow, external ocular muscles
		Measure: eye or orbit ultrasound (A or B scan) Echography - eye orbit; Ocular ultrasonography; Orbital ultrasonography, ophthalmoscopy
	Structure, Ear	External ear, middle ear (tympanic membrane, eustachian canal, ossicle), inner ear (cochlea, vestibular labyrinth, semicircular canals, internal auditory meatus)
		Measure:
	Structure, Nose	external nose, nasal septum, nasal fossae
		Measure:
	FUNCTION	
	Function, Sensory Eye (Vision)	Vision, visual acuity, visual field, quality of vision, functions of internal muscles of the eye, functions of eyelid, functions of external muscles of the eye, lachrymal gland function
		Measure: Comprehensive eye examination: test for visual acuity, pupil function, extraocular motility, visual fields, measure of intraocular pressure, snellen vision test
	Function, Sensory Ear (Hearing)	Auditory, sound detection, sound discrimination and localization, speech discrimination
		Measure: hearing test, Auditory Brainstem Response (ABR), Electronystagmography (ENG), Otoacoustic Emissions (OAE), Audiogram
	Function, Sensory Nose (Smell/Taste)	taste, smell
		Measure: smell identification test
	Function, Sensory Other	proprioception, touch
	DISORDERS	
	Sensory Disorders, Eye	Eyelid: Inflammation of eyelid (abscess, styte), chalazion, blepharitis
		Lacrimal system: Dacryoadenitis (enlarged lacrimal gland), dacryops, dry eye syndrome, lacrimal cyst or gland

Outcome	Sub Outcomes	Definitions/ Examples/ Variants included in sub-outcome
		atrophy
		Orbit: Inflammation, granuloma, displacement, hemorrhage,
		Retina: retinal detachments or break, vascular occlusions, retinal vascular changes, retinal changes
		Optic Nerve/ Visual Disturbances: Neuritis, optic atrophy, optic dis disorders, visual cortex disorders, paralytic strabismus, strabismus, amblyopia, day blindness, photophobia, sudden vision loss, visual halos, diplopia, blind spots, color blindness, night blindness, snow blindness
		Lens: cataracts, congenital lens malformations, mechanical complication of intraocular lens, dislocation of lens
		Conjunctivitis, conjunctival hemorrhage, cysts, scleritis, Keratitis, corneal ulcer, corneal pigmentations and deposits, corneal degeneration, corneal dystrophy, iridocyclitis, degeneration of iris, glaucoma
	Sensory Disorders, Ear	ear abscess, cellulitis of external ear, swimmer's ear, otitis media, mastoiditis, perforation of tympanic membrane, otosclerosis, vertigo, deafness, hearing loss
		Self-Reported Experiences
	Sensory Eye (Vision) Experiences	Hallucinations, blurry vision, changes in vision, double vision, dry eyes, eye discomfort, use of eye correction glasses or contact lenses.
	Sensory Nose (Smell/ Taste) Experiences	changes in taste or smell, lack of taste/ smell, hypersensitivities in taste / smell
	Sensory Ear (Hearing) Experiences	sensations associated with hearing and vestibular functions (tinnitus, dizziness, sensation of falling, irritation of the ear, aural pressure), hearing aide use, reports on trouble hearing
	Sensory Experiences, other	Changes in sense of touch, problems related to sense of touch, hypersensitivity, lack of sensitivity, reports of spatial problems or perception
Development Milestones	Developmental	Age of talking/ said first words, age of walking, social, motor development
	Pubertal	Age of puberty (tanner scale), change in voice/ face hair (for males); first period (for females)
Functional autonomy	Activities of daily living	Activities of daily living: Things we normally do, such as personal hygiene & grooming, dressing and undressing, self-feeding, functional transfers (e.g., getting to bathroom, getting on/off toilet), ambulation without assistance, housework, taking medications as prescribed, managing money, shopping for clothes and food, transportation within community, able to use phone or other means of communication, ability to get up in the morning
	School/ Occupation	going to work, school attendance, school related behaviors
	Self-Care	Self-Care: Able to take care of self; need for home help or care by others
	Hobbies	Hobbies, reports of engaging in leisure time hobbies and activities
Special Health Care Needs	Physical Disability	Report of physical handicap, disability, or abnormality
	Mental / Emotional Difficulties	Report of general mental or emotional/behavioral problems
	Developmental Delay	Reports of developmental delay, including speech/ language
	Learning difficulties	Reports of learning disability or problems
General Health History	Family Health History	Family history of health: Parent longevity (age parents died), health history of immediate and distant family members
	Health Care Utilization	Self-reported health care service use
	Medication use	Medication use (type, number, frequency, use over the counter (OTC) meds)
	General Health Status	Self-rated health: Overall, relative to age, relative to past; The short form (36) health survey – patient health (SF-36)

Outcome	Sub Outcomes	Definitions/ Examples/ Variants included in sub-outcome
	General Pain/ Fatigue	Pain/fatigue: General reports of pain or fatigue-not related to a system, general energy level, exhaustion
	General physical exam	General physical exam, the results of last physical or reason for last physical (if frequency go to “medical checkup”)
	General symptoms	Reported symptoms that cannot be otherwise specified to a system
	Surgical History	Reports of surgical procedures, , surgical history (checklist)
	Chronic Health Condition	History of chronic health condition not specified in other systems
	Death outcome report	Age of death, cause of death
Positive Psychological Functioning		
Engagement	Classroom involvement School involvement Club involvement Community involvement Interest Passion Concentration Learning enjoyment Other engagement	Involvement in classroom activities (e.g., does all activities) Involvement in school activities Involvement in clubs, organizations, societies, etc. Involvement in community, including volunteering and service activities Interest in activities Passion for doing things (high desire) Concentration level for activities, schoolwork, job Enjoyment of learning new things Other engagement variables, not included above
Perseverance	self-efficacy grit Pursuing goals Enjoyment of challenge Single items Resilience Other perseverance	Belief you are capable of performing to attain goals Sticking with activities despite challenge Extent to which person sets and sticks with working toward goals Enjoys and seeks out challenges Words or single items that reflect perseverance; e.g., self-discipline, persistence, perseverance, diligence Measures of overall resilience Other perseverance items not included above
Accomplish	Subjective sense Perceived competence Mastery goal achievement objective success Other accomplishment	Feelings about your own accomplishments Feelings or perceptions of competence in an activity/domain Comprehensive knowledge/skill in a subject Achieving goals e.g., Occupational/job performance; academic achievement; honors or awards received Other accomplishment items, not included above
Optimism	hope for the future Mood/ emotion explanatory style Trust Unrealistic optimism Other optimism	General sense of feeling hopeful about future outcomes or expecting positive outcomes (e.g., glass is half-full perspective) Measured as a mood or emotion (e.g., optimistic feeling) Optimistic versus pessimistic style of how people explain why they experience an event (global versus specific, internal vs. external, unstable vs. stable) Extent to which person sees the world and people around them as trustworthy and stable (i.e., optimistic perception of others) Indication of being optimistic when not appropriate or even harmful Other optimism items, not included above
Relationship/	Perceived support	Subjective feeling of being supported by others

connectedness	Social ties Social closeness Social network Received support Giving support Parent connectedness Teacher connectedness Peer connectedness Coworker connectedness Family connectedness Significant other connectedness Negative social relationships Loneliness Other relationship	Number of friends or acquaintances How close feels to friends or others Measure of who is in social network (e.g., list names of friends) Objectively measured received support Providing support to others (Note: this is separate from caregiving, which is a long-term state of providing support and care to others. Here, it refers to acts of providing support or the extent see self as a giving person) Items reflecting feeling close to, spending time with, and feelings about parents Items reflecting feeling close to, spending time with, and feelings about teachers Items reflecting feeling close to, spending time with, and feelings about peers Items reflecting feeling close to, spending time with, and feelings about coworkers Items reflecting feeling close to, spending time with, and feelings about family Items reflecting feeling close to, spending time with, and feelings about significant others Negative relationships with others (e.g., hostile relationships, dislike of others, being excluded by others) Feelings of loneliness Other social relationship variables not included above
Happiness/ positive emotion	Trait happiness Valence/ exuberance Positive affect/ emotion Affect scales Other happiness	A measure of happiness that reflects trait-like characteristics (e.g., in general, how happy are you as a person) Items that reflect emotional value associated with a stimulus/ joyful enthusiasm (not part of a named scale) Words that reflect positive affect, emotion, or mood (e.g., happy, joyful, calm, relaxed) Scales that specifically measure positive affect (e.g., PANAS, general happiness questionnaire) Other happiness items not included above
Meaning/ purpose	Sense of meaning/ purpose Self-transcendence Connection to greater Other meaning	Subjective sense of having a reason for or purpose for life Process of going beyond our current limitations – spiritual concept Feeling connected to a cause or being greater than self Other measures of meaning, not included above
Life satisfaction	General life satisfaction Health satisfaction Relationship satisfaction Economic satisfaction Job satisfaction Satisfaction with life scale Satisfaction measures Other satisfaction	An overall sense of life satisfaction Rated satisfaction with health Rated satisfaction with relationship (e.g., marital satisfaction, friend satisfaction) Economic satisfaction (satisfaction with socioeconomic status) Rated satisfaction with job (or aspects of it) Diener 5 item scale Other full scales measuring life satisfaction Other items related to satisfaction, not included above
Negative Psychological Functioning		
Externalizing behaviors	Physical aggression Relational aggression Bullying Fighting Detention Acting out Juvenile delinquency Adult Criminal Behavior Arrests	Aggressive acts directed toward others (more common with boys) Aggressive acts through words or indirect means (more common with girls) Bullying or threatening others Indicators of fighting behavior Number of, frequency, or extent of receiving detention due to behavior General behaviors aimed at acting out toward others Adolescents - engaging in crime and other illegal activities: vandalism, theft Adults - engaging in crime and other illegal activities: vandalism, theft By the police

	<p>Incarceration</p> <p>Hostility</p> <p>Single item</p> <p>Other externalizing</p>	<p>Ever incarcerated? For how long? Why</p> <p>Hostile or angry attitudes or behaviors directed toward others</p> <p>Single items assessing violent, aggressive, anti-social, or other hostile behaviors</p> <p>Other externalizing behavioral or attitudinal items not included above</p>
Depression	<p>CES-D</p> <p>BDI</p> <p>Depression measures</p> <p>Single items</p> <p>Suicide</p> <p>Depression medication</p> <p>Depression diagnosis</p> <p>Bipolar disorder</p> <p>Bipolar medication</p> <p>Bipolar items</p> <p>Other depression</p>	<p>Specific measure of depression</p> <p>Beck depression inventory</p> <p>Full measures of depressive symptoms, other than the CES-D & BDI</p> <p>Single items assessing depressive symptoms (e.g., feeling depressed, sadness, down)</p> <p>Items or measures related to suicidal thought, behavior, or attempts</p> <p>Indication of medication taken to control depressive symptoms</p> <p>Diagnosis of depression (major, seasonal, dysphoria, postpartum)</p> <p>Diagnosis of bipolar disorder (combined mania and depression)</p> <p>Medication for bipolar symptoms</p> <p>Items assessing bipolar symptoms</p> <p>Other depression items not included above</p>
Anxiety	<p>Panic/ phobias</p> <p>Single items</p> <p>Anxiety measures</p> <p>Generalized anxiety</p> <p>Anxiety medication</p> <p>Anxiety diagnosis</p> <p>Other anxiety</p>	<p>Measures or items about or diagnosis of panic attacks and specific phobias</p> <p>Single items assessing anxiety symptoms (e.g., heart racing, feeling anxious)</p> <p>Full measures of anxiety symptoms</p> <p>Items or diagnosis of generalized anxiety disorder</p> <p>Indication of medication taken to control anxiety symptoms</p> <p>Diagnosis of anxiety</p> <p>Other anxiety-related items not included above</p>
Stress reactions	<p>Somatic reactions</p> <p>Physiological response</p> <p>Psychological reactions</p> <p>Single items</p> <p>Nervous breakdown</p> <p>PTSD</p> <p>Other stress reactions</p>	<p>Reported physical reactions to stress (e.g., stomach cramps, headaches, tight muscles, feeling sick, trembling) – note that these are reactions to stress, not general measures (if general, include in physical category above)</p> <p>Physiological measures of stress (e.g., cortisol, body temperature, heart rate) – note that these are specifically used as a response to a stressor, not general measure of (if general measure, include in physical categories listed above)</p> <p>Subjective perceptions of stress</p> <p>Single items assessing reactions to or feelings of stress</p> <p>Evidence of full nervous breakdown due to stress</p> <p>Measures of or diagnosis of post traumatic stress disorder</p> <p>Other reactions to stress, not included above</p>
Other psychopathology	<p>ADHD</p> <p>Psychiatric condition</p> <p>Psychiatric treatment</p> <p>Psychiatric evaluation</p> <p>MMPI</p> <p>Psychiatrist</p> <p>Psychologists</p> <p>Psychiatric hospitalization</p> <p>Eating Disorders</p>	<p>Attention deficit disorder or other problems paying attention</p> <p>Existence of psychopathology (other than depression, anxiety, and others listed); e.g., schizophrenia, personality disorder, OCD</p> <p>Medication, therapy, or other treatment for a psychiatric condition</p> <p>General evaluation of psychopathology (not diagnosis)</p> <p>Minnesota multi-phasic inventory – common measure of psychopathology</p> <p>Visits to psychiatrist or doctor for medicinal treatment</p> <p>Visits to psychologists or other mental health professional for counseling or therapy</p> <p>Hospitalization or in-patient treatment for mental problems, including drug or alcohol rehab</p> <p>Eating extremely small amounts of food or severely overeating; spiraled out of control. Severe distress/concern about body weight or shape.</p>

	Other psychopathology	Other items related to psychopathology, not included above
Negative Affect	Affect scales Negative affect/ emotion Other negative affect	Scales that specifically measure negative affect (e.g., PANAS) Words that reflect negative affect, emotion, or mood (e.g., sad, depressed, bad, angry) Other negative affect items not included above
Health Behaviors		
Diet/ nutrition	Diet behavior Food frequency General nutrition Special diet Specific foods Other diet	Are you following a diet to gain or lose weight? Follow one in the past How often eat various foods Vitamins, supplements, minerals, herbs, feelings about nutrition in general Indicator of special diet (e.g., high fat, low fat, low carb, vegetarian/vegan, paleo, Mediterranean, Atkin's, South Beach, Weight watchers) Food checklist Other diet-related questions or measures, not included above
Physical activity	Activity classification Activity participation Aerobic fitness Duration Frequency Intensity Leisure time activities Measured fitness Work activity Other activity	Classification of how active the person is: low, medium, high Sport and other activity participation Self or other reports of fitness When exercise, for how long How often engage in activities Intensity of activities (low, moderate, vigorous) Free response or checklist of activities done in leisure time Physiological measures of fitness (e.g., fitness test Work related physical activity Other activity related measures, not included above
Sleep	Daytime sleepiness Feeling rested Hours sleep Measurement Naps Quality Sleep disruptions/disorders Trouble sleeping Other sleep	Troubles with sleepiness during the day How rested feel, awake feeling rested Hours typically sleep per night; time falling asleep/ waking Polysomnography (test used to check for sleep disorders) Takes naps, frequency of naps Quality of sleep (rated overall quality of sleep) teeth grinding (bruxism), night terrors, insomnia, hypersomnia, narcolepsy, restless leg syndrome, sleep apnea, sleep paralysis, nocturia Self-reported problems sleeping (falling asleep, staying asleep, waking too early) Other sleep related measures, not included above
Tobacco/ smoking	Dependency Frequency Problems Quantity Smoking status Tobacco use status Treatment Other tobacco	Assessment of addiction or dependency on tobacco How often smoke or use tobacco-related products Occurrence of problems due to tobacco use How much smoke or use tobacco-related products, packs per day or year Current smoker, smoked in past, non-smoker Use of tobacco currently or in the past (other than smoking) Attempts to quit, experiences with, indicators of treatment for tobacco problems Other measures or items, not included above. Note: if there is a detailed assessment of smoking or tobacco use, code the main items into the above categories, and note that there are additional detailed items, rather than include all variants here.

Drug use	<p>Dependency Drug use status Frequency Problems Quantity Treatment Type Other drug</p>	<p>Assessment of addiction or dependency on drugs Current user, past use, never use How often use drugs Problems experienced due to drug use How much use illicit drugs Attempts for, experiences with, indicators of treatment for drug problem Type of drugs used (illegal drugs) Other measures or items, not included above. Note: if there is a detailed assessment of illicit drug use, code the main items into the above categories, and note that there are additional detailed items, rather than include all variants here.</p>
Alcohol	<p>Alcohol use status Binge drinking Dependency Frequency Problems Quantity Treatment Type Other alcohol</p>	<p>Current drink, past drink, never drink Indicators of binge drinking (5+ drinks at one time) Assessment of addiction or dependency on alcohol How often consume alcohol Problems experienced due to alcohol use How much alcohol consumed when drink Attempts for, experiences with, indicators of treatment for alcohol problems Type of alcohol consumed (beer, wine, spirits) Other measures or items, not included above. Note: if there is a detailed assessment of alcohol use, code the main items into the above categories, and note that there are additional detailed items, rather than include all variants here.</p>
Sexual behavior	<p>Condom use Homosexuality Knowledge Partners Prevalence Safe sex practices Teenage pregnancy Other sexuality</p>	<p>Use of condoms Homosexual or bisexual orientation and experiences Sex education classes, other assessment of knowledge about safe practices Number of partners or people having sex with Engagement in sexual behavior, abstinence Safe sex practices other than condom use: contraceptive pill, immunization (HPV), STI testing, sexual health checkups Indicators of teenage pregnancy Other sex related behaviors or measures not included above Note: if there is a detailed assessment of sex behavior, code the main items into the above categories, and note that there are additional detailed items, rather than include all variants here.</p>
Other behaviors	<p>Driving behavior Flu vaccine General medical checkups Immunizations Risky activities Skin protection Teeth care Other risky behaviors Other protective behaviors</p>	<p>Indicators of safe or risky driving (e.g., seatbelt use, driving under the influence, speeding, # accidents) Flu and pneumonia vaccinations (e.g., do they get an annual vaccine) Frequency of visiting doctor as a general check up (i.e., not in response to illness); when last physical exam performed (if results of last physical or reason for last physical go to “physical exam”) Records and indications of immunizations (measles, tetanus, etc.) Engagement in activities that are inherently dangerous (e.g., sky diving, rock climbing, bungee jumping) Behaviors to protect skin (sunscreen use, avoiding sun, wear long sleeves, use hat) or place at risk (tanning, frequency of burning) Care for teeth (frequency of brushing, flossing, use of mouth rinse, visiting dentist for cleaning (note: under physical health, code indicators of state of teeth & diseases related to teeth or gums. Here code behaviors done to protect teeth.)) Other risky behaviors, not included above Other protective behaviors, not included above,</p>

Individual differences		
Intelligence	Crystallized intelligence Emotional intelligence Fluid intelligence General intelligence IQ quotient IQ tests Perceived intelligence Scholastic aptitude Specialized intelligence Other intelligence	Gc: the breadth and depth of a person's acquired knowledge, the ability to communicate one's knowledge, and the ability to reason using previously learned experiences or procedures ability, capacity, skill or, a self-perceived ability to identify, assess, and control the emotions of oneself, of others, and of groups Gf: broad ability to reason, form concepts, and solve problems using unfamiliar information or novel procedures Specific measure of G, or general intelligence (e.g., Raven's progressive matrices) IQ quotients available (M = 100, SD = 150) Common intelligence tests: WAIS intelligence exam, Stanford-Binet, Kaufman Assessment Battery for children (Note: for item variants, note test or measure, not every item on the test) Perceived intelligence, as rated by self, teacher, or other Closely related to intelligence. Include SSAT, SAT, ACT, GRE, LSAT, MCAT, GMAT Multiple types of intelligence (logical, linguistic, spatial, musical, kinesthetic, interpersonal, intrapersonal, naturalist and existential) Other intelligence or ability related items, not included above (Note: use categories above, unless something seemingly important is missing. Otherwise, exclude item)
Coping Style	Accommodative Disengagement Escape Expressing negative emotion Focus on thought Meaning-focused Proactive Problem-focused Self-soothing Other coping	Aimed at adapting or adjusting to effects of the stressor (e.g., slowing down with age – recognize this and allow more time for things) Disengaging from situation or stressor (e.g., quitting job to get out of a very stressful position) Type of emotion focused coping that is aimed at minimizing distress triggered by stressors by escaping (e.g., avoidance, denial, wishful thinking) Type of emotion focused coping that is aimed at minimizing distress triggered by stressors by expressing negative emotion (e.g., yelling, crying, hitting a pillow) Type of emotion focused coping that is aimed at minimizing distress triggered by focuses on thought (e.g., rumination, mindfulness) Reordering priorities and adding positive meaning (e.g., after a heart a attack, recognizing that you didn't spend time with you children. You reprioritize, and value the attack) Problem-focused accumulation of resources specifically to prevent threatening or harmful circumstances from arising (e.g., expecting a layoff, so you save money & apply for jobs; hurricane expected so you get extra supplies and board up windows) Directed at the stressor itself: taking steps to remove or to evade it, or to diminish its impact (e.g., upcoming stressful exam, so you cancel social plans and spend extra time studying) Type of emotion focused coping that is aimed at minimizing distress triggered by stressors by self-soothing (e.g., relaxation, seeking social support) Other coping variables not included above (Note: use the above categories and otherwise exclude, unless there is something important missing)
Temperament	Infant classification TC nine characteristics	Group classification: easy, slow to warm up, or difficult child Characteristics proposed by Thomas and Chess: activity (physical energy), regularity (level of predictability in biological functions), initial reaction (positive/negative response to new people/environments), adaptability (length of time needed to adjust to changes in environment), intensity (energy level of pos/neg response to a situation), mood (general tendency towards a happy/unhappy demeanor), distractibility (tendency to be sidetracked by other things in environment), persistence & attention span (length of time and ability to stay with a task through frustrations), and sensitivity (ease of

	Temperament measure	disturbance by changes in the environment) Full measure of temperament (e.g., EAS temperament scale, Colorado Child Temperament Inventory, Lab-TAB, TBAQ, Temperament Assessment Battery for Children, Cloniger's Temperament and Character Inventor)
	Other temperament	Other temperament variable, not included above
Personality	Big Five Inventory	44 item inventory of the big 5 (OCEAN; John & Owens)
	Eysenck Personality Scales	Three-trait, biological based measure (extraversion, neuroticism, psychoticism)
	IPIP	International personality item pool (includes thousands of personality items – people will select scales and items from this)
	NEO-PI-R	Major measure of the big 5 (Costa & McCrae)
	Other personality scales	Other scales measuring personality (e.g., Cattell 16 PFQ (16 trait measure), rigidity scale, Zuckerman sensation seeking scale)
	Type A Behavior	Type A interview; A versus B behavior pattern
	Self-regulation measures	Measures of self-control, self-regulation, or impulsivity (e.g., delay of gratification tasks, discount delay task, go/no-go, Wisconsin card sort, trail making, Eysenck impulsiveness scale, Dickman impulsivity inventory, Barratt impulsiveness, EASI-III impulsivity, child behavior-checklist, Conners rating scale, self-control rating scale, California Q-set,)
	Self-control items	Single items related to self-control/ self-regulation or impulsivity (ability to control one's emotions, behavior and desires in order to obtain some reward later, and is the capacity of efficient management to the future; e.g., self-control, self discipline, self regulation, delay of gratification, delayed gratification, gratification delay, impulsive, impulsivity, impulsiveness, impulse control, emotional regulation, emotion regulation)
	Agreeableness items	Single items related to agreeableness (cooperative considerate, empathetic, generous, or kind; links in some ways to C and N. Lower order facets include antagonism, prosocial behavior, and possibly cynicism/ alienation)
	Conscientiousness items	Single items related to conscientiousness (involves being responsible, careful, attentive orderly, and planful. Lower-order facets include self-control, attention, achievement motivation, orderliness, responsibility, and conventionality)
	Extraversion items	Single items related to extraversion (includes a tendency for positive emotions, sensitivity to potential rewards, and a tendency to evoke and enjoy social attention. Lower-order facets include social inhibition (shyness), sociability, dominance, and energy/activity)
	Intellect/ Openness items	Single items related to intellect/ openness to experience (involves active imagination, aesthetic sensitivity, attentiveness to inner feelings, preference for variety, and intellectual curiosity)
	Neuroticism items	Single items related to neuroticism/ emotional stability (includes tendency to experience the world as distressful or threatening, and may include self-esteem, locus of control, and self-efficacy. Lower-order facets include anxious distress and irritable distress)
	Other personality	Other variables related to personality, not included above (Note: code into categories above, otherwise exclude, unless seemingly important to include)
Self-esteem	Global extent	In reference to the person as a whole (feelings of worth, firm beliefs)
	Particular dimension	In reference to a particular aspect (body image)
	Rosenberg scale	Rosenberg self-esteem scale (1965) – a commonly used 10 item scale
	Self-esteem scales	Self-esteem scales other than Rosenberg scale
	Single items	Single items on self-esteem (e.g., self-worth, self-regard, self-respect, self-integrity, self-love)
	Other self-esteem	Other variable related to self-esteem, not listed above (use categories above and otherwise exclude, unless seemingly important to include)
Socio-Environmental Factors		
Socio-	Census grouped occupation	Census code ratings of occupation level (7 different classifications)

economic status	<p>Composite SES</p> <p>Education</p> <p>Family size</p> <p>Housing</p> <p>Investment income</p> <p>Occupation</p> <p>Parent education</p> <p>Parent occupation</p> <p>Perceived SES</p> <p>Size of home</p> <p>Social class</p> <p>Total family income</p> <p>Work-related income</p> <p>Financial Hardship</p> <p>Other SES</p>	<p>Composite measure of SES (summary of other items)</p> <p>Total attained education (Note: use summary items when possible)</p> <p>Size of family living in house, number of children/ siblings living in house</p> <p>Type of housing (e.g., apartment, house, condo, shared home)</p> <p>Income from investments</p> <p>Individual's occupation (listed or coded as different values)</p> <p>Parent's total education</p> <p>Parent's occupation</p> <p>Person's perception of SES (e.g., enough money for needs, satisfaction with income)</p> <p>Indicators of status based on home: size of home, number of rooms, number of cars, size of home library</p> <p>Rating of upper, middle, lower social class</p> <p>Total family income (based on work, investments, and other income)</p> <p>Measures of work-related income (self or family)</p> <p>Items indicating receiving outside help, or not being able to pay for bills</p> <p>Other SES measures not included above (Note: use categories above, otherwise exclude, unless seemingly important)</p>
Parenting	<p>Parenting style</p> <p>Parent type</p> <p>Primary caregiver</p> <p>Time together</p> <p>Education involvement</p> <p>Homeschooling</p> <p>Use of punishment</p> <p>Other parenting</p>	<p>Main style: authoritarian, authoritative, permissive, neglectful</p> <p>Single parent, grandparent raises child, foster parent, step parent</p> <p>Who takes primary care of child</p> <p>Time spent with child (e.g., family dinners, playing together)</p> <p>Involvement in child's education (e.g., help with homework, classroom involvement by parent)</p> <p>Home schools child</p> <p>Beliefs regarding punishment, verbal/ physical punishment, use of time outs</p> <p>Other variables related to parent, not included above (Note: use categories above, otherwise exclude, unless important missing item)</p>
Caregiving	<p>Help with ADLs</p> <p>Help with IADLs</p> <p>Hours of care</p> <p>Housing situation</p> <p>Paid position</p> <p>Recipient of care</p> <p>Other caregiving</p>	<p>Help individual with activities of daily living (e.g., bathing, dressing, eating)</p> <p>Help individual with instrumental activities of daily living (e.g., household chores, finances, provide transportation, manage medications)</p> <p>Time spent providing care</p> <p>Housing situation for recipient (e.g., lives with provider, care facility)</p> <p>Paid or unpaid position</p> <p>Who provide care for (e.g., spouse, family member, friend, parent)</p> <p>Other variables related to caregiving, not included above (Note: use categories above, otherwise exclude, unless important missing item)</p>
Neighborhood	<p>Access to healthy food</p> <p>Access to parks</p> <p>Crime</p> <p>Neighborhood safety</p> <p>Noise</p> <p>Toxins</p> <p>Walkability</p> <p>Other neighborhood</p>	<p>Distance to stores, availability of affordable healthy food</p> <p>Parks and other green spaces in neighborhood</p> <p>Amount of crime in neighborhood</p> <p>How safe neighborhood feels</p> <p>Amount of noise in neighborhood</p> <p>Environmental toxins (e.g., pollutants, smog, garbage, sewage, clean water)</p> <p>Ratings of how walkable neighborhood is (e.g., availability of trails and sidewalks, easy access to stores)</p> <p>Other neighborhood items, not included above (Note: use the categories above, otherwise exclude, unless seemingly important)</p>

Victimization/ abuse	<p>Frequency of abuse General experiences of victimization Seeing crime Seeing others victimization Source of abuse Type of abuse Other victimization</p>	<p>How often victimization or abuse has occurred Questions on overall experiences Seeing crime occur (not participating) Seeing others victimized or abused Who victimized or abused participant Types of abuse noted (physical, emotional, sexual) Other victimization items not included above (use categories above and exclude others, unless seemingly important)</p>
Life events	<p>Checklist of life events Rated events Children Divorce Divorce of parents Graduation Loss of child Loss of family member Loss of friend Marriage Natural disaster Parental death Spouse death / widowhood Unemployment Work environment Other life events</p>	<p>Scales with a checklist or other lists of life events (e.g., social readjustment rating scale) Life events and difficulty scale or similar, which look at individual events in detail and raters indicate the stressfulness of the situation Number of children Participant's divorce or separation Divorce by parents in childhood Year of graduation; graduation status Loss of child Loss of family member Loss of friends Marital status Occurrence of natural disasters Mother, father, or primary caretaker death Spouse death or note of widowhood status Unemployment, losing job Ratings of work environment (supportive, stressful, amount of control) Other life event items not included above (use categories above, otherwise exclude, unless seemingly important)</p>
Environment	<p>Work: psychological Work: physical Work: relationships School: psychological School: physical Home: psychological Home: physical Other environment</p>	<p>Psychological aspects of the work environment (e.g., level of control, level of demand) Physical aspects of the work environment (Note: we are not really interested in this, so exclude, unless there are items that are meaningful for building stress or well-being) Relational aspects of the work environment (e.g., how well get along with co-workers, tension at work) Psychological aspects of the school environment (Note: code first for other categories listed above. If seems relevant as a stressor or to build well-being, then include, otherwise exclude) Physical aspects of the school environment (e.g., size of school, urban vs. rural, # children in class) Psychological aspects of the school environment (Note: see if this fits into relationship category. Otherwise, exclude, unless is meaningful) Physical aspects of the home environment Other environment items not included above (use categories above and exclude others, unless seemingly important)</p>

PART 5: ADDITIONAL CODING NOTES

- Parent connectedness: usually includes variables that have assess someone's opinion or attitude towards parent relationships
- Parent Time together: includes variables examining activities or events (and the frequency) of which parent and child engage in together
- Sensory ear (hearing experiences): included other reports of these experiences, because some children in studies are too young to report.
- Healthcare utilization: Some questions that ask specifically about going to a "ear doctor", this was included in healthcare utilization and not under the physical domain itself.
- Some questions ask about tiredness or being worn out in the depression/ sadness context. These items will be placed under both negative affect and general pain/fatigue
- Depression and negative affect have similarities. However, for items under depression we will include those that tend to be in depression scales.
- Other psychopathology: also includes question on whether received any psychological, psychiatric, social worker help + personality disorder scales
- Learning enjoyment vs. interest distinction:
 - Learning enjoyment specifically about attitude and feelings towards school and certain subjects
 - Interest: interest towards diverse things, including boredom in class.
- How does he feel about school – different moods: put under environment – school (tired, stimulated, anxious, frightened)

Supplement 2 - Description of Studies in the TADPOHLS Database

STUDY LISTING

Abbr*	Study Name	Page
Studies with data available		
AHCE	Adolescent Health Care Evaluation Study	1
ESDS	British Birth Cohort Study – 1958 cohort	1
ESD2	British Birth Cohort Study – 1970 cohort	1
FTP	Family Transitions Project	2
HLSU	Harlem Longitudinal Study of Urban Black Youth, 1968-1994	2
NLSA	National Longitudinal Study of Adolescent Health	3
NLS2	National Longitudinal Survey of Youth – 1997 Cohort	3
NLSC	National Longitudinal Survey of Youth – NLSY79 child & young adult	3
NLSY	National Longitudinal Survey of Youth – 1979 Cohort	3
NSHD	British Birth Cohort Study – 1946 cohort	1
TBSS	The Beginning School Study	4
TLCS	Terman Life Cycle Study	4
WCFA	Welfare, Children, and Families: A Three City Study	4
YTP	Youth in Transition Project	5

* Note. Abbr = our abbreviation used in paper and tables

STUDY DESCRIPTIONS

Study name:	Adolescent Health Care Evaluation Study, 1984-1991 (AHCE)
PI:	Felton J. Earls
Website:	http://dvn.iq.harvard.edu/dvn/dv/mra/faces/study/StudyPage.xhtml?globalId=hdl:1902.1/00915
Description:	The Adolescent Health Care Evaluation Study began as an assessment of the efficacy of a healthcare improvement program that targeted high-risk adolescents (Felton, 1992). Between the years of 1984 and 1991, adolescents attending clinics disseminating this program participated in four waves of structured comprehensive interviews. Specific to the third and fourth wave, special attention was given to understanding how HIV risk changes as adolescents transition into adults.
Study name:	British Cohort Studies:
	National Survey of Health and Development (1946 British Birth Cohort Study) (NSHD)
	1958 British National Child Development Study: 1958 Birth Cohort (NCDS) (ESDS)
	1970 British Cohort Study (ESD2)
PI:	Diana Kuh

Website:	http://www.nshd.mrc.ac.uk/default.aspx http://www.esds.ac.uk/longitudinal/access/ncds/133004.asp http://www.esds.ac.uk/longitudinal/access/bcs70/133229.asp
Description:	<p>The first British Birth Cohort study, the National Survey of Health and Development (NSHD) started in 1946 (Kuh, Pierce, & Adams, 2011). Over 5,000 children born in the UK during March of that year were included in the initial sample. Since then, these individuals have had the opportunity to participate in 23 follow-ups spanning the course of 66 years. The next birth cohort, The National Child Development Study (NCDS) started in 1958, and initially included over 17,000 children (Power & Elliot, 2006). This study followed children from birth to age 51 over a course of nine follow-up sessions. Data are available through the Centre of Longitudinal Studies (CLS). The third birth cohort, The 1970 British Cohort Study, also followed approximately 17,000 individuals over nine measurement occasions (Elliott & Shepherd, 2006). Collectively, the broad goal of these studies was to understand development across the lifespan.</p>
Study name:	Family Transitions Project (Iowa Youth and Families Project, 1989-1992) (FTP)
PI:	Rand Conger and the Carolina Population Center
Website:	https://transitionsproject.ucdavis.edu
Description:	<p>Rand Conger from Iowa State University began the Family Transitions Project in 1989 to investigate the impact of the farm crisis of 1970 (Wickrama, Conger, & Wallace, 2003). In one of the most intensive studies of rural families, researchers collected data from 451 two-parent families from eight north central counties of Iowa. The families were chosen on the criteria that they had two children, one who was attending 7th grade in 1989. The original sample was measured annually for 4 years and subsequently four more times until 2000. In 1991 a sample of 107 single-parent families were added to the sample, furthermore, 900 grandparents were also added to the study in 1994. Over 500 families participated up until 2000 and gave valuable insight into resilience and health after crisis.</p>
Study name:	Harlem Longitudinal Study of Urban Black Youth, 1968-1994 (HLSU)
PI:	Ann F. Brunswick
Website:	http://dvn.iq.harvard.edu/dvn/dv/mra/faces/study/StudyPage.xhtml?globalId=hdl:1902.1/00845
Description:	<p>In 1968 Ann Brunswick at Columbia University started a longitudinal study following 668 African-American participants ages 12-18 who resided in central Harlem, NY (Brunswick & Messeri, 1986). The participants were measured on health status, drug use, education, family relationships and socio-environmental factors. During the 26 years the participants were followed there were five measurement periods. In 1989 follow-up the focus of the study shifted from drug use to HIV education, awareness and exposure. The final waves of the study included blood samples in addition to an array of physical and mental health questionnaires.</p>

Study name:	National Longitudinal Study of Adolescent Health (Add Health) (NLSA)
PI:	J. Richard Udry, Kathleen Mullan Harris
Website:	http://www.cpc.unc.edu/projects/addhealth
Description:	The United States started an initiative lead by J. Richard Udry, Kathleen Mullan Harris, and a team of co-investigators, to follow a nationally representative sample of students in 1994. Over 27,000 students were recruited as 7-12th graders, and subsequently followed-up during four different occasions, ending when the participants were between the ages of 24-32 (Udry, 2003). During these follow-up in-home interviews, data were collected on physical health, well-being, ill-being, and socio-environmental factors.
Study name:	National Longitudinal Surveys of Youth: 1979 Cohort (NLSY) National Longitudinal Survey of Youth 1997 (NLSY97), part of the National Longitudinal Surveys (NLS) program (NLS2) National Longitudinal Survey of Youth - NLSY79 child and young adult (NLSC)
PI:	U.S. Bureau of Labor Statistics
Website:	http://www.bls.gov/nls/nlsy79.htm http://www.bls.gov/nls/nlsy79ch.htm http://www.bls.gov/nls/nlsy97.htm
Description:	The original cohort of the National Longitudinal Survey of Youth was a nationally representative sample of 12,686 American men and women who were between the ages of 14-22 in 1979 (the NLSY79,1994). These participants were surveyed annually for the first 15 years of the study, and now are surveyed at biennial intervals. In all studies, between the years of 1979-2011, 24 data collections occurred. In 1997 a second nationally representative cohort was formed including approximately 9,000 adolescents between the ages of 12-16 (the NLSY97, 1997). Between 1997-2011, 14 rounds of data collection occurred. The primary focus for these cohorts was to understand labor force behaviors, however other relevant measures such as education, family, and health were also included. In 1986, a new cohort was formed on a continual basis as the women from the 1979 cohort began to have children (Children of NLSY79, 2002). For these children, data are collected biennially. Similar to the '79 and '97 cohorts, these children complete measures related to experiences with their family, education, and health. The '79 cohort data are public use through the year of 2008. The '97 cohort data are public use through the year of 2010. The child cohort data are publicly available through 2008. For each cohort, additional data will be released in Spring or Summer 2012.

Study name:	The Beginning School Study (BSS) (TBSS)
PI:	Karl L. Alexander, Doris R. Entwisle
Website:	http://dvn.iq.harvard.edu/dvn/dv/mra/faces/study/StudyPage.xhtml?globalId=hdl:1902.1/01293
Description:	Karl Alexander and Doris Entwisle began the study in 1982 with the intention of measuring Baltimore School children's personal and academic development (Alexander, Entwisle, & Olson, 1990). More specifically, the study was interested in what factors lead impoverished students to overcome their life circumstances and succeed. In order to collect this information, 838 students were randomly chosen from 1 st grade classrooms and given a variety of measures, including parent and teacher reports. Over the next 20 years participants were measured 8 more times; participants data provided valuable insight to academic achievement, self-esteem, socio-economical influences, family structure, and resilience.
Study name:	Terman Life Cycle Study (TLCS)
PI:	Lewis S. Terman (original; maintained by numerous others)
Website:	http://dvn.iq.harvard.edu/dvn/dv/mra/faces/study/StudyPage.xhtml?globalId=hdl:1902.1/00882&studyListingIndex=1_deb6f3344da1d0616905d449531f
Description:	Louis Terman began the Terman Life Cycle Study in 1922 with 1,470 children from California (Terman, Sears, & Cronbach, 1990). Participants were selected based on having an IQ of 135 or above. Although the study was founded to understand gifted children, it developed into a study tracking lifetime development. Besides cognitive ability, the study measured achievement, educational background, health, environment, and life circumstances. These measurements occurred every 5-years until 1986. In addition to measures obtained from participants, occasionally parents, spouses, siblings and teachers were included in data collection. Interested researchers must fill out an application to request access to these data from the Murray Archives.
Study name:	Welfare, Children, and Families: A Three City Study (WCFA)
PI:	Ronald J. Angel, Linda M Burton, P. Lindsay Chase-Lansdale, Andrew J. Cherlin, Robert A. Moffitt, William Julius Wilson
Website:	www.jhu.edu/~welfare
Description:	The Welfare, Children and Families study collected data from three major U.S. cities: San Francisco, Boston and Chicago (Winston, Angel, & Burton, 1999). The study began in 1999 with over 2,400 children and their families. The study followed children ranging from ages 0-14 all the way until 2006 when the participants were 5-20 years old. Three waves of data were collected measuring well-being in low income families. More specifically, the authors wanted to investigate strategies low-income families had used in response to the post-welfare era. Each wave consisted of an interview with the child's primary caregiver, who was often different at each measurement period. This data allows for essential insight into the welfare system and its affects on children's development into adulthood.

Study name:	Youth in Transition Project, 1966-1974 (YTP)
PI:	Jerald G. Bachman
Website:	https://www.icpsr.umich.edu/icpsrweb/ICPSR/studies/3505?paging.startRow=3426
Description:	Beginning in fall 1966, the Youth in Transition Project was a five-wave longitudinal study focused on the effects of different high school environments on adolescent boys. The study was a panel design, beginning with a cross-section of 10 th grade boys from across the United States. Panel members were followed for the next four years. Data include affective states, self-concepts, values, attitudes, plans, and behaviors. Most of the main dimensions were repeated at each occasion.

Appendix 3

Items used in illustrative study

Question	Domain
British Birth Cohort Study: 1958 Cohort (ESDS)	
At the ends of each line on the scale below are adjectives which could describe a child's personality or behavior, Please rate the study child of each of these scales: Lazy/Hard-working	Perseverance
I get on with class work	Perseverance
I never take work seriously	Perseverance
Have you suffered from or been told you had heart trouble in the last twelve months?	Heart conditions
These questions are concerned with how you are feeling generally. Does your heart often race like mad?	Heart symptoms
These questions are concerned with how you are feeling generally. Do you feel tired most of the time?	Fatigue
I'd like to ask you a few questions about your health. Firstly, how would you describe your health generally? Would you say it is...	General health
Family Transition Project (FTP)	
Compared to other kids, how well does (target) child complete school work or chores	Perseverance
Even when there are other interesting things to do, I keep up with my schoolwork	Perseverance
He or she is a hard worker	Perseverance
He or she is a productive person who always gets the job done	Perseverance
How well do you think you keep up with your school work	Perseverance
How well do you think your child (target) keeps up with his or her classes	Perseverance
I try hard at school	Perseverance
I usually finish my homework	Perseverance
Too often, when things go wrong, he or she gets discouraged and feels like giving up	Perseverance
Indicate how much of the time (during the past month) you: felt that the future looks hopeful and promising	Optimism
What happens to me in the future mostly depends on me	Optimism
I can do just about anything I really set my mind to	Optimism
I am able to do things as well as most other people	Optimism
Has living been a wonderful adventure for you	Optimism
There is little I can do to change many of the important things in my life	Optimism
I often feel helpless in dealing with the problems of life	Optimism
I have little control over the things that happen to me	Optimism
There is really no way I can solve some of the problems I have	Optimism
I have little control over the bad things that happen to me	Optimism
The really good things that happen to me are mostly good luck	Optimism
Feeling hopeless about the future	Optimism
During the past 12 months, have you learned of any health conditions or diseases that you have that significantly increase your chances of early death?	Heart conditions
Have you had problems with...Irregular heart beat	Heart conditions
Have you had problems with...Chest pain	Heart conditions

Question	Domain
Have you had problems with...hardening of the arteries	Heart conditions
Have you had problems with...Heart failure	Heart conditions
Have you had problems with...Blood clot in vessels	Heart conditions
Have you had problems with...Heart attack	Heart conditions
These questions are about how you feel and how things have been with you during the past four weeks. For each question, please give the one answer that comes closest to the way you have been feeling. How much of the time during the past four weeks... <u>Did you feel full of pep?</u>	Energy
These questions are about how you feel and how things have been with you during the past four weeks. For each question, please give the one answer that comes closest to the way you have been feeling. How much of the time during the past four weeks... <u>Did you have a lot of energy?</u>	Energy
How much have you felt or experienced each of the following during the past week. How much have you..... <u>Felt like you had a lot of energy?</u>	Energy
During the past week, including today, how much were you distressed or bothered by... <u>Feeling low in energy or slowed down</u>	Fatigue
These questions are about how you feel and how things have been with you during the past four weeks. For each question, please give the one answer that comes closest to the way you have been feeling. How much of the time during the past four weeks... <u>Did you feel worn out?</u>	Fatigue
These questions are about how you feel and how things have been with you during the past four weeks. For each question, please give the one answer that comes closest to the way you have been feeling. How much of the time during the past four weeks... <u>Did you feel tired?</u>	Fatigue
How would you rate your overall physical health?	General health
National Longitudinal Study of Adolescent Health (NLSA)	
In general, how hard do you try to do your school work well	Perseverance
During the 1994-95 school year, how often do you have trouble: Getting homework done	Perseverance
Since school started this year, how often have you had trouble: Getting homework done	Perseverance
When you get what you want, it's usually because you worked hard for it	Perseverance
You felt hopeful about the future	Optimism
You thought your life had been a failure	Optimism
Has a doctor, nurse or other health care provider ever told you that you have or had: heart disease	Heart conditions
Has a doctor ever told you that {fill in child's name} has any of these conditions: a chronic heart condition	Heart conditions
During the past 7 days, you felt that you were too tired to do things	Fatigue
In general, how is your health? (self-report)	General health
In general, how good is {fill child's name}'s health? (parent report)	General health
National Longitudinal Survey of Youth - 1997 Cohort (NLS2)	
After each statement, please indicate how much you agree ...	Optimism
In uncertain times, I usually expect the best. (younger than 14)	

Question	Domain
After each statement, please indicate how much you agree ... I'm always optimistic about my future.	Optimism
After each statement, please indicate how much you agree ... I rarely count on good things happening to me.	Optimism
After each statement, please indicate how much you agree ... I hardly ever expect things to go my way..	Optimism
Thinking only of the past 4 weeks...did you have a lot of energy?	Energy
In general, how is your health?	General health
National Longitudinal Survey of Youth - 1979 Child and Young Adult (NLSC)	
There's no way I can solve the problems I have	Optimism
Sometimes I feel I am being pushed around in life	Optimism
I have little control over what happens to me	Optimism
I can do just about anything I really set my mind to	Optimism
I often feel hopeless in dealing with the problems of life	Optimism
What happens to me in the future mostly depends on me	Optimism
There is little I can do to change important things in my life	Optimism
Health conditions or limitations - heart trouble	Heart conditions
How often in the past four weeks have you had a lot of energy?	Energy
Description of present health	General health
Terman Life Cycle Study (TLCS)	
Desire to excel	Perseverance
Will power and perseverance	Perseverance
Incidence of heart problems	Heart conditions
Adult self-rated health: 1940	General health

Note. To harmonize data across studies, perseverance and optimism were standardized and averaged to create composite scores. Health outcomes were combined and dichotomized (heart conditions: 0 = no conditions, 1 = one or more conditions; energy, self-rated health, fatigue: 0 = low, 1 = high).