Alberta Cancer Board

PAST YEAR TOTAL PHYSICAL ACTIVITY QUESTIONNAIRE

USERS' GUIDE

Prepared by Ruth Ullman MSc, Research Associate
Heather Neilson MSc, Research Associate
Christine Friedenreich, PhD, Research Scientist

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Contact Information: Christine Friedenreich, Division of Population Health and Information, Alberta Cancer Board, Calgary, Alberta, Canada, T2N 4N2, tel: 403-521-3841, FAX: 403-270-8003; e-mail: chrisf@cancerboard.ab.ca

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INTRODUCTION

The Users' Guide for the Past Year Total Physical Activity Questionnaire has been developed to provide practical assistance to users of the self-administered questionnaire. The Guide is a companion to two other documents: the blank PYTPAQ in pdf form and a completed PYTPAQ in pdf form that illustrates how the guidelines are used to code and analyze a 'typical' questionnaire returned by a study participant.

The following guidelines were developed by *The Tomorrow Project*, also known as the Alberta Cohort Study[1], being conducted by the Alberta Cancer Board, for use in coding the self-administered *Past Year Total Physical Activity Questionnaire*. To date, nearly 18,000 adults aged 35-69 have completed this questionnaire in this cohort study. The questionnaire has also been used in other research studies being conducted by Dr. Friedenreich and has undergone an extensive reliability and validation testing in a study that has now been published.[2]

The guiding principle of the coding guidelines developed here is to enable data to be captured as accurately as possible while minimizing the amount of personal follow-up with the study participants. Approximately 30% of the questionnaires completed in *The Tomorrow Project* have required personal follow-up by telephone to obtain missing data or to clarify responses. In some cases (<5%) the whole questionnaire was administered by telephone.

The Users' Guide includes the following sections:

CODING GUIDELINES: This section provides step-by-step procedures for coding the questionnaires. The guidelines should be reviewed by investigators prior to use and adapted as appropriate.

DEFAULT VALUES FOR MISSING VALUES: A summary of the default values used in research studies at the Alberta Cancer Board. It is important to note that the guidelines were developed for studies that include adult men and women living in a "northern" climate. Accordingly the values included here may not be appropriate for a study being conducted with participants who live in a different climate, for example a climate with a longer summer and shorter winter.

OCCUPATIONAL CODES: This chart includes the most common occupational and volunteer activities reported in *The Tomorrow Project*; it *serves* as a practical tool to use in coding the questionnaires. The MET values are derived from the Physical Activity Compendium 2000.

RECREATION AND LEISURE CODES: This chart includes the most common recreational and leisure activities reported in *The Tomorrow Project*; it serves as a practical tool to use in coding the questionnaires. The MET values are derived from the Physical Activity Compendium 2000.

PHYSICAL ACTIVITY COMPENDIUM 2000: This chart is derived from the Compendium of Physical Activities first published in 1993 and revised in 2000[3,4]. The first column called

PAQ Codes refers to the unique codes used in studies at the Alberta Cancer Board. Investigators could also choose to use the Codes assigned in the Compendium, found in the second column.

GUIDE TO DATA ANALYSIS: This final section provides directions on how to calculate and analyze the data from the PYTPAQ. The examples are based on the information from the completed questionnaire that accompanies the Users' Guide.

CODING GUIDELINES

GENERAL CODING GUIDELINES

This section provides general guidelines that could be taken into consideration when coding the questionnaire. The questionnaire is coded by hand and then entered into a software program. At the Alberta Cancer Board, we have used the software program, Blaise®, however other comparable programs could be used instead.

- Code each questionnaire prior to data entry, according to the instructions provided in the coding sections below.

- Make all marks on questionnaires in red pen.

- If you move an activity to another page, note "To page 5" (for example).

- If you delete an activity, draw a line through the whole row, using a ruler and write 'delete'.

- Read the Comments section at the end of the questionnaire on page 11. If there are activities listed here that were not listed on pages 3-9, enter them as appropriate, if there is sufficient information, or call the participant for more information if warranted.

- Discuss ambiguous entries as a group; new coding guidelines may be developed.

- If a PAQ is returned completely blank, contact the participant. If the person has no activity because of disability, confinement to a wheelchair etc. record that information on the cover.

- Contact the participant when one or more of the <u>following conditions</u> is/are met:

  o One or more missing, ambiguous or questionable information fields, particularly if it may represent significant energy expenditure. Note that in some cases, we will enter data for one field, if a common-sense response is apparent.

  o 2 or more 'blank pages.'

  o A questionnaire is returned completely blank. Attempt to complete the questionnaire by phone.

- If information is corrected after contact with the participant, enter correct information in red on the form, with your initials and the note: "By Phone".

- <u>No follow-up</u> will be done if a PAQ has:

  o One missing or ambiguous field, if a common sense value can be entered.

  o One blank page (we will assume there was nothing relevant to enter.)

Training and Quality Assessment

- When starting to use the PAQ in a new setting, 'group coding' is useful - i.e. each person in a group codes the same set of questionnaires and then the coding decisions are compared and discussed. This practice should be continued until the coding is being done accurately and consistently.

- Training: when a new staff person begins coding, a supervisor checks every form until the 'error' rate is less than 5% (i.e., less than 1 error per 20 forms).

- On-going assessment: A supervisor reviews the coding of all questionnaires prior to telephone follow-up to ensure that phoning is necessary, that all issues have been noted and to assess the quality and consistency of coding.

- Double data entry – a 10% sample of questionnaires is entered twice to evaluate the accuracy of the data entry process.

SPECIFIC CODING GUIDELINES

Watch for questionnaires with a very large number of hours or activities recorded. The general guideline is **14 hours per day maximum per section** and **16 hours per day overall**, averaged over one year. There may be exceptions but these should be confirmed with the participant.

Page 1 – Cover

- A comment is entered to account for a completely blank PAQ or one with very limited data, in the case where the person has indicated that they are physically disabled and have no or very little physical activity.

Page 3 – Employment & Volunteer Activities

- Read the instructions on Page 2 and the top of Page 3 of the questionnaire. Use these guidelines to ensure that Page 3 has been filled in correctly. Ensure that all of the fields are filled in.

- The *Job Title* should indicate either paid employment or a volunteer position. This section would include farmers and students but not homemakers or stay-at-home parents; if these latter two types of activities are listed on this page, move these activities to Page 7 (household section) if they are not already listed there.

- This section is the only one that allows activities done while seated.

- Ensure that the total number of months, days, and hours for each activity and the total numbers for the combined employment activities make sense. Participants sometimes 'double count' their hours of work. If the answer does not make sense or totals more than 14 hours per day, clarify with the participant.

- In addition, ensure that the listed activities make sense. For example, a trucker should have listed 'driving' as an occupation. Watch for balance in the MET levels and if you think the final activity level will be too high or too low for your understanding of the job, refer the questionnaire to a supervisor.

- *Note: There is an overall 16-hour total daily maximum as a guideline. If necessary, revisit page 3 and consider the 'whole picture' after coding pages 5, 7 and 9. If the hours exceed what common sense would tell you, refer to a supervisor.*

- Bi-weekly is assumed to be every two weeks.

- Note that the Physical Intensity Level (PIL) Guide is only a guideline for assessing the relative intensity levels within activities and for *choosing which code to use when there is a range of possible codes.* Do not change a respondent's self-assessed Physical Intensity Level, other than for the following reasons:

  o If the respondent completes the Physical Intensity Level field with a range of 2 levels (e.g. 3-4), always choose the lower of the values and code accordingly. If a range of more than 2 levels is given, choose the mean level.

  o If the person only records standing/walking activities, but records a PIL of 1, change it to a PIL of 2.

  o Similarly, if the person only lists seated activities, but records a PIL of 2, change it to a PIL of 1.

- Watch for entries of volunteer activities that likely occur less than once a week, e.g., canvassing, bingo, casinos, board meetings etc. <u>Portions of months</u> are recorded as follows:

  o one day per month = .25 days per week
  o two days per month = .5 days per week
  o three days per month = .75 days per week

- If a person enters a frequency of 7, it is reasonable to assume it means 7 times per week unless there is evidence to the contrary. If in doubt, check with the participant.

- Code up to 6 of the Main Physical Activities for each position using the codes from the "Occupational Codes" sheet. If more than 6 activities are listed, refer to a supervisor for a decision on what the main activities would be.

- If an activity is not listed on the sheet, but can be found in the Physical Activity Compendium and you feel it is appropriate, check with a supervisor about adding the activity to the sheet. If the decision is not to add an activity, the *Compendium of Physical Activities* is still a useful reference in choosing a code that is close to a given activity. If there are no jobs listed that are close to what the participant recorded, try to read into what they would do or refer to a supervisor.

- Note that you cannot use the code number assigned to recreation activities for occupational coding and visa versa. If a recreation code needs to be used for an occupational activity, a new *specific* code number needs to be assigned.

- In general, if there is an overall 'blanket' (i.e., general) code for an activity such as coaching, use the 'blanket' code. For example, a coach might record that he/she skates, walks and runs. Code this as a "coaching" activity. Another option is to code each activity separately, but make sure they present the 'whole picture' accurately. For example, coaching hockey should not just include 'skating'; in this case, you may wish to add another activity called "coaching" in order to balance the heavy activity level of just skating. Other examples of times to use 'blanket' codes include bakery worker, custodian, and farmer.

- Watch for entries that have likely over-estimated energy expenditure. For example a volunteer hockey coach may enter 'play hockey' as his only activity, when it is likely that he also stands, walks, kneels etc. Refer to a supervisor for a decision on ways to reduce the activity to a more appropriate level.

- If a person gives one generic activity, e.g. 'helping husband to farm' with 2 PILs, you may wish to assign 2 codes to the activity, assuming that there are 2 codes to choose from, as in the case of farming, that correspond to the different PILs listed.

- **"Carrying**" is a <u>walking</u> activity. Use the PIL to choose which code (80 - 85) is most appropriate.

- **"Bending**" or "**lifting**" are <u>standing</u> activities. Again, use the PIL to choose which code (50-53) is most appropriate.

- **"Crawling**" is a <u>walking</u> activity according to the PIL (Codes 70-72)

- **"Kneeling"** is a <u>standing</u> activity according to the PIL (Codes 50-53).

- **"Throwing"** is a <u>standing</u> activity according to the PIL (Codes 50-53).

- **"Hauling" or "pulling" are** <u>walk and carry</u> activities according to the PIL (Codes 80-85).

- "**Pulling wrenches"** is a **standing** activity - likely code 52.

- **Walking on the job**: code according to the PIL, using codes 70-72. Most walking will be self assessed as a PIL of 2 or 3 and will be coded as 71. Exceptions with very light or very vigorous walking will be coded as 70 or 72.

- **Sitting while driving:** Code according to the <u>job description</u> rather than the PIL.

  o Code driving of vehicles at work as a **40** when the driving probably involves driving a **car** to **meetings** or as part of **sales** etc.

  o Use code **41** for driving vehicles at work when the occupation likely involves lifting and using a vehicle **heavier than a car. This would include driving heavy equipment at work.**

  o Code 'driving' for a **farmer** as **41** (moderate sitting) unless otherwise specified because it is assumed the farmer is driving a truck or tractor.

  o If the farmer specifies driving a **tractor,** use code **100.**

- Use code **118** when the person specifically states they drive a **heavy truck** (heavier than a pick-up truck) or a **bus.**

- Other decisions:

  - **Babysitting** for grandchildren etc. - code as an occupation when it occurs in a regular pattern (at least once per week). If the activities are just occasional, transfer to the Household page.

  - **Care-giving/assistance of a household family member:** if nursing care is involved, (bathing, dressing, feeding etc.) leave on occupation page. If just assistance with household activities, move to household page. Maximum of 12 hours per day.

  - **Feeding horses** – use code 81 as a walk and carry activity.

  - **Fencing** is a common farming activity. If the person indicates 'building fences', use the **walk and carry codes** (80-85). If the person just records 'fencing' or 'fence repair', use the **standing codes** (50-53).

  - **Grocery shop** (as an occupation) **–** use 'walk and carry' codes 80-85 according to the PIL.

  - **Hammering** – use the carpentry code, 116.

  - **Home aide/personal care aide** – Use code 18 if it includes things like bend, stretch, carry.

  - **Home power tools –** use code 126 for a PIL of 2-3; use code 53 for a PIL of 4.

  - **Home school mom/dad –** not accepted as occupation, therefore move to household page as child care, depending on what they recorded there.

  - **Instructing Tai Chi:** Use Standing Code according to PIL.

  - **"Jumping" as for a soccer coach –** use the standing code according to the PIL.

  - **"Maintenance"** – use "Standing Codes" 51-53 according to PIL.

  - **Singing** in a choir, **directing** a band, playing a **musical instrument** while standing, or acting in a play in this section – use the **standing** codes and the PIL as a guide. (These are considered either paid or volunteer activities, but are kept on this page, regardless.)

  - **'Stairs' or 'climb stairs' or 'climb ladders'** - cross off and rewrite as two separate activities: **walk upstairs** (code 87, MET 8) and **walk downstairs** (code 134, MET 3). This coding will have the effect of lowering the METs for code 87. The rationale is that 'what goes up must come down.' Be careful not to let the 'climb stairs' entry be too much of the total activity, keeping in mind what you know of the nature of the job.

- In the Tomorrow Project, we decided to use the following <u>default values for missing fields</u>. Any other investigator using this questionnaire can decide whether or not to use the following values:

  - **Board meeting:** 1 meeting per month - 3 hours per meeting (Enter as 12 months a year, 0.25 days per week, 3 hours per day.)

  - **Bingo volunteer:** 1 day per month - 4 hours per day (Enter as 12 months a year, 0.25 days per week, 4 hours per day.)

  - **Canvasser:** 1 day per year - 2 hours per day. (Enter as 1 month, 0.25 days per week, 2 hours per day.)

  - **Care giving** of family members: 12 hours if missing - 14 hours maximum.

  - **Casino volunteer: 1** day per year – 4 hours per day (Enter as 1 month, 0.25 days, 4 hours per day.)

  - **Volunteer firefighter:** 12 months per year, 0.5 days per week, 2 hours per day.

  - **Workday:** 8 hours

Page 5 – Walking and Biking to and from employment and volunteer activities

- Read the instructions on Page 4 and the top of Page 5 of the questionnaire. Use these guidelines to ensure that Page 5 has been filled in correctly.

- Note that the duration is recorded in <u>minutes</u> per day. Duration should include both directions. If unclear, confirm with participant, especially if the duration is fairly long.

- Cross-check with page 3 to ensure that there are no entries for jobs that were not listed on page 3.

- Delete entries in which the person seems to indicate that they walk AT work, rather than TO work. Common examples for this include volunteer canvassers and farmers.

- Also cross-reference with the recreation page to ensure that walking or cycling to and from work is not double counted.

- Refer to a supervisor if there are 2 or more hours per day spent walking or biking to work.

- Use the *recreation codes* for "Type of activity", e.g. the codes for walking, running, biking, in-line skating etc., based on the PIL.

- Use a new line if the type of transportation changes over the course of one year. For example a person may bike to work for 4 months, walk for 2 months and drive with a 10 minute walk from their car for 5 months. Each of these modes of transport should be recorded on a separate line.

- In the Tomorrow Project, we decided to use the following <u>default value for missing fields</u>. Any other investigator using this questionnaire can decide whether or not to use the following value:

  o **Walk 1-2 blocks to work**: 5 minutes

Page 7 – Household & Do-It-Yourself Activities

- Read the instructions on Page 6 and the top of Page 7 of the questionnaire. Use these guidelines to ensure that Page 7 has been filled in correctly.

- If the respondent completes the Physical Intensity Level field with a range of 2 levels (e.g. 3-4), always choose the lower of the values. If a range of more than 2 levels is given, choose the mean level.

- Only activities with a PIL of 2, 3 or 4 can be recorded on this page. Seated activities should be deleted.

- If an activity is recorded that is clearly a standing activity, but the person has given it a PIL of 1, change the PIL to 2.

- Ensure that the activities listed on this page are different from the activities on page 3. This check is particularly important for people who report things like care giving and farming – activities that can blend together in their lives.

- Childcare of a person's own children belongs on this page as does occasional babysitting of grandchildren etc. Again, watch for overlap of activities.

- Ensure that the total number of months, days, and hours for each activity and that the total numbers **in combination with the occupational activity on page 3 and recreational activity on page 9 make sense and do not exceed the 16-hour maximum for daily activity.** If the answers do not make sense, or add up to too many hours, refer to a supervisor.

- **Do not code the activities in the Type of Activity column – the column just provides the participants with a way to organize their thoughts**.

- Some household activities are recorded as 'seasonal', for example painting window frames, washing walls. Refer to a supervisor for frequency decision.

- Include feeding the dog/pet/birds etc. in this category.

- Include amateur radio hobby activities on this page.

- Include 'home schooling' on this page.

- "Hobbies", i.e., non-sporting activities like woodworking or gardening or instrument playing done standing should be listed on this page and not on page 9.

- **These default values for missing fields were developed for the Tomorrow Project and can be used by other investigators at their own discretion:**

    o Childcare: 12 hours per day if missing, maximum of 14 hours per day.
    o General housework: Use PIL of 2. No default values for frequency or duration as too variable and needs to be clarified with participant
    o Mow grass: 5 months per year, 1 day per week and 1 hour per day.
    o Laundry: 12 months per year, 1 day per week, 1 hour per day
    o Snow shoveling: 5 months per year, 2 days per month (0.5 days per week) and 0.5 hours per day.
    o Yard work: 7 months per year, 1 day per week and 2 hours per day.

Page 9 – Recreation & Leisure Activities

- Read the instructions on Page 8 and the top of Page 9 of the questionnaire. Use these guidelines to ensure that Page 9 has been filled in correctly.

- Only one activity can be entered on each line in this section. If the person enters up to three activities on one line, separate them and assign the amount of time proportionately. For example, if the person writes "Snow shoeing/cross country skiing *4 months per year*, 1 day per week, 4 hours per time, create 2 entries: 1. Snow shoeing *2 months per year*, 1 day per week, 4 hours per time and 2. Cross country skiing *2 months per year*, 1 day per week, 4 hours per time. Note that only 1 frequency is divided in half but the other frequency and duration are left as entered.

- If there are more than 3 activities listed on one line, use the *Combined Activity* codes, according to the average of the MET levels of the activities, with reference to the PIL.

- Code the Recreation & Leisure Activities that the respondent has listed according to the Recreation and Leisure Codes reference sheet. If an activity is not listed, but can be found in the Physical Activity Compendium and you feel it is appropriate, check with a supervisor about adding the activity to the sheet.

- Note that you cannot use the code number assigned to occupations for recreation activities and vice versa. If an occupation code needs to be used for recreation, a new *specific* code number needs to be assigned.

- The Months per Year column should be left blank if the Frequency information specifies that the activity happens "x days per year".

- If the respondent completes the Physical Intensity Level field with a range of 2 levels (e.g. 3-4), always choose the lower of the values to assign the code. If a range of more than 2 levels is given, choose the mean level.

- Ensure that the total number of months, days, and hours for each activity and that the total numbers for the activities in combination with employment and household activities make sense – if not, clarify with participant. (Keep in mind the guidelines of 14 hours per day maximum for this section and 16 hours per day overall.)

- Use the *'general'* code for a given activity if the person does not give enough information to be able to choose a more specific code from that category.

  o For example, for '**golfing**', choose 'golfing general, walking and carrying clubs, code 49' unless the person specifies something like 'golfing using a power cart' or 'golfing pulling clubs'.

  o If '**aerobics**', choose 'aerobics, general', code 1 unless the person specifies high, low or step aerobics.

  o Other common 'general codes' such as **fishing**, general' are highlighted.

  o If a person indicates they take part in a sport that has a competitive level, such as **badminton or soccer or swimming**, use the **general or casual** codes unless the word 'competitive' is recorded.

- When coding an activity that has more than one possible level of activity with *PILs assigned,* code the activity according to the Physical Intensity Level (PIL) given by the respondent, rather than by the 'general' code. Specifically, this coding refers to the following categories:

  o Arts and crafts
  o Bicycling
  o Bicycling, stationary
  o Calisthenics
  o Horseback riding
  o Hunting
  o Rowing machines etc.
  o Skating, ice
  o Skiing, cross country
  o Skiing, downhill
  o Swimming
  o Volleyball
  o Walking
  o Weight lifting

Other recreation decisions and guidelines:

- **Accordion playing and karaoke singing:** Use the very light combined code 169.

- **Air hockey:** code as 137 for ping-pong.

- **Aqua karate**: code as Aquacize, 160.

- **Arts and crafts** codes 201, 202 and 203: Use for *standing* recreational activities such as painting, making metal sculptures etc. (Keep 'around the home/shop' activities like woodworking or hobbies such as amateur radio activities in the Household/Do-it- Yourself category). Note: the arts and crafts codes are only used for activities that must be done **standing.** Do not include activities such as quilting, sewing, crocheting unless the participant states she does one in a standing position.

- **Ball:** Assume it refers to 'softball or baseball'

- **Ball exercise:** Use calisthenics according to the PIL.

- **Bird watching**: Use a slow walking code (145)

- **Bocci ball**: Use lawn bowling, code 103.

- **Bones games** (non-seated): Use children's games, code 27 or consider a combined code.

- **Camping combinations**: If someone writes 'fishing/camping 10 days a year, 4 hours a day', handle as follows. Assign a code for 'fishing' at 10 days a year, 4 hours a day. In addition, add a line for 'camping' and assign a camping code at 10 days a year, 8 hours a day (12 hours maximum for camping minus the 4 hours of fishing). This splitting of the information provided gives the person credit for the camping part. Note: assign a PIL of 2 for the new camping line.

- **Cardio**: Use the "aerobics" code.

- **Climbing stairs:** Follow the same rule as for 'stair master/treadmill'. If the PIL if 3-4 or 4, use code 130. If the PIL is less, assign a walking code.

- **Combined Activity Codes:** Use for activities that include a range of movements that are not easily classified. Very light = MET 2; light = MET 4; moderate = MET 6 and heavy = MET 8.

- **Cross training**: Use circuit training.

- **"Curves"**: Use code 28 for "circuit training".

- **Cycling** or **bicycling**: are not stationary unless specified.

- **Dancing:** Use code 33 for 'dancing, general' unless the type of dancing is specified.

- **Dog walking:** Use the walking codes according to the PIL. Use 191 for all other playing with animals.

- **Ergometers** (all stationary exercise machines except for treadmill, Stairmaster and Nordic trainers, which have their own codes): An example is the "Gazelle". Use stationary ergometers, codes 83-85, according to the PIL.

- **Exercise:** Use either the Calisthenics codes or Health club exercise general, depending on how long the person exercises for. As a guideline, if the interval is 15 minutes or less, use the Calisthenics codes, according to the PIL.

- **Fly remote planes:** Use a walking code according to the PIL.

- **Foosball:** Use the combined codes, according to the PIL.

- **Gazelle:** Use Stationary Ergometer, according to PIL codes 83-85.

- **Health walker:** use treadmill with same rules according to the PIL.

- **Hockey:** If ice, floor or field is not specified, assume that it is ice hockey, code 61. Include shinny hockey.

- **Home gym or keep fit class**: Use Health Club exercise general, 58.

- **House boating:** Delete unless the person provides enough information to assign another code.

- **Interval training:** Use circuit training.

- **Kite flying:** Use combined code

- **Physiotherapy:** Refer to a supervisor. If enough information is provided, may consider coding with a "combined" code.

- **Playing with children:** Belongs on the household page unless there is a specific sport involved, in which case use Children's games, code 27.

- **Rebounder:** Use trampoline

- **Riding:** Assume it refers to horseback riding.

- **Ringette:** Use ice hockey.

- **Roller blading:** Use the 183 code (MET of 12.5) only if the person indicates a PIL of 4. Otherwise, code as 'skating, roller" code 109 if the person gives a PIL of 2 or 3.

- **Running:** Use code 95 unless a specific speed is recorded.

- **Scrambling:** Use rock climbing.

- **Shopping** as a recreational activity: Code as 145, walking at a slow pace with a PIL of 2.

- **Skiing**: Use Skiing, general, code 110 unless downhill or cross country is specified. Nordic skiing = cross-country.

- **Strollercize**: Use Jogging general code 68

- **Swimming:** Use codes 133-135 according to PIL. Code 136 would be used for competitive swimming and will only be used when competition is specified.

- **Tae Bo:** Use code 3 for high impact aerobics.

- **Telemarking:** Use downhill skiing code, according to the PIL.

- **Treadmill or Stairmaster**, use the 130 code (MET of 9) only if the person indicates a PIL of 3 - 4 or 4. Otherwise, code as a 'walking' activity according to the PIL, i.e., treadmill with PIL of 2 is 145 and treadmill with PIL of 3 is 146.

- **Tubing:** Use Combined light 170

- **Vacationing:** Do not code unless the person provides enough information to assign a walking code.

- **Water slides:** Use Combined light 170.

- **Water sports:** Use Combined code according to PIL

- **Winter survival camping** with a high PIL: Use orienteering.

- **Default values for missing fields that were used in the Tomorrow Project that can be used by other investigators at their discretion:**

    o 2 days/season: 2 days per year or 4 days per year depending on 'seasonality' of the activity. If unsure, put in review box

    o Camping: 12 hours per day if missing and maximum.

    o Golf: 5 months per year

    o Golf game (# holes not specified): 3 hours

    o Golf game 9 holes (2 hours)

    o Golf game 18 holes (4 hours)

    o Hiking 'all day': 8 hours

    o Just started: 1 month

    o Occasionally: 1 day per month

    o Weight lifting: 0.5 hours

Pg 9 - Tell Us What You Think and Comments

- Enter the number that is circled. If there isn't a number selected, leave the field blank. There is no need to telephone the respondent if this question is blank.

- In general, comments are not entered. If a comment is written that accounts for no or minimal activity, requires a response or may be of interest to the study, show it to a supervisor.

Conversion of minutes to hours

Number of minutes	Proportion of hour
5 minutes	0.08 hours
10	0.17
15	0.25
20	0.33
25	0.42
30	0.50
35	0.58
40	0.67
45	0.75
50	0.83
55	0.92
60	1.0

DEFAULT VALUES FOR <u>MISSING</u> DATA*

ACTIVITY	DEFAULT VALUE
OCCUPATION/TRANSPORTATION:	
Board meeting	1 meeting per month / 3 hours per meeting
Bingo volunteer	1 day per month/ 4 hours per day
Canvasser (volunteer)	1 day per year / 2 hours per day
Care giving of family members	12 hours
Casino worker (volunteer)	1 day per year / 4 hours per day
Volunteer firefighter	12 months per year, 0.5 days per week, 2 hours per day.
Workday	8 hours
Walk 1-2 blocks to work	5 minutes
<u>HOUSEHOLD</u>	
Childcare	12 hours per day
General housework	Use a PIL of 2 if missing – no default values for months, weeks, days or hours as too variable
Mow grass	5 months per year, 1 day per week, 1 hour per day
Laundry	12 months per year, 1 day per week, 1 hour per day
Yard work	7 months per year, 1 day per week, 2 hours per day
Snow shoveling	5 months per year, 0.5 days per week, 0.5 hours per day
<u>RECREATION/LEISURE</u>	
2 days/season	2 days per year or 4 days per year, depending on 'seasonality' of activity.
Camping	12 hours per day
Golf	5 months per year
Golf game (# holes not specified)	3 hours
Golf game 9 holes	2 hours
Golf game 18 holes	4 hours
'Just started'	1 month
Hiking all day	8 hours
Occasionally	Once per month
Weight lifting	0.5 hours
NOTE:	**Maximum hours per day of activity averaged over the year = 16**
	<u>Maximum hours per section averaged over the year = 14</u>

*These values can be substituted for <u>missing</u> data provided they make sense in the context of the other information the participant has provided. If in doubt, contact the participant for clarification.

OCCUPATIONAL CODES

Description of Occupational Activity	Code	Met Level	PIL Guide
Aerobics, teaching	171	6.0	3-4
Bakery, general, moderate effort	120	4.0	3
Bakery, light effort	121	2.5	2
Basketball, officiating	132	7.0	4
Bending, light (Use Standing - light)	50	2.3	1-2
Bending, light/moderate (Use Standing - light/moderate)	51	3.0	2
Bending, moderate (Use Standing - moderate)	52	3.5	3
Bending, moderate/heavy (Use Standing - moderate/heavy)	53	4.0	4
Bicycling, on the job	5	4.0	3-4
Bookbinding	150	2.3	2
Building road, hauling debris, driving heavy machinery, **coal mining,** general	122	6.0	3-4
Camping	137	2.5	2
Canoeing	140	3.5	
Carpentry, general, hammering	116	3.5	2-3
Carrying, moderate loads up stairs, moving boxes (16-40 lbs)	11	8.0	4
Carrying, heavy loads, such as bricks	10	8.0	4
Carrying, small children	15	3.0	2-3
Carrying, all other **(Use Walking),** Codes 80, 81, 83,or 85 according to PIL			
Child care, sitting/kneeling - dressing, bathing, feeding, occ. lifting, light effort, **general**	16	2.5	2
Child care, standing- dressing, bathing, grooming, feeding, occ. lifting, light effort	17	3.0	2
Chop wood, split logs	170	6.0	3-4
Coaching, football, soccer, basketball, baseball, swimming, hockey, teach phys ed, softball officiating	67	4.0	3
Construction, outside, remodeling	117	5.5	3-4
Crawling, Use Walking or crawling on the job 70, 71 or 72 according to PIL			
Custodial work, cleaning sink, toilet, dusting, vacuuming, chambermaid, making bed (nursing), light effort	25	2.5	2-3
Custodial work, general cleaning, mop/sweep, moderate effort	26	3.5	3-4
Dancing on job, (in classroom or day care)	119	4.5	3
Elder care, disabled adult, only active periods, **Home aide**	18	4.0	2-3
<u>**Electrical work**</u> (also used for Plumbing)	123	3.5	2-3
Farming, driving tractor or harvester, cutting hay, light effort	100	2.5	1-2
Farming, chasing cattle or working cattle (walking or horseback), feeding small animals, moderate effort	101	4.0	3
Farming, taking care of animals (grooming, brushing, shearing sheep, assisting with birthing, medical care, branding)	124	6.0	4
Farming, baling hay, cleaning barn, poultry work, forking, vigorous effort	102	8.0	4

Description of Occupational Activity	Code	Met Level	PIL Guide
Feeding horses (Use Walking – moderately, carrying light objects)	81	4.0	2
Firefighter, (use for active work when responding to fire) **general**	125	12.0	4
Forestry, sawing, power	151	4.5	3
Forestry, ax chopping, slow	154	5.0	3-4
Forestry, ax chopping, fast	155	17.0	4
Forestry, general	152	8.0	4
Furriery	156	4.5	2
Gardening, mowing lawn (riding mower), walking, applying fertilizer or seeding a lawn	165	2.5	2
Gardening, picking flowers, fruits, vegetables, picking fruit off trees, riding snow blower	166	3.0	2
Gardening, trimming shrubs or trees, power cutter, using leaf blower, edger	167	3.5	2
Gardening, general, rake lawn, sack grass, leaves	164	4.0	2-3
Gardening, planting seedlings, shrubs, trees, operating snow blower, walking, weeding, cultivating garden	168	4.5	2-3
Gardening, clearing land, hauling branches, wheelbarrow chores, digging, spading, filling garden, composting, laying sod	169	5.0	3
Gardening, mow lawn general, walk, power mower	163	5.5	3
Gardening with heavy power tools, tilling a garden, chain saw, mowing lawn, hand mower	170	6.0	3-4
Gym classes, general	162	5.5	3
Hiking	136	6.0	3-4
Hauling, use Walk and Carry Codes 80, 81,83,85			
Home aide/personal care aide	18	4.0	2-3
Horseback riding, training horses, **general**	62	4.0	2
Horseback riding, trotting, training horses	63	6.5	3
Horseback riding, galloping, rodeo, training horses	64	8.0	4
Horse grooming	157	6.0	3
Kneeling, light (Use Standing - light)	50	2.3	1-2
Kneeling, light/moderate (Use Standing - light/moderate)	51	3.0	2
Kneeling, moderate (Use Standing - moderate)	52	3.5	3
Kneeling, moderate/heavy (Use Standing - moderate/heavy)	53	4.0	4
Lifting, light (Use Standing - light)	50	2.3	1-2
Lifting, light/moderate (Use Standing - light/moderate)	51	3.0	2
Lifting, moderate (Use Standing - moderate)	52	3.5	3
Lifting, moderate/heavy (Use Standing - moderate/heavy)	53	4.0	4
Loading/Unloading truck, part of a truck driver's tasks (standing)	115	6.5	3-4
Loading, carrying or stacking wood, loading/unloading or carrying lumber	169	5.0	3
Locksmith	141	3.5	2-3
Machine tooling, operating lathe, **welding, home power tools**	126	3.0	2-3
Masonry work, concrete	142	7.0	3-4
Masseur, masseuse (standing)	143	4.0	2-3
Moving, pushing heavy objects, 75 lbs or more (desks, moving van work, etc.)	20	7.5	4

Description of Occupational Activity	Code	Met Level	PIL Guide
Personal care aide/home aide	18	4.0	2-3
Plumbing, (also used for Electrical work)	123	3.5	2-3
Playing with children, only active periods, moderate	110	4.0	2-3
Playing with children, only active periods, vigorous	111	5.0	3-4
Police, riding in a squad car	146	1.3	1
Police, driving a squad car	145	2.0	1
Police, directing traffic	144	2.5	2
Police, making an arrest	147	4.0	3
Running, with a backpack	89	15.0	4
Running, general	95	8.0	4
Shoe repair, general	148	2.5	1-2
Shoveling, digging ditches	30	8.5	4
Shoveling, less than 10 lbs/min, light, shovel snow by hand	31	6.0	2
Shoveling, 10-15lbs/min, moderate	32	7.0	3
Shoveling, more than 16 lbs/min, heavy	33	9.0	4
Sitting, light office work, lab work, light hand tools, meetings, talking involved, light assembly/repair, typing, keyboarding, computer, driving to meetings, **general**	40	1.5	1
Sitting, moderate, heavy levers, riding mower/forklift, crane operation, driving vehicle, tractor, operating heavy equipment, teaching stretching or yoga	41	2.5	1
Sitting, driving **heavy** truck, bus	118	3.0	1
Soccer	138	7.0	3-4
Skating, pro	68	9.0	4
Skiing, general	139	7.0	
Standing or lifting or kneeling or bending**,** (bartending, store clerk, filing, xeroxing, assembling, hair dressing) **light**	50	2.3	1-2
Standing or lifting or kneeling or bending**,** assemble/repair heavy parts, welding, stocking, packing boxes for moving, auto repair, patient care (as in nursing), setting up chairs/furniture, **light/moderate**	51	3.0	2
Standing or lifting or kneeling or bending**,** assembling at a fast rate, lifting 50 lbs**., moderate**	52	3.5	3
Standing or lifting or kneeling or bending**,** lifting more than 50 lbs, masonry, painting, paper hanging, continuous lifting (10-20 lbs) with limited walking/rest, **moderate/heavy (Home power tools if PIL of 4)**	53	4.0	4
Steel mill, general (i.e. hand rolling, merchant mill rolling)	149	8.0	4
Swimming, general	133	6.0	3-4
Tailoring, cutting, machine sewing, **general**	127	2.5	2
Tools, using heavy power tools, e.g. pneumatic tools, jackhammers, drills, etc.	60	6.0	3-4
Tools, using heavy tools, not power tools, e.g. shovel, pick, tunnel bar, spade	61	8.0	4
Walking or crawling on job**,** <2.0 mph, strolling, very slow	70	2.0	1
Walking or crawling on job**,** <3.0 mph, not carrying anything, moderate	71	3.3	2-3

Description of Occupational Activity	Code	Met Level	PIL Guide
Walking or crawling on job**,** <3.5 mph, not carrying anything, brisk walking	72	3.8	4
Walking slowly**, carrying** light objects <25 lbs	80	3.0	1
Walking moderately**, carrying** light objects <25 lbs, pushing a wheelchair, light	81	4.0	2
Walking briskly, **carrying** light objects <25 lbs	82	4.5	2-3
Walking or walking downstairs or standing, **carrying** objects about 25-49 lbs, moderate, fencing for farmers & ranchers	83	5.0	3
Walking or walking downstairs or standing, **carrying** objects about 50-74 lbs.	84	6.5	3-4
Walking or walking downstairs or standing, **carrying** objects about 75-99 lbs, heavy	85	7.5	4
Walking or walking downstairs or standing, **carrying** objects about 100 lbs and over	86	8.5	4
Walking, upstairs, **climbing** up a ladder	87	8.0	4
Walking, downstairs	134	3.0	2
Walking, military pace, marching rapidly	88	6.5	4
Water polo	153	10.0	4
Working out (as part of job, e.g., police)	135	5.5	3-4
Wrestling	159	6.0	3
Volunteer, cleaning church etc.	131	3.0	2-3
Volunteer, preparing food at church etc.	129	2.0	2
Volunteer, serving food at church etc.	128	2.5	2
Volunteer, washing dishes/cleaning kitchen at church etc.	130	2.3	2

RECREATION AND LEISURE CODES

Description of Exercise/Sports Activity	Code	MET level
Aerobics, ge neral, cardio	**1**	**6.5**
Aerobics, jazzercize, slimnastics	198	6.0
Aerobics, low impact	2	5
Aerobics, high impact, Tae Bo	3	7
Aerobics, step 6-8" step	196	8.5
Aerobics, step 10-12" step	197	10.0
Animals, run/play (not walk dog)	191	4
Aquacize, water calisthenics, treading water, moderate	160	4
Archery (non-hunting)	4	3.5
Arts and crafts, standing, light PIL2	201	1.8
Arts and crafts, standing, **moderate** PIL3	202	3.0
Arts and crafts, standing, **vigorous** PIL4	203	3.5
Backpacking	5	7
Badminton, general, social	**6**	**4.5**
Badminton, competitive	7	7
Basketball, game	8	8
Basketball, nongame, general	**9**	**6**
Basketball, shooting baskets	10	4.5
Basketball, wheelchair	11	6.5
Baton twirling, playing instrument in marching band	207	4.0
Bicycling, light PIL2	12	4
Bicycling, moderate effort PIL3	13	8
Bicycling, vigorous effort PIL4	14	10
Bicycling, stationary, general PIL2	15	7.0
Bicycling, stationary, moderate effort PIL3	16	7
Bicycling, stationary, vigorous effort PIL4	17	10.5
Billiards	18	2.5
Boating, power	167	2.5
Bowling	19	3
Boxing, in ring, general	**20**	**12**
Boxing, punching bag	21	6
Boxing, sparring	22	9

Description of Exercise/Sports Activity	Code	MET level
Broomball	182	7
Calisthenics, light or moderate (home exercise, going up and down from floor, general, ball exercises) **PIL 2-3**	23	3.5
Calisthenics, heavy or vigorous (pushups, pullups, situps, jumping jacks) **PIL3- 4**	24	8
Camping	189	2.5
Canoeing, rowing for pleasure, general	**199**	**3.5**
Canoeing, on camping trip	25	4
Canoeing, rowing, in competition, or crew or sculling	26	12
Cheerleading	209	4.0
Children's games (hopscotch, 4-square, dodgeball, playground apparatus, t-ball, tetherball, marbles, jacks, arcade games)	27	5
Circuit training, general with aerobics & some min rest, circuit, curves, interval	**28**	**8**
Coaching (football, soccer, basketball, baseball, swimming, etc.)	29	4
Combined, uncoded activity, **v. light** PIL2	169	2.0
Combined, uncoded activity, **light** PIL2	170	4.0
Combined, uncoded activity, **mod.** PIL3	171	6.0
Combined, uncoded activity, **heavy** PIL4	172	8.0
Cricket (batting, bowling)	30	5
Croquet	31	2.5
Curling, floor curling	32	4
Dancing, general, (Greek, Middle Eastern, Flamenco, belly, swing)	**33**	4.5
Dancing, slow (ballroom dancing such as foxtrot, waltz)	34	3
Dancing, fast (disco, folk, square, line, Irish step, polka, country)	35	4.5
Dancing, (ballet or modern, jazz, tap, twist, jitterbug)	192	4.8
Darts, wall or lawn	36	2.5
Deepwater running or water jogging	161	8
Diving	37	3
Drag racing, pushing or driving a car	38	6
Fencing	39	6
Fishing, sitting (fishing from a boat)	40	2.5

Description of Exercise/Sports Activity	Code	MET level
Fishing, general	**195**	**3**
Fishing, standing (fishing standing from a riverbank)	41	3.5
Fishing walking (fishing from a riverbank and walking)	42	4
Fishing, in stream (in waders)	43	6
Fishing, ice	200	2
Football, competitive	44	9
Football, touch, flag, general	**45**	**8**
Football / baseball, playing catch	46	2.5
Frisbee playing, general	**47**	**3**
Frisbee, ultimate	48	8
Golf, walking and carrying clubs, general	**49**	**4.5**
Golf, walking and pulling clubs	50	4.3
Golf, miniature, driving range	51	3
Golf, using power cart	53	3.5
Gymnastics, general	54	4
Gym classes, general	162	5.5
Hacky Sack	188	4
Handball, general	55	12
Hang gliding	57	3.5
Health club, exercise, general	58	5.5
Hiking, cross country	59	6
Hockey, field, hand	60	8
Hockey, floor	186	8
Hockey, ice, Ringette	61	8
Horseback riding, PIL2	62	4
Horseback riding, trotting PIL3	63	6.5
Horseback riding, rodeo, galloping PIL4	64	8
Horseshoe pitching	180	3
Hunting, light effort, pistol shooting, trap shooting PIL2	65	2.5
Hunting, moderate effort PIL3	**66**	**5**
Hunting, heavy effort PIL4	67	6
Jogging, general, strollercize	**68**	**7**
Jogging / walking combination (jogging less than 10 minutes)	69	6

Description of Exercise/Sports Activity	Code	MET level
Judo, jujitsu, karate, kick boxing, tae kwon do	70	10
Kayaking	71	5
Kickball	72	7
Lacrosse	73	8
Majorette, drum major in marching band	208	3.5
Moto-cross	74	4
Motor cycling	166	2.5
Orienteering, winter survival camping	75	9
Paddleball, competitive	76	10
Paddleball, casual, general, pickleball	**77**	**6**
Paddleboat	78	4
Pilates	205	5.5
Polo	79	8
Power Yoga	206	5.5
Quading , off roading, ATV, dirt bike	187	3
Racketball, competitive	80	10
Racketball, general, casual	**81**	**7**
Rock or mountain climbing, scrambling	82	8
Rollerblading, in-line skating PIL4 (For PIL2 or 3, use skating, roller code)	183	12.5
Rope jumping, moderate, general	**194**	**10.0**
Rowing, stationary ergometer, glider, elliptical trainer, light effort PIL2	83	3.5
Rowing, stationary ergometer, glider, elliptical trainer, moderate effort, PIL3	84	7
Rowing, stationary ergometer, glider, elliptical trainer, vigorous effort PIL4	85	8.5
Rugby	86	10
Running (12 minutes/mile)	87	8
Running (11.5 minutes/mile)	88	9
Running (10 minutes/mile)	89	10
Running (9 minutes/mile)	90	11
Running (8 minutes/mile)	91	12.5
Running (7 minutes/mile)	92	14
Running (6 minutes/mile)	93	16
Running, cross country	94	9

Description of Exercise/Sports Activity	Code	MET level
Running, general	**95**	**8**
Running, up stairs	96	15
Running on a track, team practice	97	10
Running, training, pushing a wheelchair	98	8
Sailing, boat and board sailing, windsurfing, ice sailing, general	**100**	**3**
Sailing, in competition	101	5
Scuba diving, general	102	7
Shuffleboard, lawn bowling, bocci ball	103	3
Skateboarding	104	5
Skating, ice (slow, less than 9mph) **PIL2**	105	5.5
Skating, ice, moderate **PIL3**	106	7
Skating, ice (fast, > 9mph) **PIL4**	107	9
Skating, speed, competitive	108	15
Skating, roller or **rollerblading**, light or moderate **(PIL 2 or 3)**	109	7
Skiing, general	**110**	**7**
Skiing, cross-country (slow or light effort, ski walking) **PIL2**	111	7
Skiing, cross-country (moderate speed and effort) **PIL3**	112	8
Skiing cross-country (vigorous effort, brisk speed) **PIL4**	113	9
Skiing, cross-country (racing)	114	14
Skiing, downhill (light effort) **PIL2**	**115**	**5**
Skiing downhill or snowboarding (moderate effort) **PIL3**	116	6
Skiing, downhill (vigorous effort, racing) **PIL4**	117	8
Ski jumping (climb up/carry skis)	118	7
Ski machine, general (e.g., Nordic trainer)	119	7
Sky diving	120	3.5
Sledding, tobogganing, bobsledding, luge	121	7
Snorkeling	122	5
Snow shoeing	123	8
Snowmobiling	165	3.5
Soccer, competitive	124	10
Soccer, casual, general	**125**	**7**

Description of Exercise/Sports Activity	Code	MET level
Softball or baseball, fast or slow pitch, general	**126**	**5**
Softball, officiating	127	4
Softball, pitching	128	6
Squash	129	12
Stair-treadmill ergometer, vigorous, healthwalker, stairclimber **PIL4 or 3-4** (For PIL 2 or 3, use walking code)	**130**	**9**
Stretching mild, hatha yoga, deep breathing	131	2.5
Surfing, body or board	132	3
Swimming, leisurely, **PIL2**	133	6
Swimming, moderate **PIL3**	134	7
Swimming, vigorous effort **PIL4**	135	10
Swimming, synchronized	193	8.0
Swimming, front crawl, fast (75 yds/min), vigorous effort or butterfly	136	11
Table tennis, ping pong, air hockey	137	4
Tai Chi	181	4
Tennis, general	**138**	**7**
Tennis, doubles	139	6
Tennis, singles	140	8
Track and field, hammer throw, shot, discus	163	4
T&F, high jump, long jump, triple jump, javelin, pole vault	184	6
Track & field, hurdles	185	10
Trampoline, rebounder	141	3.5
Volleyball, competitive, in gym **PIL4**	142	8
Volleyball, non-competitive, 6-9 member team, general **PIL 2-3**	143	3
Volleyball, beach	144	8
Walking, slow pace **PIL 2**	145	2.5
Walking, moderate pace **PIL3**	146	3.0
Walking, brisk pace, power walking **PIL 4**	147	3.8
Walking, race walking, speed walking	148	6.5
Walking, uphill and carrying load <10 lbs (4.5 kg)	149	7
Walking, uphill and carrying load 10-20 lbs (4.5-9 kg)	150	7.5
Walking, uphill and carrying load 21-42 lbs (9.5-19 kg)	151	8

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Description of Exercise/Sports Activity	Code	MET level
Walking, uphill and carrying load >42 lbs (20kg)	152	9
Walking, upstairs **PIL 4** **For PIL of 2-3, use walking codes**	164	8
Wallyball, general	204	7.0
Water polo	153	10
Water volleyball	154	3
Water skiing, jet skiing	155	6
Weight lifting, light or moderate (free weights, nautilus or universal-type), light workout, general **PIL2-3**	156	3
Weight lifting, vigorous (free weights, nautilus or universal-type), power lifting or body building **PIL4**	157	6
Whitewater rafting, kayaking or canoeing	158	5
Wrestling	159	6

PHYSICAL ACTIVITY COMPENDIUM 2000

PAQ CODES	COMPENDIUM CODE	METS	SPECIFIC ACTIVITY	EXAMPLES
	01009	8.5	bicycling,	bicycling, BMX or mountain
0-5, 12	01010	4.0	bicycling,	bicycling, <10mph, leisure, to work or for pleasure (Taylor Code 115)
13	01015	8.0	bicycling,	bicycling, general
	01020	6.0	bicycling,	bicycling, 10-11.9 mph, leisure, slow, light effort
13	01030	8.0	bicycling,	bicycling, 12-13.9 mph, leisure, moderate effort
14	01040	10.0	bicycling,	bicycling, 14-15.9 mph, racing or leisure, fast, vigorous effort
	01050	12.0	bicycling,	bicycling, 16-19 mph, racing/not drafting or >19 mph drafting, very fast, racing general
	01060	16.0	bicycling,	bicycling, >20 mph, racing, not drafting
	01070	5.0	bicycling,	unicycling
15	02010	7.0	conditioning exercise,	bicycling, stationary, general
	02011	3.0	conditioning exercise,	bicycling, stationary, 50 watts, very light effort
	02012	5.5	conditioning exercise,	bicycling, stationary, 100 watts, light effort
16	02013	7.0	conditioning exercise,	bicycling, stationary, 150 watts, moderate effort
17	02014	10.5	conditioning exercise,	bicycling, stationary, 200 watts, vigorous effort
	02015	12.5	conditioning exercise,	bicycling, stationary, 250 watts, very vigorous effort
24	02020	8.0	conditioning exercise,	calisthenics (e.g. pushups, situps, pull-ups, jumping jacks), heavy, vigorous effort
23	02030	3.5	conditioning exercise,	calisthenics, home exercise, light or moderate effort, general (examples: back exercises), going up & down from floor (Taylor Code 150)
28	02040	8.0	conditioning exercise,	circuit training, including some aerobic movement with minimal rest, general
157	02050	6.0	conditioning exercise,	weight lifting (free weight, nautilus or universal-type), power lifting or body building, vigorous effort (Taylor Code 210)
O-135,O-162,58,162	02060	5.5	conditioning exercise,	health club exercise, general (Taylor Code 160)
130	02065	9.0	conditioning exercise,	stair-treadmill ergometer, general
84	02070	7.0	conditioning exercise,	rowing, stationary ergometer, general
83	02071	3.5	conditioning exercise,	rowing, stationary, 50 watts, light effort
84	02072	7.0	conditioning exercise,	rowing, stationary, 100 watts, moderate effort
85	02073	8.5	conditioning exercise,	rowing, stationary, 150 watts, vigorous effort
	02074	12.0	conditioning exercise,	rowing, stationary, 200 watts, very vigorous effort
119	02080	7.0	conditioning exercise,	ski machine, general
198	02090	6.0	conditioning exercise,	slimnastics, jazzercise
131	02100	2.5	conditioning exercise,	stretching, hatha yoga
131	02101	2.5	conditioning exercise,	mild stretching
O-171	02110	6.0	conditioning exercise,	teaching aerobic exercise class
160	02120	4.0	conditioning exercise,	water aerobics, water calisthenics
156	02130	3.0	conditioning exercise,	weight lifting (free, nautilus or universal-type), light or moderate effort, light workout, general
	02135	1.0	conditioning exercise,	whirlpool, sitting
192	03010	4.8	dancing	ballet or modern, twist, jazz, tap, jitterbug
1	03015	6.5	dancing,	aerobic, general

PAQ CODES	COMPENDIUM CODE	METS	SPECIFIC ACTIVITY	EXAMPLES
196	03016	8.5	dancing,	aerobic, step, with 6-8 inch step
197	03017	10.0	dancing,	aerobic, step, with 10 –12 inch step
2	03020	5.0	dancing,	aerobic, low impact
3	03021	7.0	dancing,	aerobic, high impact
0-119, 33	03025	4.5	dancing,	general, Greek, Middle Eastern, hula, flamenco, belly, swing
	03030	5.5	dancing,	ballroom, fast (Taylor Code 125)
35	03031	4.5	dancing,	ballroom, fast, disco, folk, square, line dancing, Irish step dancing, polka, contra, country
34	03040	3.0	dancing,	ballroom, slow (e.g. waltz, foxtrot, slow dancing), samba, tango, 19th C, mambo, chacha
	03050	5.5	dancing,	Anishinaabe Jingle Dancing or other traditional American Indian dancing
195	04001	3.0	fishing and hunting,	fishing, general
	04010	4.0	fishing and hunting,	digging worms, with shovel
42	04020	4.0	fishing and hunting,	fishing from river bank and walking
40	04030	2.5	fishing and hunting,	fishing from boat, sitting
41	04040	3.5	fishing and hunting,	fishing from river bank, standing (Taylor Code 660)
43	04050	6.0	fishing and hunting,	fishing in stream, in waders (Taylor Code 670)
200	04060	2.0	fishing and hunting,	fishing, ice, sitting
65	04070	2.5	fishing and hunting,	hunting, bow and arrow or crossbow
67	04080	6.0	fishing and hunting,	hunting, deer, elk, large game (Taylor Code 170)
65	04090	2.5	fishing and hunting,	hunting, duck, wading
66	04100	5.0	fishing and hunting,	hunting, general
67	04110	6.0	fishing and hunting,	hunting, pheasants or grouse (Taylor Code 680)
66	04120	5.0	fishing and hunting,	hunting, rabbit, squirrel, prairie chick, raccoon, small game (Taylor Code 690)
65	04130	2.5	fishing and hunting,	pistol shooting or trap shooting, standing
	05010	3.3	home activities,	carpet sweeping, sweeping floors
	05020	3.0	home activities,	cleaning, heavy or major (e.g. wash car, wash windows, clean garage), vigorous effort
	05021	3.5	home activities,	mopping
	05025	2.5	home activities,	multiple household tasks all at once, light effort
	05026	3.5	home activities,	multiple household tasks all at once, moderate effort
	05027	4.0	home activities,	multiple household tasks all at once, vigorous effort
	05030	3.0	home activities,	cleaning, house or cabin, general
	05040	2.5	home activities,	cleaning, light (dusting, straightening up, changing linen, carrying out trash)
	05041	2.3	home activities,	wash dishes – standing or in general (not broken into stand/walk components)
	05042	2.5	home activities,	wash dishes; clearing dishes from table – walking
	05043	3.5	home activities,	vacuuming
	05045	6.0	home activities,	butchering animals
	05050	2.0	home activities,	cooking or food preparation – standing or sitting or in general (not broken into stand/walk components), manual appliances
	05051	2.5	home activities,	serving food, setting table – implied walking or standing
	05052	2.5	home activities,	cooking or food preparation – walking

PAQ CODES	COMPENDIUM CODE	METS	SPECIFIC ACTIVITY	EXAMPLES
	05053	2.5	home activities,	feeding animals
	05055	2.5	home activities,	putting away groceries (e.g. carrying groceries, shopping without a grocery cart), carrying packages
	05056	7.5	home activities,	carrying groceries upstairs
	05057	3.0	home activities,	cooking Indian bread on an outside stove
	05060	2.3	home activities,	food shopping with or without a grocery cart, standing or walking
	05065	2.3	home activities,	non-food shopping, standing or walking
	05070	2.3	home activities,	ironing
	05080	1.5	home activities,	sitting – knitting, sewing, lt. wrapping (presents)
	05090	2.0	home activities,	implied standing – laundry, fold or hang clothes, put clothes in washer or dryer, packing suitcase
	05095	2.3	home activities,	implied walking – putting away clothes, gathering clothes to pack, putting away laundry
	05100	2.0	home activities,	making bed
	05110	5.0	home activities,	maple syruping/sugar bushing (including carrying buckets, carrying wood)
	05120	6.0	home activities,	moving furniture, household items, carrying boxes
	05130	3.8	home activities,	scrubbing floors, on hands and knees, scrubbing bathroom, bathtub
	05140	4.0	home activities,	sweeping garage, sidewalk or outside of house
	05146	3.5	home activities,	standing – packing/unpacking boxes, occasional lifting of household items light – moderate effort
	05147	3.0	home activities,	implied walking – putting away household items – moderate effort
	01548	2.5	home activities,	watering plants
	05149	2.5	home activities,	building a fire inside
	05150	9.0	home activities,	moving household items upstairs, carrying boxes or furniture
	05160	2.0	home activities,	standing – light (pump gas, change light bulb, etc.)
	05165	3.0	home activities,	walking – light, non-cleaning (readying to leave, shut/lock doors, close windows, etc.)
	05170	2.5	home activities,	sitting – playing with child(ren) – light, only active periods
	05171	2.8	home activities,	standing – playing with child(ren) – light, only active periods
0-110	05175	4.0	home activities,	walk/run – playing with child(ren) – moderate, only active periods
0-111	05180	5.0	home activities,	walk/run – playing with child(ren) – vigorous, only active periods
0-15	05181	3.0	home activities,	carrying small children
0-16	05185	2.5	home activities,	child care: sitting/kneeling – dressing, bathing, grooming, feeding, occasional lifting of child-light effort, general
0-17	05186	3.0	home activities,	child care: standing – dressing, bathing, grooming, feeding, occasional lifting of child
0-18	05187	4.0	home activities,	elder care, disabled adult, only active periods
	05188	1.5	home activities,	reclining with baby
	05190	2.5	home activities,	sit, playing with animals, light, only active periods
	05191	2.8	home activities,	stand, playing with animals, light, only active periods
	05192	2.8	home activities,	walk/run, playing with animals, light, only active periods
191	05193	4.0	home activities,	walk/run, playing with animals, moderate, only active periods
	05194	5.0	home activities,	walk/run, playing with animals, vigorous, only active periods
	05195	3.5	home activities,	standing – bathing dog

PAQ CODES	COMPENDIUM CODE	METS	SPECIFIC ACTIVITY	EXAMPLES
	06010	3.0	home repair,	airplane repair
	06020	4.0	home repair,	automobile body work
	06030	3.0	home repair,	automobile repair
	06040	3.0	home repair,	carpentry, general, workshop (Taylor Code 620)
	06050	6.0	home repair,	carpentry, outside house, installing rain gutters, building a fence, (Taylor Code 640)
	06060	4.5	home repair,	carpentry, finishing or refinishing cabinets or furniture
	06070	7.5	home repair,	carpentry, sawing hardwood
	06080	5.0	home repair,	caulking, chinking log cabin
	06090	4.5	home repair,	caulking, except log cabin
	06100	5.0	home repair,	cleaning gutters
	06110	5.0	home repair,	excavating garage
	06120	5.0	home repair,	hanging storm windows
	06130	4.5	home repair,	laying or removing carpet
	06140	4.5	home repair,	laying tile or linoleum, repairing appliances
	06150	5.0	home repair,	painting, outside home (Taylor Code 650)
	06160	3.0	home repair,	painting, papering, plastering, scraping, inside house, hanging sheet rock, remodeling
	06165	4.5	home repair,	painting, (Taylor Code 630)
	06170	3.0	home repair,	put on and removal of tarp – sailboat
	06180	6.0	home repair,	roofing
	06190	4.5	home repair,	sanding floors with a power sander
	06200	4.5	home repair,	scraping and painting sailboat or powerboat
	06210	5.0	home repair,	spreading dirt with a shovel
	06220	4.5	home repair,	washing and waxing hull of sailboat, car, powerboat, airplane
	06230	4.5	home repair,	washing fence, painting fence
	06240	3.0	home repair,	wiring, plumbing
	07010	1.0	inactivity, quiet,	lying quietly and watching television
	07011	1.0	inactivity, quiet,	lying quietly, doing nothing, lying in bed awake, listening to music (not talking or reading)
	07020	1.0	inactivity, quiet,	sitting quietly and watching television
	07021	1.0	inactivity, quiet,	sitting quietly, sitting smoking, listening to music (not talking or reading), watching a movie in a theater
	07030	0.9	inactivity, quiet,	sleeping
	07040	1.2	inactivity, quiet,	standing quietly (standing in a line)
	07050	1.0	inactivity, light,	reclining – writing
	07060	1.0	inactivity, light,	reclining – talking or talking on phone
	07070	1.0	inactivity, light,	reclining – reading
	07075	1.0	inactivity, light,	meditating
O-169	08010	5.0	lawn and garden,	carrying, loading or stacking wood, loading/unloading or carrying lumber
O-170	08020	6.0	lawn and garden,	chopping wood, splitting logs
O-169	08030	5.0	lawn and garden,	clearing land, hauling branches, wheelbarrow chores

PAQ CODES	COMPENDIUM CODE	METS	SPECIFIC ACTIVITY	EXAMPLES
	08040	5.0	lawn and garden,	digging sandbox
O-169	08050	5.0	lawn and garden,	digging, spading, filling garden, composting, (Taylor Code 590)
O-170	08060	6.0	lawn and garden,	gardening with heavy power tools, tilling a garden, chain saw
	08080	5.0	lawn and garden,	laying crushed rock
O-169	08090	5.0	lawn and garden,	laying sod
0-163	08095	5.5	lawn and garden,	mowing lawn, general
O-165	08100	2.5	lawn and garden,	mowing lawn, riding mower (Taylor Code 550)
O-170	08110	6.0	lawn and garden,	mowing lawn, walk, hand mower (Taylor Code 570)
O-163	08120	5.5	lawn and garden,	mowing lawn, walk, power mower
	08125	4.5	lawn and garden,	mowing lawn, power mower (Taylor Code 590)
O-168	08130	4.5	lawn and garden,	operating snow blower, walking
O-168	08140	4.5	lawn and garden,	planting seedlings, shrubs
O-168	08150	4.5	lawn and garden,	planting trees
	08160	4.3	lawn and garden,	raking lawn
0-164	08165	4.0	lawn and garden,	raking lawn (Taylor Code 600)
	08170	4.0	lawn and garden,	raking roof with snow rake
O-166	08180	3.0	lawn and garden,	riding snow blower
O-164	08190	4.0	lawn and garden,	sacking grass, leaves
O-170	08200	6.0	lawn and garden,	shoveling snow, by hand (Taylor Code 610)
O-168	08210	4.5	lawn and garden,	trimming shrubs or trees, manual cutter
O-167	08215	3.5	lawn and garden,	trimming shrubs or trees, power cutter, using leaf blower, edger
O-165	08220	2.5	lawn and garden,	walking, applying fertilizer or seeding a lawn
	08230	1.5	lawn and garden,	watering lawn or garden, standing or walking
O-168	08240	4.5	lawn and garden,	weeding, cultivating garden (Taylor Code 580)
0-164	08245	4.0	lawn and garden,	gardening, general
O-166	08246	3.0	lawn and garden,	picking fruit off trees, picking fruits/vegetables, moderate effort
	08250	3.0	lawn and garden,	implied walking/standing – picking up yard, light, picking flowers or vegetables
	08251	3.0	lawn and garden,	walking, gathering gardening tools
	09010	1.5	miscellaneous,	sitting – card playing, playing board games
	09020	2.3	miscellaneous,	standing – drawing (writing), casino gambling, duplicating machine
	09030	1.3	miscellaneous,	sitting – reading, book, newspaper, etc.
	09040	1.8	miscellaneous,	sitting – writing, desk work, typing
	09050	1.8	miscellaneous,	standing – talking or talking on the phone
	09055	1.5	miscellaneous,	sitting – talking or talking on the phone
	09060	1.8	miscellaneous,	sitting – studying, general, including reading and/or writing
	09065	1.8	miscellaneous,	sitting – in class, general, including note-taking or class discussion
	09070	1.8	miscellaneous,	standing - reading
	09071	2.0	miscellaneous,	standing - miscellaneous
	09075	1.5	miscellaneous,	sitting – arts and crafts, light effort

PAQ CODES	COMPENDIUM CODE	METS	SPECIFIC ACTIVITY	EXAMPLES
	09080	2.0	miscellaneous,	sitting – arts and crafts, moderate effort
201	09085	1.8	miscellaneous,	standing – arts and crafts, light effort
202	09090	3.0	miscellaneous,	standing – arts and crafts, moderate effort
203	09095	3.5	miscellaneous,	standing – arts and crafts, vigorous effort
	09100	1.5	miscellaneous,	retreat/family reunion activities involving sitting, relaxing, talking, eating
	09105	2.0	miscellaneous,	touring/traveling/vacation involving walking and riding
O- 137,189	09110	2.5	miscellaneous,	camping involving standing, walking, sitting, light-to-moderate effort
	09115	1.5	miscellaneous,	sitting at a sporting event, spectator
	10010	1.8	music playing,	accordion
	10020	2.0	music playing,	cello
	10030	2.5	music playing,	conducting
	10040	4.0	music playing,	drums
	10050	2.0	music playing,	flute (sitting)
	10060	2.0	music playing,	horn
	10070	2.5	music playing,	piano or organ
	10080	3.5	music playing,	trombone
	10090	2.5	music playing,	trumpet
	10100	2.5	music playing,	violin
	10110	2.0	music playing,	woodwind
	10120	2.0	music playing,	guitar, classical, folk (sitting)
	10125	3.0	music playing,	guitar, rock and roll band (standing)
	10130	4.0	music playing,	marching band, playing an instrument, baton twirling (walking)
	10135	3.5	music playing,	marching band, drum major (walking)
0-120	11010	4.0	occupation,	bakery, general, moderate effort
0-121	11015	2.5	occupation,	bakery, light effort
0-150	11020	2.3	occupation,	bookbinding
0-122	11030	6.0	occupation,	building road (including hauling debris, driving heavy machinery)
	11035	2.0	occupation,	building road, directing traffic (standing)
0-116	11040	3.5	occupation,	carpentry, general
0-10	11050	8.0	occupation,	carrying heavy loads, such as bricks
0-11	11060	8.0	occupation,	carrying moderate loads up stairs, moving boxes (16-40 pounds)
0-25	11070	2.5	occupation,	chambermaid, making bed (nursing)
	11080	6.5	occupation,	coal mining, drilling coal, rock
	11090	6.5	occupation,	coal mining, erecting supports
0-122	11100	6.0	occupation,	coal mining, general
	11110	7.0	occupation,	coal mining, shoveling coal
0-117	11120	5.5	occupation,	construction, outside, remodeling
	11121	3.0	occupation,	custodial work – buffing the floor with electric buffer
0-25	11122	2.5	occupation,	custodial work – cleaning sink and toilet, light effort

PAQ CODES	COMPENDIUM CODE	METS	SPECIFIC ACTIVITY	EXAMPLES
0-25	11123	2.5	occupation,	custodial work – dusting, light effort
	11124	4.0	occupation,	custodial work – feathering arena floor, moderate effort
0-26	11125	3.5	occupation,	custodial work – general cleaning, moderate effort
0-26	11126	3.5	occupation,	custodial work – mopping, moderate effort
	11127	3.0	occupation,	custodial work – take out trash, moderate effort
0-25	11128	2.5	occupation,	custodial work – vacuuming, light effort
	11129	3.0	occupation,	custodial work – vacuuming, moderate effort
0-123	11130	3.5	occupation,	electrical work, plumbing
0-102	11140	8.0	occupation,	farming, baling hay, cleaning barn, poultry work, vigorous effort
	11150	3.5	occupation,	farming, chasing cattle, non-strenuous (walking), moderate effort
0-101	11151	4.0	occupation,	farming, chasing cattle or other livestock on horseback, moderate effort
	11152	2.0	occupation,	farming, chasing cattle or other livestock, driving, light effort
0-100	11160	2.5	occupation,	farming, driving harvester, cutting hay, irrigation work
0-100	11170	2.5	occupation,	farming, driving tractor
0-101	11180	4.0	occupation,	farming, feeding small animals
	11190	4.5	occupation,	farming, feeding cattle, horses
	11191	4.5	occupation,	farming, hauling water for animals, general hauling water
0-124	11192	6.0	occupation,	farming, taking care of animals (grooming, brushing, shearing sheep, assisting with birthing, medical care, branding)
0-102	11200	8.0	occupation,	farming, forking straw bales, cleaning corral or barn, vigorous effort
	11210	3.0	occupation,	farming, milking by hand, moderate effort
	11220	1.5	occupation,	farming, milking by machine, light effort
	11230	5.5	occupation,	farming, shoveling grain, moderate effort
0-125	11240	12.0	occupation,	fire fighter, general
	11245	11.0	occupation,	fire fighter, climbing ladder with full gear
	11246	8.0	occupation,	fire fighter, hauling hoses on ground
0-155	11250	17.0	occupation,	forestry, ax chopping, fast
0-154	11260	5.0	occupation,	forestry, ax chopping, slow
	11270	7.0	occupation,	forestry, barking trees
	11280	11.0	occupation,	forestry, carrying logs
	11290	8.0	occupation,	forestry, felling trees
0-152	11300	8.0	occupation,	forestry, general
	11310	5.0	occupation,	forestry, hoeing
	11320	6.0	occupation,	forestry, planning by hand
	11330	7.0	occupation,	forestry, sawing by hand
0-151	11340	4.5	occupation,	forestry, sawing, power
	11350	9.0	occupation,	forestry, trimming trees
	11360	4.0	occupation,	forestry, weeding
0-156	11370	4.5	occupation,	furriery

PAQ CODES	COMPENDIUM CODE	METS	SPECIFIC ACTIVITY	EXAMPLES
0-157	11380	6.0	occupation,	horse grooming
0-64, 64	11390	8.0	occupation,	horse racing, galloping
	11400	6.5	occupation,	horse racing, trotting
	11410	2.6	occupation,	horse racing, walking
0-141	11420	3.5	occupation,	locksmith
	11430	2.5	occupation,	machine tooling, machining, working sheet metal
0-126	11440	3.0	occupation,	machine tooling, operating lathe
	11450	5.0	occupation,	machine tooling, operating punch press
	11460	4.0	occupation,	machine tooling, tapping and drilling
0-126	11470	3.0	occupation,	machine tooling, welding
0-142	11480	7.0	occupation,	masonry, concrete
0-143	11485	4.0	occupation,	masseur, masseuse (standing)
0-20	11490	7.5	occupation,	moving, pushing heavy objects, 75 lbs or more (desks, moving van work)
	11495	12.0	occupation,	skindiving or SCUBA diving as a frogman (Navy Seal)
0-41	11500	2.5	occupation,	operating heavy duty equipment/automated, not driving
	11510	4.5	occupation,	orange grove work
	11520	2.3	occupation,	printing (standing)
0-144	11525	2.5	occupation,	police, directing traffic (standing)
0-145	11526	2.0	occupation,	police, driving a squad car (sitting)
0-146	11527	1.3	occupation,	police, riding in a squad car (sitting)
0-147	11528	4.0	occupation,	police, making an arrest (standing)
0-148	11530	2.5	occupation,	shoe repair, general
0-30	11540	8.5	occupation,	shoveling, digging ditches
0-33	11550	9.0	occupation,	shoveling, heavy (more than 16 pounds/minute)
0-31	11560	6.0	occupation,	shoveling, light (less than 10 pounds/minute)
0-32	11570	7.0	occupation,	shoveling, moderate (10 to 15 pounds/minute)
0-40	11580	1.5	occupation,	sitting – light office work, general (chemistry lab work, light use of hand tools, watch repair or micro-assembly, light assembly/repair), sitting, reading, driving at work
0-40	11585	1.5	occupation,	sitting – meetings, general, and/or with talking involved, eating at a business meeting
0-41	11590	2.5	occupation,	sitting; moderate (heavy levers, riding mower/forklift, crane operation), teaching stretching or yoga
0-50	11600	2.3	occupation,	standing; light (bartending, store clerk, assembling, filing, duplicating, putting up a Christmas tree), standing and talking at work, changing clothes when teaching physical education
0-51	11610	3.0	occupation,	standing; light/moderate (assemble/repair heavy parts, welding, stocking, auto repair, pack boxes for moving, etc.), patient care (as in nursing)
0-53	11615	4.0	occupation,	lifting items continuously, 10-20 lbs, with limited walking or resting
0-52	11620	3.5	occupation,	standing; moderate (assembling at fast rate, intermittent, lifting 50 lbs, hitch/twisting ropes)
0-53	11630	4.0	occupation,	standing; moderate/heavy (lifting more than 50 lbs, masonry, painting, paper hanging)
	11640	5.0	occupation,	steel mill, fettling

PAQ CODES	COMPENDIUM CODE	METS	SPECIFIC ACTIVITY	EXAMPLES
	11650	5.5	occupation,	steel mill, forging
	11660	8.0	occupation,	steel mill, hand rolling
	11670	8.0	occupation,	steel, merchant mill rolling
	11680	11.0	occupation,	steel mill, removing slag
	11690	7.5	occupation,	steel mill, tending furnace
	11700	5.5	occupation,	steel mill, tipping molds
0-149	11710	8.0	occupation,	steel mill, working in general
0-127	11720	2.5	occupation,	tailoring, cutting
0-127	11730	2.5	occupation,	tailoring, general
	11740	2.0	occupation,	tailoring, hand sewing
0-127	11750	2.5	occupation,	tailoring, machine sewing
	11760	4.0	occupation,	tailoring, pressing
	11765	3.5	occupation,	tailoring, weaving
0-115	11766	6.5	occupation,	truck driving, loading and unloading truck (standing)
0-40	11770	1.5	occupation,	typing, electric, manual or computer
0-60	11780	6.0	occupation,	using heavy power tools such as pneumatic tools (jackhammers, drills, etc.)
0-61	11790	8.0	occupation,	using heavy tools (not power) such as shovel, pick, tunnel bar, spade
0-70	11791	2.0	occupation,	walking on job, less than 2.0 mph (in office or lab area), very slow
0-71	11792	3.3	occupation,	walking on job, 3.0 mph, in office, moderate speed, not carrying anything
0-72	11793	3.8	occupation,	walking on job, 3.5 mph, in office, brisk speed, not carrying anything
0-80	11795	3.0	occupation,	walking 2.5 mph, slowly and carrying light objects less than 25 pounds
	11796	3.0	occupation,	walking, gathering things at work, ready to leave
0-81	11800	4.0	occupation,	walking, 3.0 mph, moderately and carrying light objects less than 25 lbs
0-81	11805	4.0	occupation,	walking, pushing a wheelchair
0-82	11810	4.5	occupation,	walking, 3.5 mph, briskly and carrying objects less than 25 lbs
0-83	11820	5.0	occupation,	walking or walk downstairs or standing, carrying objects about 25 to 49 pounds
0-84	11830	6.5	occupation,	walking or walk downstairs or standing, carrying objects about 50 to 74 pounds
0-85	11840	7.5	occupation,	walking or walk downstairs or standing, carrying objects about 75 to 99 pounds
0-86	11850	8.5	occupation,	walking or walk downstairs or standing, carrying objects about 100 pounds or over
	11870	3.0	occupation,	working in scene shop, theater actor, backstage employee
	11875	4.0	occupation,	teach physical education, exercise, sports classes (non-sport play)
	11876	6.5	occupation,	teach physical education, exercise, sports classes (participate in the class)
69	12010	6.0	running,	jog/walk combination (jogging component of less than 10 minutes) (Taylor Code 180)
68	12020	7.0	running,	jogging, general
	12025	8.0	running,	jogging, in place
	12027	4.5	running,	jogging on a mini-tramp
0-95, 87	12030	8.0	running,	running, 5 mph (12min/mile)
88	12040	9.0	running,	running, 5.2 mph (11.5 min/mile)
89	12050	10.0	running,	running, 6 mph (10 min/mile)

PAQ CODES	COMPENDIUM CODE	METS	SPECIFIC ACTIVITY	EXAMPLES
90	12060	11.0	running,	running, 6.7 mph (9 min/mile)
	12070	11.5	running,	running, 7 mph (8.5 min/mile)
91	12080	12.5	running,	running, 7.5 mph (8 min/mile)
	12090	13.5	running,	running, 8 mph (7.5 min/mile)
92	12100	14.0	running,	running, 8.6 mph (7 min/mile)
	12110	15.0	running,	running, 9 mph (6.5 min/mile)
93	12120	16.0	running,	running, 10 mph (6 min/mile)
	12130	18.0	running,	running,10.9 mph (5.5 min/mile)
94	12140	9.0	running,	running, cross country
95	12150	8.0	running,	running (Taylor Code 200)
0-89, 96	12170	15.0	running,	running, stairs, up
97	12180	10.0	running,	running, on a track, team practice
98	12190	8.0	running,	running, training, pushing a wheelchair
	13000	2.0	self care,	standing – getting ready for bed, in general
	13009	1.0	self care,	sitting on toilet
	13010	1.5	self care,	bathing (sitting)
	13020	2.0	self care,	dressing, undressing (standing or sitting)
	13030	1.5	self care,	eating (sitting)
	13035	2.0	self care,	talking and eating or eating only (standing)
	13036	1.0	self care,	taking medication, sitting or standing
	13040	2.0	self care,	grooming (washing, shaving, brushing teeth, urinating, washing hands, putting on make-up), sitting or standing
	13045	2.5	self care,	hairstyling
	13046	1.0	self care,	having hair or nails done by someone else, sitting
	13050	2.0	self care,	showering, toweling off (standing)
	14010	1.5	sexual activity,	active, vigorous effort
	14020	1.3	sexual activity,	general, moderate effort
	14030	1.0	sexual activity,	passive, light effort, kissing, hugging
4	15010	3.5	sports,	archery (non-hunting)
7	15020	7.0	sports,	badminton, competitive (Taylor Code 450)
6	15030	4.5	sports,	badminton, social singles and doubles, general
8	15040	8.0	sports,	basketball, game (Taylor Code 490)
9	15050	6.0	sports,	basketball, non-game, general (Taylor Code 480)
0-132	15060	7.0	sports,	basketball, officiating (Taylor Code 500)
10	15070	4.5	sports,	basketball, shooting baskets
11	15075	6.5	sports,	basketball, wheelchair
18	15080	2.5	sports,	billiards
19	15090	3.0	sports,	bowling (Taylor Code 390)
20	15100	12.0	sports,	boxing, in ring, general

PAQ CODES	COMPENDIUM CODE	METS	SPECIFIC ACTIVITY	EXAMPLES
21	15110	6.0	sports,	boxing, punching bag
22	15120	9.0	sports,	boxing, sparring
182	15130	7.0	sports,	broomball
27	15135	5.0	sports,	children's games (hopscotch, 4-square, dodge ball, playground apparatus, t-ball, tetherball, marbles, jacks, arcade games)
29	15140	4.0	sports,	coaching: football, soccer, basketball, baseball, swimming, etc.
30	15150	5.0	sports,	cricket (batting, bowling)
31	15160	2.5	sports,	croquet
32	15170	4.0	sports,	curling
36	15180	2.5	sports,	darts, wall or lawn
38	15190	6.0	sports,	drag racing, pushing or driving a car
39	15200	6.0	sports,	fencing
44	15210	9.0	sports,	football, competitive
45	15230	8.0	sports,	football, touch, flag, general (Taylor Code 510)
46	15235	2.5	sports,	football or baseball, playing catch
47	15240	3.0	sports,	frisbee playing, general
48	15250	8.0	sports,	frisbee, ultimate
49	15255	4.5	sports,	golf, general
49	15265	4.5	sports,	golf, walking and carrying clubs (See footnote at end of the Compendium)
51	15270	3.0	sports,	golf, miniature, driving range
50	15285	4.3	sports,	golf, walking and pulling clubs (See footnote at end of the Compendium)
53	15290	3.5	sports,	golf, using power cart (Taylor Code 070)
54	15300	4.0	sports,	gymnastics, general
188	15310	4.0	sports,	hacky sack
55	15320	12.0	sports,	handball, general (Taylor Code 520)
	15330	8.0	sports,	handball, team
57	15340	3.5	sports,	hang gliding
60, 186	15350	8.0	sports,	hockey, field
61	15360	8.0	sports,	hockey, ice
0-62, 62	15370	4.0	sports,	horseback riding, general
	15380	3.5	sports,	horseback riding, saddling horse, grooming horse
0-63, 63	15390	6.5	sports,	horseback riding, trotting
	15400	2.5	sports,	horseback riding, walking
180	15410	3.0	sports,	horseshoe pitching, quoits
	15420	12.0	sports,	jai alai
70	15430	10.0	sports,	judo, jujitsu, karate, kick boxing, tae kwan do
	15440	4.0	sports,	juggling
72	15450	7.0	sports,	kickball
73	15460	8.0	sports,	lacrosse

PAQ CODES	COMPENDIUM CODE	METS	SPECIFIC ACTIVITY	EXAMPLES
74	15470	4.0	sports,	motor-cross
75	15480	9.0	sports,	orienteering
76	15490	10.0	sports,	paddleball, competitive
77	15500	6.0	sports,	paddleball, casual, general (Taylor Code 460)
79	15510	8.0	sports,	polo
80	15520	10.0	sports,	racquetball, competitive
81	15530	7.0	sports,	racquetball, casual, general (Taylor Code 470)
	15535	11.0	sports,	rock climbing, ascending rock
82	15540	8.0	sports,	rock climbing, rappelling
	15550	12.0	sports,	rope jumping, fast
194	15551	10.0	sports,	rope jumping, moderate, general
	15552	8.0	sports,	rope jumping, slow
86	15560	10.0	sports,	rugby
103	15570	3.0	sports,	shuffleboard, lawn bowling
104	15580	5.0	sports,	skateboarding
109	15590	7.0	sports,	skating, roller (Taylor Code 360)
183	15591	12.5	sports,	roller blading (in-line skating)
120	15600	3.5	sports,	sky diving
124	15605	10.0	sports,	soccer, competitive
O-138, 125	15610	7.0	sports,	soccer, casual, general (Taylor Code 540)
126	15620	5.0	sports,	softball or baseball, fast or slow pitch, general (Taylor Code 440)
0-67, 127	15630	4.0	sports,	softball, officiating
128	15640	6.0	sports,	softball, pitching
129	15650	12.0	sports,	squash (Taylor Code 530)
137	15660	4.0	sports,	table tennis, ping pong (Taylor Code 410)
181	15670	4.0	sports,	tai chi
138	15675	7.0	sports,	tennis, general
139	15680	6.0	sports,	tennis, doubles (Taylor Code 430)
	15685	5.0	sports,	tennis, doubles
140	15690	8.0	sports,	tennis, singles (Taylor Code 420)
141	15700	3.5	sports,	trampoline
	15710	4.0	sports,	volleyball (Taylor Code 400)
142	15711	8.0	sports,	volleyball, competitive, in gymnasium
143	15720	3.0	sports,	volleyball, non-competitive, 6-9 member team, general
144	15725	8.0	sports,	volleyball, beach
0-159, 159	15730	6.0	sports,	wrestling (one match = 5 minutes)
204	15731	7.0	sports,	wallyball, general
163	15732	4.0	sports,	track and field (shot, discus, hammer throw)
184	15733	6.0	sports,	track and field (high jump, long jump, triple jump, javelin, pole vault)

PAQ CODES	COMPENDIUM CODE	METS	SPECIFIC ACTIVITY	EXAMPLES
185	15734	10.0	sports,	track and field (steeplechase, hurdles)
	16010	2.0	transportation,	automobile or light truck (not a semi) driving
	16015	1.0	transportation,	riding in a car or truck
	16016	1.0	transportation,	riding in a bus
	16020	2.0	transportation,	flying airplane
166	16030	2.5	transportation,	motor scooter, motorcycle
	16040	6.0	transportation,	pushing plane in and out of hangar
0-118, 187	16050	3.0	transportation,	driving heavy truck, tractor, bus
5	17010	7.0	walking,	backpacking (Taylor Code 050)
	17020	3.5	walking,	carrying infant or 15 pound load (e.g. suitcase), level ground or downstairs
	17025	9.0	walking,	carrying load upstairs, general
	17026	5.0	walking,	carrying 1 to 15lb load, upstairs
	17027	6.0	walking,	carrying 16 to 24 lb load, upstairs
	17028	8.0	walking,	carrying 25 to 49 lb load, upstairs
	17029	10.0	walking,	carrying 50 to 74 lb load, upstairs
	17030	12.0	walking,	carrying 74+ lb load, upstairs
	17031	3.0	walking,	loading/unloading a car
149	17035	7.0	walking,	climbing hills with 0 to 9 pound load
150	17040	7.5	walking,	climbing hills with 10 to 20 pound load
151	17050	8.0	walking,	climbing hills with 21 to 42 pound load
152	17060	9.0	walking,	climbing hills with 42+ pound load
O-134	17070	3.0	walking,	downstairs
O-136, 59	17080	6.0	walking,	hiking, cross country (Taylor Code 040)
	17085	2.5	walking,	bird watching
0-88	17090	6.5	walking,	marching, rapidly, military
145	17100	2.5	walking,	pushing or pulling stroller with child or walking with children
0-81	17105	4.0	walking,	pushing a wheelchair, non-occupational setting
148	17110	6.5	walking,	race walking
82	17120	8.0	walking,	rock or mountain climbing (Taylor Code 060)
0-87, 164	17130	8.0	walking,	up stairs, using or climbing up ladder (Taylor Code 030)
	17140	5.0	walking,	using crutches
	17150	2.0	walking,	walking, household
	17151	2.0	walking,	walking, less than 2.0 mph, level ground, strolling, very slow
145	17152	2.5	walking,	walking, 2.0 mph, level, slow pace, firm surface
	17160	3.5	walking,	walking for pleasure (Taylor Code 010)
	17161	2.5	walking,	walking from house to car or bus, from car or bus to go places, from car or bus to and from the worksite
	17162	2.5	walking,	walking to neighbor's house or family's house for social reasons
146	17165	3.0	walking,	walking the dog

PAQ CODES	COMPENDIUM CODE	METS	SPECIFIC ACTIVITY	EXAMPLES
	17170	3.0	walking,	walking, 2.5 mph, firm surface
	17180	2.8	walking,	walking, 2.5 mph, downhill
	17190	3.3	walking,	walking, 3.0 mph, level, moderate pace, firm surface
147	17200	3.8	walking,	walking, 3.5 mph, level, brisk, firm surface, walking for exercise
	17210	6.0	walking,	walking, 3.5 mph, uphill
	17220	5.0	walking,	walking, 4.0 mph, level, firm surface, very brisk pace
	17230	6.3	walking,	walking, 4.5 mph, level, firm surface, very, very brisk
	17231	8.0	walking,	walking, 5.0 mph
	17250	3.5	walking,	walking, for pleasure, work break
	17260	5.0	walking,	walking, grass track
	17270	4.0	walking,	walking, to work or class (Taylor Code 015)
	17280	2.5	walking,	walking to and from an outhouse
167	18010	2.5	water activities,	boating, power
25	18020	4.0	water activities,	canoeing, on camping trip (Taylor Code 270)
	18025	3.3	water activities,	canoeing, harvesting wild rice, knocking rice off the stalks
	18030	7.0	water activities,	canoeing, portaging
	18040	3.0	water activities,	canoeing, rowing, 2.0-3.9 mph, light effort
	18050	7.0	water activities,	canoeing, rowing, 4.0-5.9 mph, moderate effort
	18060	12.0	water activities,	canoeing, rowing, >6 mph, vigorous effort
O-140, 199	18070	3.5	water activities,	canoeing, rowing, for pleasure, general (Taylor Code 250)
26	18080	12.0	water activities,	canoeing, rowing, in competition, or crew or sculling (Taylor Code 260)
37	18090	3.0	water activities,	diving, springboard or platform
71	18100	5.0	water activities,	kayaking
78	18110	4.0	water activities,	paddle boat
100	18120	3.0	water activities,	sailing, boast and board sailing, windsurfing, ice sailing, general (Taylor Code 235)
101	18130	5.0	water activities,	sailing, in competition
100	18140	3.0	water activities,	sailing, Sunfish/Laser/Hobby Cat, Keel boats, ocean sailing, yachting
155	18150	6.0	water activities,	skiing, water (Taylor Code 220)
	18160	7.0	water activities,	skimobiling
	18180	16.0	water activities,	skindiving, fast
	18190	12.5	water activities,	skindiving, moderate
102	18200	7.0	water activities,	skindiving, scuba diving, general (Taylor Code 310)
122	18210	5.0	water activities,	snorkeling (Taylor Code 320)
132	18220	3.0	water activities,	surfing, body or board
135	18230	10.0	water activities,	swimming laps, freestyle, fast, vigorous effort
134	18240	7.0	water activities,	swimming laps, freestyle, slow, moderate or light effort
134	18250	7.0	water activities,	swimming, backstroke, general
135	18260	10.0	water activities,	swimming, breaststroke, general
136	18270	11.0	water activities,	swimming, butterfly, general

PAQ CODES	COMPENDIUM CODE	METS	SPECIFIC ACTIVITY	EXAMPLES
136	18280	11.0	water activities,	swimming, crawl, fast (75 yards/minute), vigorous effort
	18290	8.0	water activities,	swimming, crawl, slow (50 yards/minute), moderate or light effort
133	18300	6.0	water activities,	swimming, lake, ocean, river (Taylor Codes 280, 295)
133	18310	6.0	water activities,	swimming, leisurely, not lap swimming, general
	18320	8.0	water activities,	swimming, sidestroke, general
193	18330	8.0	water activities,	swimming, synchronized
135	18340	10.0	water activities,	swimming, treading water, fast vigorous effort
160	18350	4.0	water activities,	swimming, treading water, moderate effort, general
160	18355	4.0	water activities,	water aerobics, water calisthenics
0-153, 153	18360	10.0	water activities,	water polo
154	18365	3.0	water activities,	water volleyball
161	18366	8.0	water activities,	water jogging, (deep water running added)
158	18370	5.0	water activities,	whitewater rafting, kayaking, or canoeing
	19010	6.0	winter activities,	moving ice house (set up/drill holes, etc.)
105	19020	5.5	winter activities,	skating, ice, 9 mph or less
106	19030	7.0	winter activities,	skating, ice, general (Taylor Code 360)
0-68, 107	19040	9.0	winter activities,	skating, ice, rapidly, more than 9 mph
108	19050	15.0	winter activities,	skating, speed, competitive
118	19060	7.0	winter activities,	ski jumping (climb up carrying skis)
O-139,110	19075	7.0	winter activities,	skiing, general
111	19080	7.0	winter activities,	skiing, cross country, 2.5 mph, slow or light effort, ski walking
112	19090	8.0	winter activities,	skiing, cross country, 4.0-4.9 mph, moderate speed and effort, general
113	19100	9.0	winter activities,	skiing, cross country, 5.0-7.9 mph, brisk speed, vigorous effort
114	19110	14.0	winter activities,	skiing, cross country, >8.0 mph, racing
	19130	16.5	winter activities,	skiing, cross country, hard snow, uphill, maximum, snow mountaineering
115	19150	5.0	winter activities,	skiing, downhill, light effort
116	19160	6.0	winter activities,	skiing, downhill, moderate effort, general
117	19170	8.0	winter activities,	skiing, downhill, vigorous effort, racing
121	19180	7.0	winter activities,	sledding, tobogganing, bobsledding, luge (Taylor Code 370)
123	19190	8.0	winter activities,	snow shoeing
165	19200	3.5	winter activities,	snowmobiling
	20000	1.0	religious activities,	sitting in church, in service, attending a ceremony, sitting quietly
	20001	2.5	religious activities,	sitting, playing an instrument at church
	20005	1.5	religious activities,	sitting in church, talking or singing, attending a ceremony, sitting, active participation
	20010	1.3	religious activities,	sitting, reading religious materials at home
	20015	1.2	religious activities,	standing in church (quietly), attending a ceremony, standing quietly
	20020	2.0	religious activities,	standing, singing in church, attending a ceremony, standing, active participation
	20025	1.0	religious activities,	kneeling in church/at home (praying)
	20030	1.8	religious activities,	standing, talking in church

PAQ CODES	COMPENDIUM CODE	METS	SPECIFIC ACTIVITY	EXAMPLES
	20035	2.0	religious activities,	walking in church
	20036	2.0	religious activities,	walking, less than 2.0 mph – very slow
	20037	3.3	religious activities,	walking, 3.0 mph, moderate speed, not carrying anything
	20038	3.8	religious activities,	walking, 3.5 mph, brisk speed, not carrying anything
	20039	2.0	religious activities,	walk/stand combination for religious purposes, usher
	20040	5.0	religious activities,	praise with dance or run, spiritual dancing in church
0-128	20045	2.5	religious activities,	serving food at church
0-129	20046	2.0	religious activities,	preparing food at church
0-130	20047	2.3	religious activities,	washing dishes/cleaning kitchen at church
	20050	1.5	religious activities,	eating at church
	20055	2.0	religious activities,	eating/talking at church or standing eating, American Indian Feast days
0-131	20060	3.0	religious activities,	cleaning church
	20061	5.0	religious activities,	general yard work at church
	20065	2.5	religious activities,	standing – moderate (lifting 50lbs., assembling at fast rate)
	20095	4.0	religious activities,	standing – moderate/heavy work
	20100	1.5	religious activities,	typing, electric, manual, or computer
	21000	1.5	volunteer activities,	sitting – meeting, general, and/or with talking involved
	21005	1.5	volunteer activities,	sitting – light office work, in general
	21010	2.5	volunteer activities,	sitting – moderate work
	21015	2.3	volunteer activities,	standing – light work (filing, talking, assembling)
	21016	2.5	volunteer activities,	sitting, child care, only active periods
0-17	21017	3.0	volunteer activities,	standing, child care, only active periods
0-110	21018	4.0	volunteer activities,	walk/run play with children, moderate, only active periods
0-111	21019	5.0	volunteer activities,	walk/run play with children, vigorous, only active periods
0-51	21020	3.0	volunteer activities,	standing – light/moderate work (pack boxes, assemble/repair, set up chairs/furniture)
0-52	21025	3.5	volunteer activities,	standing – moderate (lifting 50 lbs., assembling at fast rate)
0-53	21030	4.0	volunteer activities,	standing – moderate/heavy work
0-40	21035	1.5	volunteer activities,	typing, electric, manual, or computer
0-70	21040	2.0	volunteer activities,	walking, less than 2.0 mph, very slow
0-71	21045	3.3	volunteer activities,	walking, 3.0 mph, moderate speed, not carrying anything
0-72	21050	3.8	volunteer activities,	walking, 3.5 mph, brisk speed, not carrying anything
0-80	21055	3.0	volunteer activities,	walking, 2.5 mph slowly and carrying objects less than 25 pounds
0-81	21060	4.0	volunteer activities,	walking, 3.0 mph moderately and carrying objects less than 25 pounds, pushing something
	21065	4.5	volunteer activities,	walking, 3.5 mph briskly and carrying objects less than 25 pounds
	21070	3.0	volunteer activities,	walk/stand combination, for volunteer purposes

GUIDE TO DATA ANALYSIS

The self-administered Past Year Total Physical Activity Questionnaire (PYTPAQ) is used to estimate an individual's energy expenditure from physical activity during the **preceding 12-month period**. The PYTPAQ was modified from its original format for the purposes of *The Tomorrow Project*.[1] The original instrument, designed by Dr. Christine Friedenreich, is an interviewer-administered questionnaire for capturing total lifetime physical activity.[5] A validation study for the PYTPAQ in the self-administered format has been completed.[2]

The PYTPAQ is comprised of four sections, each one concerned with a different **type** of activity: occupational (including paid employment and volunteer activities), transportation (to and from work), household, and recreation (including all exercise and sports activities). Within each broad type of activity, respondents are required to identify specific activities they have engaged in during the past year. For each specific activity, respondents report frequency, duration and physical intensity level (PIL). Physical intensity level is reported on a scale from 1 to 4, with the various levels of the scale defined at the start of each section in the PYTPAQ. A PIL of 1 signifies activities mainly sitting down; a PIL of 2 describes activities done mainly standing that do not increase heart rate or cause sweating; a PIL of 3 describes activities that cause slight increases in heart rate and some light sweating; and a PIL of 4 describes activities that cause heart rate to increase substantially and lead to heavy sweating.

Each reported activity is assigned a unique activity code. Corresponding MET values (a measure of intensity; the metabolic rate for a specific activity relative to resting metabolic rate) are then assigned to each reported activity using the <u>Compendium of Physical Activities</u>.[3,4] Reported values for frequency, duration and assigned intensity (in METs) for each separate activity are multiplied together to yield a single estimate of the metabolic output per week, expressed as MET-hours per week. The total MET-hours/week for each of the four broad types of activity is estimated by summing all of the individual activity MET-hours/week. Finally, the four separate totals for each type of activity are summed to yield an overall estimate of metabolic output per week that reflects an individual's total activity. Duration of activity in hours/week can also be derived by excluding MET values from the calculations just described.

Subsequent paragraphs describe each section of the PYTPAQ in greater detail and provide sample calculations for some key output variables. **Sample calculations are based on the sample PYTPAQ that accompanies this document.**

EMPLOYMENT/VOLUNTEER ACTIVITIES

This section includes all jobs done for pay or on a volunteer basis. Participants record job title, types of activities performed for each job (the directions ask for three main activities, but up to six activities are allowed), months per year that each job was done, the number of days per week a person performed that job during the year, hours per day worked, and a subjective PIL of the job.

For each activity with a range of physical intensity, e.g. "walking and carrying", the PIL is used to choose the most appropriate activity code (see PYTPAQ Occupational Codes). These activity codes are cross-referenced with the Compendium of Physical Activities to determine the MET value for each activity. The MET values for up to six activities per job are averaged to calculate a single MET value for each job.

Output variables and sample calculations:

- **Occupational hours/week (Occ_time)**
  Average weekly time spent doing employment and volunteer activities.
  = Sum of [(Months per year * Days per week * Hours per day * 4.33 weeks per month) / 52 weeks per year], for each job

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Example from sample PYTPAQ:

Occ_time (job #1, line 1)

$\quad$ = (9 mths/yr * 5 d/wk * 7.5 hrs/d * 4.33 wks/mth) / 52 wks/yr = 28.103 hrs/wk

Occ_time (job #2, line 2) = 0.042 hrs/wk

Occ_time (job #3, line 3) = 0.999 hrs/wk

Occ_time = (28.103 + 0.042 + 0.999) hrs/wk

$\quad$ = **29.144 hrs/wk**

- **Occupational MET hours/week (Occ_mets)**
  Average weekly metabolic output from employment and volunteer activities.
  = Sum of [(Average MET value * Months per year * Days per week * Hours per day * 4.33 weeks per month) / 52 weeks per year], for each job

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Example from sample PYTPAQ:

Occ_mets (job #1, line 1) = [(2.3 + 3.3 + 1.5) METs / 3 activities] * (9 mths/yr * 5 d/wk
$\qquad$ *7.5 hrs/d * 4.33 wks/mth) / 52 wks/yr

$\qquad\qquad$ = 2.367 METs * 28.103 hrs/wk = 66.520 MET hrs/wk

Occ_mets (job #2, line 2) = 3.3 METs * 0.042 hrs/wk = 0.139 MET hrs/wk

Occ_mets (job #3, line 3) = 4.0 METs* 0.999 hrs/wk = 3.996 MET hrs/wk

Occ_mets $\quad$ = (66.520 + 0.139 + 3.996) MET hrs/wk= $\quad$ **70.655 MET hrs/wk**

TRANSPORTATION

Transportation is the time spent walking, biking, in-line skating etc. to work, but does not include recreational walking, cycling, in-line skating etc. Transportation to work uses the relevant activity codes from the Recreation/Leisure section, e.g. walking, cycling, in-line skating etc., chosen according to the self-reported PIL. These codes are then cross-referenced with the Compendium of Physical Activities to determine MET values for each activity.

Output variables and sample calculations:

- **Transportation hours/week (TransT)**
  Average weekly time spent traveling to and from work/volunteering.
  = Sum of [(Months per year * Days per week * (Minutes per day / 60 Minutes per Hour) * 4.33 weeks per month) / 52 weeks per year], for each activity

  > **Example from sample PYTPAQ:**
  >
  > TransT   = (4 mths/yr * 2 d/wk * (20 min/d / 60 min/hr) * 4.33 wks/mth)   * 1 yr/52 wks
  >
  >   = **0.222 hrs/wk**

- **Transportation MET hours/week (Transmet)**
  Average weekly metabolic output from traveling to and from work/volunteering.
  = Sum of [(MET value * Months per year * Days per week * (Minutes per day / 60 Minutes per Hour) * 4.33 weeks per month) / 52 weeks per year], for each activity

  > **Example from sample PYTPAQ**:
  >
  > Transmet   = 2.5 METs * (4 mths/yr * 2 d/wk * (20 min/d / 60 min/hr) * 4.33 wks/mth) * 1 yr/52 wks
  >
  >   = **0.555 MET hrs/wk**

HOUSEHOLD AND DO-IT-YOURSELF ACTIVITIES

Household activities include housework, yard work and do-it-yourself projects (i.e. home repairs and renovations). Household activities performed while seated are not 'active' enough to be considered. The various household activities reported by respondents are not assigned specific MET values from the Compendium. Rather, the PIL reported by the participant is used to assign a MET value for calculating the household MET hours/week. PILs of 2, 3, and 4 correspond to METs of 2.5, 3.5 and 4.5 since these levels correspond to the average energy expenditure for light, moderate and heavy household and do-it-yourself activities.

Output variables and sample calculations:

- **Household hours/week (Hou_time)**
  Average weekly time spent performing household and do-it-yourself activities.
  = Sum of [(Months per year * Days per week * Hours per day * 4.33 weeks per month) / 52 weeks per year], for each activity

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Example from sample PYTPAQ:

Hou_time (activity #1, line 1) = 11 mths/yr * 7 d/wk * 2.5 hrs/d * 4.33 wks/mth

$\qquad$ * 1 yr/52 wks = 16.029 hrs/wk

Hou_time (activity #2, line 2) = 0.916 hrs/wk

Hou_time (activity #3, line 3) = 0.333 hrs/wk

Hou_time (activity #4, line 4) = 0.083 hrs/wk

Hou_time $\quad$ = $\boxed{\textbf{17.361 hrs/wk}}$

- **Household MET hours/week (Hou_mets)**
  Average weekly metabolic output from household and do-it-yourself activities.
  = Sum of [(MET value based on self-reported PIL * Months per year * Days per week * Hours per day * 4.33 weeks per month) / 52 weeks per year], for each activity

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Example from sample PYTPAQ:

Hou_mets (activity #1, line 1)

$\quad$ = 2.5 METs * 11 mths/yr * 7 d/wk * 2.5 hrs/d * 4.33 wks/mth * 1 yr/52 wks
= 40.073MET hrs/wk

Hou_mets (activity #2, line 2)

$\quad$ = 3.5 METs * 0.916 hrs/wk = 3.206 MET hrs/wk

Hou_mets (activity #3, line 3)

$\quad$ = 3.5 METs * 0.333 hrs/wk = 1.166 MET hrs/wk

Hou_mets (activity #4, line 4)

$\quad$ = 3.5 METs * 0.083 hrs/wk = 0.291 MET hrs/wk

Hou_mets $\quad$ = $\boxed{\textbf{44.736 MET hrs/wk}}$

RECREATION AND LEISURE ACTIVITIES

This section includes outdoor and indoor sports and exercise activities. Participants record the type, frequency, duration and PIL of each activity. Unlike other sections in the questionnaire, frequency can be reported as days per week, days per month, or days per year. The PIL is used to determine the most appropriate code for each activity (see PYTPAQ Recreation and Leisure

Codes). These codes are then cross-referenced with the Compendium of Physical Activities to determine MET values for each activity.

Output variables and sample calculations:

- **Leisure hours/week (Exe_time)**
  Average weekly time spent performing recreation and leisure activities.
  = Sum of [(Months per year * **Days per week** * Hours per day * 4.33 weeks per month) / 52 weeks per year], for each activity *or*
  = Sum of [(Months per year * **Days per month** * Hours per day / 52 weeks per year], for each activity *or*
  = Sum of [**Days per year** * Hours per day / 52 weeks per year], for each activity

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Example from sample PYTPAQ:

Exe_time (activity #1, line 1)

$\qquad$ = (11 mths/yr * 2 d/wk * 0.75 hrs/d * 4.33 wks/mth) / 52 wks/yr = 1.374 hrs/wk

Exe_time (activity #2, line 2) = 0.333 hrs/wk

Exe_time (activity #3, line 3) = 0.385 hrs/wk

Exe_time (activity #4, line 4) = 0.692 hrs/wk

Exe_time (activity #5, line 5) = 0.4996 hrs/wk

Exe_time $\qquad$ = **3.284 hrs/wk**

- **Leisure MET hours/week (Exe_mets)**
  Average weekly metabolic output from recreation and leisure activities.
  = Sum of [(MET value * Months per year * **Days per week** * Hours per day * 4.33 weeks per month) / 52 weeks per year], for each activity *or*
  = Sum of [(MET value * Months per year * **Days per month** * Hours per day / 52 weeks per year], for each activity *or*
  = Sum of [MET value * **Days per year** * Hours per day / 52 weeks per year], for each activity

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Example from sample PYTPAQ:

Exe_mets (activity #1, line 1) = (6.5 METs * 11 mths/yr * 2 d/wk * 0.75 hrs/d * 4.33 wks/mth) / 52 wks/yr = 8.931 MET hrs/wk

Exe_mets (activity #2, line 2)= 8.0 METs * 0.333 hrs/wk = 2.664 MET hrs/wk

Exe_mets (activity #3, line 3)= 3.0 METs * 0.385 hrs/wk = 1.155 MET hrs/wk

Exe_mets (activity #4, line 4)= 3.5 METs * 0.692 hrs/wk = 2.422 MET hrs/wk

Exe_mets (activity #5, line 5)= 3.0 METs * 0.4996 hrs/wk = 1.499 MET hrs/wk

Exe_mets $\qquad$ = **16.671 MET hrs/wk**

TOTAL ACTIVITY

The Hours/week and MET hours/week for each subsection are summed to derive two final variables:

- **Total hours/week (Tot_hrs)**
  Sum of average weekly time spent active in the four categories above.

> **Example from sample PYTPAQ:**
> Tot_hrs = (29.144 + 0.222 + 17.361 + 3.284) hrs/wk
> = **50.011 hrs/wk**

- **Total MET hours/week (Tot_mets)**
  Sum of metabolic output of average weekly time spent active in the four categories above.

> **Example from sample PYTPAQ:**
> Tot_mets = (70.655 + 0.555 + 44.736 + 16.671) MET hrs/wk
> = **132.617 MET hrs/wk**

TOTAL HOURS SPENT AT LOW, MEDIUM AND HIGH INTENSITY ACTIVITIES

The sum of time spent at low (<3 MET), medium (3-6 MET) and high (>6 MET) intensity activities for all categories, i.e. occupational, household, transportation and recreational activities was estimated in three variables:

- **Total low intensity hours per week (Tot_low)**
  Sum of average weekly time spent in low intensity activity.

> **Example from sample PYTPAQ:**
> Tot_low = (28.103 + 0.222 + 16.029) hrs/wk
> = **44.354 hrs/wk**

- **Total medium intensity hours per week (Tot_med)**
  Sum of average weekly time spent in medium intensity activity.

> **Example from sample PYTPAQ:**
> Tot_med = (0.042 + 0.999 + 0.916 + 0.333 + 0.083 + 0.385 + 0.692 + 0.4996) hrs/wk
> = **3.950 hrs/wk**

- **Total high intensity hours per week (Tot_high)**
  Sum of average weekly time spent in high intensity activity.

Example from sample PYTPAQ:

Tot_high $\quad = (1.374 + 0.333)$ hrs/wk

$\qquad\qquad = \boxed{\textbf{1.707 hrs/wk}}$

Table 1: Summary of Derivations for Past Year Physical Activity Assessment using the PYTPAQ

Variable Name	Description	Derivation	Units
Occ_time	Average weekly time spent doing employment and volunteer activities	$\sum_{\text{across all jobs}}$ [months/year * days/week * hours/day * 4.33 weeks/month * 1 year/52 weeks]	Hours per week
Occ_mets	Average weekly metabolic output from employment and volunteer activities	$\sum_{\text{across all jobs}}$ [Mean MET value for one job * hours/week]	MET hours per week
TransT	Average weekly time spent traveling to and from work/volunteering	$\sum_{\text{across all transport activities}}$ [months/year * days/week * (minutes/day / 60 minutes/hour) * 4.33 weeks/month * 1 year/52 weeks]	Hours per week
Transmet	Average weekly metabolic output from traveling to and from work / volunteering	$\sum_{\text{across all transport activities}}$ [MET value * hours/week]	MET hours per week
Hou_time	Average weekly time spent performing household and do-it-yourself activities	$\sum_{\text{across all household activities}}$ [months/year * days/week * hours/day * 4.33 weeks/month * 1 year/52 weeks]	Hours per week
Hou_mets	Average weekly metabolic output from household and do-it-yourself activities	$\sum_{\text{across all household activities}}$ [MET value based on self-reported intensity * hours/week]	MET hours per week
Exe_time	Average weekly time spent performing recreation and leisure activities	$\sum_{\text{across all recreational activities}}$ [months/year * **days/week** * hours/day * 4.33 weeks/month * 1 year/52 weeks], or $\sum_{\text{across all recreational activities}}$ [months/year * **days/month** * hours/day * 1 year/52 weeks], or $\sum_{\text{across all recreational activities}}$ [**days/year** * hours/day * 1 year/52 weeks]	Hours per week
Exe_mets	Average weekly metabolic output from recreation and leisure activities	$\sum_{\text{across all recreational activities}}$ [MET value * hours/week]	MET hours per week
Tot_hrs	Total average weekly time spent performing all activities	$\sum$ [Occupational, Transportation, Household, Recreational hours/week]	Hours per week
Tot_mets	Total average weekly metabolic output from all activities	$\sum$ [Occupational, Transportation, Household, Recreational MET hours/week]	MET hours per week
Tot_low	Sum of average weekly time spent in low intensity activity	$\sum$ [Occupational$_{<3METs}$, Transportation$_{<3METs}$, Household$_{<3METs}$, Recreational$_{<3METs}$ hours/week]	Hours per week

Tot_med	Sum of average weekly time spent in medium intensity activity	Σ [Occupational$_{3\text{-}6 \text{ METs}}$, Transportation$_{3\text{-}6 \text{ METs}}$, Household$_{3\text{-}6 \text{ METs}}$, Recreational$_{3\text{-}6 \text{ METs}}$ hours/week]	Hours per week
Tot_high	Sum of average weekly time spent in high intensity activity	Σ [Occupational$_{>6 \text{ METs}}$, Transportation$_{>6 \text{ METs}}$, Household$_{>6 \text{ METs}}$, Recreational$_{>6 \text{ METs}}$ hours/week]	Hours per week

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