

PIN Physical Activity Questionnaire Scoring:  
August 9, 2007

Table 1: Summary of the 1 week recall designed to capture moderate and vigorous physical activity among pregnant women, PIN3

"Now I am going to ask you some questions about physical activities you might do at work, at home, for recreation, and about activities involving child or adult care. I want you to tell me about activities you did that "caused at least some increase in breathing and heart rate". The questions ask about the past week, meaning the last 7 days not including today. So that would mean from last \_\_\_\_\_<day> to yesterday or \_\_\_\_\_<day>." *[All questions are framed 'in the past week'. If a respondent is having difficulty adding up the time, such as in the occupational section, then reframe the question 'per day' and calculate based on the past 7 days.]*

	<b>Main question</b>	<b>Type</b>	<b>Frequency</b>	<b>Duration</b>	<b>Intensity</b>
Recreational	In the past week, did you participate in any non-work recreational activity or exercise, such as walking for exercise, swimming, or dancing, that caused at least some increase in breathing and heart rate?	What type of recreational activities did you do during the past week?  For certain activities: on average, how far did you usually (activity)?	How many times in the past week did you (activity)?	On average, for how many minutes or hours did you usually (activity) at a time?	Thinking about your breathing and heart rate, how hard did this usually feel to you? Fairly light / Somewhat hard / Hard or very hard
Outdoor household activities	In the past week, did you participate in any outdoor household activities such as gardening, mowing, or raking that caused at least some increase in breathing and heart rate?	What type of outdoor household activities did you do during the past week?  For lifting, carrying, or shoveling: On average, how much did the objects weigh that you (activity)?	How many times in the past week did you (activity)?	On average, for how many minutes or hours did you usually (activity) at a time?	Thinking about your breathing and heart rate, how hard did this usually feel to you? Fairly light / Somewhat hard / Hard or very hard
Indoor household activities	In the past week, did you participate in any indoor household activities such as scrubbing floors, mopping, or vacuuming that caused at least some increase in breathing and heart rate?	What type of indoor household activities did you do during the past week?  For lifting or carrying: On average, how much did the objects weigh that you (activity)?	How many times in the past week did you (activity)?	On average, for how many minutes or hours did you usually (activity) at a time?	Thinking about your breathing and heart rate, how hard did this usually feel to you? Fairly light / Somewhat hard / Hard or very hard
Child and adult care – lifting	Child and adult care activities ... would be activities such as playing with children, pushing a stroller or wheelchair, carrying,	What type of child or adult care activities did you do during the past week?	How many times in the past week did you (activity)?	On average, for how many minutes or hours did you usually (activity) at a time?	Thinking about your breathing and heart rate, how hard did this usually feel to you? Fairly light / Somewhat hard /

	or lifting a child or adult that you may do in your home or as a volunteer. In the past week, did you participate in any child or adult care activities that caused at least some increase in breathing and heart rate?	For lifting or carrying: On average, how much did the objects weigh that you (activity)?			Hard or very hard
Transportation - walk	In the past week, did you walk for transportation, such as to work or to the store, which caused at least some increase in breathing and heart rate?	WALK On average, how far did you usually walk one-way?	How many one-way trips did you walk in the past week?	On average, for how many minutes or hours did a one-way walking trip usually take?	Thinking about your breathing and heart rate, how hard did this usually feel to you? Fairly light / Somewhat hard / Hard or very hard
Transportation - bike	In the past week, did you bike for transportation, such as to work or to the store, which caused at least some increase in breathing and heart rate?	BIKE On average, how far did you usually bike one-way?	How many one-way trips did you bike in the past week?	On average, for how many minutes or hours did a one-way biking trip usually take?	Thinking about your breathing and heart rate, how hard did this usually feel to you? Fairly light / Somewhat hard / Hard or very hard
Work and school activities	In the past week, did you participate in any work activities such as walking, lifting, or carrying objects, that caused at least some increase in breathing and heart rate?	What type of work activities did you do during the past week?  For carrying or shoveling: On average, how much did the objects weigh that you (activity)?	How many times in the past week did you (activity)?  For walking: On average, how far did you usually walk?	On average, for how many minutes or hours did you usually (activity) at a time?	Thinking about your breathing and heart rate, how hard did this usually feel to you? Fairly light / Somewhat hard / Hard or very hard
Stairs	X	X	How many times in the past week did you walk up a flight of stairs?	X	Thinking about your breathing and heart rate, how hard did this usually feel to you? Not hard / Fairly light / Somewhat hard / Hard or very hard
Other activity	Before we move on to another section, I want to be sure you had a chance to tell me about all the activities you did in the past week that caused at least some increase in breathing and heart rate. Can you think of any other activities, including lifting, you did in the past week that we have not talked about?	What other activities did you do during the past week?  For some activities: On average, how far did you usually (activity)?	How many times in the past week did you (activity) at a time?  For lifting, carrying, or shoveling: On average, how much did the objects weigh that you (activity)?	On average, for how many minutes or hours did you usually (activity) at a time?	Thinking about your breathing and heart rate, how hard did this usually feel to you? Fairly light / Somewhat hard / Hard or very hard

not hard = did not feel any increase in breathing or heart rate  
fairly light = at least some increase in breathing and heart rate  
somewhat hard = moderate increase in breathing and heart rate  
hard or very hard = large increase in breathing and heart rate

Table 2: Scoring the questionnaire using perceived intensity. Provides a measure of PA at FL (fairly light), SH (somewhat hard), and H (hard or very hard) intensities as well as total time in these activities.

Mode	Activity	# Times and How Long (convert minutes to hours)	How Hard	Derived Variables Related to Total Score	Pregnancy phone 1	Pregnancy phone 2	3 months PP	12 months PP
Work Activity	Ignore	For each activity, multiply: (# times) * (hours) = total hours/week in each work activity reported.	Total the hours/week separately for FL, SH, and H. Also create a total sum: (FL+SH+H).	# hours/week in FL work PA # hours/week in SH work PA # hours/week in H work PA total # hours/week in work PA	PH1_WK1 PH1_WK2 PH1_WK3 PH1_WK4	PH2_WK1 PH2_WK2 PH2_WK3 PH2_WK4	PP3_WK1 PP3_WK2 PP3_WK3 PP3_WK4	PP12_WK1 PP12_WK2 PP12_WK3 PP12_WK4
Recreational Activity	Ignore	For each activity, multiply: (# times) * (hours) = total hours/week in each recreational activity reported.	Total the hours/week separately for FL, SH, and H. Also create a total sum: (FL+SH+H).	# hours/week in FL recr PA # hours/week in SH recr PA # hours/week in H recr PA total # hours/week in recr PA	PH1_RC1 PH1_RC2 PH1_RC3 PH1_RC4	PH2_RC1 PH2_RC2 PH2_RC3 PH2_RC4	PP3_RC1 PP3_RC2 PP3_RC3 PP3_RC4	PP12_RC1 PP12_RC2 PP12_RC3 PP12_RC4
Outdoor HH Activity	Ignore	For each activity, multiply: (# times) * (hours) = total hours/week in each outdoor activity reported.	Total the hours/week separately for FL, SH, and H. Also create a total sum: (FL+SH+H).	# hours/week in FL outd PA # hours/week in SH outd PA # hours/week in H outd PA total # hours/week in outd PA	PH1_OT1 PH1_OT2 PH1_OT3 PH1_OT4	PH2_OT1 PH2_OT2 PH2_OT3 PH2_OT4	PP3_OT1 PP3_OT2 PP3_OT3 PP3_OT4	PP12_OT1 PP12_OT2 PP12_OT3 PP12_OT4
Indoor HH Activity	Ignore	For each activity, multiply: (# times) * (hours) = total hours/week in each indoor activity reported.	Total the hours/week separately for FL, SH, and H. Also create a total sum: (FL+SH+H).	# hours/week in FL indoor PA # hours/week in SH indoor PA # hours/week in H indoor PA total # hours/week in indoor PA	PH1_IN1 PH1_IN2 PH1_IN3 PH1_IN4	PH2_IN1 PH2_IN2 PH2_IN3 PH2_IN4	PP3_IN1 PP3_IN2 PP3_IN3 PP3_IN4	PP12_IN1 PP12_IN2 PP12_IN3 PP12_IN4
Child and Adult Care	Ignore	For each activity, multiply: (# times) * (hours) = total hours/week in each child/ adult care activity reported.	Total the hours/week separately for FL, SH, and H. Also create a total sum: (FL+SH+H).	# hours/week in FL work PA # hours/week in SH work PA # hours/week in H work PA total # hours/week in work PA	PH1_CA1 PH1_CA2 PH1_CA3 PH1_CA4	PH2_CA1 PH2_CA2 PH2_CA3 PH2_CA4	PP3_CA1 PP3_CA2 PP3_CA3 PP3_CA4	PP12_CA1 PP12_CA2 PP12_CA3 PP12_CA4
Transportation	N/A	For walking, multiply: (# trips) * (hours) = total hours/week in walking. For biking, multiply: (# trips) * (hours) = total hours/week in biking.	Total the hours/week spent walking and biking separately FL, SH, or H. Also create a total sum: (FL+SH+H).	# hours/week in FL tran # hours/week in SH tran # hours/week in H tran total # hours/week in tran PA	PH1_TN1 PH1_TN2 PH1_TN3 PH1_TN4	PH2_TN1 PH2_TN2 PH2_TN3 PH2_TN4	PP3_TN1 PP3_TN2 PP3_TN3 PP3_TN4	PP12_TN1 PP12_TN2 PP12_TN3 PP12_TN4
Other Activity	Ignore	NOTE: These activities are recoded into other domains.						

Stairs	Ignore	Multiply: (# flights of stairs) * (15 seconds) * (1 minute / 60 seconds) * (60 minutes/1 hour) = total hours/week in stairs.	Total the hours/week separately for NH, FL, SH, and H. Also create a total sum: (FL+SH+H).	# hours/week in FL stairs # hours/week in SH stairs # hours/week in H stairs	PH1_ST1 PH1_ST2 PH1_ST3 PH1_ST4	PH2_ST1 PH2_ST2 PH2_ST3 PH2_ST4	PP3_ST1 PP3_ST2 PP3_ST3 PP3_ST4	PP12_ST1 PP12_ST2 PP12_ST3 PP12_ST4
TOTAL without stair question				# hours/week in FL PA # hours/week in SH PA # hours/week in H PA # hours/week in total PA	PH1_TL1 PH1_TL2 PH1_TL3 PH1_TL4	PH2_TL1 PH2_TL2 PH2_TL3 PH2_TL4	PP3_TL1 PP3_TL2 PP3_TL3 PP3_TL4	PP12_TL1 PP12_TL2 PP12_TL3 PP12_TL4

Table 3: Scoring the questionnaire done using compendium based intensity (Ainsworth). Provides a total sum of MET-hours/week of physical activity.

Mode	Activity	# Times and How Long (convert minutes to hours)	How Hard	Total	Pregnancy phone 1	Pregnancy phone 2	3 months PP	12 months PP
Work Activity	Connect the code of each activity to a MET value.	For each activity, multiply: $(\# \text{ times}) * (\text{hours}) =$ total hours/week in each work activity reported.	Multiply the hours/week in each activity by its MET value = MET-hours/week.	Sum each work activity MET-hours/week to derive a total sum for work activity.	PM1_WK	PM2_WK	PPM3_WK	PPM12_WK
Recreational Activity	Connect the code of each activity to a MET value.	For each activity, multiply: $(\# \text{ times}) * (\text{hours}) =$ total hours/week in each recreational activity reported.	Multiply the hours/week in each activity by its MET value = MET-hours/week.	Sum each recr activity MET-hours/week to derive a total sum for recreational activity.	PM1_RC	PM2_RC	PPM3_RC	PPM12_RC
Outdoor HH Activity	Connect the code of each activity to a MET value.	For each activity, multiply: $(\# \text{ times}) * (\text{hours}) =$ total hours/week in each outdoor activity reported.	Multiply the hours/week in each activity by its MET value = MET-hours/week.	Sum each outdoor activity MET-hours/week to derive a total sum for outdoor activity.	PM1_OT	PM2_OT	PPM3_OT	PPM12_OT
Indoor HH Activity	Connect the code of each activity to a MET value.	For each activity, multiply: $(\# \text{ times}) * (\text{hours}) =$ total hours/week in each indoor activity reported.	Multiply the hours/week in each activity by its MET value = MET-hours/week.	Sum each indoor activity MET-hours/week to derive a total sum for indoor activity.	PM1_IN	PM2_IN	PPM3_IN	PPM12_IN
Child and Adult Care	Connect the code of each activity to a MET value.	For each activity, multiply: $(\# \text{ times}) * (\text{hours}) =$ total hours/week in each child/ adult care activity reported.	Multiply the hours/week in each activity by its MET value = MET-hours/week.	Sum each child / adult care activity MET-hours/week to derive a total sum for child / adult care activity.	PM1_CA	PM2_CA	PPM3_CA	PPM12_CA
Transportation	Assign 4.0 METS walking (#17270) and 4.0 METS biking (#01010).	For walking, multiply: $(\# \text{ trips}) * (\text{hours}) =$ total hours/week in walking. For biking, multiply: $(\# \text{ trips}) * (\text{hours}) =$ total hours/week in biking.	Multiply the hours/week separately for biking and walking by its MET value = MET-hours/week.	Sum transportation activity MET-hours/week to derive a total sum for transportation activity.	PM1_TN	PM2_TN	PPM3_TN	PPM12_TN
Other Activity		NOTE: These activities are recoded						

		into other domains.						
Stairs	Assign 8.0 METS for going up stairs (#17130).	Multiply: (# flights of stairs) * (15 seconds) * (1 minute / 60 seconds) * (60 minutes/1 hour) = total hours/week in stairs.	Multiply the hours/week for stairs by its MET value = MET-hours/week.	MET hours/week in stairs	PM1_ST	PM2_ST	PPM3_ST	PPM12_ST
TOTAL <b>without</b> stairs				Sum the MET-hours/week in each activity domain to get a total score	PM1_TL	PM2_TL	PPM3_TL	PPM12_TL

Table 4: Scoring the questionnaire done using "exercise" variable's perceived intensity. Provides a measure of PA that is exercise in nature at FL (fairly light), SH (somewhat hard), and H (hard or very hard) intensities, total time in these activities, as well as total sum of MET-hours/week.

Mode	Activity	# Times and How Long (convert minutes to hours)	How Hard	Total	Pregnancy phone 1	Pregnancy phone 2	3 months PP	12 months PP
Exercise activity	Exercise	For each exercise activity, multiply: (# times) * (hours) = total hours/week	Total the hours/week separately for FL, SH, and H. Also create a total sum: (FL+SH+H).	# hours/week in FL exercise # hours/week in SH exercise # hours/week in H exercise total # hours/week in exercise	PH1_EX1 PH1_EX2 PH1_EX3 PH1_EX4	PH2_EX1 PH2_EX2 PH2_EX3 PH2_EX4	PP3_EX1 PP3_EX2 PP3_EX3 PP3_EX4	PP12_EX1 PP12_EX2 PP12_EX3 PP12_EX4
	Connect the code of each activity to a MET value.	For each exercise activity, multiply: (# times) * (hours) = total hours/week	Multiply the hours/week in each exercise activity by its MET value = MET-hours/week.	Sum each exercise activity MET-hours/week to derive a total sum for exercise activity.	PM1_EX	PM2_EX	PPM3_EX	PPM12_EX

Table 5: Scoring the questionnaire done on walking activities (based on subcategory of "exercise" variable and compendium code). Provides measures of walking PA that is 1) exercise in nature and subcategory=16; 2) compendium code=17270, total time in these activities, as well as total sum of MET-hours/week.

Mode	Activity	# Times and How Long (convert minutes to hours)	How Hard	Total	Pregnancy phone 1	Pregnancy phone 2	3 months PP	12 months PP
Recreational walking activity	Activity with subcategory code of exercise activity =16	For each recreational walking (subcategory code of exercise activity =16), multiply: (# times) * (hours) = total hours/week	Total the hours/week on recreational walking	total # hours/week in recreational walking	PH1_RW4	PH2_RW4	PP3_RW4	PP12_RW4
	Connect the code of each activity to a MET value.	For each recreational walking, multiply: (# times) * (hours) = total hours/week	Multiply the hours/week in each recreational walking by its MET value = MET-hours/week.	Sum each recreational activity MET-hours/week to derive a total sum for exercise activity.	PM1_RW	PM2_RW	PPM3_RW	PPM12_RW
Transportation walking activity	activity with compendium code=17270	For each transportation walking activity (compendium code=17270), multiply: (# times) * (hours) = total hours/week	Total the hours/week on transportation walking	total # hours/week in transportation walking	PH1_TW4	PH2_TW4	PP3_TW4	PP12_TW4
	Connect the code of each activity to a MET value.	For each transportation walking, multiply: (# times) * (hours) = total hours/week	Multiply the hours/week in each transportation walking by its MET value = MET-hours/week.	Sum each transportation activity MET-hours/week to derive a total sum for exercise activity.	PM1_TW	PM2_TW	PPM3_TW	PPM12_TW

**PIN3 Recommended Physical Activity Definitions**

RPE Definitions

PIN3 Perceived Intensity	<u>ACSM 1998</u> (1)	<u>US Surgeon General's Report</u> (2)	<u>Borg</u> (3)
Fairly light	10-11	9-10	11
Somewhat hard	12-13	11-12	13
Hard or very hard	14+	13-16	15 hard 17 very hard

MET Definitions

PIN3 Perceived Intensity	<u>ACSM 1998: for a 20-39 year old</u> (1)	<u>US Surgeon General's Report</u> (2)
Fairly light		<3
Somewhat hard	4.8-7.1	3-6
Hard or very hard	7.2+	>6

(1) US Surgeon General's Recommendations (2) and Public Health Recommendations from CDC/ACSM for Moderate Intensity Physical Activity (4):  
The recommendation is that "every US adult should accumulate 30 minutes or more of moderate intensity physical activity on most, preferably all days of the week."

How to define for PIN3?

- (i) Using Absolute Intensity: Recreational, work, outdoor, indoor, child/adult care, or transport activity in sum needs to occur at least 5 times per week for at least 30 minutes per day. This will be derived from the summary total variable of # hours per week in "somewhat hard" activity. The total time should be  $\geq 150$  minutes/week.
- (ii) Using Relative Intensity: Choose any activity that is assigned a MET value of 4.8-7.1 METS. Calculate the hours per week of activities in this MET range. The total time should be  $\geq 150$  minutes/week.

Notes:  
Russ Pate agreed that we should use the MET values from the ACSM 1998 publication that is age specific.

(2) ACSM vigorous activity recommendation (1):  
The recommendation is for vigorous activity 3 or more times per week, 20-60 minutes of continuous or intermittent (at least 10 minute bouts) of aerobic activity (see page 975).

How to define for PIN3?

- (iii) Using Absolute Intensity: Recreational, work, outdoor, indoor, child/adult care, or transport activity in sum needs to occur at least 3 times per week for at least 20 minutes per day. This will be derived from the summary total variable of # hours per week in "hard or very hard" activity. The total time should be  $\geq 60$  minutes/week.

- (iv) Using Relative Intensity: Choose any activity that is assigned a MET value of  $\geq 7.2$  METS. Calculate the hours per week of activities in this MET range. The total time should be  $\geq 60$  minutes/week.

(3) ACOG recommended physical activity definition (5):

The recommendation is for "an accumulation of 30 minutes of more of moderate exercise a day should occur on most, if not all, days of the week." (page 1)

How to define in PIN3?

- (v) Using Absolute Intensity: Activities that are "exercise" in nature were double coded from the compendium. These activities should be summed separately as fairly light, somewhat hard, and hard/very hard. To meet this recommendation, we will count only "somewhat hard" activity with the time  $\geq 150$  minutes/week.
- (vi) Using Relative Intensity: Use only the activities coded as "exercise" with a MET value of 4.8-7.1 METS. Calculate the hours per week of these activities in this MET range. The total time should be  $\geq 150$  minutes/week.

Notes:

It may not have been the intention of the ACOG guidelines to limit the activities to only exercise related activities.

Limitations of the PIN3 questionnaire in deriving these measures:

- (1) Women must average minutes per session.
- (2) At the interviews, women were told initially: "Now I am going to ask you some questions about physical activities you might do at work, at home, for recreation, and about activities involving child or adult care. I want you to tell me about activities you did that caused at least some increase in breathing and heart rate". From this, we would have expected at least moderate activity would be reported. However, we gave them the option of reporting activities as fairly light, somewhat hard, hard, or very hard. However, in defining moderate activity we chose to exclude "fairly light".
- (3) Bouts occurring less than 10 minutes per time will be included, even though they should not be.
- (4) It should be noted that the MET range being used is for nonpregnant adults. We decided against any sort of scaling of MET values due to pregnancy.

References Cited

- 1 Pollock M, Gaesser G, Butcher J, et al. American College of Sports Medicine Position Stand: The recommended quantity and quality of exercise for developing and maintaining cardiorespiratory and muscular fitness, and flexibility in healthy adults. *Medicine and Science in Sports and Exercise* 1998;30:975-91.
- 2 U.S. Department of Health and Human Services. Physical Activity and Health: A Report of the Surgeon General. 1996. U.S. DHHS, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion: Atlanta, GA
- 3 Borg G, Linderholm H. Perceived exertion and pulse rate during graded exercise in various age groups. *Acta Med Scand* 1974;472:194-206.
- 4 Pate R, Pratt M, Blair S, et al. Physical activity and public health. A recommendation from the Centers for Disease Control and Prevention and the American College of Sports Medicine. *JAMA* 1995;273:402-7.
- 5 ACOG. Exercise during pregnancy and the postpartum period. ACOG Committee Opinion No. 267. *Obstet Gynecol* 2002;99:171-3.

Variable names

	<b>Form</b>	<b>Pregnancy 1st phone Interview</b>	<b>Pregnancy 2nd phone Interview</b>	<b>Postpartum 3 months</b>	<b>Postpartum 12 months</b>
CDC/ACSM moderate activity, absolute intensity	continuous (from total 'somewhat hard' PA)	PH1_TL2	PH2_TL2	PP3_TL2	PP12_TL2
	categorical 1=yes, 0=no	PH1_TL2_YN	PH2_TL2_YN	PP3_TL2_YN	PP12_TL2_YN
CDC/ACSM moderate activity, relative intensity	continuous	PM1_TL2	PM2_TL2	PPM3_TL2	PPM12_TL2
	categorical 1=yes, 0=no	PM1_TL2_YN	PM2_TL2_YN	PPM3_TL2_YN	PPM12_TL2_YN
ACSM vigorous activity, absolute intensity	continuous (from total 'hard or very hard' PA)	PH1_TL3	PH2_TL3	PP3_TL3	PP12_TL3
	categorical 1=yes, 0=no	PH1_TL3_YN	PH2_TL3_YN	PP3_TL3_YN	PP12_TL3_YN
ACSM vigorous activity, relative intensity	continuous	PM1_TL3	PM2_TL3	PPM3_TL3	PPM12_TL3
	categorical 1=yes, 0=no	PM1_TL3_YN	PM2_TL3_YN	PPM3_TL3_YN	PPM12_TL3_YN
ACOG exercise, absolute intensity	continuous	PH1_EX2	PH2_EX2	PP3_EX2	PP12_EX2
	categorical 1=yes, 0=no	PH1_EX2_YN	PH2_EX2_YN	PP3_EX2_YN	PP12_EX2_YN
ACOG exercise, relative intensity	continuous	PM1_EX2	PM2_EX2	PPM3_EX2	PPM12_EX2
	categorical 1=yes, 0=no	PM1_EX2_YN	PM2_EX2_YN	PPM3_EX2_YN	PPM12_EX2_YN

\* note: all categorical variables are derived from their continuous version:  
1=Yes, meet recommendation; 0=No, not meet recommendation

## PIN Physical Activity (PA) Questionnaire Cleaning Protocol

### Strategy to clean PIN PA questionnaires:

(1) By modes of activities (i.e., recreational, work, adult care, ect.) pull out and examine if the following observations are possible:

- total hours for a given activity  $\geq 21$  hours in a week
- number of times an activity is performed is  $\geq 140$  hours/week
- data with average hours  $> 1$  hour/time and time  $> 1$  time/week
- MET-hours per week in any domain  $\geq 125$  MET-hours/week

Kelly Evenson reviewed the output for all of these observations. For the ones that seemed questionable during pregnancy, the interview documents for these women were pulled and both Kelly Evenson and Chyrise Bradley reviewed together. Data entry errors were corrected and unreasonable values were set to missing. For the postpartum data, because they were entered using Blaise, we could not check the hard copy interview documents. Unreasonable values were set to missing. The data still contain outliers!

(2) Once the modes of activities (i.e., recreational, work, adult care, ect.) were cleaned, then the overall calculated scores were checked. Pull out and examine to see if the following observations are possible:

- total MET-hours per week  $\geq 300$  MET-hours/week
- total FL or SH or VH hours per week in PA  $> 40$  hours
- total overall hours per week in PA  $\geq 70$  hours

Kelly Evenson reviewed the output for all of these observations. For the ones that seemed questionable during pregnancy, the interview documents for these women were pulled and both Kelly Evenson and Chyrise Bradley reviewed together. Data entry errors were corrected and unreasonable values were set to missing. For the postpartum data, because they were entered using Blaise, we could not check the hard copy interview documents. Impossible values were set to missing (there were very few of these). The data still contain outliers!

### How to treat missing data:

(1) For data with missing intensity levels, if everything else is complete (i.e., time, frequency, type), then set these to "FAIRLY LIGHT". This will be a conservative assignment and we can describe in the methods paper how few women this really affected.

(2) For the other missings (such as frequency and duration), set these to zero and do not use them in the totals.

### Notes

- The interviewers are instructed to not repeat activities when they are conducting the interview, unless they are for distinctly different activities that may have occurred for a different amount of time. In fact, when they are asking the woman for the activities that she did, Blaise will display all of the other activities she has already enumerated precisely so that the interviewers will not repeat an activity. However, for a category like playing with children, it is very broad and could occur multiple times. Perhaps one time she was playing with a kid in the park, another she was playing peek-a-boo, and another she was dancing with the kid. We just don't know. (per Aimee Benson)

- For the PIN3 Phone Interview 1 and 2 as well as the In-hospital Questionnaires, there are 67 activities coded with zero total hours due to "missing/incomplete" activity data. So, these 67 activities are NOT included in the "Total" Score. The 67 activities are out of 18,959 total activities. These 67 activities are for 53 women out of a total of 1813 women. IN ADDITION, there are 29 activities (out of 18,959) that did NOT get scored because the "HOW\_HARD" variable as coded as a 9 (I Don't Know). (per Jim Terry) However, per #1 above under missing data, these observations were set to

"FAIRLY LIGHT" if everything else was complete.

- A study of the validity and the reliability of this questionnaire was conducted. The analyses are complete and the manuscript is in progress (Kelly Evenson).

### **Explanation of columns in 'PIN METTable allnewcolumnsadded'**

#### **Compcode**

Compendium code, that is either from the Ainsworth compendium or derived for the PIN study.

#### **References:**

Ainsworth B, Haskell W, Leon A, et al. Compendium of physical activities: Classification of energy costs of human physical activities. *Med Sci Sports Exerc* 1993;25:71-80.

Ainsworth B, Haskell W, Whitt M, et al. Compendium of physical activities: an update of activity codes and MET intensities. *Med Sci Sport Exer* 2000;32:S498-S516.

#### **METS**

MET values published from the Ainsworth compendium or derived for the PIN study. For the derived MET values, at least two raters agreed together on the assignment based on similar activities in the compendium with assigned MET values.

Per Aimee Benson: "*The extra activities without METS that you see are activities that I had added when we went to Blaise for the Postpartum study. I tried to anticipate activities that we didn't already have on the list, in case they showed up during the laptop administration. The laptop was different from the PIN admin in that the interviewer would pull up a pre-sorted and coded list of activities from which to choose the response that the respondent was giving. If the response couldn't be fit into a preexisting option, they could then enter it as "other". With PIN, there was a grid into which the interviewer wrote the activity and then we would code these after the fact. I guarantee that there are activities that I had come up with that were never given by the respondents.*"

#### **Class**

Type of activity, broadly defined.

#### **Descript**

The specific activity described from the Ainsworth compendium or by the PIN participant.

#### **Code in compendium**

Defines whether the code for the activity existed in the Ainsworth compendium.

1= existed in the compendium

0= was created as a new code on the basis of what the PIN women reported, the MET assignment was checked by at least two people and agreed upon before entering into spreadsheet

### **Exercise**

Describes whether an activity was categorized as exercise. Exercise is defined as "planned, structured, and repetitive bodily movement done to improve or maintain one or more components of physical fitness". (page 21)

1=yes

0=no

### Reference:

U.S. Department of Health and Human Services. Physical Activity and Health: A Report of the Surgeon General. 1996. U.S. DHHS, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion: Atlanta, GA.

### **Recreational subcategory**

Lists all new subcategories for recreational activities. To be used to summarize recreational physical activity into fewer types of activity.

1= Aerobic dance

2= Aerobic gym exercise

3= Bicycling outdoors

4= Calisthenics / conditioning

5= Combat exercise (judo, jujitsu, karate, kick boxing against opponent, tae kwan do, akido)

6= Dancing

7= Golf (not including miniature golf)

8= Horseback riding

9= Pair and team sports (basketball, bowling, etc.)

10= Play with children\*

11= Pushing a stroller and walking with children

12= Roller blading or roller skating or ice skating

13= Running

14= Swimming and water activities (could be team or individual)

15= Trampoline

16= Walking and hiking

17= Water activities in a boat/canoe/kayak, ect.

18= Weight lifting

19= Winter activities

20= Yoga and stretching

21= Water aerobics, water calisthenics

\*All activities listed here were also considered exercise (exercise=1) except for code 10 (playing with children), which was not considered exercise.