

School Number: _____

ID Number: _____

Youth Activity Profile

Please answer these questions about yourself. The information will only be used for the study.

1. What is Your Gender (circle one): Male Female
2. What is Your Age (fill in blank): _____ years
3. What is your Birthdate? ___/___/___ (month/day/year)
4. What is your Grade in School (circle one)? 3 4 5 6 7 8 9 10 11 12
5. What is your Home Phone Number? _____
(Needed to contact you about the study)

The *Youth Activity Profile* will ask you about the time you spend being active (both in school and out of school) and the time you spend being sedentary last week.

- Physical activities are things that involve a lot of walking, running or moving around. It includes biking and dancing as well as sports or outdoor play that involves a lot of moving around
- Sedentary activities are things such as watching TV, or playing video games, computer games, or hand-held games that you do in your free time. It does NOT include the time you spend sitting while eating or while doing homework.

Before we begin, please pick the response that best summarizes your **typical** level of physical activity?

- All or most of my free time is usually spent doing things that involve little physical effort
- I sometimes (1-2 times last week) do physical things in my free time (e.g. played sports, went running, swimming, bike riding, did aerobics)
- I often (3-4 times last week) do physical things in my free time
- I quite often (5-6 times last week) do physical things in my free time
- I very often (7 or more times last week) do physical things in my free time

The questions that follow will ask you to think only about the last 7 days! It is okay if last week was not an active week for you. It is likely that you might be active some weeks and not active others. There are no right or wrong answers so provide honest answers.

Youth Activity Profile

Activity Levels - at School

These questions ask about your physical activity at school. This includes physical education but you may also be active on your way to school, during recess, or at lunch. **Answer the questions based on your physical activity at school in the last 7 days.** *Do not answer the questions in the small boxes*

1. **Activity To School:** How many days often did you **walk or bike to school**? *(If you can't remember, try to estimate)*
 - a. 0 days (never)
 - b. 1 day
 - c. 2 days
 - d. 3 days
 - e. 4-5 days (most every day)

2. **Activity during Physical Education Class:** During **physical education**, how often were you running and moving as part of the planned games or activities? *(If you didn't have PE, choose "I didn't have physical education")*
 - a. I didn't have physical education
 - b. Almost none of the time
 - c. A little bit of the time
 - d. A moderate amount of time
 - e. A lot of the time
 - f. Almost all of the time

3. **Activity during Recess:** During **recess**, how often were you playing sports, walking, running, or playing active games? *(If you didn't have recess at school, choose "I didn't have recess")*
 - a. I didn't have recess
 - b. Almost none of the time
 - c. A little bit of the time
 - d. A moderate amount of time
 - e. A lot of the time
 - f. Almost all of the time

4. **Activity during Lunch:** During **lunch break**, how often were you moving around, walking or playing? *((If you didn't have a lunch break at school, choose "I didn't have lunch breaks"))*
 - a. I didn't have lunch breaks
 - b. Almost none of the time
 - c. A little bit of the time
 - d. A moderate amount of time
 - e. A lot of the time
 - f. Almost all of the time

5. **Activity From School:** How many days often did you **walk or bike from school**? *(If you can't remember, try to estimate)*
 - a. 0 days (never)
 - b. 1 day
 - c. 2 days
 - d. 3 days
 - e. 4-5 days (most every day)

Youth Activity Profile

Activity Levels - Outside of School

These questions ask about your overall levels of physical activity during different periods of time (outside of school time). This would include structured exercise or sport activities as well as activity playing with friends, dancing or doing work/chores. **Answer the questions based on your physical activity outside of school in the last 7 days.** Do not answer the questions in the small boxes

6. **Activity before School:** How many days **before school (6:00-8:00 am)** did you do some form of physical activity? *(This includes activity at home NOT walking or biking to school)*
 - a. 0 days
 - b. 1 day
 - c. 2 days
 - d. 3 days
 - e. 4 to 5 days

7. **Activity after School:** How many days **after school (between 3:00 - 6:00 pm)** did you do some form of physical activity? *(This includes activity at home or in town but NOT walking or biking to school)*
 - a. 0 days
 - b. 1 day
 - c. 2 days
 - d. 3 days
 - e. 4 to 5 days

8. **Activity on Weeknights:** How many **school evenings (6:00-10:00 pm)** did you do some form of physical activity? *(If you don't remember, try to estimate)*
 - a. 0 days
 - b. 1 day
 - c. 2 days
 - d. 3 days
 - e. 4 to 5 days

9. **Activity on Saturday:** How much physical activity did you do last **Saturday**? *(This could be for exercise, work/chores, family outings, sports, dance, or play. If you don't remember, try to estimate)*
 - a. No activity (0 minutes)
 - b. Small amount of activity (1 to 30 minutes)
 - c. Small to Moderate amount activity (31 to 60 minutes)
 - d. Moderate to Large amount of activity (1 to 2 hours)
 - e. Large amount of activity (more than 2 hours)

10. **Activity on Sunday:** How much physical activity did you do last **Sunday**? *(This could be for exercise, work/chores, family outings, sports, dance, or play. If you don't remember, try to estimate)*
 - a. No activity (0 minutes)
 - b. Small amount of activity (1 to 30 minutes)
 - c. Small to Moderate amount activity (31 to 60 minutes)
 - d. Moderate to Large amount of activity (1 to 2 hours)
 - e. Large amount of activity (more than 2 hours)

Youth Activity Profile

Sedentary Habits - Outside of School

These questions ask about time spent resting and sitting. You probably sit while eating, doing homework, or playing musical instruments. But you also may spend time sitting while watching TV, playing video games, using the computer or using your phone, or iTouch/iPad). **Answer these questions about the time you spent sitting during these activities in the past 7 days. Do not answer the questions in the small boxes**

- 11. TV Time:** How much time did you spend **watching TV** outside of school time (*This includes time spent watching movies or sports but NOT time spent playing video games*).
- I didn't watch TV at all
 - I watched less than 1 hour per day
 - I watched 1 to 2 hours per day
 - I watched 2 to 3 hours per day
 - I watched more than 3 hours per day
- 12. Video Game Time:** How much time did you spend **playing video games** outside of school time? (*This includes games on Nintendo DS, wii, Xbox, PlayStation, iTouch, iPad, or games on your phone*)
- I didn't really play at all
 - I played less than 1 hour per day
 - I played 1 to 2 hours per day
 - I played 2 to 3 hours per day
 - I played more than 3 hours per day
- 13. Computer Time:** How much time did you spend using **computers** outside of school time? (*This doesn't include home work time but includes time on Facebook as well as time spent surfing the internet, instant messaging, playing online video games or computer games*)
- I didn't really use the computer at all
 - I used a computer less than 1 hour per day
 - I used a computer 1 to 2 hours per day
 - I used a computer 2 to 3 hours per day
 - I used a computer more than 3 hours per day
- 14. Phone / Text Time:** How much time did you spend using your **cell phone** after school? (*This includes time spent talking or texting*).
- I didn't really use a cell phone
 - I used a phone less than 1 hour per day
 - I used a phone 1 to 2 hours per day
 - I used a phone 2 to 3 hours per day
 - I used a phone more than 3 hours per day
- 15. Overall Sedentary Habits:** Which of the following best describes your overall sedentary habits at home last week?
- I spent almost none of my free time sitting
 - I spent little time sitting during my free time
 - I spent a moderate amount of time sitting during my free time
 - I spent a lot of time sitting during my free time
 - I spent almost all of my free time sitting

APPENDIX 2. SCORING INSTRUCTIONS FOR THE YOUTH ACTIVITY PROFILE

This document describes the scoring procedures for the Youth Activity Profile (YAP). Scoring involves handling both raw (phase 1) and predicted (phase 2) YAP scores. Instructions are provided separately for each of the two phases.

1. SCORING OF RAW YAP SCORES

1. The YAP items are scored on a 1-5 scale
2. Exceptions apply to the recess, PE, and lunch items where participants are coded with a 0 if they report NOT having any of these
3. YAP scores obtained from the school items are averaged to reflect the composite raw score for activity at school. The same procedure applies to out-of-school, weekend, and sedentary item scores
4. The calibration was conducted using centered values for YAP and age. Therefore YAP scores are subtracted by 3.0 (i.e., YAP raw score – 3.0) while age is subtracted by 14.5.
5. Separate calibration models (see Table in page 2) are applied to each YAP section (School, Out-of-School, and Weekend) raw score and to the composite score for sedentary behavior (SB)
6. Predicted percent time in moderate-to-vigorous physical activity (%MVPA) or percent time in sedentary behaviors (%SB) from the models is converted to weekly minutes of activity as described below

2. SCORING OF PREDICTED YAP SCORES

YAP predicted scores are converted into weekly minutes of MVPA/SB following the six steps below:

1. The predicted percent MVPA/SB score is multiplied by the respective section time in minutes (e.g., School activity = Predicted daily percent MVPA at School X School time).
2. Estimated minutes of MVPA at School are multiplied by 5 in order to reflect In-School Activity accumulated during a full week (5 days);
3. Estimated minutes of MVPA at Out-of-School are computed between the end time for school (e.g., 4:00PM) and 10:00PM for each week day and is also multiplied by 5 in order to reflect Out-of-School activity accumulated during a full week;
4. Estimated minutes of MVPA for the Weekend are computed for 6:00AM through 10:00PM interval and are multiplied by 2 in order to reflect Weekend Activity accumulated during the week;
5. Estimated minutes of SB obtained from the sedentary algorithm are multiplied by 5 in order to reflect minutes of SB accumulated during Out-of-School time. These estimates are used independently.
6. Minutes available for school and out-of-school time need to be adjusted to include time allocated to commuting and time allocated for before school activity. For school time, an extra 60 minutes (30 minutes before school starts and another 30 minutes after school ends) should be added to represent both transportation to school and transportation from school. For before school time, extra minutes should be computed by

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calculating the number of minutes between 6AM and the 30 minute before the start time for school.

Segment	Regression model
School (%MVPA/day) =	$13.1753 - (1.6990 \times \text{AGE}) + (1.2409 \times \text{YAP}) - (0.3519 \times \text{AGE} \times \text{YAP})$
Out-of-School (%MVPA/day) =	$12.3803 - (0.9813 \times \text{AGE}) + (1.1743 \times \text{YAP}) + (0.1449 \times \text{AGE} \times \text{YAP})$
Weekend (%MVPA/day) =	$10.8703 - (0.6519 \times \text{AGE}) + (1.2988 \times \text{YAP}) + (0.4486 \times \text{AGE} \times \text{YAP})$
Sedentary (%SB/day) =	$58.3463 + (0.5628 \times \text{AGE}) + (3.4353 \times \text{YAP}) + (1.0749 \times \text{AGE} \times \text{YAP})$

YAP raw scores should be subtracted by 3.0 before being inserted in each of the models
 AGE scores should be subtracted by 14.5 before being inserted in each of the models

Working example (estimate of MVPA at school and out-of-school time)

Mary is a 14 year old child at middle school that after completing the YAP had the following item scores:

At School Item		Out-of-School		Sedentary	
Q1	2	Q6	3	Q11	2
Q2	0	Q7	2	Q12	1
Q3	0	Q8	1	Q13	1
Q4	3	Q9	4	Q14	2
Q5	4	Q10	4	Q15	2
Composite Score	1.8		2.8		1.6

Note that Mary reported not having PE or Recess and therefore, her YAP score for those items was coded as 0.

Mary indicated that she usually starts school at 8:00AM and ends at 4:00PM. This information is needed to compute activity for each of the week sections. Therefore, Mary spends 7 hours at school and an additional 1 hour (i.e., 60 minutes) commuting to and from school, or 480 minutes total per day.

Therefore, Mary estimated percent time at school is computed as follows:

1. YAP at school: $1.8 - 3.0 = -1.2$
2. **Age:** $14.0 - 14.5 = -0.5$
3. **Time available at school:** 420 minutes + 60 minutes = 480 minutes
4. Time available at out-of-school:

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Mary started school at 8:00AM and therefore we will calculate the number of minutes available between 6:00AM and 7:30AM and add this to the out-of-school time. This will result in:

360 minutes + 90 minutes = 450 minutes

5. Predicted %MVPA at School:

$13.1753 - (1.6990 \times -0.5) + (1.2409 \times -1.2) - (0.3519 \times -0.5 \times -1.2) = 12.32\%$

6. Minutes of MVPA at School: $(12.32/100) \times 480 \text{ minutes} = 59.2 \text{ minutes per day}$

7. Weekly minutes of MVPA at School: $59.2 \times 5 \text{ days} = 296 \text{ minutes}$

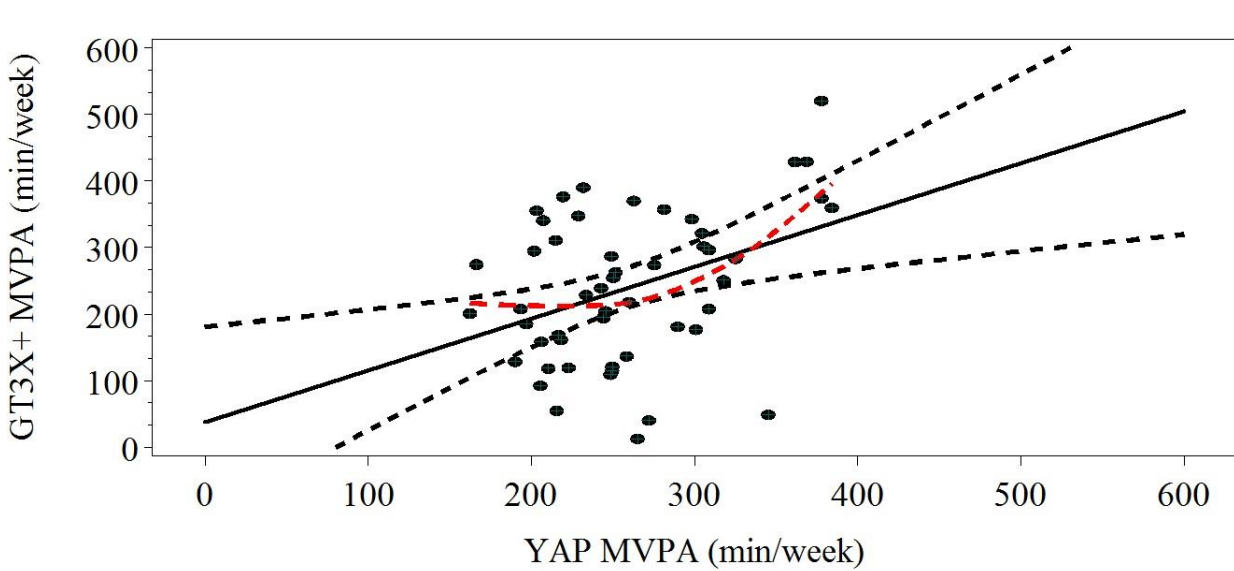
The same calculations for out-of-school time would result in 12.65% of percent time, 56.9 minutes of MVPA per day, and 284.6 minutes total for the week. The school and out-of-school time can be combined to reflect total weekly activity (i.e., $296 + 284.6 = 580.6 \text{ minutes}$).

Contact Pedro Saint-Maurice at pedro.saintmaurice@nih.gov in case you need any assistance.

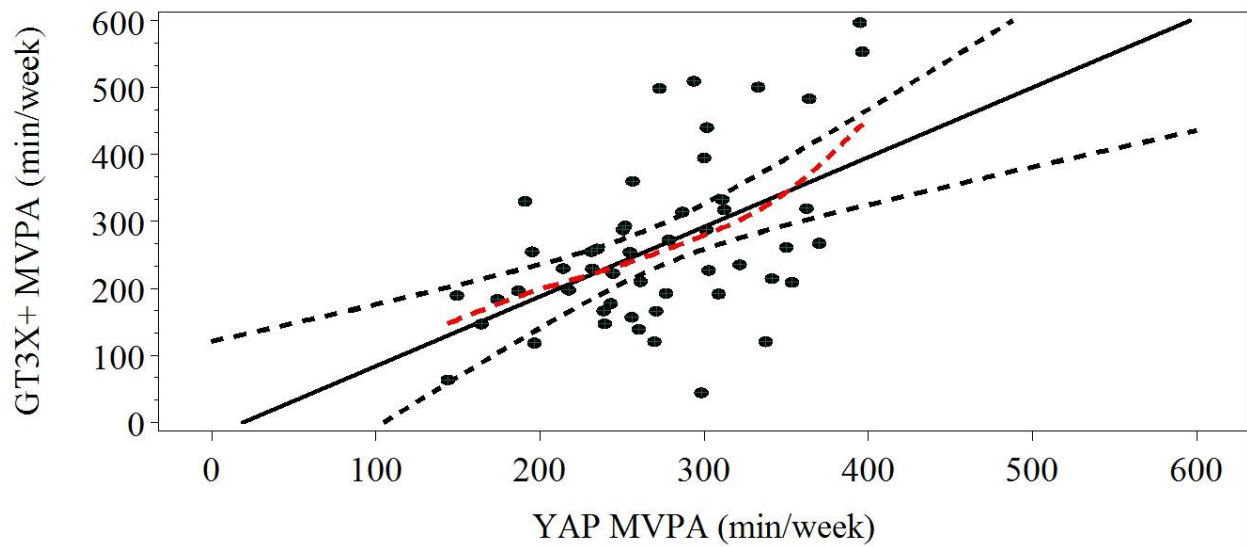
APPENDIX 3. VALIDATION OF THE YAP (SCATTER PLOTS)

This document provides an additional description of the agreement between the GT3X+ and YAP measures. The four plots below illustrate the agreement between the measures for minutes of MVPA at School (Appendix Figure 1A), Out-of-School MVPA (Appendix Figure 1B), and Weekend MVPA (Appendix Figure 1C). The agreement for Out-of-School sedentary time is also illustrated in Appendix Figure 1D.

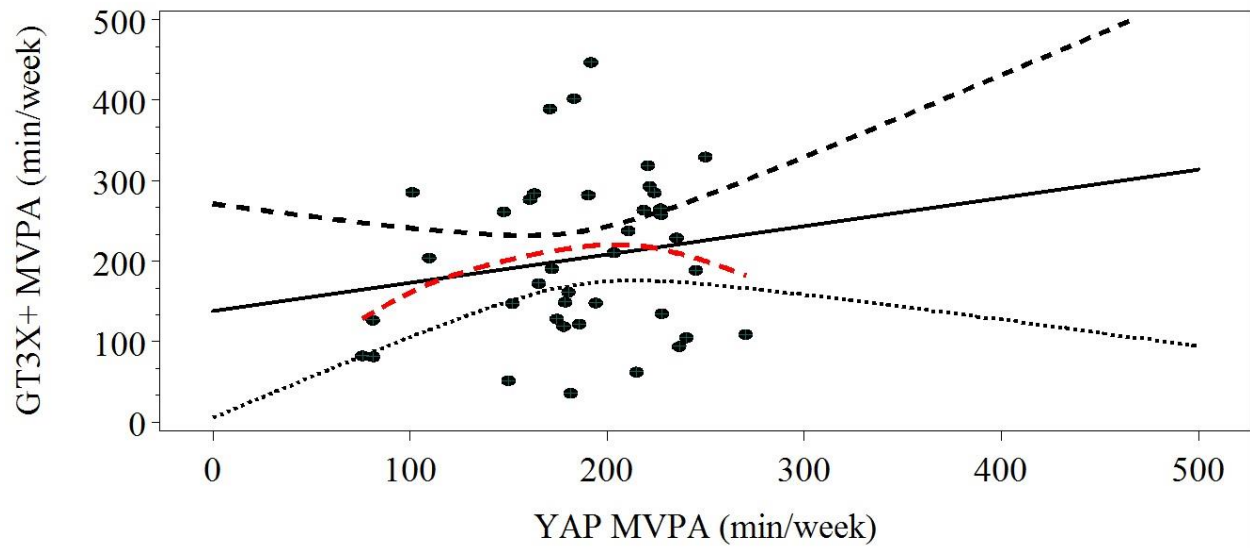
Appendix Figure 1A. Relation between GT3X+ time spent in MVPA across a full week and YAP derived estimates of weekly MVPA obtained from School-related items. The red dashed line is a smooth fit to the distribution of scores while the solid black line represents the line of best fit along with 95% CI (black dashed lines).



Appendix Figure 1B. Relation between GT3X+ time spent in MVPA across a full week and YAP derived estimates of weekly MVPA obtained from Out-of-School-related items. The red dashed line is a smooth fit to the distribution of scores while the solid black line represents the line of best fit along with 95% CI (black dashed lines).



Appendix Figure 1C. Relation between GT3X+ time spent in MVPA and YAP derived estimates of week MVPA obtained from Weekend-related items. The red dashed line is a smooth fit to the distribution of scores while the solid black line represents the line of best fit along with 95% CI (black dashed lines).



Appendix Figure 1D. Relation between GT3X+ time spent in MVPA and YAP derived estimates of week MVPA obtained from Weekend-related items. The red dashed line is a smooth fit to the distribution of scores while the solid black line represents the line of best fit along with 95% CI (black dashed lines).

