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A Youth Compendium of Physical Activities: Activity Codes and Metabolic Intensities

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Abstract

Purpose: A Youth Compendium of Physical Activities (Youth Compendium) was developed to estimate the energy costs of physical activities using data on youth only.

Methods: Based on a literature search and pooled data of energy expenditure measurements in youth, the energy costs of 196 activities were compiled in 16 activity categories to form a Youth Compendium of Physical Activities. To estimate the intensity of each activity, measured oxygen consumption ($\dot{V}O_2$) was divided by basal metabolic rate (Schofield age-, sex- and mass-specific equations) to produce a youth MET (MET_y). A mixed linear model was developed for each activity category to impute missing values for age ranges with no observations for a specific activity.

Results: This Youth Compendium consists of MET_y values for 196 specific activities classified into 16 major categories for four age groups, 6-9, 10-12, 13-15, and 16-18 years. MET_y values in this Youth Compendium were measured (51%) or imputed (49%) from youth data.

Conclusion: This Youth Compendium of Physical Activities uses pediatric data exclusively, addresses the age-dependency of MET_y and imputes missing MET_y values and thus represents advancement in the physical activity research and practice. This Youth Compendium will be a valuable resource for stakeholders interested in evaluating interventions, programs, and policies designed to assess and encourage physical activity in youth.

Key words: physical activity, metabolic equivalents (MET), sedentary activity, light activity, moderate activity, vigorous activity, children, energy cost

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Introduction

Physical activity is a major component of daily energy expenditure, and the most variable among young individuals. An understanding of its relationship to growth and development is of paramount importance to the health and well-being of children (1). Physical activity is a complex construct often classified qualitatively into major categories based on function (occupation, recreation, sports, locomotion, self-care) or quantitatively based on intensity of effort (sedentary, light, moderate and vigorous) (2). Knowing the intensity level of the physical activities in which youth participate can help researchers and practitioners understand patterns of physical activity and prescribe and encourage an amount of activity for optimal health.

Assessment of physical activity and estimation of its energy costs in children has many applications for clinical practice, public health, and applied research. Valid methodology is needed to assess compliance with physical activity guidelines and test effectiveness of programs and interventions. In epidemiologic studies and clinical practice, self-report questionnaires, direct observation and monitoring devices are common tools to assess physical activity (3,4). In these approaches, reported or observed physical activity data are converted to energy expenditure using previously determined metabolic equivalents (MET).

MET values are available from the Adult Compendium of Physical Activities (Adult Compendium) that classifies activities by function, specific type of activity, and intensity (5). METs are used to express the energy costs of physical activities as multiples of resting metabolic rate (RMR) (6). By convention, in adults 1 MET is taken to be an oxygen uptake of $3.5 \text{ mL}\cdot\text{kg}^{-1}\cdot\text{min}^{-1}$ or $1 \text{ kcal}\cdot\text{kg}^{-1}\cdot\text{hr}^{-1}$. The Adult Compendium has 21 major activity categories and 821

specific activities (6,7). In the Adult Compendium, 68% of the MET values are based on referenced measurements and the remainder on expert opinion.

Adult MET values, however, are not applicable to children (8-10). Children have higher basal metabolic rates (BMR) per unit body mass than adults that decline gradually as children grow and mature. Sex-specific developmental changes in organ weights, organ specific metabolic rates, muscle mass and adiposity differentially affect BMR and are responsible for the decline in BMR (11,12). BMR averages $\sim 6.5 \text{ mL}\cdot\text{kg}^{-1}\cdot\text{min}^{-1}$ or $1.9 \text{ kcal}\cdot\text{kg}^{-1}\cdot\text{min}^{-1}$ in a typical 6-year-old and approaches the adult value of $3.5 \text{ mL}\cdot\text{kg}^{-1}\cdot\text{min}^{-1}$ or $1 \text{ kcal}\cdot\text{kg}^{-1}\cdot\text{min}^{-1}$ in a typical 18-year-old. Use of the standard adult MET equivalency would underestimate BMR of children.

Also, young children compared to adolescents or adults have disproportionately higher energy expenditure per unit body mass for physical activities. The energy cost of performing submaximal activities increases with age when expressed as kcal/min but decreases with age when expressed relative to body mass ($\text{kcal}\cdot\text{kg}^{-1}\cdot\text{min}^{-1}$) (10). In addition to the developmental changes in body size and composition discussed above, children become more skilled and efficient at performing certain activities. Consequently, the energy costs of physical activities are not constant throughout childhood.

To address these problems, Ridley and colleagues developed a Compendium of Energy Expenditures for Youth in 2008 (Ridley Compendium) that provided MET values for 244 activities, 38% of which were based on METs measured in children (13). The range of the number of data points used to assign an energy cost to an activity was 8 to 510. The remainder of

the MET values were taken from the Adult Compendium (7), with the recommendation to multiply METs by child BMR when calculating total energy cost. Also, prediction equations for the energy costs of walking and running based on age and speed were provided. This was an important first step forward, especially in light of the available literature on youth energy expenditure at the time. However, the Ridley Compendium had several limitations: 1) small sample sizes in many studies, 2) a limited number of physical activities assessed, 3) only 19 pediatric published sources and 4) a constant MET value for each activity provided for all children aged 5-17 y. As with the Adult Compendium, the Ridley Compendium had 1) limited ability to precisely estimate energy expenditure of individuals, and 2) inherent errors for activities that can be performed at varying intensities.

To address these limitations, the Youth Energy Expenditure Workshop was convened by the Centers for Disease Control and Prevention (CDC), the National Cancer Institute (NCI), and the National Collaborative for Childhood Obesity Research (NCCOR) on April 19-20, 2012 in Atlanta, GA. The Expert Panel agreed that an updated, expanded, and web-accessible compendium (named Youth Compendium of Physical Activities, henceforth referred to as Youth Compendium) would be a valuable contribution to the field and that two tasks would be necessary to accomplish this objective. The first was to conduct a systematic literature review in order to locate studies published since 2007 (the latest date covered in the Ridley Compendium). This search would broaden the scope of the Ridley Compendium by widening the age range and expanding the databases used to search for relevant studies. The second task was to commission a workgroup of the Expert Panel to review and analyze existing data on the energy costs of physical activity in children.

The workgroup arrived at the conclusion that youth MET (MET_y) presented by age groups was the preferred metric for presentation of the energy costs of physical activities in this Youth Compendium after a thorough evaluation of several options (9). Metrics of absolute oxygen uptake ($ml \cdot min^{-1}$), oxygen uptake per kilogram body mass ($\dot{V}O_2$ in $ml \cdot kg^{-1} \cdot min^{-1}$), net oxygen uptake ($\dot{V}O_2$ - resting metabolic rate), allometric scaled oxygen uptake ($\dot{V}O_2$ in $ml \cdot kg^{-0.75} \cdot min^{-1}$) and MET_y ($\dot{V}O_2 / [\text{resting } \dot{V}O_2]^{-1}$) were evaluated based on pooled data of 947 children ages 5 to 18 years, who engaged in 14 different activities. No metric completely eliminated the influence of age, height, body mass, or sex for all 14 activities. Of the metrics examined, the MET_y displayed the least age dependency for sedentary and low-intensity activities. $\dot{V}O_{2\text{ALLOMETRIC}}$ was the best for reducing age-dependency for moderate-to-vigorous intensity activities. Although $\dot{V}O_{2\text{ALLOMETRIC}}$ appeared to work well for ambulatory activities, it did not work as well for activities that require additional equipment or more skills such as playing basketball. $\dot{V}O_{2\text{ALLOMETRIC}}$ coefficients are complex to calculate and a different mass exponent may be required for each activity, making it challenging to directly compare activities. Based on these findings and considerations, the workgroup recommended the use of the MET_y .

Consistent with observations by Harrell et al. (14) and Trost et al. (15), the age-dependency of MET_y values was a function of the type and intensity of the activity (9). MET_y values for sedentary and light-intensity standing activities were not statistically influenced by age. For moderate-to-vigorous activities, MET_y was positively correlated with age ($r=.28$ to $.59$). To account for the age-dependency in this Youth Compendium, MET_y values are presented for short, discrete age groups - 6-9, 10-12, 13-15, and 16-18 years. The errors in using a constant MET_y value versus age groups or specific ages were evaluated in a separate paper by Pfeiffer et

al. (16). The percent error reduction ranged from -0.2 to 21.7% for age groups and -0.23 to 18.2% for age in years compared to a constant MET_y value.

This paper describes the development of a Youth Compendium, which presents the energy costs of 196 physical activities derived from pediatric data only, expressed in terms of MET_y for age categories 6-9, 10-12, 13-15, and 16-18 years. This Youth Compendium, which will be housed on the NCCOR website at www.nccor.org/nccor-tools/youthcompendium will be a valuable resource for researchers and practitioners interested in improving the health of children and adolescents through physical activity.

METHODS

Data sources for this Youth Compendium included:

- 1) Systematic Reviews of the Literature (Ridley 2013, 2016 at www.nccor.org/nccor-tools/youthcompendium): a) energy costs of physical activities excluding walking and running in children from 90 studies; and b) energy costs of walking and running in children from 75 studies (some studies overlap);
- 2) Pooled Dataset: energy costs of physical activities including walking and running derived from four publications (14,17-19);
- 3) 2016 JPAH Supplement: energy costs of physical activities in children including walking and running from 12 studies (20).

In these three data sources, BMR was predicted using age-, sex- and mass-specific Schofield equations (21) for calculation of MET_y values. Schofield equations (21) were based upon 2060 children, ages 3-18 y, from 44 published studies. Experimental conditions used for study inclusion stipulated true basal metabolism: 1) absence of gross muscular activity; 2) ≥12-h post-absorptive state; 3) thermoneutrality; 4) emotional repose; and 5) stable nutritional status. No departure from goodness of fit was found when the equations were tested on a validation dataset. For ages 3-18 y, height did not contribute significantly to BMR, once weight had been taken into account.

The Schofield equations for boys, ages 3-10 y and 10-18 y, are as follow:

3–10 y	$\text{BMR (kcal/min)} = [22.706 \times \text{Weight (kg)} + 504.3]/1440$
10–18 y	$\text{BMR (kcal/min)} = [17.686 \times \text{Weight (kg)} + 658.2]/1440$
The Schofield equations for girls, ages 3-10 y and 10- 18 y, are as follows:	
3–10 y	$\text{BMR (kcal/min)} = [20.315 \times \text{Weight (kg)} + 485.9]/1440$
10-18 y	$\text{BMR (kcal/min)} = [13.384 \times \text{Weight (kg)} + 692.6]/1440.$

Development of this Youth Compendium involved five steps 1) classification of the physical activities into 16 major categories; 2) profile plots constructed for 16 major categories; 3) multiple imputation of missing MET_y values; 4) review of the observed and imputed MET_y values; 5) smoothing observed and imputed MET_y values; and 6) development of a coding scheme for this Youth Compendium.

Data Sources

1. Systematic Reviews of the Literature

Ridley and colleagues conducted two systematic literature reviews of the energy cost of physical activities in children (www.nccor.org/nccor-tools/youthcompendium). Study eligibility criteria included: full-text article, thesis/dissertation, or data provided from authors from a published conference abstract; data on children and adolescents; energy cost/expenditure of specific physical activities measured; energy cost/expenditure of walking and running measured at specific set speeds; and energy cost data measured using indirect calorimetry or direct calorimetry. Study exclusion criteria were: systematic reviews or meta-analysis and participant enrollment based on illness, with the exception of overweight and obesity. If studies compared a control of healthy participants to a sample based on a specific pathology, data were extracted for the control sample only. The aim of the first search, completed in 2013, was to locate pediatric studies where the energy cost of specific physical activities excluding walking and running was measured. The aim of the second search, completed in 2016, was to locate pediatric studies where the energy cost of walking and running at selected speeds was measured. The following databases were searched: CINAHL, Cochrane library, EMBASE, Medline, Proquest, PsychINFO, SCOPUS, SportDiscus, and Web of Science. Where multiple metrics were provided for the energy cost of the activity, the following hierarchy was used to extract data: 1) $\dot{V}O_2$, 2) energy expenditure (kJ), 3) energy expenditure (kcal), and 4) MET_y calculated using the child's BMR. Where possible, energy cost data not provided as $\dot{V}O_2$ ($ml \cdot kg^{-1} \cdot min^{-1}$) were converted to this base metric for comparative purposes. Data not provided per unit mass were converted using the mean mass provided. Data presented in kcals were first converted to kJs using the conversion factor of 1 kcal = 4.18 kJ and then converted to $\dot{V}O_2$ using a standard energy equivalent for

oxygen uptake ($20.9 \text{ kJ}\cdot\text{L}^{-1} \text{ O}_2$). The MET_y cost was calculated by dividing the measured energy cost by the estimated mean BMR calculated using the age-, sex- and mass-specific Schofield prediction equations (21). The extracted dataset contained sampling schemes, methodology, and mean data for participant descriptive variables (sample size, age, weight, height) and energy costs of the activity (see Table, Supplemental Digital Content 1, Activity-specific references for MET_y values, <http://links.lww.com/MSS/B54>).

2. Pooled Dataset

To supplement the literature review, MET_y values for specific activities were compiled from a pooled dataset of energy costs of physical activities in 933 children, ages 5 to 18 y (9). Based on participant characteristics (age, sex, body mass) and activity-related oxygen uptake ($\text{ml O}_2\cdot\text{min}^{-1}$), BMR was estimated by the Schofield prediction equation (21) and used to compute MET_y values. Studies by Crouter et al. (19), Trost et al. (17), and Harrell et al. (14) were located in the Ridley literature reviews; it should be noted, however, that MET_y values from these studies were not duplicated in this Youth Compendium.

3. 2016 JPAH Supplement

Energy costs of physical activities were extracted from recent publications in JPAH (22-33). BMR was estimated by the Schofield prediction equation (21) and used to compute MET_y values. Data from Ridley et al. (34) were included in the 2013 literature review and the study by Trost et al. (15) were included in the pooled dataset and therefore not duplicated in this Youth Compendium.

Development of this Youth Compendium

Step 1. Classification of the Physical Activities into 16 Major Categories

Specific activities from the literature review, the pooled dataset and the JPAH supplement were classified into 16 major categories taking into consideration body position (sitting, standing, lying down), upper or lower body movement, locomotion, weight or non-weight bearing, and intensity of effort. Because of the differences in child development and age dependency of MET_y (9), the observations were then classified into one of four *a priori* defined age groups, 6-9, 10-12, 13-15, and 16-18 years, based on the study mean age (median age when the mean was not provided).

Step 2. Profile Plots Constructed for 16 Major Categories

Age group specific-mean MET_y values were calculated for each specific activity. Profile plots were constructed for each of the 16 activity categories to show the missing data pattern for the different activities within the category. For the profile plots, each specific activity in a category was treated as a single observation, which meant one line per activity in each plot. Additionally, the percent of missing observations was calculated for each activity category within each age group.

Step 3. Multiple imputation of Missing MET_y Values

Multiple imputation of missing MET_y values was performed to maximize the utility and comprehensiveness of the Youth Compendium by providing MET_y values across all age groups for each activity. First, linear and quadratic regression models were computed to study the structure of the relationship between age and MET_y cost for each activity with a sufficient

number of observations using Proc GLM in SAS. Adjusted R^2 was used to compare the fits of the linear and quadratic models to determine which model should be used to impute MET_y cost in age ranges without observations. The linear component was significant for all specific activities and therefore the linear not the quadratic term was used in the imputations.

Next, a multiple imputation mixed model was used to impute missing values for age ranges in which there were no observations for a given activity. To take advantage of similar types of movement, a mixed model was used to properly account for the clustering in the data by specific activity within each activity category. The mixed model “borrowed” data from similar activities within a major category allowing for imputation of activities that had fewer observations. A previously published macro was used to perform the multiple imputation (35). A different imputation model was fit for each activity category to predict MET_y values from a linear age term and included random intercepts for the different activities in a category. Each missing value was imputed 20 times. The midpoint of each age range was used to calculate the imputed values. After the imputed values were generated, they were bounded with a lower bound of 1 and an upper bound of 3 standard deviations above the mean for the category. These bounds replaced any imputed values that were outside the predetermined range (1.1% of imputed MET_y values were below 1.0 and 0.8% were above 3 SD, with no apparent clustering). Both the upper and lower bound adjustments took place after all imputations were performed, meaning that no imputations were skipped. Any abnormal imputed value that was changed was flagged in the imputed dataset.

Step 4. Review of the Observed and Imputed MET_y Values

From the completed dataset, a table of the average MET_y values of each activity for each age group was generated, showing both observed and imputed values. Profile plots for each major activity category were created using the mean observed and imputed values. The table and plots of the average MET_y values were reviewed for consistency among activities within the major activity categories and across age groups within each specific activity. Similar to the criterion for the imputed values, outlying values were defined as values 3 standard deviations above or below the mean for the category or contrary trends across age groups. A total of 4.6% of the mean MET_y values were replaced by linear regression based on the age coefficient from the mixed model.

Step 5. Smoothing Observed and Imputed MET_y Values

In order to smooth the observed and imputed MET_y values, mixed models for each of the major activity categories were conducted from the completed dataset to obtain model-based parameter estimates predicting MET_y from age treated as a continuous variable. The activity- and age group-specific MET_y values were predicted using the fixed and random coefficients for the intercept and slope at the midpoint for each of the age groups. Profile plots for each major activity category were created using the model-based values. Similar to adjustments of the age-specific observed and imputed mean MET_y values, approximately 6% of model-based MET_y values were adjusted to be consistent within the major activity categories and across age groups within each specific activity.

Step 6. Development of a Coding Scheme for the Youth Compendium

To facilitate data coding, a six-digit coding scheme was developed for MET_y values in this Youth Compendium. In the coding scheme, the first two digits (1-16) represent the major activity category, the next three digits represent the specific activity, and the last digit represents the age group (1, reserved for 2-5 y; 2 for 6-9 y; 3 for 10-12; 4 for 13-15; and 5 for 16-18 y). In Tables 1-4, the age group is designated by the placeholder X. For example, the activity codes for Aerobic Dance are 601002, 601003, 601004 and 601005 for the age groups 6-9 y, 10-12 y, 13-15 y, and 16-18 y, respectively. The corresponding MET_y values are 3.3, 3.8, 4.8, and 4.0.

RESULTS

In total, energy costs of 196 physical activities were extracted from 137 pediatric studies representing more than 37,000 observations on children, aged 11.5 ± 2.6 y, with mean weight 44.8 ± 14.4 kg and height 146.1 ± 21.6 cm (see Table, Supplemental Digital Content 1, Activity-specific references for MET_y values, <http://links.lww.com/MSS/B54>). The literature review yielded energy cost values for 121 specific activities for children 6 years and older, excluding walking and running. The pooled dataset of 36 activities provided mean energy cost data of 14 additional activities and the JPAH supplement data of 78 activities provided mean energy costs of 34 additional activities. For walking and running activities, the mean energy costs of walking (12 levels) and running (15 levels) at various speeds available from all three sources were grouped by 0.5 mph increments (walking 0.5 to 5.0 mph; running 3.0 to 8.0 mph) where available. When speed was not provided, walking and running activities were classified by effort (e.g., slow, fast, self-paced).

The 196 specific activities were classified into 16 major categories. Most sports games were simulated and self-paced, in the sense that they were modified games imitating the typical movement patterns of the game (i.e., dribbling a soccer ball through cones to simulate movements in a soccer game). The Computer/Video Games (sitting) category reflected sedentary behaviors such as computer games, mobile phone games, Nintendo, and PS2 & 3, which do not require children to stand or do much movement other than moving a joystick or pushing controls with hands or fingers. For the Active Video Games, the children performed some sort of movement, whether it was standing and imitating a sport such as swinging a tennis racket or performing a dance movement. The energy costs for Active Video Games varied substantially and therefore were split into Active Video Games (Full Body) and Active Video Games (Upper Body) to distinguish the energy costs.

Youth Compendium database resulted in 397 observed mean MET_y values (51%) and 380 imputed mean MET_y values (49%) in the four age groups for 196 specific activities (see Table, Supplemental Digital Content 2, Table of observed and imputed MET_y values by activity and age group, <http://links.lww.com/MSS/B55>). The imputed and observed MET_y values for the specific activities within each major category were graphically examined to identify inconsistencies (see Figure, Supplemental Digital Content 3, Activity-specific youth MET_y values by age groups for each major activity category, <http://links.lww.com/MSS/B56>).

The final model-based MET_y values in the four age groups for 196 specific activities are presented in Tables 1-4 and as a supplemental file (see Table, Supplemental Digital Content 4, Table of model-based MET_y values by activity and age group, <http://links.lww.com/MSS/B57>).

The tables display the activity code, major activity category, specific activity and the model-based MET_y values for the four age groups. The model-based MET_y values are graphically illustrated for the specific activities within four of the major categories (Figure 1). Figure 1 shows that the MET_y values for quiet play/schoolwork/television and housekeeping/work that are independent of age, in contrast to dance/aerobics/steps and running, where the age-dependency for MET_y values and wider range of MET_y intensities are evident. In general, the MET_y values of the more sedentary activities were similar across age groups, and the MET_y values of the more intense activities increased with age.

An estimate of the energy cost of a physical activity can be computed based on the MET_y value from the Youth Compendium, a measured or computed BMR, and duration of the specific activity, as follows:

$$\text{Energy cost (kcal)} = \text{MET}_y \times \text{BMR (kcal/min)} \times \text{duration (min)}$$

where the BMR for boys and girls is predicted using age-, sex- and mass-specific Schofield equations (21).

DISCUSSION

This paper describes a Youth Compendium of Physical Activities based completely on empirical energy expenditure measurements in children. This Youth Compendium consists of MET_y values for 196 specific activities classified into 16 major categories for four age groups - 6-9, 10-12, 13-15 and 16-18 y. The methods used in formulating this Youth Compendium sought to address the unique developmental challenges in determining the energy costs of physical activities in

children. First, all MET_y values were measured or derived from pediatric data only. Second, missing MET_y data were predicted using a specific imputation mixed model for each major activity category. Third, MET_y values for each activity were provided for the four age groups to address the age-dependency of MET_y values (9).

Past studies have shown that the age-dependency of MET_y values is a function of the type and intensity of the activity. In our study, the MET_y values for sedentary and light-intensity standing activities were not appreciably influenced by age, whereas for moderate-to-vigorous activities, MET_y values were positively correlated with age (9). These observations were reinforced by the profile plots of this Youth Compendium which showed consistent overall trends within major activity categories. In general, the low intensity categories display no slope, and the higher intensity categories a positive slope across age groups.

The energy costs of many specific activities were not available from the literature search for all age groups. Therefore, we used a specific multiple imputation mixed model for each major activity category to fill-in missing data, resulting in 49% of the MET_y values in the database. This approach maximized use of all the data and simultaneously considered linear trends across age groups and patterns within age-groups for similar activities. Presentation of the imputed values in the Supplemental Digital Content allowed for identification of gaps in the literature that may be filled with future research on the energy costs of physical activities in youth.

In the compilation and profile plots of the measured and imputed data on the energy cost of physical activities, variability within specific activities was evident. Variability in the measured

values across physical activities and age groups can be attributed to different study designs, participant characteristics, procedures and equipment among studies, developmental changes in body size and composition, age-dependent levels of skill and efficiency, and participant self-selected pace and effort for uncontrolled activities. Some activities were controlled (e.g., walking and running at set speeds on a treadmill); whereas others were performed at self-selected intensities. These volitional activities would be expected to have greater variation in MET_y values among children because of differences in: 1) the fitness level of the child; 2) the child's perceptions of intensity; 3) the child's motivation; 4) previous experience with the activity; and 5) experimental conditions and instructions given.

To reconcile the irregularities in MET_y values within the major activity categories and across age groups within each specific activity, the observed and imputed values were smoothed producing more physiologically consistent MET_y values. While these values may be refined and expanded with future research, they currently represent the best estimates of the energy costs of physical activities in youth.

The comprehensive tables of model-based MET_y values can serve as a valuable resource for estimating energy costs of physical activities in research and clinical studies from self-report questionnaires, direct observation, and monitoring devices. This Youth Compendium also may assist in assessing physical activity guidelines such as the 2008 Physical Activity Guidelines for Americans (www.health.gov/paguidelines) and estimating physical activity levels for applications that estimate energy requirements of children such as Choose My Plate (<https://www.choosemyplate.gov/>) or Dietary Reference Intakes

(<https://www.nal.usda.gov/fnic/dietary-reference-intakes>). Because application of MET_y values requires tailoring to the child's BMR computed based on age, sex and body weight, the MET_y values presented here can be applied to a wide range of children and adolescents thus making them generalizable to healthy pediatric populations, ages 6 to 18 years.

Caveats of this Youth Compendium are not unlike the limitations acknowledged for the Ridley Compendium (13) and the Adult Compendium (5-7). In all cases, the MET values are averages, and therefore do not reflect individual variability due to body composition, fitness, effort, mechanical efficiency, or environmental conditions under which the activity is performed. Some activities in this Youth Compendium can be performed at varying intensities and therefore are inherently more variable than prescribed activities such as walking and running at set speeds. MET_y values will be more accurate at the group than the individual level. In cases where individual estimation is desired, users should realize that energy expenditure can be influenced by many factors not captured by the mean MET_y values presented here. Users should appreciate that these values are estimates and are not recommended to be used for precise estimation of energy balance.

In calculating MET_y values, the denominator BMR is computed based on age, sex, and body weight. Although incorporation of BMR greatly reduces the weight dependency, MET_y values are not completely independent of body weight, especially for locomotive activities. Average MET_y values can underestimate energy costs in children with obesity and overestimate them in children with underweight (36). Factors such as body composition, body shape, cross-sectional area of the primary muscles, leg length, and efficiency of body movement may influence the

relationship of energy expenditure to body weight (9). For this Youth Compendium, data were not excluded on the basis of weight status. In fact, many studies did not provide information on the BMI status of their participants. Therefore, the average MET_y values in this Youth Compendium are applicable to all healthy children with the caveat that overestimation or underestimation of energy costs of some activities may occur with subgroups of children based on BMI status.

The breadth of child and adolescent activities in this Youth Compendium is incomplete. The majority of MET_y values were measured in mid-childhood, and therefore more data are needed in very young children and older adolescents. The energy costs of specific activities such as transport, gardening, and certain sports (e.g., kayaking, sailing, ice skating, skateboarding, water polo, horseback riding, martial arts, lacrosse, rugby, rock climbing, and softball) are not available. Particularly lacking in the current Youth Compendium are MET_y values for occupational work, self-care, lawn and garden activities. We envisage this Youth Compendium will be updated and refined over time as more measured values are published. Future research efforts could solicit certain types of activities in specific age groups to fill the gaps. In addition, this Youth Compendium is not applicable to children with illnesses or disabilities that alter movement or mechanical efficiency and thereby the energy cost of activities. Research is needed to fill the paucity of energy expenditure data in special populations.

In conclusion, this Youth Compendium of Physical Activities presents MET_y values for 196 activities across four age groups - 6-9, 10-12, 13-15, and 16-18 years. The new Youth Compendium can be used to standardize the scoring and interpretation of youth physical activity

data in research and public health surveillance applications. It will be a valuable resource to standardize the scoring and interpretation of youth physical activity data in research and public health surveillance applications.

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Conflicts of Interest:

None of the authors has conflicts or potential conflicts of interest, including relevant financial interests, activities, relationships, and affiliations related to this research. The results of the study are presented clearly, honestly, and without fabrication, falsification, or inappropriate data manipulation.

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Figure 1. Youth METs (MET_y) are plotted by age groups – midpoint (y) for the following activity categories: **Quiet Play/Schoolwork/Television** (sitting) including the specific activities: A=arts and crafts; B=board games; C=coloring, reading, writing, internet; D=computer work; E=giving a speech; F=listening to radio; G=listening to story; H=playing quietly; I=playing stringed instrument; J=playing with bricks; K=playing with toys (cards, puzzles, cars, trains); L=puzzles; M=quietly sitting; N=reading; O=reading a book and listening to music; P=schoolwork; Q=sewing; R=singing; S=talking with friend; T=watching TV/DVD; U=writing; **Housekeeping/Work** including the specific activities: A=bedmaking; B=carpentry; C=dressing and undressing; D=dusting; E=dusting and sweeping; F=hanging out washing; G=housework; H=laundry; I=loading/unloading; j=setting the table; J=setting the table; K=shoveling; L=sweeping; M=vacuuming; N=washing the dishes; **Dance/Aerobics/Step** including the specific activities: A=aerobic dance/dance; B=stair walking-ascending; C=stair walking - ascending 80 steps/min; D=stair walking – ascending/descending; E= stair walking – descending; F=step board; G=stepping – height 30-50% leg length; **Running** including the specific activities: A=jog-fast; B=jog-slow; C=jog self-paced; D=run 3.0 mph; E=run 3.5 mph; F=run 4.0 mph; G=run 4.5 mph; H=run 5.0 mph; I=run 5.5 mph; J=run 6.0 mph; K=run 6.5 mph; L=run 7.0 mph; M=run 7.5 mph; N=run 8.0 mph; O=run self-paced.

Supplemental Digital Content 1. Table of activity-specific references for MET_y values. docx

Supplemental Digital Content 2. Table of observed and imputed MET_y values by activity and age group. xlsx

Supplemental Digital Content 3. Figures for activity-specific youth MET_y values by age groups for each major activity category. docx

Supplemental Digital Content 4. Table of model-based youth MET_y values by activity and age group. xlsx

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Figure 1

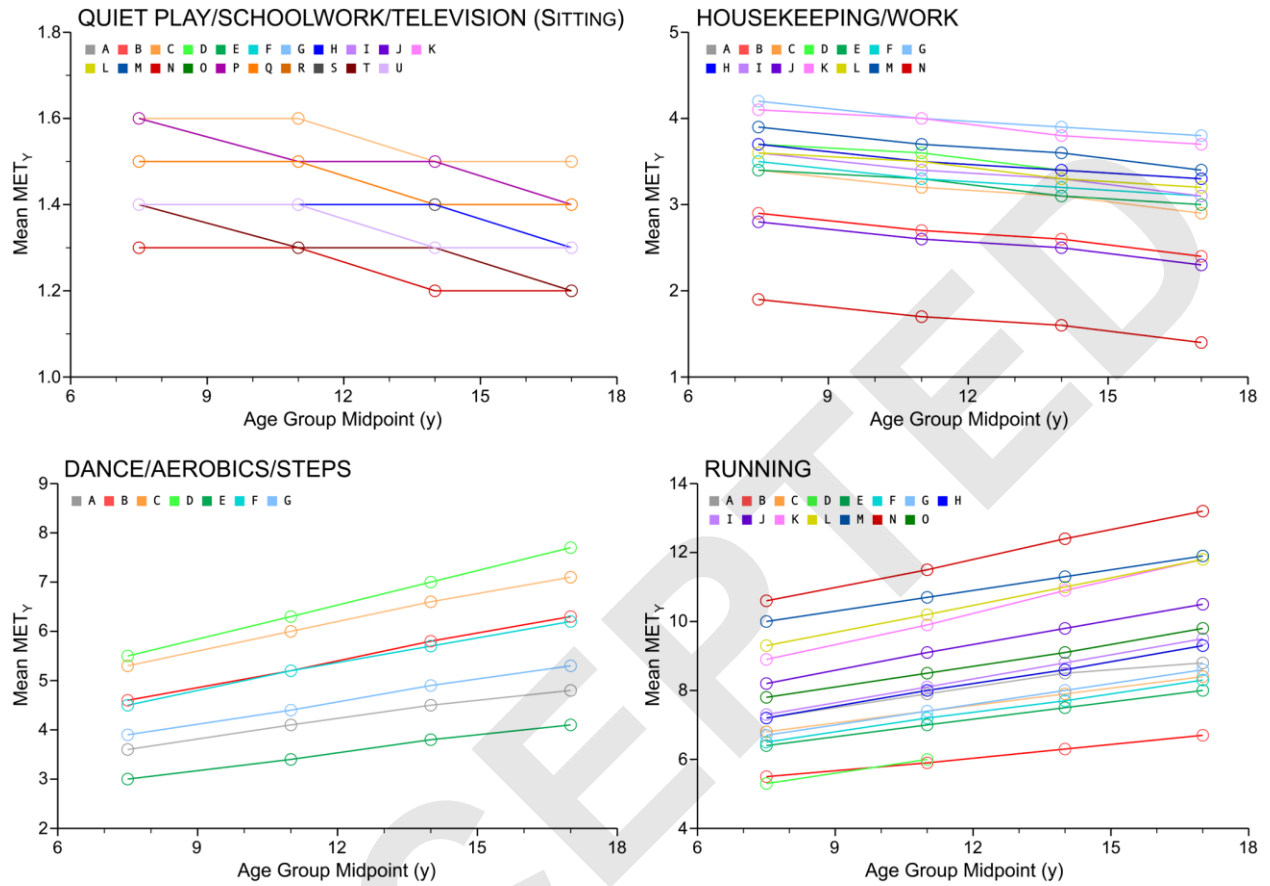


Table 1. Model-based youth MET (MET_y) values for activities while lying and sitting for the Youth Compendium of Physical Activities

Code	Activity Category	Specific Activity	Youth MET (
			6-9
50100X	LYING	QUIETLY LYING	1.2
50120X		WATCHING TV/DVD - LYING	1.2
55100X	QUIET PLAY/SCHOOLWORK/TELEVISI ON (SITTING)	ARTS AND CRAFTS	1.6
55120X		BOARD GAMES	1.5
55140X		COLORING, READING WRITING, INTERNET	1.6
55160X		COMPUTER WORK	1.5
55180X		GIVING A SPEECH	1.5
55200X		LISTENING TO RADIO	1.4
55220X		LISTENING TO STORY	1.4
55240X		PLAYING QUIETLY	1.5
55260X		PLAYING STRINGED INSTRUMENT	1.4
55280X		PLAYING WITH BRICKS	1.3
55300X		PLAYING WITH TOYS (CARDS, PUZZLES, CARS, TRAINS)	1.5
55320X		PUZZLES	1.3
55340X		QUIETLY SITTING	1.4
55360X		READING	1.3
55380X		READING A BOOK AND LISTENING TO MUSIC	1.4
55400X		SCHOOLWORK	1.6
55420X		SEWING	1.5
55440X		SINGING	1.4
55460X		TALKING WITH FRIEND	1.4
55480X		WATCHING TV/DVD - SITTING	1.4
55500X	WRITING	1.4	
35100X	COMPUTER/VIDEO GAMES (SITTING)	COMPUTER GAMES (COMPILATION OF GAMES)	1.4

35120X		VIDEO GAMES - BOWLING	1.4
35140X		VIDEO GAMES - DRIVING SIMULATOR	1.4
35160X		VIDEO GAMES - GAMEBOY	1.4
35180X		VIDEO GAMES - GAMEPAD	1.4
35200X		VIDEO GAMES - HANDHELD	1.4
35220X		VIDEO GAMES - MOBILE PHONE	1.4
35240X		VIDEO GAMES - NINTENDO	1.4
35260X		VIDEO GAMES - PS2	1.4
35280X		VIDEO GAMES - PS3	1.4
35300X		VIDEO GAMES - XBOX360	1.4
35320X		VIDEO GAMES (COMPILATION OF GAMES)	1.4

Age group is designated by the placeholder X; age ranges are represented by 2 (6-9 y), 3 (10-12 y), 4 (13-15 y), and 5 (16-18 y).

Table 2. Model-based youth MET (MET_y) for activities while standing, doing housework, and playing active video games for the Youth Compendium of Physical Activities

Code	Activity Category	Specific Activity	Youth MET (
			6-9
70100X	STANDING	ARCADE GAMES - TABLE FOOTBALL	1.9
70120X		BOARD GAMES - STANDING	2.0
70140X		DRAWING, COLORING - STANDING	1.8
70160X		SINGING - STANDING	1.8
70180X		STACKING CUPS	1.6
70200X		STANDING	1.7
70220X		VIDEO GAMES - STANDING	1.8
70240X		WATCHING TV/DVD - STANDING	1.8
45100X		HOUSEKEEPING/WORK	BEDMAKING
45120X	CARPENTRY		2.9
45140X	DRESSING AND UNDESSING		3.4
45160X	DUSTING		3.7
45180X	DUSTING AND SWEEPING		3.4
45200X	HANGING OUT WASHING		3.5
45220X	HOUSEWORK		4.2
45240X	LAUNDRY		3.7
45260X	LOADING/UNLOADING BOXES		3.6
45280X	SETTING THE TABLE		2.8
45300X	SHOVELLING		4.1
45320X	SWEEPING		3.6
45340X	VACUUMING		3.9
45360X	WASHING THE DISHES		1.9
15100X	ACTIVE VIDEO GAMES (FULL BODY)		ACTIVE VIDEO GAMES - ACTION RUNNING
15120X		ACTIVE VIDEO GAMES - BASEBALL	3.7
15140X		ACTIVE VIDEO GAMES - BOXING	3.0
15160X		ACTIVE VIDEO GAMES - CATCHING TARGETS	2.6
15180X		ACTIVE VIDEO GAMES - DANCE	2.3
15200X		ACTIVE VIDEO GAMES - HOVERBOARD	1.8

15220X		ACTIVE VIDEO GAMES - KINECT ADVENTURE GAMES AND SPORTS	3.1
15240X		ACTIVE VIDEO GAMES - LIGHTSPACE	3.2
15260X		ACTIVE VIDEO GAMES - OLYMPIC GAMES	2.6
15280X		ACTIVE VIDEO GAMES - SPORTWALL	3.8
15300X		ACTIVE VIDEO GAMES - TRAZER	2.8
15320X		ACTIVE VIDEO GAMES - WALKING ON TREADMILL AND BOWLING	2.8
15340X		ACTIVE VIDEO GAMES - WATCHING TV/DVD - WALKING	2.2
15360X		ACTIVE VIDEO GAMES - WII AEROBICS	2.2
15380X		ACTIVE VIDEO GAMES - WII BOXING/TENNIS	2.1
15400X		ACTIVE VIDEO GAMES - WII HOCKEY	1.4
15420X		ACTIVE VIDEO GAMES - WII MUSCLE CONDITIONING	1.3
15440X		ACTIVE VIDEO GAMES - WII SKIING	1.7
15460X		ACTIVE VIDEO GAMES - WII STEP	2.5
15480X		ACTIVE VIDEO GAMES - WII TENNIS	1.6
15500X		ACTIVE VIDEO GAMES - WII YOGA	1.9
15520X		ACTIVE VIDEO GAMES - XAVIX	4.2
15540X		ACTIVE VIDEO GAMES (COMPILATION OF GAMES)	3.9
15560X		ARCADE VIDEO GAME - AIR HOCKEY	2.4
15580X		ARCADE VIDEO GAME - HORSE RIDING SIMULATION	4.1
20100X	ACTIVE VIDEO GAMES (UPPER BODY)	ACTIVE VIDEO GAMES - BOWLING	2.1
20120X		ACTIVE VIDEO GAMES - DRIVING SIMULATOR	2.1
20140X		ACTIVE VIDEO GAMES - WII (COMPILATION OF GAMES)	2.3
20160X		ACTIVE VIDEO GAMES - WII BALANCE	2.2
20180X		ACTIVE VIDEO GAMES - WII BASKETBALL	2.2
20200X		ACTIVE VIDEO GAMES - WII GOLF	2.0
20220X		ARCADE VIDEO GAME - DRIVING SIMULATION	2.0

20240X		ARCADE VIDEO GAME - SHOOTING HOOPS	2.3
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Age group is designated by the placeholder X; age ranges are represented by 2 (6-9 y), 3 (10-12 y), 4 (13-15 y), and 5 (16-18 y).

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Table 3. Model-based youth MET (MET_y) for play and sports activities for the Youth Compendium of Physical Activities

Code	Activity Category	Specific Activity	Youth MET (
			6-9	
30100X	CALISTHENICS/GYMNASTICS	ACTIVE CLASSROOM INSTRUCTION	4.3	
30120X		BROADCAST CALISTHENICS - 'COLOURFUL SUNSHINE'	4.0	
30140X		BROADCAST CALISTHENICS - 'FLOURISHING YOUTH'	4.1	
30160X		BROADCAST CALISTHENICS - 'FLYING IDEAL'	3.6	
30180X		BROADCAST CALISTHENICS - 'HOPEFUL SAIL'	3.8	
30200X		CALISTHENICS - LIGHT	4.0	
30220X		GYMNASTICS	2.7	
30240X		JUMPING JACKS	4.6	
30260X		RADIO GYMNASTICS	3.5	
30280X		STRENGTH EXERCISES - CURL-UPS	2.4	
30300X		STRENGTH EXERCISES - PUSH-UPS	3.9	
85100X		WEIGHT LIFTING*	HAND WEIGHTS EXERCISES	3.0
85120X			STRENGTH EXERCISES - BENCH PRESS	2.0
85140X	STRENGTH EXERCISES - LEG PRESS		2.6	
65100X	SPORTS/GAMES	BASKETBALL - GAME	6.7	
65120X		BASKETBALL - SHOOTING AND RETRIEVING A BASKETBALL, CONTINUOUSLY, WITHOUT STOPPING	5.9	
65140X		BASKETBALL GAME (MINI BASKETBALL)	4.9	
65160X		BOWLING - GAME	5.2	
65180X		BOXING - PUNCHING BAG AND GLOVES	4.9	
65200X		CATCH/THROW BALL	4.1	
65220X		GOLF - GAME (MINI GOLF)	4.0	
65240X		HANDBALL	5.4	

65260X		HOCKEY - GAME (MINI FLOOR HOCKEY)	3.8
65280X		JUGGLING	6.2
65300X		KICKBALL, CONTINUOUS MOVEMENT	8.2
65320X		ROLLERBLADING	5.2
65340X		SKIING	5.6
65360X		SLIDE BOARD - 40 SLIDES/MIN	4.9
65380X		SLIDE BOARD - 50 SLIDES/MIN	5.4
65400X		SLIDE BOARD - 60 SLIDES/MIN	5.6
65420X		SLIDE BOARD - 70 SLIDES/MIN	6.0
65440X		SLIDE BOARD - 80 SLIDES/MIN	5.9
65460X		SOCCER - AROUND CONES	5.4
65480X		SOCCER - GAME	7.7
65500X		TABLE TENNIS	4.2
65520X		TENNIS PRACTICE AND GAMES	6.1
65540X		ULTIMATE FRISBBE	5.6
65560X		VOLLEYBALL	5.0
40100X	DANCE/AEROBICS/STEPS	AEROBIC DANCE/DANCE	3.6
40120X		STAIR WALKING - ASCENDING	4.6
40140X		STAIR WALKING - ASCENDING 80 STEPS/MIN	5.3
40160X		STAIR WALKING - ASCENDING/DESCENDING	5.5
40180X		STAIR WALKING - DESCENDING	3.0
40200X		STEP BOARD	4.5
40220X		STEPPING - HEIGHT 30%-50% LEG LENGTH	3.9
25100X	BIKE/SCOOTER RIDING	RIDING A BIKE - FAST SPEED	-- ^a
25120X		RIDING A BIKE - MEDIUM SPEED	4.7
25140X		RIDING A BIKE - SELF PACED	4.6
25160X		RIDING A BIKE - SLOW SPEED	3.7
25180X		RIDING A MINI - SCOOTER	5.7
25200X		RIDING SCOOTER	4.9
10100X	ACTIVE PLAY	BALL GAMES - BOUNCING, KICKING, DRIBBLING BALL, REACTION BALL	6.0

		(MODERATE INTENSITY)	
10120X		BALL GAMES - BOUNCING, KICKING, DRIBBLING BALL, REACTION BALL (VIGOROUS INTENSITY)	6.1
10140X		DODGEBALL TYPE GAMES (E.G., CASTLES, HOT FEET)	5.8
10160X		FREE PLAY (BASKETBALL, ROPE, HOOP, CLIMB, LADDER, FRISBEE)	5.7
10180X		FREEZE/ZONE TAG (MODERATE INTENSITY)	6.3
10200X		FREEZE/ZONE TAG (VIGOROUS INTENSITY)	6.4
10220X		HIKING	5.8
10240X		HOPSCOTCH	6.3
10260X		JUMP ROPE	6.9
10280X		MARCHING - 75M.MIN INSTRUMENTS	5.0
10300X		MARCHING - 75M.MIN NO INSTRUMENTS	3.9
10320X		MARCHING - 91M.MIN NO INSTRUMENTS	5.1
10340X		MISCELLANEOUS GAMES - VIGOROUS (E.G., SLAP THE BALL, BUILDERS AND BULLDOZERS, CLEAN THE ROOM)	6.4
10360X		MISCELLANEOUS GAMES - MODERATE (E.G., SIMON'S SPOTLIGHT)	6.9
10380X		OBSTACLE/LOCOMOTOR COURSE - MODERATE	5.9
10400X		OBSTACLE/LOCOMOTOR COURSE - VIGOROUS	7.2
10420X		PLAYING GAMES (CATCH AND THROW BALLS, JUMPING JACKS)	5.9
10440X		PLAYING TAG - MODERATE	6.1
10460X		PLAYING TAG-VIGOROUS	7.4
10480X		RELAY	6.8
10500X		SHARKS AND MINOOWS	5.8
10520X		TRAMPOLINE	7.0
75100X	SWIMMING	SWIMMING - 200M	10.6
75120X		SWIMMING - FRONT CRAWL 0.9 M.SEC	9.7
75140X		SWIMMING - FRONT CRAWL 1.0 M.SEC	10.0

75160X		SWIMMING - FRONT CRAWL 1.1 M.SEC	10.6
75180X		SWIMMING - SELF-SELECTED PACE	9.5
75200X		SYNCHRONISED SWIMMING	10.1

Age group is designated by the placeholder X; age ranges are represented by 2 (6-9 y), 3 (10-12 y), 4 (13-15 y), and 5 (16-18 y).

*Energy cost of anaerobic activities may be underestimated by MET values

^a Activity not deemed reasonable for this age group

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Table 4. Model-based youth MET (MET_y) for walking and running activities for the Youth Compendium of Physical Activities

Code	Activity Category	Specific Activity	Youth MET (
			6-9	
80100X	WALKING	WALK 0.5	2.5	
80120X		WALK 1.0	2.5	
80140X		WALK 1.5	2.5	
80160X		WALK 2.0	2.8	
80180X		WALK 2.5	3.3	
80200X		WALK 3.0	3.8	
80220X		WALK 3.5	4.6	
80240X		WALK 4.0	4.8	
80260X		WALK 4.5	-- ^a	
80280X		WALK 5.0	-- ^a	
80300X		WALK SELF-PACED BRISK	4.6	
80320X		WALK SELF-PACED CASUAL	3.6	
60100X		RUNNING	JOG - FAST	7.2
60120X			JOG - SLOW	5.5
60140X	JOG SELF-PACED		6.8	
60160X	RUN 3.0		5.3	
60180X	RUN 3.5		6.4	
60200X	RUN 4.0		6.5	
60220X	RUN 4.5		6.7	
60240X	RUN 5.0		7.2	
60260X	RUN 5.5		7.3	
60280X	RUN 6.0		8.2	
60300X	RUN 6.5		8.9	
60320X	RUN 7.0		9.3	
60340X	RUN 7.5		10.0	
60360X	RUN 8.0		10.6	
60380X	RUN SELF-PACED		7.8	

Age group is designated by the placeholder X; age ranges are represented by 2 (6-9 y), 3 (10-12 y), 4 (13-15 y), and 5 (16-18 y).

^a Activity not deemed reasonable for this age group

Supplemental digital content 1. Activity-specific references for MET_y values

Activity Category	Specific Activity
ACTIVE PLAY	BALL GAMES - BOUNCING, KICKING, DRIBBLING BALL, REACTION BALL (MODERATE INTENSITY)
	BALL GAMES - BOUNCING, KICKING, DRIBBLING BALL, REACTION BALL (VIGOROUS INTENSITY)
	DODGEBALL TYPE GAMES (E.G., CASTLES, HOT FEET)
	FREE PLAY (BASKETBALL, ROPE, HOOP, CLIMB, LADDER, FRISBEE)
	FREEZE/ZONE TAG (MODERATE INTENSITY)
	FREEZE/ZONE TAG (VIGOROUS INTENSITY)
	HIKING
	HOPSCOTCH
	JUMP ROPE
	MARCHING - 75M.MIN INSTRUMENTS
	MARCHING - 75M.MIN NO INSTRUMENTS
	MARCHING - 91M.MIN NO INSTRUMENTS
	MISCELLANEOUS GAMES -VIGOROUS (E.G., SLAP THE BALL, BUILDERS AND BULLDOZERS)
	MISCELLANEOUS GAMES-MODERATE (E.G., SIMON'S SPOTLIGHT, CLEAN THE ROOM)
	OBSTACLE/LOCOMOTOR COURSE-MODERATE
	OBSTACLE/LOCOMOTOR COURSE-VIGOROUS
	PLAYING GAMES (CATCH AND THROW BALLS, JUMPING JACKS)
	PLAYING TAG - MODERATE
	PLAYING TAG-VIGOROUS
	RELAY
	SHARKS AND MINNOWS
	TRAMPOLINE
ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - ACTION RUNNING
	ACTIVE VIDEO GAMES - BASEBALL
	ACTIVE VIDEO GAMES - BOXING
	ACTIVE VIDEO GAMES - CATCHING TARGETS
	ACTIVE VIDEO GAMES - DANCE
	ACTIVE VIDEO GAMES - HOVERBOARD
	ACTIVE VIDEO GAMES - KINECT ADVENTURE GAMES AND SPORTS
	ACTIVE VIDEO GAMES - LIGHTSPACE
	ACTIVE VIDEO GAMES - OLYMPIC GAMES
	ACTIVE VIDEO GAMES - SPORTWALL
	ACTIVE VIDEO GAMES - TRAZER
	ACTIVE VIDEO GAMES - WALKING ON TREADMILL AND BOWLING

	ACTIVE VIDEO GAMES - WATCHING TV/DVD - WALKING
	ACTIVE VIDEO GAMES - WII AEROBICS
	ACTIVE VIDEO GAMES - WII BOXING/TENNIS
	ACTIVE VIDEO GAMES - WII HOCKEY
	ACTIVE VIDEO GAMES - WII MUSCLE CONDITIONING
	ACTIVE VIDEO GAMES - WII SKIING
	ACTIVE VIDEO GAMES - WII STEP
	ACTIVE VIDEO GAMES - WII TENNIS
	ACTIVE VIDEO GAMES - WII YOGA
	ACTIVE VIDEO GAMES - XAVIX
	ACTIVE VIDEO GAMES (COMPILATION OF GAMES)
	ARCADE VIDEO GAME - AIR HOCKEY
	ARCADE VIDEO GAME - HORSE RIDING SIMULATION
ACTIVE VIDEO GAMES (UPPER BODY)	ACTIVE VIDEO GAMES - BOWLING
	ACTIVE VIDEO GAMES - DRIVING SIMULATOR
	ACTIVE VIDEO GAMES - WII (COMPILATION OF GAMES)
	ACTIVE VIDEO GAMES - WII BALANCE
	ACTIVE VIDEO GAMES - WII BASKETBALL
	ACTIVE VIDEO GAMES - WII GOLF
	ARCADE VIDEO GAME - DRIVING SIMULATION
	ARCADE VIDEO GAME - SHOOTING HOOPS
BIKE/SCOOTER RIDING	RIDING A BIKE - FAST SPEED
	RIDING A BIKE - MEDIUM SPEED
	RIDING A BIKE - SELF PACED
	RIDING A BIKE - SLOW SPEED
	RIDING A MINI-SCOOTER
	RIDING SCOOTER
CALISTHENICS/GYMNASTICS	ACTIVE CLASSROOM INSTRUCTION
	BROADCAST CALISTHENICS - 'COLOURFUL SUNSHINE'
	BROADCAST CALISTHENICS - 'FLOURISHING YOUTH'
	BROADCAST CALISTHENICS - 'FLYING IDEAL'
	BROADCAST CALISTHENICS - 'HOPEFUL SAIL'
	CALISTHENICS - LIGHT
	GYMNASTICS
	JUMPING JACKS
	RADIO GYMNASTICS
	STRENGTH EXERCISES - CURL-UPS
	STRENGTH EXERCISES - PUSH-UPS

COMPUTER/VIDEO GAMES (SITTING)	COMPUTER GAMES (COMPILATION OF GAMES)
	VIDEO GAMES - BOWLING
	VIDEO GAMES - DRIVING SIMULATOR
	VIDEO GAMES - GAMEBOY
	VIDEO GAMES - GAMEPAD
	VIDEO GAMES - HANDHELD
	VIDEO GAMES - MOBILE PHONE
	VIDEO GAMES - NINTENDO
	VIDEO GAMES - PS2
	VIDEO GAMES - PS3
	VIDEO GAMES - XBOX360
	VIDEO GAMES (COMPILATION OF GAMES)
DANCE/AEROBICS/STEPS	AEROBIC DANCE/DANCE
	STAIR WALKING - ASCENDING
	STAIR WALKING - ASCENDING 80 STEPS/MIN
	STAIR WALKING - ASCENDING/DESCENDING
	STAIR WALKING - DESCENDING
	STEP BOARD
	STEPPING - HEIGHT 30%-50% LEG LENGTH
HOUSEKEEPING/WORK	BEDMAKING
	CARPENTRY
	DRESSING AND UNDESSING
	DUSTING
	DUSTING AND SWEEPING
	HANGING OUT WASHING
	HOUSEWORK
	LAUNDRY
	LOADING/UNLOADING BOXES
	SETTING THE TABLE
	SHOVELLING
	SWEEPING
	VACUUMING
	WASHING THE DISHES
LYING	QUIETLY LYING
	WATCHING TV/DVD - LYING
QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	ARTS AND CRAFTS

	BOARD GAMES
	COLORING, READING WRITING, INTERNET
	COMPUTER WORK
	GIVING A SPEECH
	LISTENING TO RADIO
	LISTENING TO STORY
	PLAYING QUIETLY
	PLAYING STRINGED INSTRUMENT
	PLAYING WITH BRICKS
	PLAYING WITH TOYS (CARDS, PUZZLES, CARS, TRAINS)
	PUZZLES
	QUIETLY SITTING
	READING
	READING A BOOK AND LISTENING TO MUSIC
	SCHOOLWORK
	SEWING
	SINGING
	TALKING WITH FRIEND
	WATCHING TV/DVD - SITTING
	WRITING
RUN	JOG - FAST
	JOG - SLOW
	JOG SELF-PACED
	RUN 3.0
	RUN 3.5
	RUN 4.0
	RUN 4.5
	RUN 5.0
	RUN 5.5
	RUN 6.0
	RUN 6.5
	RUN 7.0
	RUN 7.5
	RUN 8.0
	RUN SELF-PACED
SPORTS/GAMES	BASKETBALL - GAME

	BASKETBALL - SHOOTING AND RETRIEVING A BASKETBALL, CONTINUOUSLY, WITHOUT STOPPING
	BASKETBALL GAME (MINI BASKETBALL)
	BOWLING - GAME
	BOXING - PUNCHING BAG AND GLOVES
	CATCH/THROW BALL
	GOLF - GAME (MINI GOLF)
	HANDBALL
	HOCKEY - GAME (MINI FLOOR HOCKEY)
	JUGGLING
	KICKBALL, CONTINUOUS MOVEMENT
	ROLLERBLADING
	SKIING
	SLIDE BOARD - 40 SLIDES/MIN
	SLIDE BOARD - 50 SLIDES/MIN
	SLIDE BOARD - 60 SLIDES/MIN
	SLIDE BOARD - 70 SLIDES/MIN
	SLIDE BOARD - 80 SLIDES/MIN
	SOCCER - AROUND CONES
	SOCCER - GAME
	TABLE TENNIS
	TENNIS PRACTICE AND GAMES
	ULTIMATE FRISBEE
	VOLLEYBALL
STANDING	ARCADE GAMES - TABLE FOOTBALL
	BOARD GAMES - STANDING
	DRAWING, COLORING - STANDING
	SINGING - STANDING
	STACKING CUPS
	STANDING
	VIDEO GAMES - STANDING
	WATCHING TV/DVD - STANDING
SWIMMING	SWIMMING - 200 M
	SWIMMING - FRONT CRAWL 0.9 M.SEC
	SWIMMING - FRONT CRAWL 1.0 M.SEC
	SWIMMING - FRONT CRAWL 1.1 M.SEC
	SWIMMING - SELF-SELECTED PACE
	SYNCHRONISED SWIMMING
WALK	WALK 0.5

	WALK 1.0
	WALK 1.5
	WALK 2.0
	WALK 2.5
	WALK 3.0
	WALK 3.5
	WALK 4.0
	WALK 4.5
	WALK 5.0
	WALK SELF-PACED BRISK
	WALK SELF-PACED CASUAL
WEIGHT LIFTING	HAND WEIGHTS EXERCISES
	STRENGTH EXERCISES - BENCH PRESS
	STRENGTH EXERCISES - LEG PRESS

ACCEPTED

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Supplemental Digital Content 2. Table of measured/imputed youth MET_y values by activity and age group

MET _y Code	Activity Category	Specific Activity	Ages	Ages
			6-9	10-
10100X	ACTIVE PLAY	BALL GAMES - BOUNCING, KICKING, DRIBBLING BALL, REACTION BALL (MODERATE INTENSITY)	6.1	5.4
10120X	ACTIVE PLAY	BALL GAMES - BOUNCING, KICKING, DRIBBLING BALL, REACTION BALL (VIGOROUS INTENSITY)	6.3	6.2
10140X	ACTIVE PLAY	DODGEBALL TYPE GAMES (E.G., CASTLES, HOT FEET)	5.3	6.0
10160X	ACTIVE PLAY	FREE PLAY (BASKETBALL, ROPE, HOOP, CLIMB, LADDER, FRISBEE)	5.0	5.8
10180X	ACTIVE PLAY	FREEZE/ZONE TAG (MODERATE INTENSITY)	5.5	6.8
10200X	ACTIVE PLAY	FREEZE/ZONE TAG (VIGOROUS INTENSITY)	7.5	6.7
10220X	ACTIVE PLAY	HIKING	6.4	5.0
10240X	ACTIVE PLAY	HOPSCOTCH	5.8	6.0
10260X	ACTIVE PLAY	JUMP ROPE	6.9	6.0
10280X	ACTIVE PLAY	MARCHING - 75M.MIN INSTRUMENTS	4.9	5.1
10300X	ACTIVE PLAY	MARCHING - 75M.MIN NO INSTRUMENTS	3.8	4.0
10320X	ACTIVE PLAY	MARCHING - 91M.MIN NO INSTRUMENTS	5.2	5.1
10340X	ACTIVE PLAY	MISCELLANEOUS GAMES - VIGOROUS (E.G., SLAP THE BALL, BUILDERS AND BULLDOZERS, CLEAN THE ROOM)	7.2	6.7
10360X	ACTIVE PLAY	MISCELLANEOUS GAMES - MODERATE (E.G., SIMON'S SPOTLIGHT)	6.1	6.2
10380X	ACTIVE PLAY	OBSTACLE/LOCOMOTOR COURSE - MODERATE	5.7	5.8
10400X	ACTIVE PLAY	OBSTACLE/LOCOMOTOR COURSE - VIGOROUS	7.2	8.6
10420X	ACTIVE PLAY	PLAYING GAMES (CATCH AND THROW BALLS, JUMPING JACKS)	4.9	5.1

10440X	ACTIVE PLAY	PLAYING TAG - MODERATE	5.9	6.1
10460X	ACTIVE PLAY	PLAYING TAG-VIGOROUS	7.1	8.3
10480X	ACTIVE PLAY	RELAY	6.5	8.0
10500X	ACTIVE PLAY	SHARKS AND MINOOWS	5.2	6.3
10520X	ACTIVE PLAY	TRAMPOLINE	7.3	8.2
15100X	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - ACTION RUNNING	6.0	6.6
15120X	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - BASEBALL	2.7	5.8
15140X	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - BOXING	2.7	6.2
15160X	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - CATCHING TARGETS	2.3	5.4
15180X	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - DANCE	3.0	3.5
15200X	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - HOVERBOARD	1.9	2.8
15220X	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - KINECT ADVENTURE GAMES AND SPORTS	3.6	4.0
15240X	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - LIGHTSPACE	2.8	4.8
15260X	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - OLYMPIC GAMES	2.5	3.5
15280X	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - SPORTWALL	3.8	5.2
15300X	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - TRAZER	2.4	4.6
15320X	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - WALKING ON TREADMILL AND BOWLING	2.6	3.7
15340X	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - WATCHING TV/DVD - WALKING	2.6	3.1
15360X	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - WII AEROBICS	2.2	3.1
15380X	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - WII BOXING/TENNIS	2.3	3.3

15400X	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - WII HOCKEY	1.5	1.7
15420X	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - WII MUSCLE CONDITIONING	1.5	1.8
15440X	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - WII SKIING	1.6	2.4
15460X	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - WII STEP	2.3	3.7
15480X	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - WII TENNIS	2.7	2.4
15500X	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - WII YOGA	1.9	1.9
15520X	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - XAVIX	4.3	6.3
15540X	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES (COMPILATION OF GAMES)	4.5	5.4
15560X	ACTIVE VIDEO GAMES (FULL BODY)	ARCADE VIDEO GAME - AIR HOCKEY	2.2	3.6
15580X	ACTIVE VIDEO GAMES (FULL BODY)	ARCADE VIDEO GAME - HORSE RIDING SIMULATION	4.2	6.4
20100X	ACTIVE VIDEO GAMES (UPPER BODY)	ACTIVE VIDEO GAMES - BOWLING	1.8	2.4
20120X	ACTIVE VIDEO GAMES (UPPER BODY)	ACTIVE VIDEO GAMES - DRIVING SIMULATOR	2.1	2.0
20140X	ACTIVE VIDEO GAMES (UPPER BODY)	ACTIVE VIDEO GAMES - WII (COMPILATION OF GAMES)	2.5	2.6
20160X	ACTIVE VIDEO GAMES (UPPER BODY)	ACTIVE VIDEO GAMES - WII BALANCE	2.2	2.4
20180X	ACTIVE VIDEO GAMES (UPPER BODY)	ACTIVE VIDEO GAMES - WII BASKETBALL	2.1	2.3
20200X	ACTIVE VIDEO GAMES (UPPER BODY)	ACTIVE VIDEO GAMES - WII GOLF	2.1	1.6
20220X	ACTIVE VIDEO GAMES (UPPER BODY)	ARCADE VIDEO GAME - DRIVING SIMULATION	2.0	1.8
20240X	ACTIVE VIDEO GAMES	ARCADE VIDEO GAME - SHOOTING HOOPS	2.3	3.2

	(UPPER BODY)			
25100X	BIKE/SCOOTER RIDING	RIDING A BIKE - FAST SPEED	-- ^a	7.1
25120X	BIKE/SCOOTER RIDING	RIDING A BIKE - MEDIUM SPEED	4.5	5.6
25140X	BIKE/SCOOTER RIDING	RIDING A BIKE - SELF PACED	4.4	5.4
25160X	BIKE/SCOOTER RIDING	RIDING A BIKE - SLOW SPEED	3.6	3.9
25180X	BIKE/SCOOTER RIDING	RIDING A MINI - SCOOTER	5.3	7.8
25200X	BIKE/SCOOTER RIDING	RIDING SCOOTER	5.0	5.9
30100X	CALISTHENICS/GYMNASTICS	ACTIVE CLASSROOM INSTRUCTION	4.3	4.7
30120X	CALISTHENICS/GYMNASTICS	BROADCAST CALISTHENICS - 'COLOURFUL SUNSHINE'	4.1	3.9
30140X	CALISTHENICS/GYMNASTICS	BROADCAST CALISTHENICS - 'FLOURISHING YOUTH'	3.8	4.2
30160X	CALISTHENICS/GYMNASTICS	BROADCAST CALISTHENICS - 'FLYING IDEAL'	3.5	3.6
30180X	CALISTHENICS/GYMNASTICS	BROADCAST CALISTHENICS - 'HOPEFUL SAIL'	3.7	3.8
30200X	CALISTHENICS/GYMNASTICS	CALISTHENICS - LIGHT	3.8	4.4
30220X	CALISTHENICS/GYMNASTICS	GYMNASTICS	2.7	2.9
30240X	CALISTHENICS/GYMNASTICS	JUMPING JACKS	4.8	4.8
30260X	CALISTHENICS/GYMNASTICS	RADIO GYMNASTICS	3.4	3.4
30280X	CALISTHENICS/GYMNASTICS	STRENGTH EXERCISES - CURL-UPS	2.3	2.3
30300X	CALISTHENICS/GYMNASTICS	STRENGTH EXERCISES - PUSH-UPS	4.0	4.1
35100X	COMPUTER/VIDEO GAMES (SITTING)	COMPUTER GAMES (COMPILATION OF GAMES)	1.6	1.5
35120X	COMPUTER/VIDEO GAMES (SITTING)	VIDEO GAMES - BOWLING	1.6	1.4
35140X	COMPUTER/VIDEO	VIDEO GAMES - DRIVING SIMULATOR	1.3	1.4

	GAMES (SITTING)			
35160X	COMPUTER/VIDEO GAMES (SITTING)	VIDEO GAMES - GAMEBOY	1.3	1.5
35180X	COMPUTER/VIDEO GAMES (SITTING)	VIDEO GAMES - GAMEPAD	1.3	1.7
35200X	COMPUTER/VIDEO GAMES (SITTING)	VIDEO GAMES - HANDHELD	1.9	1.7
35220X	COMPUTER/VIDEO GAMES (SITTING)	VIDEO GAMES - MOBILE PHONE	1.6	1.5
35240X	COMPUTER/VIDEO GAMES (SITTING)	VIDEO GAMES - NINTENDO	1.4	1.4
35260X	COMPUTER/VIDEO GAMES (SITTING)	VIDEO GAMES - PS2	1.2	1.6
35280X	COMPUTER/VIDEO GAMES (SITTING)	VIDEO GAMES - PS3	1.5	1.5
35300X	COMPUTER/VIDEO GAMES (SITTING)	VIDEO GAMES - XBOX360	1.4	1.5
35320X	COMPUTER/VIDEO GAMES (SITTING)	VIDEO GAMES (COMPILATION OF GAMES)	1.4	1.6
40100X	DANCE/AEROBICS/STEPS	AEROBIC DANCE/DANCE	3.6	4.0
40120X	DANCE/AEROBICS/STEPS	STAIR WALKING - ASCENDING	4.6	5.3
40140X	DANCE/AEROBICS/STEPS	STAIR WALKING - ASCENDING 80 STEPS/MIN	5.7	6.1
40160X	DANCE/AEROBICS/STEPS	STAIR WALKING - ASCENDING/DESCENDING	5.7	6.7
40180X	DANCE/AEROBICS/STEPS	STAIR WALKING - DESCENDING	2.8	3.1
40200X	DANCE/AEROBICS/STEPS	STEP BOARD	4.7	5.7
40220X	DANCE/AEROBICS/STEPS	STEPPING - HEIGHT 30%-50% LEG LENGTH	4.1	4.1
45100X	HOUSEKEEPING/WORK	BEDMAKING	4.2	3.2
45120X	HOUSEKEEPING/WORK	CARPENTRY	2.3	2.6

45140X	HOUSEKEEPING/WORK	DRESSING AND UNDRRESSING	3.6	3.0
45160X	HOUSEKEEPING/WORK	DUSTING	3.7	3.4
45180X	HOUSEKEEPING/WORK	DUSTING AND SWEEPING	3.6	3.6
45200X	HOUSEKEEPING/WORK	HANGING OUT WASHING	3.2	2.6
45220X	HOUSEKEEPING/WORK	HOUSEWORK	4.0	4.3
45240X	HOUSEKEEPING/WORK	LAUNDRY	4.2	3.2
45260X	HOUSEKEEPING/WORK	LOADING/UNLOADING BOXES	3.5	3.9
45280X	HOUSEKEEPING/WORK	SETTING THE TABLE	2.7	2.6
45300X	HOUSEKEEPING/WORK	SHOVELLING	3.9	4.2
45320X	HOUSEKEEPING/WORK	SWEEPING	3.3	3.6
45340X	HOUSEKEEPING/WORK	VACUUMING	4.0	3.7
45360X	HOUSEKEEPING/WORK	WASHING THE DISHES	1.9	1.9
50100X	LYING	QUIETLY LYING	1.3	1.2
50120X	LYING	WATCHING TV/DVD - LYING	1.3	1.0
55100X	QUIET PLAY/SCHOOLWORK/TE LEVISION (SITTING)	ARTS AND CRAFTS	1.7	1.6
55120X	QUIET PLAY/SCHOOLWORK/TE LEVISION (SITTING)	BOARD GAMES	1.5	1.5
55140X	QUIET PLAY/SCHOOLWORK/TE LEVISION (SITTING)	COLORING, READING WRITING, INTERNET	1.8	1.5
55160X	QUIET PLAY/SCHOOLWORK/TE LEVISION (SITTING)	COMPUTER WORK	1.8	1.4
55180X	QUIET PLAY/SCHOOLWORK/TE LEVISION (SITTING)	GIVING A SPEECH	1.7	1.7
55200X	QUIET PLAY/SCHOOLWORK/TE LEVISION (SITTING)	LISTENING TO RADIO	1.1	1.3
55220X	QUIET	LISTENING TO STORY	1.1	1.4

	PLAY/SCHOOLWORK/TELEVISION (SITTING)			
55240X	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	PLAYING QUIETLY	1.6	1.6
55260X	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	PLAYING STRINGED INSTRUMENT	1.2	1.2
55280X	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	PLAYING WITH BRICKS	1.3	1.1
55300X	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	PLAYING WITH TOYS (CARDS, PUZZLES, CARS, TRAINS)	1.5	1.4
55320X	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	PUZZLES	1.1	1.3
55340X	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	QUIETLY SITTING	1.4	1.3
55360X	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	READING	1.5	1.3
55380X	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	READING A BOOK AND LISTENING TO MUSIC	1.6	1.1
55400X	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	SCHOOLWORK	1.5	1.8
55420X	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	SEWING	1.3	1.6
55440X	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	SINGING	1.2	1.5

55460X	QUIET PLAY/SCHOOLWORK/TE LEVISION (SITTING)	TALKING WITH FRIEND	1.0	1.6
55480X	QUIET PLAY/SCHOOLWORK/TE LEVISION (SITTING)	WATCHING TV/DVD - SITTING	1.3	1.3
55500X	QUIET PLAY/SCHOOLWORK/TE LEVISION (SITTING)	WRITING	1.5	1.6
60100X	RUNNING	JOG - FAST	7.0	8.7
60120X	RUNNING	JOG - SLOW	5.6	7.0
60140X	RUNNING	JOG SELF-PACED	7.7	7.5
60160X	RUNNING	RUN 3.0	5.3	4.7
60180X	RUNNING	RUN 3.5	5.9	6.9
60200X	RUNNING	RUN 4.0	6.5	6.6
60220X	RUNNING	RUN 4.5	6.8	7.2
60240X	RUNNING	RUN 5.0	7.1	8.1
60260X	RUNNING	RUN 5.5	7.2	7.9
60280X	RUNNING	RUN 6.0	8.4	8.8
60300X	RUNNING	RUN 6.5	8.1	10.4
60320X	RUNNING	RUN 7.0	8.6	10.7
60340X	RUNNING	RUN 7.5	10.6	11.1
60360X	RUNNING	RUN 8.0	10.9	11.6
60380X	RUNNING	RUN SELF-PACED	7.5	8.8
65100X	SPORTS/GAMES	BASKETBALL - GAME	6.2	7.8
65120X	SPORTS/GAMES	BASKETBALL - SHOOTING AND RETRIEVING A BASKETBALL, CONTINUOUSLY, WITHOUT STOPPING	5.8	5.9
65140X	SPORTS/GAMES	BASKETBALL GAME (MINI BASKETBALL)	5.3	4.4
65160X	SPORTS/GAMES	BOWLING - GAME	4.3	4.7
65180X	SPORTS/GAMES	BOXING - PUNCHING BAG AND GLOVES	5.2	4.6
65200X	SPORTS/GAMES	CATCH/THROW BALL	3.5	4.2

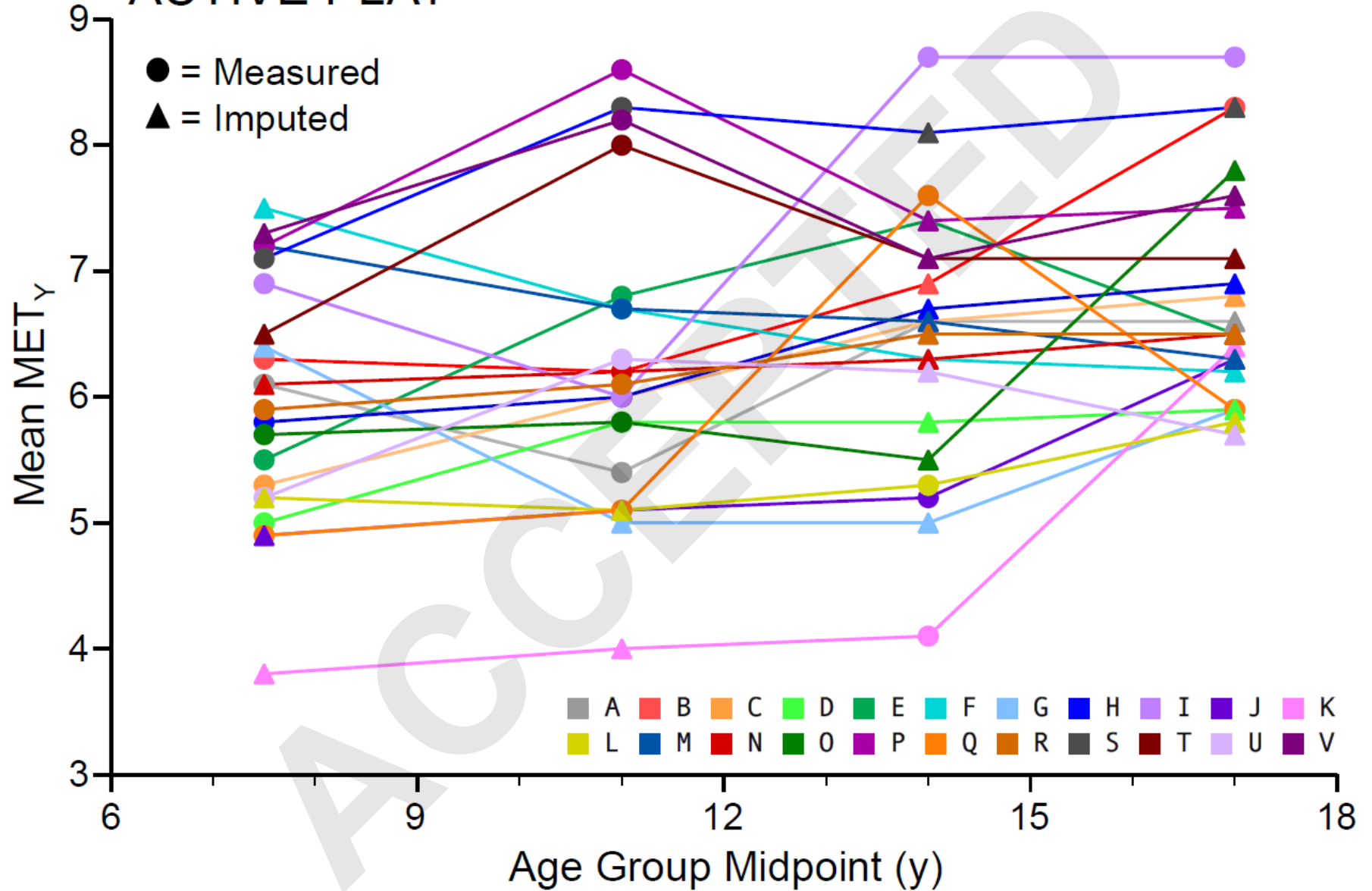
65220X	SPORTS/GAMES	GOLF - GAME (MINI GOLF)	4.1	3.0
65240X	SPORTS/GAMES	HANDBALL	5.5	5.4
65260X	SPORTS/GAMES	HOCKEY - GAME (MINI FLOOR HOCKEY)	3.4	4.0
65280X	SPORTS/GAMES	JUGGLING	6.9	5.4
65300X	SPORTS/GAMES	KICKBALL, CONTINUOUS MOVEMENT	8.9	8.4
65320X	SPORTS/GAMES	ROLLERBLADING	4.6	6.9
65340X	SPORTS/GAMES	SKIING	5.9	5.3
65360X	SPORTS/GAMES	SLIDE BOARD - 40 SLIDES/MIN	4.9	5.0
65380X	SPORTS/GAMES	SLIDE BOARD - 50 SLIDES/MIN	5.6	5.5
65400X	SPORTS/GAMES	SLIDE BOARD - 60 SLIDES/MIN	5.5	5.9
65420X	SPORTS/GAMES	SLIDE BOARD - 70 SLIDES/MIN	6.1	6.5
65440X	SPORTS/GAMES	SLIDE BOARD - 80 SLIDES/MIN	7.2	7.4
65460X	SPORTS/GAMES	SOCCER - AROUND CONES	5.6	5.1
65480X	SPORTS/GAMES	SOCCER - GAME	8.5	8.5
65500X	SPORTS/GAMES	TABLE TENNIS	3.9	4.0
65520X	SPORTS/GAMES	TENNIS PRACTICE AND GAMES	6.6	5.9
65540X	SPORTS/GAMES	ULTIMATE FRISBEE	5.3	6.1
65560X	SPORTS/GAMES	VOLLEYBALL	5.0	4.4
70100X	STANDING	ARCADE GAMES - TABLE FOOTBALL	1.8	1.8
70120X	STANDING	BOARD GAMES - STANDING	2.4	2.2
70140X	STANDING	DRAWING, COLORING - STANDING	1.6	2.0
70160X	STANDING	SINGING - STANDING	1.3	1.6
70180X	STANDING	STACKING CUPS	2.3	2.4
70200X	STANDING	STANDING	1.7	1.6
70220X	STANDING	VIDEO GAMES - STANDING	1.7	1.7
70240X	STANDING	WATCHING TV/DVD - STANDING	1.7	1.5
75100X	SWIMMING	SWIMMING - 200M	11.3	10.5
75120X	SWIMMING	SWIMMING - FRONT CRAWL 0.9 M.SEC	7.9	8.3
75140X	SWIMMING	SWIMMING - FRONT CRAWL 1.0 M.SEC	9.9	9.6
75160X	SWIMMING	SWIMMING - FRONT CRAWL 1.1 M.SEC	10.7	11.4

75180X	SWIMMING	SWIMMING - SELF-SELECTED PACE	7.0	8.5
75200X	SWIMMING	SYNCHRONISED SWIMMING	10.5	9.5
80100X	WALKING	WALK 0.5	2.5	2.5
80120X	WALKING	WALK 1.0	2.8	2.8
80140X	WALKING	WALK 1.5	2.3	2.7
80160X	WALKING	WALK 2.0	2.7	3.1
80180X	WALKING	WALK 2.5	3.2	3.7
80200X	WALKING	WALK 3.0	3.7	4.4
80220X	WALKING	WALK 3.5	4.6	5.1
80240X	WALKING	WALK 4.0	4.9	5.3
80260X	WALKING	WALK 4.5	-- ^a	--
80280X	WALKING	WALK 5.0	-- ^a	--
80300X	WALKING	WALK SELF-PACED BRISK	4.6	5.0
80320X	WALKING	WALK SELF-PACED CASUAL	3.6	3.9
85100X	WEIGHT LIFTING*	HAND WEIGHTS EXERCISES	3.0	3.3
85120X	WEIGHT LIFTING*	STRENGTH EXERCISES - BENCH PRESS	1.7	1.9
85140X	WEIGHT LIFTING*	STRENGTH EXERCISES - LEG PRESS	2.2	2.7
Bolded MET _y values are observed values from the literature				
Age group is designated by the placeholder X; the age ranges are represented by 2 (6-9 y), 3 (10-12 y), 4 (13-15 y), and 5 (16-18 y)				
^a Activity not deemed reasonable for this age group				
*Energy cost of anaerobic activities may be underestimated by MET values				

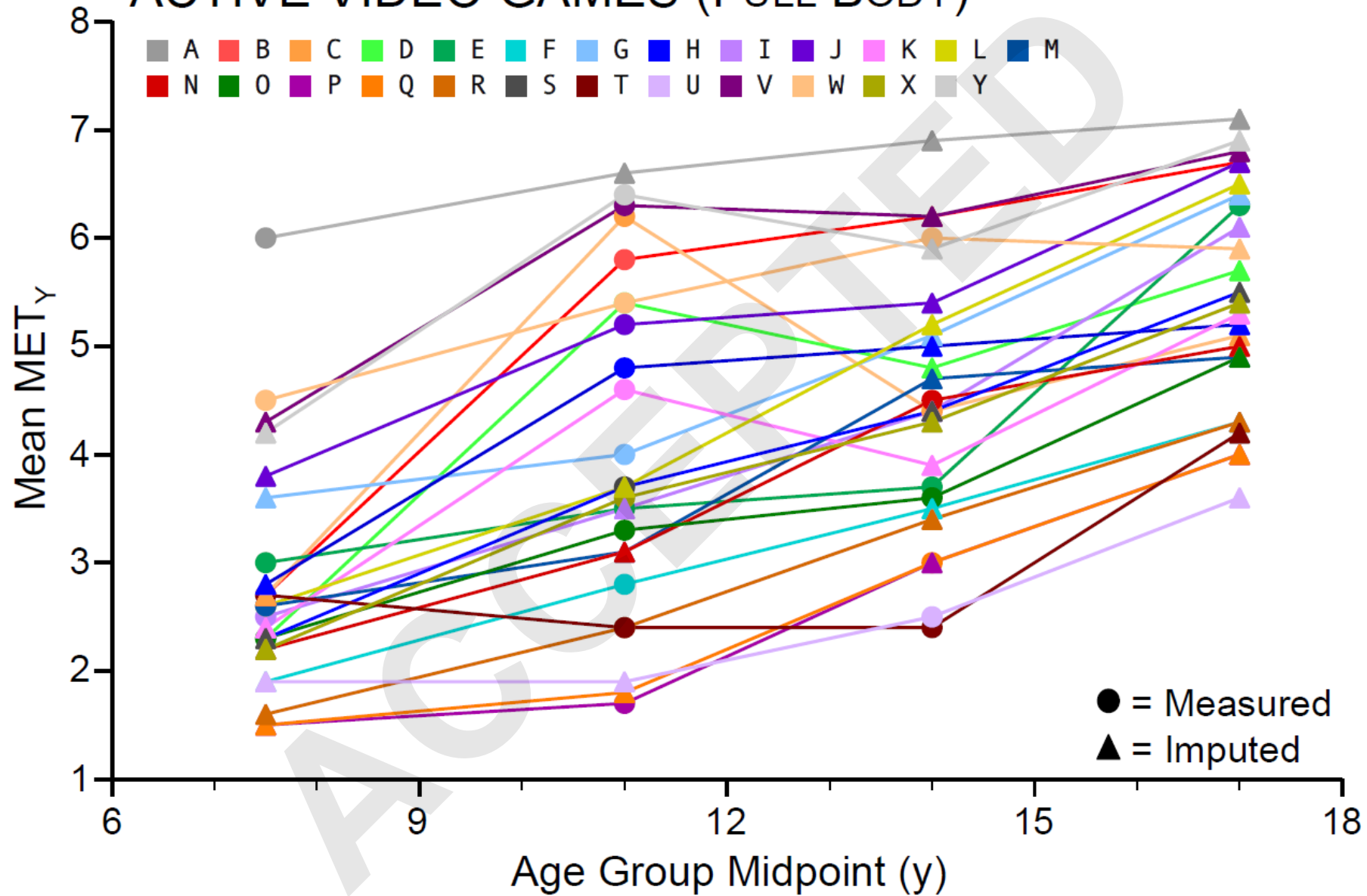
Supplemental Digital Content 3. Activity-specific Youth MET_y values by age groups for each major activity category

ACCEPTED

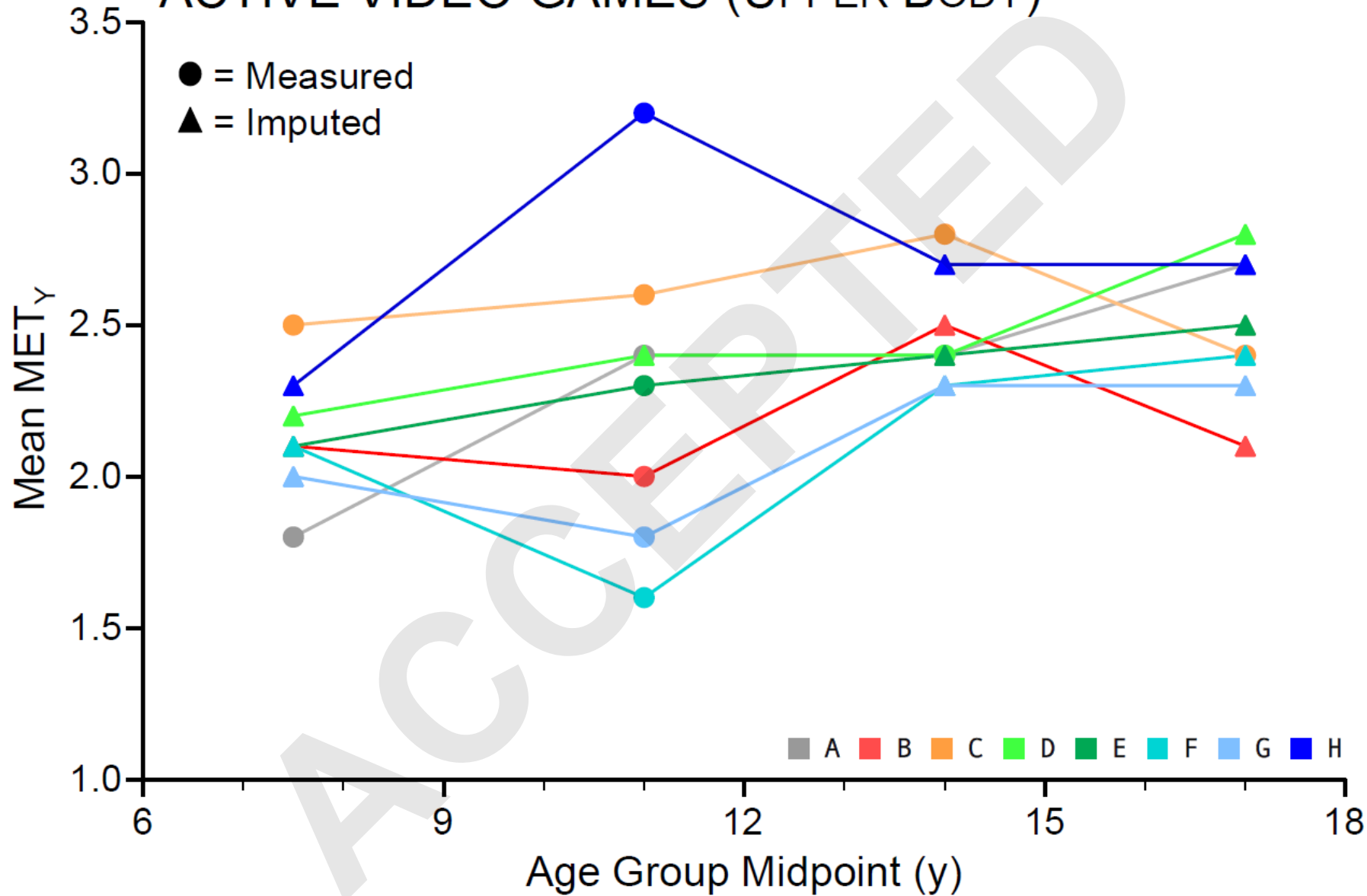
ACTIVE PLAY



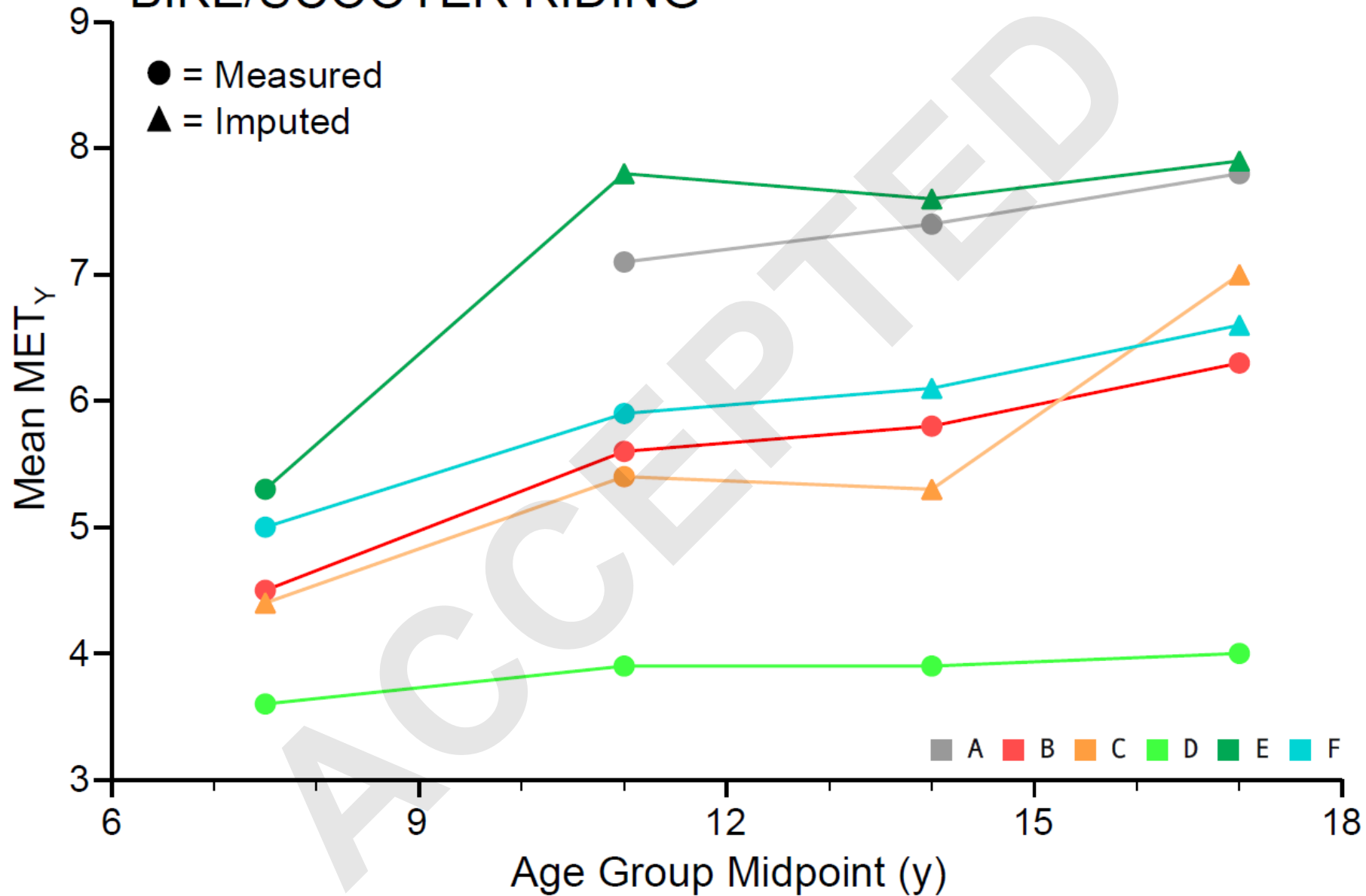
ACTIVE VIDEO GAMES (FULL BODY)



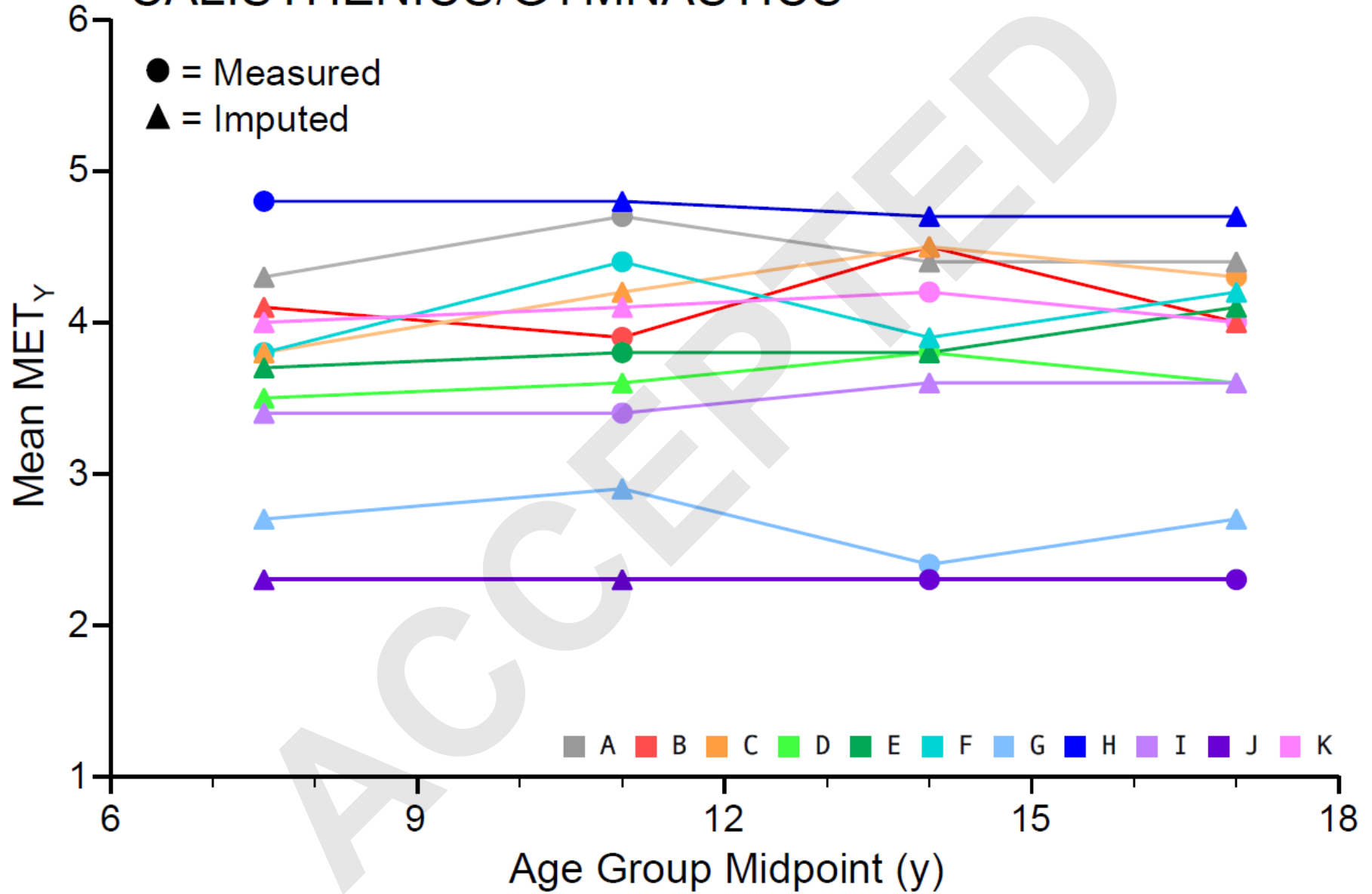
ACTIVE VIDEO GAMES (UPPER BODY)



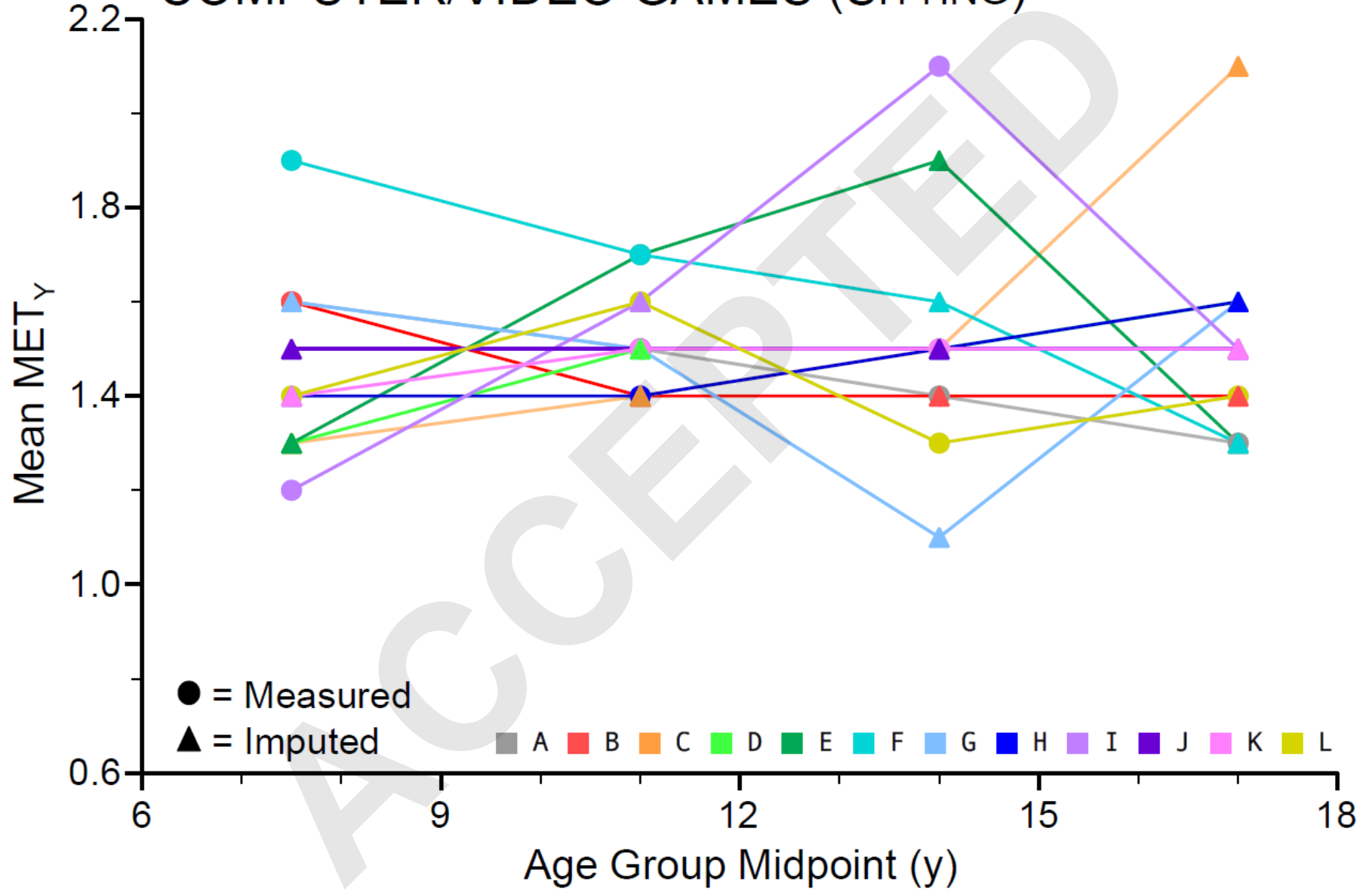
BIKE/SCOOTER RIDING



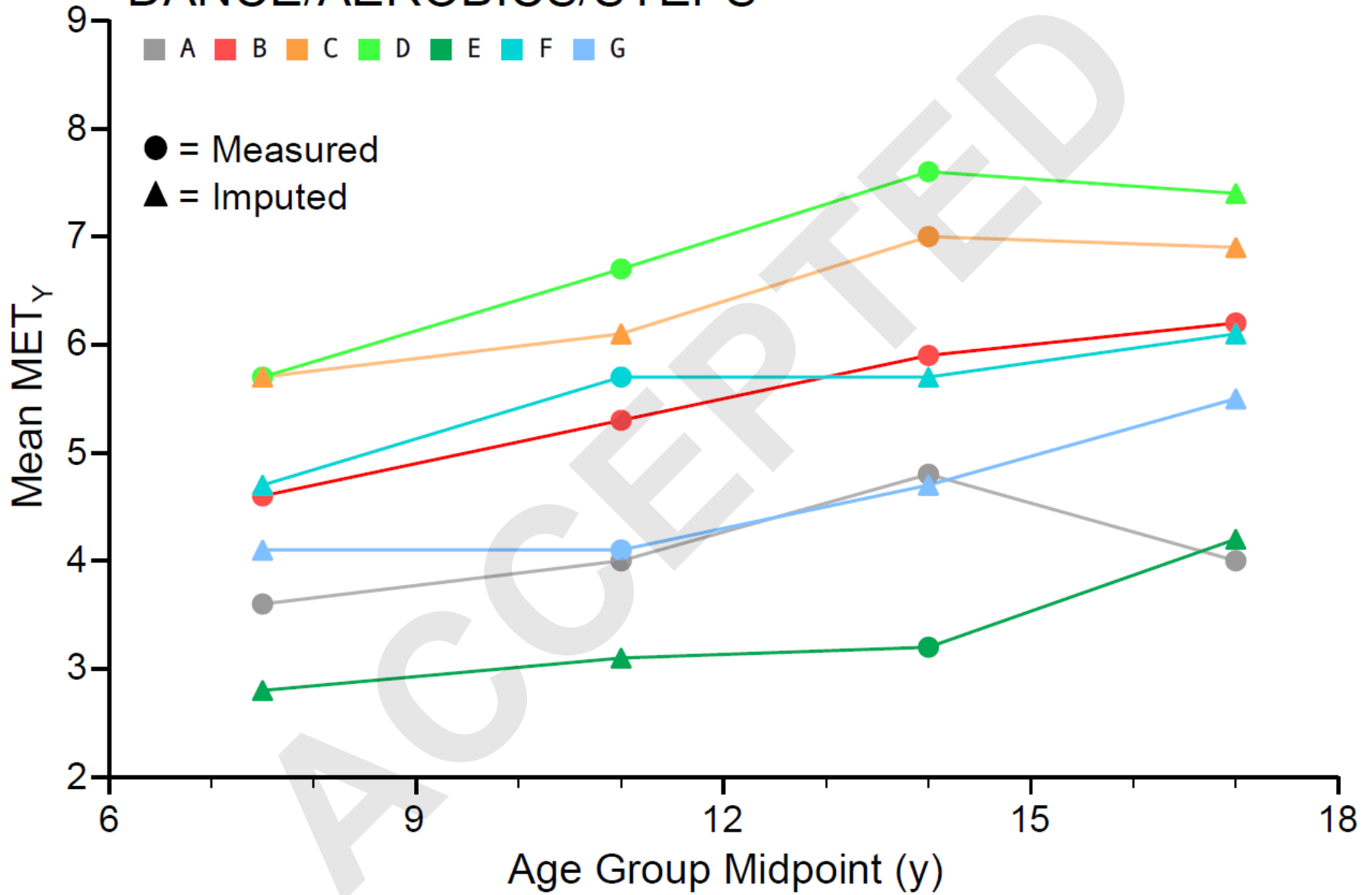
CALISTHENICS/GYMNASTICS



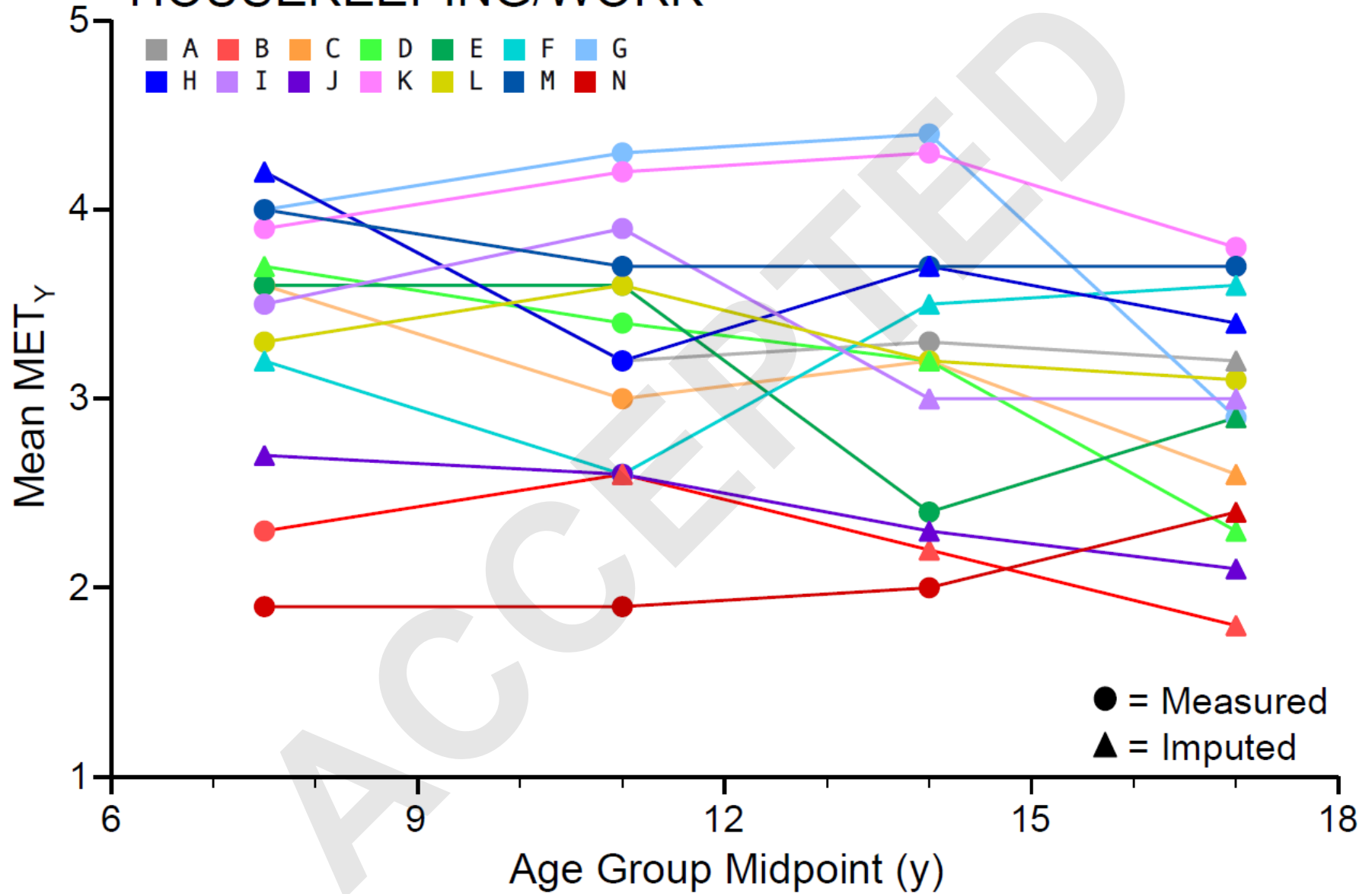
COMPUTER/VIDEO GAMES (SITTING)



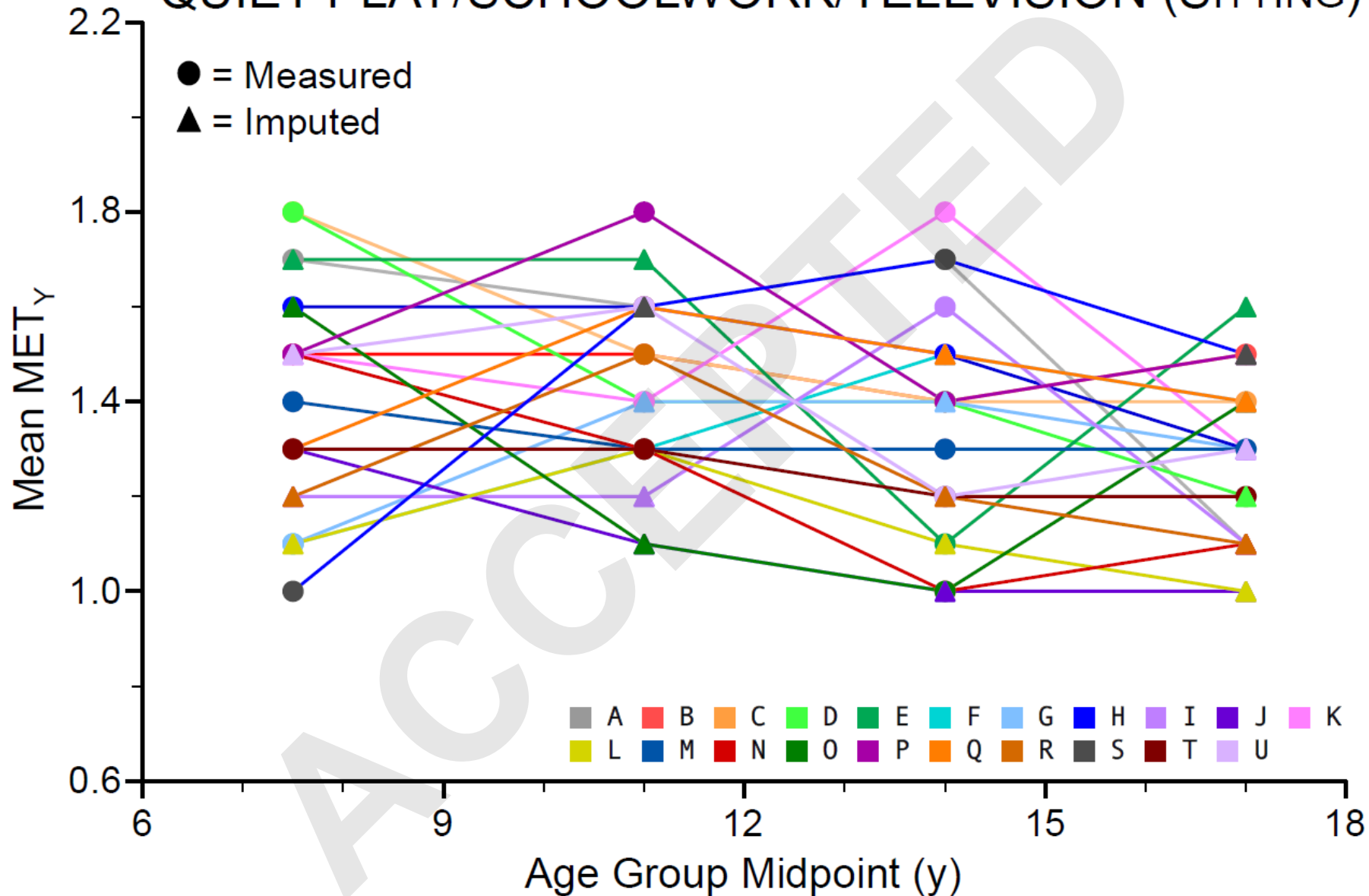
DANCE/AEROBICS/STEPS



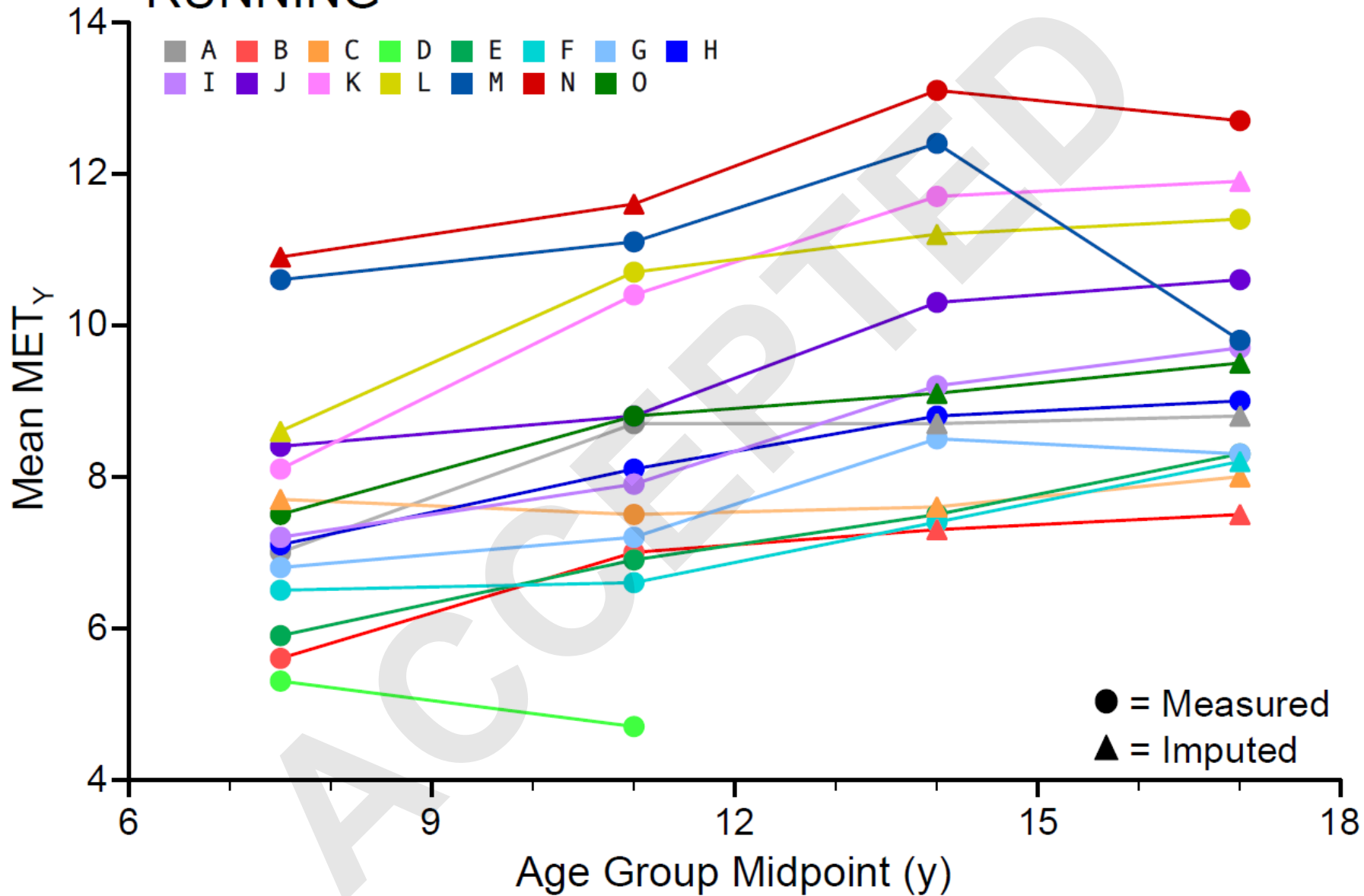
HOUSEKEEPING/WORK



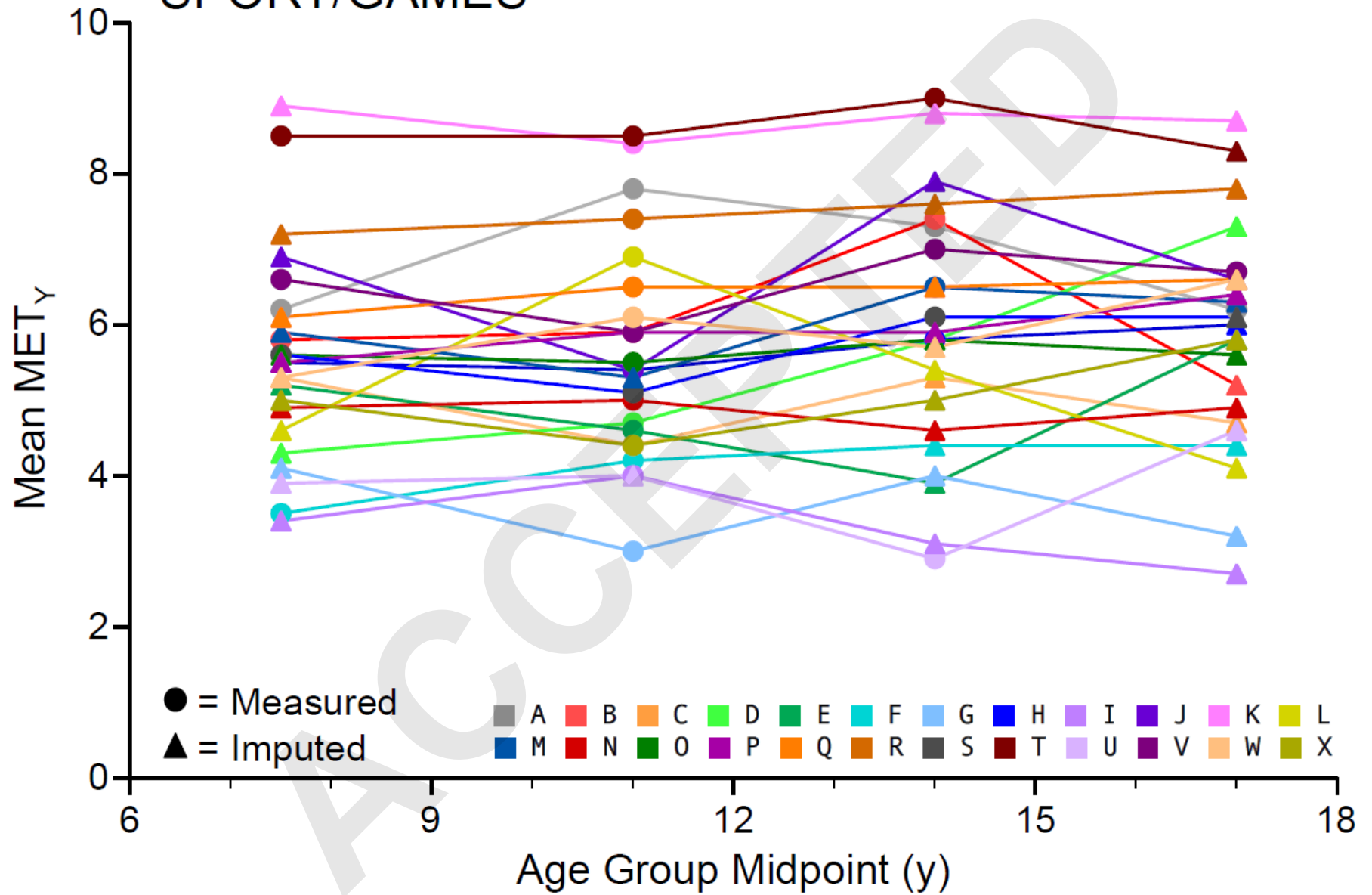
QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)



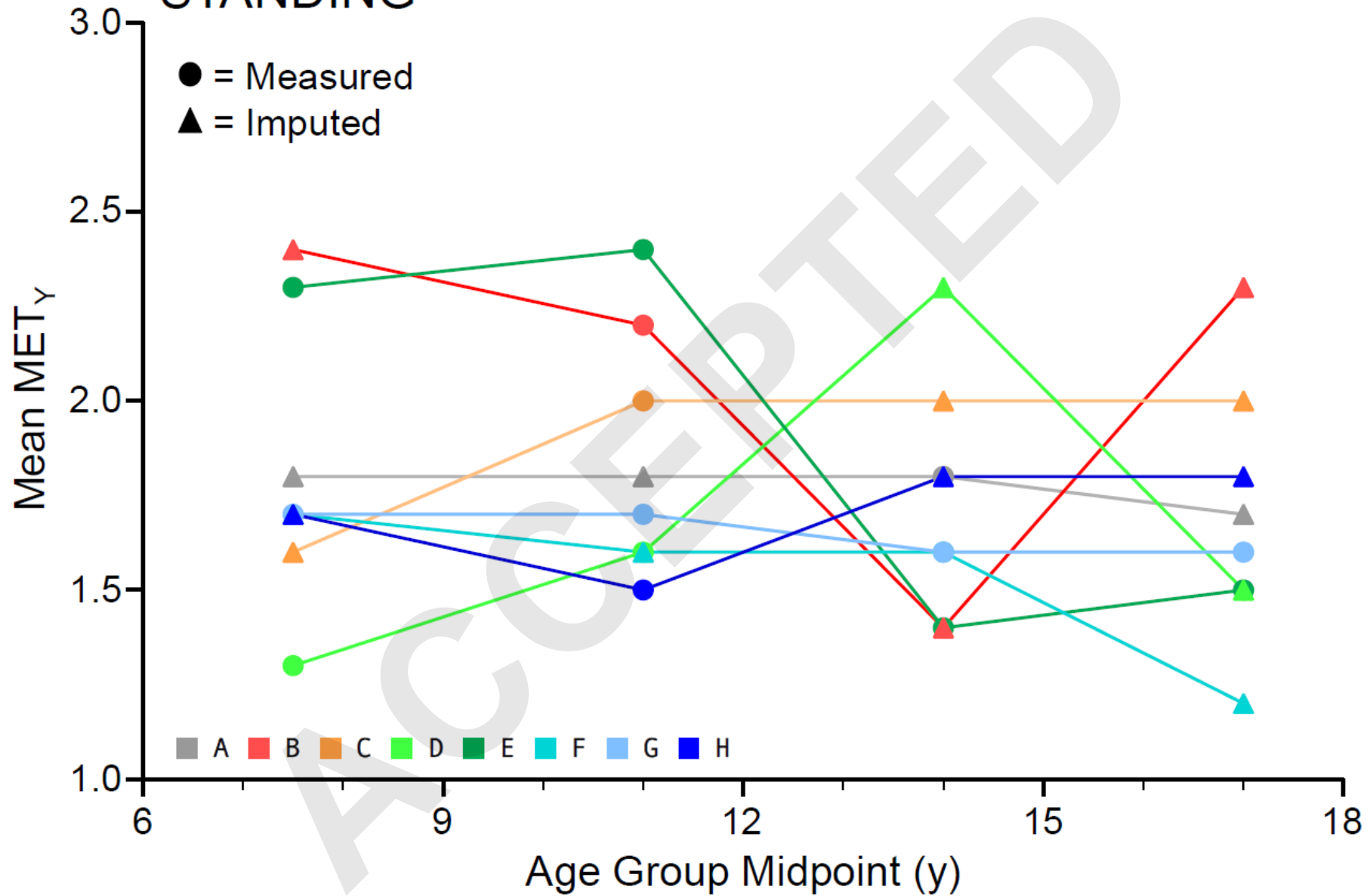
RUNNING



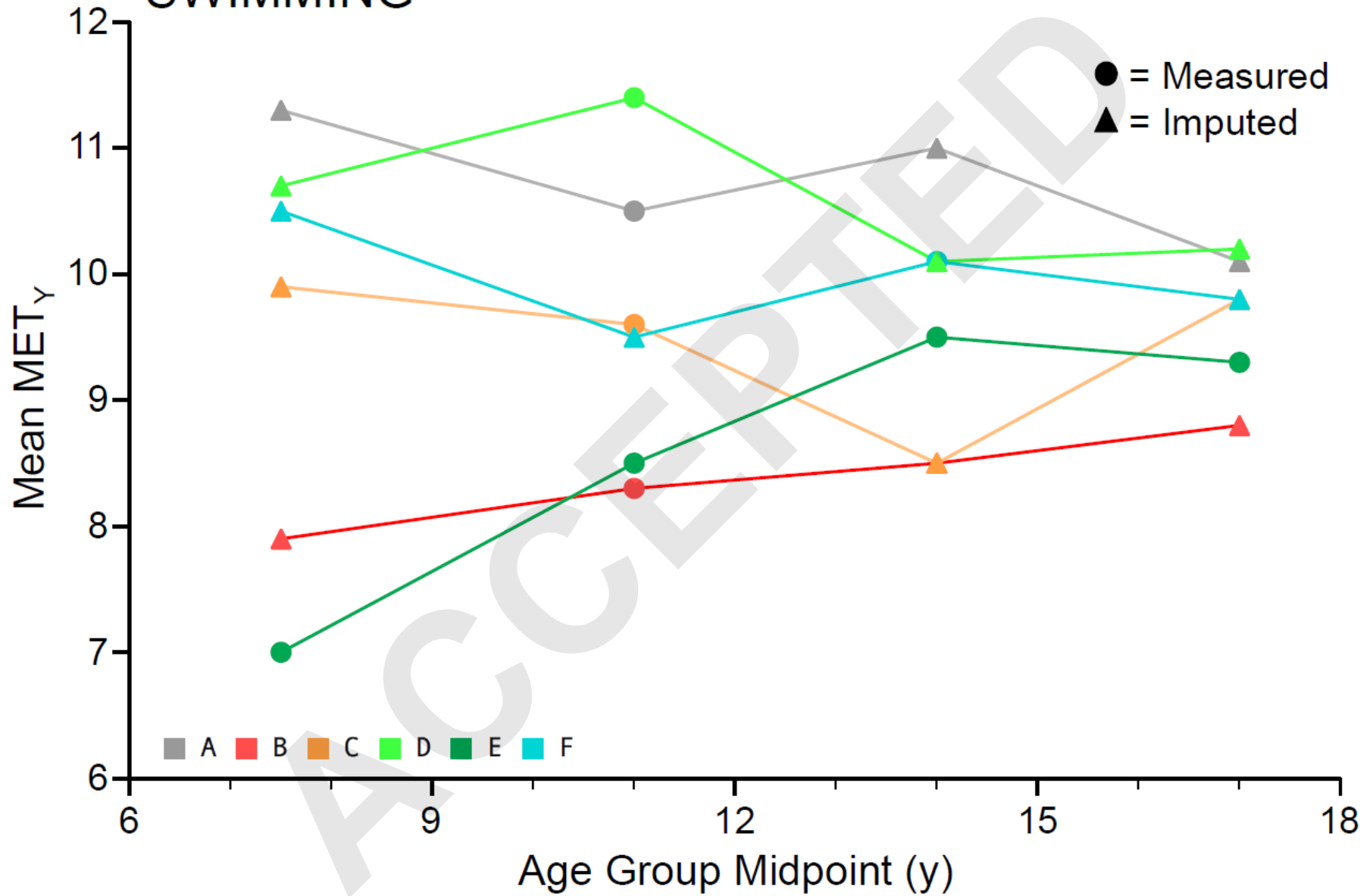
SPORT/GAMES



STANDING



SWIMMING



WALKING

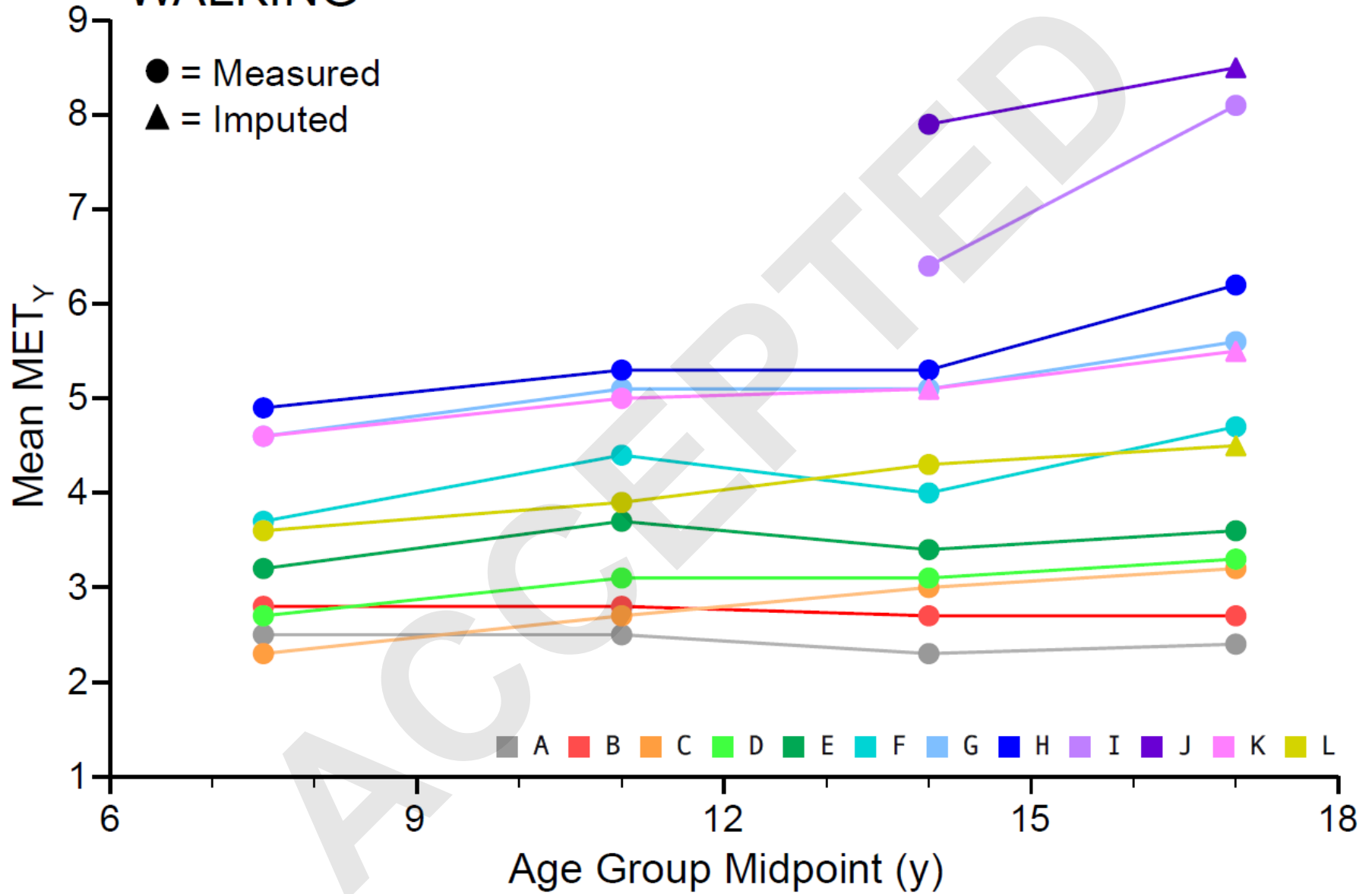


Figure 1. Active Outdoor Play displaying Youth METs (MET_y) by age groups – midpoint (y) for the specific activities: A=ball games - bouncing, kicking, dribbling ball, reaction ball (moderate intensity); B=ball games - bouncing, kicking, dribbling ball, reaction ball (vigorous intensity); C=dodgeball type games (e.g., castles, hot feet); D=free play (basketball, rope, hoop, climb, ladder, frisbee); E=freeze/zone tag (moderate intensity); F=freeze/zone tag (vigorous intensity); G=hiking; H=hopscotch; I=jump rope; J=marching - 75m.min instruments; K=marching - 75m.min no instruments; L=marching - 91m.min no instruments; M=miscellaneous games - vigorous (e.g., slap the ball, builders and bulldozers, clean the room); N=miscellaneous games - moderate (e.g., simon's spotlight); O=obstacle/locomotor course - moderate; P=obstacle/locomotor course - vigorous; Q=playing games (catch and throw balls, jumping jacks); R=playing tag - moderate; S=playing tag-vigorous; T=relay; U=sharks and minnows; V=trampoline.

Figure 2. Active Video Games (full body) displaying Youth METs (MET_y) by age groups – midpoint (y) for the specific activities: A=active video games - action running; B=active video games - baseball; C=active video games - boxing; D=active video games - catching targets; E=active video games - dance; F=active video games - hoverboard; G=active video games - kinect adventure games and sports; H=active video games - lightspace; I=active video games - olympic games; J=active video games - sportwall; K=active video games - trazer; L=active video games - walking on treadmill and bowling; M=active video games - watching tv/dvd - walking; N=active video games - wii aerobics; O=active video games - wii boxing/tennis; P=active video games - wii hockey;

Q=active video games - wii muscle conditioning; R=active video games - wii skiing; S=active video games - wii step; T=active video games - wii tennis; U=active video games - wii yoga; V=active video games - xavix; W=active video games (compilation of games); X=arcade video game - air hockey; Y=arcade video game - horse riding simulation.

Figure 3. Active Video Games (upper body) displaying Youth METs (MET_y) by age groups – midpoint (y) for the specific activities: A=active video games - bowling; B=active video games - driving simulator; C=active video games - wii (compilation of games); D=active video games - wii balance; E=active video games - wii basketball; F=active video games - wii golf; G=arcade video game - driving simulation; H=arcade video game - shooting hoops.

Figure 4. Bike/Scooter displaying Youth METs (MET_y) by age groups – midpoint (y) for the specific activities: A=riding a bike - fast speed; B=riding a bike - medium speed; C=riding a bike - self paced; D=riding a bike - slow speed; E=riding a mini - scooter; F=riding scooter.

Figure 5. Calisthenics/Gymnastics displaying Youth METs (MET_y) by age groups – midpoint (y) for the specific activities: A=active classroom instruction; B=broadcast calisthenics - 'colourful sunshine'; C=broadcast calisthenics - 'flourishing youth'; D=broadcast calisthenics - 'flying ideal'; E=broadcast calisthenics - 'hopeful sail';

F=calisthenics - light; G=gymnastics; H=jumping jacks; I=radio gymnastics; J=strength exercises - curl-ups; K=strength exercises - push-ups.

Figure 6. Computer/Video Games (sitting) displaying Youth METs (MET_y) by age groups – midpoint (y) for the specific activities: A=computer games (compilation of games); B=video games - bowling; C=video games - driving simulator; D=video games - gameboy; E=video games - gamepad; F=video games - handheld; G=video games - mobile phone; H=video games - nintendo; I=video games - ps2; J=video games - ps3; K=video games - xbox360; L=video games (compilation of games).

Figure 7. Dance/Aerobics/Step displaying Youth METs (MET_y) by age groups – midpoint (y) for the specific activities: A=aerobic dance/dance; B=stair walking - ascending; C=stair walking - ascending 80 steps/min; D=stair walking - ascending/descending; E=stair walking - descending; F=step board; G=stepping - height 30%-50% leg length.

Figure 8. Housekeeping/Work displaying Youth METs (MET_y) by age groups – midpoint (y) for the specific activities: A=bedmaking; B=carpentry; C=dressing and undressing; D=dusting; E=dusting and sweeping; F=hanging out washing; G=housework; H=laundry; I=loading/unloading boxes; J=setting the table; K=shovelling; L=sweeping; M=vacuuming; N=washing the dishes.

Figure 9. Quiet Play/Schoolwork/Television (sitting) displaying Youth METs (MET_y) by age groups – midpoint (y) for the specific activities: A=arts and crafts; B=board games; C=coloring, reading writing, internet; D=computer work; E=giving a speech; F=listening

to radio; G=listening to story; H=playing quietly; I=playing stringed instrument; J=playing with bricks; K=playing with toys (cards, puzzles, cars, trains); L=puzzles; M=quietly sitting; N=reading; O=reading a book and listening to music; P=schoolwork; Q=sewing; R=singing; S=talking with friend; T=watching tv/dvd - sitting; U=writing.

Figure 10. Running displaying Youth METs (MET_y) by age groups – midpoint (y) for the specific activities: A=jog - fast; B=jog - slow; C=jog self-paced; D=run 3.0; E=run 3.5; F=run 4.0; G=run 4.5; H=run 5.0; I=run 5.5; J=run 6.0; K=run 6.5; L=run 7.0; M=run 7.5; N=run 8.0; O=run self-paced.

Figure 11. Sports/Games displaying Youth METs (MET_y) by age groups – midpoint (y) for the specific activities: A=basketball - game; B=basketball - shooting and retrieving a basketball, continuously, without stopping; C=basketball game (mini basketball); D=bowling - game; E=boxing - punching bag and gloves; F=catch/throw ball; G=golf - game (mini golf); H=handball; I=hockey - game (mini floor hockey); J=juggling; K=kickball, continuous movement; L=rollerblading; M=skiing; N=slide board - 40 slides/min; O=slide board - 50 slides/min; P=slide board - 60 slides/min; Q=slide board - 70 slides/min; R=slide board - 80 slides/min; S=soccer - around cones; T=soccer - game; U=table tennis; V=tennis practice and games; W=ultimate frisbee; X=volleyball.

Figure 12. Standing displaying Youth METs (MET_y) by age groups – midpoint (y) for the specific activities: A=arcade games - table football; B=board games - standing;

C=drawing, coloring - standing; D=singing - standing; E=stacking cups; F=standing;
G=video games - standing; H=watching tv/dvd - standing.

Figure 13. Swimming displaying Youth METs (MET_y) by age groups – midpoint (y) for the specific activities: A=swimming - 200m; B=swimming - front crawl 0.9 m.sec; C=swimming - front crawl 1.0 m.sec; D=swimming - front crawl 1.1 m.sec; E=swimming - self-selected pace; F=synchronised swimming.

Figure 14. Walking displaying Youth METs (MET_y) by age groups – midpoint (y) for the specific activities: A=walk 0.5; B=walk 1.0; C=walk 1.5; D=walk 2.0; E=walk 2.5; F=walk 3.0; G=walk 3.5; H=walk 4.0; I=walk 4.5; J=walk 5.0; K=walk self-paced brisk; L=walk self-paced casual.

Supplemental Digital Content 4. Model-based youth MET_y values by activity and age group

MET_y Code	Age Group	Activity Category	Specific Activity
101002	6-9 YEARS	ACTIVE PLAY	BALL GAMES - BOUNCING, KICKING, DRIBBLING BALL, REACTION BALL (MODERATE INTENSITY)
101003	10-12 YEARS	ACTIVE PLAY	BALL GAMES - BOUNCING, KICKING, DRIBBLING BALL, REACTION BALL (MODERATE INTENSITY)
101004	13-15 YEARS	ACTIVE PLAY	BALL GAMES - BOUNCING, KICKING, DRIBBLING BALL, REACTION BALL (MODERATE INTENSITY)
101005	16-18 YEARS	ACTIVE PLAY	BALL GAMES - BOUNCING, KICKING, DRIBBLING BALL, REACTION BALL (MODERATE INTENSITY)
101202	6-9 YEARS	ACTIVE PLAY	BALL GAMES - BOUNCING, KICKING, DRIBBLING BALL, REACTION BALL (VIGOROUS INTENSITY)
101203	10-12 YEARS	ACTIVE PLAY	BALL GAMES - BOUNCING, KICKING, DRIBBLING BALL, REACTION BALL (VIGOROUS INTENSITY)
101204	13-15 YEARS	ACTIVE PLAY	BALL GAMES - BOUNCING, KICKING, DRIBBLING BALL, REACTION BALL (VIGOROUS INTENSITY)
101205	16-18 YEARS	ACTIVE PLAY	BALL GAMES - BOUNCING, KICKING, DRIBBLING BALL, REACTION BALL (VIGOROUS INTENSITY)
101402	6-9 YEARS	ACTIVE PLAY	DODGEBALL TYPE GAMES (E.G., CASTLES, HOT FEET)
101403	10-12 YEARS	ACTIVE PLAY	DODGEBALL TYPE GAMES (E.G., CASTLES, HOT FEET)
101404	13-15 YEARS	ACTIVE PLAY	DODGEBALL TYPE GAMES (E.G., CASTLES, HOT FEET)
101405	16-18 YEARS	ACTIVE PLAY	DODGEBALL TYPE GAMES (E.G., CASTLES, HOT FEET)

101602	6-9 YEARS	ACTIVE PLAY	FREE PLAY (BASKETBALL, ROPE, HOOP, CLIMB, LADDER, FRISBEE)
101603	10-12 YEARS	ACTIVE PLAY	FREE PLAY (BASKETBALL, ROPE, HOOP, CLIMB, LADDER, FRISBEE)
101604	13-15 YEARS	ACTIVE PLAY	FREE PLAY (BASKETBALL, ROPE, HOOP, CLIMB, LADDER, FRISBEE)
101605	16-18 YEARS	ACTIVE PLAY	FREE PLAY (BASKETBALL, ROPE, HOOP, CLIMB, LADDER, FRISBEE)
101802	6-9 YEARS	ACTIVE PLAY	FREEZE/ZONE TAG (MODERATE INTENSITY)
101803	10-12 YEARS	ACTIVE PLAY	FREEZE/ZONE TAG (MODERATE INTENSITY)
101804	13-15 YEARS	ACTIVE PLAY	FREEZE/ZONE TAG (MODERATE INTENSITY)
101805	16-18 YEARS	ACTIVE PLAY	FREEZE/ZONE TAG (MODERATE INTENSITY)
102002	6-9 YEARS	ACTIVE PLAY	FREEZE/ZONE TAG (VIGOROUS INTENSITY)
102003	10-12 YEARS	ACTIVE PLAY	FREEZE/ZONE TAG (VIGOROUS INTENSITY)
102004	13-15 YEARS	ACTIVE PLAY	FREEZE/ZONE TAG (VIGOROUS INTENSITY)
102005	16-18 YEARS	ACTIVE PLAY	FREEZE/ZONE TAG (VIGOROUS INTENSITY)
102202	6-9 YEARS	ACTIVE PLAY	HIKING
102203	10-12 YEARS	ACTIVE PLAY	HIKING
102204	13-15 YEARS	ACTIVE PLAY	HIKING
102205	16-18 YEARS	ACTIVE PLAY	HIKING
102402	6-9 YEARS	ACTIVE PLAY	HOPSCOTCH
102403	10-12 YEARS	ACTIVE PLAY	HOPSCOTCH
102404	13-15 YEARS	ACTIVE PLAY	HOPSCOTCH
102405	16-18 YEARS	ACTIVE PLAY	HOPSCOTCH
102602	6-9 YEARS	ACTIVE PLAY	JUMP ROPE
102603	10-12 YEARS	ACTIVE PLAY	JUMP ROPE
102604	13-15 YEARS	ACTIVE PLAY	JUMP ROPE
102605	16-18 YEARS	ACTIVE PLAY	JUMP ROPE
102802	6-9 YEARS	ACTIVE PLAY	MARCHING - 75M.MIN INSTRUMENTS
102803	10-12 YEARS	ACTIVE PLAY	MARCHING - 75M.MIN INSTRUMENTS
102804	13-15 YEARS	ACTIVE PLAY	MARCHING - 75M.MIN INSTRUMENTS
102805	16-18 YEARS	ACTIVE PLAY	MARCHING - 75M.MIN INSTRUMENTS

103002	6-9 YEARS	ACTIVE PLAY	MARCHING - 75M.MIN NO INSTRUMENTS
103003	10-12 YEARS	ACTIVE PLAY	MARCHING - 75M.MIN NO INSTRUMENTS
103004	13-15 YEARS	ACTIVE PLAY	MARCHING - 75M.MIN NO INSTRUMENTS
103005	16-18 YEARS	ACTIVE PLAY	MARCHING - 75M.MIN NO INSTRUMENTS
103202	6-9 YEARS	ACTIVE PLAY	MARCHING - 91M.MIN NO INSTRUMENTS
103203	10-12 YEARS	ACTIVE PLAY	MARCHING - 91M.MIN NO INSTRUMENTS
103204	13-15 YEARS	ACTIVE PLAY	MARCHING - 91M.MIN NO INSTRUMENTS
103205	16-18 YEARS	ACTIVE PLAY	MARCHING - 91M.MIN NO INSTRUMENTS
103402	6-9 YEARS	ACTIVE PLAY	MISCELLANEOUS GAMES - VIGOROUS (E.G., SLAP THE BALL, BUILDERS AND BULLDOZERS, CLEAN THE ROOM)
103403	10-12 YEARS	ACTIVE PLAY	MISCELLANEOUS GAMES - VIGOROUS (E.G., SLAP THE BALL, BUILDERS AND BULLDOZERS, CLEAN THE ROOM)
103404	13-15 YEARS	ACTIVE PLAY	MISCELLANEOUS GAMES - VIGOROUS (E.G., SLAP THE BALL, BUILDERS AND BULLDOZERS, CLEAN THE ROOM)
103405	16-18 YEARS	ACTIVE PLAY	MISCELLANEOUS GAMES - VIGOROUS (E.G., SLAP THE BALL, BUILDERS AND BULLDOZERS, CLEAN THE ROOM)
103602	6-9 YEARS	ACTIVE PLAY	MISCELLANEOUS GAMES - MODERATE (E.G., SIMON'S SPOTLIGHT)
103603	10-12 YEARS	ACTIVE PLAY	MISCELLANEOUS GAMES - MODERATE (E.G., SIMON'S SPOTLIGHT)
103604	13-15 YEARS	ACTIVE PLAY	MISCELLANEOUS GAMES - MODERATE (E.G., SIMON'S SPOTLIGHT)
103605	16-18 YEARS	ACTIVE PLAY	MISCELLANEOUS GAMES - MODERATE (E.G., SIMON'S SPOTLIGHT)
103802	6-9 YEARS	ACTIVE PLAY	OBSTACLE/LOCOMOTOR COURSE - MODERATE
103803	10-12 YEARS	ACTIVE PLAY	OBSTACLE/LOCOMOTOR COURSE - MODERATE
103804	13-15 YEARS	ACTIVE PLAY	OBSTACLE/LOCOMOTOR COURSE - MODERATE

103805	16-18 YEARS	ACTIVE PLAY	OBSTACLE/LOCOMOTOR COURSE - MODERATE
104002	6-9 YEARS	ACTIVE PLAY	OBSTACLE/LOCOMOTOR COURSE - VIGOROUS
104003	10-12 YEARS	ACTIVE PLAY	OBSTACLE/LOCOMOTOR COURSE - VIGOROUS
104004	13-15 YEARS	ACTIVE PLAY	OBSTACLE/LOCOMOTOR COURSE - VIGOROUS
104005	16-18 YEARS	ACTIVE PLAY	OBSTACLE/LOCOMOTOR COURSE - VIGOROUS
104202	6-9 YEARS	ACTIVE PLAY	PLAYING GAMES (CATCH AND THROW BALLS, JUMPING JACKS)
104203	10-12 YEARS	ACTIVE PLAY	PLAYING GAMES (CATCH AND THROW BALLS, JUMPING JACKS)
104204	13-15 YEARS	ACTIVE PLAY	PLAYING GAMES (CATCH AND THROW BALLS, JUMPING JACKS)
104205	16-18 YEARS	ACTIVE PLAY	PLAYING GAMES (CATCH AND THROW BALLS, JUMPING JACKS)
104402	6-9 YEARS	ACTIVE PLAY	PLAYING TAG - MODERATE
104403	10-12 YEARS	ACTIVE PLAY	PLAYING TAG - MODERATE
104404	13-15 YEARS	ACTIVE PLAY	PLAYING TAG - MODERATE
104405	16-18 YEARS	ACTIVE PLAY	PLAYING TAG - MODERATE
104602	6-9 YEARS	ACTIVE PLAY	PLAYING TAG-VIGOROUS
104603	10-12 YEARS	ACTIVE PLAY	PLAYING TAG-VIGOROUS
104604	13-15 YEARS	ACTIVE PLAY	PLAYING TAG-VIGOROUS
104605	16-18 YEARS	ACTIVE PLAY	PLAYING TAG-VIGOROUS
104802	6-9 YEARS	ACTIVE PLAY	RELAY
104803	10-12 YEARS	ACTIVE PLAY	RELAY
104804	13-15 YEARS	ACTIVE PLAY	RELAY
104805	16-18 YEARS	ACTIVE PLAY	RELAY
105002	6-9 YEARS	ACTIVE PLAY	SHARKS AND MINOOWS
105003	10-12 YEARS	ACTIVE PLAY	SHARKS AND MINOOWS
105004	13-15 YEARS	ACTIVE PLAY	SHARKS AND MINOOWS

105005	16-18 YEARS	ACTIVE PLAY	SHARKS AND MINOOWS
105202	6-9 YEARS	ACTIVE PLAY	TRAMPOLINE
105203	10-12 YEARS	ACTIVE PLAY	TRAMPOLINE
105204	13-15 YEARS	ACTIVE PLAY	TRAMPOLINE
105205	16-18 YEARS	ACTIVE PLAY	TRAMPOLINE
151002	6-9 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - ACTION RUNNING
151003	10-12 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - ACTION RUNNING
151004	13-15 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - ACTION RUNNING
151005	16-18 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - ACTION RUNNING
151202	6-9 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - BASEBALL
151203	10-12 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - BASEBALL
151204	13-15 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - BASEBALL
151205	16-18 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - BASEBALL
151402	6-9 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - BOXING
151403	10-12 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - BOXING
151404	13-15 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - BOXING
151405	16-18 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - BOXING
151602	6-9 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - CATCHING TARGETS
151603	10-12 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - CATCHING TARGETS
151604	13-15 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - CATCHING TARGETS

151605	16-18 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - CATCHING TARGETS
151802	6-9 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - DANCE
151803	10-12 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - DANCE
151804	13-15 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - DANCE
151805	16-18 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - DANCE
152002	6-9 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - HOVERBOARD
152003	10-12 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - HOVERBOARD
152004	13-15 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - HOVERBOARD
152005	16-18 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - HOVERBOARD
152202	6-9 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - KINECT ADVENTURE GAMES AND SPORTS
152203	10-12 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - KINECT ADVENTURE GAMES AND SPORTS
152204	13-15 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - KINECT ADVENTURE GAMES AND SPORTS
152205	16-18 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - KINECT ADVENTURE GAMES AND SPORTS
152402	6-9 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - LIGHTSPACE
152403	10-12 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - LIGHTSPACE
152404	13-15 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - LIGHTSPACE
152405	16-18 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - LIGHTSPACE
152602	6-9 YEARS	ACTIVE VIDEO GAMES (FULL	ACTIVE VIDEO GAMES - OLYMPIC GAMES

		BODY)	
152603	10-12 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - OLYMPIC GAMES
152604	13-15 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - OLYMPIC GAMES
152605	16-18 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - OLYMPIC GAMES
152802	6-9 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - SPORTWALL
152803	10-12 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - SPORTWALL
152804	13-15 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - SPORTWALL
152805	16-18 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - SPORTWALL
153002	6-9 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - TRAZER
153003	10-12 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - TRAZER
153004	13-15 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - TRAZER
153005	16-18 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - TRAZER
153202	6-9 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - WALKING ON TREADMILL AND BOWLING
153203	10-12 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - WALKING ON TREADMILL AND BOWLING
153204	13-15 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - WALKING ON TREADMILL AND BOWLING
153205	16-18 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - WALKING ON TREADMILL AND BOWLING
153402	6-9 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - WATCHING TV/DVD - WALKING
153403	10-12 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - WATCHING TV/DVD - WALKING

153404	13-15 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - WATCHING TV/DVD - WALKING
153405	16-18 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - WATCHING - WALKING
153602	6-9 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - WII AEROBICS
153603	10-12 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - WII AEROBICS
153604	13-15 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - WII AEROBICS
153605	16-18 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - WII AEROBICS
153802	6-9 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - WII BOXING/TENNIS
153803	10-12 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - WII BOXING/TENNIS
153804	13-15 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - WII BOXING/TENNIS
153805	16-18 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - WII BOXING/TENNIS
154002	6-9 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - WII HOCKEY
154003	10-12 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - WII HOCKEY
154004	13-15 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - WII HOCKEY
154005	16-18 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - WII HOCKEY
154202	6-9 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - WII MUSCLE CONDITIONING
154203	10-12 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - WII MUSCLE CONDITIONING
154204	13-15 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - WII MUSCLE CONDITIONING
154205	16-18 YEARS	ACTIVE VIDEO GAMES (FULL	ACTIVE VIDEO GAMES - WII MUSCLE

		BODY)	CONDITIONING
154402	6-9 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - WII SKIING
154403	10-12 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - WII SKIING
154404	13-15 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - WII SKIING
154405	16-18 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - WII SKIING
154602	6-9 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - WII STEP
154603	10-12 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - WII STEP
154604	13-15 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - WII STEP
154605	16-18 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - WII STEP
154802	6-9 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - WII TENNIS
154803	10-12 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - WII TENNIS
154804	13-15 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - WII TENNIS
154805	16-18 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - WII TENNIS
155002	6-9 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - WII YOGA
155003	10-12 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - WII YOGA
155004	13-15 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - WII YOGA
155005	16-18 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - WII YOGA
155202	6-9 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - XAVIX

155203	10-12 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - XAVIX
155204	13-15 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - XAVIX
155205	16-18 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES - XAVIX
155402	6-9 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES (COMPILATION OF GAMES)
155403	10-12 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES (COMPILATION OF GAMES)
155404	13-15 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES (COMPILATION OF GAMES)
155405	16-18 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ACTIVE VIDEO GAMES (COMPILATION OF GAMES)
155602	6-9 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ARCADE VIDEO GAME - AIR HOCKEY
155603	10-12 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ARCADE VIDEO GAME - AIR HOCKEY
155604	13-15 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ARCADE VIDEO GAME - AIR HOCKEY
155605	16-18 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ARCADE VIDEO GAME - AIR HOCKEY
155802	6-9 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ARCADE VIDEO GAME - HORSE RIDING SIMULATION
155803	10-12 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ARCADE VIDEO GAME - HORSE RIDING SIMULATION
155804	13-15 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ARCADE VIDEO GAME - HORSE RIDING SIMULATION
155805	16-18 YEARS	ACTIVE VIDEO GAMES (FULL BODY)	ARCADE VIDEO GAME - HORSE RIDING SIMULATION
201002	6-9 YEARS	ACTIVE VIDEO GAMES (UPPER BODY)	ACTIVE VIDEO GAMES - BOWLING
201003	10-12 YEARS	ACTIVE VIDEO GAMES (UPPER BODY)	ACTIVE VIDEO GAMES - BOWLING
201004	13-15 YEARS	ACTIVE VIDEO GAMES (UPPER	ACTIVE VIDEO GAMES - BOWLING

		BODY)	
201005	16-18 YEARS	ACTIVE VIDEO GAMES (UPPER BODY)	ACTIVE VIDEO GAMES - BOWLING
201202	6-9 YEARS	ACTIVE VIDEO GAMES (UPPER BODY)	ACTIVE VIDEO GAMES - DRIVING SIMULATOR
201203	10-12 YEARS	ACTIVE VIDEO GAMES (UPPER BODY)	ACTIVE VIDEO GAMES - DRIVING SIMULATOR
201204	13-15 YEARS	ACTIVE VIDEO GAMES (UPPER BODY)	ACTIVE VIDEO GAMES - DRIVING SIMULATOR
201205	16-18 YEARS	ACTIVE VIDEO GAMES (UPPER BODY)	ACTIVE VIDEO GAMES - DRIVING SIMULATOR
201402	6-9 YEARS	ACTIVE VIDEO GAMES (UPPER BODY)	ACTIVE VIDEO GAMES - WII (COMPILATION OF GAMES)
201403	10-12 YEARS	ACTIVE VIDEO GAMES (UPPER BODY)	ACTIVE VIDEO GAMES - WII (COMPILATION OF GAMES)
201404	13-15 YEARS	ACTIVE VIDEO GAMES (UPPER BODY)	ACTIVE VIDEO GAMES - WII (COMPILATION OF GAMES)
201405	16-18 YEARS	ACTIVE VIDEO GAMES (UPPER BODY)	ACTIVE VIDEO GAMES - WII (COMPILATION OF GAMES)
201602	6-9 YEARS	ACTIVE VIDEO GAMES (UPPER BODY)	ACTIVE VIDEO GAMES - WII BALANCE
201603	10-12 YEARS	ACTIVE VIDEO GAMES (UPPER BODY)	ACTIVE VIDEO GAMES - WII BALANCE
201604	13-15 YEARS	ACTIVE VIDEO GAMES (UPPER BODY)	ACTIVE VIDEO GAMES - WII BALANCE
201605	16-18 YEARS	ACTIVE VIDEO GAMES (UPPER BODY)	ACTIVE VIDEO GAMES - WII BALANCE
201802	6-9 YEARS	ACTIVE VIDEO GAMES (UPPER BODY)	ACTIVE VIDEO GAMES - WII BASKETBALL
201803	10-12 YEARS	ACTIVE VIDEO GAMES (UPPER BODY)	ACTIVE VIDEO GAMES - WII BASKETBALL
201804	13-15 YEARS	ACTIVE VIDEO GAMES (UPPER BODY)	ACTIVE VIDEO GAMES - WII BASKETBALL
201805	16-18 YEARS	ACTIVE VIDEO GAMES (UPPER BODY)	ACTIVE VIDEO GAMES - WII BASKETBALL

202002	6-9 YEARS	ACTIVE VIDEO GAMES (UPPER BODY)	ACTIVE VIDEO GAMES - WII GOLF
202003	10-12 YEARS	ACTIVE VIDEO GAMES (UPPER BODY)	ACTIVE VIDEO GAMES - WII GOLF
202004	13-15 YEARS	ACTIVE VIDEO GAMES (UPPER BODY)	ACTIVE VIDEO GAMES - WII GOLF
202005	16-18 YEARS	ACTIVE VIDEO GAMES (UPPER BODY)	ACTIVE VIDEO GAMES - WII GOLF
202202	6-9 YEARS	ACTIVE VIDEO GAMES (UPPER BODY)	ARCADE VIDEO GAME - DRIVING SIMULATION
202203	10-12 YEARS	ACTIVE VIDEO GAMES (UPPER BODY)	ARCADE VIDEO GAME - DRIVING SIMULATION
202204	13-15 YEARS	ACTIVE VIDEO GAMES (UPPER BODY)	ARCADE VIDEO GAME - DRIVING SIMULATION
202205	16-18 YEARS	ACTIVE VIDEO GAMES (UPPER BODY)	ARCADE VIDEO GAME - DRIVING SIMULATION
202402	6-9 YEARS	ACTIVE VIDEO GAMES (UPPER BODY)	ARCADE VIDEO GAME - SHOOTING HOOPS
202403	10-12 YEARS	ACTIVE VIDEO GAMES (UPPER BODY)	ARCADE VIDEO GAME - SHOOTING HOOPS
202404	13-15 YEARS	ACTIVE VIDEO GAMES (UPPER BODY)	ARCADE VIDEO GAME - SHOOTING HOOPS
202405	16-18 YEARS	ACTIVE VIDEO GAMES (UPPER BODY)	ARCADE VIDEO GAME - SHOOTING HOOPS
251002	6-9 YEARS	BIKE/SCOOTER RIDING	RIDING A BIKE - FAST SPEED
251003	10-12 YEARS	BIKE/SCOOTER RIDING	RIDING A BIKE - FAST SPEED
251004	13-15 YEARS	BIKE/SCOOTER RIDING	RIDING A BIKE - FAST SPEED
251005	16-18 YEARS	BIKE/SCOOTER RIDING	RIDING A BIKE - FAST SPEED
251202	6-9 YEARS	BIKE/SCOOTER RIDING	RIDING A BIKE - MEDIUM SPEED
251203	10-12 YEARS	BIKE/SCOOTER RIDING	RIDING A BIKE - MEDIUM SPEED
251204	13-15 YEARS	BIKE/SCOOTER RIDING	RIDING A BIKE - MEDIUM SPEED
251205	16-18 YEARS	BIKE/SCOOTER RIDING	RIDING A BIKE - MEDIUM SPEED
251402	6-9 YEARS	BIKE/SCOOTER RIDING	RIDING A BIKE - SELF PACED
251403	10-12 YEARS	BIKE/SCOOTER RIDING	RIDING A BIKE - SELF PACED

251404	13-15 YEARS	BIKE/SCOOTER RIDING	RIDING A BIKE - SELF PACED
251405	16-18 YEARS	BIKE/SCOOTER RIDING	RIDING A BIKE - SELF PACED
251602	6-9 YEARS	BIKE/SCOOTER RIDING	RIDING A BIKE - SLOW SPEED
251603	10-12 YEARS	BIKE/SCOOTER RIDING	RIDING A BIKE - SLOW SPEED
251604	13-15 YEARS	BIKE/SCOOTER RIDING	RIDING A BIKE - SLOW SPEED
251605	16-18 YEARS	BIKE/SCOOTER RIDING	RIDING A BIKE - SLOW SPEED
251802	6-9 YEARS	BIKE/SCOOTER RIDING	RIDING A MINI - SCOOTER
251803	10-12 YEARS	BIKE/SCOOTER RIDING	RIDING A MINI - SCOOTER
251804	13-15 YEARS	BIKE/SCOOTER RIDING	RIDING A MINI - SCOOTER
251805	16-18 YEARS	BIKE/SCOOTER RIDING	RIDING A MINI - SCOOTER
252002	6-9 YEARS	BIKE/SCOOTER RIDING	RIDING SCOOTER
252003	10-12 YEARS	BIKE/SCOOTER RIDING	RIDING SCOOTER
252004	13-15 YEARS	BIKE/SCOOTER RIDING	RIDING SCOOTER
252005	16-18 YEARS	BIKE/SCOOTER RIDING	RIDING SCOOTER
301002	6-9 YEARS	CALISTHENICS/GYMNASTICS	ACTIVE CLASSROOM INSTRUCTION
301003	10-12 YEARS	CALISTHENICS/GYMNASTICS	ACTIVE CLASSROOM INSTRUCTION
301004	13-15 YEARS	CALISTHENICS/GYMNASTICS	ACTIVE CLASSROOM INSTRUCTION
301005	16-18 YEARS	CALISTHENICS/GYMNASTICS	ACTIVE CLASSROOM INSTRUCTION
301202	6-9 YEARS	CALISTHENICS/GYMNASTICS	BROADCAST CALISTHENICS - 'COLOURFUL SUNSHINE'
301203	10-12 YEARS	CALISTHENICS/GYMNASTICS	BROADCAST CALISTHENICS - 'COLOURFUL SUNSHINE'
301204	13-15 YEARS	CALISTHENICS/GYMNASTICS	BROADCAST CALISTHENICS - 'COLOURFUL SUNSHINE'
301205	16-18 YEARS	CALISTHENICS/GYMNASTICS	BROADCAST CALISTHENICS - 'COLOURFUL SUNSHINE'
301402	6-9 YEARS	CALISTHENICS/GYMNASTICS	BROADCAST CALISTHENICS - 'FLOURISHING YOUTH'
301403	10-12 YEARS	CALISTHENICS/GYMNASTICS	BROADCAST CALISTHENICS - 'FLOURISHING YOUTH'
301404	13-15 YEARS	CALISTHENICS/GYMNASTICS	BROADCAST CALISTHENICS - 'FLOURISHING YOUTH'

301405	16-18 YEARS	CALISTHENICS/GYMNASTICS	BROADCAST CALISTHENICS - 'FLOURISHING YOUTH'
301602	6-9 YEARS	CALISTHENICS/GYMNASTICS	BROADCAST CALISTHENICS - 'FLYING IDEAL'
301603	10-12 YEARS	CALISTHENICS/GYMNASTICS	BROADCAST CALISTHENICS - 'FLYING IDEAL'
301604	13-15 YEARS	CALISTHENICS/GYMNASTICS	BROADCAST CALISTHENICS - 'FLYING IDEAL'
301605	16-18 YEARS	CALISTHENICS/GYMNASTICS	BROADCAST CALISTHENICS - 'FLYING IDEAL'
301802	6-9 YEARS	CALISTHENICS/GYMNASTICS	BROADCAST CALISTHENICS - 'HOPEFUL SAIL'
301803	10-12 YEARS	CALISTHENICS/GYMNASTICS	BROADCAST CALISTHENICS - 'HOPEFUL SAIL'
301804	13-15 YEARS	CALISTHENICS/GYMNASTICS	BROADCAST CALISTHENICS - 'HOPEFUL SAIL'
301805	16-18 YEARS	CALISTHENICS/GYMNASTICS	BROADCAST CALISTHENICS - 'HOPEFUL SAIL'
302002	6-9 YEARS	CALISTHENICS/GYMNASTICS	CALISTHENICS - LIGHT
302003	10-12 YEARS	CALISTHENICS/GYMNASTICS	CALISTHENICS - LIGHT
302004	13-15 YEARS	CALISTHENICS/GYMNASTICS	CALISTHENICS - LIGHT
302005	16-18 YEARS	CALISTHENICS/GYMNASTICS	CALISTHENICS - LIGHT
302202	6-9 YEARS	CALISTHENICS/GYMNASTICS	GYMNASTICS
302203	10-12 YEARS	CALISTHENICS/GYMNASTICS	GYMNASTICS
302204	13-15 YEARS	CALISTHENICS/GYMNASTICS	GYMNASTICS
302205	16-18 YEARS	CALISTHENICS/GYMNASTICS	GYMNASTICS
302402	6-9 YEARS	CALISTHENICS/GYMNASTICS	JUMPING JACKS
302403	10-12 YEARS	CALISTHENICS/GYMNASTICS	JUMPING JACKS
302404	13-15 YEARS	CALISTHENICS/GYMNASTICS	JUMPING JACKS
302405	16-18 YEARS	CALISTHENICS/GYMNASTICS	JUMPING JACKS
302602	6-9 YEARS	CALISTHENICS/GYMNASTICS	RADIO GYMNASTICS
302603	10-12 YEARS	CALISTHENICS/GYMNASTICS	RADIO GYMNASTICS
302604	13-15 YEARS	CALISTHENICS/GYMNASTICS	RADIO GYMNASTICS

302605	16-18 YEARS	CALISTHENICS/GYMNASTICS	RADIO GYMNASTICS
302802	6-9 YEARS	CALISTHENICS/GYMNASTICS	STRENGTH EXERCISES - CURL-UPS
302803	10-12 YEARS	CALISTHENICS/GYMNASTICS	STRENGTH EXERCISES - CURL-UPS
302804	13-15 YEARS	CALISTHENICS/GYMNASTICS	STRENGTH EXERCISES - CURL-UPS
302805	16-18 YEARS	CALISTHENICS/GYMNASTICS	STRENGTH EXERCISES - CURL-UPS
303002	6-9 YEARS	CALISTHENICS/GYMNASTICS	STRENGTH EXERCISES - PUSH-UPS
303003	10-12 YEARS	CALISTHENICS/GYMNASTICS	STRENGTH EXERCISES - PUSH-UPS
303004	13-15 YEARS	CALISTHENICS/GYMNASTICS	STRENGTH EXERCISES - PUSH-UPS
303005	16-18 YEARS	CALISTHENICS/GYMNASTICS	STRENGTH EXERCISES - PUSH-UPS
351002	6-9 YEARS	COMPUTER/VIDEO GAMES (SITTING)	COMPUTER GAMES (COMPILATION OF GAMES)
351003	10-12 YEARS	COMPUTER/VIDEO GAMES (SITTING)	COMPUTER GAMES (COMPILATION OF GAMES)
351004	13-15 YEARS	COMPUTER/VIDEO GAMES (SITTING)	COMPUTER GAMES (COMPILATION OF GAMES)
351005	16-18 YEARS	COMPUTER/VIDEO GAMES (SITTING)	COMPUTER GAMES (COMPILATION OF GAMES)
351202	6-9 YEARS	COMPUTER/VIDEO GAMES (SITTING)	VIDEO GAMES - BOWLING
351203	10-12 YEARS	COMPUTER/VIDEO GAMES (SITTING)	VIDEO GAMES - BOWLING
351204	13-15 YEARS	COMPUTER/VIDEO GAMES (SITTING)	VIDEO GAMES - BOWLING
351205	16-18 YEARS	COMPUTER/VIDEO GAMES (SITTING)	VIDEO GAMES - BOWLING
351402	6-9 YEARS	COMPUTER/VIDEO GAMES (SITTING)	VIDEO GAMES - DRIVING SIMULATOR
351403	10-12 YEARS	COMPUTER/VIDEO GAMES (SITTING)	VIDEO GAMES - DRIVING SIMULATOR
351404	13-15 YEARS	COMPUTER/VIDEO GAMES (SITTING)	VIDEO GAMES - DRIVING SIMULATOR
351405	16-18 YEARS	COMPUTER/VIDEO GAMES (SITTING)	VIDEO GAMES - DRIVING SIMULATOR
351602	6-9 YEARS	COMPUTER/VIDEO GAMES	VIDEO GAMES - GAMEBOY

		(SITTING)	
351603	10-12 YEARS	COMPUTER/VIDEO GAMES (SITTING)	VIDEO GAMES - GAMEBOY
351604	13-15 YEARS	COMPUTER/VIDEO GAMES (SITTING)	VIDEO GAMES - GAMEBOY
351605	16-18 YEARS	COMPUTER/VIDEO GAMES (SITTING)	VIDEO GAMES - GAMEBOY
351802	6-9 YEARS	COMPUTER/VIDEO GAMES (SITTING)	VIDEO GAMES - GAMEPAD
351803	10-12 YEARS	COMPUTER/VIDEO GAMES (SITTING)	VIDEO GAMES - GAMEPAD
351804	13-15 YEARS	COMPUTER/VIDEO GAMES (SITTING)	VIDEO GAMES - GAMEPAD
351805	16-18 YEARS	COMPUTER/VIDEO GAMES (SITTING)	VIDEO GAMES - GAMEPAD
352002	6-9 YEARS	COMPUTER/VIDEO GAMES (SITTING)	VIDEO GAMES - HANDHELD
352003	10-12 YEARS	COMPUTER/VIDEO GAMES (SITTING)	VIDEO GAMES - HANDHELD
352004	13-15 YEARS	COMPUTER/VIDEO GAMES (SITTING)	VIDEO GAMES - HANDHELD
352005	16-18 YEARS	COMPUTER/VIDEO GAMES (SITTING)	VIDEO GAMES - HANDHELD
352202	6-9 YEARS	COMPUTER/VIDEO GAMES (SITTING)	VIDEO GAMES - MOBILE PHONE
352203	10-12 YEARS	COMPUTER/VIDEO GAMES (SITTING)	VIDEO GAMES - MOBILE PHONE
352204	13-15 YEARS	COMPUTER/VIDEO GAMES (SITTING)	VIDEO GAMES - MOBILE PHONE
352205	16-18 YEARS	COMPUTER/VIDEO GAMES (SITTING)	VIDEO GAMES - MOBILE PHONE
352402	6-9 YEARS	COMPUTER/VIDEO GAMES (SITTING)	VIDEO GAMES - NINTENDO
352403	10-12 YEARS	COMPUTER/VIDEO GAMES (SITTING)	VIDEO GAMES - NINTENDO

352404	13-15 YEARS	COMPUTER/VIDEO GAMES (SITTING)	VIDEO GAMES - NINTENDO
352405	16-18 YEARS	COMPUTER/VIDEO GAMES (SITTING)	VIDEO GAMES - NINTENDO
352602	6-9 YEARS	COMPUTER/VIDEO GAMES (SITTING)	VIDEO GAMES - PS2
352603	10-12 YEARS	COMPUTER/VIDEO GAMES (SITTING)	VIDEO GAMES - PS2
352604	13-15 YEARS	COMPUTER/VIDEO GAMES (SITTING)	VIDEO GAMES - PS2
352605	16-18 YEARS	COMPUTER/VIDEO GAMES (SITTING)	VIDEO GAMES - PS2
352802	6-9 YEARS	COMPUTER/VIDEO GAMES (SITTING)	VIDEO GAMES - PS3
352803	10-12 YEARS	COMPUTER/VIDEO GAMES (SITTING)	VIDEO GAMES - PS3
352804	13-15 YEARS	COMPUTER/VIDEO GAMES (SITTING)	VIDEO GAMES - PS3
352805	16-18 YEARS	COMPUTER/VIDEO GAMES (SITTING)	VIDEO GAMES - PS3
353002	6-9 YEARS	COMPUTER/VIDEO GAMES (SITTING)	VIDEO GAMES - XBOX360
353003	10-12 YEARS	COMPUTER/VIDEO GAMES (SITTING)	VIDEO GAMES - XBOX360
353004	13-15 YEARS	COMPUTER/VIDEO GAMES (SITTING)	VIDEO GAMES - XBOX360
353005	16-18 YEARS	COMPUTER/VIDEO GAMES (SITTING)	VIDEO GAMES - XBOX360
353202	6-9 YEARS	COMPUTER/VIDEO GAMES (SITTING)	VIDEO GAMES (COMPILATION OF GAMES)
353203	10-12 YEARS	COMPUTER/VIDEO GAMES (SITTING)	VIDEO GAMES (COMPILATION OF GAMES)
353204	13-15 YEARS	COMPUTER/VIDEO GAMES (SITTING)	VIDEO GAMES (COMPILATION OF GAMES)
353205	16-18 YEARS	COMPUTER/VIDEO GAMES	VIDEO GAMES (COMPILATION OF GAMES)

		(SITTING)	
401002	6-9 YEARS	DANCE/AEROBICS/STEPS	AEROBIC DANCE/DANCE
401003	10-12 YEARS	DANCE/AEROBICS/STEPS	AEROBIC DANCE/DANCE
401004	13-15 YEARS	DANCE/AEROBICS/STEPS	AEROBIC DANCE/DANCE
401005	16-18 YEARS	DANCE/AEROBICS/STEPS	AEROBIC DANCE/DANCE
401202	6-9 YEARS	DANCE/AEROBICS/STEPS	STAIR WALKING - ASCENDING
401203	10-12 YEARS	DANCE/AEROBICS/STEPS	STAIR WALKING - ASCENDING
401204	13-15 YEARS	DANCE/AEROBICS/STEPS	STAIR WALKING - ASCENDING
401205	16-18 YEARS	DANCE/AEROBICS/STEPS	STAIR WALKING - ASCENDING
401402	6-9 YEARS	DANCE/AEROBICS/STEPS	STAIR WALKING - ASCENDING 80 STEPS/MIN
401403	10-12 YEARS	DANCE/AEROBICS/STEPS	STAIR WALKING - ASCENDING 80 STEPS/MIN
401404	13-15 YEARS	DANCE/AEROBICS/STEPS	STAIR WALKING - ASCENDING 80 STEPS/MIN
401405	16-18 YEARS	DANCE/AEROBICS/STEPS	STAIR WALKING - ASCENDING 80 STEPS/MIN
401602	6-9 YEARS	DANCE/AEROBICS/STEPS	STAIR WALKING - ASCENDING/DESCENDING
401603	10-12 YEARS	DANCE/AEROBICS/STEPS	STAIR WALKING - ASCENDING/DESCENDING
401604	13-15 YEARS	DANCE/AEROBICS/STEPS	STAIR WALKING - ASCENDING/DESCENDING
401605	16-18 YEARS	DANCE/AEROBICS/STEPS	STAIR WALKING - ASCENDING/DESCENDING
401802	6-9 YEARS	DANCE/AEROBICS/STEPS	STAIR WALKING - DESCENDING
401803	10-12 YEARS	DANCE/AEROBICS/STEPS	STAIR WALKING - DESCENDING
401804	13-15 YEARS	DANCE/AEROBICS/STEPS	STAIR WALKING - DESCENDING
401805	16-18 YEARS	DANCE/AEROBICS/STEPS	STAIR WALKING - DESCENDING
402002	6-9 YEARS	DANCE/AEROBICS/STEPS	STEP BOARD
402003	10-12 YEARS	DANCE/AEROBICS/STEPS	STEP BOARD
402004	13-15 YEARS	DANCE/AEROBICS/STEPS	STEP BOARD
402005	16-18 YEARS	DANCE/AEROBICS/STEPS	STEP BOARD

402202	6-9 YEARS	DANCE/AEROBICS/STEPS	STEPPING - HEIGHT 30%-50% LEG LENGTH
402203	10-12 YEARS	DANCE/AEROBICS/STEPS	STEPPING - HEIGHT 30%-50% LEG LENGTH
402204	13-15 YEARS	DANCE/AEROBICS/STEPS	STEPPING - HEIGHT 30%-50% LEG LENGTH
402205	16-18 YEARS	DANCE/AEROBICS/STEPS	STEPPING - HEIGHT 30%-50% LEG LENGTH
451002	6-9 YEARS	HOUSEKEEPING/WORK	BEDMAKING
451003	10-12 YEARS	HOUSEKEEPING/WORK	BEDMAKING
451004	13-15 YEARS	HOUSEKEEPING/WORK	BEDMAKING
451005	16-18 YEARS	HOUSEKEEPING/WORK	BEDMAKING
451202	6-9 YEARS	HOUSEKEEPING/WORK	CARPENTRY
451203	10-12 YEARS	HOUSEKEEPING/WORK	CARPENTRY
451204	13-15 YEARS	HOUSEKEEPING/WORK	CARPENTRY
451205	16-18 YEARS	HOUSEKEEPING/WORK	CARPENTRY
451402	6-9 YEARS	HOUSEKEEPING/WORK	DRESSING AND UNDRRESSING
451403	10-12 YEARS	HOUSEKEEPING/WORK	DRESSING AND UNDRRESSING
451404	13-15 YEARS	HOUSEKEEPING/WORK	DRESSING AND UNDRRESSING
451405	16-18 YEARS	HOUSEKEEPING/WORK	DRESSING AND UNDRRESSING
451602	6-9 YEARS	HOUSEKEEPING/WORK	DUSTING
451603	10-12 YEARS	HOUSEKEEPING/WORK	DUSTING
451604	13-15 YEARS	HOUSEKEEPING/WORK	DUSTING
451605	16-18 YEARS	HOUSEKEEPING/WORK	DUSTING
451802	6-9 YEARS	HOUSEKEEPING/WORK	DUSTING AND SWEEPING
451803	10-12 YEARS	HOUSEKEEPING/WORK	DUSTING AND SWEEPING
451804	13-15 YEARS	HOUSEKEEPING/WORK	DUSTING AND SWEEPING
451805	16-18 YEARS	HOUSEKEEPING/WORK	DUSTING AND SWEEPING
452002	6-9 YEARS	HOUSEKEEPING/WORK	HANGING OUT WASHING
452003	10-12 YEARS	HOUSEKEEPING/WORK	HANGING OUT WASHING
452004	13-15 YEARS	HOUSEKEEPING/WORK	HANGING OUT WASHING
452005	16-18 YEARS	HOUSEKEEPING/WORK	HANGING OUT WASHING
452202	6-9 YEARS	HOUSEKEEPING/WORK	HOUSEWORK
452203	10-12 YEARS	HOUSEKEEPING/WORK	HOUSEWORK

452204	13-15 YEARS	HOUSEKEEPING/WORK	HOUSEWORK
452205	16-18 YEARS	HOUSEKEEPING/WORK	HOUSEWORK
452402	6-9 YEARS	HOUSEKEEPING/WORK	LAUNDRY
452403	10-12 YEARS	HOUSEKEEPING/WORK	LAUNDRY
452404	13-15 YEARS	HOUSEKEEPING/WORK	LAUNDRY
452405	16-18 YEARS	HOUSEKEEPING/WORK	LAUNDRY
452602	6-9 YEARS	HOUSEKEEPING/WORK	LOADING/UNLOADING BOXES
452603	10-12 YEARS	HOUSEKEEPING/WORK	LOADING/UNLOADING BOXES
452604	13-15 YEARS	HOUSEKEEPING/WORK	LOADING/UNLOADING BOXES
452605	16-18 YEARS	HOUSEKEEPING/WORK	LOADING/UNLOADING BOXES
452802	6-9 YEARS	HOUSEKEEPING/WORK	SETTING THE TABLE
452803	10-12 YEARS	HOUSEKEEPING/WORK	SETTING THE TABLE
452804	13-15 YEARS	HOUSEKEEPING/WORK	SETTING THE TABLE
452805	16-18 YEARS	HOUSEKEEPING/WORK	SETTING THE TABLE
453002	6-9 YEARS	HOUSEKEEPING/WORK	SHOVELLING
453003	10-12 YEARS	HOUSEKEEPING/WORK	SHOVELLING
453004	13-15 YEARS	HOUSEKEEPING/WORK	SHOVELLING
453005	16-18 YEARS	HOUSEKEEPING/WORK	SHOVELLING
453202	6-9 YEARS	HOUSEKEEPING/WORK	SWEEPING
453203	10-12 YEARS	HOUSEKEEPING/WORK	SWEEPING
453204	13-15 YEARS	HOUSEKEEPING/WORK	SWEEPING
453205	16-18 YEARS	HOUSEKEEPING/WORK	SWEEPING
453402	6-9 YEARS	HOUSEKEEPING/WORK	VACUUMING
453403	10-12 YEARS	HOUSEKEEPING/WORK	VACUUMING
453404	13-15 YEARS	HOUSEKEEPING/WORK	VACUUMING
453405	16-18 YEARS	HOUSEKEEPING/WORK	VACUUMING
453602	6-9 YEARS	HOUSEKEEPING/WORK	WASHING THE DISHES
453603	10-12 YEARS	HOUSEKEEPING/WORK	WASHING THE DISHES
453604	13-15 YEARS	HOUSEKEEPING/WORK	WASHING THE DISHES
453605	16-18 YEARS	HOUSEKEEPING/WORK	WASHING THE DISHES

501002	6-9 YEARS	LYING	QUIETLY LYING
501003	10-12 YEARS	LYING	QUIETLY LYING
501004	13-15 YEARS	LYING	QUIETLY LYING
501005	16-18 YEARS	LYING	QUIETLY LYING
501202	6-9 YEARS	LYING	WATCHING TV/DVD - LYING
501203	10-12 YEARS	LYING	WATCHING TV/DVD - LYING
501204	13-15 YEARS	LYING	WATCHING TV/DVD - LYING
501205	16-18 YEARS	LYING	WATCHING TV/DVD - LYING
551002	6-9 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	ARTS AND CRAFTS
551003	10-12 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	ARTS AND CRAFTS
551004	13-15 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	ARTS AND CRAFTS
551005	16-18 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	ARTS AND CRAFTS
551202	6-9 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	BOARD GAMES
551203	10-12 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	BOARD GAMES
551204	13-15 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	BOARD GAMES
551205	16-18 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	BOARD GAMES
551402	6-9 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION	COLORING, READING WRITING, INTERNET

		(SITTING)	
551403	10-12 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	COLORING, READING WRITING, INTERNET
551404	13-15 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	COLORING, READING WRITING, INTERNET
551405	16-18 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	COLORING, READING WRITING, INTERNET
551602	6-9 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	COMPUTER WORK
551603	10-12 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	COMPUTER WORK
551604	13-15 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	COMPUTER WORK
551605	16-18 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	COMPUTER WORK
551802	6-9 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	GIVING A SPEECH
551803	10-12 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	GIVING A SPEECH
551804	13-15 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	GIVING A SPEECH
551805	16-18 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	GIVING A SPEECH
552002	6-9 YEARS	QUIET	LISTENING TO RADIO

		PLAY/SCHOOLWORK/TELEVISION (SITTING)	
552003	10-12 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	LISTENING TO RADIO
552004	13-15 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	LISTENING TO RADIO
552005	16-18 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	LISTENING TO RADIO
552202	6-9 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	LISTENING TO STORY
552203	10-12 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	LISTENING TO STORY
552204	13-15 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	LISTENING TO STORY
552205	16-18 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	LISTENING TO STORY
552402	6-9 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	PLAYING QUIETLY
552403	10-12 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	PLAYING QUIETLY
552404	13-15 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	PLAYING QUIETLY
552405	16-18 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	PLAYING QUIETLY

552602	6-9 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	PLAYING STRINGED INSTRUMENT
552603	10-12 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	PLAYING STRINGED INSTRUMENT
552604	13-15 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	PLAYING STRINGED INSTRUMENT
552605	16-18 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	PLAYING STRINGED INSTRUMENT
552802	6-9 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	PLAYING WITH BRICKS
552803	10-12 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	PLAYING WITH BRICKS
552804	13-15 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	PLAYING WITH BRICKS
552805	16-18 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	PLAYING WITH BRICKS
553002	6-9 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	PLAYING WITH TOYS (CARDS, PUZZLES, CARS, TRAINS)
553003	10-12 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	PLAYING WITH TOYS (CARDS, PUZZLES, CARS, TRAINS)
553004	13-15 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	PLAYING WITH TOYS (CARDS, PUZZLES, CARS, TRAINS)
553005	16-18 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	PLAYING WITH TOYS (CARDS, PUZZLES, CARS, TRAINS)

553202	6-9 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	PUZZLES
553203	10-12 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	PUZZLES
553204	13-15 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	PUZZLES
553205	16-18 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	PUZZLES
553402	6-9 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	QUIETLY SITTING
553403	10-12 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	QUIETLY SITTING
553404	13-15 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	QUIETLY SITTING
553405	16-18 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	QUIETLY SITTING
553602	6-9 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	READING
553603	10-12 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	READING
553604	13-15 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	READING
553605	16-18 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	READING

553802	6-9 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	READING A BOOK AND LISTENING TO MUSIC
553803	10-12 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	READING A BOOK AND LISTENING TO MUSIC
553804	13-15 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	READING A BOOK AND LISTENING TO MUSIC
553805	16-18 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	READING A BOOK AND LISTENING TO MUSIC
554002	6-9 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	SCHOOLWORK
554003	10-12 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	SCHOOLWORK
554004	13-15 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	SCHOOLWORK
554005	16-18 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	SCHOOLWORK
554202	6-9 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	SEWING
554203	10-12 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	SEWING
554204	13-15 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	SEWING
554205	16-18 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	SEWING

554402	6-9 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	SINGING
554403	10-12 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	SINGING
554404	13-15 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	SINGING
554405	16-18 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	SINGING
554602	6-9 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	TALKING WITH FRIEND
554603	10-12 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	TALKING WITH FRIEND
554604	13-15 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	TALKING WITH FRIEND
554605	16-18 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	TALKING WITH FRIEND
554802	6-9 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	WATCHING TV/DVD - SITTING
554803	10-12 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	WATCHING TV/DVD - SITTING
554804	13-15 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	WATCHING TV/DVD - SITTING
554805	16-18 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	WATCHING TV/DVD - SITTING

555002	6-9 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	WRITING
555003	10-12 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	WRITING
555004	13-15 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	WRITING
555005	16-18 YEARS	QUIET PLAY/SCHOOLWORK/TELEVISION (SITTING)	WRITING
601002	6-9 YEARS	RUNNING	JOG - FAST
601003	10-12 YEARS	RUNNING	JOG - FAST
601004	13-15 YEARS	RUNNING	JOG - FAST
601005	16-18 YEARS	RUNNING	JOG - FAST
601202	6-9 YEARS	RUNNING	JOG - SLOW
601203	10-12 YEARS	RUNNING	JOG - SLOW
601204	13-15 YEARS	RUNNING	JOG - SLOW
601205	16-18 YEARS	RUNNING	JOG - SLOW
601402	6-9 YEARS	RUNNING	JOG SELF-PACED
601403	10-12 YEARS	RUNNING	JOG SELF-PACED
601404	13-15 YEARS	RUNNING	JOG SELF-PACED
601405	16-18 YEARS	RUNNING	JOG SELF-PACED
601602	6-9 YEARS	RUNNING	RUN 3.0
601603	10-12 YEARS	RUNNING	RUN 3.0
601604	13-15 YEARS	RUNNING	RUN 3.0
601605	16-18 YEARS	RUNNING	RUN 3.0
601802	6-9 YEARS	RUNNING	RUN 3.5
601803	10-12 YEARS	RUNNING	RUN 3.5
601804	13-15 YEARS	RUNNING	RUN 3.5
601805	16-18 YEARS	RUNNING	RUN 3.5

602002	6-9 YEARS	RUNNING	RUN 4.0
602003	10-12 YEARS	RUNNING	RUN 4.0
602004	13-15 YEARS	RUNNING	RUN 4.0
602005	16-18 YEARS	RUNNING	RUN 4.0
602202	6-9 YEARS	RUNNING	RUN 4.5
602203	10-12 YEARS	RUNNING	RUN 4.5
602204	13-15 YEARS	RUNNING	RUN 4.5
602205	16-18 YEARS	RUNNING	RUN 4.5
602402	6-9 YEARS	RUNNING	RUN 5.0
602403	10-12 YEARS	RUNNING	RUN 5.0
602404	13-15 YEARS	RUNNING	RUN 5.0
602405	16-18 YEARS	RUNNING	RUN 5.0
602602	6-9 YEARS	RUNNING	RUN 5.5
602603	10-12 YEARS	RUNNING	RUN 5.5
602604	13-15 YEARS	RUNNING	RUN 5.5
602605	16-18 YEARS	RUNNING	RUN 5.5
602802	6-9 YEARS	RUNNING	RUN 6.0
602803	10-12 YEARS	RUNNING	RUN 6.0
602804	13-15 YEARS	RUNNING	RUN 6.0
602805	16-18 YEARS	RUNNING	RUN 6.0
603002	6-9 YEARS	RUNNING	RUN 6.5
603003	10-12 YEARS	RUNNING	RUN 6.5
603004	13-15 YEARS	RUNNING	RUN 6.5
603005	16-18 YEARS	RUNNING	RUN 6.5
603202	6-9 YEARS	RUNNING	RUN 7.0
603203	10-12 YEARS	RUNNING	RUN 7.0
603204	13-15 YEARS	RUNNING	RUN 7.0
603205	16-18 YEARS	RUNNING	RUN 7.0
603402	6-9 YEARS	RUNNING	RUN 7.5
603403	10-12 YEARS	RUNNING	RUN 7.5

603404	13-15 YEARS	RUNNING	RUN 7.5
603405	16-18 YEARS	RUNNING	RUN 7.5
603602	6-9 YEARS	RUNNING	RUN 8.0
603603	10-12 YEARS	RUNNING	RUN 8.0
603604	13-15 YEARS	RUNNING	RUN 8.0
603605	16-18 YEARS	RUNNING	RUN 8.0
603802	6-9 YEARS	RUNNING	RUN SELF-PACED
603803	10-12 YEARS	RUNNING	RUN SELF-PACED
603804	13-15 YEARS	RUNNING	RUN SELF-PACED
603805	16-18 YEARS	RUNNING	RUN SELF-PACED
651002	6-9 YEARS	SPORTS/GAMES	BASKETBALL - GAME
651003	10-12 YEARS	SPORTS/GAMES	BASKETBALL - GAME
651004	13-15 YEARS	SPORTS/GAMES	BASKETBALL - GAME
651005	16-18 YEARS	SPORTS/GAMES	BASKETBALL - GAME
651202	6-9 YEARS	SPORTS/GAMES	BASKETBALL - SHOOTING AND RETRIEVING A BASKETBALL, CONTINUOUSLY, WITHOUT STOPPING
651203	10-12 YEARS	SPORTS/GAMES	BASKETBALL - SHOOTING AND RETRIEVING A BASKETBALL, CONTINUOUSLY, WITHOUT STOPPING
651204	13-15 YEARS	SPORTS/GAMES	BASKETBALL - SHOOTING AND RETRIEVING A BASKETBALL, CONTINUOUSLY, WITHOUT STOPPING
651205	16-18 YEARS	SPORTS/GAMES	BASKETBALL - SHOOTING AND RETRIEVING A BASKETBALL, CONTINUOUSLY, WITHOUT STOPPING
651402	6-9 YEARS	SPORTS/GAMES	BASKETBALL GAME (MINI BASKETBALL)
651403	10-12 YEARS	SPORTS/GAMES	BASKETBALL GAME (MINI BASKETBALL)
651404	13-15 YEARS	SPORTS/GAMES	BASKETBALL GAME (MINI BASKETBALL)
651405	16-18 YEARS	SPORTS/GAMES	BASKETBALL GAME (MINI BASKETBALL)
651602	6-9 YEARS	SPORTS/GAMES	BOWLING - GAME
651603	10-12 YEARS	SPORTS/GAMES	BOWLING - GAME

651604	13-15 YEARS	SPORTS/GAMES	BOWLING - GAME
651605	16-18 YEARS	SPORTS/GAMES	BOWLING - GAME
651802	6-9 YEARS	SPORTS/GAMES	BOXING - PUNCHING BAG AND GLOVES
651803	10-12 YEARS	SPORTS/GAMES	BOXING - PUNCHING BAG AND GLOVES
651804	13-15 YEARS	SPORTS/GAMES	BOXING - PUNCHING BAG AND GLOVES
651805	16-18 YEARS	SPORTS/GAMES	BOXING - PUNCHING BAG AND GLOVES
652002	6-9 YEARS	SPORTS/GAMES	CATCH/THROW BALL
652003	10-12 YEARS	SPORTS/GAMES	CATCH/THROW BALL
652004	13-15 YEARS	SPORTS/GAMES	CATCH/THROW BALL
652005	16-18 YEARS	SPORTS/GAMES	CATCH/THROW BALL
652202	6-9 YEARS	SPORTS/GAMES	GOLF - GAME (MINI GOLF)
652203	10-12 YEARS	SPORTS/GAMES	GOLF - GAME (MINI GOLF)
652204	13-15 YEARS	SPORTS/GAMES	GOLF - GAME (MINI GOLF)
652205	16-18 YEARS	SPORTS/GAMES	GOLF - GAME (MINI GOLF)
652402	6-9 YEARS	SPORTS/GAMES	HANDBALL
652403	10-12 YEARS	SPORTS/GAMES	HANDBALL
652404	13-15 YEARS	SPORTS/GAMES	HANDBALL
652405	16-18 YEARS	SPORTS/GAMES	HANDBALL
652602	6-9 YEARS	SPORTS/GAMES	HOCKEY - GAME (MINI FLOOR HOCKEY)
652603	10-12 YEARS	SPORTS/GAMES	HOCKEY - GAME (MINI FLOOR HOCKEY)
652604	13-15 YEARS	SPORTS/GAMES	HOCKEY - GAME (MINI FLOOR HOCKEY)
652605	16-18 YEARS	SPORTS/GAMES	HOCKEY - GAME (MINI FLOOR HOCKEY)
652802	6-9 YEARS	SPORTS/GAMES	JUGGLING
652803	10-12 YEARS	SPORTS/GAMES	JUGGLING
652804	13-15 YEARS	SPORTS/GAMES	JUGGLING
652805	16-18 YEARS	SPORTS/GAMES	JUGGLING
653002	6-9 YEARS	SPORTS/GAMES	KICKBALL, CONTINUOUS MOVEMENT
653003	10-12 YEARS	SPORTS/GAMES	KICKBALL, CONTINUOUS MOVEMENT
653004	13-15 YEARS	SPORTS/GAMES	KICKBALL, CONTINUOUS MOVEMENT
653005	16-18 YEARS	SPORTS/GAMES	KICKBALL, CONTINUOUS MOVEMENT

653202	6-9 YEARS	SPORTS/GAMES	ROLLERBLADING
653203	10-12 YEARS	SPORTS/GAMES	ROLLERBLADING
653204	13-15 YEARS	SPORTS/GAMES	ROLLERBLADING
653205	16-18 YEARS	SPORTS/GAMES	ROLLERBLADING
653402	6-9 YEARS	SPORTS/GAMES	SKIING
653403	10-12 YEARS	SPORTS/GAMES	SKIING
653404	13-15 YEARS	SPORTS/GAMES	SKIING
653405	16-18 YEARS	SPORTS/GAMES	SKIING
653602	6-9 YEARS	SPORTS/GAMES	SLIDE BOARD - 40 SLIDES/MIN
653603	10-12 YEARS	SPORTS/GAMES	SLIDE BOARD - 40 SLIDES/MIN
653604	13-15 YEARS	SPORTS/GAMES	SLIDE BOARD - 40 SLIDES/MIN
653605	16-18 YEARS	SPORTS/GAMES	SLIDE BOARD - 40 SLIDES/MIN
653802	6-9 YEARS	SPORTS/GAMES	SLIDE BOARD - 50 SLIDES/MIN
653803	10-12 YEARS	SPORTS/GAMES	SLIDE BOARD - 50 SLIDES/MIN
653804	13-15 YEARS	SPORTS/GAMES	SLIDE BOARD - 50 SLIDES/MIN
653805	16-18 YEARS	SPORTS/GAMES	SLIDE BOARD - 50 SLIDES/MIN
654002	6-9 YEARS	SPORTS/GAMES	SLIDE BOARD - 60 SLIDES/MIN
654003	10-12 YEARS	SPORTS/GAMES	SLIDE BOARD - 60 SLIDES/MIN
654004	13-15 YEARS	SPORTS/GAMES	SLIDE BOARD - 60 SLIDES/MIN
654005	16-18 YEARS	SPORTS/GAMES	SLIDE BOARD - 60 SLIDES/MIN
654202	6-9 YEARS	SPORTS/GAMES	SLIDE BOARD - 70 SLIDES/MIN
654203	10-12 YEARS	SPORTS/GAMES	SLIDE BOARD - 70 SLIDES/MIN
654204	13-15 YEARS	SPORTS/GAMES	SLIDE BOARD - 70 SLIDES/MIN
654205	16-18 YEARS	SPORTS/GAMES	SLIDE BOARD - 70 SLIDES/MIN
654402	6-9 YEARS	SPORTS/GAMES	SLIDE BOARD - 80 SLIDES/MIN
654403	10-12 YEARS	SPORTS/GAMES	SLIDE BOARD - 80 SLIDES/MIN
654404	13-15 YEARS	SPORTS/GAMES	SLIDE BOARD - 80 SLIDES/MIN
654405	16-18 YEARS	SPORTS/GAMES	SLIDE BOARD - 80 SLIDES/MIN
654602	6-9 YEARS	SPORTS/GAMES	SOCCER - AROUND CONES
654603	10-12 YEARS	SPORTS/GAMES	SOCCER - AROUND CONES

654604	13-15 YEARS	SPORTS/GAMES	SOCCER - AROUND CONES
654605	16-18 YEARS	SPORTS/GAMES	SOCCER - AROUND CONES
654802	6-9 YEARS	SPORTS/GAMES	SOCCER - GAME
654803	10-12 YEARS	SPORTS/GAMES	SOCCER - GAME
654804	13-15 YEARS	SPORTS/GAMES	SOCCER - GAME
654805	16-18 YEARS	SPORTS/GAMES	SOCCER - GAME
655002	6-9 YEARS	SPORTS/GAMES	TABLE TENNIS
655003	10-12 YEARS	SPORTS/GAMES	TABLE TENNIS
655004	13-15 YEARS	SPORTS/GAMES	TABLE TENNIS
655005	16-18 YEARS	SPORTS/GAMES	TABLE TENNIS
655202	6-9 YEARS	SPORTS/GAMES	TENNIS PRACTICE AND GAMES
655203	10-12 YEARS	SPORTS/GAMES	TENNIS PRACTICE AND GAMES
655204	13-15 YEARS	SPORTS/GAMES	TENNIS PRACTICE AND GAMES
655205	16-18 YEARS	SPORTS/GAMES	TENNIS PRACTICE AND GAMES
655402	6-9 YEARS	SPORTS/GAMES	ULTIMATE FRISBBE
655403	10-12 YEARS	SPORTS/GAMES	ULTIMATE FRISBBE
655404	13-15 YEARS	SPORTS/GAMES	ULTIMATE FRISBBE
655405	16-18 YEARS	SPORTS/GAMES	ULTIMATE FRISBBE
655602	6-9 YEARS	SPORTS/GAMES	VOLLEYBALL
655603	10-12 YEARS	SPORTS/GAMES	VOLLEYBALL
655604	13-15 YEARS	SPORTS/GAMES	VOLLEYBALL
655605	16-18 YEARS	SPORTS/GAMES	VOLLEYBALL
701002	6-9 YEARS	STANDING	ARCADE GAMES - TABLE FOOTBALL
701003	10-12 YEARS	STANDING	ARCADE GAMES - TABLE FOOTBALL
701004	13-15 YEARS	STANDING	ARCADE GAMES - TABLE FOOTBALL
701005	16-18 YEARS	STANDING	ARCADE GAMES - TABLE FOOTBALL
701202	6-9 YEARS	STANDING	BOARD GAMES - STANDING
701203	10-12 YEARS	STANDING	BOARD GAMES - STANDING
701204	13-15 YEARS	STANDING	BOARD GAMES - STANDING
701205	16-18 YEARS	STANDING	BOARD GAMES - STANDING

701402	6-9 YEARS	STANDING	DRAWING, COLORING - STANDING
701403	10-12 YEARS	STANDING	DRAWING, COLORING - STANDING
701404	13-15 YEARS	STANDING	DRAWING, COLORING - STANDING
701405	16-18 YEARS	STANDING	DRAWING, COLORING - STANDING
701602	6-9 YEARS	STANDING	SINGING - STANDING
701603	10-12 YEARS	STANDING	SINGING - STANDING
701604	13-15 YEARS	STANDING	SINGING - STANDING
701605	16-18 YEARS	STANDING	SINGING - STANDING
701802	6-9 YEARS	STANDING	STACKING CUPS
701803	10-12 YEARS	STANDING	STACKING CUPS
701804	13-15 YEARS	STANDING	STACKING CUPS
701805	16-18 YEARS	STANDING	STACKING CUPS
702002	6-9 YEARS	STANDING	STANDING
702003	10-12 YEARS	STANDING	STANDING
702004	13-15 YEARS	STANDING	STANDING
702005	16-18 YEARS	STANDING	STANDING
702202	6-9 YEARS	STANDING	VIDEO GAMES - STANDING
702203	10-12 YEARS	STANDING	VIDEO GAMES - STANDING
702204	13-15 YEARS	STANDING	VIDEO GAMES - STANDING
702205	16-18 YEARS	STANDING	VIDEO GAMES - STANDING
702402	6-9 YEARS	STANDING	WATCHING TV/DVD - STANDING
702403	10-12 YEARS	STANDING	WATCHING TV/DVD - STANDING
702404	13-15 YEARS	STANDING	WATCHING TV/DVD - STANDING
702405	16-18 YEARS	STANDING	WATCHING TV/DVD - STANDING
751002	6-9 YEARS	SWIMMING	SWIMMING - 200M
751003	10-12 YEARS	SWIMMING	SWIMMING - 200M
751004	13-15 YEARS	SWIMMING	SWIMMING - 200M
751005	16-18 YEARS	SWIMMING	SWIMMING - 200M
751202	6-9 YEARS	SWIMMING	SWIMMING - FRONT CRAWL 0.9 M.SEC
751203	10-12 YEARS	SWIMMING	SWIMMING - FRONT CRAWL 0.9 M.SEC

751204	13-15 YEARS	SWIMMING	SWIMMING - FRONT CRAWL 0.9 M.SEC
751205	16-18 YEARS	SWIMMING	SWIMMING - FRONT CRAWL 0.9 M.SEC
751402	6-9 YEARS	SWIMMING	SWIMMING - FRONT CRAWL 1.0 M.SEC
751403	10-12 YEARS	SWIMMING	SWIMMING - FRONT CRAWL 1.0 M.SEC
751404	13-15 YEARS	SWIMMING	SWIMMING - FRONT CRAWL 1.0 M.SEC
751405	16-18 YEARS	SWIMMING	SWIMMING - FRONT CRAWL 1.0 M.SEC
751602	6-9 YEARS	SWIMMING	SWIMMING - FRONT CRAWL 1.1 M.SEC
751603	10-12 YEARS	SWIMMING	SWIMMING - FRONT CRAWL 1.1 M.SEC
751604	13-15 YEARS	SWIMMING	SWIMMING - FRONT CRAWL 1.1 M.SEC
751605	16-18 YEARS	SWIMMING	SWIMMING - FRONT CRAWL 1.1 M.SEC
751802	6-9 YEARS	SWIMMING	SWIMMING - SELF-SELECTED PACE
751803	10-12 YEARS	SWIMMING	SWIMMING - SELF-SELECTED PACE
751804	13-15 YEARS	SWIMMING	SWIMMING - SELF-SELECTED PACE
751805	16-18 YEARS	SWIMMING	SWIMMING - SELF-SELECTED PACE
752002	6-9 YEARS	SWIMMING	SYNCHRONISED SWIMMING
752003	10-12 YEARS	SWIMMING	SYNCHRONISED SWIMMING
752004	13-15 YEARS	SWIMMING	SYNCHRONISED SWIMMING
752005	16-18 YEARS	SWIMMING	SYNCHRONISED SWIMMING
801002	6-9 YEARS	WALKING	WALK 0.5
801003	10-12 YEARS	WALKING	WALK 0.5
801004	13-15 YEARS	WALKING	WALK 0.5
801005	16-18 YEARS	WALKING	WALK 0.5
801202	6-9 YEARS	WALKING	WALK 1.0
801203	10-12 YEARS	WALKING	WALK 1.0
801204	13-15 YEARS	WALKING	WALK 1.0
801205	16-18 YEARS	WALKING	WALK 1.0
801402	6-9 YEARS	WALKING	WALK 1.5
801403	10-12 YEARS	WALKING	WALK 1.5
801404	13-15 YEARS	WALKING	WALK 1.5
801405	16-18 YEARS	WALKING	WALK 1.5

801602	6-9 YEARS	WALKING	WALK 2.0
801603	10-12 YEARS	WALKING	WALK 2.0
801604	13-15 YEARS	WALKING	WALK 2.0
801605	16-18 YEARS	WALKING	WALK 2.0
801802	6-9 YEARS	WALKING	WALK 2.5
801803	10-12 YEARS	WALKING	WALK 2.5
801804	13-15 YEARS	WALKING	WALK 2.5
801805	16-18 YEARS	WALKING	WALK 2.5
802002	6-9 YEARS	WALKING	WALK 3.0
802003	10-12 YEARS	WALKING	WALK 3.0
802004	13-15 YEARS	WALKING	WALK 3.0
802005	16-18 YEARS	WALKING	WALK 3.0
802202	6-9 YEARS	WALKING	WALK 3.5
802203	10-12 YEARS	WALKING	WALK 3.5
802204	13-15 YEARS	WALKING	WALK 3.5
802205	16-18 YEARS	WALKING	WALK 3.5
802402	6-9 YEARS	WALKING	WALK 4.0
802403	10-12 YEARS	WALKING	WALK 4.0
802404	13-15 YEARS	WALKING	WALK 4.0
802405	16-18 YEARS	WALKING	WALK 4.0
802602	6-9 YEARS	WALKING	WALK 4.5
802603	10-12 YEARS	WALKING	WALK 4.5
802604	13-15 YEARS	WALKING	WALK 4.5
802605	16-18 YEARS	WALKING	WALK 4.5
802802	6-9 YEARS	WALKING	WALK 5.0
802803	10-12 YEARS	WALKING	WALK 5.0
802804	13-15 YEARS	WALKING	WALK 5.0
802805	16-18 YEARS	WALKING	WALK 5.0
803002	6-9 YEARS	WALKING	WALK SELF-PACED BRISK
803003	10-12 YEARS	WALKING	WALK SELF-PACED BRISK

803004	13-15 YEARS	WALKING	WALK SELF-PACED BRISK
803005	16-18 YEARS	WALKING	WALK SELF-PACED BRISK
803202	6-9 YEARS	WALKING	WALK SELF-PACED CASUAL
803203	10-12 YEARS	WALKING	WALK SELF-PACED CASUAL
803204	13-15 YEARS	WALKING	WALK SELF-PACED CASUAL
803205	16-18 YEARS	WALKING	WALK SELF-PACED CASUAL
851002	6-9 YEARS	WEIGHT LIFTING*	HAND WEIGHTS EXERCISES
851003	10-12 YEARS	WEIGHT LIFTING*	HAND WEIGHTS EXERCISES
851004	13-15 YEARS	WEIGHT LIFTING*	HAND WEIGHTS EXERCISES
851005	16-18 YEARS	WEIGHT LIFTING*	HAND WEIGHTS EXERCISES
851202	6-9 YEARS	WEIGHT LIFTING*	STRENGTH EXERCISES - BENCH PRESS
851203	10-12 YEARS	WEIGHT LIFTING*	STRENGTH EXERCISES - BENCH PRESS
851204	13-15 YEARS	WEIGHT LIFTING*	STRENGTH EXERCISES - BENCH PRESS
851205	16-18 YEARS	WEIGHT LIFTING*	STRENGTH EXERCISES - BENCH PRESS
851402	6-9 YEARS	WEIGHT LIFTING*	STRENGTH EXERCISES - LEG PRESS
851403	10-12 YEARS	WEIGHT LIFTING*	STRENGTH EXERCISES - LEG PRESS
851404	13-15 YEARS	WEIGHT LIFTING*	STRENGTH EXERCISES - LEG PRESS
851405	16-18 YEARS	WEIGHT LIFTING*	STRENGTH EXERCISES - LEG PRESS