



HCHS/SOL Physical Activity – Actical Codebook

**May 2014
Version 2**

Prepared by
HCHS/SOL Coordinating Center
Collaborative Studies Coordinating Center
UNC Department of Biostatistics

Daniela Sotres-Alvarez
Yu Deng
Sonia Davis

Table of Contents

Chapter 1. Physical Activity Actical Data	3
Section A: PA_CNTS dataset (counts per minute at the day level)	3
Physical Activity Counts Data (PA_CNTS)	3
Section B: PA_DERV dataset (Actical derived variables at the participant level)	7
Physical Activity Derived Variable Data (PA_DERV)	7

Updates in Version 2 (May 2014)

PA_DERV dataset is being released again to HCHS/SOL investigators in May 2014 (INV4). A new variable for Actical IPW sampling weight (WEIGHT_PA_IPW_OVERALL) was added. This weight allows accounting for missing data due to either participants not returning the accelerometer or participants not being compliant (having less than 3 of 6 adherent days; N=2163, 13.2%). As a consequence, the document “Physical Activity Data Overview, Methods and Guidelines” was updated.

HCHS/SOL Code Book for Baseline Visit (INV version 4), Chapter 1 Section A

Section A: PA_CNTS dataset (counts per minute at the day level)

Physical Activity Counts Data (PA_CNTS)

DAY		Consecutive day (day=1 is the day after the clinic visit)
N	Value	Description
14913	1	Day 1 (day after clinic visit)
14906	2	Day 2
14899	3	Day 3
14891	4	Day 4
14883	5	Day 5
14830	6	Day 6

ACTICALID		Actical device identification number
N	Value	Description
89322	Present	Variable/Text Values Suppressed

ACTICAL_DATE		Initialization date (First day that Actical starts recording cnts/min)
N	Value	Description
89322	Range	03/05/2008 - 06/30/2011

ON_DATE		Date participant starts wearing the Actical (DAY 1)
N	Value	Description
89322	Range	03/04/2008 - 06/30/2011

CLINICDAY		Actical_date is the same as on_date (1=Yes, 0=No)
N	Value	Description
40001	0	Otherwise
49321	1	Actical_date is equal to on_date

HCHS/SOL Code Book for Baseline Visit (INV version 4), Chapter 1 Section A

Section A: PA_CNTS dataset (counts per minute at the day level)

DAY_OF_WK		Day of the week (1=Sunday,2=Monday, .,7=Saturday)
N	Value	Description
14177	1	Sunday
13442	2	Monday
12481	3	Tuesday
12323	4	Wednesday
12641	5	Thursday
12375	6	Friday
11883	7	Saturday

WEEKDAY		Week day indicator (1=Monday to Friday,0=Saturday or Sunday)
N	Value	Description
26060	0	Saturday or Sunday
63262	1	Monday to Friday

CNTS_MIN		Average counts per minute
N	Value	Description
86381	Range	0.8125 - 8522.1578947 (median=122.19798658 mean=165.323445955 std=184.497067678)
2941		Missing

TOTHR		Total hours monitor was worn per day
N	Value	Description
89322	Range	0 - 24 (median=14.366666667 mean=13.4833324004 std=6.3004553100)

ADHERENT		Actical was worn >= 10 hours (1= Yes, 0=No)
N	Value	Description
20392	0	No
68930	1	Yes

TOTSED		Total minutes/day of sedentary activity (<100 counts/min)
N	Value	Description
89322	Range	0 - 1440 (median=618 mean=599.5 std=307.1)

TOTLIGHT		Total minutes/day of light activity (100-1534 counts/min)
N	Value	Description
89322	Range	0 - 1405 (median=177 mean=190.0 std=132.1)

HCHS/SOL Code Book for Baseline Visit (INV version 4), Chapter 1 Section A

Section A: PA_CNTS dataset (counts per minute at the day level)

<i>TOTMOD</i>		<i>Total minutes/day of moderate activity (1535-3961 counts/min)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
89322	Range	0 - 918 (median=7 mean=16.9 std=26.6)

<i>TOTVIG</i>		<i>Total minutes/day of vigorous activity (>=3962 counts/minute)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
89322	Range	0 - 537 (median=0 mean=2.6 std=13.6)

<i>TOTMV</i>		<i>Total minutes/day of moderate or vigorous activity (>=1535 counts/min)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
89322	Range	0 - 918 (median=7 mean=19.5 std=34.9)

<i>TOTMOD_BOUT</i>		<i>Total minutes/day of moderate activity (1535-3961 counts/min) in bouts</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
89322	Range	0 - 963 (median=0 mean=5.5 std=16.8)

<i>TOTVIG_BOUT</i>		<i>Total minutes/day of vigorous activity (>=3962 counts/minute) in bouts</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
89322	Range	0 - 427 (median=0 mean=1.2 std=8.6)

<i>TOTMV_BOUT</i>		<i>Total minutes/day of moderate or vigorous activity (>=1535 counts/min) in bouts</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
89322	Range	0 - 963 (median=0 mean=8.4 std=25.5)

<i>N_WEAR_DAYS</i>		<i>Count for number of wear days</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
7	1	1 day
14	2	2 days
24	3	3 days
32	4	4 days
265	5	5 days
88980	6	6 days

HCHS/SOL Code Book for Baseline Visit (INV version 4), Chapter 1 Section A

Section A: PA_CNTS dataset (counts per minute at the day level)

N_ADH_DAYS		Count for number of adherent days (≥ 10 hrs)
N	Value	Description
3835	0	0 days
3864	1	1 day
5181	2	2 days
7212	3	3 days
10266	4	4 days
17402	5	5 days
41562	6	6 days

HCHS/SOL Code Book for Baseline Visit (INV version 4), Chapter 1 Section B

Section B: PA_DERV dataset (Actical derived variables at the participant level)

Physical Activity Derived Variable Data (PA_DERV)

<i>WEIGHT_PA_IPW_O VERALL</i>		<i>Combined sampling and IPW weights to account for missing actical data and non-adherence</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
16415	Range	0.0898564603 - 217.04220253 (median=0.909774766 mean=1.4263329171 std=2.6649393245)

<i>ACTICALYN</i>		<i>Actical data available</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1502	0	No actical data available
14913	1	Actical data available

<i>ACTICALID</i>		<i>Actical device identification number</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
14913	Present	Variable/Text Values Suppressed
1502		Missing

<i>ACTICAL_DATE</i>		<i>Initialization date (first day that Actical starts recording cnts/min)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
14913	Range	03/05/2008 - 06/30/2011
1502		Missing

<i>ON_DATE</i>		<i>Date participant starts wearing the Actical (DAY 1)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
14913	Range	03/04/2008 - 06/30/2011
1502		Missing

<i>CLINICDAY</i>		<i>Actical initialized to start recording counts on clinic date(1=Yes,0=No)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
6678	0	Otherwise
8235	1	Actical_date is equal to on_date
1502		Missing

<i>ADHERENTYN</i>		<i>Participant has at least 3 adherent (>=10 hrs) days</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
3665	0	No
12750	1	Yes

HCHS/SOL Code Book for Baseline Visit (INV version 4), Chapter 1 Section B

Section B: PA_DERV dataset (Actical derived variables at the participant level)

<i>WKENDDAY_INCLU DED</i>		<i>Summarized activity includes at least one adherent weekend day (1=yes, 0=no)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
3585	0	No
11328	1	Yes
1502		Missing

<i>N_WEAR_DAYS</i>		<i>Count for number of wear days</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
7	1	1 day
7	2	2 days
8	3	3 days
8	4	4 days
53	5	5 days
14830	6	6 days
1502		Missing

<i>N_ADH_DAYS</i>		<i>Count for number of adherent (>=10hrs) days</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
652	0	0 days
646	1	1 day
865	2	2 days
1205	3	3 days
1713	4	4 days
2905	5	5 days
6927	6	6 days
1502		Missing

<i>N_ADH_WKENDDAY S</i>		<i>Count for number of adherent weekend days</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
3153	0	0 days
4994	1	1 day
6766	2	2 days
1502		Missing

HCHS/SOL Code Book for Baseline Visit (INV version 4), Chapter 1 Section B

Section B: PA_DERV dataset (Actical derived variables at the participant level)

<i>N_ADH_WKDAY</i>		<i>Count for number of adherent week days</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
824	0	0 days
926	1	1 day
1456	2	2 days
2468	3	3 days
7033	4	4 days
2206	5	5 days
1502		Missing

<i>HRS_DAY</i>		<i>hrs/day (average) monitor was worn</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12750	Range	10.227777778 - 23.356666667 (median=15.513888889 mean=16.1065794771 std=3.0097772270)
3665		Missing

<i>CNTS_MIN_DAY</i>		<i>cnts/min (average) per day monitor was worn</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12750	Range	4.0624164986 - 3273.9024292 (median=139.95662185 mean=171.207011418 std=142.708377485)
3665		Missing

<i>SED_DAY</i>		<i>min/day (average) of sedentary activity (<100 counts/min)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12750	Range	17.166666667 - 1357.8333333 (median=693.66666667 mean=713.985925490 std=180.954961653)
3665		Missing

<i>LIGHT_DAY</i>		<i>min/day (average) of light activity (100-1534 counts/min)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12750	Range	4 - 1325.6666667 (median=214.16666667 mean=229.015631373 std=100.909264411)
3665		Missing

<i>MOD_DAY</i>		<i>min/day (average) of moderate activity (1535-3961 counts/min)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12750	Range	0 - 643.5 (median=14 mean=20.3 std=22.8)
3665		Missing

HCHS/SOL Code Book for Baseline Visit (INV version 4), Chapter 1 Section B

Section B: PA_DERV dataset (Actical derived variables at the participant level)

VIG_DAY		<i>min/day (average) of vigorous activity (>=3962 cnts/min)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12750	Range	0 - 304.16666667 (median=0.166666667 mean=3.14319869281 std=12.54804336836)
3665		Missing

MV_DAY		<i>min/day (average) of moderate or vigorous activity (>=1535 counts/min)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12750	Range	0 - 643.5 (median=14.833333333 mean=23.3932117647 std=31.3365206100)
3665		Missing

MOD_WEEK		<i>min/week (average) of moderate activity (1535-3961 counts/min)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12750	Range	0 - 4504.5 (median=98 mean=141.8 std=159.4)
3665		Missing

VIG_WEEK		<i>min/week (average) of vigorous activity (>=3962 counts/minute)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12750	Range	0 - 2129.16666667 (median=1.1666666667 mean=22.00239084967 std=87.83630357853)
3665		Missing

MV_WEEK		<i>min/week (average) of moderate or vigorous activity (>=1535 counts/min)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12750	Range	0 - 5343.33333333 (median=107.333333333 mean=185.754873203 std=293.702402997)
3665		Missing

MOD_DAY_BOUT		<i>min/day (average) of moderate activity (1535-3961 counts/min) in BOUTS</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12750	Range	0 - 573.16666667 (median=1.6666666667 mean=6.56101045752 std=13.08759017597)
3665		Missing

VIG_DAY_BOUT		<i>min/day (average) of vigorous activity (>=3962 counts/minute) in BOUTS</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12750	Range	0 - 200.25 (median=0 mean=1.4 std=7.0)
3665		Missing

HCHS/SOL Code Book for Baseline Visit (INV version 4), Chapter 1 Section B

Section B: PA_DERV dataset (Actical derived variables at the participant level)

<i>MV_DAY_BOUT</i>		<i>min/day (average) of moderate or vigorous activity in BOUTS</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12750	Range	0 - 573.16666667 (median=2.5 mean=10.00 std=21.45)
3665		Missing

<i>MOD_WEEK_BOUT</i>		<i>min/week (average) of moderate activity (1535-3961 counts/min) in BOUTS</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12750	Range	0 - 4012.16666667 (median=11.666666667 mean=45.9270732026 std=91.6131312318)
3665		Missing

<i>VIG_WEEK_BOUT</i>		<i>min/week (average) of vigorous activity (>=3962 counts/minute) in BOUTS</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12750	Range	0 - 1401.75 (median=0 mean=9.6 std=49.3)
3665		Missing

<i>MV_WEEK_BOUT</i>		<i>min/week (average) of moderate or vigorous activity (>=1535 counts/min) in BOUTS</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12750	Range	0 - 4012.16666667 (median=14 mean=65.2 std=146.1)
3665		Missing

<i>PAG2008</i>		<i>Activity level per 2008 PA guidelines (categorical - 4 levels)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
252	1	Inactive
7528	2	Low
2827	3	Medium
2143	4	High
3665		Missing

<i>PAG2008YN</i>		<i>Meets 2008 activity level guidelines (1=Yes, 0=No)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
7780	0	No
4970	1	Yes
3665		Missing

HCHS/SOL Code Book for Baseline Visit (INV version 4), Chapter 1 Section B

Section B: PA_DERV dataset (Actical derived variables at the participant level)

<i>PAG2008_BOUT</i>		<i>Activity level per 2008 PA guidelines from bouts only (categorical - 4 levels)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
5765	1	Inactive
5397	2	Low
1037	3	Medium
551	4	High
3665		Missing

<i>PAG2008YN_BOUT</i>		<i>Meets 2008 activity level guidelines from bouts only (1=Yes, 0=No)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
11162	0	No
1588	1	Yes
3665		Missing