

Details Regarding Oximetry Data Collection in SOF

Oximetry data at Visit 9 was only gathered for those women who were part of the Sleep and Cognition substudy (V9SLPCOG variable).

Overnight data was collected in the participant's home using the Masimo SET[®] Rad-8 pulse oximeter, with the Masimo LNCS Neo fingertip sensor (Masimo Corporation, Irvine, CA). The Masimo SET[®] Rad-8 pulse oximeter is a continuous and non-invasive method of measuring the level of arterial oxygen saturation in blood. The measurement was taken by placing the sensor on the participant's fingertip (usually the 4th digit of non-dominant hand). The sensor is connected to the pulse oximetry instrument with a patient cable.

Clinic staff responsible for collecting oximetry data were required to undergo formal, centralized training and pass a certification test prior to data collection. The finger sensor was placed on the participant during a 3-minute baseline recording at the home or clinic visit. This baseline collection was used to verify correct sensor placement and resting baseline values. The sensor remained on the participant until the next morning. There were two oximetry data collection periods. The first was the short daytime 3-minute "baseline" collection period, performed with the Rad-8 in the standard (STD) collection mode. The second was the nighttime collection period, where the Rad-8 was set to the sleep (SLP) mode so alarms would not disturb sleep. The participant connected the Rad-8 to a power source in the bedroom, and then connected the sensor to the oximeter before bedtime.

After the oximetry data was collected it was downloaded at the clinic site using PROFOX Oximetry Software (PROFOX Associates, Inc., Escondido, CA). The files were transferred to the Case Western Reserve University Reading Center (Cleveland, OH) for centralized processing.

The PROFOX software was used at the Reading Center to remove and edit artifact and set appropriate start and end times for the overnight data. After editing, a summary report providing statistical detail was generated which included number of desaturation events at 3% and 4%, heart rate information, and time spent with SpO₂ below certain levels (<90%, <85%, <80%, 80-90%, <70%, <60%). The summary report was also saved in ASCII format which was used to merge with actigraphy data.

Wrist actigraphy data was used to differentiate sleep from wake, and was collected concurrently with the oximetry data. Actigraphy data was collected using the SleepWatch-O[®], (Ambulatory Monitoring, Inc, Ardsley, NY) in proportional integration mode (PIM). The UCSD sleep scoring algorithm was applied to this data to estimate sleep/wake activity (ref: Jean-Louis G, Kripke DF, Mason WJ, Elliot JA, Youngstedt SD. Sleep estimation from wrist movement quantified by different actigraphic modalities. Journal of Neuroscience methods

2001;105:185-191.). The oximeter and actigraph were manually synchronized before the start of the recording. The actigraphy and oximetry data were combined to determine which timepoints in the oximeter files should be considered sleep or wake. Summary variables regarding SpO2 levels, desaturation events and heart rate were recalculated for the subset of the oximetry file designated as sleep time.

DATASET

This dataset includes data for the maximum, minimum, average, and standard deviation of heart rate and oxygen saturation. These variables are summarized for the 3-minute baseline, the overnight data, the overnight data subset to sleep time, and the overnight data subset to wake time. There are also variables for duration, valid data, and desaturation indexes. Variables for average, maximum, minimum, and standard deviation of heart rate during the time when the SpO2 levels are below a certain cutpoint (<90%, <85%, <80%, 80-90%, <70%, <60%) were calculated for the overnight data subset to sleep time. These summaries for the overnight data subset to when the participant was awake were not included because so few participants had any time when they were awake that was below these SpO2 levels. Similarly, these summaries over the entire overnight period are not included because they are so similar to the variables subset to sleep time.

The flag variable VX3MINST indicates pass/fail status of the 3-minute baseline file as assessed by the Reading Center.

Two special missing value codes are found in the dataset:

- .A Information missing for unknown reason
- .M Information missing because the answer of leading question is invalid or missing

For example, variables that are specific to sleep and wake could not be calculated for those participants who did not have concurrent actigraphy and oximetry data, and are set to .M. These participants are those without actigraphy data (VXACTYN variable=0) or those who have actigraphy data but the collection time does not overlap with oximetry (VXOAMTCH=0).

Variables specific to certain cutpoints (eg. Maximum heart rate with SpO2 during sleep<60%) are set to .A if concurrent actigraphy data are not available, and are set to .M if there was no time during sleep with SpO2 below that cutpoint (duration =0).

Some participants who report oximetry data collection on the oximetry checklist form do not have data, which could be due to a malfunction, etc. Information on those given the oximeter can be found in the variable VXOXIM, and the reason for having unusable oximetry data can be found in the variable VXOXRSN in the Visit9 and Visit9AA datasets.

SOF Oximetry Data Dictionary

Variable	Variable Category	Label	DESCRIPTION
VXUNITID	General	MASIMO UNIT ID	Masimo unit ID
VXOXDT	General	DAYS VX DT TO START OXI RECORDING	Days from VX clinic visit date to the oximetry recording date
VX3MINST	General	STATUS OF 3 MIN BASELINE FILE	Pass Fail Status of the 3-minute baseline file as assessed by Reading Center.
VXOXSIT	General	PPT SITTING AT REST FOR 3-MIN BASELINE	Information from 3min baseline oximetry form data. Was the participant sitting at rest during the 3-minute baseline hook-up?
VXOXPULS	General	MANUAL PULSE READING 3MIN BASELINE(BPM)	Information from 3min baseline oximetry form data. The manual pulse reading from the 3-minute baseline hook-up, beats per minute.
VXACTYN	General	ACTIGRAPHY ON FILE?	Actigraphy file received at the Reading Center for processing.
VXOXACT	General	OXIMETR SYNCHRONIZED W ACTIGRPH COMPUTER	Information from 3min baseline oximetry form data. Was oximeter unit and actigrpah synchronized to the same time?
VXOAMTCH	General	DUR OF CONCURRENT OX&ACT COLLECT(MIN)	Actigraphy file received at the Reading Center for processing.
VXDURO	Duration	DURATION OF RECORDING OVERNIGHT (MIN)	Total duration of Oximetry collection (overnight)
VXDURVO	Duration	DUR. OF VALID RECORDING(OVERNIGHT,MIN)	Duration of Oximetry collection (overnight) that contained valid (non-artifact) values (minutes).
VXPVDO	Duration	% OF RECORDING VALID DATA (OVERNIGHT)	Percent of Oximetry collection for the overnight recording that contained valid (non-artifact) values.
VXDURS	Duration	DURATION OF RECORDING(SLEEP,MIN)	Total duration of Oximetry collection that was scored as sleep in actigraphy (minutes). Will be missing if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0).
VXDURVS	Duration	DURATION OF VALID RECORDING(SLEEP,MIN)	Total duration of Oximetry collection that was scored as sleep in actigraphy (minutes). Will be missing if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0).
VXPVDS	Duration	% OF RECORDING VALID DATA (SLEEP)	Percent of Oximetry collection that was scored as sleep in actigraphy that contained valid (non-artifact) values. Will be missing if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0).
VXDURW	Duration	DURATION OF RECORDING(WAKE,MIN)	Total duration of Oximetry collection that was scored as wake in actigraphy (minutes). Will be missing if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0).
VXDURVW	Duration	DURATION OF VALID RECORDING(WAKE,MIN)	Duration of Oximetry collection that was scored as wake in actigraphy that contained valid (non-artifact) values (minutes). Will be missing if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0).
VXPVDW	Duration	% OF RECORDING VALID DATA (WAKE)	Percent of Oximetry collection that was scored as wake in actigraphy that contained valid (non-artifact) values. Will be missing if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0).

Variable	Variable Category	Label	DESCRIPTION
VXAO2V3	Oxygen Saturation	AVG. VALID O2 SATURA.(3-MIN BASELINE, %)	Average O2 Saturation over all valid collection time (3-minute baseline). One value per two-second epoch over the collection period; this is the mean of all valid (non-artifact) values. Will be missing if the 3-minute file was failed (VXEMINST= 2 OR 3).
VXAO2VO	Oxygen Saturation	AVG. VALID O2 SATURATION (OVERNIGHT, %)	Average O2 Saturation over all valid collection time (overnight). One value per two-second epoch over the collection period; this is the mean of all valid (non-artifact) values.
VXAO2VS	Oxygen Saturation	AVG. VALID O2 SATURATION (SLEEP, %)	Average O2 Saturation over all valid collection time that was scored as sleep in actigraphy. One value per two-second epoch over the collection period; this is the mean of all valid (non-artifact) values. Will be missing if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0).
VXAO2VW	Oxygen Saturation	AVG.VALID O2 SATURATION(WAKE, %)	Average O2 Saturation over all valid collection time that was scored as wake in actigraphy. One value per two-second epoch over the collection period; this is the mean of all valid (non-artifact) values. Will be missing if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0).
VXIO2V3	Oxygen Saturation	MIN. VALID O2 SATURA.(3-MIN BASELINE, %)	Minimum O2 Saturation over all valid collection time (3-minute baseline). One value per two-second epoch over the collection period; this is the minimum of all valid (non-artifact) values. Will be missing if the 3-minute file was failed (VXEMINST= 2 OR 3).
VXIO2VO	Oxygen Saturation	MIN. VALID O2 SATURATION (OVERNIGHT, %)	Minimum O2 Saturation over all valid collection time (overnight). One value per two-second epoch over the collection period; this is the minimum of all valid (non-artifact) values.
VXIO2VS	Oxygen Saturation	MIN. VALID O2 SATURATION (SLEEP, %)	Minimum O2 Saturation over all valid collection time that was scored as sleep in actigraphy. One value per two-second epoch over the collection period; this is the minimum of all valid (non-artifact) values. Will be missing if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0).
VXIO2VW	Oxygen Saturation	MIN.VALID O2 SATURATION(WAKE, %)	Minimum O2 Saturation over all valid collection time that was scored as wake in actigraphy. One value per two-second epoch over the collection period; this is the minimum of all valid (non-artifact) values. Will be missing if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0).
VXXO2V3	Oxygen Saturation	MAX. VALID O2 SATURA.(3-MIN BASELINE, %)	Maximum O2 Saturation over all valid collection time (3-minute baseline). One value per two-second epoch over the collection period; this is the maximum of all valid (non-artifact) values. Will be missing if the 3-minute file was failed (VXEMINST= 2 OR 3).
VXXO2VO	Oxygen Saturation	MAX. VALID O2 SATURATION (OVERNIGHT, %)	Maximum O2 Saturation over all valid collection time (overnight). One value per two-second epoch over the collection period; this is the maximum of all valid (non-artifact) values.

Variable	Variable Category	Label	DESCRIPTION
VXXO2VS	Oxygen Saturation	MAX. VALID O2 SATURATION (SLEEP, %)	Maximum O2 Saturation over all valid collection time that was scored as sleep in actigraphy. One value per two-second epoch over the collection period; this is the maximum of all valid (non-artifact) values. Will be missing if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0).
VXXO2VW	Oxygen Saturation	MAX. VALID O2 SATURATION(WAKE, %)	Maximum O2 Saturation over all valid collection time that was scored as wake in actigraphy. One value per two-second epoch over the collection period; this is the maximum of all valid (non-artifact) values. Will be missing if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0).
VXSDO2V3	Oxygen Saturation	SD OF VALID O2 SATURA.(3-MIN BASE, %)	Standard Deviation O2 Saturation over all valid collection time (3-minute baseline). One value per two-second epoch over the collection period; this is the standard deviation of all valid (non-artifact) values. Will be missing if the 3-minute file was failed (VXEMINST= 2 OR 3).
VXSDO2VO	Oxygen Saturation	SD OF VALID O2 SATURA.(OVERNIGHT, %)	Standard Deviation O2 Saturation over all valid collection time (overnight). One value per two-second epoch over the collection period; this is the standard deviation of all valid (non-artifact) values.
VXSDO2VS	Oxygen Saturation	SD OF VALID O2 SATURA.(SLEEP, %)	Standard Deviation O2 Saturation over all valid collection time that was scored as sleep in actigraphy. One value per two-second epoch over the collection period; this is the standard deviation of all valid (non-artifact) values. Will be missing if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0).
VXSDO2VW	Oxygen Saturation	SD OF VALID O2 SATURA.(WAKE, %)	Standard Deviation O2 Saturation over all valid collection time that was scored as wake in actigraphy. One value per two-second epoch over the collection period; this is the standard deviation of all valid (non-artifact) values. Will be missing if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0).
VXSLP60S	Oxygen Saturation	DURATION WITH SPO2<60%(SLEEP,MIN)	Duration of Oximetry collection that was scored as sleep in actigraphy that contained valid (non-artifact) values which were < 60% (minutes). Will be missing if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0).
VXSLP70S	Oxygen Saturation	DURATION WITH SPO2<70%(SLEEP,MIN)	Duration of Oximetry collection that was scored as sleep in actigraphy that contained valid (non-artifact) values which were < 70% (minutes). Will be missing if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0).
VXSLP80S	Oxygen Saturation	DURATION WITH SPO2<80%(SLEEP,MIN)	Duration of Oximetry collection that was scored as sleep in actigraphy that contained valid (non-artifact) values which were < 80% (minutes). Will be missing if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0).

Variable	Variable Category	Label	DESCRIPTION
VXSLP85S	Oxygen Saturation	DURATION WITH SPO2<85%(SLEEP,MIN)	Duration of Oximetry collection that was scored as sleep in actigraphy that contained valid (non-artifact) values which were < 85% (minutes). Will be missing if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0).
VXSLP89S	Oxygen Saturation	DURATION WITH 80<SPO2<90%(SLEEP,MIN)	Duration of Oximetry collection that was scored as sleep in actigraphy that contained valid (non-artifact) values which were between 80-90% (minutes). Will be missing if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0).
VXSLP90S	Oxygen Saturation	DURATION WITH SPO2<90%(SLEEP,MIN)	Duration of Oximetry collection that was scored as sleep in actigraphy that contained valid (non-artifact) values which were < 90% (minutes). Will be missing if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0).
VXPVD60S	Oxygen Saturation	% OF VALID DATA W/SPO2<60%(SLEEP)	Percent of valid (non-artifact) Oximetry collection that was scored as sleep in actigraphy that contained values which were < 60%. Will be missing if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0).
VXPVD70S	Oxygen Saturation	% OF VALID DATA W/SPO2<70%(SLEEP)	Percent of valid (non-artifact) Oximetry collection that was scored as sleep in actigraphy that contained values which were < 70%. Will be missing if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0).
VXPVD80S	Oxygen Saturation	% OF VALID DATA W/SPO2<80%(SLEEP)	Percent of valid (non-artifact) Oximetry collection that was scored as sleep in actigraphy that contained values which were < 80%. Will be missing if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0).
VXPVD85S	Oxygen Saturation	% OF VALID DATA W/SPO2<85%(SLEEP)	Percent of valid (non-artifact) Oximetry collection that was scored as sleep in actigraphy that contained values which were < 85%. Will be missing if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0).
VXPVD89S	Oxygen Saturation	% OF VALID DATA W/80<SPO2<90%(SLEEP)	Percent of valid (non-artifact) Oximetry collection that was scored as sleep in actigraphy that contained values which were between 80-90%. Will be missing if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0).
VXPVD90S	Oxygen Saturation	% OF VALID DATA W/SPO2<90%(SLEEP)	Percent of valid (non-artifact) Oximetry collection that was scored as sleep in actigraphy that contained values which were < 90%. Will be missing if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0).

Variable	Variable Category	Label	DESCRIPTION
VXDES3HO	Desaturation	EVENT INDEX:#DESAT>=3%/HR(OVERNIGHT)	Number of desaturations of at least 3% per hour of valid data. Desaturation events are identified when the saturation decreases by 3% or more from a local maximum within a two-minute interval. The event terminates when the saturation rises by 3% above the nadir during the event. Events longer than 3 minutes in duration or containing more than 8 seconds of artifact are excluded. Remaining events are counted, and the number of events divided by the hours of valid (non-artifact) data to produce the desaturation index.
VXDES3HS	Desaturation	EVENT INDEX:#DESAT>=3%/HR(VVALID SLEEP)	Number of desaturations of at least 3% per hour of valid data that was scored as sleep in actigraphy. Desaturation events are identified when the saturation decreases by 3% or more from a local maximum within a two-minute interval. The event terminates when the saturation rises by 3% above the nadir during the event. Events longer than 3 minutes in duration or containing more than 8 seconds of artifact are excluded. Remaining events are counted, and the number of events divided by the hours of valid (non-artifact) data to produce the desaturation index. Will be missing if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0).
VXDES3O	Desaturation	CALCULATED #DESATS>=3%(OVERNIGHT)	Number of desaturations of at least 3%. Desaturation events are identified when the saturation decreases by 3% or more from a local maximum within a two-minute interval. The event terminates when the saturation rises by 3% above the nadir during the event. Events longer than 3 minutes in duration or containing more than 8 seconds of artifact are excluded. Remaining events are counted to produce the number of desaturation events.
VXDES3S	Desaturation	CALCULATED#DESATS>=3%(VALID SLEEP)	Number of desaturations of at least 3% during valid collection time that was scored as sleep in actigraphy. Desaturation events are identified when the saturation decreases by 3% or more from a local maximum within a two-minute interval. The event terminates when the saturation rises by 3% above the nadir during the event. Events longer than 3 minutes in duration or containing more than 8 seconds of artifact are excluded. Remaining events are counted to produce the number of desaturation events. Will be missing if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0).
VXDES4HO	Desaturation	EVENT INDEX:#DESAT>=4%/HR(OVERNIGHT)	Number of desaturations of at least 4% per hour of valid data. Desaturation events are identified when the saturation decreases by 4% or more from a local maximum within a two-minute interval. The event terminates when the saturation rises by 4% above the nadir during the event. Events longer than 3 minutes in duration or containing more than 8 seconds of artifact are excluded. Remaining events are counted, and the number of events divided by the hours of valid (non-artifact) data to produce the desaturation index.

Variable	Variable Category	Label	DESCRIPTION
VXDES4HS	Desaturation	EVENT INDEX:#DESAT>=4%/HR(VALID SLEEP)	Number of desaturations of at least 4% per hour of valid data that was scored as sleep in actigraphy. Desaturation events are identified when the saturation decreases by 4% or more from a local maximum within a two-minute interval. The event terminates when the saturation rises by 4% above the nadir during the event. Events longer than 3 minutes in duration or containing more than 8 seconds of artifact are excluded. Remaining events are counted, and the number of events divided by the hours of valid (non-artifact) data to produce the desaturation index. Will be missing if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0).
VXDES4O	Desaturation	CALCULATED #DESATS>=4%(OVERNIGHT)	Number of desaturations of at least 4%. Desaturation events are identified when the saturation decreases by 4% or more from a local maximum within a two-minute interval. The event terminates when the saturation rises by 4% above the nadir during the event. Events longer than 3 minutes in duration or containing more than 8 seconds of artifact are excluded. Remaining events are counted to produce the number of desaturation events.
VXDES4S	Desaturation	CALCULATED#DESATS>=4%(VALID SLEEP)	Number of desaturations of at least 4% during valid collection time that was scored as sleep in actigraphy. Desaturation events are identified when the saturation decreases by 4% or more from a local maximum within a two-minute interval. The event terminates when the saturation rises by 4% above the nadir during the event. Events longer than 3 minutes in duration or containing more than 8 seconds of artifact are excluded. Remaining events are counted to produce the number of desaturation events. Will be missing if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0).
VXAHRV3	Heart Rate	AVG. VALID HEART RATE (3-MIN BASELINE, BPM)	Average Heart Rate over all valid collection time (3-minute baseline). One value per two-second epoch over the collection period; this is the mean of all valid (non-artifact) values. Will be missing if the 3-minute file was failed (VX3MINST= 2 or 3).
VXAHRVO	Heart Rate	AVG. VALID HEART RATE (OVERNIGHT, BPM)	Average Heart Rate over all valid collection time (overnight). One value per two-second epoch over the collection period; this is the mean of all valid (non-artifact) values.
VXAHRVS	Heart Rate	AVG. VALID HEART RATE (SLEEP, BPM)	Average Heart Rate over all valid collection time that was scored as sleep in actigraphy. One value per two-second epoch over the collection period; this is the mean of all valid (non-artifact) values. Will be missing if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0).
VXAHRVW	Heart Rate	AVG. VALID HEART RATE (WAKE, BPM)	Average Heart Rate over all valid collection time that was scored as wake in actigraphy. One value per two-second epoch over the collection period; this is the mean of all valid (non-artifact) values. Will be missing if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0).

Variable	Variable Category	Label	DESCRIPTION
VXAHR60S	Heart Rate	AVG. HEART RATE W/SPO2<60%(SLEEP, BPM)	Average Heart Rate over all valid collection time that was scored as sleep in actigraphy with O2 Saturation < 60%. One value per two-second epoch over the collection period; this is the mean of all valid (non-artifact) values which were < 60%. Will be missing (.A) if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0). Will be missing (.M) if there was no valid data scored as sleep with O2 Saturation < 60% (VXSLP60S= 0).
VXAHR70S	Heart Rate	AVG. HEART RATE W/SPO2<70%(SLEEP, BPM)	Average Heart Rate over all valid collection time that was scored as sleep in actigraphy with O2 Saturation < 70%. One value per two-second epoch over the collection period; this is the mean of all valid (non-artifact) values which were < 70%. Will be missing (.A) if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0). Will be missing (.M) if there was no valid data scored as sleep with O2 Saturation < 70% (VXSLP70S= 0).
VXAHR80S	Heart Rate	AVG. HEART RATE W/SPO2<80%(SLEEP, BPM)	Average Heart Rate over all valid collection time that was scored as sleep in actigraphy with O2 Saturation < 80%. One value per two-second epoch over the collection period; this is the mean of all valid (non-artifact) values which were < 80%. Will be missing (.A) if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0). Will be missing (.M) if there was no valid data scored as sleep with O2 Saturation < 80% (VXSLP80S= 0).
VXAHR85S	Heart Rate	AVG. HEART RATE W/SPO2<85%(SLEEP, BPM)	Average Heart Rate over all valid collection time that was scored as sleep in actigraphy with O2 Saturation < 85%. One value per two-second epoch over the collection period; this is the mean of all valid (non-artifact) values which were < 85%. Will be missing (.A) if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0). Will be missing (.M) if there was no valid data scored as sleep with O2 Saturation < 85% (VXSLP85S= 0).
VXAHR89S	Heart Rate	AVG. HEART RATE W/80<SPO2<90%(SLEEP, BPM)	Average Heart Rate over all valid collection time that was scored as sleep in actigraphy with 80% < O2 Saturation < 90%. One value per two-second epoch over the collection period; this is the mean of all valid (non-artifact) values which were between 80 and 90%. Will be missing (.A) if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0). Will be missing (.M) if there was no valid data scored as sleep with O2 Saturation between 80 and 90% (VXSLP89S = 0).

Variable	Variable Category	Label	DESCRIPTION
VXAHR90S	Heart Rate	AVG. HEART RATE W/SPO2<90%(SLEEP, BPM)	Average Heart Rate over all valid collection time that was scored as sleep in actigraphy with O2 Saturation < 90%. One value per two-second epoch over the collection period; this is the mean of all valid (non-artifact) values which were < 90%. Will be missing (.A) if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0). Will be missing (.M) if there was no valid data scored as sleep with O2 Saturation < 90% (VXSPL90S = 0).
VXIHRV3	Heart Rate	MIN. VALID HEART RATE (3-MIN BASELINE, BPM)	Minimum Heart Rate over all valid collection time (3-minute baseline). One value per two-second epoch over the collection period; this is the minimum of all valid (non-artifact) values. Will be missing if the 3-minute file was failed (VXEMINST= 2 OR 3).
VXIHRVO	Heart Rate	MIN. VALID HEART RATE (OVERNIGHT, BPM)	Minimum Heart Rate over all valid collection time (overnight). One value per two-second epoch over the collection period; this is the minimum of all valid (non-artifact) values.
VXIHRVS	Heart Rate	MIN. VALID HEART RATE (SLEEP, BPM)	Minimum Heart Rate over all valid collection time that was scored as sleep in actigraphy. One value per two-second epoch over the collection period; this is the minimum of all valid (non-artifact) values. Will be missing if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0).
VXIHRVW	Heart Rate	MIN. VALID HEART RATE (WAKE, BPM)	Minimum Heart Rate over all valid collection time that was scored as wake in actigraphy. One value per two-second epoch over the collection period; this is the minimum of all valid (non-artifact) values. Will be missing if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0).
VXIHR60S	Heart Rate	MIN. HEART RATE W/SPO2<60%(SLEEP, BPM)	Minimum Heart Rate over all valid collection time that was scored as sleep in actigraphy with O2 Saturation < 60%. One value per two-second epoch over the collection period; this is the minimum of all valid (non-artifact) values which were < 60%. Will be missing (.A) if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0). Will be missing (.M) if there was no valid data scored as sleep with O2 Saturation < 60% (VXSPL60S = 0).
VXIHR70S	Heart Rate	MIN. HEART RATE W/SPO2<70%(SLEEP, BPM)	Minimum Heart Rate over all valid collection time that was scored as sleep in actigraphy with O2 Saturation < 70%. One value per two-second epoch over the collection period; this is the minimum of all valid (non-artifact) values which were < 70%. Will be missing (.A) if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0). Will be missing (.M) if there was no valid data scored as sleep with O2 Saturation < 70% (VXSPL70S = 0).

Variable	Variable Category	Label	DESCRIPTION
VXIHR80S	Heart Rate	MIN. HEART RATE W/SPO2<80%(SLEEP, BPM)	Minimum Heart Rate over all valid collection time that was scored as sleep in actigraphy with O2 Saturation < 80%. One value per two-second epoch over the collection period; this is the minimum of all valid (non-artifact) values which were < 80%. Will be missing (.A) if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0). Will be missing (.M) if there was no valid data scored as sleep with O2 Saturation < 80% (VXSLP80S = 0).
VXIHR85S	Heart Rate	MIN. HEART RATE W/SPO2<85%(SLEEP, BPM)	Minimum Heart Rate over all valid collection time that was scored as sleep in actigraphy with O2 Saturation < 85%. One value per two-second epoch over the collection period; this is the minimum of all valid (non-artifact) values which were <85%. Will be missing (.A) if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0). Will be missing (.M) if there was no valid data scored as sleep with O2 Saturation < 85% (VXSLP85S = 0).
VXIHR89S	Heart Rate	MIN. HEART RATE W/80<SPO2<90%(SLEEP, BPM)	Minimum Heart Rate over all valid collection time that was scored as sleep in actigraphy with O2 Saturation between 80-90%. One value per two-second epoch over the collection period; this is the minimum of all valid (non-artifact) values which were between 80-90%. Will be missing (.A) if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0). Will be missing (.M) if there was no valid data scored as sleep with O2 Saturation between 80-90% (VXSLP89S = 0).
VXIHR90S	Heart Rate	MIN. HEART RATE W/SPO2<90%(SLEEP, BPM)	Minimum Heart Rate over all valid collection time that was scored as sleep in actigraphy with O2 Saturation < 90%. One value per two-second epoch over the collection period; this is the minimum of all valid (non-artifact) values which were < 90%. Will be missing (.A) if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0). Will be missing (.M) if there was no valid data scored as sleep with O2 Saturation < 90% (VXSLP90S = 0).
VXXHRV3	Heart Rate	MAX. VALID HEART RATE (3-MIN BASELINE, BPM)	Maximum Heart Rate over all valid collection time (3-minute baseline). One value per two-second epoch over the collection period; this is the maximum of all valid (non-artifact) values. Will be missing if the 3-minute file was failed (VXEMINST= 2 OR 3).
VXXHRVO	Heart Rate	MAX. VALID HEART RATE (OVERNIGHT, BPM)	Maximum Heart Rate over all valid collection time (overnight). One value per two-second epoch over the collection period; this is the maximum of all valid (non-artifact) values.
VXXHRVS	Heart Rate	MAX. VALID HEART RATE (SLEEP, BPM)	Maximum Heart Rate over all valid collection time that was scored as sleep in actigraphy. One value per two-second epoch over the collection period; this is the maximum of all valid (non-artifact) values. Will be missing if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0).

Variable	Variable Category	Label	DESCRIPTION
VXXHRVW	Heart Rate	MAX. VALID HEART RATE (WAKE, BPM)	Maximum Heart Rate over all valid collection time that was scored as wake in actigraphy. One value per two-second epoch over the collection period; this is the maximum of all valid (non-artifact) values. Will be missing if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0).
VXXHR60S	Heart Rate	MAX. HEART RATE W/SPO2<60%(SLEEP, BPM)	Maximum Heart Rate over all valid collection time that was scored as sleep in actigraphy with O2 Saturation < 60%. One value per two-second epoch over the collection period; this is the maximum of all valid (non-artifact) values which were < 60%. Will be missing (.A) if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0). Will be missing (.M) if there was no valid data scored as sleep with O2 Saturation < 60% (VXSLP60S = 0).
VXXHR70S	Heart Rate	MAX. HEART RATE W/SPO2<70%(SLEEP, BPM)	Maximum Heart Rate over all valid collection time that was scored as sleep in actigraphy with O2 Saturation < 70%. One value per two-second epoch over the collection period; this is the maximum of all valid (non-artifact) values which were < 70%. Will be missing (.A) if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0). Will be missing (.M) if there was no valid data scored as sleep with O2 Saturation < 70% (VXSLP70S = 0).
VXXHR80S	Heart Rate	MAX. HEART RATE W/SPO2<80%(SLEEP, BPM)	Maximum Heart Rate over all valid collection time that was scored as sleep in actigraphy with O2 Saturation < 80%. One value per two-second epoch over the collection period; this is the maximum of all valid (non-artifact) values which were < 80%. Will be missing (.A) if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0). Will be missing (.M) if there was no valid data scored as sleep with O2 Saturation < 80% (VXSLP80S = 0).
VXXHR85S	Heart Rate	MAX. HEART RATE W/SPO2<85%(SLEEP, BPM)	Maximum Heart Rate over all valid collection time that was scored as sleep in actigraphy with O2 Saturation < 85%. One value per two-second epoch over the collection period; this is the maximum of all valid (non-artifact) values which were < 85%. Will be missing (.A) if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0). Will be missing (.M) if there was no valid data scored as sleep with O2 Saturation < 85% (VXSLP85S = 0).
VXXHR89S	Heart Rate	MAX. HEART RATE W/80<SPO2<90%(SLEEP, BPM)	Maximum Heart Rate over all valid collection time that was scored as sleep in actigraphy with O2 Saturation between 80-90%. One value per two-second epoch over the collection period; this is the maximum of all valid (non-artifact) values which were between 80-90%. Will be missing (.A) if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0). Will be missing (.M) if there was no valid data scored as sleep with O2 Saturation between 80-90% (VXSLP89S = 0).

Variable	Variable Category	Label	DESCRIPTION
VXXHR90S	Heart Rate	MAX. HEART RATE W/SPO2<90%(SLEEP, BPM)	Maximum Heart Rate over all valid collection time that was scored as sleep in actigraphy with O2 Saturation < 90%. One value per two-second epoch over the collection period; this is the maximum of all valid (non-artifact) values which were < 90%. Will be missing (.A) if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0). Will be missing (.M) if there was no valid data scored as sleep with O2 Saturation < 90% (VXSLP90S = 0).
VXSDHV3	Heart Rate	SD OF VALID HEART RATE(3-MIN BASE, BPM)	Standard Deviation Heart Rate over all valid collection time (3-minute baseline). One value per two-second epoch over the collection period; this is the standard deviation of all valid (non-artifact) values. Will be missing if the 3-minute file was failed (VXEMINST= 2 OR 3).
VXSDHVO	Heart Rate	SD OF VALID HEART RATE(OVERNIGHT, BPM)	Standard Deviation Heart Rate over all valid collection time (overnight). One value per two-second epoch over the collection period; this is the standard deviation of all valid (non-artifact) values.
VXSDHVS	Heart Rate	SD OF VALID HEART RATE(SLEEP, BPM)	Standard Deviation Heart Rate over all valid collection time that was scored as sleep in actigraphy. One value per two-second epoch over the collection period; this is the standard deviation of all valid (non-artifact) values. Will be missing if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0).
VXSDHVV	Heart Rate	SD OF VALID HEART RATE(WAKE, BPM)	Standard Deviation Heart Rate over all valid collection time that was scored as wake in actigraphy. One value per two-second epoch over the collection period; this is the standard deviation of all valid (non-artifact) values. Will be missing if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0).
VXSDH60S	Heart Rate	SD OF HEART RATE W/SPO2<60%(SLEEP, BPM)	Standard Deviation Heart Rate over all valid collection time that was scored as sleep in actigraphy with O2 Saturation < 60%. One value per two-second epoch over the collection period; this is the standard deviation of all valid (non-artifact) values which were < 60%. Will be missing (.A) if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0). Will be missing (.M) if there was no valid data scored as sleep with O2 Saturation < 60% (VXSLP60S = 0) or if there is only one epoch of valid data scored as sleep with SpO2 < 60% (VXSLP60S <= 0.03).

Variable	Variable Category	Label	DESCRIPTION
VXSDH70S	Heart Rate	SD OF HEART RATE W/SPO2<70%(SLEEP, BPM)	Standard Deviation Heart Rate over all valid collection time that was scored as sleep in actigraphy with O2 Saturation < 70%. One value per two-second epoch over the collection period; this is the standard deviation of all valid (non-artifact) values which were < 70%. Will be missing (.A) if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0). Will be missing (.M) if there was no valid data scored as sleep with O2 Saturation < 70% (VXSLP70S = 0) or if there is only one epoch of valid data scored as sleep with SpO2 < 70% (VXSLP70S <= 0.03).
VXSDH80S	Heart Rate	SD OF HEART RATE W/SPO2<80%(SLEEP, BPM)	Standard Deviation Heart Rate over all valid collection time that was scored as sleep in actigraphy with O2 Saturation < 80%. One value per two-second epoch over the collection period; this is the standard deviation of all valid (non-artifact) values which were < 80%. Will be missing (.A) if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0). Will be missing (.M) if there was no valid data scored as sleep with O2 Saturation < 80% (VXSLP80S = 0) or if there is only one epoch of valid data scored as sleep with SpO2 < 80% (VXSLP80S <= 0.03).
VXSDH85S	Heart Rate	SD OF HEART RATE W/SPO2<85%(SLEEP, BPM)	Standard Deviation Heart Rate over all valid collection time that was scored as sleep in actigraphy with O2 Saturation < 85%. One value per two-second epoch over the collection period; this is the standard deviation of all valid (non-artifact) values which were < 85%. Will be missing (.A) if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0). Will be missing (.M) if there was no valid data scored as sleep with O2 Saturation < 85% (VXSLP85S = 0) or if there is only one epoch of valid data scored as sleep with SpO2 < 85% (VXSLP85S <= 0.03).
VXSDH89S	Heart Rate	SD OF HEART RATE W/80<SPO2<90%(SLEEP, BPM)	Standard Deviation Heart Rate over all valid collection time that was scored as sleep in actigraphy with O2 Saturation between 80-90%. One value per two-second epoch over the collection period; this is the standard deviation of all valid (non-artifact) values which were between 80-90%. Will be missing (.A) if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0). Will be missing (.M) if there was no valid data scored as sleep with O2 Saturation between 80-90% (VXSLP89S = 0) or if there is only one epoch of valid data scored as sleep with SpO2 between 80-90% (VXSLP89S <= 0.03).

Variable	Variable Category	Label	DESCRIPTION
VXSDH90S	Heart Rate	SD OF HEART RATE W/SPO2<90%(SLEEP, BPM)	Standard Deviation Heart Rate over all valid collection time that was scored as sleep in actigraphy with O2 Saturation < 90%. One value per two-second epoch over the collection period; this is the standard deviation of all valid (non-artifact) values which were < 90%. Will be missing (.A) if no actigraphy file was received (VXACTYN = 0) or if there was no concurrent actigraphy and oximetry data (VXOAMTCH = 0). Will be missing (.M) if there was no valid data scored as sleep with O2 Saturation < 90% (VXSLP90S = 0) or if there is only one epoch of valid data scored as sleep with SpO2 < 90% (VXSLP90S <= 0.03).



Draft

Oximetry Morning Survey

V9OXIM

V9OXRSN

Office Use Only

SOF ID#

Acrostic

MISSING

Staff ID#

Date of Hook-up: / /
 Month Day Year

1 I connected the sensor to the oximeter cable at: : A.M. P.M.

2 Last night I got in bed at: : am pm I tried to go to sleep at: : am pm

This morning I woke up at: : am pm I got out of bed at: : am pm

3 Last night I slept for hours and minutes

4 Did you awaken and get out of bed during the night? Yes No
 If yes, the times I got out of bed were...

: A.M. P.M. : A.M. P.M. : A.M. P.M.

5 Rate the quality of your sleep last night. Do not compare to usual sleep quality. My sleep last night was (mark a number for each)...

a. Light 1 2 3 4 5 Deep

b. Short 1 2 3 4 5 Long

c. Restless 1 2 3 4 5 Restful

6 Compared to your usual night's sleep, how well did you sleep last night?
 Much worse than usual A little better than usual
 Somewhat worse than usual Much better than usual
 As well as usual



Draft