

Ontology of **time spent in moderate to vigorous physical activity**



CORE MEASURES *of*
PHYSICAL ACTIVITY



Digital Measures Development

Access more resources: [DATAcc's Core Measures of Physical Activity](#)

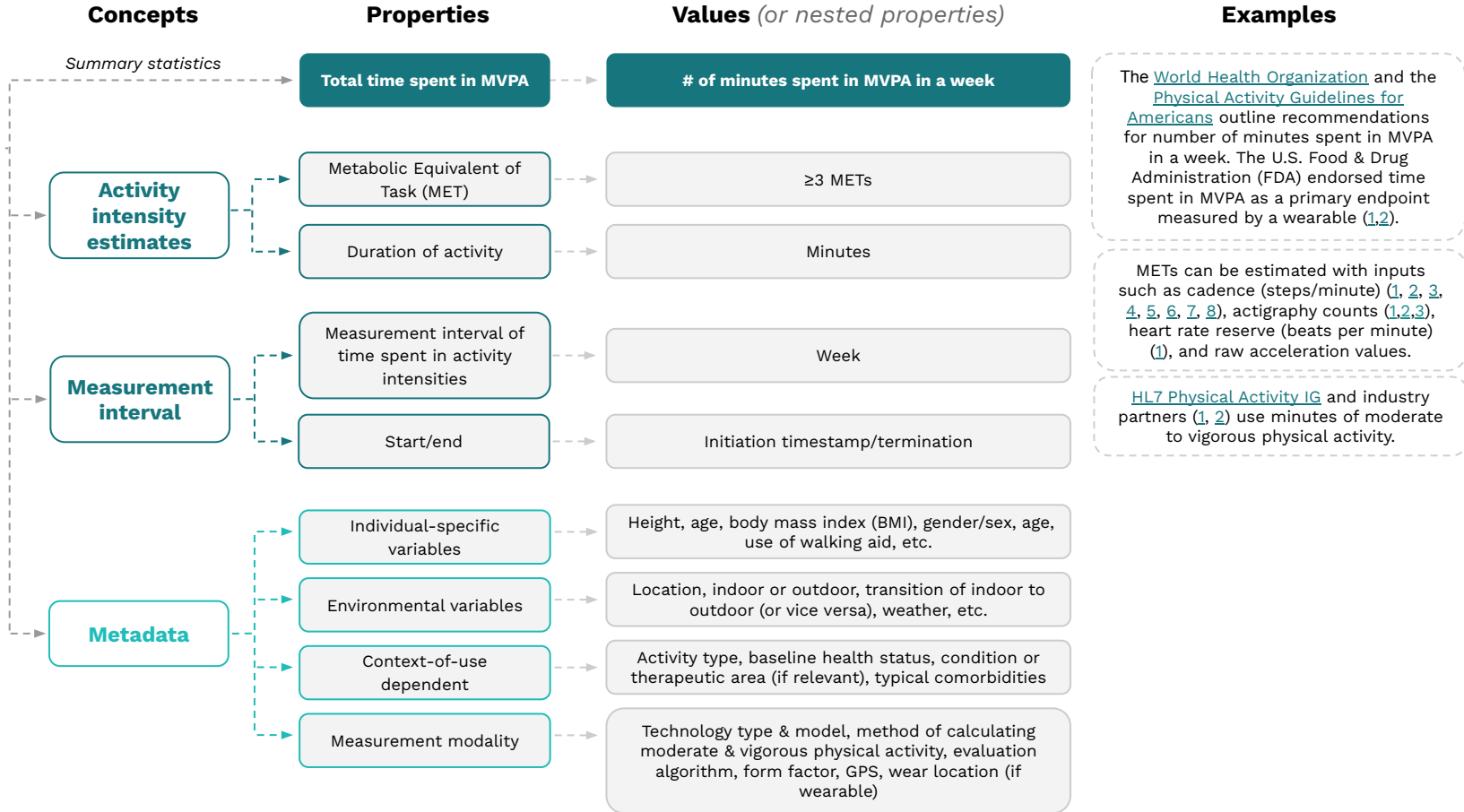
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Time spent in moderate to vigorous physical activity (MVPA)



Definition

The total amount of time spent at an absolute activity level ≥ 3 METs (metabolic equivalent of task), where a single MET is the rate of energy expenditure while sitting at rest (generally corresponds to an oxygen uptake of 3.5mL/kg of body weight per minute).



Time spent in moderate to vigorous physical activity



Measure considerations (assumptions & limitations):

- The metabolic equivalent of a task ([MET](#)) is a physiological measure referring to the energy expenditure required to carry out a specific activity. A single MET is the rate of energy expenditure while sitting at rest, which generally corresponds to an oxygen uptake of 3.5 milliliters per kilogram of body weight per minute. Moderate to vigorous physical activity is defined as an activity level ≥ 3 METs and can be estimated during an exercise test on a treadmill.
- Technology developers should define criteria for labeling a data record as ‘moderate’ or ‘vigorous’ as well as ‘sedentary’ or per breakdown so that all data records can be classified.
- Assumes the epochs for ‘moderate’ and ‘vigorous’ are contiguous.
- Recording activity type can enable more accurate calculation.