

HEALTH AND WELLBEING

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21 RECOMMENDED INDICATORS OF HEALTH AND WELLBEING

21.1 Level of outdoor physical activity

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Level of outdoor physical activity	Health and Wellbeing
Description and justification	<p>The outdoor environment may influence how physically active an individual is by offering suitable spaces for certain types of activities. It may also attract people outdoors because of the experiences it offers. Such outings ordinarily entail some form of physical activity, usually walking (Hartig, Mitchell, de Vries, & Frumkin, 2014). Numerous studies in various countries have shown that access to, and use of, urban green space contributes to increased physical activity, higher rates of recreational walking and reduced sedentary time (Almanza, Jerrett, Dunton, Seto, Pentz, 2012; Schipperijn, Bentsen, Troelsen, Toftager, & Stigsdotter, 2013; Lachowycz and Jones, 2014; Sugiyama et al., 2014; Braubach et al., 2017; Sallis et al., 2016). This has been proven valid for all age categories, including children, working age adults and senior citizens. For example, a comprehensive study conducted by Schipperijn</p>

	<p>et al. (2013) has demonstrated positive associations between urban green space and both physical activity and positive affect.</p> <p>Greater surrounding greenness has been linked to improved physical and mental health in all socioeconomic strata and in both sexes in Spain (Triguero-Mas et al., 2015). As documented under indicator HW 10 (Prevalence, incidence, morbidity of chronic stress), two complementary theoretical perspectives explain the psychological pathways of beneficial effects of nature on health, wellbeing, and mental states, namely Attention Restoration Theory (ART - Kaplan, 1995) and Stress Recovery Theory (SRT - Ulrich et al., 1991). Mental restoration and relaxation from leisure activities (e.g., walks in parks vs. walks in urban settings, gardening) pursued in the nature and green space have been studied as strong evidence of mental health benefits consequent to nature experience (Aspinall, Mavros, Coyne, & Roe, 2013; Bratman et al., 2015; Braubach et al., 2017; Hartig et al., 2014; van den Berg & Custers, 2011).</p>
<p>Definition</p>	<p>Schipperijn et al. (2013) defined:</p> <ul style="list-style-type: none"> *Outdoor Physical activity as self-reported participation in organized or unorganized sport or exercise, outdoors, at least once a week. *Physical activity in urban green space (UGS) as the self-reported participation in sport or exercise taking place in the nearest UGS at least once a week. <p>***UGS can be replaced by NBS, as defined by current project, to apply the same definition to further measurements</p>
<p>Strengths and weaknesses</p>	<ul style="list-style-type: none"> + reliable indicator of physical and mental health, well-being, and life expectancy (Braubach et al., 2017; Frumkin et al., 2017; Klein et al, 2016) + solid empirical evidence as to relationship between physical and mental health, and wellbeing, and physical activity in nature and urban green space (parks, playgrounds, and residential greenery) + robust empirical evidence for the role of physical activity in cardiovascular disease and obesity
<p>Measurement procedure and tool</p>	<p><input checked="" type="checkbox"/> <i>Quantitative P</i>: Scale/Scale inventory/Questionnaire (survey procedure, paper-and-pencil administration, computer-based administration)</p> <ul style="list-style-type: none"> o T: <i>International Physical Activity Questionnaire (IPAQ)</i> (International Physical Activity Questionnaires, n.d.). IPAQ (both long - 27 items, and short form - 7 items) assesses physical activity undertaken across a comprehensive set of domains including: <ul style="list-style-type: none"> • leisure time physical activity

	<ul style="list-style-type: none"> • domestic and gardening (yard) activities • work-related physical activity • transport-related physical activity
<p>Scale of measurement</p>	<ul style="list-style-type: none"> ▪ International Physical Activity Questionnaire (IPAQ – short/7 items) (International Physical Activity Questionnaires, n.d.) <p><i>See website for the International Physical Activity Questionnaire (IPAQ) for information about the use of the questionnaire and links to the questionnaire itself, in multiple languages:</i></p> <p>https://sites.google.com/site/theipaq/questionnaire_links</p> <p>We are interested in finding out about the kinds of physical activities that people do as part of their everyday lives. The questions will ask you about the time you spent being physically active in the last 7 days. Please answer each question even if you do not consider yourself to be an active person. Please think about the activities you do at work, as part of your house and yard work, to get from place to place, and in your spare time for recreation, exercise or sport. Think about all the vigorous activities that you did in the last 7 days. Vigorous physical activities refer to activities that take hard physical effort and make you breathe much harder than normal. Think only about those physical activities that you did for at least 10 minutes at a time.</p> <p>1. During the last 7 days, on how many days did you do vigorous physical activities like heavy lifting, digging, aerobics, or fast bicycling? _____ days per week No vigorous physical activities Skip to question 3</p> <p>2. How much time did you usually spend doing vigorous physical activities on one of those days? _____ hours per day _____ minutes per day Don't know/Not sure Think about all the moderate activities that you did in the last 7 days.</p> <p>Moderate activities refer to activities that take moderate physical effort and make you breathe somewhat harder than normal. Think only about those physical activities that you did for at least 10 minutes at a time.</p> <p>3. During the last 7 days, on how many days did you do moderate physical activities like carrying light loads, bicycling at a regular pace, or doubles tennis? Do not include walking. _____ days per week No moderate physical activities Skip to question 5</p>

	<p>4. How much time did you usually spend doing moderate physical activities on one of those days? _____ hours per day _____ minutes per day Don't know/Not sure Think about the time you spent walking in the last 7 days. This includes at work and at home, walking to travel from place to place, and any other walking that you have done solely for recreation, sport, exercise, or leisure.</p> <p>5. During the last 7 days, on how many days did you walk for at least 10 minutes at a time? _____ days per week No walking Skip to question 7</p> <p>6. How much time did you usually spend walking on one of those days? _____ hours per day _____ minutes per day Don't know/Not sure The last question is about the time you spent sitting on weekdays during the last 7 days. Include time spent at work, at home, while doing course work and during leisure time. This may include time spent sitting at a desk, visiting friends, reading, or sitting or lying down to watch television.</p> <p>7. During the last 7 days, how much time did you spend sitting on a week day? _____ hours per day _____ minutes per day Don't know/Not sure</p>
Data source	
Required data	✓ Essential: NBS characteristics for each city/site, more specifically nature of activities one can get involved into while engaging with nature, opportunities for physical exercise, etc.
Data input type	Quantitative
Data collection frequency	After NBS implementation and aligned with timing relevant to HW12 and synergies with other indicators
Level of expertise required	<input checked="" type="checkbox"/> Methodology and data analysis requires high expertise in psycho-social research <input checked="" type="checkbox"/> Quantitative data collection requires no expertise
Synergies with other indicators	SC7 Geographical access to NBS SC8 Perceived access to NBS HW3 General Wellbeing and Happiness HW4 Life expectancy and healthy life years expectancy HW6 Prevalence, incidence, morbidity, and mortality of cardiovascular diseases HW8 Incidence of obesity/obesity rates (adults and children) HW10 Prevalence, incidence, morbidity of chronic stress HW11 Mental Health Wellbeing: Depression and Anxiety HW13 Improvement of behavioural development and symptoms of attention-deficit/hyperactivity disorder (ADHD) HW14 Exploratory behaviour in children
Connection with SDGs	Goal 3. Ensure healthy lives and promote well-being for all at all ages

	Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable
Opportunities for participatory data collection	-
Additional information	
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