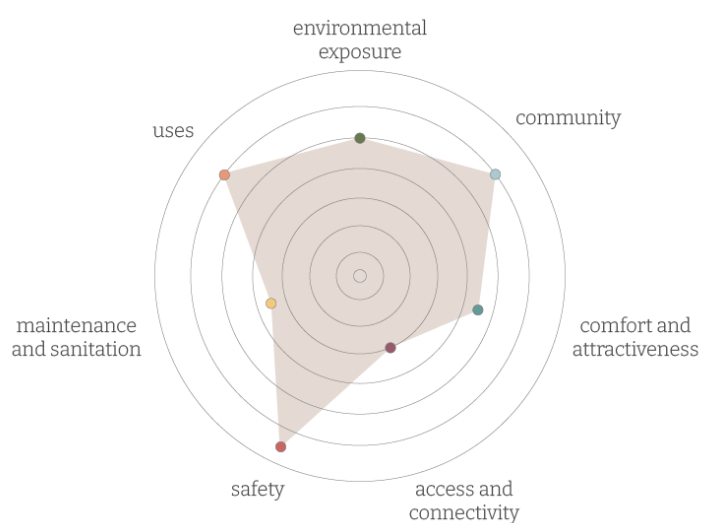


Construction of a methodology for assessing the potential health impact of public space improvement actions

User Guide



A project by:



1. Context

Rapid industrialisation and development in recent centuries have led to major growth in urban areas and populations, which, in some cases, have resulted in significant public health problems. Scientific evidence confirms that people's health does not depend solely on individual factors but goes beyond even the health system itself, since it is conditioned by environmental, economic, cultural and social factors, what we call 'determinants of health'. Based on the World Health Organisation's definition of health, which does not only involve the absence of disease but complete physical, mental and social well-being, it is important that the environment is conducive to achieving said well-being.

The quality and design of the built environment can be a great ally in driving change and improving the health and well-being of the people who live in it, since it can substantially improve their quality of life. Therefore, knowledge of the determinants of health and how the urban environment influences the health of its inhabitants is of vital importance.

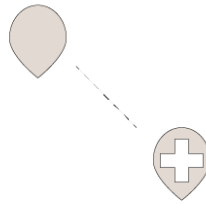
Based on this perspective, the Public Health Service and the Public Space and Facilities Service, part of Barcelona Provincial Council's working group on the Urban Environment and Health, considered it appropriate to develop a methodology to assess impact on health in determining public spaces in medium-sized cities in Catalonia (with the necessary available data) and in other cities in the region.

Using as a reference the Place Standard Tool developed by the Scottish Government and NHS Scotland, used to structure dialogue about spaces, a tool has been developed that, by combining perspectives on health and a scientific approach, supports public space planners in making decisions when assessing spaces (such as squares or parks) for the cities of Catalonia.

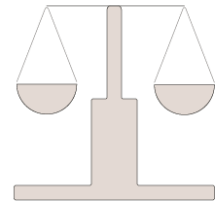
2. Characteristics of the tool



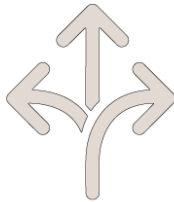
Based on a review of **scientific literature**



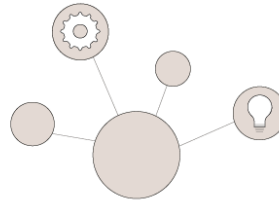
Reflects the **connection** between public spaces and health



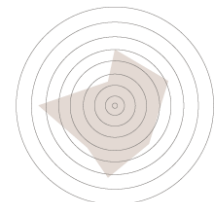
Uses criteria that are as **objective** as possible



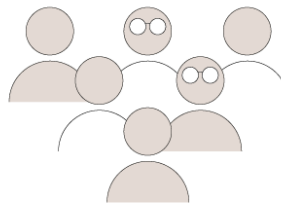
Adapts to different types of public spaces and projects



Includes **criteria and experiences** from different sectors



Allows users to view the results in a way that is **easy to interpret**



Can be **extended as far as the community**

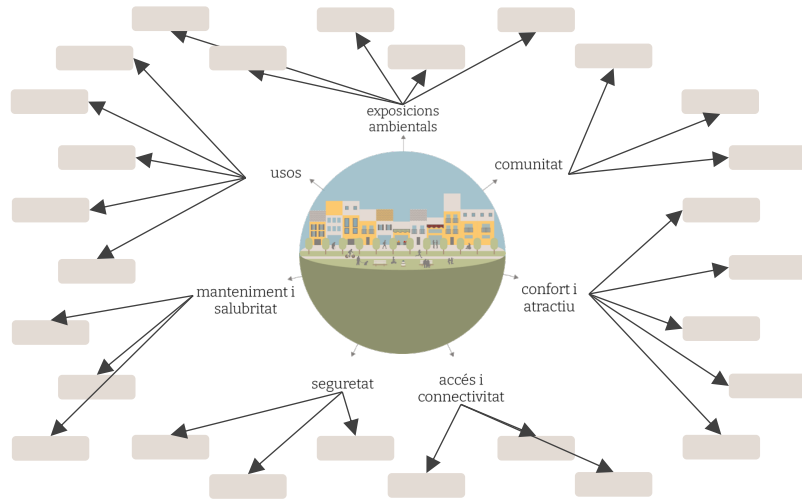
3. How the tool is to be interpreted

In order to determine **which elements of public space (environmental determinants) have an impact on health, scientific literature was reviewed** in a narrative manner to include the most relevant information and to generate an initial conceptual map of all the elements to be included in the project. More than 30 **professionals from different fields** also participated in a workshop organised by Barcelona Provincial Council and ISGlobal. **Various experts** in some of the tool's areas of work were also contacted.

Through this joint work, a consensus could be reached on classifying the **determinants of health** and the **elements associated with urban public space**. The final determinants are the following: environmental exposure, community, comfort and attractiveness, access and connectivity, safety, maintenance and sanitation, and uses.



Based on the determinants that were agreed upon in Phase I, the interpretation of reviewed literature formed the basis for establishing a series of **conditions**, which establish the framework for action for each of the determinants.



- **Environmental exposure** refers to non-tangible elements (although they may be determined by tangible elements) found in the surrounding air that affect our health. The conditions that determine it are thermal comfort, noise, odours, air quality, lighting, and radiation.

- **Community** concerns the fact that public spaces, in regard to their social function and as a common backdrop for coexistence, require the involvement of the community so they are dynamic and represent local people. The conditions of this determinant are participation and communication.

- The literature shows that cities with comfortable outdoor spaces are more likely to offer better quality of life to their inhabitants. With this in mind, the determinant of **comfort and attractiveness** was established, including the following conditions: integration with the environment, overall attractiveness, the educational role of the space, and the importance of heritage and natural elements.

- **Access and connectivity** encompass the elements that make the space accessible for the community, without limiting it only to physical access but also taking into account social and cultural factors, among others, that may influence accessibility in the broadest sense. The state in which it is found and the way it is

connected to other services or external spaces is also taken into account. In this case, the conditions are the same as the determinant.

- **Safety** is one of the key elements of spaces, since it significantly determines the use that will be made of them and, specifically, who will use them. Many safety-related barriers often make it difficult for vulnerable groups to access them. Lighting, perception of safety, materials and vegetation, distance to traffic and risk management have been agreed upon as this determinant's conditions.

- The space's **maintenance and sanitation** is essential in order for the population to be able to use it in a risk-free manner or without any direct or indirect negative impact on their health. The established conditions are the space's design and the design of green spaces, use of toxic products and design for climate change.

- **Uses** determine which sectors of the population will use the particular space and what it will be used for. It is important to consider a wide range of criteria to ensure that they are the most appropriate for the space. The established conditions are as follows: usability, children's play areas, relaxation areas, areas for physical activity, supporting features, natural elements and areas for pets.

However, these conditions, in many cases, depend at the same time on certain characteristics. Each of these characteristics, which as a whole establish the condition, are referred to as '**determining factors**'.

This classification and nomenclature is useful in order to establish the tool's gradation system. After multiple discussions on how to organise, in a tool, the determinants and determining factors established by each of the conditions, and by taking inspiration from other projects, we opted for a questionnaire format, given its versatility, simplicity and practicality. Determining factors are arranged in the form of questions grouped according to each of the determinants.

The questionnaire includes both the previously defined determinants and conditions and allows planners to know to what degree the assessed space could be beneficial to its users. The **determining factors** were presented in the form of multiple-choice

questions to assess the degree of compliance with each of the conditions. As a result, the determinants and, therefore, the space are also assessed. Previous literature research on the elements that should be taken into account to maximise the health benefits of spaces made it possible to determine the questions that comprise the questionnaire. The answers that are obtained indicate to what degree the space does or does not deliver benefits impacting on health.

Each of the determining factors is scored, for the most part, on a scale between 1, 3 and 5. Some of the questions, however, are exceptions to the rule, helping to reflect the complexity of urban reality. The different types of questions that appear in the tool are described below:

- **Classifying questions (a–e):** appear at the beginning of the questionnaire and have no bearing on the scoring system. Their function is to provide a brief description of the space and some characteristic features that may help the planner to make certain decisions. They have not been created based on reviewed literature but instead respond to the prior knowledge of the Public Space Service of Barcelona Provincial Council in regard to information that may be useful for the person assessing the space.

- **General questions:** most of the questions that appear in the questionnaire are of this type. These questions carry a score of 1, 3 or 5, with 1 as the lowest score, therefore indicating that the assessed condition does not meet the criteria necessary to maximise health benefits, while 5 indicates that it comes closest.

- **General questions carrying an optional score of 0:** some of the questions with a weighting of 1, 3 or 5 also include a fourth option. This last option carries a score of 0, which, if selected, excludes that question from the average score for the condition and the determinant.

- **Question for reflection (AC-13):** there is only one question of this type, which does not carry any type of score once answered. In this case, although the question is multiple-choice, the selected answer has no bearing on the final score and always carries a score of 0. The reason it is included in the tool is that its subject matter is considered relevant within the context of the tool and environmental health, although the assessor is not

able to make significant changes to that aspect as part of the project.

Moreover, some of the questions in the questionnaire contain **additional information** in the form of suggestions, guides, documents, illustrations or tables to guide planners or facilitate reflection.

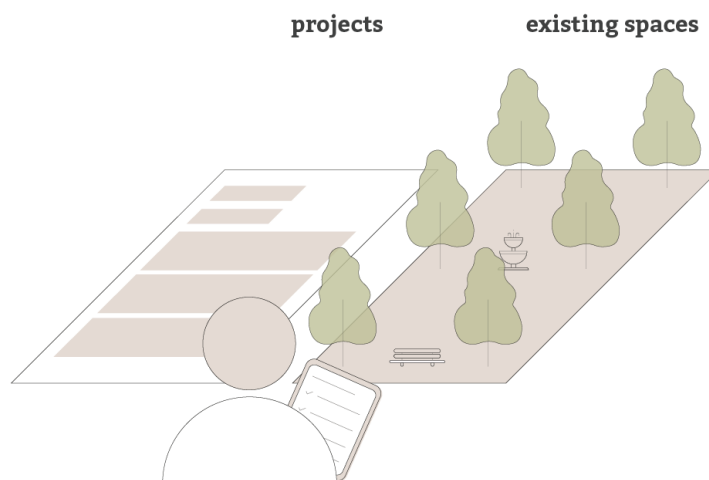
Cross-sectional assessment of the tool

In order to offer a more integrated view of the elements featured in the tool, a new section was included in the tool comprising a cross-cutting assessment of some of the elements that bear great importance and are related to more than one determinant. This section prevents the determinants from being studied in an isolated manner, helping to increase awareness of the correlation between them.

An example to illustrate this are green elements, which are of great importance to the space and appear throughout all the determinants in the form of different questions. However, until you look at these questions in isolation, it is not easy to get an idea of how this element has been addressed within the space. This section, therefore, facilitates the assessment of aspects of the space that, by their nature, contribute to more than one determinant.

4. How to use the tool

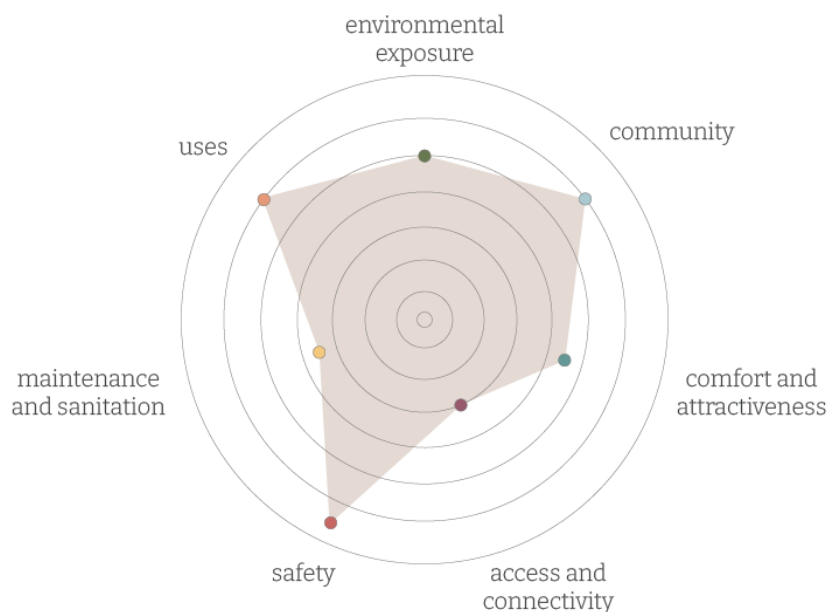
design and assessment of:



The tool is presented in **questionnaire** format and includes a total of 107 questions that allow public spaces such as parks or green areas and squares to be assessed.

The versatility of the questionnaire format means it can be used in different types of phases within a public space improvement project and makes it possible to compare the same space at different points in time, encouraging planners to take health into consideration.

Thus, it is possible to use the tool to **assess and redesign an existing space**, both before and after the remodelling project. It can also be used to design and **assess a project** and to predict how the changes that are to be made will affect the space from a salutogenic perspective.



The results of the tool can be viewed in a **spider diagram**, which is a simple way of showing the score received by each of the elements related to the assessed space. The graphs generated by answering the tool's questions can be viewed both for the space's determinants and for each of the conditions that shape them.

The purpose of viewing the information in this way is not to see the exact score that each of the determinants receives, but to obtain

a general picture of the space's current state from a salutogenic perspective and to compare the current state of each of the determinants in regard to the rest when it comes to a general assessment of the space. Conversely, when it comes to an intrinsic assessment of each determinant, the purpose is to compare the current state of a specific condition in regard to the rest.

In this way, the determinants and conditions that should be re-examined in order to maximise health benefits can be quickly identified. Moreover, if we bear in mind the temporality of the tool, comparing the same space at two different points in time—for example, before and after remodelling work—can help to determine which conditions and determinants have been impacted by actions to improve the space.

Use the [following link](https://espai-public-i-salut.diba.cat/) to access the tool for assessing a space:
<https://espai-public-i-salut.diba.cat/>