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## Unequal access to green space as a cause of a new category of health inequalities

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### Introduction

Urban green space, such as parks, forests, green roofs, streams and community gardens, provides critical ecosystem services. Such green space is diverse, varying in size, vegetation cover, species richness, environmental quality. Green space also promotes physical activity, psychological well-being and the general public health of urban residents.

Cities and towns have become the primary human living space. Since 2007, more than half of the world's population has been living in urban areas and the figure is estimated to exceed 70% by the year 2050. This situation is a consequence of the transformation of humans' economic base and social structure<sup>1</sup>.

Modern cities in developed countries are seen from three different perspectives. Economic development planners perceive the city as a place of production, consumption, distribution and innovation. The city has to be primarily competitive in relation to markets and industries, and for the supporters of this approach urban space is mainly the economic space. Environmental planners perceive towns as entities consuming resources and producing wastes. From the perspective of environmentalists, the town stands in opposition to nature, its limited resources and land, posing a serious threat to it. What is more, the city is not discussed in terms of space in this approach, since space is associated by conservationists with ecologically clean trails, river basins and other ecological niches. The third perspective is the perspective of resources planners, who see in the city a place of conflict over the distribution of resources, services and opportunities. There are various social groups involved in this conflict. Space in this approach is the social space: the neighbouring community organisations, trade unions, defined as space of

<sup>1</sup> United Nations, *World Economic and Social Survey* 2013.

access and segregation<sup>2</sup>. Competition of these three perspectives affects access to green space, and due to the fact that all of the approaches rely on conflict, the access is unequal.

Unequal access to green areas forms part of the concept of environmental inequality, alongside such phenomena as: access to nature, environmental problems resulting from unsustainable lifestyles and climate change, such as poor air quality. Inequalities in environmental protection can be defined as the uneven impact of environmental factors on health. Uneven accessibility of urban green space also has become recognised as an environmental injustice. The importance of environmental justice to public health has become recognised<sup>3</sup>. The literature has focused on how to measure access to urban green space, relative socio-demographic access to these spaces and how lack of access affects public health. The majority of research originates from the United States, the United Kingdom and Australia, however, the article presents also the Polish approach and legislation. In this article, the impact of unequal access to green areas on generating health inequalities has been particularly analysed. The research necessary to verify the hypothesis that unequal access to green space is one of the two main reasons (in addition to exposure to pollution) of a new category of health inequalities has also been presented in this work.

## The impact of access to green space on health in official documents and research

Numerous studies confirm the beneficial effects of greenery on human health. Green space may filter air, remove pollution, attenuate noise, cool temperatures, infiltrate storm water and replenish groundwater<sup>4</sup>. For example, trees in urban areas may reduce air pollution by absorbing certain airborne pollutants from the atmosphere<sup>5</sup>. Green cover and urban forests can also moderate temperatures by providing shade and cooling an area, thus helping to reduce the risk of heat-related illnesses for the city dwellers<sup>6</sup>.

The New Athens Charter, signed in 2003 in Lisbon, points to preserving the elements of natural environment in cities, defined in this context as places to live, work and rest for the population. In this document it is stated that maintaining direct contact with

<sup>2</sup> S. Campbell, 'American Planning Association', *Journal of the American Planning Association*, 62/3 (1996).

<sup>3</sup> V. Jennings, C. Johnson-Gaither, R.S. Gragg, 'Promoting Environmental Justice through Urban Green Space Access: A Synopsis', *Environmental Justice*, 5/1 (2012), pp. 1–7.

<sup>4</sup> P. Groenewegen et al., 'Vitamin G: Effects of Green Space on Health, Well-Being, and Social Safety', *BMC Public Health*, 6/1 (2006), <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1513565/> (retrieved: 14.01.2016); F.J. Escobedo, T. Kroeger, J.E. Wagner, 'Urban Forests and Pollution Mitigation: Analyzing Ecosystem Services and Disservices', *Environmental Pollution*, 159/8 (2011), pp. 2078–2087.

<sup>5</sup> D.J. Nowak, D.E. Crane, J.C. Stevens, 'Air Pollution Removal by Urban Trees and Shrubs in the United States', *Urban Forestry and Urban Greening*, 4 (2006), pp. 115–123.

<sup>6</sup> S.K. Cummins, R.J. Jackson, 'The Built Environment and Children's Health', *Pediatric Clinics of North America*, 48/5 (2001), pp. 1241–1252.

nature is for human beings not only a source of well-being, but also a condition for survival, which is a direct reference to health. Creators of the New Charter of Athens postulate taking into account the natural values in the spatial planning of cities, in hope that increasing environmental awareness will result in implementation of the principles of sustainable development in space planning<sup>7</sup>.

The implementation of the New Athens Charter provisions in practice means the need for increasing resources of green areas, mainly in order to overcome the effects of air pollution in cities. It is stressed that green areas in urban spaces are not only aesthetically pleasing, but also have environmental and social (integration, educational) functions, shaping the psycho-sociological conditions<sup>8</sup>.

The European Union's Biodiversity Strategy for the period up to 2020 emphasises the importance of biodiversity for human well-being (well-being is defined as a combination of welfare in the economic sense and the beneficial effects of environment). Therefore, it is indicated that member states should encourage the development of green infrastructure. It does not seem, however, that the initiatives aimed at facilitating access of residents of densely built-up areas to the natural environment are efficient in this respect. The projects locating greenery in lump residential buildings, such as for e.g. in front elevation (so-called vertical gardens) or in pillar space (between floors), do not contribute to green space creation.

The awareness of the value of trees for health affects the stimulation of social initiatives to improve the quality of environment through investments in green areas. The benefits of the proximity of trees consist of a number of interrelated factors, among which the following are mentioned<sup>9</sup>:

- hygiene and health benefits,
- climate benefits (reducing carbon emissions),
- reducing noise,
- benefits for the ecosystem (creating an environment for wildlife),
- social and economic benefits (social aspects: physical, mental, and spiritual impact of natural environment resulting in the improvement of health; economic aspects: an increase in sales and rental prices of homes surrounded by trees and green space).

The role of trees in the process of cleaning the air by releasing oxygen as an additional product of photosynthesis cannot be overestimated. Research conducted by E.G. McPherson<sup>10</sup> showed that a healthy, 10-meter-high tree produces about 118 kg of oxygen every year. A man consumes 176 kg of oxygen per year, hence, two medium-sized trees provide oxygen required for one person throughout the year.

<sup>7</sup> The European Council of Town Planners (ECTP), The New Charter of Athens 2003, <http://www.ectp-ceu.eu/index.php/en/component/content/article?id=85> (retrieved: 21.01.2016).

<sup>8</sup> Por. K. Dubel, *Uwarunkowania przyrodnicze w planowaniu przestrzennym*, Białystok 2000.

<sup>9</sup> H.B. Szczepanowska, 'Ekologiczne, społeczne i ekonomiczne korzyści z drzew na terenach zurbanizowanych', *Człowiek i Środowisko*, 31/3–4 (2007), pp. 5–26.

<sup>10</sup> E. G. McPherson, 'Benefits of Trees, Watershed, Energy and Air', *Arborist News*, 13/6(2004), pp. 29–35.

There is evidence that living near green areas, such as parks, forests and other open spaces, can improve health, regardless of the social class, i.e. excluding the impact of economic aspects<sup>11</sup>. Numerous studies demonstrate the direct benefits of greenery for both physical and mental health. A study conducted in 2009, which was aimed at identifying the difference in the effect of green space about three kilometres away from the place of residence and the impact of green areas one kilometre away from home showed that living within one kilometre from green areas significantly reduces the occurrence of diseases<sup>12</sup>.

The psychosocial, health-promoting dimension of access to greenery is documented in a study on the population of children and young people from countries such as Argentina, Poland, Australia and Mexico, under the program "Man and Biosphere"<sup>13</sup>. According to respondents, green areas, and especially the proximity of trees, are the constitutive elements of an ideal residential environment. The positive impact of green areas on mental health is also confirmed in the study of R.S. Ulrich, in which the researcher verified the hypothesis of the restoring role of nature. The author showed that communing with nature has therapeutic importance for reducing stress and anxiety<sup>14</sup>.

The psychological health and well-being is empirically linked to urban parks and green space<sup>15</sup>. Park visits can rejuvenate residents, enhance contemplation, and provide a sense of peace and tranquility, which is helpful in reducing stress<sup>16</sup>.

Spending time in green areas, for e.g. walking in the park or in the woods, can cause rapid reactions of a psychological and physiological kind, which are detected by means of psychological tests, but also using mobile encephalograph, conducting measurements of blood flow in the brain, checking various parameters of heart, blood pressure and cortisol (cortisol also hydrocortisol, a glucocorticoid hormone produced by the adrenal glands is known as a stress hormone, as in stressful situations its concentration increases). An increased level of cortisol, as well as its low level, results in a number of diseases, including cancer<sup>17</sup>. The study also showed that with an increased exposure to and increased use of green spaces the need for hospitalisation of people with men-

<sup>11</sup> R. Mitchell, F. Popham, 'Effect of Exposure to Natural Environment on Health Inequalities: An Observational Population Study', *The Lancet*, 372/9650 (2008), pp. 1655–1660.

<sup>12</sup> J. Mass et al., 'Morbidity is Related to a Green Living Environment', *Journal of Epidemiology and Community Health*, 63 (2009), pp. 967–997.

<sup>13</sup> W. Krantz, 'Ochrona zieleni miejskiej w kontekście społecznym', *Aura*, 9 (1991), pp. 18–20.

<sup>14</sup> R. S. Ulrich, 'Human Responses to Vegetation and Landscapes', *Landscape Urban Planning*, 13 (1986), pp. 20–44.

<sup>15</sup> H. Ernstson, 'The Social Production of Ecosystem Services: A Framework for Studying Environmental Justice and Ecological Complexity in Urbanized Landscapes', *Landscape and Urban Planning*, 109/1 (2012), pp. 7–17.

<sup>16</sup> S. Kaplan, R. Kaplan, 'Health, Supportive Environments, and the Reasonable Person Model', *American Journal of Public Health*, 93/9 (2003), pp. 1484–1489; J. Woo et al., 'Green Space, Psychological Restoration, and Telomere Length', *Lancet*, 373/9660 (2009), pp. 299–300.

<sup>17</sup> M. Zimecki, J. Artym, 'Wpływ stresu psychicznego na odpowiedź immunologiczną', *Postępy Higieny i Medycyny Doświadczalnej*, 58 (2004), pp. 168–172.

tal illnesses has been reduced, even after taking into account the level of poverty and population density<sup>18</sup>.

## The consequences of unequal access to green space on health inequality

Health inequalities are a socially determined category, they do not include biological differences or anomalies. In the context of the characteristics of health inequalities, their unwanted character has been highlighted as well as a lack of fault on the part of a person affected<sup>19</sup>. The category of health inequalities is linked to the health production function. It is a theoretical construct developed in 1969, which has been used in modelling the factors determining the health condition of a population. With these models, mortality rates are explained through social and economic factors. The production function of health in the broad sense identifies the relationship between medical and non-medical expenditure on the one hand, and health outcomes on the other<sup>20</sup>.

The Marmot report pointed out the correlation between economic social inequalities and health inequalities, one of the causative factors of which is unequal access to green space. The report says that the more deficient surroundings, the more likely it is that their inhabitants are exposed to social and environmental characteristics that constitute a health hazard. In addition to poor housing, those characteristics include also: worse air quality and lack of greenery. The report concluded that the development of physical environment in which people can live a healthier life is a key factor in reducing health inequalities. Investing public funds in promoting and developing green space will have a positive impact on health and on carbon dioxide emissions<sup>21</sup>.

Health gradient shows how closely our health is linked to the economic and social conditions in which we live. Political, economic and social forces form but also undermine our personal health and our well-being. Although the life expectancy continues to increase in most of the European Union member states, those who are better off enjoy greater benefits than those who have less. This causes expansion of the gap between rich and poor. People from the lowest rungs of the social ladder are twice as likely to risk serious illness or premature death than those who are at the top. The imperative is both moral and economic. The European Union is focused on the economic development, as it has been established in the Lisbon Strategy by 2010, as well as in the new economic

<sup>18</sup> Cf. C.P. Wheeler et al., *Returning Urban Parks to Their Public Health Roots*, Liverpool 2007.

<sup>19</sup> W.C. Włodarczyk, 'Polityka zdrowotna Unii Europejskiej: nierówności w zdrowiu', *Zdrowie Publiczne i Zarządzanie. Zeszyty Naukowe Ochrony Zdrowia*, 4/2 (2006), pp. 6–7.

<sup>20</sup> Z. Or, 'Determinants of Health Outcomes in Industrialised Countries: A Pooled, Cross-Country, Time-Series Analysis', *OECD Economic Studies*, 30 (2000), <http://www.oecd.org/eco/growth/2732311.pdf> (retrieved: 6.09.2015).

<sup>21</sup> M. Marmot, *The Marmot Review. Fair Society, Healthy Lives: Strategic Review of Health Inequalities in England 2010*, <http://www.instituteofhealthequity.org/projects/fair-society-healthy-lives-the-marmot-review>, (retrieved: 20.10.2015).

strategy “Europe 2020”. These plans also include health, however, they do not take into account the indicators and projects related to equality in health<sup>22</sup>.

Currently, the European metropolises seem to be arranged concentrically, according to the formula: the historical and cultural centre focused in the middle, with stately headquarters of large companies and expensive apartments, and the low-cost residential areas are gradually expelled to the outskirts, where burdensome industrial activities are also concentrated. Diversity is a competitive strategy towards multipolarity. The variety prevents the peripheral clusters formation, characterized by a lack of access to green<sup>23</sup>.

This is why green space is not equitably distributed, especially within cities. Unequal access to green space creates a new kind of social stratification based on income, age or even gender<sup>24</sup>. Regardless of measurement strategy, there is abundant evidence of environmental injustice in distribution of urban green space. A variety of different studies show that low-income citizens have less access to green space<sup>25</sup>.

Research conducted across Europe allowed to show the relationship between the reduction of socio-economic health inequalities and easy access to green space. The 2012 European Quality of Life Survey provided data on 21,294 urban residents from 34 European nations. Five different neighbourhood characteristics have been specified in the study, including access to green areas, financial services, transport and cultural facilities. In the course of research it has been indicated that socio-economic inequality in mental well-being was 40% narrower among respondents reporting good access to green areas in comparison with those with poorer access. What is crucial: none of the rest of neighbourhood characteristics was associated with inequality reduction<sup>26</sup>.

In the European Union report: *The European Environment*, it has been stated that the environment plays a key role in the physical, mental and social well-being of people. Despite the perceived significant improvement the research pointed to noteworthy differences in the quality of environment and human health, which remain inside the European countries and among them. The complex relationships between environmental factors and human health should be, according to the report, seen in the broader context: spatial, socio-economic and cultural<sup>27</sup>.

<sup>22</sup> Por. I. Stegeman, C. Costongs, C. Needle, *History of Determine. Mobilising Action for Health Equity in the EU*, Final Report of Determine Consortium, EuroHealthNet 2010.

<sup>23</sup> Por. S. Deguen, D. Zmirou-Navier, ‘Social Inequalities Resulting from Health Risks Related to Ambient Air Quality — A European Review’, *European Journal of Public Health*, 20/1 (2010), DOI:10.1093/eurpub/ckp220.

<sup>24</sup> J. Byrne, J. Wolch, J. Zhang, ‘Planning for Environmental Justice in an Urban National Park?’, *Journal of Environmental Planning and Management*, 52/3 (2009), pp. 365–392.

<sup>25</sup> Por. C. Johnson-Gaither, ‘Latino Park Access: Examining Environmental Equity in a New Destination County in the South’, *Journal of Park and Recreation Administration*, 29/4 (2011), pp. 37–52; V. Jennings, C. Johnson-Gaither, R.S. Gragg, ‘Promoting Environmental Justice through Urban Green Space Access: A Synopsis’, *Environmental Justice*, 5/1 (2012).

<sup>26</sup> R. Mitchell et al., ‘Neighborhood Environments and Socioeconomic Inequalities in Mental Well-Being’, *American Journal of Preventive Medicine*, 49/1 (2015), pp. 80–84.

<sup>27</sup> European Environment Agency, 2015, *The European Environment — State and Outlook*, Synthesis Report, p. 91, <http://www.eea.europa.eu/soer> (retrieved: 14.07.2015).



The report describes the phenomenon of environmental burden of disease (EBD) as a percentage of cases resulting from exposure to environmental factors. The use of the EBD approach makes it possible to compare the loss of one's health due to a variety of risk factors, as well as to prioritise and assess the benefits of certain response measures taken. The analysis of healthy environmental conditions contained in the report is consistent with the results of previously cited studies: contact with nature and access to safe green spaces are beneficial to the psychological and social development, both in urban and rural areas. The perception of health is better in the opinions of people living in more natural environments, including agricultural land, forests, meadows or in the vicinity of urban green areas.

The report does not refer to the causes of unequal access to high-quality environment nor to political, social and cultural factors underlying this phenomenon. There is no health analysis in the context of a disadvantaged socio-economic situation, nor identification of the relationship between environmental justice and its dimension in the form of access to green space and health effects. It seems that in many EU strategies, documents and reports health inequalities, the cause of which is limited access to green space, were superseded by individual behaviours (including using the environment) that generate health inequalities.

The European Union rejects environmental determinism and thus the concept of environmental justice in favour of a socio-ecological perspective, which lies at the root of the behaviour as a result of free choice of an individual. The conglomerate of such choices is the so-called lifestyle — the term overused in studies concerning health. An individual is responsible for their lifestyle, and in the best-case scenario, this responsibility is being shared between an individual and the environment. From this perspective, the fact of residing in the area devoid of green space is a consequence of an individual's choice. The state is not responsible for individuals' choices, and therefore it does not have the obligation to compensate for losses in health resulting from such a choice.

## Regulations concerning access to green areas in Poland

Nowadays in Poland there are no regulations creating an obligation to include in local spatial development plans universal access to green spaces within the estate structures. The applicable law introduces regulations only in relation to the area covered by the investment. The regulations state that at least 25% of the investment area, unless the local zoning plan provides otherwise, shall be biologically active<sup>28</sup>. It should be noted that the concept of a biologically active surface is very wide. In this category falls not only the subsoil (ground built on the site retention as a result of geological processes), but also e.g. 50% of greened panels on the garages, which certainly cannot be classified as green areas.

<sup>28</sup> Ministry of Infrastructure, *Rozporządzenie Ministra Infrastruktury z dnia 12 kwietnia 2002 r. w sprawie warunków technicznych, jakim powinny odpowiadać budynki i ich usytuowanie*, Dz.U. [Journal of Laws] No. 75, item 270.

Such a legal situation is a specific consent to the reduction of residential environment quality standards. The consequence of this situation is planning and implementation of green areas most commonly in the fragmented form, limiting green space to the statutory minimum. Newly established settlements are more often devoid of concentrated complexes of greenery although, as demonstrated by research, the concentration of green areas on larger surfaces brings significant health benefits. The thesis of the superiority of green spaces concentration appeared in the 1960s in Poland and was popularized by Władysław Czarnecki. According to the author, at least in 50% of estates greenery should be planned and designed to create a dense green area of over 1000 m<sup>229</sup>.

According to Art. 83 of the Act on the Protection of Nature<sup>30</sup>, the catalogue of situations in which removal of trees or shrubs does not require a permit has been expanded. And so, a provision on charging for the removal of trees and shrubs in the construction of public roads has been repealed. Under the Act of 10 April 2003 on special rules of preparation and realization of investments in public roads, there is no obligation to obtain authorization for the removal of these trees and shrubs, and hence to pay fees. This change is in fact only a reaction to the provisions of other acts and is intended to harmonize the legislation, however, we should reflect on the pertinence of the solution. The vast majority of road projects in Poland concern public roads. With the development of road infrastructure of the country more and more public roads are built. Fees for reducing green areas provide at least partial compensation for the cost of actions aimed at organisation of new greenery, counterbalancing the loss of a positive impact of felled trees and shrubs.

In Art. 89, paragraph 1 and 2 of the new version of the Act on the Protection of Nature, the amount of administrative fine for the destruction or removal of trees or shrubs was reduced and now equals twice the payment for the removal of trees or shrubs. The explanatory memorandum states that this change will adjust the amount of penalty to the rank of tort. Evidently in this case the health dimension of this action has not been taken into account — namely potential social costs associated with the need to intensify social services in health as a consequence of the loss of health caused by limited access to green spaces.

A positive change, worthy of note, concerns Art. 86 paragraph 1 point 7 and 8. So far, in the catalogue of cases of fee exemption there has been mentioned a case concerning trees or shrubs planted or grown on the property following its qualification in the local zoning plan for construction purposes. This provision caused all the plantings, even the old ones, on the real estate held for construction purposes to be regarded as temporary. The authors of the amendment pointed out that each property should have a minimal biologically active area, as defined in the land use plan. Therefore, shelterbelts on these properties cannot be seen as temporary.

<sup>29</sup> Por. W. Czarnecki, *Planowanie miast i osiedli*, vol. 4, Warszawa 1965.

<sup>30</sup> Ustawa o Ochronie Przyrody Dz.U. [Journal of Laws] 2013, item 627.



The overarching guidelines for green areas were included in the National Spatial Development Concept 2030, followed by provincial development strategies, regional operational programs and spatial planning<sup>31</sup>:

1. The political system principle of sustainable development — meaning socio-economic development integrated with maintaining the natural balance.
2. The principle of economic rationality — including an assessment of the social, economic and spatial development in a long term.
3. The principle of preference of the regeneration over occupying new areas for development, which means intensification of urbanization in areas which had already been developed, so as to minimise building expansion into new areas.
4. The principle of ecological precaution.
5. The principle of ecological compensation.

Fundamental in the analysed context is also the principle of cumulative effect, which takes into account the context of social, economic and political exposure to the negative impact of environment and the ways in which these factors may exacerbate that exposure in relation to certain areas and populations<sup>32</sup>. Despite the fact that both European and Polish legislation<sup>33</sup> have been imposing an obligation to assess the cumulative impact on both the level of strategic assessment, which is expected to impact environment contained in the plans and programmes, as well as on the assessment of individual projects, these regulations still do not include the issue of access to green spaces in the strict sense.

## Conclusions

Access to green space and natural environment has an evident impact on health inequalities, which, as it seems, is not equally recognized and implemented in national public policies. In the process of promoting health equality, the importance and impact of access to green space should be taken into account and recognized in designing new solutions, particularly those related to spatial planning.

In terms of the impact of environment on health, much more attention is being paid to such factors as exposure to environmental pollution, leaving aside the beneficial effects of green space and the consequences of inability to use green areas. This trend is also present in legislation. Among the reasons for this state of affairs, the difficulty in finding sufficient green surface should be noted, in the context of the impact on health. It is much easier, for instance, to determine acceptable levels of pollution. However, as

<sup>31</sup> Council of Ministers, 2011, *National Spatial Development Concept 2030*, [http://www.esponontheroad.eu/dane/web\\_espon\\_library\\_files/682/national\\_spatial\\_development\\_concept\\_2030\\_summary.pdf](http://www.esponontheroad.eu/dane/web_espon_library_files/682/national_spatial_development_concept_2030_summary.pdf) (retrieved: 11.01.2016).

<sup>32</sup> P.L. Defur et al., 'Vulnerability as a Function of Individual and Group Resources in Cumulative Risk Assessment', *Environmental Health Perspectives*, 115 (2007), pp. 817–824.

<sup>33</sup> Council of Europe, Directive 85/337 / EEC of 27 June 1985, on the assessment of the effects of certain public and private projects on the environment.

can be concluded after analysing the cited studies, limited access to green areas results in so-called civilization diseases, such as obesity and mental disorders.

Unequal access to green areas also fits in the existing social stratification, contributing to a new kind of health inequalities, defined so far mainly in the context of access to health care. Income inequality translates into health inequalities, because the places of residence of persons with low income have a low standard, also with regard to the environmental dimension. In the coming years, planners from the presented triad will be facing difficult decisions about whether to promote green cities or continue to focus primarily on economic goals, deepening inequalities in access to green space, and what follows, deepening health inequalities. These would not be strictly ethical considerations, on the wave of political fashion for social justice, but the choices forced by environmental awareness and knowledge of the essence of sustainable development growing in modern societies of economically developed countries. If there is no change in the strategy of enclave planning, dividing green space evenly, this kind of health inequalities will deepen.

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## Unequal access to green space as a cause of a new category of health inequalities

### Summary

The article presents the influence of unequal access to green space on human health, resulting in the formation of health inequalities. The work is based on the hypothesis that unequal access to green areas in the place of residence and leisure, largely determined by the level of income and the scope of implementation of sustainable development strategy by the state, contributes to deepening social health inequalities. The article analyses the attitude towards the impact of access to green space on health present in official documents and related research. It also identifies a direct link between limited access to green space and social health inequalities. In the last part of the article, legal regulations concerning access to greenery in Poland are presented.