

**BUILT ENVIRONMENT IN GOVERNMENT INSTITUTIONS & ITS IMPACT ON  
HEALTH: AN EMERGING FIELD IN INDIA**

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**ABSTRACT**

This paper explores the link between the quality of the Built Environment in Government Institutions in India and its impact in health terms. To test this, a systematic review brought together wide - ranging international research evidence. The work confirmed a range of definitive associations between the quality of place and its impact on health. These, in turn, define the constituent elements of good Built Environment in Government Institutions in India.

**KEYWORDS:** Built Environment, Public Health, Housing, Government Institutions.

**INTRODUCTION**

In urban planning, architecture, landscape architecture, and civil engineering, the term Built Environment in Government Institutions in India , or built world, refers to the human - made environment that provides the setting for human activity, including homes, buildings, zoning, streets, sidewalks, open spaces, transportation options, and more (CDC, 2019). It is defined as "the human - made space in which people live, work and recreate on a day - to - day basis." (Roof & Oleru, 2008)

**HISTORY**

The Built Environment in Government Institutions in India is made up of physical features. However, when studied, the Built Environment in Government Institutions in India often highlights the connection between physical space and social consequences (Galster & Sharkey, 2017). It impacts how society physically manoeuvres and functions, as well as less tangible aspects of society such as socioeconomic inequity. The topic of the Built Environment in Government Institutions in India also includes the ways in which communities have approached environmental issues that have arisen as a result of the altering of the natural environment for human activities (Omer, 2015). Various aspects of the Built Environment in Government Institutions in India contribute to scholarship on housing and segregation, physical activity, food access, climate change, and environmental racism (Carmona, 2019; Ghimire et al., 2017; Rahman et al., 2011).

**IMPACT OF THE BUILT ENVIRONMENT IN GOVERNMENT INSTITUTIONS IN INDIA**

The future of the built environment in Government Institutions in India lies in adapting to the changing needs of the Indian population and the pedagogy through which students of architecture, design, and planning are taught must be maximised to promote an innovative outlook. In light of current events such as the COVID - 19, the state of infrastructure of the built environment in Government Institutions in India has become all too clear. The Government Institutions infrastructure in place is either old and outdated or unaffordable by the majority of Indians. The very properties of the built environment in Government Institutions are an extremely useful asset to the current generation of Indians in the face of the unique problems it faces. This is a principle that urban planners of the built environment in Government Institutions in India may find useful, considering the high population density in large cities and the risk it poses. Planning of the built environment in Government Institutions in India varies greatly across all 28 states, however, it is clear that human senses have not been kept in mind as urban sprawl has been allowed to occur. The future of the built environment in India lies in adapting to the changing needs of the Indian population.

The built environment in Government Institutions in India is at the core of achieving wellness and resilience for India. The National Commission on Population (NCP) in India predicts that. In this research paper too, we attempt to summarize and provide a structured perspective on transforming

India's built environment in Government Institutions, taking stock of emerging realities attributed to climate. Globally, the built environment in Government Institutions in India represents the largest impact opportunity for transformative. The smallest unit of the built environment in Government Institutions in India is the building, which links up to other buildings. This paper attempts to study the impact of built environment in Government Institutions in India on the immediate surroundings and nearby places in a metropolitan city of Delhi, India. Our existing patterns of urbanisation are also directly releasing Green House Gases (GHG) into our environment. The effects of the built environment in Government Institutions in India on health can be direct, for example, by influencing environmental quality, or indirect.

Features in the Built Environment in Government Institutions in India present physical barriers which constitute the boundaries between neighbourhoods (Kramer, 2017). George Galster and Patrick Sharkey refer to this variation in geographic context as "spatial opportunity structure," and claim that the Built Environment in Government Institutions in India influences socioeconomic outcomes and general welfare (Galster & Sharkey, 2017). The effects of spacial segregation initiatives in the Built Environment in Government Institutions in India, such as redlining in the 1930s and 1940s, are long lasting.

### **Public Health**

Historically, action - oriented initiatives to the Built Environment in Government Institutions in India have often stemmed from issues with public health. Dating back to Georges - Eugene Haussmann's comprehensive plans for urban Paris in the 1850s, concern for lack of air - flow and sanitary living conditions has inspired many strong city planning efforts. Public health research has expanded the list of concerns associated with the Built Environment in Government Institutions in India to include healthy food access, community gardens, mental health (Assari et al., 2016), physical health (Boncinelli et al., 2015; Ghimire et al., 2017; Sander et al., 2017), walkability, and cycling mobility (Lee et al., 2012). Designing areas of cities with good public health is linked to creating opportunities for physical activity, community involvement, and equal opportunity within the Built Environment in Government Institutions in India. Urban forms that encourage physical activity and provide adequate public resources for involvement and upward mobility are proven to have far healthier populations than those that discourage such uses of the Built Environment in Government Institutions in India (Frank & Engelke, 2001).

**Physical Activity:** Since, the Built Environment in Government Institutions in India determines how people move throughout a given space, it influences public health by promoting or discouraging health and wellness. Research has indicated that the way neighbourhoods are created can affect both the physical activity and mental health of the communities' residents (Renalds et al., 2010). Built Environment in Government Institutions in India is purposefully designed to improve physical activity are also linked to higher rates of physical activity, which in turn, positively affects health (Carlson, 2012; Sallis, 2020). People are generally more active in densely populated areas, areas good street connectivity, and mixed - use communities which incorporate both retail and residential space (Heath, 2006). As a result, those who prefer to walk and live in walkable environments often have lower obesity rates and drive less compared to those who preferred living in auto - dependent environments (Frank, 2007).

Neighbourhoods with more walkability have lower rates of obesity, as well as increased physical activity among its residents. They also have lower rates of depression, higher social capital, and less alcohol abuse. Walkability features in these neighbourhoods include safety, sidewalk construction, as well as destinations in which to walk (Carlson, 2012). In addition, the perception of a walkable neighborhood, one that is perceived to have good sidewalks and connectivity, is correlated with higher rates of physical activity (Sallis, 2020).

Assessments of walkability have been completed through the use of GIS programs, such as the Street Smart Walk Score. This example of a walkability assessment tool determines distances to grocery stores and other amenities, as well as connectivity and intersection frequency using specific addresses (Walk Score Methodology, 2012). Assessments such as the Street Smart Walk Score can be utilized by city and country planning departments to improve existing walkability of communities.

To implement walkable neighbourhoods, community members and local leaders should focus on policy development. An effective framework that has been utilized in an abundance of communities is the Complete Streets concept of community planning that has been developed by the National Complete Streets Coalition (NCSC) (Smart Growth America, 2022). National Complete Streets Coalition (NCSC) states that the most successful policies are those that reflect input from a broad group of stakeholders, including transportation planners and engineers, elected officials, transit agencies, public health departments, and members of the community (Smart Growth America, 2022). According to Riggs, 2016, policies may focus on a “Complete Streets” investment, which includes sidewalk bulb - outs and refuges to reduce crossing distances or street widths for pedestrians. Other investments should include installing crosswalks, road markings, benches, shelters and sidewalk art installations (Riggs, 2016). Every community will have a unique method of policy development depending on whether it is an urban, suburban, or rural community and how the policy will combine the variety of transportation modalities. Communities may choose to focus on walkability, but will also need to consider biking, wheeling / rolling, driving, and emergency vehicles. The NCSC policy workbook gives descriptive guidance on how to proceed with policy development whether they be council - driven, council - approved, directives, or citizen vote (Smart Growth America, 2022). When deciding how to proceed with walkability policy development, considerations should be made regarding current and past transportation policies, local community and government support, and how transportation policies have been implemented in the past.

Public health also addresses additional components of Built Environment in Government Institutions in India is including “cycling mobility”, which refers to the access that an area has granted to safe biking through multiple bike paths and bike lanes (Horacek et al., 2012). Both walkability and bike - ability have been cited as determinants of physical activity (Cochrane & Davey, 2008).

Built Environment in Government Institutions in India is containing recreational facilities have been associated with greater physical activity among children. For example, one study found that walking paths, parks with playgrounds, swimming areas, basketball courts and other various recreational facilities increased physical activity among adolescent girls (Cohen, 2006). Urban planning and its utilization of mixed use development are key factors affecting childhood obesity. Mixed use spaces are composed of residential, commercial, cultural, and institutional components (American Planning Association, 2013). This type of development helps to reduce the distance residents have to travel to access a grocery store or school. It also creates a more walkable and bike friendly environment for residents.

**Food Access:** Access to healthy food is also an important component of the Built Environment in Government Institutions in India. A higher density of convenience stores has been associated with obesity in children (Grafova, 2008). In contrast, improved access to community supermarkets and farmer's markets is correlated with lower overweight status (Rahman et al., 2011). Specifically in low income neighbourhoods, the presence of a local grocery store is correlated with lower BMI / overweight risk (Zick, 2009). Community gardens are also considered a part of the Built Environment in Government Institutions in India, and have been shown to increase fruit and vegetable intake among gardeners (Litt et al., 2011). Scholars say that community gardens have also been shown to have positive social and psychological impacts that lead to lower levels of stress, hypertension, and an improved sense of wellness, affecting the overall health of the individual and the community.

## **CONCLUSION**

The Built Environment in Government Institutions in India is most relevant in the fields of architecture, landscape architecture, urban planning, public health, sociology, and anthropology, among others (Sussman, 2014; Handy et al., 2002; Sallis et al., 2012; Galster & Sharkey, 2017; Lawrence & Low, 1990).

## **REFERENCES**

- American Planning Association. (2013). Planning and Community Health Research Centre: Mixed Use Development. Archived from the original on 2013 - 02 - 07. Retrieved October 29, 2018.
- Assari, A. B., Nik, B., Mousavi, M., & Naghdbishi, R. (2016). IMPACT OF BUILT ENVIRONMENT ON MENTAL HEALTH: REVIEW OF TEHRAN CITY IN IRAN. *International Journal on Technical and Physical Problems of Engineering*. 8 (26): 81 - 87.
- Boncinelli, F., Riccioli, F., & Marone, E. (2015). Do forests help to keep my body mass index low? *Forest Policy and Economics*. 54: 11 - 17. doi:10.1016/j.forpol.2015.02.003. ISSN 1389 - 9341.
- Carlson, C., Aytur, S., Gardner, K., & Rogers, S. (2012). Complexity in Built Environment, Health, and Destination Walking: A Neighbourhood - Scale Analysis. *J Urban Health*. 89 (2): 270 - 84. Doi: 10.1007/s11524 - 011 - 9652 - 8. PMC 3324613. PMID 22350512.
- Carmona, M. (2019). Place value: place quality and its impact on health, social, economic and environmental outcomes. *Journal of Urban Design*. 24 (1): 1 - 48. doi:10.1080/13574809.2018.1472523. ISSN 1357 - 4809. S2CID 115751848.
- CDC. (2019). The Built Environment Assessment Tool Manual. Retrieved 2021 - 03 - 29.
- Cochrane, T. & Davey, R. (2008). Increasing uptake of physical activity: A social ecological approach. *J R Soc Promot Health*. 128 (1): 31 - 40. Doi: 10.1177/1466424007085223. PMID 18274328. S2CID 34749255.
- Cohen, D. A., Ashwood, S., Scott, M. M., Overton, A., Evenson, K. R., Staten, L. K., Porter, D., McKenzie, T. L., & Catellier, D. (2006). Public Parks and Physical Activity among Adolescent Girls. *Paediatrics*. 118 (5): e1381 - 9. doi:10.1542/peds.2006 - 1226. PMC 2239262. PMID 17079539.
- Frank, L., Saelens, B., Powell, K., & Chapmen, J. (2007). Stepping towards causation: Do built environments or neighborhood and travel preferences explain physical activity, driving, and obesity? *Social Science & Medicine*. 65 (9): 1898 - 1914. doi:10.1016/j.socscimed.2007.05.053. PMID 17644231.
- Frank, L. D. & Engelke, P. O. (2001). The Built Environment and Human Activity Patterns: Exploring the Impacts of Urban Form on Public Health. *Journal of Planning Literature*. 16 (2): 202 - 218. Doi: 10.1177/08854120122093339. ISSN 0885 - 4122. S2CID 153978150.
- Galster, G. & Sharkey. (2017). Spatial Foundations of Inequality: A Conceptual Model and Empirical Overview. *RSF: The Russell Sage Foundation Journal of the Social Sciences*. 3 (2): 1. doi:10.7758/rsf.2017.3.2.01. ISSN 2377 - 8253. S2CID 131768289.
- Ghimire, R., Ferreira, S., Green, G. T., Poudyal, N. C., Cordell, H. K., & Thapa, J. R. (2017). Green Space and Adult Obesity in the United States. *Ecological Economics*. 136: 201 - 212. doi:10.1016/j.ecolecon.2017.02.002. ISSN 0921 - 8009.
- Grafova, I. (2008). Overweight Children: Assessing the Contribution of the Built Environment. *Prev Med*. 47 (3): 304 - 308. doi:10.1016/j.ypmed.2008.04.012. PMID 18539318.
- Handy, S. L., Boarnet, M. G., Ewing, R., & Killingsworth, R. E. (2002). How the built environment affects physical activity: Views from urban planning. *American Journal of Preventive Medicine*. 23 (2): 64 - 73. Doi: 10.1016/S0749 - 3797(02)00475 - 0. ISSN 0749 - 3797. PMID 12133739.
- Heath, G., Brownson, R., & Kruger, J. (2006). The effectiveness of urban design and land use and transport policies and practices to increase physical activity: a systematic review. *Journal of Physical Activity and Health*. 3 (s1): S55 - S76. doi:10.1123/jpah.3.s1.s55. PMID 28834525. S2CID 5971070.



- Horacek, T. M., White, A. A., & Greene, G. W. (2012). Sneakers and spokes: an assessment of the walkability and bike - ability of U.S. postsecondary institutions. *J Environ Health*. 74 (2): 8 - 15. PMID 21949979.
- Kramer, R. (2017). Defensible Spaces in Philadelphia: Exploring Neighbourhood Boundaries through Spatial Analysis. *RSF: The Russell Sage Foundation Journal of the Social Sciences*. 3 (2): 81 - 101. doi:10.7758/rsf.2017.3.2.04. ISSN 2377 - 8253. JSTOR 10.7758/rsf.2017.3.2.04. S2CID 149167954.
- Lawrence, D. L. & Low, S. M. (1990). The Built Environment and Spatial Form. *Annual Review of Anthropology*. 19: 453 - 505. doi:10.1146/annurev.an.19.100190.002321. ISSN 0084 - 6570. JSTOR 2155973.
- Lee, V., Mikkelsen, L., Srikantharajah, J., & Cohen, L. (2012). Strategies for Enhancing the Built Environment to Support Healthy Eating and Active Living. Prevention Institute. Retrieved 29 April 2012.
- Litt, J., Soobader, M., Turbin, M., Hale, J., Buchenau, M., Marshall, J. (2011). The influence of social involvement, neighborhood aesthetics, and community garden participation on fruit and vegetable consumption. *Am J Public Health*. 101 (8): 1466 - 73. doi:10.2105/ajph.2010.300111. PMC 3134498. PMID 21680931.
- Omer, A. M. (2015). Built Environment: Identifying, Developing, and Moving Sustainable Communities Through Renewable Energy. E - Book: Nova Science Publishers, Inc. pp. xxix. ISBN 978 - 1 - 63463 - 339 - 0.
- Pando, P. (2011). In the Nickel, Houston's Fifth Ward (PDF). Houston History Magazine.
- Rahman, T., Cushing, R. A., & Jackson, R. J. (2011). Contributions of built environment to childhood obesity. *Mt Sinai J Med*. 78 (1): 49 - 57. doi:10.1002/msj.20235. PMID 21259262.
- Renalds, A., Smith, T., & Hale, P. (2010). A Systematic Review of Built Environment and Health. *Family and Community Health*. 33 (1): 68 - 78. doi:10.1097/fch.0b013e3181c4e2e5. PMID 20010006. S2CID 21556333.
- Riggs, W. (2016). Inclusively walkable: exploring the equity of walkable housing in the San Francisco Bay Area. *Local Environment*. 21 (5): 527 - 554. doi:10.1080/13549839.2014.982080.
- Roof, K. & Oleru, N. (2008). Public Health: Seattle and King County's Push for the Built Environment. *J Environ Health*. 75: 24 - 27.
- Sallis, J. F., Cerin, E., Kerr, J., Adams, M. A., Sugiyama, T., Christiansen, L. B., Schipperijn, J., Davey, R., Salvo, D., Frank, L. D., & De - Bourdeaudhuij, I. (2020). Built Environment, Physical Activity, and Obesity: Findings from the International Physical Activity and Environment Network (IPEN) Adult Study. *Annual Review of Public Health*. 41 (1): 119 - 139. Doi: 10.1146/annurev - publhealth - 040218 - 043657. ISSN 0163 - 7525. PMID 32237990.
- Sallis, J. F., Floyd, M. F., Rodriguez, D. A., & Saelens, B. E. (2012). The Role of Built Environments in Physical Activity, Obesity, and CVD. *Circulation*. 125 (5): 729 - 37. doi:10.1161/CIRCULATIONAHA.110.969022. PMC 3315587. PMID 22311885.
- Sander, H. A., Ghosh, D., & Hodson, C. B. (2017). Varying age - gender associations between body mass index and urban green - space. *Urban Forestry & Urban Greening*. 26: 1 - 10. doi:10.1016/j.ufug.2017.05.016. ISSN 1618 - 8667. PMC 5716478. PMID 29225562.
- Smart Growth America. (2022). Complete Streets local policy workbook, Smart Growth America.
- Sussman, A. (2014). Cognitive architecture: designing for how we respond to the built environment. Taylor & Francis. ISBN 978 - 0 - 367 - 46860 - 6. OCLC 1224041975.
- Walk Score Methodology. (2012). Archived from the original (PDF) on 11 May 2012. Retrieved 30 March 2012.
- Zick, C., Smith, K., Fan, J., Brown, B., Yamada, I., & Kowaleski - Jones, L. (2009). Running to the store? The relationship between neighborhood environments and the risk of obesity. *Soc Sci Med*. 69 (10): 1493 - 500. doi:10.1016/j.socscimed.2009.08.032. PMC 2791711. PMID 19766372.