

Urban Health Solutions: Expert consensus on need to improve public transportation, green spaces, cycle routes and indoor air

Living in cities brings challenges such as air pollution, limited green spaces, and poor-quality transport. These factors can impact on our exposures to harmful pollutants and our health, particularly for vulnerable groups like children and young people.

Expert consensus surveys and workshops carried out by the ATHLETE project identified four interventions which are considered effective at reducing harmful urban exposures or improving health. Improved and affordable transport was elected as the most important intervention to implement, followed by improved green spaces, cycle route infrastructure, and indoor air quality. The involvement of local communities is key to identifying and gaining acceptance for these interventions.

Research and methodology

A multi-pronged approach was used to identify effective solutions to improving urban environments and health.

A review of the literature identified candidate interventions which could reduce harmful urban exposures or improve health.

International Delphi consensus surveys with researchers, local governments, and communities with lived experience identified four interventions which were effective at reducing exposures or improving health outcomes, as well as acceptable to communities, feasible to implement, and impacted a large number of people.

A stakeholder workshop in Bradford, UK with members of local government, researchers, community members with lived experience prioritized the identified interventions in order of importance and need.



Conclusion: Effective and desired interventions change the environment, not people's behaviors

Four interventions were identified as effective at reducing exposures or improving health outcomes, acceptable to communities, feasible to implement, and impactful – none focused on individual behavior change and all required structural and policy changes to help improve the environment as well as people's behaviors.

These were arranged in order of priority by our stakeholder group:

- Improved and affordable public transport.
- Improved cycle route infrastructure.
- Improved green infrastructure such as parks and other green space.
- Building regulations to improve indoor air quality.

Several points were raised which need to be addressed for the interventions to be successful:

- Affordable public transport tackles pollution and encourages active travel (meaning walking & cycling) but requires services to be accessible, frequent, and reliable.
- Improved green infrastructure benefits health and community pride but needs to be accessible to all, safe, and well-maintained.
- Improved cycle routes reduces reliance on polluting vehicles and encourages active travel but routes need to be joined-up, safe for cyclists, accessible to all levels of cyclists.
- Ensuring new building regulations can improve indoor air quality but including retrofitting of older buildings as well as addressing pollution sources would have the most impact.

Policy recommendations

Effective interventions have been identified and prioritized which alter the environment, not people's behavior or knowledge. Nudging a population's choices or behaviors requires structural and policy changes.

Working with local stakeholders and communities is encouraged as it can identify ways of ensuring interventions are accepted, accessible, and impactful. These include:

- Addressing barriers like accessibility, affordability, continued maintenance, and safety.
- Aligning initiatives with local needs and values.

References

Fernandes A, Ubalde-López M, Yang TC, McEachan RR, Rashid R, Maitre L, Nieuwenhuijsen MJ, Vrijheid M. School-Based interventions to support healthy indoor and outdoor environments for children: A systematic review. *International Journal of Environmental Research and Public Health*. 2023 Jan 18;20(3):1746.