

Why is promoting daily walking not a priority in European cities? A review and research agenda

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1. THE CASE FOR URBAN WALKING. Evidence shows that walking is not among the highest priorities in European cities (we make the case that it should be)
2. LACK OF INTERNATIONAL LEADERSHIP. Evidence that there is a lack of leadership on this specific issue from the highest levels (WHO Healthy Cities, UN SDGs...)
3. BOTTOM-UP REQUIRES TOP-DOWN. Policy makers at local levels could use guidelines from higher, international levels (e.g. WHO, UN, UE). Bottom-up initiatives are necessary but need support and justification from higher policy levels.
4. CONTRIBUTING/AGGRAVATING FACTORS. Evidence that the lobby for walking is relatively weak, compared to the lobby for cycling for example. And there are less commercial interests.
5. CONCLUSION: next steps (next 1-2 years) and research agenda (next 3-5 years)

THE CASE FOR URBAN WALKING I

A. Humans are made for walking

- Humans are genetically designed to walk. Hunter-gatherers past and present walk(ed) around 6-12 km/day (*Marlowe 2005, Pontzer 2012*)
- Compared with quadrupedal mammals of similar body mass, human walking is economical of metabolic energy, whereas human running is expensive (*Studel-Numbers 2003, Alexander 2004*)
- Walking is highly prevalent among other animal species. Domestic cows typically cover 7-10 km per day (*Rouda et al. 1990, Raizman et al. 2013*). Wild reindeer cover up to 16 km per day during the summer (*Reimers et al. 2013*)

B. Walking is less prevalent now than at any other time in history

- Johann Sebastian Bach “many times walked the 30 mile distance to Hamburg”, “walked 60 miles to Celle” ... William Turner did “20–25 miles a day, with his baggage at the end of a stick”. Abraham Lincoln “would walk 30 miles, round trip, to obtain a book” (*Walker et al. Nutrition, 2003*)
- “Unfortunately, it has become apparent that the natural habit of walking has been re-shaped by modern life. A single stark example illustrates this point. Older Order Amish people (who abjure motorized transport and other modern technologies) average 14,000 (women) to 18,000 (men) steps/day (*Bassett et al., 2004*). In contrast, the average U.S. adult averages 5200 to 6500 steps/day” (*Bassett et al., 2010; Tudor-Locke et al., 2009, 2011*).

THE CASE FOR URBAN WALKING II

C. Walking is good for health, including mental health

Causal association between regular physical activity and reduced rates of: coronary heart disease, stroke, type 2 diabetes, osteoporosis, colon and breast cancers, anxiety and depression. (*Walker et al. 2003*), (*CDC. Nutr Rev 1996*), (*MMWR 2000*) (*Berlin & Colditz. Am J Epidemiol 1990*), (*Hakim et al. NEJM 1998*).

Review of 43 studies: “Evidence from observational studies suggests that a low-fat, high-fibre diet might be protective against cancer recurrence and progression. However, there is a paucity of RCTs substantiating this. There is more support for physical activity, with a dose response for better outcomes.” (Davies et al. *BJC* 2011).
Disclaimer: walking must be fast enough (~3 MET).

D. Evidence that lack of walking is the main factor fuelling the global epidemic of overweight and obesity

Overweight and obesity prevalence are particularly high in N. Am, UK, SW Europe. Physical activity levels are lower in overweight compared to normal weight youth. In 91% of countries examined by *Janssen (Obesity Reviews 2005)*, the frequency of sweets intake was lower in overweight than normal weight youth. Overweight status was not associated with the intake of fruits, vegetables, and soft drinks or time spent on the computer. Pop. surveys in 14 countries and 50 US states showed statistically significant negative relationships between active travel and self-reported obesity (Pucher et al. *Am J Public Health* 2010).

Also: read (critically!) *The Big Fat Lie*, by Christopher Snowdon

D. The global rise of non-communicable diseases is linked to the lack of walking

Some "risk factors" quoted as fuelling the rise of non-communicable diseases are themselves subclinical (or clinical) markers of inflammation and/or cardiovascular disease. It is incorrect to consider hypertension as a risk factor at the same level as lack of physical activity, because lack of regular physical activity is one of the main reasons for hypertension at population level, e.g. a dose-response relationship between distances walked to work and hypertension found in a cohort of 6000 Japanese men (Hiyashi, Ann Intern Med 1999).

E. Walking is more inclusive than cycling

Walking is often lumped together with cycling under vague terms such as sustainable transportation. However, some people will never be able to cycle. In most countries, men cycle far more than women, and cyclists tend to be younger and fitter than many walkers. Cycling entails danger to other cyclists, but also to pedestrians. Disclaimer: this is not to denigrate cycling, but to show that it cannot solve all public health and transportation problems in cities! (*cf. Designing More Inclusive Streets: the Bicycle, Gender, and Infrastructure, by Ainsley Henry Judge*)

F. Walking is the perfect companion to public transport (mass transit)

Walking is better suited than cycling for enabling people to move to and from public transportation. According to data from the Swiss travel survey (MRMT2010) based on 62'000 participants in a nation-wide representative sample aged 6-99), walking is positively associated with the use of public transport on the same day ($p < 0.05$), while cycling is negatively associated with all modes except public transport for which there was no correlation ($p = 0.83$). Again, our objective is not to reduce investment in cycling infrastructure, but to point out that walking is not granted enough investment, especially regarding access to train stations and bus stops (*Christie et al. manuscript not yet submitted for publication*).

G. Walking is more sustainable and economic than any other mode

Walking requires less infrastructure than any other mode (but still requires some). There is evidence that infrastructure provision is a necessary but not sufficient condition for mode shift. Several studies support the construction of walking (and cycling) routes, while emphasising that such infrastructure alone is not enough to promote active travel. (*e.g. for the UK: Song et al. 2017*)

Gluttony in England? Long-term change in diet.

Rachel Griffith, Rodrigo Lluberas, Melanie Lührmann

IFS Briefing Note BN142 (not a peer-reviewed scientific publication)

- Substantial decline in the calories purchased by households between 1980 and 2009 (depending on the household type, between 15% and 30% fewer calories)
- Both households that purchase the most calories and those that purchase the least have reduced calories purchased.
- The largest reduction in calories – 27% to 30% – is among couples with children and multi-adult households.
- Calories purchased for consumption outside the home have increased by as much as 70% for some households.
- Calories purchased for consumption at home still make up the majority: the increase in calories purchased for consumption outside the home is much less than the reduction in calories purchased for consumption at home.
- Calories purchased as alcohol have declined for most household types and account for only 3% of total calories on average.
- This raises a puzzle, as the average weight of an adult male increased by 8.6 kg and the weight of an adult female by 7.9 kg over the same period.
- The literature focuses on increased calorie consumption as the reason for increased body weight. In England, we see a *decrease* in total calories purchased.

2. LACK OF INTERNATIONAL LEADERSHIP.

Evidence that there is a lack of leadership on this specific issue from the highest levels (WHO, UN SDGs...)

To investigate this hypothesis, we undertook a secondary analysis of complex and wide-reaching evaluation of the Phase V of European Healthy Cities programme. References to this evaluation include:

Healthy Cities Phase V evaluation: further synthesizing realism.

E. de Leeuw et al. Health Promotion International (2015)

Policymaking in European healthy cities.

E. de Leeuw et al. Health Promotion International (2015)













































European Healthy City Network Phase V: patterns emerging for healthy urban planning.

M. Grant. Health Promotion International (2015)

Our review of WHO/EURO Healthy Cities data yielded two Phase V core themes indirectly related to walking: healthy living, and healthy urban environment and design. Within the latter, "healthy urban design" was identified among 8 "important issues". It is defined as "creating socially supportive environments and an environment that encourages walking and cycling".

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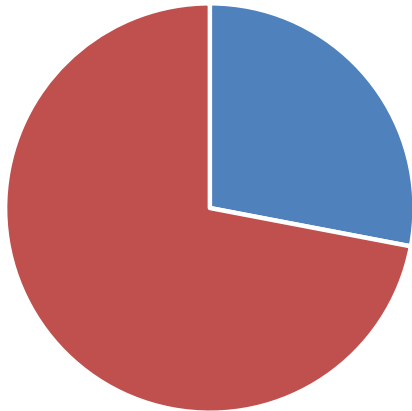
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The word fragment "walk" appeared in only 16 out of 58 of the Healthy Cities questionnaires, so:

28% of the cities mentioned walking
72% of the cities did not mention walking

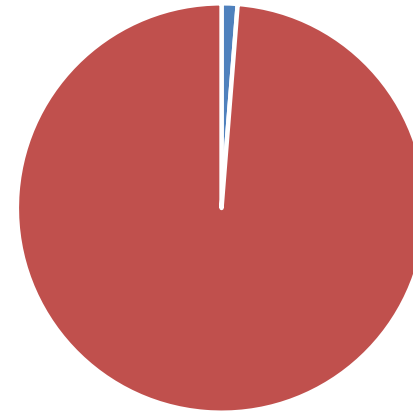
Proportion of Healthy Cities



■ walk mentioned ■ walk not mentioned

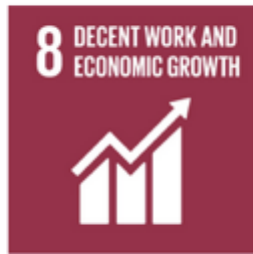
Within the 159 case studies, submitted for the evaluation, only 2 mentioned walking (Dresden and Kuopio), so: less than 2% of the case studies mentioned walking...

Proportion of case studies



■ walk mentioned ■ walk not mentioned

The Sustainable Development Goals (SDGs)



None of the UN Sustainable Development Goals (SDGs) mention walking explicitly...

However, it can be considered that walking is implicitly included in...

SDG3: Ensure healthy lives and promote wellbeing for all at all ages.

SDG11: Make cities and human settlements inclusive, safe, resilient and sustainable.

SDG13: Take urgent action to combat climate change and its impacts.

So we decided to investigate a few other guidance and policy documents...

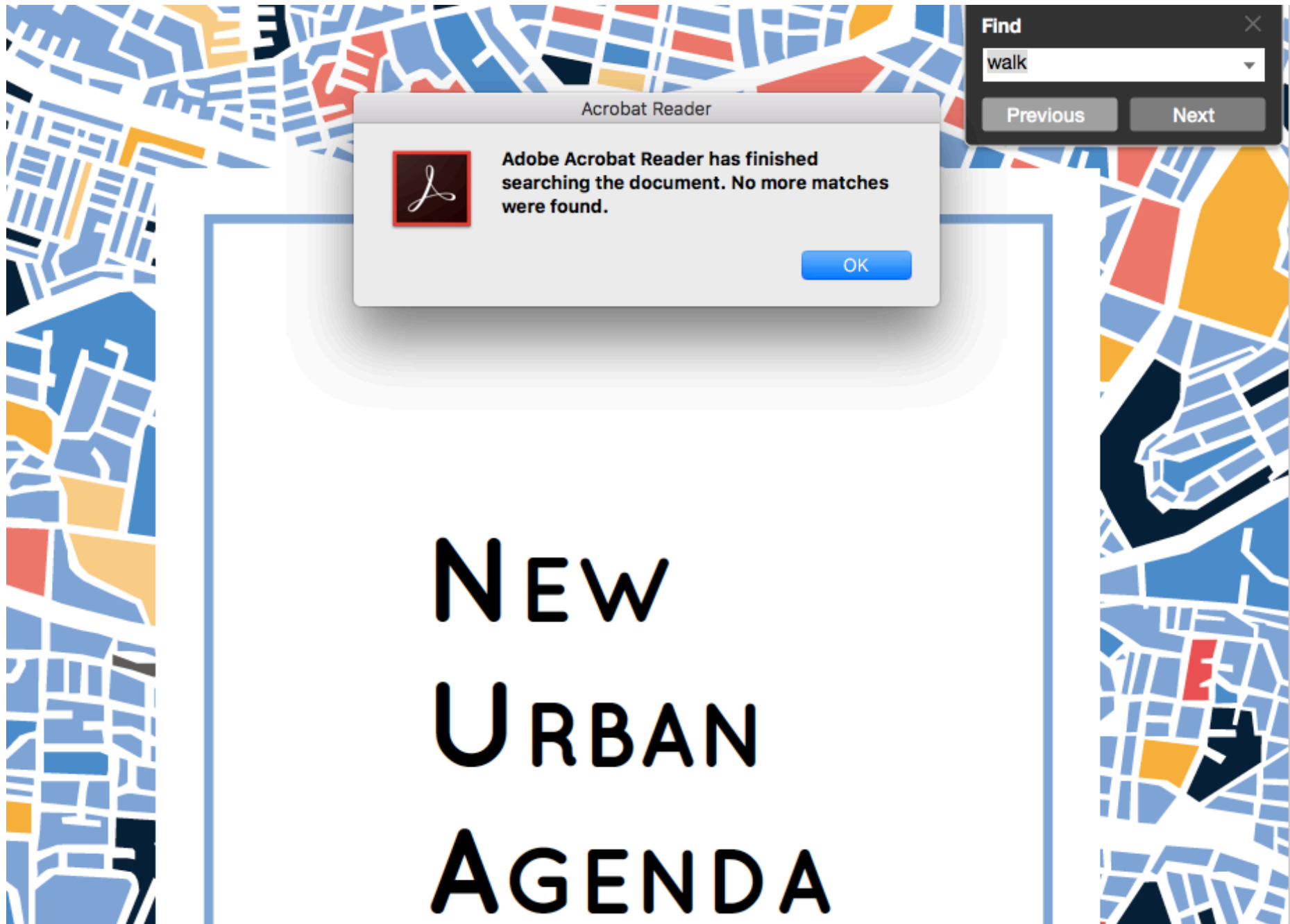
Walking is mentioned in 3 places in the 66 pages of the New Urban Agenda (Quito 2016)

Point 37. We commit ourselves to promoting safe, inclusive, accessible, green and quality public spaces, including streets, sidewalks and cycling lanes, squares, waterfront areas, gardens and parks, that are multifunctional areas for social interaction and inclusion, human health and well-being, economic exchange and cultural expression and dialogue among a wide diversity of people and cultures, and that are designed and managed to ensure human development and build peaceful, inclusive and participatory societies, as well as to promote living together, connectivity and social inclusion.

Point 100. We will support the provision of well-designed networks of safe, accessible, green and quality streets and other public spaces that are accessible to all and free from crime and violence, including sexual harassment and gender-based violence, considering the human scale, and measures that allow for the best possible commercial use of street-level floors, fostering both formal and informal local markets and commerce, as well as not-for-profit community initiatives, bringing people into public spaces and promoting walkability and cycling with the goal of improving health and wellbeing.

114. We will promote access for all to safe, age- and gender-responsive, affordable, accessible and sustainable urban mobility and land and sea transport systems, enabling meaningful participation in social and economic activities in cities and human settlements, by integrating transport and mobility plans into overall urban and territorial plans and promoting a wide range of transport and mobility options, in particular by supporting:

- (a) A significant increase in accessible, safe, efficient, affordable and sustainable infrastructure for public transport, as well as non-motorized options such as **walking** and cycling, prioritizing them over private motorized transportation;
- (b) Equitable “transit-oriented development” that minimizes the displacement, in particular, of the poor, and features affordable, mixed-income housing and a mix of jobs and services;
- (c) Better and coordinated transport and land-use planning, which would lead to a reduction of travel and transport needs, enhancing connectivity between urban, peri-urban and rural areas, including waterways, and transport and mobility planning, particularly for small island developing States and coastal cities;
- (d) Urban freight planning and logistics concepts that enable efficient access to products and services, minimizing their impact on the environment and on the liveability of the city and maximizing their contribution to sustained, inclusive and sustainable economic growth.



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NEW URBAN AGENDA

**And in 2 places in the 26-page executive summary of the
Global Report on Urban Health (2016)**

Cities also have the authority to improve the physical environment – housing, sidewalks, parks, roads – to be safer and healthier for all. (page 11)

Planning for transit-oriented development, with multi-use spaces and residences clustered around mass transit options and walkable spaces is ideal. (page 16)

**Perhaps a counter-example:
“walk” appears 5 times in the WHO 2013-2020 Global action plan for
the Prevention and control of non-communicable diseases**

3. BOTTOM-UP NEEDS TOP-DOWN.

There is evidence that policy makers and implementers at local levels may use guidelines from international levels (e.g. WHO, UN, UE). Bottom-up initiatives are necessary but need support and justification from higher policy levels:

“a consistent and integrated commitment is required at all levels of governance and across all parts of the transport system to transition away from automobility and towards sustainable mobility.” (*Stephenson et al. TRPD, in Press*)

Top-down theorists (Matland 1995; Sabatier 2005; Sabatier and Mazmanian 1979), see policy designers as central actors who require six legal and political conditions for effective implementation: clear objectives, causal theory, legal structure of the implementation process, committed officials, supportive interests groups, and no undermining of socio-economic conditions.

The top-down approach seeks to develop generalisable policy advice and come up with consistent recognisable patterns in behaviour across policy areas, however local actors must also be taken into consideration.

(Source: The Nature of Policy Change and Implementation: a Review of Different Theoretical Approaches. Lucie Cerna, OECD 2013)

4. CONTRIBUTING/AGGRAVATING FACTORS.

The lobby for walking is relatively weak, compared to the lobby for cycling for example. And there are less commercial interests.

Pedestrian advocacy movements in the USA: www.humancentereddesign.org

The image shows two screenshots from Wikipedia. The top screenshot is the article page for "Cycling advocacy". It features the Wikipedia logo, navigation tabs for "Article" and "Talk", and a search bar containing "walking advocacy". The article text defines "Cycling advocacy" as activities to increase cycling adoption and safety, mentioning "urbanized areas", "legal changes", "cycling infrastructure", and "public education". It also notes that many organizations worldwide advocate for these goals.

The bottom screenshot is the search results page for "walking advocacy". It shows the search bar with the query "walking advocacy" and a message stating: "The page *'Walking advocacy'* does not exist. You can ask for it to be created, but consider checking the search results below to see whether the topic is already covered."

5. CONCLUSION

Let us not fall into the pitfall of saying that different sectors or policy levels use different languages and don't understand each other (becomes a self-fulfilling prophecy).

In this presentation, we have preliminary evidence that clear-cut, simple messages about promoting daily walking systematically in urban settings are not being sufficiently produced, distributed, received and acted upon.

Our hypothesis is now sufficiently validated to justify more testing: more guidance from supra-national bodies may help local authorities to prioritise walking in urban areas.

Next steps 2018-2019

Investigate whether public health authorities at local level:

- 1) Advocate for walking on a public health basis (hypothesis: yes)
- 2) Intervene in urban planning and transportation issues at local level to favour walking (hypothesis: no)
- 3) Require additional guidance and prioritisation of walking at supra-national levels in order to feel justified in intervening beyond their “sector” (hypothesis: yes)
- 4) Open question: what form would this guidance and prioritisation take?

Research agenda 2020-2023

Comparative study across several medium-sized European cities (and beyond?) to test hypotheses and questions 1-4.

Thank you for your attention!



<http://laurenharrisonart.tumblr.com/post/11629203299/no-walking>

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