

Creating Environments that Support Healthy Living Using Methodologies for Deep Understandings

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Abstract: There is a growing body of interdisciplinary research which demonstrates that the built environment plays a significant role in supporting people being healthy as part of everyday living. This is the theoretical setting for our paper in which we present outcomes of an Australian Research Council funded Linkage project involving partners from the built environment and health (UrbanGrowth NSW, Heart Foundation, and SW Sydney Local Health District). Focussing on four diverse residential localities in metropolitan and near-metropolitan Sydney, the research employs a rich mix of methods that emphasise in-depth and detailed observations. The study areas are examined to assess how they enable or hinder three key healthy behaviours identified from our earlier research: (1) physical activity via both recreation and transport; (2) easy access to nutritious food; and (3) social interaction. The paper details the research methods used – our Healthy Neighbourhood Audit Instrument specifically developed for the study; individual interviews and focus group discussions; and food and farmers' market surveys. We then outline significant qualitative findings across these three healthy behaviours, with an analysis of the built environment factors that best support them. While each locality provides distinct lessons, there is much in common. Access to healthy food is good in all areas, but in poorer suburbs there is less variety of fresh fruit and vegetables. Gaps tend to be filled by community gardens, markets, and food box programs. Getting sufficient physical activity for health benefits remains an issue across the study sites. The need to provide public transport and associated active modes of getting around safely are paramount for all localities. Neighbourhood social interactions tend to be low where residents have less time in their neighbourhood, full time work commitments and other competing interests. Implications for creating healthy built environments in different urban settings conclude the paper.

Key Words: Health supportive built environments

Introduction

The role of the built environment in supporting human health is irrefutable (Barton et al., 2015). What is not so well understood are the local nuances of different environments and how diverse populations respond to varying interventions designed to support healthy behaviour. In this paper we present selected key qualitative findings of an Australian Research Council Linkage project aimed to fill this gap. Our study examines the ways in which four newly-establishing and/or redeveloping residential areas in New South Wales (NSW) support healthy behaviours. The project was undertaken between 2011 and 2015 with partners from the development (UrbanGrowth NSW) and health (Australian Heart Foundation and SW Sydney Local Health District) sectors. This brought a multi-disciplinary perspective to the study. Equally important, mixed research methods, with an emphasis on qualitative data collection, were employed. This facilitated a thorough appreciation of local conditions and built environment interventions to support healthy behaviours across diverse neighbourhoods, together with an in-depth understanding of the responses from the varying population groups.

Our paper initially outlines the theoretical context of healthy built environments, the four study sites, the central research questions and the methods used. Focussing on how the built environment supports key healthy behaviours of physical activity, social interaction and consumption of nutritious food, we then present our principal qualitative research findings. Finally, the paper draws out implications suggested by the research for creating and managing healthy built environments in different urban settings.

Healthy Built Environments Context

Advancing human health was a cornerstone of urban planning in the early 18th Century, but as living conditions improved, this focus dissipated. However, over the last two decades we have seen a re-emergence of concerns about human health, but this time with attention centered on the burden of chronic disease as an outcome of sedentary lifestyles. There is strong empirical evidence showing the relationship between the ability of people to be healthy in their everyday lives and the design of residential neighbourhoods, commercial precincts and transport systems (Barton and Tsourou, 2000; Frumkin *et al.*, 2004; Corburn, 2009; Dannenberg *et al.*, 2011; Barton *et al.* 2015).

The evidence points to a broad range of influencing factors, including modes of transport, land use configuration, housing type, social mix, public safety, access to food and provision of community spaces. A review of these factors in 2011 (Kent *et al.*, 2011; see also Kent and Thompson, 2014) revealed three key ways in which the built environment can provide structural foundations to support individual healthy behaviour:

1. Physical activity: the built environment influences how we travel and facilitates opportunities for recreation.
2. Social interaction: the built environment facilitates orderly social interactions via community spaces, access to nature, and ensuring real and perceived safety.
3. Nutritious food: the built environment assists healthy eating through land use provisions that support fresh food shops, and balance the advertising and general visibility of healthy and unhealthy foods.

These three domains define the research questions at the centre of the project: what features of the built environment support residents to be:

- physically active in their everyday lives?
- socially connected and mentally healthy?
- able to easily access healthy food?

The Study Sites

The four study sites represent a variety of built environment interventions for human health. The localities are at different points in the development cycle, and have diverse population characteristics, residential densities and geographical attributes. Our research partner UrbanGrowth NSW played a crucial role in the planning, development and redevelopment of each site:

The study sites have the following characteristics, with typical development depicted in the accompanying images.

Victoria Park: An inner city (SW of Sydney CBD) master planned neighbourhood comprising 2,500 dwellings on former industrial land. No explicit incorporation of healthy design principles, but with health co-benefits from an emphasis on environmental outcomes and community development.



Figure 1: Typical development in Victoria Park

Airds Bradbury: A low density public housing estate of 1500 dwellings (SW of Sydney) undergoing significant redevelopment to reduce the proportion of public housing and upgrade the public domain. Close collaboration between State agencies to promote equitable health outcomes via social programs and radical changes to the built environment.



Figure 2: Typical development in Airds Bradbury

Rouse Hill: A comprehensive master planned suburban fringe neighbourhood in the NW Sydney metropolitan growth corridor. Incorporates a regional mixed-use town centre, low and medium density housing and community facilities. No explicit incorporation of healthy design principles, but with health co-benefits from an emphasis on environmental outcomes, community development and inclusion of recreation facilities (gym, swimming pools, walking and cycling paths).



Figure 3: Typical development in Rouse Hill

Renwick: Adjacent to Mittagong township 100 kms south of Sydney, this is a new low density residential estate of 600 dwellings within a broader rural setting. Explicit collaboration with the National Heart Foundation to incorporate 'Healthy by Design' principles (National Heart Foundation, 2004).



Figure 4: Typical development in Renwick

Methodology

The study comprised a rich mix of investigative methods to build an in-depth and detailed picture of the built environment-behaviour interactions in the four sites. These research methods are elaborated elsewhere (Mitchell and Thompson, 2012; Thompson *et al.*, 2013; Thompson and Mitchell, 2015). In brief, they involved a team of investigators over a number of visits at different times conducting on-site audits of the physical environment using a specially-developed instrument. Structured interviews were conducted with 20 residents of each area. This was augmented with follow-up focus groups to explore the research questions in more detail. A market basket assessment of food availability and a farmers' market survey completed the data collection.

Qualitative analysis was structured around the three healthy built environment domains identified earlier. Using our in-depth understandings of the neighbourhoods and residents' comments on the varying built environment layouts of their areas¹, we now present key findings.

Key Research Findings

The built environment and physical activity

Of the three domains, physical activity, with its implications for a range of physical and mental health conditions, is perhaps the most critical. And while study participants indicated a good awareness of the need to be active for good health, there is a lingering propensity to default to the car, especially for transport.

The car is too convenient – I carry a lot of stuff for work, so I can't imagine carrying that to the train station. (VPI)

Driving is more the mode in the country. I don't really get public transport. (RI)

For some residents, being physically active is to do with recreation, not transport.

[I jog] when it's convenient for me... If I'm exercising, I'm exercising. If I'm getting somewhere, I guess I'm driving. It's a mental thing for me. (RH FG)

Walking for recreation is popular, but there is also a desire for varied and longer routes and interesting destinations to counter boredom. Sometimes this may be easy to resolve by planners, for example by making residents aware of routes and destinations, as well as ensuring that infrastructure is well connected.

The neighbourhood is disconnected from the places I like to walk. (VPI)

There is a latent interest in cycling, but it is not taken up due to concerns about sharing roads with unsympathetic car drivers.

Safety is a concern – too many roads (as opposed to dedicated cycle paths), far too much risk of being knocked over. Would like more cycle overpasses. Don't think Australians are kind to cyclists. (VPI)

¹ Quotes are used from the individual interviews and focus groups. The notation is as follows:

ABI – Airds Bradbury Interview; AB FG – Airds Bradbury Focus Group; RHI – Rouse Hill Interview; RH FG – Rouse Hill Focus Group; VPI – Victoria Park Interview; VP FG – Victoria Park Focus Group; RI – Renwick Interview; R FG – Renwick Focus Group.

In NSW, only 54% of adults achieve minimum recommended levels of physical activity (NSW Ministry of Health 2013). Participation in Airds Bradbury and Rouse Hill is similar, mainly due to low use of active transport modes. Low densities with spread-out facilities and employment opportunities, together with a limited bus service, also contribute. In Airds Bradbury it is more difficult to be active, despite residents having an understanding of how critical this is for good health. There are few attractive local destinations, and for older study participants, mobility levels and concerns about personal safety in public places are a factor. Poor mobility means a higher standard of infrastructure is important (level, well-maintained footpaths; seats to rest on; bus access to the local pool), but low public investment means this is not achieved.

Yeah, with the walking stuff, the walking tracks, I do think we need them, but I do think they also need to cater for people like me who have mobility issues...I have trouble walking on normal ground, because it's so uneven. (AB FG)

There are also requests for supportive group activities to encourage take-up and alleviate the safety concerns. The cost of commercial gyms, and even aqua aerobics classes at the local public swimming pool, is also an issue in this low income area.

By contrast, these issues are not apparent in Rouse Hill which has good facilities close by and well connected walking and cycling paths in the locality.

...you kind of have no excuse because you can just go outside your door and start jogging along the paths and wander round some nice little places and then loop back around.(RH FG)

However, uptake is not good, with a car culture, even for short distances, predominating. The planning approval for the Town Centre required preparation of a "green travel plan" as part of its intended environmental objectives. There is an obvious health co-benefit. However, the plan and its implementation, via a dedicated position, tend to focus on the journey to work. There is clearly a need to address active transport more broadly for residents.

In comparison, nearly everyone in Victoria Park and Renwick reported that they achieve recommended levels of physical activity. Study participants in Victoria Park tend to be younger and active. There is engagement in vigorous recreation activity such as swimming, jogging, gym attendance and team sports. Some have access to active recreation facilities in their apartment buildings and work places. That said, a high proportion of physical activity is also associated with active transport. Over three quarters of respondents walk for transport and almost a third of all trips are undertaken by walking, compared with the Sydney average of 17.5% (Bureau of Transport Statistics, 2014). So while both Victoria Park and Rouse Hill can be regarded as transit orientated development (albeit at present, mostly reliant on buses²), only Victoria Park appears to be achieving the objective of an increased use of active transport.

Participants in Rouse Hill and Renwick report that they are currently healthy. However, this is largely attributable to their life-cycle stage and there is a risk that health status will decline as people age, particularly if the low use of active transport continues. Higher rates of active transport are possible in Rouse Hill, particularly with the opening of a new rail line in 2019. As well, greater use of local recreational walking and cycling paths is possible. However, there is a limitation in that pedestrian routes, particularly across the central riparian open space, appear to have been designed with recreational walking more in mind rather than access to the Town Centre and its public transport connections. This issue needs to be addressed to take full advantage of the future rail line. Intervention programs to stimulate use of the provided walking and cycling infrastructure will also be required.

The semi-rural location of Renwick means that the viability of active transport will always be low.

Cycling is not something to do for utility in the country. (RI)

² Victoria Park also has access to a railway station but it is 800-plus metres away via an indirect route. Directness of access will improve as the Green Square Town Centre develops. A new rail service connecting Rouse Hill to the Sydney network and regional employment areas is under construction.



Figure 5: Good alignments are critical to facilitate cycling and walking. Left: Renwick. Right: Rouse Hill

Most physical activity undertaken by Renwick respondents is in the 'moderate' category. There are sufficient facilities in the wider locality to support 'vigorous' activity, even if access by car is generally required. However, some important planning and design deficiencies are also apparent. Proposed neighbourhood recreation facilities relate to passive uses only and, as suggested by participants, need to be supplemented with informal active facilities. As well, there are critical gaps between pedestrian and cycling paths and local facilities. For example, the routing of a cycling path does not appear to have accounted for the railway line and as such fails to connect with an existing regional cycle path to a nearby swimming pool and recreation area.

There's no local shop or café that's walkable. It would be nice to be able to walk to a local shop or café. (R1)

Not having a park directly accessible [is a barrier to walking] – we need a destination. (R1)

Waiting for recreational cycling tracks to be developed – a reason I bought here was because they promoted this in the marketing. (R1)

The built environment and social interaction

While difficult to quantify, there is no question that social connection is critical for good health. Auditing in Rouse Hill revealed an absence of people in the residential streets. Participants cited the competing demands of establishing their houses and gardens, together with time taken to commute to and from work.

I would like some more interaction with my neighbours. But most are new to the area and are fairly busy – everyone is trying to get their house and garden in order, not focussing on the social aspect right now. (RHI)

In Victoria Park and the Town Centre area of Rouse Hill, where most dwellings are multi-storey, participants talked about difficulties in getting to know neighbours, as well as few opportunities to interact socially.

There's a lack of opportunity to meet neighbours in the apartment block. No common area to bump into people – only the hallway. Also there's a large proportion of renters – people come and go and you see lots of people but don't know who actually lives there. Only time you see people and talk is when the fire alarm goes and you are standing around outside with nothing else to do. (VPI)

Nevertheless, it is interesting that participants generally indicated satisfaction with this situation, suggesting that they rely on other social networks or family interactions. This is particularly evident in Airds Bradbury where, although having a longer-established population, levels of trust and affiliation with others in their immediate street tend to be lower.

I interact a lot with my nuclear family – I don't have a need to socialise with neighbours. (RHI)

I socialise with my neighbours in the street – but this usually only occurs when triggered by an unpleasant event. (ABI)

That's my preference, yeah, I don't like to get friendly with my neighbours, never have, no....Oh I know if we need them at all they'd be there, yeah, not a problem, but no I just don't like to get friendly with my neighbours. (AB FG)

The exception is Renwick where a more neighbourly rural atmosphere presides and socialisation amongst neighbours is higher. Many participants come from elsewhere in the sub-region and already know each other, but an interesting phenomenon was also described – the evening stroll around the neighbourhood to “check out” the new houses and neighbours. This activity increases incidental meetings.

...because we are all new houses and new people to the area and we're all walking around seeing what's happening and what house is being built there and that sort of thing we're meeting people who are putting in fresh gardens and everyone is talking to everyone because we're all new... Yet you go into another suburb where everyone's been there for years and you'll never meet a soul. (R FG)

Nevertheless, when asked more generally about their satisfaction with opportunities to meet neighbours, participants in all study areas expressed a desire for something more, which we have broadly termed “connection”. Airds Bradbury and Rouse Hill participants commented about how easy availability of the internet and movies on pay TV takes them away from each other. In Rouse Hill, there was a desire for more community events including activities at the library, a social network club and exercise groups. Those in Victoria Park would like to get to know other long-term residents in their building. In Renwick there is a yearning for early establishment of places to meet and relax together, such as local shops, a café, and parks with facilities designed to encourage child and family interaction. And while there is an existing neighbourhood centre and ample open space areas in Airds Bradbury, they have become so run-down they no longer fulfil a social interaction role. As one participant commented, “we have lots of open space, but no real parks as such”; and another, that the existing shopping centre needs to be “completely rebuilt”. In addition, concerns about safety in these areas, particularly for those who are less mobile, reduces the propensity to be out-and-about. By contrast, participants in Victoria Park feel safe in their streets, even at late hours, given good lighting and the presence of others undertaking evening strolls – here the Asian community was mentioned.

I meet a lot of people in the park, which is very accessible. I'm strongly satisfied with the number of people I have met in the 4 years I've been here. The area is well-designed that way – and with no main through street. There's a feeling of identity - belonging. (VPI)



Figure 6: Park designs influence levels of social interaction. Left: Airds Bradbury. Right: Victoria Park

As these examples show, the role of the built environment in facilitating social interaction is both about form and management, including the timing of the provision of facilities. It is important that planners keep abreast of community needs, aspirations and local activities to ensure the right facilities are provided. In Victoria Park, management of an open space area for dogs has created a well-used social meeting point.

I think having the dogs makes you more likely to interact... (VP FG)

A meeting point kiosk, BBQs, and a weekly market provide additional community foci, as does a well-designed playground and an informal ball court in other local parks. A Men's Shed in Airds Bradbury

has a similar role. In Rouse Hill the first residents commenced a community food garden. Similarly, in Airds Bradbury and Victoria Park we found individuals who had established themselves as social catalysts by organising get-togethers or by just sitting and chatting with others in public areas. The employment of community facilitators (generally part-time and for a specified period) in Victoria Park, Renwick and Rouse Hill seeks to replicate this in a formal way, but with varying efficacy. Positive reference was made to the visibility and accessibility of these positions in Victoria Park and Renwick; however in Rouse Hill the position has been out-sourced with reliance on social media and as a result seems to be more detached and less effective.

The built environment and nutritious food

[There are] social expectations. It seems to be like a goal to have a [healthy diet]...it seems to be a positive attribute for people these days. It's one the magazines and newspapers and that focus on a lot. (RH FG)

Of the three healthy built environment domains, the accessibility of fresh foods is the least problematic. All study areas have good access to fresh foods either within, or just beyond, the neighbourhood (see Thompson *et al.*, 2013 for more details of both the market basket and farmers' market surveys). The main contributory factor is the presence of one, or both, of Australia's two major supermarket chains which currently have a marketing focus on fresh foods. The lack of a supermarket in Victoria Park at the time of the study generated much negative comment. This has now been resolved with the opening of a sub-regional retail development.

Many people shop at the supermarkets or fruit and veg store in Campbelltown, top up at supermarket in Airds if desperate. (ABI)

...you can get access to it, but you've got to get in the car and drive there and make an effort to do it. If it was easier access you'd just walk down... If there was a nice fruit and veg [store] or even if there was a...stall or something that came in, people would all gravitate to that. (R FG)

In Renwick there are currently no shops, and in Airds Bradbury the local independent supermarket sells only a limited range of fresh foods. Nevertheless, good alternative shopping locations are nearby. New local stores are proposed in both areas, with good prospects for active transport (walking and cycling) and social interaction co-benefits. However, the provision of fresh foods within these stores may be problematic, especially given the low predicted population densities.



Figure 7: Shopping centres with differences in promoting social interaction. Left: Airds Bradbury. Right: Rouse Hill

While participants have a good awareness of the need to eat healthily, they discussed ongoing individual dilemmas of temptation and the need for vigilance to “control portion size”, “eat less treats”, “drink less sugary drinks”, “eat a proper breakfast”, and the like. Although this is largely a matter of personal agency, advertising is also a factor. We looked at the relative visibility and prominence of advertising for healthy and non-healthy (‘energy dense-nutrient poor’ or EDNP) foods.

The two main supermarket chains now strongly promote their fresh food range, with prominent positioning near to store entrances. In the Rouse Hill Town Centre other fresh food shops selling fruit and vegetables, meat, chicken and fish are clustered adjacent to the supermarkets. In Victoria Park

the new retail centre includes an open and highly visible market stall design for its fruit and vegetable area. This clustering – and thus visibility – is not as prominent in the shopping malls near to Renwick or Airds Bradbury. In one location the few independent fresh food shops are in direct visual “competition” with the food court outlets, which predominantly sell EDNP foods. In the Rouse Hill Town Centre, the food court is in a separate zone and has a good mix of outlets. Positively, the design allocates each outlet with the same amount of space and signage area, and thus relative prominence and visibility.

As principally residential areas, advertising signage is minimal in the study sites. There is however, advertising around the fencing of the main sports oval in Rouse Hill. There was only one sign relating to EDNP foods, which was not particularly prominent. This may well be more the result of good luck than policy. There were no signs encouraging healthy eating.

Healthy foods can be made visible in other ways as well. Food growing can be seen in some private yards in Airds Bradbury and Renwick. There are community food gardens in Airds Bradbury and Rouse Hill, and in denser Victoria Park, there are community food planter boxes in some parks and a “home food growers” network on the local Facebook page. Nevertheless, these initiatives do not always reach their potential, suggesting the need for better management. Some spaces appear neglected, are hidden from public view, or contain no advice about who can participate and use the produce.

Facilitator: *Does anyone ever go to the community garden [near the Town Centre]?*

Participant: *I'm not sure how that operates. ... Because there's a locked gate, you can't get in. I don't know, there might be a small group of people who look after it, I don't know. (RH FG)*

...the original people, when we were a very small group, we all started [the community garden at Mungerie House] and we used to plant stuff and go and weed it and help yourself to things. For a couple of years it ran really well but, as the community got bigger and bigger, I don't know, we lost interest or something I suppose. It's one of those things. I think there's still some herbs growing. (RH FG)



Figure 8: Community gardens management is critical. Left: Rouse Hill. Right: Airds Bradbury

Regular farmers' markets are held in the Rouse Hill Town Centre and Victoria Park. Although participants recognised the food items here were “fresher” they tended to only buy specialities, rather than doing their regular shopping at the market, reflecting the “speciality” nature and often higher prices of these particular outlets.

I find farmers' markets expensive – so go to Parklea Markets instead. (RHI)

It is also the case that many of these positive features can be over-powered by prominent and accessible standalone clusters of drive-in EDNP outlets. One such area is situated next to the main shopping mall used by participants in Airds Bradbury. This was the source of adverse comment during the focus group about “junk food” consumption by “others”. This finding suggests the need for policies restricting such uses on the remaining peripheral future development sites adjacent to the Rouse Hill Town Centre.

Some Lessons for Creating Healthy Built Environments

The findings presented here generally support the healthy built environments literature. Through an in-depth understanding of the sites and the lived experiences of residents we have a deeper understanding of how four different localities, typical of new and redeveloping residential development in Australia, are supportive of healthy behaviour. Our findings, now that they have been identified, seem to be quite intuitive; they *feel* right. This though, can present a risk – that by being familiar, perhaps even mundane, they may not be regarded as commensurate with the other numerous and difficult-to-manage issues inherent in designing and developing our built environments. This would be a mistake. We must highlight these issues. Otherwise we risk failing to put in place in viable and effective ways built environment features necessary for our health. Worse, sometimes a built environment feature, because it has been evaluated too narrowly, can actively hinder good health outcomes – with consequent growing personal and community costs.

The following points, configured as “lessons” for achieving healthy built environments, coalesce some of the key findings of the research presented in this paper.

1. *Think outside the boundaries*

Master planning needs to go beyond the boundaries of the neighbourhood being developed and ensure there are good connections into an expanded network of health-supporting infrastructure and opportunities. Key questions here include:

- Are there facilities elsewhere that can be used?
- What is a viable connection to these facilities – that will be *used*?
- Do new facilities link up with others existing elsewhere, expanding the experience and the potential – for both existing and new residents?
- Will residents know about them, and be able to find them?

2. *Manage and respond*

Providing physical infrastructure and facilities to support healthy behaviour is only the beginning. Ongoing management and responsiveness to an evolving and growing community are essential if healthy behaviour is to continue. A good option is to design proposals “in the shoes” of the user, asking questions such as:

- Will this be used – would I use this?
- Is it convenient, safe, comfortable, attractive, accessible?
- Is it affordable? Are the opening hours suitable? Is there child-care?
- What is the quality of the experience – and can it be maintained to an acceptable level?
- Does there need to be concurrent, personalised programs to assist uptake?

3. *Be place-specific*

Communities are different – demographically and geographically. For instance, while it may be effective to promote active transport use in one area, in another it may never be viable and compensatory measures will be needed to achieve activity levels and social interactions. Some residents may have time available to engage in longer hours of moderate activity and community gardening, but for others time may be limited. Facilities responsive to varying needs are required to ensure that they are health-supporting across the life course and located where they will be most useful.

4. *Challenge car culture*

People still use their cars, rather than walk or cycle, for short local trips. Part of this is related to infrastructure – local streets designed for the car rather than the bicycle; indirect pedestrian or cycle routes that make local trips longer than they need to be; insufficient shade or seating along the way; a lack of interesting local destinations; ineffective local public transport. But it is not all about the infrastructure – it is also associated with behavioural habits, perceptions and belief systems. Understanding this is critical so that suitable programs can be selected to shift community behaviour.

5. *Listen to the locals*

People understand the connections between their health and daily activity, and are often active in creating their own solutions in the places they know well. This study found that such solutions are often holistic, at odds with some professionally designed infrastructure and facilities. Planners need to be open to hearing what individuals say *they* need to be healthy and happy. Collaborative working

arrangements are essential. Healthy built environments should facilitate such local actions, and draw on them to design facilities or programs for other areas. Here are some ideas from our study:

- Could the evening walk in Renwick be replicated more formally elsewhere?
- Would a Men's Shed work well in other areas?
- Could pop-up food vans, coffee carts or market trucks provide additional low cost social foci?
- Would giving each new household a personal shopping trolley to carry heavy purchases home encourage walking to the shops?

Conclusion

This paper has focused on qualitative findings from research on how typical Australian residential environments support healthy behaviours. The study outcomes demonstrate the importance of moving beyond the simple provision of infrastructure supportive of health, to deeper understandings of how different communities respond to varying initiatives, their local needs and aspirations, and cultural mores. Planners – and residents themselves – have much to offer in making places supportive of health as part of daily living – research such as this will assist in developing a sophisticated and nuanced understanding of the complexities involved.

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