Working for equity whilst improving urban public health: some challenges

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Introduction

This response to the Report of the WHO Commission on Social Determinants of Health focuses on the first part of Chapter 6, 'Healthy places, healthy people', and the implications for urban public health in high-income countries. The Report summarises well the emerging health problems of urbanisation: an inter-related mix of environmental threats within and beyond the city from high levels of carbon emissions; rising levels of obesity from high consumption and inactivity; crime and violence; transport injury and mental health disorders. Recommendations 6.1 to 6.3 of the Report call for better urban governance to tackle the determinants of health through designing healthier cities. Healthier cities are those that are environmentally sustainable, and in which the built environment and transport systems prevent, minimise or ameliorate health risks. Unplanned and unregulated growth is unlikely to lead to healthy design, and the report calls for local government and civil society to work together towards building healthier cities. Progress on the determinants of urban health will not result from actions of the health sector, but from good quality housing, decent and accessible public transport systems and built environments which enhance rather than threaten health.

Even in high income countries, the burden of urban ill health falls disproportionately on the poor. In responding to the Report's recommendations on urban health, I want to discuss two, connected, challenges in achieving health equity whilst addressing public health. The first challenge lies in the assumption that 'healthier' public policy inevitably leads to increases in equity. In practice, there are sometimes uncomfortable trade-offs between health gain and equity gain. If we are serious about tackling the determinants of health inequalities, even addressing such structural factors as transport systems may not be upstream enough in unequal societies. The impact of interventions is

often very different across population groups, leading to more health gain in the more affluent groups, thus exacerbating inequalities. The second challenge is one for the health sector, and public health professionals in particular. There has long been a tension in public health practice between the need to focus more upstream to address the determinants of health, but recognising that in so doing, it becomes less obvious what role health professionals have to play. Here, I suggest that in contributing to the necessary work to achieve health equity, public health needs to tread carefully and respectfully on ground well-trodden by other professions and by those vulnerable communities whose lives are affected by the interventions we may naively assume to be 'good for health and good for equity'. Not all partners in the enterprise of equity necessarily have 'health' at the top of their agenda: there might properly be other goals, which may not be as well aligned as we would wish. Further, even when health is the key consideration, it may not be constructed in quite the same way by all stakeholders. Again, we can too easily forget that there are often a multiple number of health outcomes that can be maximised by any particular intervention, and there may be trade-offs between them. To address the determinants of urban health inequality may have to proceed with less certainty about what 'health' might mean to the diverse communities that make up any city.
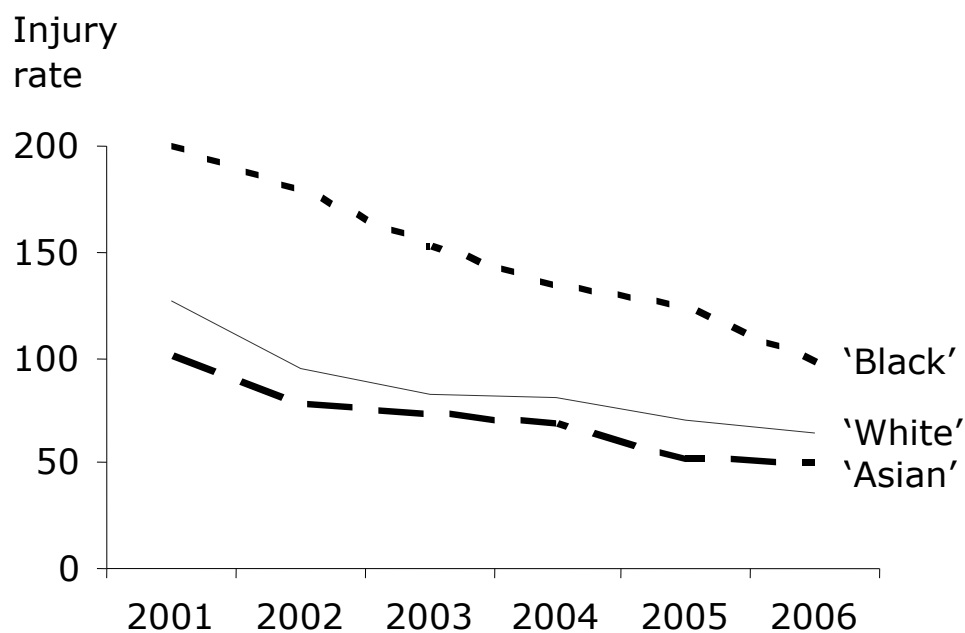
This response is not an argument for avoiding action directed clearly at the structural determinants of health. From the perspective of the UK, recent health policy has been unpleasantly focused largely on downstream, ameliorative efforts that have done little more than hold the vulnerable accountable for their own circumstances. These have involved 'targeting' deprived communities and areas (Department of Health 2003: 3) with ever more complex, often short-term, interventions in a largely ineffective attempt to off-set the effects of those structural inequalities that create vulnerability and deprivation (Marks 2006, Green 2005, Green and Edwards 2008). I therefore welcome the Report's uncompromisingly clear statement that, ultimately, the only way to achieve health equity is to increase social equity. This critique is not, then, directed at the need to address health inequality by addressing structural inequality. Rather, it is a reflection on the role of public health in this endeavour, and the need for public health professionals to contribute respectfully and cautiously. We need to respect the multiple ways in which health is constituted, which may not resonate with professional views, and we need to be more cautious about our assumptions that health gain in one area will not entail trade-offs in another health outcome, or for equity.

Transport system and urban health: a London case study

London provides a good case study of the 'new urban health' discussed in Chapter 6 of the Report. London has some of the highest levels of child poverty in the UK, high levels of unemployment among some groups in the population, and sharply polarised incomes (Mayor of London 2002). The transport systems of London are also a good illustration of how the public health effects of urban environments are inter-related, and thus rather complex to 'fix' in any way that can address all the determinants of health. Transport systems dominated by private car use have a range of effects on the public health, including direct effects from pollution and road traffic injury and indirect effects through decreasing the opportunities for healthier, more active travel and increasing community severance (Freund and Martin 2004, Hillman et al 1991, Woodcock et al 2007). These are also major issues for equity. As Freund and Martin (2004) note, car dominated systems disenfranchise the young, the elderly, those with physical and mental disabilities and those who simply do not possess the necessary 'alertness' needed to navigate at speed through ever more complex urban landscapes. Transport injury illustrates the persisting inequalities in many health outcomes, particularly for children. Our research, for instance, has demonstrated that in London, there remain stark gradients for the relative risk of pedestrian injury, with both children and adults who live in the most deprived areas of London up to three times more likely to be injured on the roads than those who live in the most affluent areas (Edwards et al 2006a).

Similarly, the risks for those in 'Black' minority ethnic groups were higher than those for other ethnic groups in the capital (Steinbach et al 2008). These findings are in line with international findings on road traffic injury – those in the poorest countries, and in the poorest population groups within countries, suffer a disproportionate amount of the health burden (Laflamme and Diderichsen 2000). As in many other high income countries, injury rates in the UK have declined dramatically over the last twenty years, but there has been little evidence of progress on inequalities (Edwards et al 2006b, Edwards et al 2008). Figure 1 illustrates this decline for three ethnic groupings in London between 2001 and 2006, and the persisting gap between children in Black minority ethnic groups and others. Here is a clear example of health gain with no equity gain.
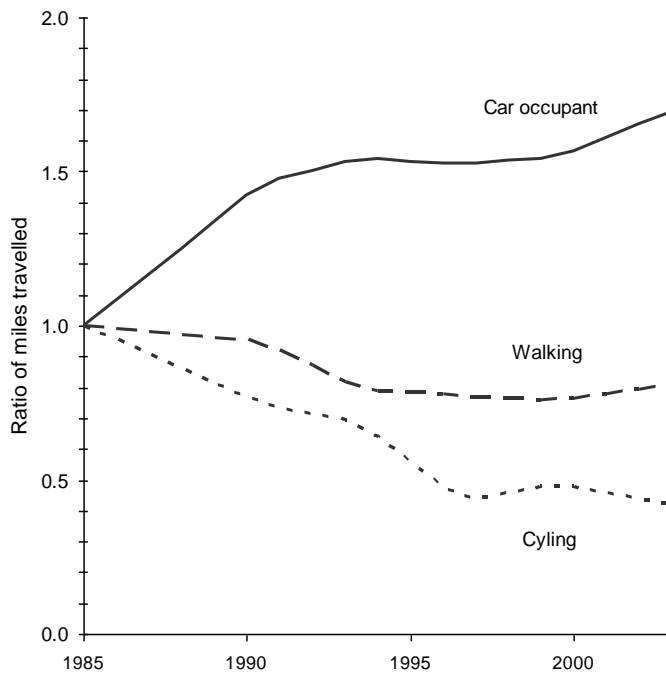
Figure 1: Child pedestrian injury rates by year for three ethnic groupings, London

Injury rate

(Source: Steinbach et al 2008)

These public health gains in injury rates have also come at the expense of costs in other health outcomes. One major contributor to declining transport injury rates in the more affluent cities is the reduced levels of walking and cycling undertaken. As shown in Figure 2, between 1985 and 2003, the proportion of miles walked by children in England and Wales had declined by 19%, the proportion of miles cycled had declined by 58% but the proportion of miles travelled as a car occupant had risen by 70% (Sonkin et al 2006). In cities where cycling is the norm, there is likely to be a 'critical mass' effect, where cycling becomes relatively safer as a mode of transport (Jacobsen 2003). In the UK, however, walking and cycling remain more 'risky' in terms of injury than being transported inside a car (Sonkin et al 2006). Some of the safety gain from reductions in pedestrian injuries has been at the cost of reduced physical activity (DiGuiseppi et al 1997), associated with rising levels of obesity in urban populations. Reductions in levels of active transport have implications for not only physical health, but also mental well-being from reduced opportunities for outdoor play and independent mobility in cities perceived as too dangerous to allow children out on the streets.

Figure 2: Trends in mode of transport used by children age 0 -14 years in England and Wales, 1985 to 2003.

The chart shows "Ratio of miles travelled" on the y-axis (0.0 to 2.0) and years (1985 to 2000) on the x-axis, with three lines labelled: Car occupant, Walking, and Cyling.

(Source: Sonkin et al 2006)

In the words of the Commission's Report, addressing the challenges of rapid urbanization will require "a new paradigm of urban public health" built on models of governance with the power to plan healthy urban environments in which active travel is encouraged. There is a growing (if as yet somewhat contradictory) body of research on the kinds of environment that can invigorate local communities, not only reducing congestion on the road, but encouraging the kinds of streets where people can walk, cycle, play and meet each other (Frank et al 2004, 2006, 2007; Day et al, 2007; Takano et al 2007). Healthy urban design is presented as a public health win-win scenario, in that good urban planning for densely residential neighbourhoods with good access to public transport and services will both encourage healthy lifestyles (more active transport, less pollution, less impact on global warming) and also reduce inequalities created by car-dominated systems or suburban sprawl that excludes the poorest. One of the case studies highlighted in the Report is the London Congestion Charge, introduced in 2003 to reduce traffic congestion in central London, along with several initiatives designed to improve public transport and reduce dependence on cars. This strategy appears to epitomise the possibilities of strong city governance to implement healthy transport policy. An evaluation of the scheme found that large numbers of trips were switched from cars to public transport, adding additional physical activity for travellers, and cycling rates increased. Recent research has also identified modest health gains in terms of lower pollution and greater life expectancy, and a potential small reduction in socio-economic inequalities in air

pollution (Tonne et al 2008). The example of the London Congestion Charging zone suggests that robust transport policy initiatives present an opportunity to address equity as well as the public health, with apparent synergy between a number of policy goals. Aims such as reducing oil dependency, reducing carbon emissions, encouraging active transport and reducing road danger are all, in theory, aided by designing more liveable environments in which people want to walk and cycle.

In theory, good urban design could also reduce the potential for crime, and the mental health consequences of exclusion. These are also equity issues for urban public health, with poorest again at higher risk. Hospital admissions for assaults four times higher and for self-harm five times higher in the most deprived compared to the least deprived areas of England (Edwards et al 2007). Designing our cities and transport systems to reduce dependence on motorised private vehicles could, then, not only reduce road injury and pollution and increase levels of active walking, but also improve lead to more community cohesion, potentially reducing the health damaging effects of crime and violence. Optimistically, we might hope that in moving towards healthier cities we will also move towards more equitable cities.

However, we need to be very careful with any naïve assumptions that what is good for public health is necessarily good for equity on these health outcomes. What we have learnt from the history of health interventions is that it is not unusual to exacerbate inequalities whilst making public health gain (see, eg, Reading et al 1994 on immunisations). One small example is the extension of 'green space' to urban citizens through the community forest programmes in the UK, which aimed to increase the amount of green land at urban fringes. One study of a community forest found that although access (in terms of distance) to green space was higher in the least deprived areas nearby, regeneration schemes had improved access most for the more affluent areas of nearby London boroughs (Kessel et al 2009). We might hope that environmental interventions (such as those to reduce the speed of traffic or increase access to green space) might have a more equalizing effect, through either removing or ameliorating those factors that appear to give rise to inequalities (such as the risk of exposure to traffic, or lack of green space to play). Such hope is not, however, evidence based, as there is, as yet, little evidence on the impact of these interventions on equity. As Towner and colleagues (2005) note in their review of the evidence base for preventing injuries in childhood, we may have a growing evidence base on what are effective interventions for reducing injuries, but the evidence on what works to reduce inequality is elusive. There are indications that unless we think very carefully about the *meaning* of environmental interventions for different population groups affected, we are in danger of perpetuating, or even exacerbating, inequalities

through urban design. The problems lie in two areas. First, in the short term, evidence about 'effective public health interventions' is generally evidence about only one outcome, and there may be less synergy between policy aims than first appears. Second, there is an untested assumption that behavioural change (such as increasing the amount of exercise individuals take) will have the same impact on all social groups.

Uncomfortable trade-offs…

To stay with the example of reducing injury rates, if differences over time in injury rates appear to result at least in part from reduced levels of walking and cycling, the same mechanism (amount of exposure to risk of traffic) may well account for social differences. The poorest groups in cities are those most likely to be at highest risk, because they are most likely to be using alternatives to cars (walking, or public transport, which involves walking (Besser and Dannenberg 2005). In the UK, the evidence is that those in the households with lowest incomes make more trips by walking, and fewest as car drivers, than those from the highest income groups (see Table 1). A key mediator of inequalities in injury is likely to be exposure, in that likelihood of injury is simply higher because the time exposed to risk is higher.

Table 1: Number of trips using selected modes, per person per year, by income quintile

Mode	Lowest 1	2	3	4	Highest 5
Walk	307	275	239	218	208
Bus and coach	114	85	56	43	32
Car driver	224	325	458	537	602

(Source: Adapted from Department for Transport 2006)

If we are taking a narrow perspective on public health outcomes and only focusing on injury rates, the route to greater equality would lie perhaps in increasing access to cars for the most vulnerable citizens. This would reduce their reliance on what are, currently, less 'safe' forms of transport

(Sonkin et al 2006). This is the strategy evoked perhaps by the publicity of Tata Motors in India, with the Company Chair claiming the new, cheap Nano car would provide "safe, affordable, four-wheeled transportation to families who till now have not been able to afford a car" (Tata Motors 2009). In cities where entire families are regularly squashed on to bicycles or motorbikes to travel, there is a seductive appeal to an affordable, safer option. Criticisms of the public health ramifications of increasing motorisation ring hollow from countries where car ownership is already the norm.

In such contexts, recommendation 6.3 of the Report, that "Local government and civil society plan and design urban areas to promote physical activity through investment in active transport" requires a large footnote warning of the need to take existing inequalities in transport access into account. Clearly a crude focus on one public health outcome (injury rates) without regard to other outcomes (decreasing the amount of physical activity likely to be undertaken) would be perverse. However, it is extremely difficult in practice to balance the likely health effects of transport interventions, even if we could model all the diverse impacts, including those on immediate health (such as injury), on long term health (through pollution and opportunities for exercise) and on the determinants of health (such as access to services). As an example, offering free public transport to young people might reduce transport exclusion for the poorest groups, thus making a significant contribution to key determinants of health such as access to education, social networks, services and independent mobility. It might also, though, reduce the amount of walking young people do or reduce access to public transport for other population groups. Quantifying and modelling the relative contribution of these effects is difficult, and traditional epidemiological methods do not allow us to readily answer questions about the global impact of policy interventions in complex systems. Instead, we too readily draw on rather common sense assumptions about 'good urban design' and its likely effects on the more upstream determinants of health and health equity.

The second caveat to assuming that what is good for public health (or even for specific health outcomes) is good for equity is the lack of evidence that interventions (or even consequent behaviour changes) will have the same impact on all groups. Kerr and colleagues (Kerr et al 2007) looked at which features of urban environments (such as street connectivity, land use patterns and open space) were associated with higher levels of walking among young people in Atlanta, USA. Their results suggested stronger associations for white ethnic and high income population groups. The 'walkability' of a local area predicts their levels of walking better than those of non-white or low income groups, for whom walking was more likely to be a necessity (as they were less likely to be in households with no access to a car). Better urban design may improve levels of walking for

the most advantaged young people, but may make little difference for others. Over time, better urban design may encourage higher levels of active transport, which is good for public health, but it would be perhaps naïve to assume that this will have much impact on equity. Even within high income countries, stark inequalities remain in transport access, with walking still being a compulsory form of transport for the least affluent.

Qualitative studies go some way to suggesting why 'more walking' does not equate with 'more health' in lower income groups. In a study of low-income mothers in the midlands of the UK, Bostock (2001) reports that rather than being a source of health-enhancing exercise, walking was more likely to be a "source of both physical fatigue and psycho-social stress". Without access to private transportation or affordable public transport, the mothers Bostock interviewed *had* to walk to access shops and services, transporting themselves, shopping and small children through streets that brought daily reminders of their social exclusion with "houses that had been boarded up, the pub that had been burnt out and the park that is covered in glass, dog-mess and God knows what" (Mother, quoted by Bostock 2001:14). Not surprisingly, those women, like perhaps many of Tata Motors' potential customers, would prefer their own private transport. Behaviours that might be healthy for one social group may have very different effects on another. We cannot just assume that walking is always good for you, or that reducing the differences in exposure between groups will remove inequalities.

In cities with good local government and strong civil society, with the resources to invest in public transport systems, urban planners can address some of the barriers to walking, through designing public spaces that are connected and which are a pleasure to walk through. There is still, though, likely to be a time lag, with those for whom active transport is a necessity not a choice unlikely to see it as an aspiration. In our study of ethnicity and road safety in London, one Black community leader, explaining why few people in minority ethnic communities 'choose' to cycle or walk, suggested why active transport may have negative associations for some Londoners:

> "…it's basically people who can't afford to drive that actually will cycle … and it happens that the black community, broadly speaking, is the poorest section of the community … I can recall even walking, for example, and having people from my community saying 'why are you walking?'" (Edwards et al 2007: 72)

Improving urban environments such that they are health-promoting rather than health-damaging is an essential step towards equity, but in moving towards this we need to remember the political and

social contexts in which people make transport mode choices, and the historical lack of entitlement to transport that makes the poorest most vulnerable to injury, but paradoxically unlikely to gain from their increased levels of exercise they are forced to do through transport poverty. Public health practitioners have traditionally been insufficiently attuned to those political and social meanings, assuming that the symbolic and moral connotations of 'healthy choice' are the same across all segments of the population. To 'choose' to walk or cycle is a rather easier choice for those who have not only recently been given the option to do otherwise.

In the short term, then, gains from improved urban built environments may, like so many interventions, favour the most affluent, resulting in fewer equity gains than we might predict. The challenge will be to improve the transport structures in low income countries in ways that open up opportunities for travel without increasing motorized transport and the injury burden for the most vulnerable, and for high-income cities to plan in ways which do not further exacerbate existing inequalities.

The challenge of achieving meaningful participation

Well designed interventions in urban design or transport systems will, of course, take into account the views of communities affected by them, but what happens when those views are not in line with public health orthodoxy? Recommendation 6.1 of the Report addresses the need for effective governance to include participatory mechanisms:

> "Local government and civil society, backed by national government, establish
> local participatory mechanisms that enable communities and local government
> to partner in building healthier and safer cities"

As examples, the Report cites the Healthy Cities movement ('at its best') and the various 'healthy settings' programmes that have focused on workplaces, schools or other contexts as potential models that might enhance health equity. Although this potential may be realisable, the history of healthy cities and similar programmes does not give cause for much optimism on this route for including the perspectives of the poor or marginalised urban citizens. Indeed, the Healthy Cities movement perhaps encapsulates some of the inherent tensions in a radical public health approach.

There is now a substantial literature discussing the substantial challenges facing both institutions and professionals involved in partnership working, particularly when those partners include non-

statutory organisations (see for instance Baum 1993, Kelly et al 1993, O'Neill and Williams 2004, Stern and Green 2005). Pulling together statutory agencies, and voluntary or community based organisations, the Healthy Cities movement was envisaged as a radical route for sharing power (Tsouros 1990) through inter-sectoral partnerships in which community action would achieve institutional change, and health professionals would learn to work with, rather than on, the population. This was acknowledged as a difficult task. Kelly and colleagues (Kelly et al 1993) pointed to the tensions between a 'post-modern' notion of partnership working across different sectors and interests, in which a relativistic vision of health and evidence would be needed, and the actual institutions responsible for putting this into practice: largely modernist organisations with their own agendas and targets, with professionals closely wedded to their own evidence bases and understandings of health (Green 2000). 'Modernist' organisations are inevitably tied to what Petersen and Lupton (1996: 144) called "scientific explanations and techno-rational fixes" that might have little resonance with the ways in which 'health' might be conceptualised by the various constituencies that make up a contemporary city. Indeed the very notion of trying to rationally plan a 'healthy' city is perhaps paradoxical, when we have only indicators for disease (injury, mortality rates, obesity) rather than 'health'. Additionally, there are perhaps inevitable limitations in any 'top down' intervention which seeks to promote 'bottom up' working. In practice, as well as theory, non-statutory organisations often had little real power to set the agendas for Healthy City partnerships. In a study of two Healthy City projects from the UK and South Africa, Stern and Green (2008) describe how community partners were offered "a seat at the table" but in a context where statutory authorities had to make gains on pre-determined agendas, there was little space for the priorities of community representatives.

In terms of achieving equity gains, there are also perhaps few grounds for optimism from the experiences of inter-sectoral partnership working. Craig and Porter (2006), for instance, discuss the high transaction costs entailed by the collaborating, networking and meeting needed to foster inter-agency working. Drawing on experiences of Waitakere City, in New Zealand, and its renowned commitment to collaboration, they coin the term "muffin economy" to describe the high levels of 'process' involved in drawing people together – endless meetings which become increasingly difficult to service for those in the voluntary sector, who are often not paid for their attendance. This intensive, people-focused way of working, with few resources other than for demonstration projects or pilots, is restricted to achieving minor gains on local issues. Structural gains around equity have not been delivered by Healthy City or other partnership organisational forms, and the benefits have been disproportionately accrued by the professionals involved rather than poor people in cities. As Craig and Porter conclude on Waitakere's experience:

> "Even in Waitakere….[with] a rich, highly literate citizenry, a formidably
> strong civil society and an activist, high capacity local government operating
> in a comparatively stable political environment can leverage little social
> outcome purchase around health, housing, poverty and well-being" (Craig
> and Porter 2006: 245)

Given this history, we need perhaps to treat Recommendation 6.1 with a certain degree of cynicism. Encouraging 'local participatory mechanisms' has become an orthodoxy (even a 'tyranny' in the words of Cooke and Kothari (2001) but the results are rarely the power-sharing envisaged, and the evidence for any impact on equity is thin. The involvement typical of Healthy Cities has brought burdens for community organisations from the high costs of engagement, with a downward shift of responsibility to the local level where there is little structural leverage – or resources – to alter the conditions of disempowerment. Further, mechanisms of participation rely often on unsophisticated notions of community, in which there are assumed to be natural local entities, collectivities of people who may share some knowledge or perspective and can be 'represented' in some way to statutory authorities. In a critique of 'user representation', Martin (2008) notes the paradox of the perfect representative – a 'lay' person with no 'expert' knowledge who is nonetheless an 'expert' in their community, with the necessary skills, resources and networks to canvass their views and represent them in the public domain. In most urban settings, we are simultaneously members of a number of cross-cutting professional, geographical, ethnic, religious, sexual identity or health-related 'communities, which are of course in part created by the mechanisms of civil society and participatory processes. Calling on the 'Afro-Caribbean community' or 'local older citizens' both reifies and separates such entities, and assumes that they create some consensus 'view' on health. Calling on their representatives risks ignoring the inevitable inequalities and power imbalances within them (Gujit and Shah 1998) and engenders further problems in defining an adequate basis for representative accountability and in distinguishing what the 'proper' decision making body should be.

The local participatory mechanisms called for in chapter 6 of the report may not, then, lead to greater equity or indeed even necessarily significant progress on the determinants of health. Accessing the range of local knowledges on healthy environments will be essential, but it is unlikely that this can best be done using the models that have become routine in public health, in which over-consulted local communities (O'Neill and Williams 2004) have been asked yet again to

comment on an already-decided agenda, or to fix their own vulnerability with few real resources. Public health professionals need to work with those who do have insight into the range of views across their cities, and to learn to listen to those views, rather than merely to ask about 'barriers' to what has been already defined as healthy living. The key to good governance is surely to strengthen existing democratic mechanisms of representation, not to endlessly proliferate more complex mechanisms for meaningless participation or consultation.

Conclusion

The overall vision of the Report is, then, a welcome and clear focus on the determinants of health, which will require appropriate evidence to work towards equity and a recognition that this will only be achieved by upstream action. But the challenges for what public health can contribute to this lie perhaps in the much discussed tensions for public health, for health professionals can often do little to directly address these determinants, and their evidence bases all too often relate to single outcomes on medically defined concepts of disease and illness. The real determinants of urban health inequalities are unequal urban societies and without addressing that it is unlikely that better transport systems, or greener cities, or more 'walkable' city streets will have much impact on health equity. For urban health, designing 'healthy' environments will be a necessary condition for meeting public health goals. However, without real progress towards socio-economic equity, such environmental planning is unlikely to make a large contribution to health equity. Maximising the chance of addressing equity as well as public health (if we are serious about doing this) will require us, as public health professionals, to work with more respect than we often have done in the past – both with other professionals who have long histories of working in urban environments, and with diverse and heterogeneous communities, many parts of which are unlikely to share priorities and understandings of the determinants of health and with professionals. We may also have to be more honest about the potential trade-offs between different kinds of health outcomes, recognising that decisions about priorities (few injuries for poor people, or less obesity?) may be more ideological than evidence based.

Acknowledgements

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