



housing may also be unemployed, or working in hazardous conditions, or they may have a poor diet.



4. Summaries of evidence

Implications for health & wellbeing of people living & working in London	
<p>SA Objective Managing Resources 1. Biodiversity To conserve and enhance natural habitats and wildlife and bring nature closer to people.</p>	<p>Kuo and Sullivan (97) examined the crime rate of a large housing development in Chicago. The authors found that the greener a building's surroundings were the fewer crimes (property and violent) reported.</p> <p>Dense vegetation has been linked to the fear of crime, lower perceived security (98). View distance is an important factor as vegetation blocks views. Provides potential cover for criminal activity. Well maintained vegetation outside a home may serve as a cure to care. Vegetation may mitigate crime by reducing mental fatigue.</p> <p>Kweon (99) looked at physical environment, green space, in relation to levels of social integration with neighbours (and a possible link to social capital). The sample were 91 elderly residents (62-91 years old) of an inner city Chicago public housing association. Kweon reports that the use of green outdoor common spaces predicted the strength of neighbourhood social ties and sense of community. Neighbourhood community ties are very important for the elderly.</p> <p>Run down, noisy, high rise living conditions discourage the elderly from social interaction: these settings are have been labelled sociofugal (100). Settings which encourage older adults to develop social ties with neighbours are known as sociopetal: these settings include features such as access to transport and safe public spaces. The study suggests that the use of trees near elderly people's homes may be an inexpensive way to enhance their social integration. Caring for their local environment may also enhance their health.</p> <p>The provision of clean water is a key public health issue and requires constant vigilance (101). Water has other areas for consideration eg the need to husband resources, water as a leisure commodity and the risk of flooding.</p> <p>The water industry is increasingly required to provide water supplies to properties built on areas of land contamination. The potential impact of the contaminants within such sites on the water supply pipes and therefore water quality needs to be seriously considered. Acidic land contaminants lead to corrosion problems for metal pipes, however, plastic pipes are susceptible to physical degradation or permeation by organic chemicals (102).</p> <p>Work in the US suggests that urban sprawl can threaten both the quantity and the quality of the water supply. As forest cover is cleared, and impervious surfaces built over large areas, rainfall is less effectively absorbed and returned to groundwater aquifers. Instead, relatively more stormwater flows to streams and rivers and is carried downstream. Higher density development patterns can reduce peak flows and total runoff volumes. With better control of 'point sources' of water pollution - factories, sewage treatment plants, and similar facilities it is now 'non-point source' water pollution that has emerged as a major threat to water supplies. This occurs when rainfall (or snowmelt) moves over and through the ground, picking up contaminants and depositing them into surface water (lakes, rivers, wetlands, and coastal waters) and ground water. Much of this problem relates to agricultural land, the primary source of contamination by fertilisers, and insecticides. However, a growing form of non-point source pollution is oil, grease, and toxic chemicals from roadways, car parks and other surfaces, and sediment from improperly managed construction sites, other areas from which foliage has been cleared, and eroding stream banks (103).</p> <p>Observers in the United States have shown that carpeting rural areas with concrete parking has a serious effect on the water supplies. Rainfall is naturally captured by vegetation, swamps, trees, permeable soil, or other natural absorbents. These areas retain and purify water for further recycling. However, when natural habitats are covered over with impermeable surfaces, the hydrological cycle is</p>
<p>2. Water Quality & Water Resources To improve the quality of surface waters and groundwater and to achieve the wise management and sustainable use of water resources</p>	<p>The provision of clean water is a key public health issue and requires constant vigilance (101). Water has other areas for consideration eg the need to husband resources, water as a leisure commodity and the risk of flooding.</p> <p>The water industry is increasingly required to provide water supplies to properties built on areas of land contamination. The potential impact of the contaminants within such sites on the water supply pipes and therefore water quality needs to be seriously considered. Acidic land contaminants lead to corrosion problems for metal pipes, however, plastic pipes are susceptible to physical degradation or permeation by organic chemicals (102).</p> <p>Work in the US suggests that urban sprawl can threaten both the quantity and the quality of the water supply. As forest cover is cleared, and impervious surfaces built over large areas, rainfall is less effectively absorbed and returned to groundwater aquifers. Instead, relatively more stormwater flows to streams and rivers and is carried downstream. Higher density development patterns can reduce peak flows and total runoff volumes. With better control of 'point sources' of water pollution - factories, sewage treatment plants, and similar facilities it is now 'non-point source' water pollution that has emerged as a major threat to water supplies. This occurs when rainfall (or snowmelt) moves over and through the ground, picking up contaminants and depositing them into surface water (lakes, rivers, wetlands, and coastal waters) and ground water. Much of this problem relates to agricultural land, the primary source of contamination by fertilisers, and insecticides. However, a growing form of non-point source pollution is oil, grease, and toxic chemicals from roadways, car parks and other surfaces, and sediment from improperly managed construction sites, other areas from which foliage has been cleared, and eroding stream banks (103).</p> <p>Observers in the United States have shown that carpeting rural areas with concrete parking has a serious effect on the water supplies. Rainfall is naturally captured by vegetation, swamps, trees, permeable soil, or other natural absorbents. These areas retain and purify water for further recycling. However, when natural habitats are covered over with impermeable surfaces, the hydrological cycle is</p>



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negatively affected, causing runoffs, floods, and water contamination. The volume of storm water that washes off a parking lot is 16 times greater than the amount that can be absorbed in a field. Invariably, rainfall from parking lots mixes with grit, oil, and other debris, contaminating its flow into reservoirs (104). Research on waterborne diseases in the United States shows the highest incidence and quickest contagions occurred after heavy rainfall fell onto impervious surfaces (105).

Around two thirds of London's front gardens are already at least partially covered by surfacing other than vegetation – paving, bricks, concrete, or gravel being the most likely alternatives. London's front gardens have given way on a huge scale to parking bays which, added together, cover an area of 32 square kilometres (12 square miles). The most worrying impact of hard surfacing on this scale is the increased burden that is placed on London's underground drainage system by the run-off of rain from hard surfaces. London's sewers are designed to carry a combination of sewage and rainfall. The more ground which is covered by impermeable hard surfaces such as concrete or paving slabs, the less rainfall will soak into the ground and the more will run into underground drains. At times of heavy rainfall, the drainage pipes overflow and the contents are discharged into London's rivers. This not only results in raw sewage being discharged into the river, with associated impacts on life in the river, but at times of very heavy rainfall it can result in localised flooding when rivers burst their banks. The experience of the flash floods of August 2004 in west London provides a dramatic picture of what this might mean (59).

Flooding: flood risk is defined as 'a combination of two components: the chance (or probability) of a particular flood event and the impact (or consequence) that the event would cause if it occurred. Flood risk management can reduce the probability of occurrence through the management of land, river systems and flood defences, and reduce the impact through influencing development in flood risk areas, flood warning and emergency response' (106). The estimation of future flood risks is difficult due to uncertainties, however, all scenarios point to substantial increases (107). This projection of increased flood risk applies to flooding from rivers and coasts and also to localised flooding. Localised flooding is caused by sewer and drainage systems in towns and cities being overwhelmed by sudden downpours. Events in the Thames in August 2004 show the effect of sudden downpours. It is estimated that the numbers of properties at high risk of localised flooding could increase four-fold (107). Regulating and influencing development is essential. Flood defences can be constructed so that flood risk is minimised, but controls are also needed to prevent development that could increase flood risk (106). Floods in Britain are typically small-scale, short-lived and shallow. However, the health effects which can result from these floods are often very marked. These health impacts range from premature death, clinical problems requiring hospitalisation or consultation with doctors, to an increase in the use of non-prescription drugs or alcohol, depression, insomnia, low self esteem and general feelings of ill-health (108).



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3. Natural Resources

To minimise the global, social and environmental impact of consumption of resources by using sustainably produced, harvested and manufactured local products.

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This has been a difficult objective for which to provide health evidence. We quote below from a 2001 report looking at the resource intensive nature of the food distribution system. A similar process could be described for the majority of manufactured and processed commodities.

Fuelling the food system

Many of the high-profile social, environmental and public health problems within the food system are symptoms of flaws within the farming and food system. One of the most damaging aspects of the contemporary food system is the extent to which the supply of even the most basic foods has become dependent on petroleum (109).

Transporting food long distances is energy inefficient. We put in more energy (in the form of non-renewable fossil fuels) than we get out (in the form of food calories). For every calorie of iceberg lettuce, flown in from Los Angeles, we use 127 calories of fuel.

Long distance transport also emits carbon dioxide (CO₂), a greenhouse gas. One sample basket of imported organic produce could release as much CO₂ into the atmosphere as an average four bedroom household does through cooking meals for eight months. The 26 products, collectively, travelled a distance equivalent to six times round the equator (241,000 kilometres).

The same basket of non-organic imported produce would do the same damage. However, on top of this, non-organic food uses more energy in the production process. Non-organic milk, for example, needs five times more energy per cow than organic milk.

Food packaging also uses energy and creates pollution. Most of the 80 million food and drinks cans we use each day are not recycled but buried, in increasingly scarce landfill sites.

International food trade is increasing faster than the world's population and food production. Between 1968 and 1998, world food production increased by 84%, population by 91% and food trade by 184%.

UK imports and exports of many food products have increased in recent decades. The situation for certain food categories is now critical. For example, even if all UK fruit production went to UK consumption, out of 100 purchases, on average only 5 will have been grown in the UK.

Rather than importing what they cannot produce themselves, many countries appear to be simply 'swapping food'. In 1997, the UK imported 126 million litres of milk and exported 270 million litres.

The organic sector seems to be repeating these trends, with UK imports of meat growing from 5% of the market in 1998/9 to 30% in 1999/2000. Of all organic food consumed in the UK, three-quarters is imported. This is because UK farmers, like their conventional counterparts, cannot supply large volumes of standard produce all year round, to the major retailers who dominate the distribution system. One study has estimated that UK imports of food products and animal feed involved transportation by sea, air and road amounting to over 83 billion tonne-kilometres, using 1.6 billion litres of fuel and, resulting in 4.1 million tonnes of carbon dioxide emissions



<p>SA Objective</p> <p>4. Climate Change To address the causes of climate change through minimising the emissions of greenhouse gases and ensuring that London is prepared for its impacts.</p>	<p>Implications for health & wellbeing of people living & working in London</p> <p>The world population is encountering unprecedented and wholly unfamiliar human-induced changes in the lower and middle atmospheres and world-wide depletion of various other natural systems (e.g. soil fertility, aquifers, ocean fisheries, and biodiversity in general). Beyond the early recognition that such changes would affect economic activities, infrastructure and managed ecosystems, there is now recognition that global climate change poses risks to human population health (29).</p> <p>The UK assessment concentrated on producing quantitative results for the following health outcomes ((28) cited in (29)), for three time periods and for four climate scenarios:</p> <ul style="list-style-type: none"> ▪ Heat-related and cold-related deaths and hospital admissions ▪ Cases of food poisoning ▪ Changes in distribution of Plasmodium falciparum malaria (global) and tick-borne encephalitis (Europe), and in seasonal transmission of P. vivax malaria (UK) ▪ Cases of skin cancer due to stratospheric ozone depletion. <p>The large uncertainty surrounding these estimates was acknowledged. The main conclusions of the report were the impact of increases in river and coastal flooding, and severe winter gales. This report also clearly addressed the balance between the potential benefits and adverse impacts of climate change: the potential decline in winter deaths due to milder winters is much larger than the potential increase in heat-related deaths. Climate change is also anticipated to lessen air pollution-related illnesses and deaths, except for those associated with tropospheric ozone, which will form more readily at higher temperatures ((28) quoted from (29)).</p>
<p>5. Air Quality To improve air quality.</p>	<p>There are serious health effects to people exposed to the current levels of air pollution in European countries. COMEAP (United Kingdom Government Committee on the Medical Effects of Air Pollution) (110) also states that air pollution:</p> <ul style="list-style-type: none"> ▪ has short term and long term damaging effects on health; ▪ can worsen the condition of those with heart disease or lung disease; ▪ can aggravate but does not appear to cause asthma; and ▪ in the longer term, probably has additional effects on individuals including some reduction in average life expectancy, though the extent of this is not fully understood at present. <p>In terms of health air quality and levels of pollution are pertinent for the elderly and young children. Those most affected by air pollution tend to live in deprived neighbourhoods with major arterial roads running close to them.</p> <p>The combined health impacts from road traffic injuries and transport related air pollution are estimated to account for 1% of annual deaths in London and is responsible for a major contribution to morbidity (75).</p>
<p>6. Energy To achieve greater energy efficiency and to reduce reliance on fossil fuels for transport, heating, energy and electricity.</p>	<p>To make sense of the diverse ways in which energy is linked to health, it helps to draw a distinction between energy and energy services. Although much of energy policy is focused on the former, it is the latter that we really care about: heat, light, power and mobility. Crucially, energy services can be improved without increasing energy supply. Installing loft insulation, for example, will increase domestic warmth and may even reduce energy consumption (111).</p> <p>Energy services typically play a positive role in promoting health whereas the generation of energy tends to have negative health impacts. Consequently, there are often health trade-offs involved in energy consumption. For example, we currently use fossil fuels to keep warm in winter, but burning these fuels increases air pollution. Similarly, an ambulance driven to a casualty department will leave a trail of</p>



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noxious exhaust fumes behind it. The goal of a healthy energy policy should be to maximise the benefits of energy services while minimising the negative impacts of energy generation.

At the level of the individual or household, there are many people who do not have a secure supply of energy because they cannot afford it. Those who forego essential energy services, particularly heating in the winter, face heightened risks of illness and mortality. Consequently, fuel poverty is a major public health concern. Fuel poverty is defined as the inability to obtain adequate energy services for 10% of income. As the key issue is access to energy services, the focus on fuel is rather misleading and the term 'affordable warmth' is more accurate.

In practice, people who lack affordable warmth are likely to gain it through energy efficiency measures rather than through better access to fuel.

Cold homes are dangerous places, especially for vulnerable people. Every year in the UK, many more deaths occur in winter than in summer. For every ten deaths that occur at the lowest rate in summer, fourteen occur at the highest rate in winter. Although a similar seasonal pattern is seen in other European countries, the magnitude of the increase in the winter death rate in the UK is comparatively large. Although there are other seasonal factors which affect health, such as lower levels of vitamin C in the winter diet, cold is manifestly the principal problem (112).

Hypothermia is not a major cause of winter mortality; the main culprits are cardiovascular (heart) and respiratory (lung) disease. A key defence against cold is to minimise bodily heat loss by reducing blood supply to the skin, leading to an increase in blood concentration and a heightened risk of clot formation. Respiratory disease pathways are more complex but can involve the weakening of respiratory tract defences, thereby increasing susceptibility to infections; bronchoconstriction, exacerbating asthma and chronic obstructive pulmonary disease; and inflammation of the lower airways, also affecting asthma.

Cold homes also make people ill. Most of the illnesses associated with cold homes are due to the presence of damp which encourages the spread of mould. Mould thrives in the organic materials in walls and cavities such as plaster, wallpaper and wallpaper paste and can easily spread to carpets, furniture and clothing. Mould growth can cause respiratory illness and infections, although its contribution to asthma is small. Damp and mould are linked in adults to a range of symptoms including nausea, breathlessness, backache and fainting. In children, symptoms are worse and include vomiting, wheeze, irritability, fever and poor appetite. Cold and damp homes also have effects on mental health. Problems arise because of the struggle to keep warm and pay fuel bills, the sight and smell of mould, and the stigma of living in unclean conditions(112).

Renewable energy resources such as wind and solar power are not only good choices for mitigating climate change, they also have the lowest adverse health impacts overall because they do not produce pollution when in operation. Biomass power plants, which burn agricultural wastes or energy crops, are also a good choice for minimising climate change, although in some cases they produce more air pollution than natural gas power stations. Coal and oil-fired plants have by far the worst impacts on both air pollution and climate change.

Switching to renewable energy is clearly a healthy choice, both for the UK population living downwind of today's power plants and for the global population that will suffer the future effects of climate change. However, the best energy choice is always to use less, either through better demand management or improving energy efficiency. Maximising the efficiency of energy generation is also important. Combined Heat and Power Plants deliver far more useful energy per kilogram of pollutants than an ordinary power plant using the same fuel. Hydrogen fuel cells are also very efficient in their use of fossil energy, usually natural gas. Hydrogen fuel cells powered by renewable energy offer the long term possibility of pollution-free, healthy transport.



<p>SA Objective</p>	<p>Implications for health & wellbeing of people living & working in London</p> <p>Energy is the fourth biggest cost to the NHS, after staff costs, drugs and medical purchases. Hospitals alone account for just over 1% of all the primary energy use in the UK (113). The NHS is therefore in a good position to promote health not only by reducing energy-related emissions but also by saving money for health and healthcare. The same argument can be made for the broader public health responsibilities of local government and for the voluntary sector. Although not faced with the task of keeping hospitals warm, local authorities typically have substantial estates which may include energy intensive service such as swimming pool (111).</p>
<p>7. Waste</p> <p>To minimise the production of waste across all sectors and increase re-use, recycling, remanufacturing and recovery rates.</p>	<p>Waste management is a very large scale activity which inevitably has consequences for human health and the environment. At the very least it involves transporting waste materials. The various waste management processes such as landfill and incineration are very different in character and give rise to different kinds of human health hazards. Domestic waste is the main component of municipal solid waste and this can contain hazardous substances such as pesticides used within the home. If such substances are volatile then it is likely that they will be released from a landfill. Incineration may destroy such substances but combustion itself is well known to create toxic substances such as sulphur dioxide, oxides of nitrogen, dioxins and furans. Composting can also generate hazardous substances – for example, some of the micro-organisms which flourish in the composting process are able to release spores with allergenic properties which can stimulate or exacerbate respiratory diseases. Even recycling processes are not without risk. These may well involve the expenditure of energy and consequent release of combustion gases and/or produce contaminated wash waters (85).</p> <p>Incineration: modern, well-managed incinerators can be an effective means of reducing and disposing of waste materials. However the by-products of the combustion process may contain hazardous or toxic pollutants and emissions will add to background pollution levels. As a result, there is often considerable public concern over the possible health effects of living near to incinerators processing hazardous, clinical or municipal waste. The report (85) presents a systematic review of epidemiological studies of the public health effects of waste incinerators. There is no doubt that air pollution (from all sources) can have an adverse effect on the health of susceptible people (ie young children, the elderly and particularly those with pre-existing respiratory disease). Recent work in the UK by the Committee on the Medical Effects of Air Pollutants (COMEAP) demonstrates that exposure to air pollution can bring forward death in patients with severe preexisting disease, although the degree of life shortening is typically of the order of a few weeks at most per individual (114). However, there is currently little convincing evidence that ambient levels of air pollution cause adverse health effects in healthy people (85).</p> <p>Most of the epidemiological studies of possible health outcomes in populations living close to incinerators have not given clear indications of the presence or absence of an effect. Of necessity, many of the studies examining possible health effects are retrospective and employ routinely collected data such as cancer registrations, birth and death records. Whilst such observational studies can provide evidence of association between a health outcome and an environmental pollutant, they cannot, by themselves, demonstrate a cause and effect relationship. The interpretation of these findings is also crucially dependent on well-known limitations, including possible sources of bias and confounding, together with the ever-present difficulty in obtaining reliable and accurate population exposure data (85).</p> <p>It has been hypothesised that exposure to dioxins and furans (either directly via inhalation or indirectly via the food-chain) is responsible for some cancers in communities around incinerators. However, epidemiological studies on the older generation of incinerators that emitted significantly greater amounts of dioxins than newer facilities have failed to identify an effect. Given that the emissions of dioxins and furans from modern incinerators are orders of magnitude lower than from older incinerators, it can be said with some confidence that any impacts of dioxin and furan on cancer rates in local people are small or non-existent and unlikely to be quantified through epidemiology (85).</p> <p>There is little evidence to suggest that waste incinerators are associated with increased prevalence of respiratory symptoms in the surrounding population. This is consistent with the data from risk assessments, emissions and ambient air monitoring in the vicinity of</p>



<p>SA Objective</p>	<p>Implications for health & wellbeing of people living & working in London</p> <p>incinerators which indicate that modern, well-managed waste incinerators will only make a very small contribution to background levels of air pollution. In many cases, air monitoring data do not demonstrate that emissions from the incinerators are a major contributor to ambient air pollution (85).</p>
<p>Getting Results</p> <p>8. Built and Historic Environment</p> <p>To enhance and protect the existing built environment (including the architectural distinctiveness, townscape/landscape and archaeological heritage), and ensure new buildings are appropriately designed and constructed in a sustainable way.</p>	<p>Whilst people want better housing, better healthcare and better schools, it is their immediate neighbourhood that has the biggest impact on their relationship to their friends, their family and their neighbours as well as their own self-esteem and sense of health and well-being 10. Focus on neighbourhoods and their development, in all parts of public policy, has led to a debate about the resilience of neighbourhoods, and, specifically their capacity to respond to diversity, fragmentation and changing needs. Neighbourhoods are both complex and adaptive places. They are not static social organisms but networks of individuals and organisations that need to embrace difference and nurture it. High performing neighbourhoods are, by definition, ones in which trust in institutions is developed and confidence in their ability to deliver restored (115).</p> <p>The Commission for Architecture and the Built Environment state "the concept of neighbourhood describes the physical organisation of uses in and between buildings and spaces" (116). Above all, "whatever the official definition used, the people who live in a neighbourhood generally know which neighbourhood is theirs – where it starts and where it ends" Whilst, definitions vary there are a number key elements that consistently emerge in all of them. These are:</p> <ul style="list-style-type: none"> ▪ Geographical space; ▪ Housing type and tenure; ▪ Administrative area; ▪ Common interest and/or beliefs; ▪ Social networks. <p>Social cohesion is not something that a community generates in isolation from government and regional policies. It is an outcome of social investment (117).</p> <p>Good design encourages greater ownership and involvement of communities and can reduce negative effects such as vandalism and the under-use of facilities (118;119).</p> <p>Community-level structural factors which can impede social organisation include residential instability, family disruption and high ethnic heterogeneity (120). These factors can lead to a weakening of adult friendship networks and a weakening of value consensus in the neighbourhood and increase the likelihood of deviant behaviour.</p> <p>Residence in a poor neighbourhood has been associated with an approximately 50% increase in mortality compared with a non-poverty area (121). Living in poor social environments has been associated with an increased risk of poor self rated health and death (122).</p>



<p>SA Objective 9. Housing To ensure that all Londoners have access to good quality, well-located, affordable housing that promotes liveability.</p>	<p>Implications for health & wellbeing of people living & working in London It is important that the dwellings and neighbourhoods created are attractive, well designed and promote liveability and health. It is not always clear which of the determinants of health has a direct causal link with housing and which are merely indicators of other variables, about the mechanisms by which they operate and about how the various factors such as age, or tenure or income interact with each other. Housing redevelopment and regeneration can result in a better quality of life for the people who live there. There is a growing body of evidence from research and innovative projects that demonstrate what works. While neighbourhood improvement may 'gentrify' an area social problems tend not to be solved but evacuated and moved elsewhere (123). The subsequent absence of social problems is thereby used as evidence that gentrification has positive social impacts. This displacement has real social costs (123): for example, increased housing need, overcrowding in 'hidden households' and homelessness. In addition, displaced residents may feel resentment, disenfranchisement and a sense of exclusion. Displacement also has neighbourhood effects (124) ie impaired social networks and reduced service provision. These neighbourhood effects will adversely affect vulnerable groups that are less able to cope with the psychological and financial costs. Thomson et al (125) reviewed the health effects of housing improvement. They found few studies examining the effects of housing improvements on health, and the quality of the studies identified was generally poor. Improvements were reported in overall self reported physical and mental health, as well as reductions in symptoms and use of health services. There was some evidence of improvements in broad indicators of social inclusion such as neighbourliness and fear of crime.</p>
<p>10. Accessibility / Availability (Transport) To maximise the accessibility to key services and amenities and increase the proportion of journeys made by public transport, by bicycle and by foot (relative to those taken by car).</p>	<p>Transport's primary function is to enable access to people, goods and services ((126) cited in (78)). In so doing transport promotes health indirectly through the achievement and maintenance of social networks and by enabling people to access employment opportunities. Lack of access to transport is experienced disproportionately by women, children and disabled people, people from minority ethnic groups, older people and people with low socio-economic status. These groups find their access is reduced to services such as shops and health care and they spend a higher proportion of their resources on transport (78, p56). Disadvantaged urban areas tend to be characterized by high traffic volume, leading to increased levels of air and noise pollution and higher rates of road traffic accidents without the benefits of access to private transport (126). The accessibility of facilities, opportunities for activity, and aesthetic qualities of the area are important factors in whether people take part in physical activity (127). The proximity of a park, a cycle path, or shops can lead to higher levels of exercise or recreation. Also, awareness of facilities, satisfaction with facilities, and the perception that the area offers opportunities to be physically active encourage greater physical activity (128). For older people access to local facilities, pleasant scenery and seeing other people exercise is important to whether or not they participate in physical activity (129). Affordable and reliable public transport is necessary for connecting deprived neighbourhoods and estates to services particularly employment. In London the unemployed and those looking for work are often required to commute over large distances in order to access employment opportunities. Due to the nature of the jobs they are able to command which tend to be characterised by low pay it is often not financially viable or rationale for individuals to take up these jobs. Remaining unemployed of course has its resultant health impacts. However, commuting especially long commutes have been shown to reduce levels of social capital and bonds particularly those relating to interfamilial relationships. This has been linked to poor educational outcomes amongst children. Important to ensure that reducing congestion means that volumes of traffic, and the speed with which the traffic moves, also reduce. Increasing the use of public transport and cycling and walking and decreasing reliance on private motorized transport has health and</p>



<p>SA Objective</p>	<p>Implications for health & wellbeing of people living & working in London social benefits – increasing physical activity and reducing social isolation (130).</p> <p>Traffic has the potential to affect social networks on a very local basis: as traffic volumes increase people's sense of neighbourliness and the geographic density of their friendships decreases (see 131). The development of a new transport network in an area has major implications for the social networks of the community in question, reducing social cohesion and contributing to feelings of isolation. This process is termed community severance and occurs when roads carrying large volumes of traffic cut through residential areas, in effect 'severing' them (132)</p> <p>Egan and Petticrew <i>et al</i> (84) describe a qualitative study which examined the ways in which people adapted to the opening of a large new road (133). The author noted three types of adaptation</p> <ul style="list-style-type: none"> ▪ attitudinal adaptation <i>eg</i> reconciling oneself to the inevitability and/or usefulness of the new road); ▪ behavioural adaptation <i>eg</i> spending less time in certain rooms or the garden; and ▪ environmental adaptation <i>eg</i> installing double-glazing, fences <i>etc</i>. <p>The same authors (84) report a study which investigated community severance by roads (134-136). Movements across neighbourhoods were found to be on average 14% lower in the new road areas. Irrespective of whether a major road was 5, 10 or 30 years old residents adapted to the 'barrier effect' produced by the major roads by expanding the boundaries of what they considered to be their neighbourhood to include amenities situated further away from their homes, but on their own side of the road.</p>
<p>11. Regeneration & Land-Use To stimulate regeneration and urban renaissance that maximises benefits the most deprived areas and communities and to improve efficiency in land use through the sustainable re-use of previously developed land and existing buildings.</p>	<p>There is a general presumption that renewal is beneficial for health because regeneration programmes act on working and living conditions which are, in turn, determinants of health. It may appear self-evident that improvements in health determinants for disadvantaged groups will lead to health improvement and so reduce health inequalities in society (93). However, this assumption must be considered in the light of the evidence from research on health inequalities. Otherwise such an assumption becomes a 'given' based on a perspective that is too narrow and inflexible (137). While there is a wealth of evidence linking poor health and deprivation, there is very little evidence to show what happens when determinants of health improve, i.e., the health impacts of regeneration programmes and economic development (93).</p> <p>The emphasis in regeneration used to be about building new houses. This destroyed communities. Renovating and improving the existing housing stock particularly in deprived areas helps to improve the image of the community and can also lead to health improvements amongst the original population. The improvement of the physical environment even minor cosmetic changes such as cleaner streets and removal of graffiti within neighbourhoods and communities may also serve to enhance neighbourhood safety, reduce fear of crime and promote physical activity within these neighbourhoods. It can also enhance community levels of social capital.</p> <p>See Section 5 starting on page 41 for discussion of evidence surrounding Regional Casinos.</p>
<p>12. Employment To offer everyone the opportunity for rewarding, well-located and satisfying employment.</p>	<p>'Choosing health' white paper recommends Government and others can take to extend healthy choices by: reducing barriers to work to improve health and reduce inequalities through employment; improving working conditions to reduce the causes of ill health related to work; and promoting the work environment as a source of better health.</p> <p>Tackling the lack of qualifications is essential although may need to look at whether these supply side policies are sufficiently meeting local employment demand. If there are too many people with only basic skill levels employers may be encouraged to offer lower wages.</p> <p>Pathways to work should be promoted and supported in areas of high unemployment such as the use of Intermediate Labour Market training schemes and the New Deal programmes. Individuals with a lack of basic skills and limited employment experience will be exposed</p>



<p>SA Objective</p>	<p>Implications for health & wellbeing of people living & working in London</p> <p>unfavourable labour market outcomes in terms of job sustainability if they are 'thrown' directly into employment. This does not promote social mobility nor help reduce health and income inequalities.</p> <p>In terms of the health impacts, need to consider the types of jobs that individuals with basic skills are able to command. Low paid insecure forms of work usually do not promote social inclusion or mobility. In terms of health these jobs may be actually worse than remaining unemployed.</p> <p>Addressing unemployment amongst households with children is a necessary requirement in the reduction of child poverty. Research shows that children whose parent(s) are unemployed are more likely to experience poor health and educational outcomes. This is particularly the case amongst lone parent households.</p> <p>Job creation does not necessarily 'trickle down' as job opportunities for the long-term unemployed, and is neither a sufficient, nor necessary, condition for reducing long-term unemployment (138).</p> <p>Employment policy should include measures to tackle possible discrimination by employers and better targeting of vacancies to long-term unemployed people. Nationally ethnic minority unemployment is more than double that of comparable White sub-populations (139).</p> <p>Empirical evidence linking economic growth to health impacts is limited and the evidence that does exist is equivocal on the whether local economic development is beneficial for health.</p> <p>A number of longitudinal case control studies demonstrate that reemployment into satisfying work may be beneficial. However, a transition from unemployment to 'inadequate' work is unlikely to be beneficial to health (140-143) and not facilitate social inclusion or mobility. Furthermore, it may take a significant time for the 'damage' to health resulting from unemployment to be repaired. Re-employment in low quality work may be actually worse for psychological health than the experience of unemployment (140;144;145).</p> <p>Employment opportunities created by regeneration schemes risk being dominated by low paid, insecure, secondary sector, non-standard forms of employment which may contain many of the negative attributes described above (146-148).</p> <p>As noted in Reviewing the London Plan document (2005) GLA research has established working age income poverty in London is concentrated in households with dependent children, while working age adults who do not live with children have the same poverty rate in London as at national level. The research has also established that the difference in poverty levels between London and the national average is overwhelmingly the result of poor labour market outcomes affecting families with children. About 60 per cent of children in poverty in London are in workless households.</p> <p>Even if employment prospects do improve, for some groups of workers such as lone mothers and socio-economically deprived families, there may be conflicts between the demands of employment and other salient roles and responsibilities (149-151). As cited in the above paragraph these population sub groups are already disproportionately affected by poverty. Employment policies and job creation mechanisms should offer a sustainable route out of deprivation rather than further increasing it. Evidence exists that shows that the new jobs created by regeneration initiatives are often filled by workers from other parts of a city or region, rather than local populations in areas targeted for regeneration (152-154).</p>
<p>13. Stable Economy</p> <p>To encourage a strong, diverse and stable economy and to improve the resilience of businesses and their environmental, social and economic</p>	<p>Recently the Medical Research Council conducted a systematic review of the health impacts of state subsidised economic development (155). They examined over 9,000 titles and abstracts and found only 11 studies that provided robust and rigorous evidence on health impacts. The majority of this evidence points to the negative health effects of development particularly in terms of the health status of the existing population.</p>



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performance.

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Glenn et al (156) conducted a longitudinal study of the health and economic status of a cohort of residents in Johnson County, Tennessee, USA. After a period of economic recession, the local economy improved between 1990 and 1993. The authors found that between 1990 and 1993, long term, non-migrating residents did not on average benefit economically from the regeneration. They experienced a significant decrease in average household income. These residents had a statistically significant worsening in the Duke Health Profile measure of physical health status. Their mental health, measured by the Duke Health Profile, showed slight (insignificant) improvement. Their decline in health was tentatively attributed to either direct or indirect effects of the decline in family income. There was a rapid population increase during the expansion, attributable to inward migrants who were younger and healthier than existing residents. They conclude that local economic development can leave long term area residents poorer and less healthy, and this problem may be masked by an increase in healthier, wealthier inward migrants (156).

NB The authors note also that the economic expansion was accompanied by an expansion of health care services availability. This expansion of services was not accompanied by reduced driving times or increased number of visits.

The empirical relationship between income inequality and health has been much debated and discussed. Recent reviews suggest that the current evidence is mixed, with the relationship between state income inequality and health in the United States (US) being perhaps the most robust (157).

Nearly a hundred empirical studies have now examined the relationship between income inequality and health. Despite large number of aggregate and multilevel studies addressing this topic, there is no consensus about whether income inequality is a threat to public health. In a recent review of the multilevel studies of income inequality and health published to date (158) three broad patterns of findings were identified. First, income inequality has not been found to have an adverse effect on population health in countries that are more egalitarian (or have a stronger welfare state) than the United States (US). In countries that are more unequal than the US, however, there seems to be some support for the adverse effects of income inequality on population health. Second, the most consistent association between income inequality and health appears to be at the level of the US states, where higher inequality has been linked to higher all-cause mortality risk, lower self-rated health, higher prevalence of depressive symptoms (as well as a more adverse profile of health-related behaviors).



<p>SA Objective</p> <p>14. Creativity and Innovation To promote creativity and innovation in the environmental and social economy (including new clean technologies, renewable energy, pollution control and the skills sector).</p>	<p>Implications for health & wellbeing of people living & working in London</p> <p>In a recent lecture at the World Urban Forum (2006) the planning specialist John Friedmann described intellectuals and creative industries as important assets for city-regions. "Its quality of its universities and research institutes and what the Japanese call their "living human treasures," its artisans and artists, intellectuals and scientists, and all others, musicians and writers, poets and film makers, actors and dancers who embody a region's creative powers. Small in number, they are nonetheless essential to a region's future and should count among its finest treasures. The best among them are also the rarest, and to lose them is an inestimable loss to the city. Creativity must be nurtured. Scientists need research laboratories. Students pursuing advanced degrees require universities that are properly equipped and staffed. Film makers require studio spaces and artists need galleries to display their work as well as studios. Actors and dancers must have stages to perform their work. And all of them require the freedom to create as they will. Creativity cannot be commanded, but creative work requires public support. Market forces alone will not suffice. New ideas and artistic creations are often unpopular, and those who create tend to march to a different drummer from ordinary people. Cultural and intellectual elites, their presence ensures a city's capacity for innovation. Professional contacts extend across the globe to other cities, and from these exchanges come new ways of seeing and thinking that add to the city's liveliness and vigor. It is these elites that are the primary source of informed critical thinking which can be crucial to charting a city's future".</p> <p>Social exclusion disempowers people: it deprives people of access to the arts. The theatre or cinema is not high on the list of priorities when people are struggling to survive</p> <p>Whether spectator, performers or producers the arts provide a unique contribution to building informal social capital. While some of the social impacts of participation in the arts arise from people taking an active part in their own development and that of their community the benefits of participation are different in nature and extent from other aspects of arts activity (159).</p> <p>Participation in the arts strengthens democratic institutions. Putnam found a strong relationship between the number of local choral societies and the effectiveness of government institutions. Putnam writes that communities which sing together better achieve the government they desire (160).</p> <p>The arts can transcend the cultural and demographic boundaries that divide society and find deeper spiritual connections with those like us. The Arts create both bridging and bonding social capital. Traditionally the arts have done more for bonding than bridging. Many activities are segregated by race, socioeconomic class and gender. This is, in part, because people seek those who are like them and, in part, because the system of financing and presenting the arts has traditionally reinforced entrenched patterns of exclusion(159).</p> <p>Appearance and behaviour are intensely political: styles of dress, behaviour and recreation in youth subcultures can be symbolic forms of resistance against the prevailing authority of wider society.</p> <p>Study compared the levels of cultural activity with self-reported health. Individuals who became less culturally active or those who were culturally inactive throughout the study reported poorer health compared with the culturally active. Individuals who moved from cultural inactivity to cultural activity had the same level of self-reported health as the culturally active (161).</p> <p>Cross sectional study found that attending cultural events is linked to longevity. People who rarely attended such events ran a 60% higher mortality risk than those attending most often. However, no conclusion about the causal mechanisms could be drawn (162)</p>
<p>Taking Responsibility</p> <p>15. Liveability and Place To create and sustain liveable, mixed use physical and social environments</p>	<p>There is now broad consensus that living in deprived (urban) neighbourhoods increases the risks of poor health outcomes (163). Neighbourhood quality has been shown to effect:- people's ability to adopt health promoting behaviours e.g. physical activity (164), smoking prevalence and diet 170; Biological indicators of cardiovascular disease risk e.g. body mass index and systolic blood</p>



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that promote long term social cohesion, sustainable lifestyles and a sense of place.

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pressure(165) ; mortality , heart disease incidence and self-rated health (166,167).

We have only a limited understanding of what it is about the urban environment and neighbourhoods that leads to different health outcomes. In order to understand which interventions improve population health it is important to distinguish between different aspects of the urban environment(168) . Broadly speaking there are three aspects that is important to distinguish between:-

- the service environment (e.g. access to, and quality of, services and amenities);
- the physical environment (e.g., air quality, traffic levels);
- the social environment (e.g. the quality, content, and volume of interactions between people).

The physical condition of the neighbourhood is important if it is to respond to the changing needs of the community, to maintain a neighbourhoods distinctive identity, and safeguard and enhance some of the essential elements of community life that may contribute to a safer and fairer society (169).

Lifestyles and the ability to make healthy choices are influenced by the quality of the built environment and are linked to levels of obesity, coronary heart disease, cancer and diabetes. Poorly designed neighbourhoods can expose residents to the detrimental effects of pollution or toxins or to increased risk of accidents (170).

What people see when they open their front door has a profound impact on their health (171). Children who have access to or sight of the natural environment have higher levels of attention than those who do not. Access to green space can contribute to health and wellbeing, social inclusion, community development and culture. Ease of walking, opportunities for activity, access to a green and pleasant environment and the aesthetic qualities of the neighbourhood is associated with increased levels of physical activity. Awareness of facilities and satisfaction with facilities also leads to greater physical activity (169).

The corrosive effect of crime and fear of crime, combined with economic disadvantage and a poor physical environment have a major impact on the quality of peoples lives and their health (172). As part of this, trust, tolerance and a sense of attachment to the neighbourhood are strongly related to health. This means that although where you live matters for your health it is your social environment that matters most: "for those of low social status, health is made worse by living in a poor area. There is a kind of double jeopardy".

A systematic review of public health research on the environmental determinants of physical activity in adults concluded that the most consistent evidence regarding effects of environmental factors on physical activity in adults is observed for accessibility of facilities, opportunities for activity, and aesthetic qualities of the area (173).

In a survey of nearly 3,400 adults in Australia, it was found that the men and women reporting a more convenient environment (including proximity of a park or beach, a cycle path, or shops) or a more aesthetically pleasing environment (a friendly, attractive, or pleasant neighbourhood) were more likely to report walking for exercise or recreation (174). A national phone survey of nearly 2,000 US adults found that the odds of meeting physical activity recommendations were significantly higher in persons who reported access to places to exercise, walking or jogging routes, or a park. The presence of pavements and enjoyable scenery in the neighbourhood was also associated with increased rates of meeting physical activity recommendations. Awareness of facilities, satisfaction with facilities, and the perception that the area offers opportunities to be physically active were also found to be associated with greater physical activity in other studies (175,176).

Population density, employment density, and mixed land use are positively related to transit use and walking for shopping and work related trips (177). Using data from a household survey of five selected neighbourhoods, researchers found less travel by car and more non



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motorized travel (such as walking and cycling) in neighbourhoods characterised by a mix of land uses, high density, and pedestrian-friendly designs (178;179). Pedestrian-oriented design (including pavements, street lighting, and planted strips) has been found not to encourage motorized transport (180).

Feldman (181) examined pathways through which low neighbourhood socioeconomic status (SES) and associated subjective neighbourhood characteristics may be associated with self-reported physical functioning. The study showed that living in a lower socioeconomic neighbourhood was associated with greater perceived neighbourhood strain, which, in turn, was associated with poorer physical functioning. Lower neighbourhood SES and greater perceived neighbourhood strain were associated with poorer physical functioning of individuals through less social integration, less perceived control, and greater financial strain. They conclude that neighbourhood SES and associated perceptions of neighbourhoods are associated with physical functioning through the shaping of the social and psychological experiences of individuals living within them.

Molnar (182) examined the role of neighbourhood disorder and the lack of physical activity amongst poor urban children. More specifically they looked at the associations between activity levels of urban youth and limited access to safe recreation areas in their neighbourhoods of residence. The investigators found that physical activity averaged 2.7 hours/week and varied significantly across neighbourhoods. Socio-economic status, age, and sex (being male), but not body mass index, were independently associated with physical activity. Lower neighbourhood safety and social disorder were significantly associated with less activity. They propose that an important mechanism for reduced physical activity among youth may be the influence of unsafe neighbourhoods.

Food access and retail centres

The recent UK White Paper on Public Health (89) describes the importance of actions to 'secure better access to healthier choices for people in disadvantaged groups or areas', noting that 'deprived communities often lack good local access to places to buy fresh fruit and vegetables'. Policies to combat diet-related health inequalities have therefore been a priority (78;183-185) but evidence informing where, when and how to reduce these inequalities has been thin on the ground.

Studies in Newcastle and Glasgow have recently provided some evidence of the ways in which supermarket development affects people's access to food (186;187). The main findings of these studies are summarised below:

- Newcastle (187): *food deserts*, areas where communities have little access to an affordable and healthy diet, exist only for a minority of people. These people live in a locality that suffers from poor retail provision of the foods that compose a healthy diet. They also choose not to, or unable to, shop outside their immediate locality. Key predictors of healthy eating were found to be dietary knowledge, relative affluence, and healthy lifestyle. Retail provision was not independently associated with diet.
- Glasgow (186): little evidence for an overall effect of the intervention for fruit and vegetable consumption in portions per day. For those consumers who switched their main food shopping to the new store an improvement in consumption of around 0.35 portions per day was seen though the evidence for this was very weak. A substantial positive improvement in one measure of psychological health (GHQ-12) and a weak positive effect on self reported health was seen in switchers.

Little evidence exists relating to the health impacts as a result of large-scale retail interventions and regeneration in terms of food access and choice. Wrigley *et al* (188) note a 'cannibalisation' of trade from other supermarket stores. The suggestion is that in terms of retail structure the impacts of large-scale retail interventions may be negative (189). This would imply shop closures and redistribution towards the new facility rather than a widening of food choice and accessibility. (190;191).

There has been growing interest in the ways in which features of the local food environment may be related to the dietary habits of



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individuals. There is some evidence that the dietary patterns of individuals differ across neighbourhoods and that these differences may not be wholly attributable to individual-level socioeconomic characteristics. Studies in the United States have shown that the number of supermarkets is lower and the number of off-licences and fast food outlets higher (192;193) in more deprived neighbourhoods. In turn, the availability of services and amenities (such as grocery stores, pharmacies, as well as recreational spaces) may facilitate or constrain a person's ability to engage in health-promoting behaviours such as eating fresh vegetables, obtaining medicines, or getting regular exercise (194;195).

There has been growing interest in the ways in which features of the local food environment may be related to the dietary habits of individuals. There is some evidence that the dietary patterns of individuals differ across neighbourhoods and that these differences may not be wholly attributable to individual-level socioeconomic characteristics. Studies in the United States have shown that the number of supermarkets is lower (196) and the number of off-licences and fast food outlets higher (197-199) in more deprived neighbourhoods. In turn, the availability of services and amenities (such as grocery stores, pharmacies, as well as recreational spaces) may facilitate or constrain a person's ability to engage in health-promoting behaviours such as eating fresh vegetables, obtaining medicines, or getting regular exercise (200;201).

There is also evidence which argues against the processes described above. A recent study (202) examined the relationship between being overweight in preschool children and three environmental factors

- the proximity of the children's residences to playgrounds
- the proximity of the children's residences to fast food restaurants and
- the safety of the children's neighbourhoods.

The authors found that within the study population of urban low-income preschoolers, being overweight was not associated with proximity to playgrounds and fast food restaurants or with the level of neighbourhood crime.

16. Education and Skills
To maximise the education and skills levels of the population.

The Organisation for Economic Co-operation and Development report that the economic importance of knowledge and skills is growing: they also report that the social impact of learning is equally as significant as the economic impact (203).

Education, training and learning play important roles in providing the basis for economic growth, social cohesion and personal development (203). Education is positively correlated with employment earnings. Independently of qualifications adult literacy has a strong impact on earnings (204). Educational attainment in one generation has positive effects on the educational attainment of the next generation: better schooled parents have children with a higher level of cognitive development as well as children with higher future earnings potential (205).

People with higher educational qualifications tend to be healthier and have a lower take of social benefits (205). An additional year of schooling is associated with reduced average daily cigarette consumption for both men and women (206). People with more schooling tend to be less overweight and engage in more exercise per week than less educated people. People with more schooling are better able to identify relevant health related information and using this information in a constructive manner.



<p>SA Objective 17. Ownership and Participation To promote civic participation, ownership and responsibility and enable individuals, groups and communities to contribute to decision-making at neighbourhood, borough and regional levels in London.</p>	<p>Implications for health & wellbeing of people living & working in London The specific mechanisms underlying the link between community social capital and health outcomes aren't yet clear. There are several distinct pathways through which social capital may influence individual health outcomes. First, at the <i>community</i> level social capital may enhance the health of residents through two processes already alluded to: collective efficacy (i.e., the ability of communities to undertake collective action to introduce local smoke-free zones, or to lobby against the closure of local clinics), and collective socialisation (e.g., informal social control over deviant health behaviours, such as underage smoking and drinking) (207;208). In addition to the community-level pathway, community social capital may operate at the <i>individual</i> level via the provision of mutual aid and social support. A convincing body of empirical evidence from epidemiology suggests that social support is an important determinant of longevity and quality of life (209). Lastly, residence in a high social capital community may promote health via <i>direct</i> psychosocial mechanisms, by promoting feelings of security, identity, shared emotional connection, and 'belongingness'.</p> <p>An excellent example of how these processes may function to affect health is provided by a case study of the 1995 Chicago heat wave, during which hundreds of elderly residents died of heat exhaustion (210). Death rates were highest amongst individuals who resided in communities characterised by low levels of social interaction in public places as well as high crime rates. A lack of community life combined with a fear of crime kept many elderly residents sequestered within their homes and prevented them from reaching emergency cooling centres. Communities with an active street life where neighbours saw each other and interacted on a daily basis were more successful at protecting vulnerable residents against the risk of death. Access to social capital within the broader community (including trusting relationships between neighbours) looms in importance for isolated, elderly people who have limited opportunity for engagement outside their homes (211).</p> <p>However, social capital and social cohesion may not uniformly or invariably be associated with better health outcomes (212). The embeddedness of individuals within a 'high social capital' context may have important deleterious consequences for wellbeing (213). For instance individuals may be constantly called upon to provide social support to members of their bonding networks. Additionally, there may be pressures to conform to certain rules and expectations within a community which do not allow freedom of individual expression. A UK study (214) found that neighbourhoods in which close family bonding ties were predominant tended to be less tolerant of diversity, and possessed fewer bridging ties. Finally, an uncritical application of the social capital perspective may lead to the inadvertent 'blaming' of communities for their problems (215)</p>
<p>Developing Respect 18. Health and Well-being. To maximise the health and well-being of the population and reduce inequalities in health.</p>	<p>The World Health Organisation give a broad definition of health as "a resource for everyday life, not the object of living. It is a positive concept emphasising social and personal resources as well as physical capabilities". Health encompasses mental health and physical health and is affected by a broad range of factors including housing, employment status, transport and the social and the built environment: these are all determinants of health.</p> <p>Good health plays a central role in achieving sustainable growth. Patterns of behaviour that promote economic, social and environmental sustainability also have health benefits and measures to improve health (especially amongst the poor who are more prone to ill-health) also contribute to sustainable development6.</p> <p>An overarching aim of the London Plan should be to reduce health, and other, inequalities. At the very least the Plan should explicitly aim to prevent socio-economic inequalities increasing. Health and Well-being should be considered important outcomes and indicators of the success of the London Plan.</p> <p>In line with broader government policy, the London Plan should promote a context in which the public are able to do what they can to protect</p>



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their own health and manage their own health and well-being. The objectives of the London Plan policies should enable people to flourish socially and economically.

Individual choice plays an important part for people maintaining a healthy and active lifestyle. How much exercise people take, the food people eat, the levels of alcohol people drink: all these are important factors for individual health. These choices are made within a physical, social and economic environment. It is also important to consider how strategic policies for London can present people with healthy options.

19. Safety and Security

To enhance community safety by reducing crime, antisocial behaviour and the fear of crime.

Violent crime may result in temporary or permanent disability and, in some cases, death. People who have experienced crime-related trauma may also have a poorer perception of their physical health, greater limitations on physical functioning and more chronic medical conditions. Individuals who have been victims of physical violence have also been shown to have higher rates of cigarette smoking, alcohol and drug abuse, risky sexual behaviour and eating disorders.

There is widespread acceptance that the victims of crime often suffer severe psychological distress and subsequent mental health problems. Data from general population studies in the U.S. clearly indicate that crime events are associated with high rates of Post-Traumatic Stress Disorder (PTSD). Secondary victims, such as close relations, witnesses of crime and communities experiencing violence, may also suffer from the psychological affects of crime.

The fear of crime can alter people's lifestyles and may affect them in ways that lessen their quality of life and impact upon their physical and psychological health. For example, people in fear of crime may be less likely to use public spaces, may withdraw from social life and avoid going out, especially at night. Fear of crime may also lead to psychological health effects, such as stress, depression and sleeping difficulties.

Researchers find that residential mobility is associated with high levels of crime and victimization (216). Residential mobility has one of the largest positive effects on violent victimization of any neighbourhood characteristic, larger than poverty or racial composition (217). Poverty contributes to criminality only in transient communities characterised by rapid population turnover.

A review (218) analyses the literature on the effectiveness of street lighting improvements in preventing crime. The following conclusions are supported:

- precisely targeted increases in street lighting generally have crime reduction effects;
- more general increases in street lighting seem to have crime prevention effects, but this outcome is not universal. Older and US research yield fewer positive results than more recent UK research;
- even untargeted increases in crime prevention generally make residents less fearful of crime or more confident of their own safety at night;
- in the most recent and sophisticated studies, street lighting improvements have been associated with crime reductions in the daytime as well as during the hours of darkness; and
- the debate about lighting effects has served to preclude a more refined analysis of the means by and circumstances in which lighting might reduce crime.



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20. Equality and Diversity

To ensure equitable outcomes for all communities, particularly those most liable to experience discrimination, poverty and social exclusion.

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The *Health in London* reports (12-14) show us that health inequalities can be found between different population groups and between different geographical areas.

Gender: across London the difference between male and female life expectancy is greater in areas with more deprivation.

Socioeconomic status: the risk of mental illness increases with social and economic deprivation. Mental illness itself can be a cause of unemployment leading to further deprivation. London is a culturally diverse city, with one in three Londoners coming from an ethnic minority community, and over 300 languages being spoken. This diversity is one of the features that makes London such a vibrant world city – yet we know that London’s communities do not benefit in equal measure from the opportunities and wealth the capital has to offer.

Ethnic group: ethnic minorities experience a higher burden for certain diseases. This burden has been described for the following areas: coronary heart disease, haemoglobinopathies, cancers, diabetes, mental health, tuberculosis and sexual health. Elders from Black and Minority Ethnic groups in London report higher levels of limiting long-term illness. Such differences appear to exist even within income groups;

Age: in relation to the forecast aging or ‘greying’ of London, it is necessary to consider how health profiles and demand for services will alter. Individual living conditions will also change as they move through the life cycle. Deprivation is not a static phenomenon; people move in and out of it.

The health effects of age may also be compounded by those of ethnicity and social class. For example the high unemployment rate of young Black and Asian people. As the Black and Minority Ethnic population ages the health of BME elderly people assumes growing importance. This will be an important issue for Bangladeshi people, who currently have a relatively young age profile. The population of elderly people from BME groups in London will triple by 2011.

Geographical area: Londoner’s self-reported health is slightly better than the national average for England. However, there are inequalities within the health of Londoners. Areas such as Tower Hamlets, Hackney and Newham report high rates of poor health. Most of the areas with significantly low levels of male and female good health are located in inner London. In addition there are also wide variations in the percentage reporting their health as not good by ethnic group. The percentage who reported their health as not good was highest in the Asian British Bangladeshi and Pakistani groups and was also high in the Indian and Black Caribbean groups.

In terms of infant mortality rate (IMR), London is very similar to the rest of the country. The IMR in London as a whole has declined from 7.3/1000 in 1990-92 to 5.7/1000 in 2000-02. Again as with self-reported health there are considerable inequalities in infant mortality by borough. Brent, Lambeth, Southwark, Newham, Hackney and Waltham Forest had the highest rates and along with Croydon were significantly higher than the England rate.



5. Casinos

- 5.1 In light of the methodological issues surrounding evidence-based public policy (see page 20) we wish to draw detailed attention to some of the difficulties with the research associated with casino development, economic regeneration and the prevalence of gambling, especially problem and pathological gambling.
- 5.2 We have searched for information, evidence and research on casino development. All sources are cited as footnotes in the text. Sources include
- Pubmed (academic search engine);
 - Casinos Advisory Panel website;
 - Independent consultants;
 - Paper submitted to the Greenwich EIP by Mayor of London; and
 - Oral evidence submitted to the Joint Committee on the Draft Gambling Bill.
- 5.3 appendix is prepared in response to comments from London Plan policy authors on earlier SA team summaries of evidence on casino development, gambling and health.
- 5.4 The new policy 3D.4i of the London Plan stipulates that 'Small' and 'Large' casinos should conform to the wider policies of the plan including those for the location of leisure facilities, while Wembley and Greenwich Peninsula Opportunity Areas are appropriate locations for development of 'Regional' casinos.
- 5.5 Evidence on the economic effects and the social effects of casinos is based on national and international research. It provides few clear answers.
- On regeneration
- '... estimates of the potential returns on investment associated with a Regional Casino, and hence the resources which might be available to contribute to the cost of developing a Regional Convention Centre, are particularly sensitive to a range of assumptions for which direct evidence is not readily available (given the fact that this effectively represents a new product while the impact of deregulation of the UK gambling market is untested). As such a degree of judgement is necessary in exploring the potential financial returns associated with a Regional Casino'. (219)
- On problem gambling ...
- 'There is regrettably little good evidence, about problem gambling on which good public policy can be based. Much of what has been written in the UK and elsewhere draws obviously partisan conclusions from highly speculative interpretations of very meagre evidence' (220).
- 5.6 In relation to Policy 3D.4i we consider a number of issues in relation to casinos.
- Location of casinos
 - Gambling: problem and pathological
 - Casinos and problem gambling
 - Casinos and economic regeneration
 - Impact on problem gambling rate

Location of casinos

- 5.7 Para 3.236iv states that proposals for new casinos of any type should be assessed in accordance with the principles set out in Policy 3D.1 and the other policies relating to leisure development in this plan, although in assessing proposals boroughs should consider the appropriate use of their planning and licensing powers to ensure protection of the vulnerable and to minimise negative impacts on local and wider amenity.
- 5.8 In his oral evidence to the Joint Committee on the Draft Gambling Bill Professor Peter Collins questions the wisdom of locating casinos in town centres (220).
- ... from a problem gambling point of view, there is no doubt that it is better not to locate casinos in town centres. ... There may be other reasons, like limiting the number of car