

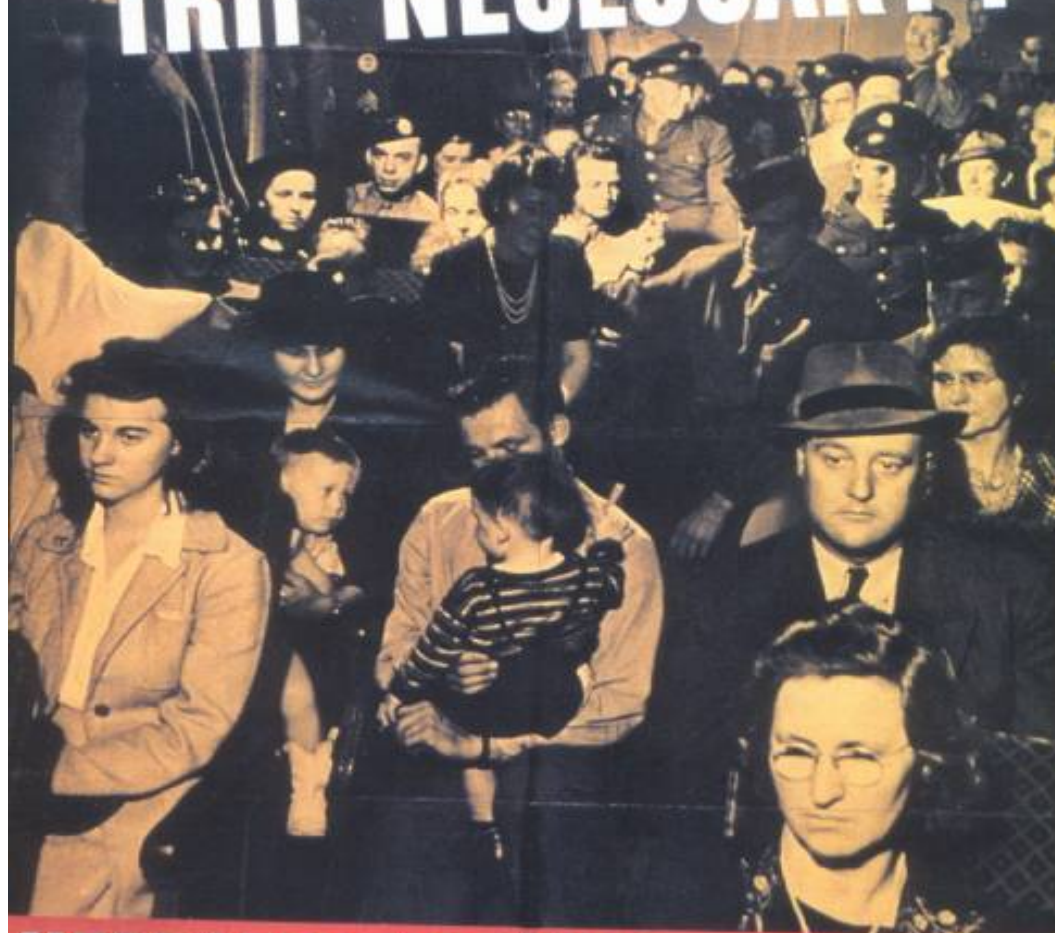
***Polis Conference 2009***

**TRANSPORT AND PUBLIC HEALTH:  
LONDON 2012 CASE STUDY**

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**Robert Ravelli**  
**Contemporary Transport™**  
*"Planning for our Future"*

# IS YOUR TRIP NECESSARY?



**NEEDLESS TRAVEL**  
*interferes with the War Effort*

OFFICE OF DEFENSE TRANSPORTATION

# Where Transport Affects Health

## Infrastructure Influencing Behaviour

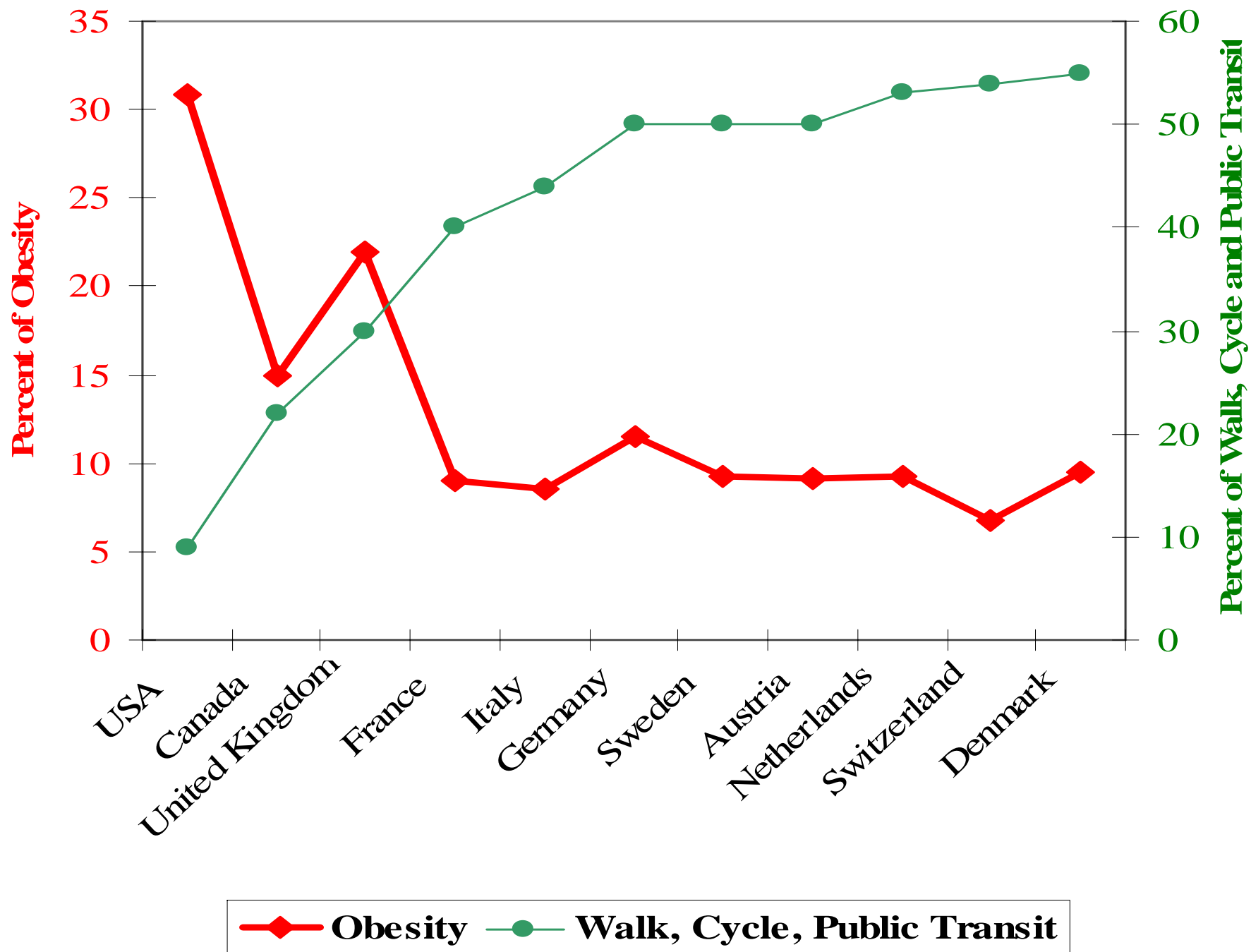
- The built facilities and modes that allow people to achieve health benefits through greater access.
- Options to improve health by using social marketing to educate transport users and local communities to use mobility alternatives.

# How Transport Can Harm Health

- Physical Inactivity: Past policy and practice has often given priority to physically inactive modes of transport.
- Psychological Effects: can be caused by community severance, noise and visual impacts.-not yet established
- Air pollution: from vehicles affects respiratory health.
- Noise pollution: has potential to affect hearing at high levels. Traffic noise is an important cause of annoyance,
- Road injuries: In Britain, there are over 3000 deaths and 60,000 severe – often long-term – injuries each year. Road injuries are caused by vehicle drivers, but the majority of injured are pedestrians, passengers and cyclists.
- Ecological Impacts: Transportation, particularly new roads and rail systems usually require the clearing of land, which can affect natural areas of high ecological value. Not yet established.

# How Transport Benefits Health

- Active Travel systems can reduce physical inactivity, through promotion of walking and cycling
- Commuters can also gain health benefits by walking and cycling to mass transit stations.
- Improved transport infrastructure can promote economic development to an area and provide access for local residents to employment and educational opportunities resulting in improved psychological effects to a population
- Mass transit systems can improve air quality through the reduced consumption of fossil fuels.
- Active travel can also provide significant air quality benefits as this form of transit does not require consumption of fossil fuels or other external energy sources.
- The substitution of roads with cars and trucks with biking and walking facilities can provide benefits in terms of noise reduction as active travel modes generally result in lower noise emissions than other forms

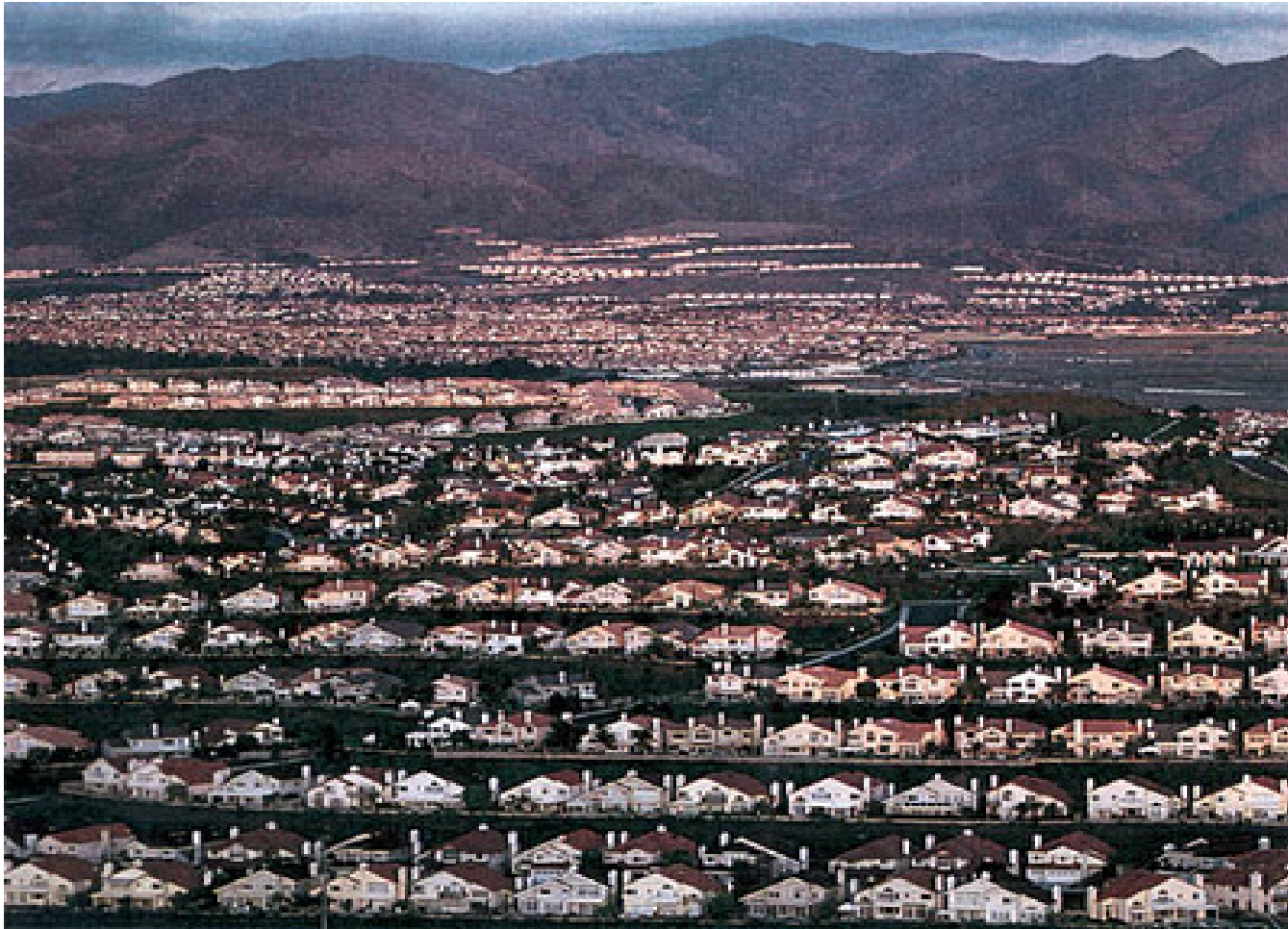




Medieval cities were based on walking and hence were compact by necessity



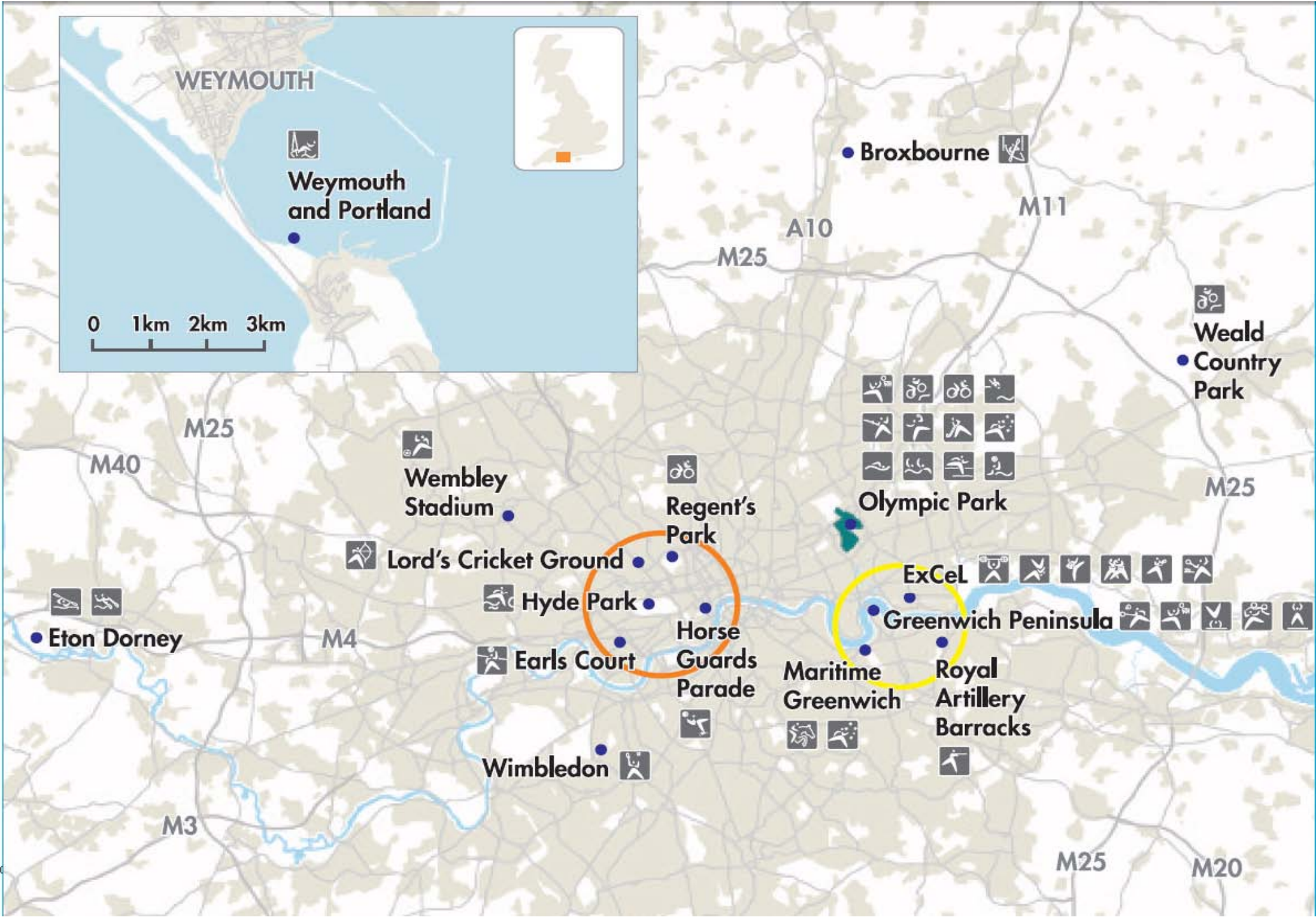
# Sprawl Impacts Health: Where do you walk?



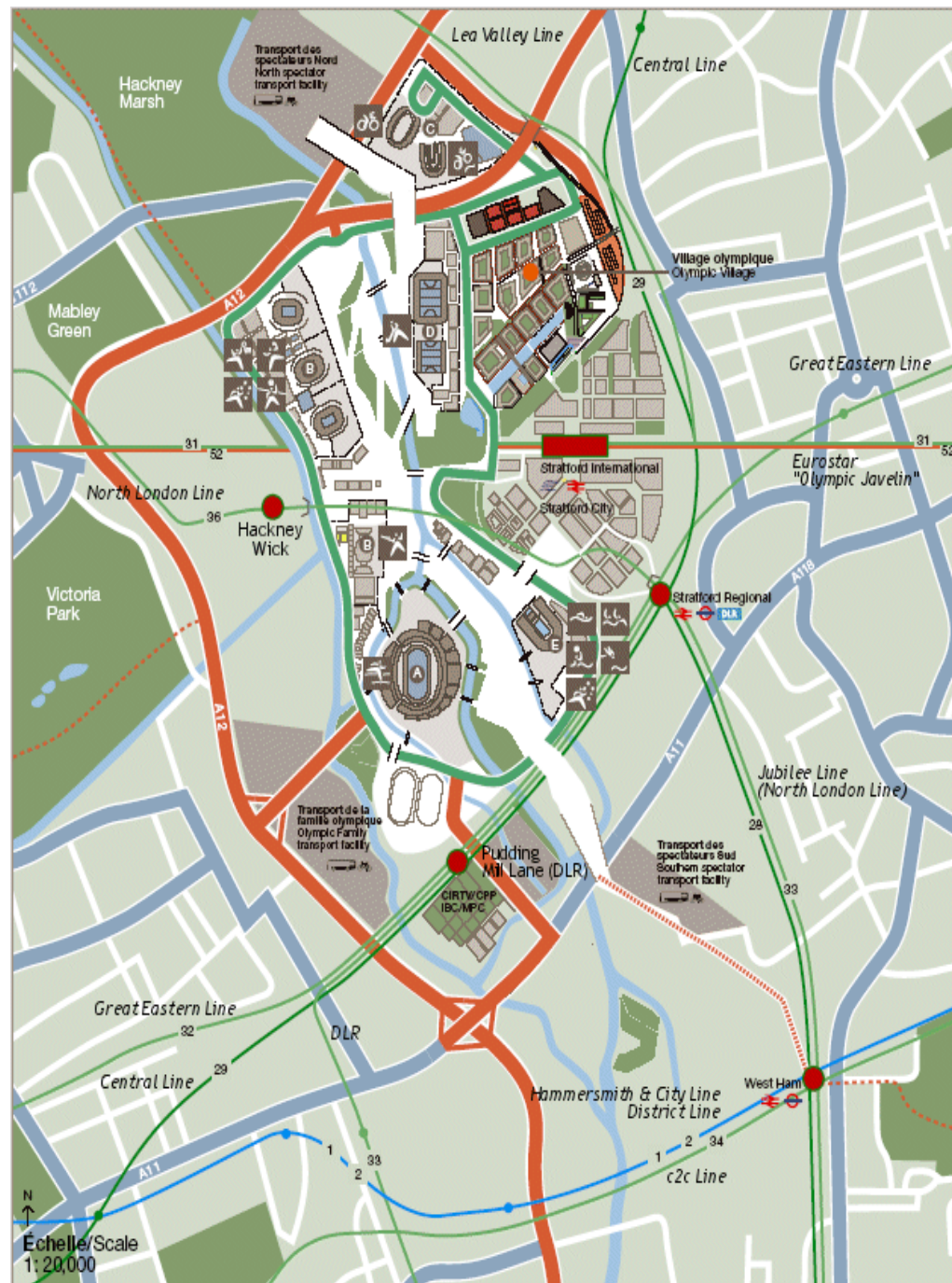


# Poundbury, Dorchester, UK











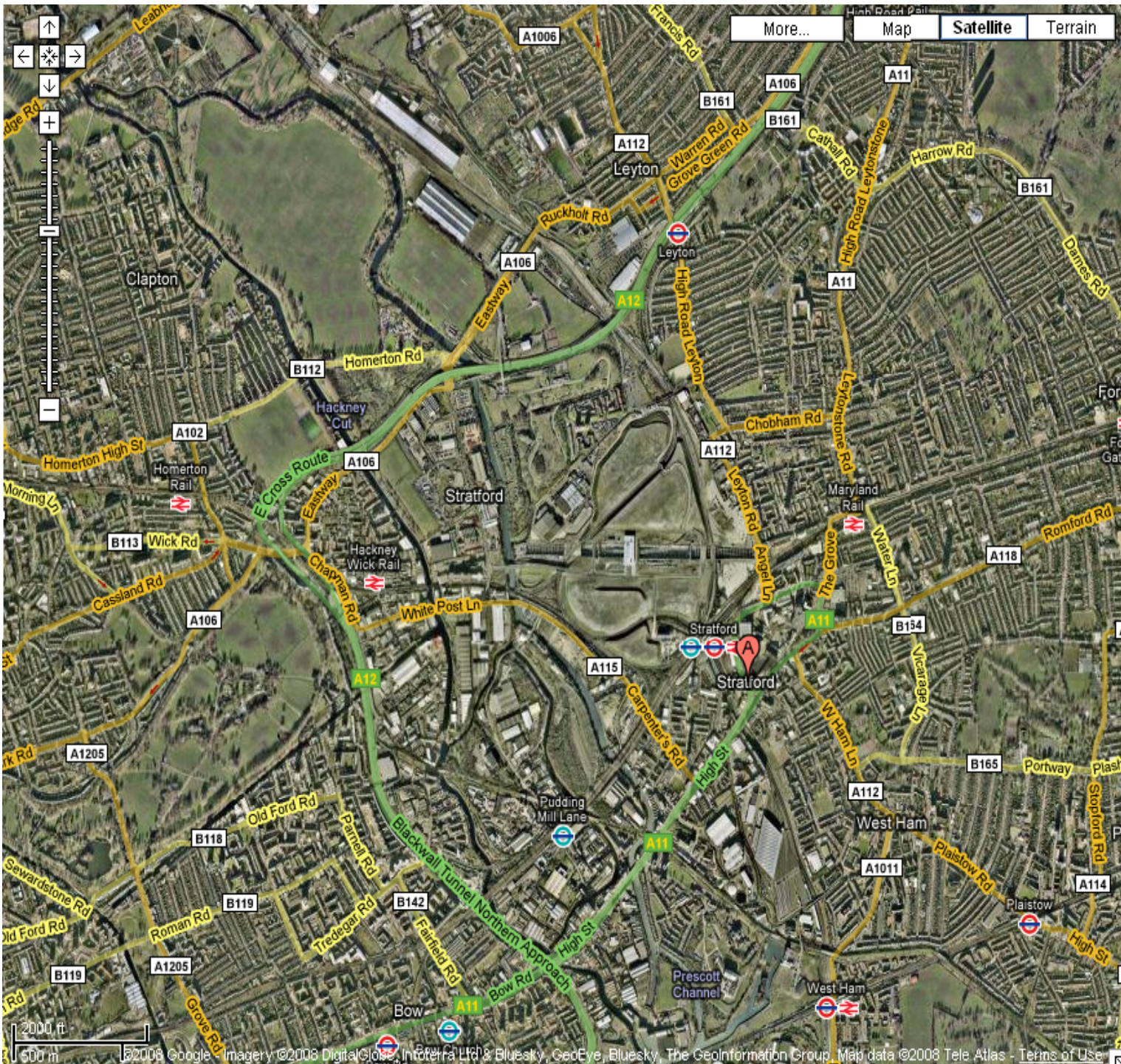
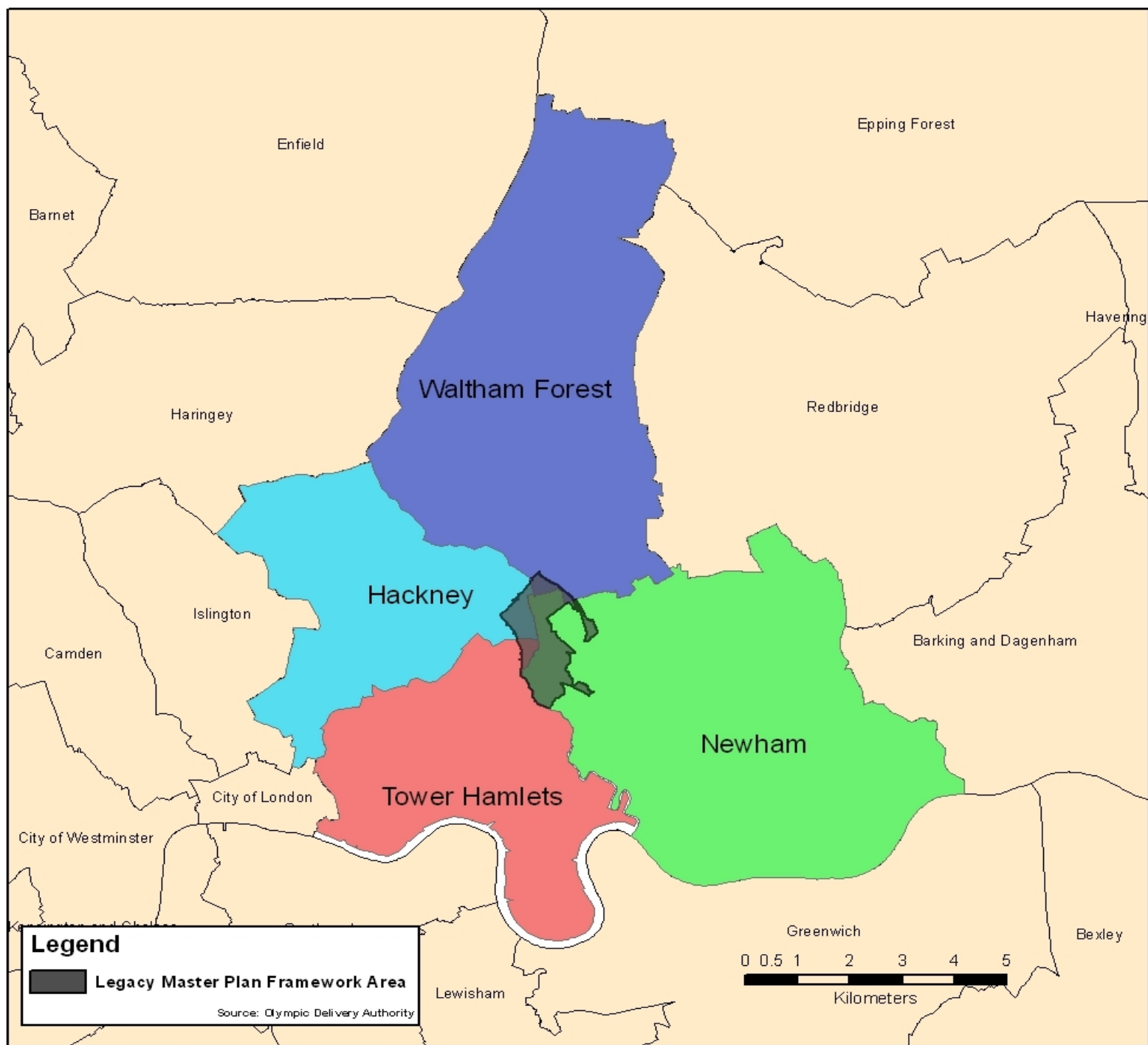






Figure 10.10  
Stadium construction, 2004





# The Olympic Legacy

- Combating climate change
- Reducing waste
- Enhancing biodiversity
- Promoting inclusion
- Improving healthy living

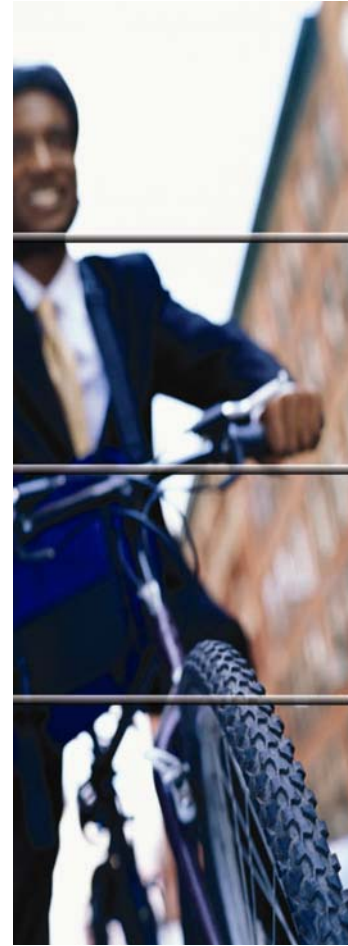


# Elements of the Assessment

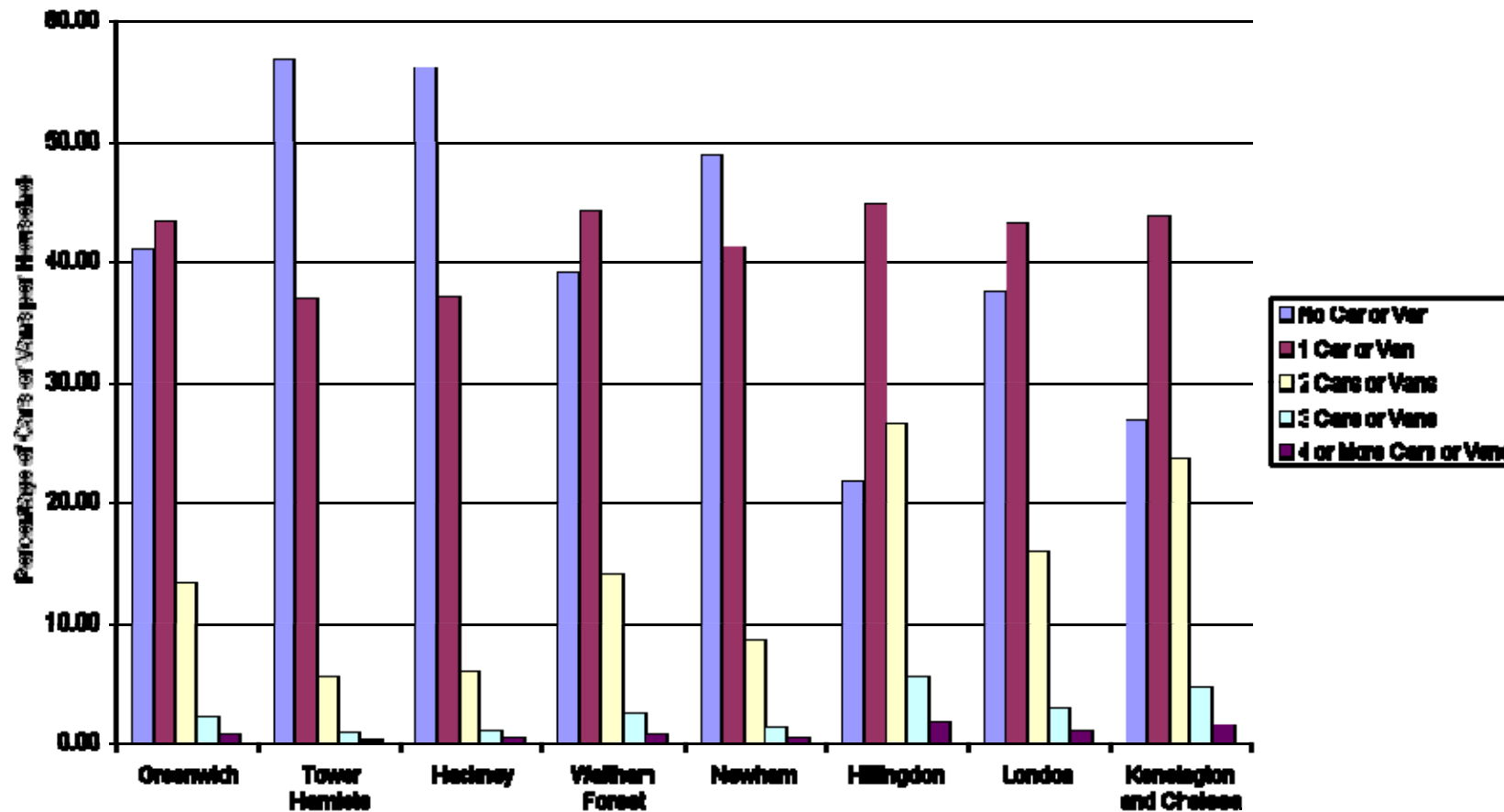
- Establishment of baseline population characteristics
- Consultation with relevant organisations
- Review of relevant literature
- Identification of key health indicators to be used for assessing the health impacts of transport projects
- Epidemiological assessment of transport impacts and evaluation of potential harm
- Assessment of relevant OTP projects against epidemiological factors
- Reviewing current ODA/LOCOG programs and initiatives that address healthy living goals
- Identification of strategic recommendations

# The London 2012 Transport Plan

- Active Spectator Program to promote healthy travel modes to access the Games venues
- Provision of low emission vehicles-designated low emission zone
- Green travel planning for ticketed spectators (travel demand management, personalized travel planning)
- A network of new and upgraded walking and cycling routes
- Enhanced Stratford Regional Station and Stratford International Station– Increased capacity on the Docklands Light Railway (DLR)- turn North London Line to DLR service with new stations.

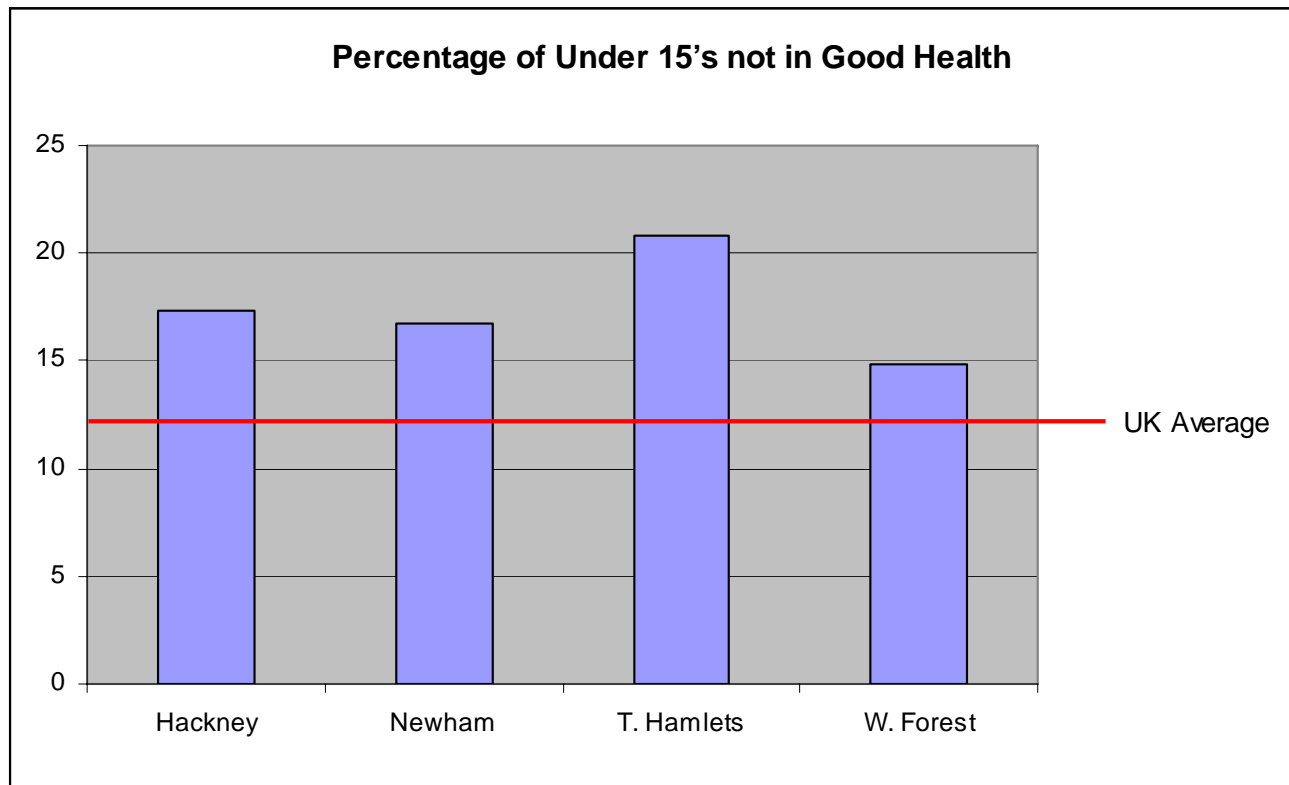


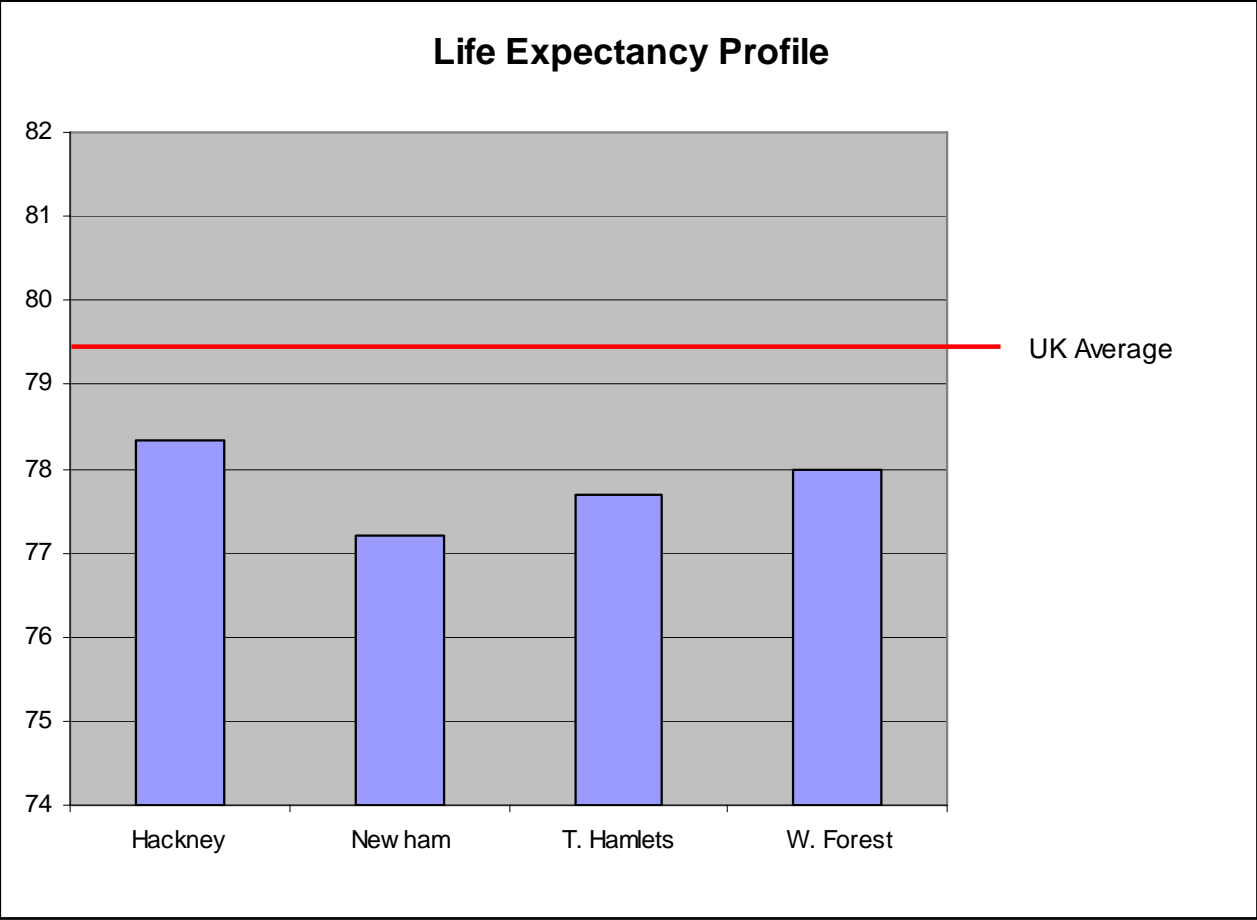
# Car or Van Ownership Per Household





# Health of Residents





# American Journal of Preventive Medicine

## Article Nov. 08

Research suggests that neighborhood residents who have better access to supermarkets and limited access to convenience stores tend to have healthier diets and lower levels of obesity. National and local studies across the U.S. suggest that residents of low-income, minority, and rural neighborhoods are most often affected by poor access to supermarkets and healthful food. In contrast, the availability of fast-food restaurants and energy-dense foods has been found to be greater in lower-income and minority neighborhoods.



BARROW

TOBACCO

CHICKEN LICKIN'  
HALAL CHICKEN BURGERS KEBABS

FISH & CHIPS

Chatsworth Road















Interleasing





WREXHAM ROAD  
E.3

FP  
Pay Point

FAIRFIELD STORES  
IN WAGENTS

FAIRFIELD STORES  
CONFECTIONER  
GENERAL STORES

MoneyGram  
International Money Transfer

THE NATIONAL  
LOTTERY

NEWSAGENTS  
GENERAL STORE

CASH MACHINE

BRING YOUR  
FILMS  
HERE

High Speed  
Developing & printing

Reprints

Advanced  
Photo System

play  
here!

Cash  
Machine  
Here  
CashAll







# Environmental and health effects of transport



## Summary results of epidemiological assessment

Environmental Factor (WHO Guidance)	Environmental Measurement	General Health Effects	Environmental Statement Reported Impact	Estimated Epidemiological Impact
Air	Nitrogen Oxides NO <sub>x</sub>	episodes of acute respiratory illness	not reduced	existing harm unchanged
	Particulate Matter PM <sub>10</sub>	premature deaths	not reduced	existing harm unchanged
Noise	Decibels at sensitive points	annoyance, (possibly) heart disease, child school concentration	not reduced	existing harm increased
Energy/Climate Change	Emissions: Carbon Dioxide CO <sub>2</sub>	global health effects	minimal increase	existing harm remains the same
Transport Injuries	Vehicle journeys	injuries and deaths	unchanged	existing harm unchanged subject to further study
Physical Inactivity	Exercise	longer life through physical and mental health	not specified	existing harm reduced. Benefits occur during Games time through Active Spectator Programme. Legacy impacts not clear

# Results of Qualitative Assessment- Games Time

During games time, lasting for approximately 7 weeks:

- There will be some improvement in physical activity levels, primarily due to the Active Spectator Programme and the provision of infrastructure that promotes walking and cycling (eg the Greenway).

# Results of Qualitative Assessment- Legacy Phase

The legacy phase will extend from 2012 for an undefined period.

- Increased “Active Travel Modes”, dependent upon the degree of utilisation of new active travel infrastructure.
- Health benefits arising from improved transportation infrastructure, generally resulting in improved access to employment, education and health facilities

# Findings

- There will be a projected increase in car trips as a result of the development of the Olympic Park over current levels given that the site was underutilized and partially vacant prior to the Games being awarded to London.
- However, despite the increased traffic projections, the provision of new transport infrastructure and complementary land uses will result in enhanced accessibility to public transport and to walking and cycling leading to improved health.



# Suggested Next Steps by Local Gov't to Improve Health

- Education programs-promote behaviour change in the ways people travel
- Connectivity improvements-link the surrounding community with the Olympic Park-Legacy Company
- Designing mixed use transit oriented development-Promotes active living, public health and mobility alternatives
- Increasing outlets for food choices
- Incorporating recreation facilities in regeneration schemes
- Creating a physical environment that less dominated by the car given the low car ownership in the area

# National Health Service Involvement

- The NHS has developed the “Go London” plan that uses the Games to promote physical activity obesity reduction through “walking for health”.
- “Think Feet First’ social marketing campaign-  
[www.thinkfeetfirst.com](http://www.thinkfeetfirst.com)

# Reverse Legacy of Car Dominance



# Create Better Walking Environments





# Waitrose Cycle Trailer Scheme

Free Rentals of Cycle Trailers in 21 of Its Stores

