



Future health

Sustainable places for health and wellbeing

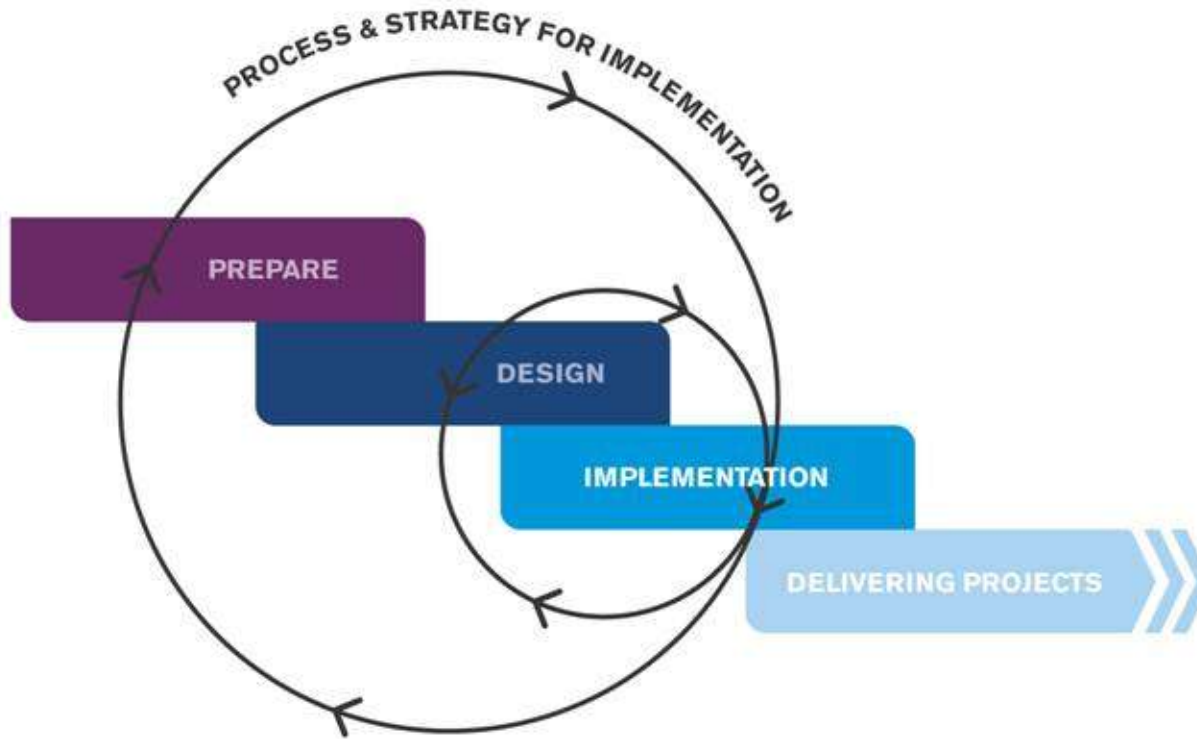
Susan Francis

Oct 2009

Commission for Architecture
and the Built Environment

The government's advisor
on architecture, urban design
and public space

Creating Excellent Buildings: A Guide for Clients



Ten key ways to be a successful client

- 1 Provide strong client leadership**
- 2 Give enough time at the right time**
- 3 Learn from your own and other successful projects**
- 4 Develop and communicate a clear brief**
- 5 Make a realistic financial commitment from the outset**
- 6 Adopt integrated processes**
- 7 Find the right people for the job**
- 8 Respond and contribute to the context**
- 9 Commit to sustainability**
- 10 Sign off all key stages**

CABE Enabling

- to work with healthcare trusts to help them to achieve well designed buildings
 - Raise aspirations
 - Understand relationship between building design and service delivery
 - Know what to ask for
 - Know when it's being offered



Support NHS Design Review Panel

- **Purpose: to judge potential**
 - provides a 'good governance' process : used as a 'critical friend'
 - Creates an opportunity for sharing good practice: panel have an overview that trusts don't have
 - Quality check for commissioners

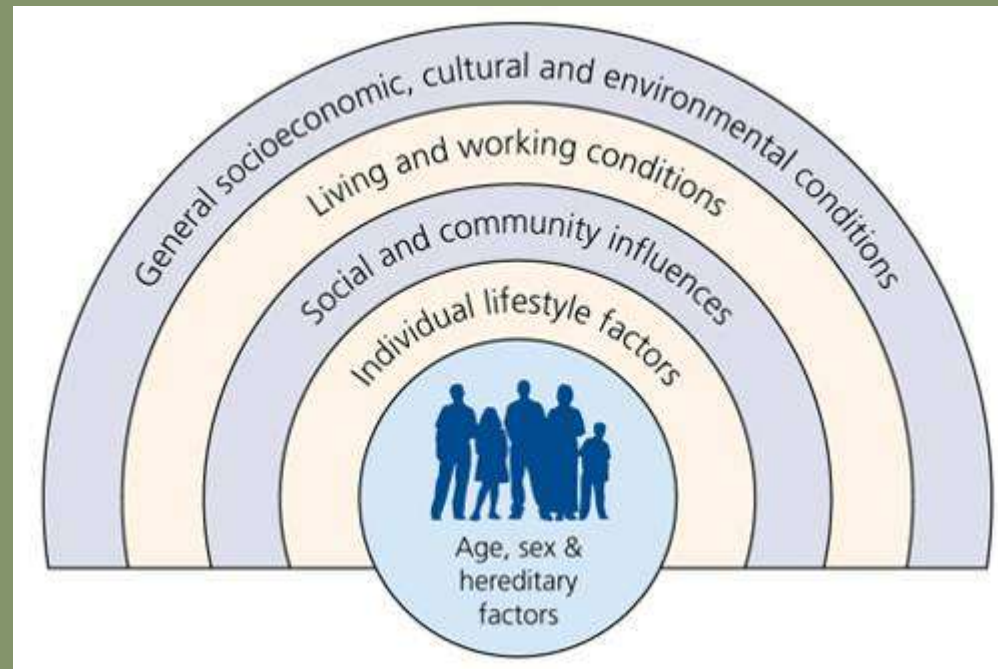


Future Health

- **Modernising Care**
- **Promoting health and wellbeing**
- **Addressing climate change**

...what can design do ?

Social determinants of health



Dahlgren and Whitehead 1991

Housing, transport, employment and skills training, education and early life, access, safety, public realm, air water and noise, fresh food, climate change

Key priorities for modernising care

- Reduce health inequalities
- Improve quality and safety
- Deliver effective personalised care
- Shift care closer to home
- Ensure sustainable development

Limit spending on capital



Significant changes

Major Drivers	5 yrs (2007)	10 yrs (2012)	15 yrs (2017)	20 yrs (2022)
Patient Expectations	Consumerism Expert Patient Holistic health & wellbeing		Meeting needs of older people	
Medical Advances	Minimally Invasive Surgery		Pharmacogenomics Major Pharmaceutical Innovation	Widespread Genetic Screening & Therapy Stem Cell Technology
Information & Support Technology	Complete EPR & use of IT networks Diagnostics Miniaturised, Protocol Driven/Expert Systems	Intelligent Devices Home Monitoring	Robotics	
Demography & Society	Inequalities Smaller households, single parents, living alone	Population growth in 45 - 75 age group		Population growth in in >75 age group
Epidemiology	Focus on managing risk factors	Chronic disease increasing Greater differentiation of diagnosis		
Labour Force	Portfolio careers Lifelong learning	Labour force ageing and participation rates reducing		Increasing informal elderly care demands A end to retirement?

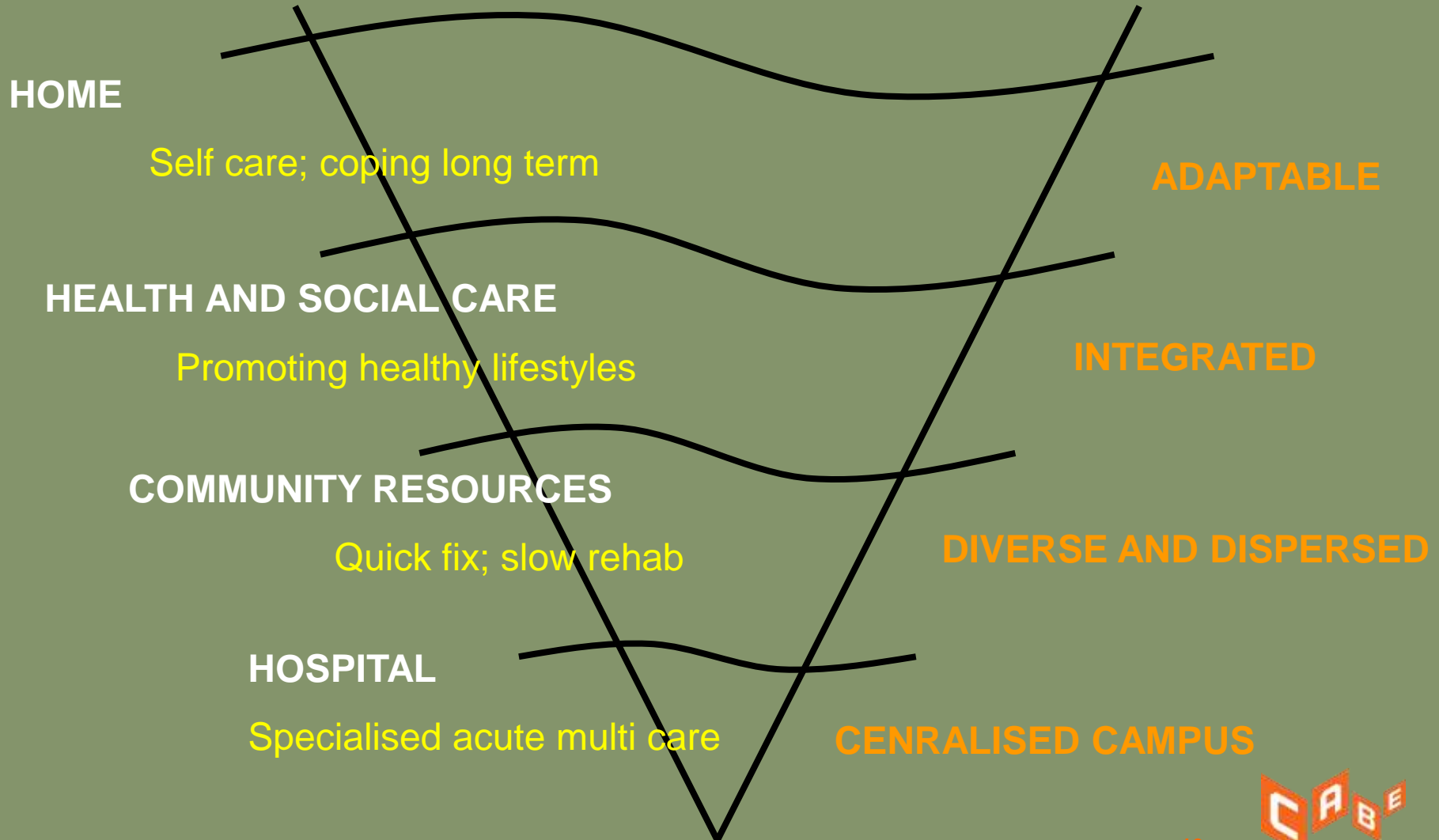


Time when we **predict** that a major change may be seen in this dimension



Source: Candace Imerson DH

Spectrum of settings



Promoting Wellbeing

- Health not well integrated into the planning system
- Car use and vehicular traffic prevail
- Poor quality green spaces
- negative effects on mental health



Image Dr Richard Jackson

Creating attractive green spaces

- Impact on cardio-vascular disease, obesity, depression, coronary-pulmonary disease and diabetes¹¹
- Natural England
- 37% of chronic heart disease is attributable to physical inactivity and the risk of developing this illness is halved by undertaking regular physical activity
- Prof. S. Atkinson (June 2006) Developing Health through a Green Gateway (Conference)
- Estimated cost £10bn pa due to lifestyle diseases



Fit for purpose?



People with access to nature are generally healthier



- **reduce physical and mental health problems**
- **increase levels of physical activity and enjoyment**
- **fewer working days lost due to ill health**
- The value of public space. CABE Space, 2003.

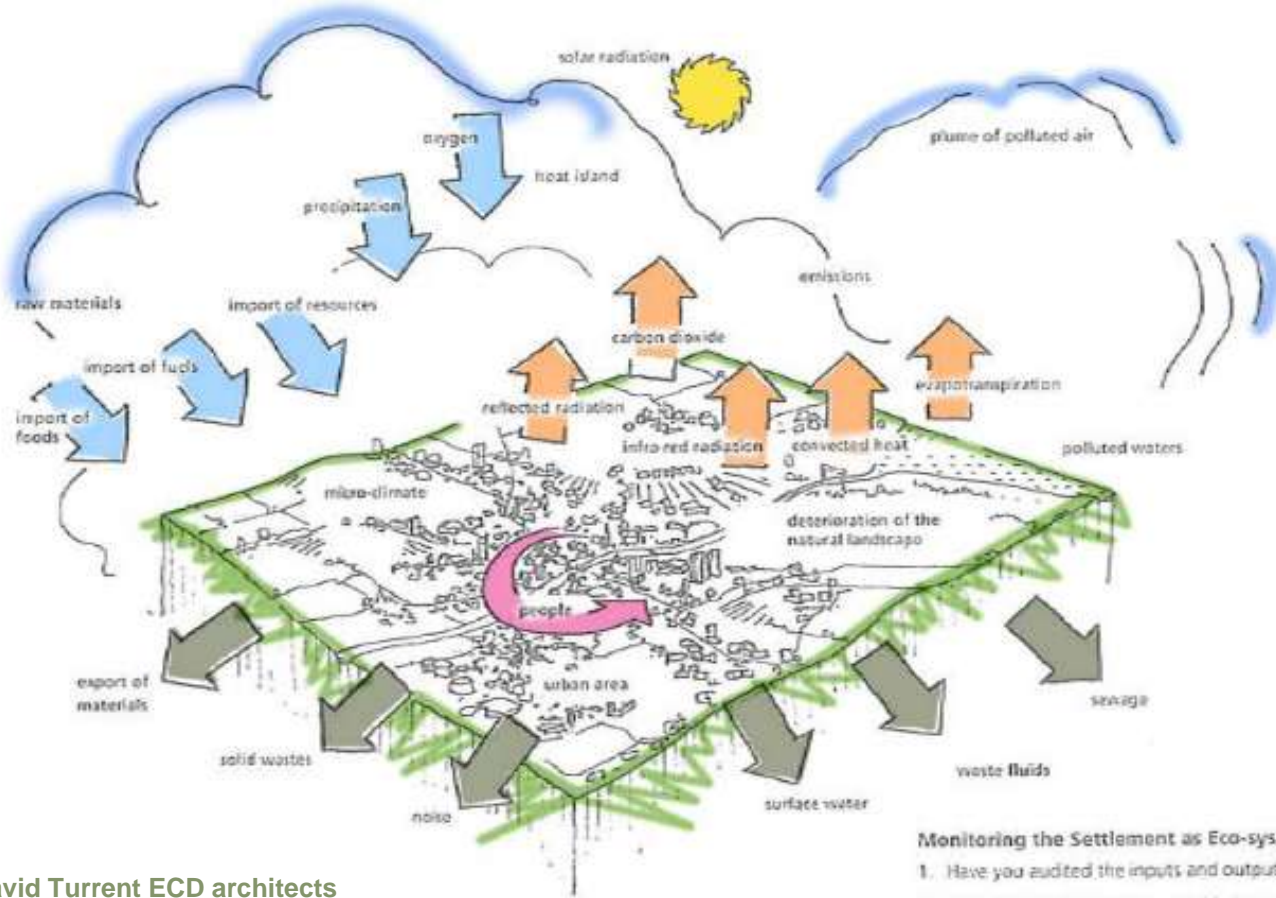
Reconnect people and nature

University Hospital Basel

Climate change

- **Effects on health of**
 - Co2 emissions and pollution = respiratory problems
 - Flooding = water-bourne illnesses
 - Heatwaves = overheating and death from dehydration
- **Meeting Climate Change 2008 targets**
 - 80% reduction by 2050
- **50% UK carbon emissions from buildings**
 - 3% UK emissions from the NHS
 - 40% from buildings and transport
- **Responsibility and influence of NHS**

Masterplanning



David Turrent ECD architects

Passive design from start



Orientation, form, density, energy, waste, water, air, sun, green space

Transport and green infrastructure

increased walking and cycling
improves physical and mental health

less (and slower) road traffic leads to
declining road traffic injuries

less traffic creates increased
opportunities for active play in
humanised streets and public spaces

less traffic pollution, for example
particulates from diesel engines, can
reduce respiratory diseases.



Design : a catalyst for change

- **Location location location**

- Site selection, transport & access

- **Therapeutic spaces for personalised care**

- Safe, effective care with quality experience

- **Green infrastructure & public space**

- Physical and mental wellbeing

- **Adaptable low carbon environments**

- long life, loose fit, long term benefit

Sustainable cities



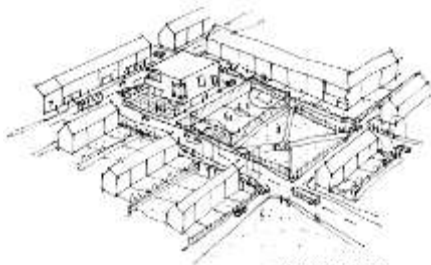
GLOBAL



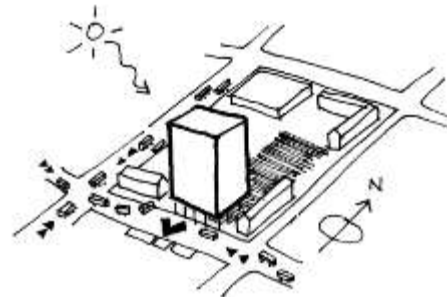
SUB-REGIONAL



THE URBAN AREA



NEIGHBOURHOOD



THE SITE

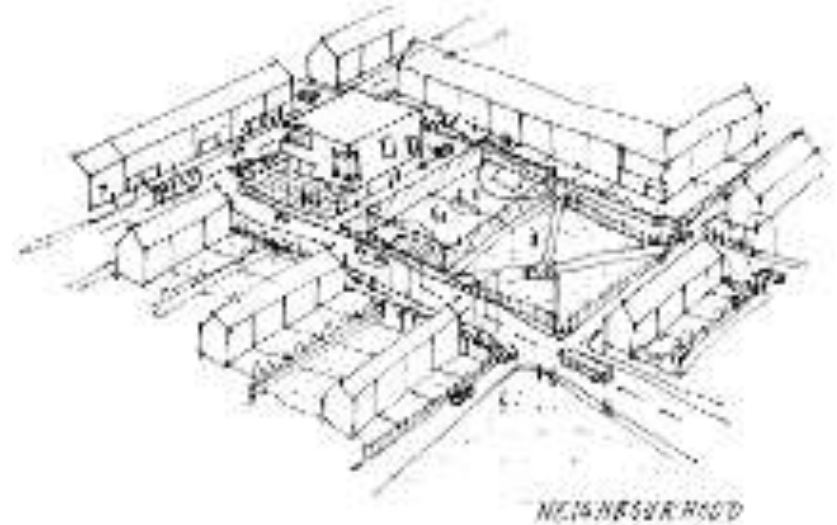
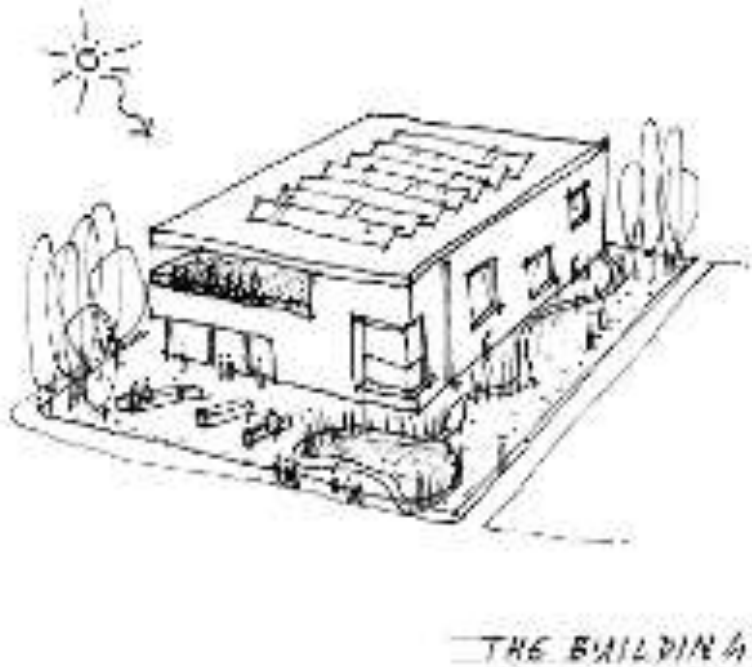


THE BUILDING

Energy Waste Water Transport Buildings Green infrastructure Public space

Sustainablecities.org.uk

Buildings and Neighbourhoods



- Care
- Wellbeing
- Climate change

Buildings

Streamline services around patient pathways



New Stobhill Hospital : Reich and Hall

Buildings

Join services together in accessible locations



Buildings

Make the most of the place



Buildings

Take advantage of views to enhance healing



Research has also shown that attractive green spaces within hospital grounds assist in post trauma recovery for many patients.

Buildings

Provide green spaces to relieve stress



[MIND](#) has called for 'ecotherapy' to be recognised as a clinically-valid frontline treatment for mental health problems.



Buildings

Create therapeutic environment to enhance personalised care



GP surgery. Barts cancer Unit

Buildings

Value privacy and dignity supported by technology



Buildings

Design responsive and adaptable buildings





- Health no exception
- ‘Design strategy for low energy ventilation and cooling of health buildings’
- Early signs are that much of the hospital can be designed for passive energy solutions
- Cambridge University Research
Arup image

Buildings

Reduce carbon footprint

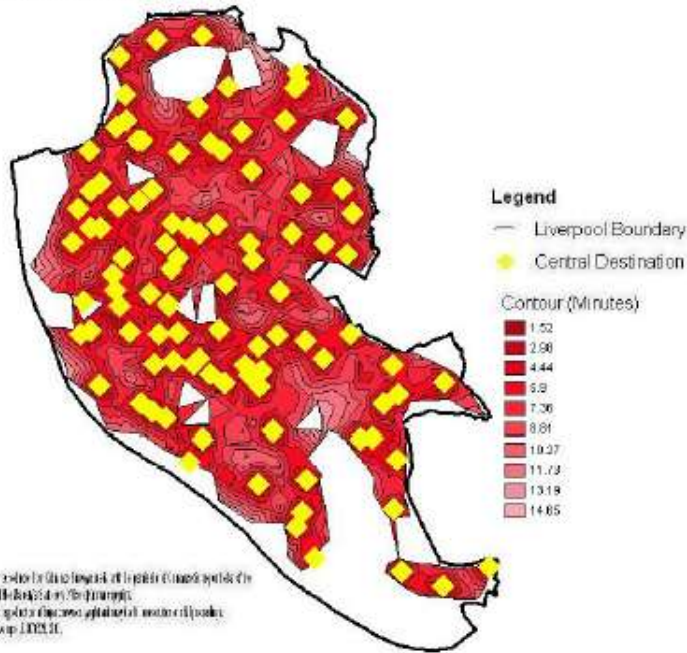


Plowright Surgery, Swaffham. Churchill Hospital Oxford.

Neighbourhoods

Plan compact and integrated developments

Map showing the accessibility of the existing GP and Health Centre Facilities within Liverpools boundary by Public Transport



Liverpool & Sefton LIFT: no more than 15 minutes walk) Luton drop in centre

Neighbourhoods

Integrate health with housing and community resources



Stonebridge Hillside Hub
HYDE HOUSING ASSOCIATION



Neighbourhoods

Locate health buildings to contribute to making an active and healthy public realm



ACAD and Becad London

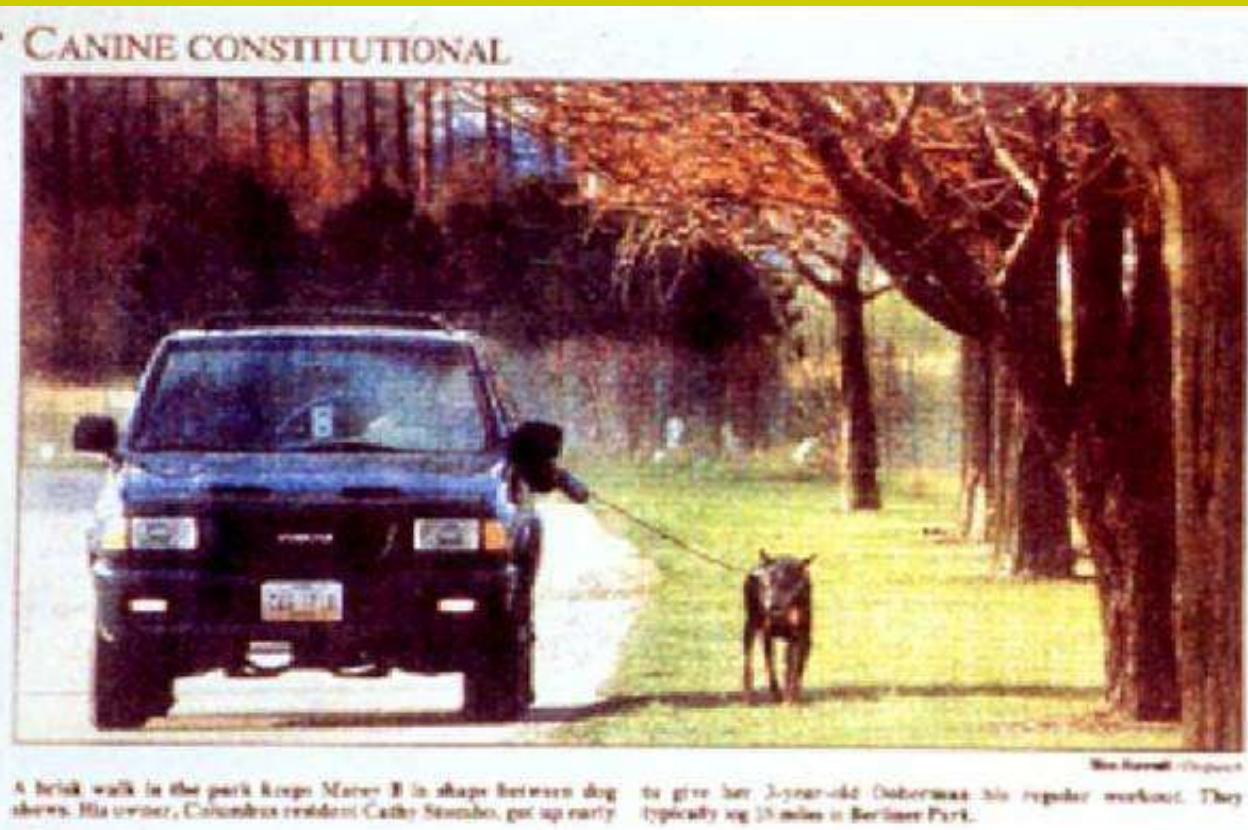
Neighbourhoods

Deliver sustainable transport solutions



Neighbourhoods

Promote play and physical activity in the natural environment



- The environment can influence people's ability to be active and the huge cost to the public sector of inactivity
- The National Institute for Health and Clinical Excellence (NICE) has published public health guidance to counter the effects of the lowering rates of physical activity.
- Image dr Richard Jackson

Neighbourhoods

Maximise the potential of green space



Morgan Jones Park's Green Gym fit4fun, Caerphilly



Neighbourhoods

Explore wider energy servicing strategies



CABE case study: Selwyn Street, Oldham



Southampton district heating with own CHP plant

Optimise care in quality environments



Riks Hospital Oslo.

Nortaljje Hospital, Sweden.

Maggies Centre, Edinburgh

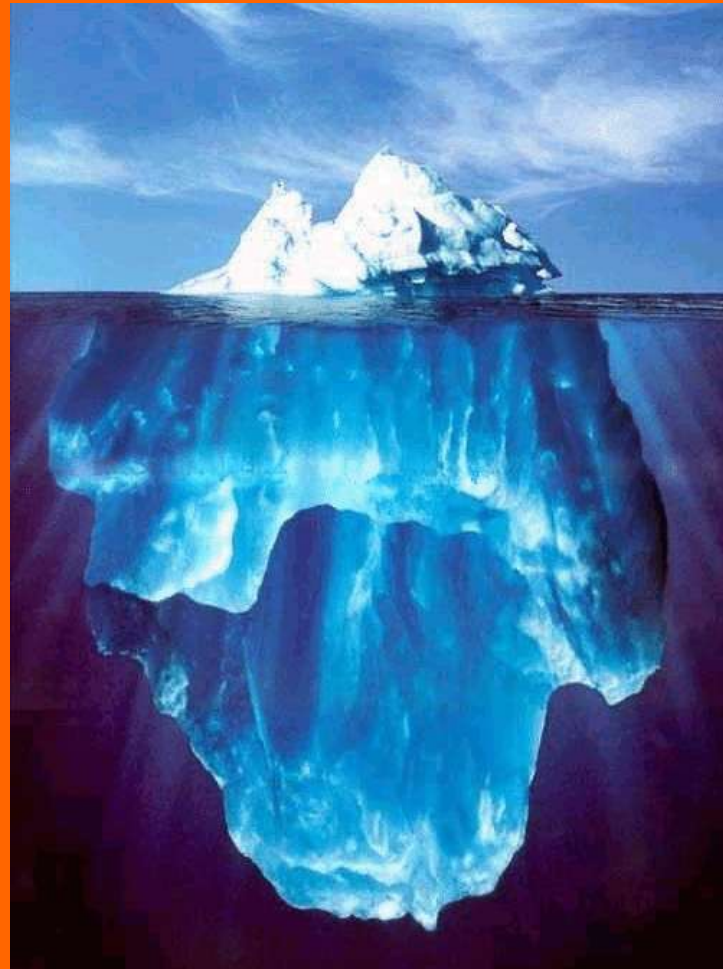
De Bitjes Hospital Belgium



**make healthy,
accessible
neighbourhoods**

for a sustainable future

Touching the earth
lightly.....





Long life, loose fit, low carbon

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