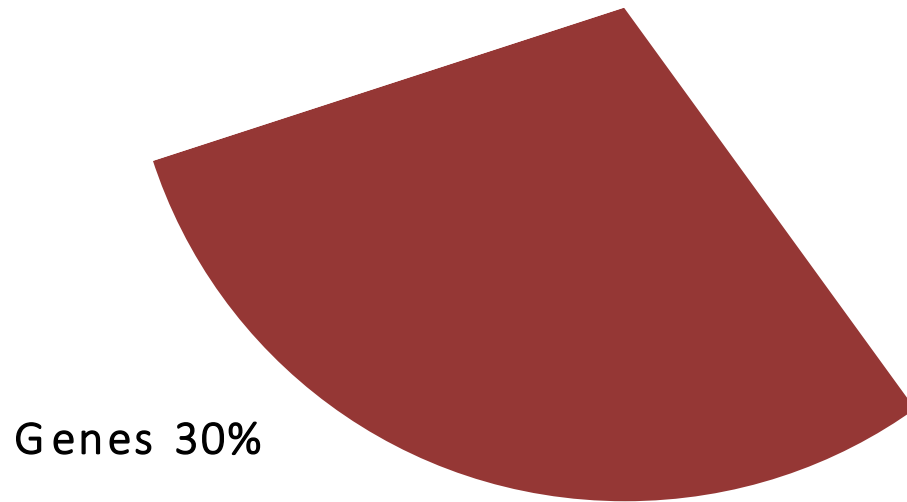


Transport & health in London

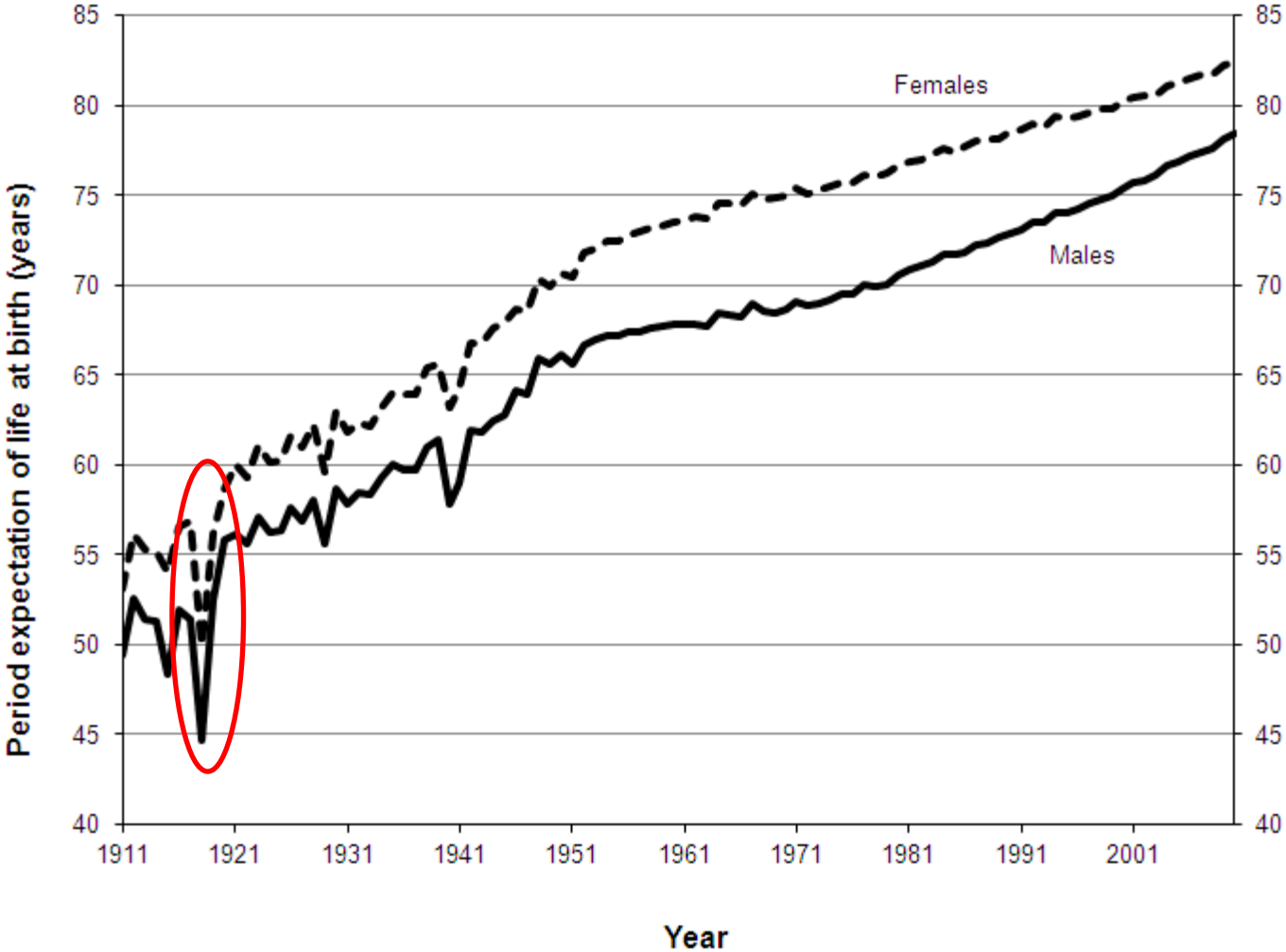
May 2015

Lucy Saunders FFPH

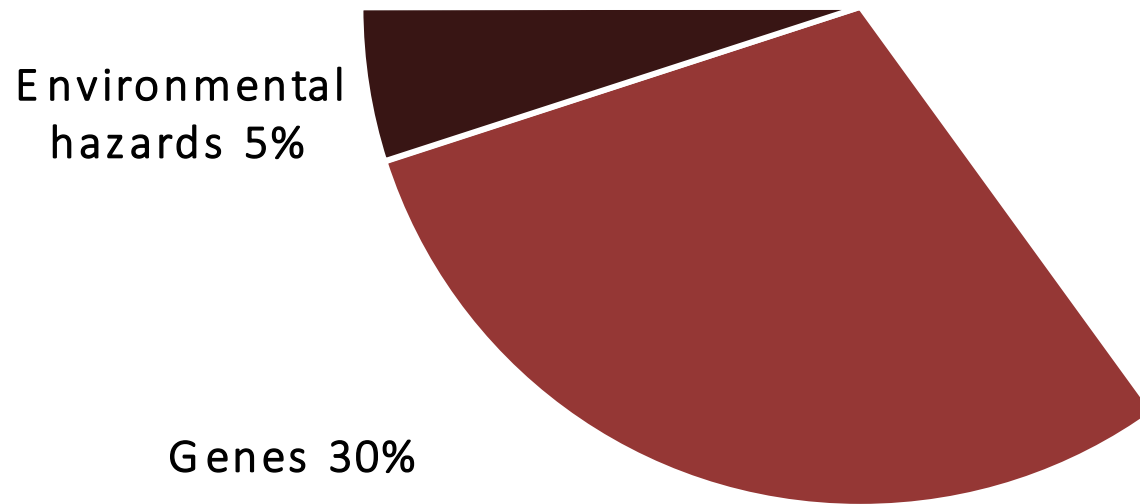
What determines health and life expectancy?



Period expectation of life at birth according to mortality rates experienced in given years, 1911 - 2010, United Kingdom

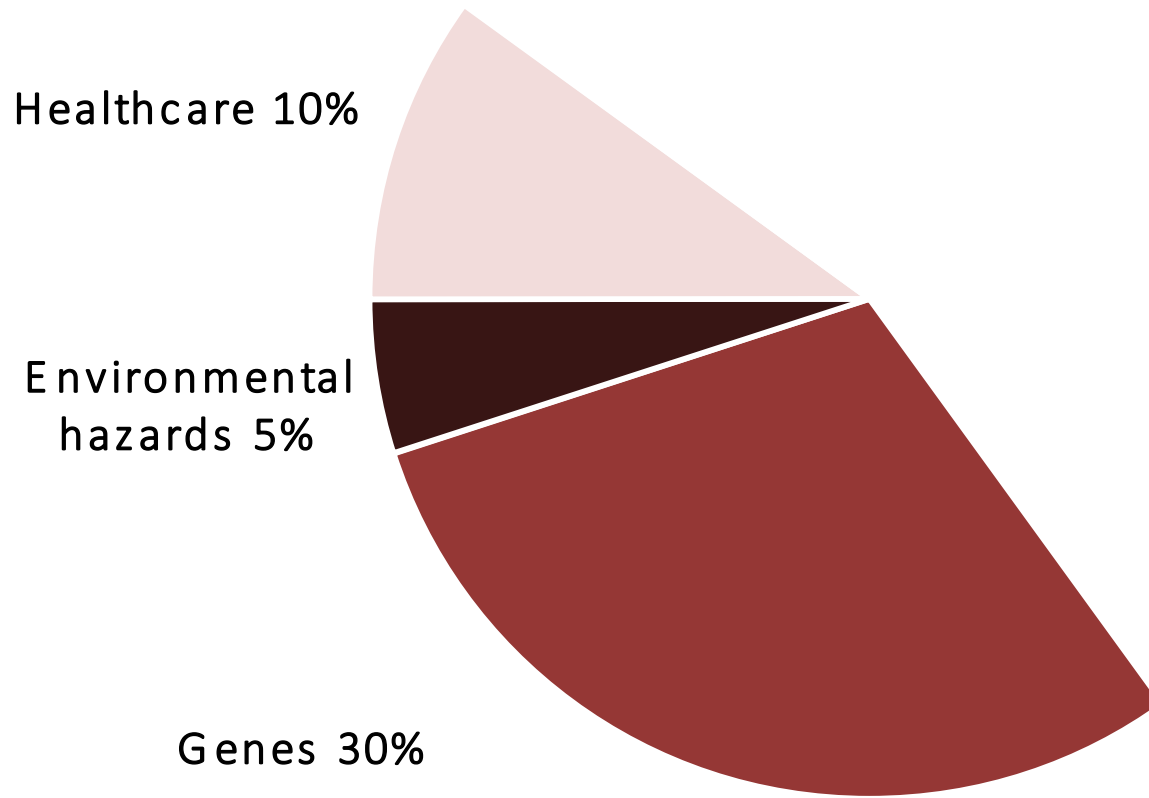


What determines health and life expectancy?



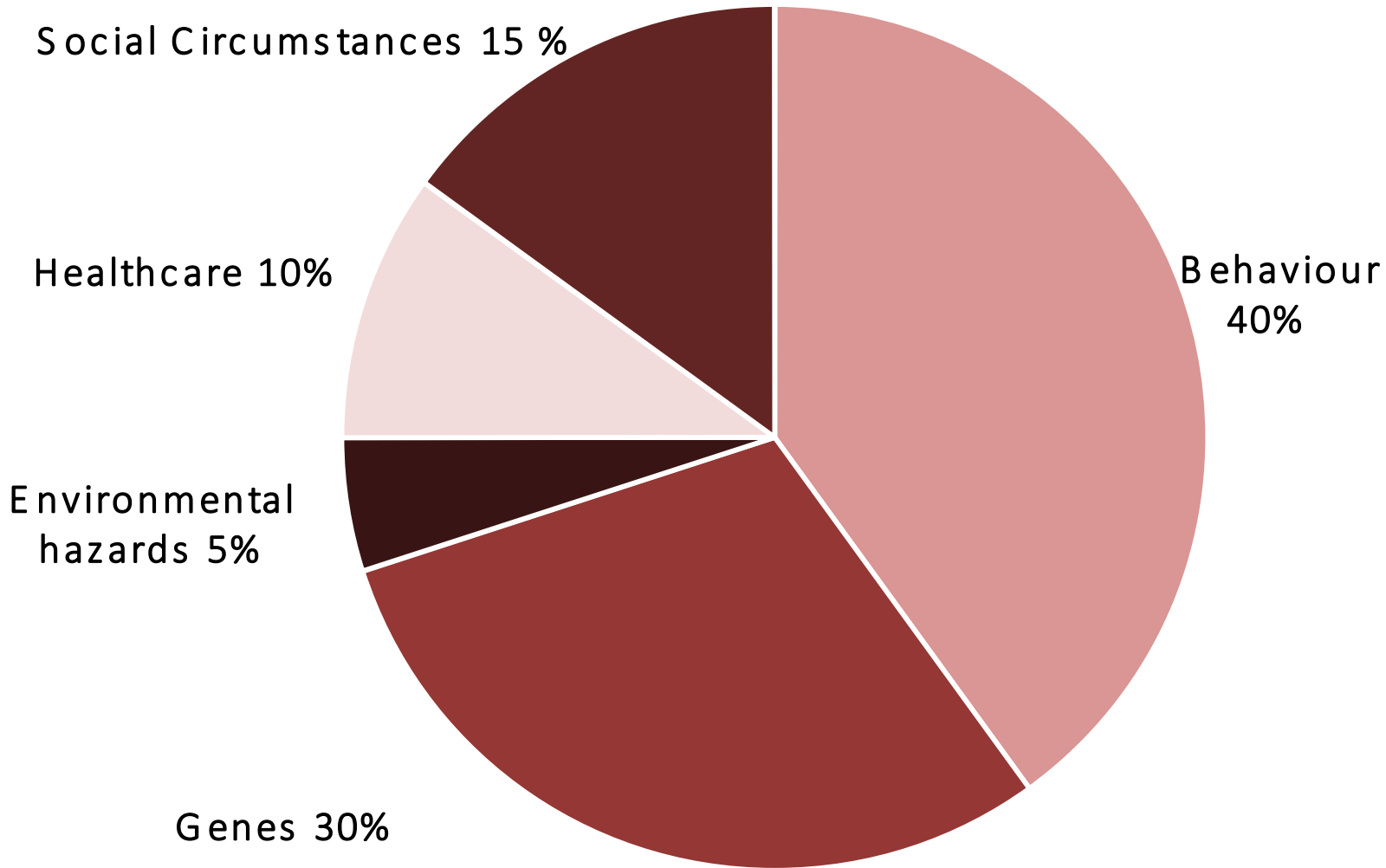


What determines health and life expectancy?

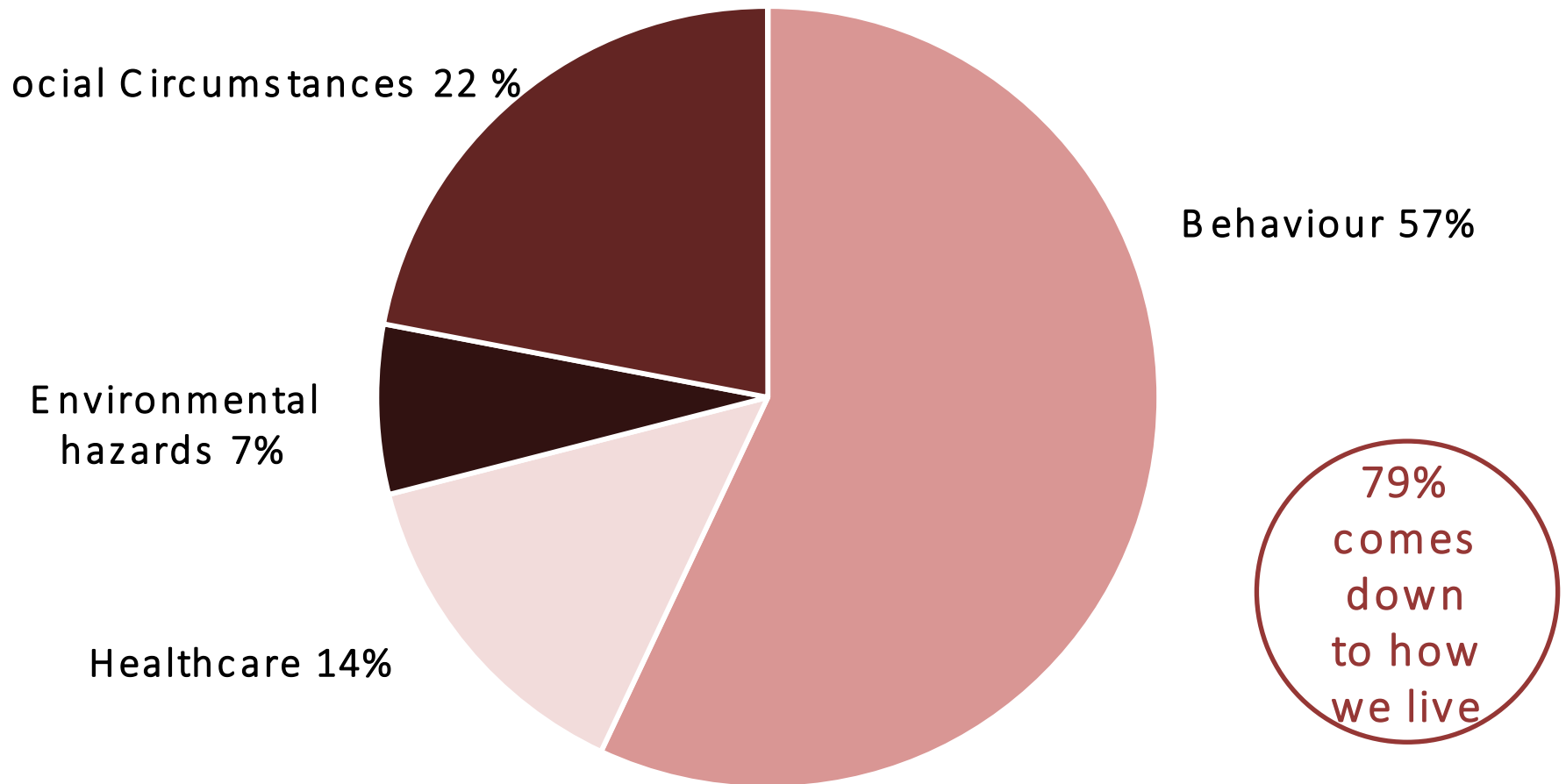


Source: McGinnis JM, Williams-Russo P, Knickman JR. The case for more active policy attention to health promotion. Health Aff (Millwood) 2002;21(2):78-93

What determines health and life expectancy?



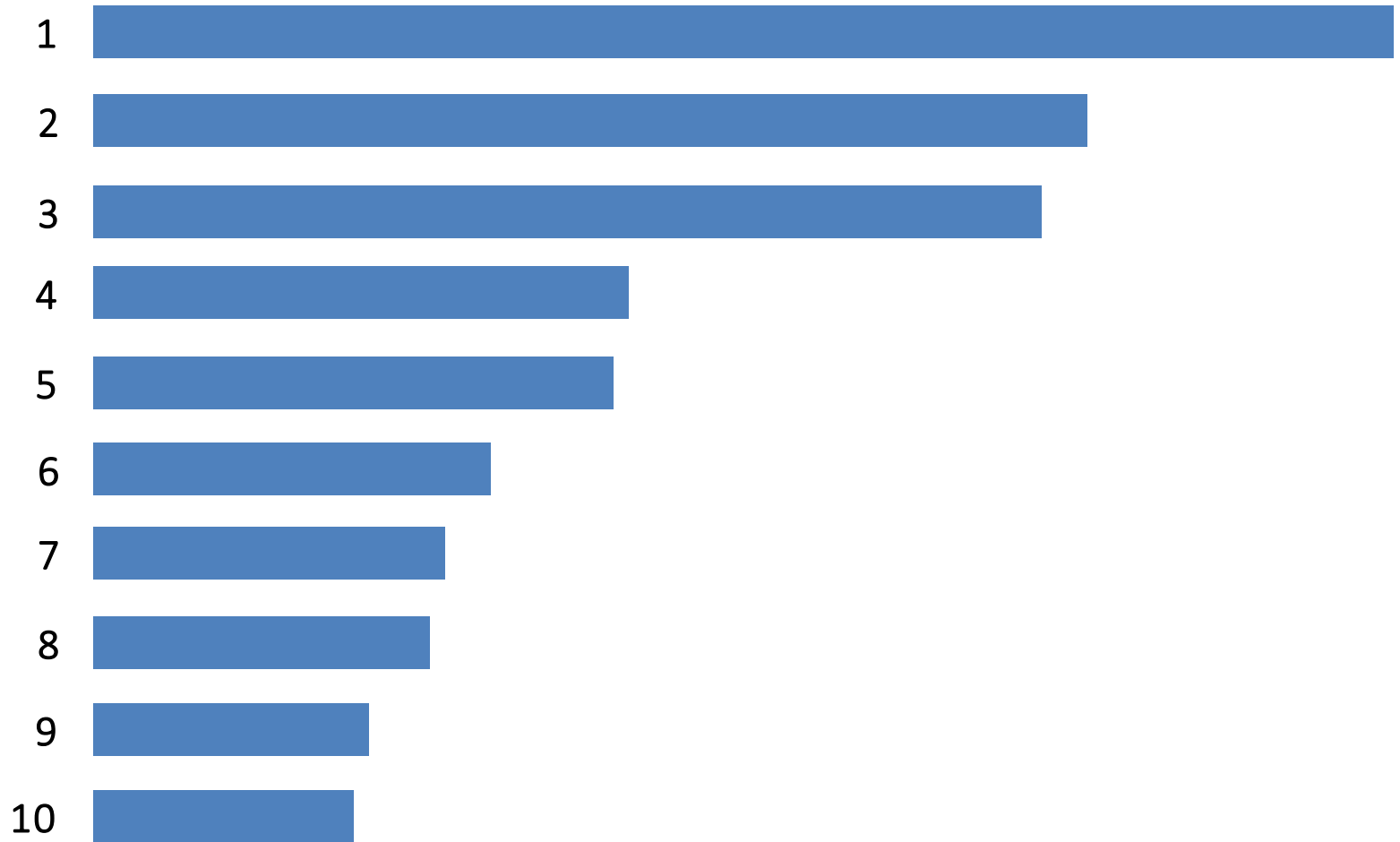
What determines health and life expectancy that we can actually change?



Source: Adapted from McGinnis JM, Williams-Russo P, Knickman JR. The case for more active policy attention to health promotion. Health Aff (Millwood) 2002;21(2):78-93

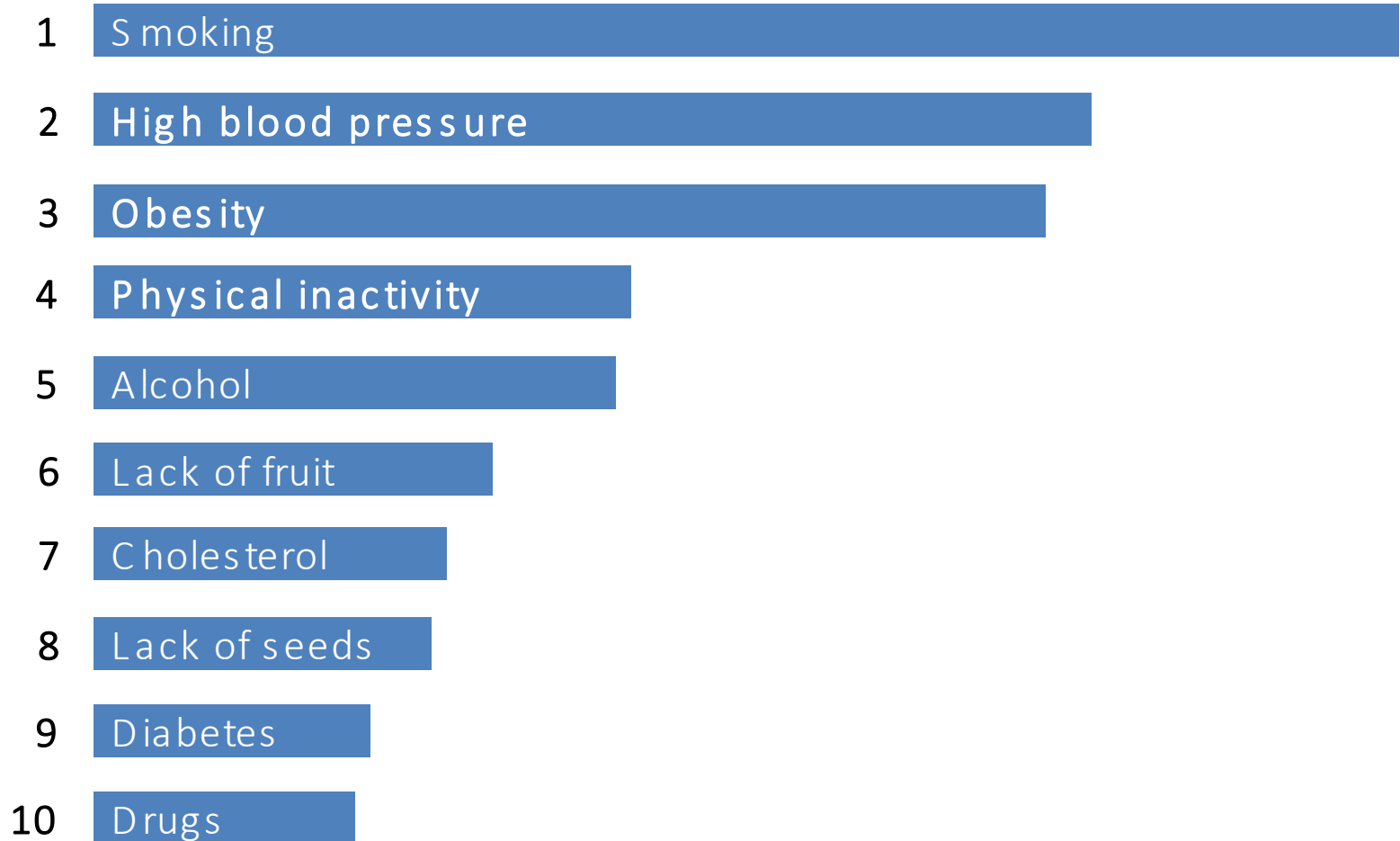
Our health is largely determined by our 'lifestyles'

10 Leading causes of disease in the UK



Our health is largely determined by our 'lifestyles'

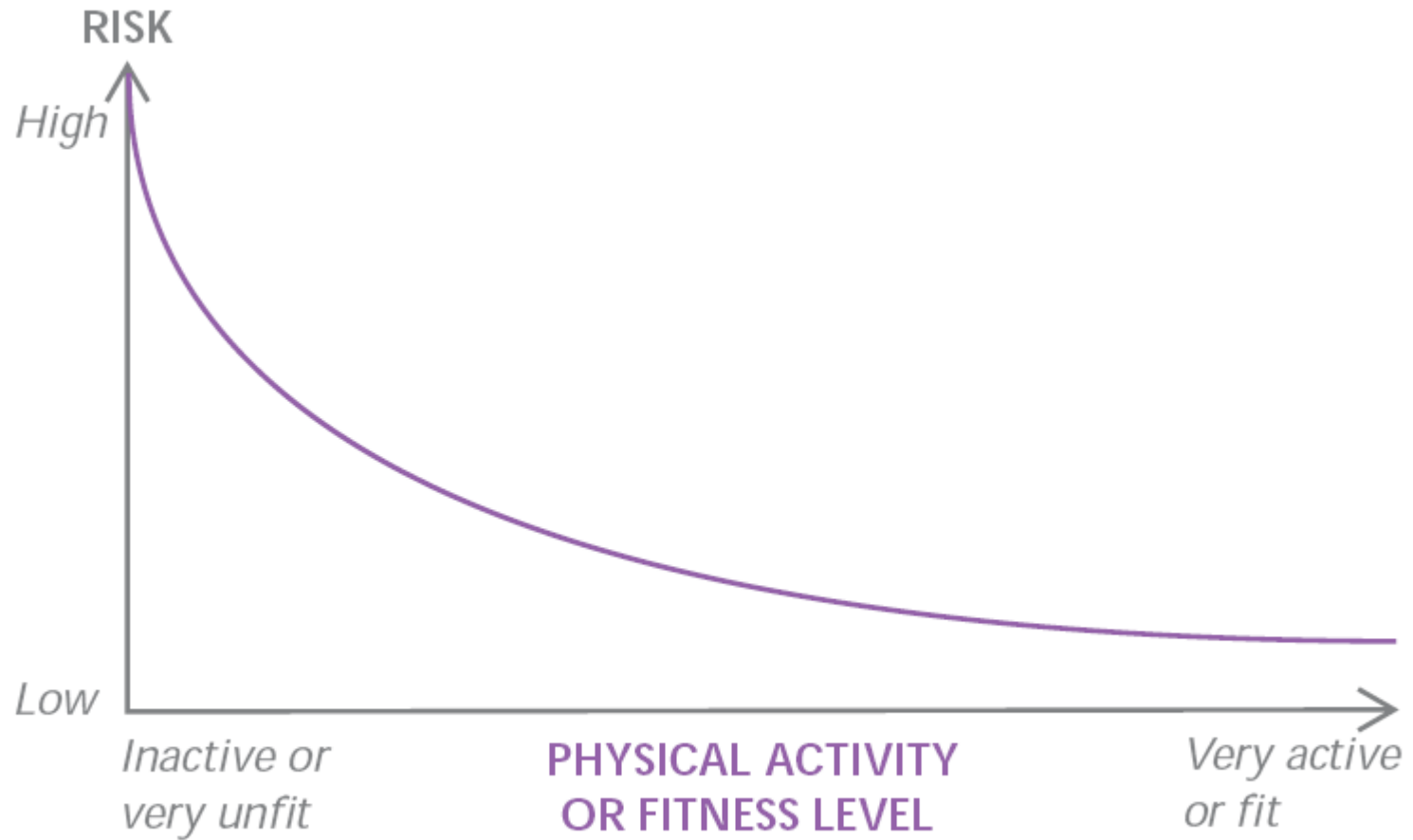
10 Leading causes of disease in the UK



We are a lot less active than we need to be

	What we think	What we actually do
I exercise more than is necessary	48%	??%
I exercise about the right amount	37%	55%
I exercise less than is necessary	10%	16%
I exercise hardly at all	5%	28%

The relationship between physical activity and disease risk



Why is physical activity so important?

Cancer

Physical activity can reduce the risk of several types of cancer, including cancers of the breast, colon, prostate, and endometrium.⁸⁻¹⁰

Cardiovascular disease

Regular physical activity is a protective factor for, and reduces the risk of, cardiovascular diseases, including CHD and stroke.^{3, 11}

Obesity

Physical activity is a key element in maintaining healthy weight and the prevention of weight gain.²⁰

Mental health

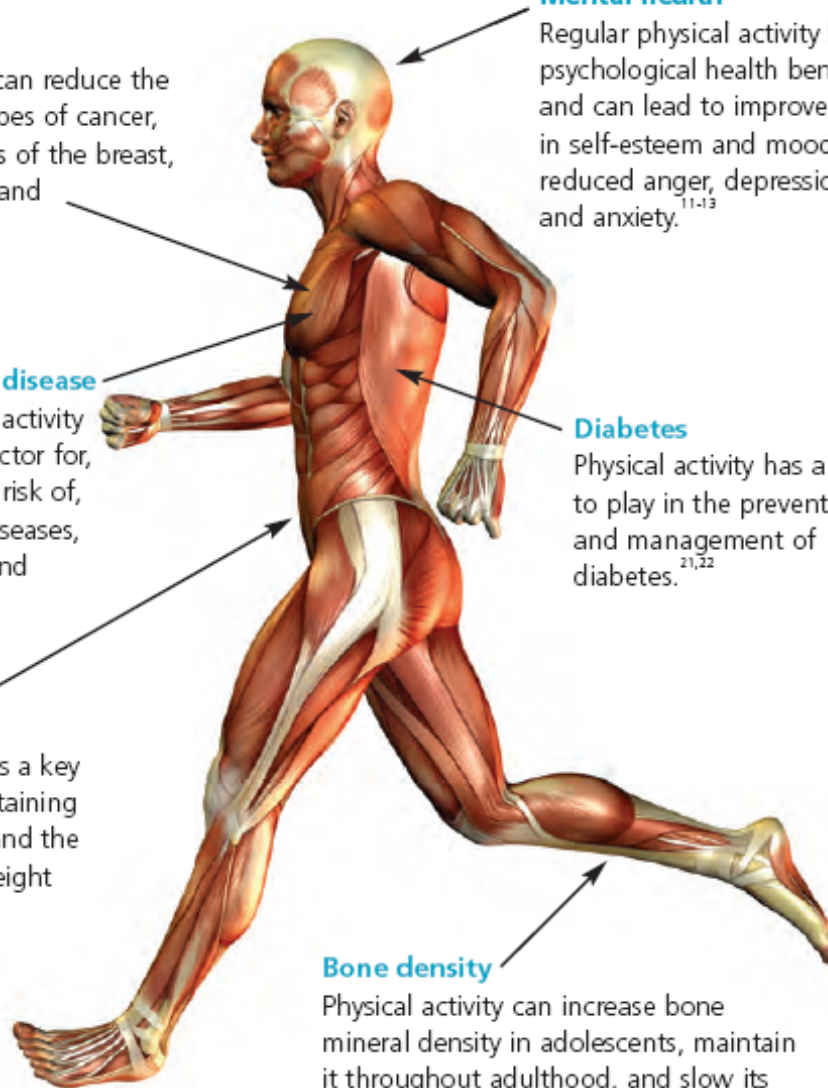
Regular physical activity has psychological health benefits, and can lead to improvements in self-esteem and mood, and reduced anger, depression and anxiety.¹¹⁻¹³

Diabetes

Physical activity has a role to play in the prevention and management of diabetes.^{21,22}

Bone density

Physical activity can increase bone mineral density in adolescents, maintain it throughout adulthood, and slow its decline in old age.¹⁴⁻¹⁹



How have we become so inactive?



Eastern Avenue, Ilford



1937



2014





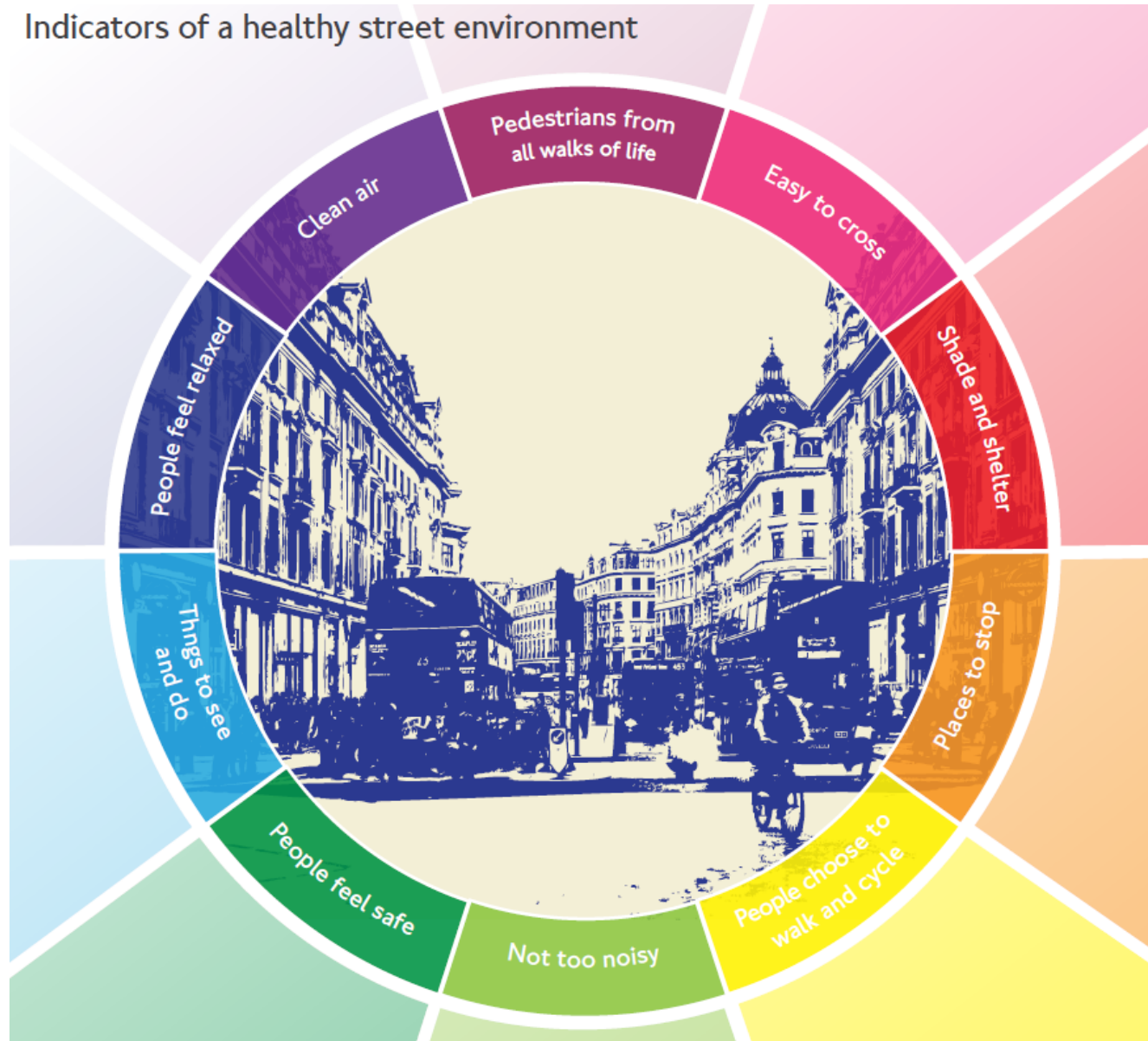
Photo: E Kramer

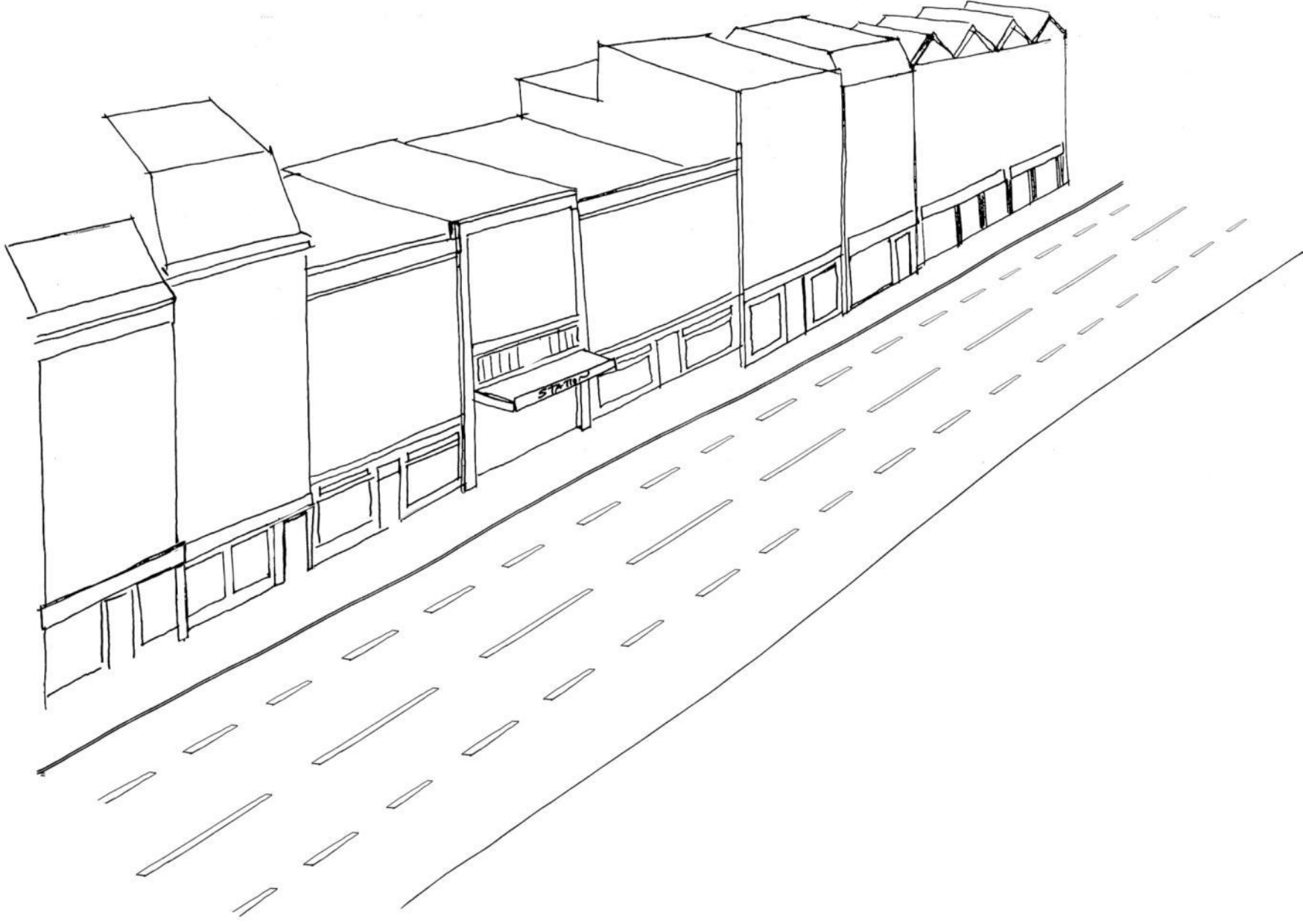
Other health impacts

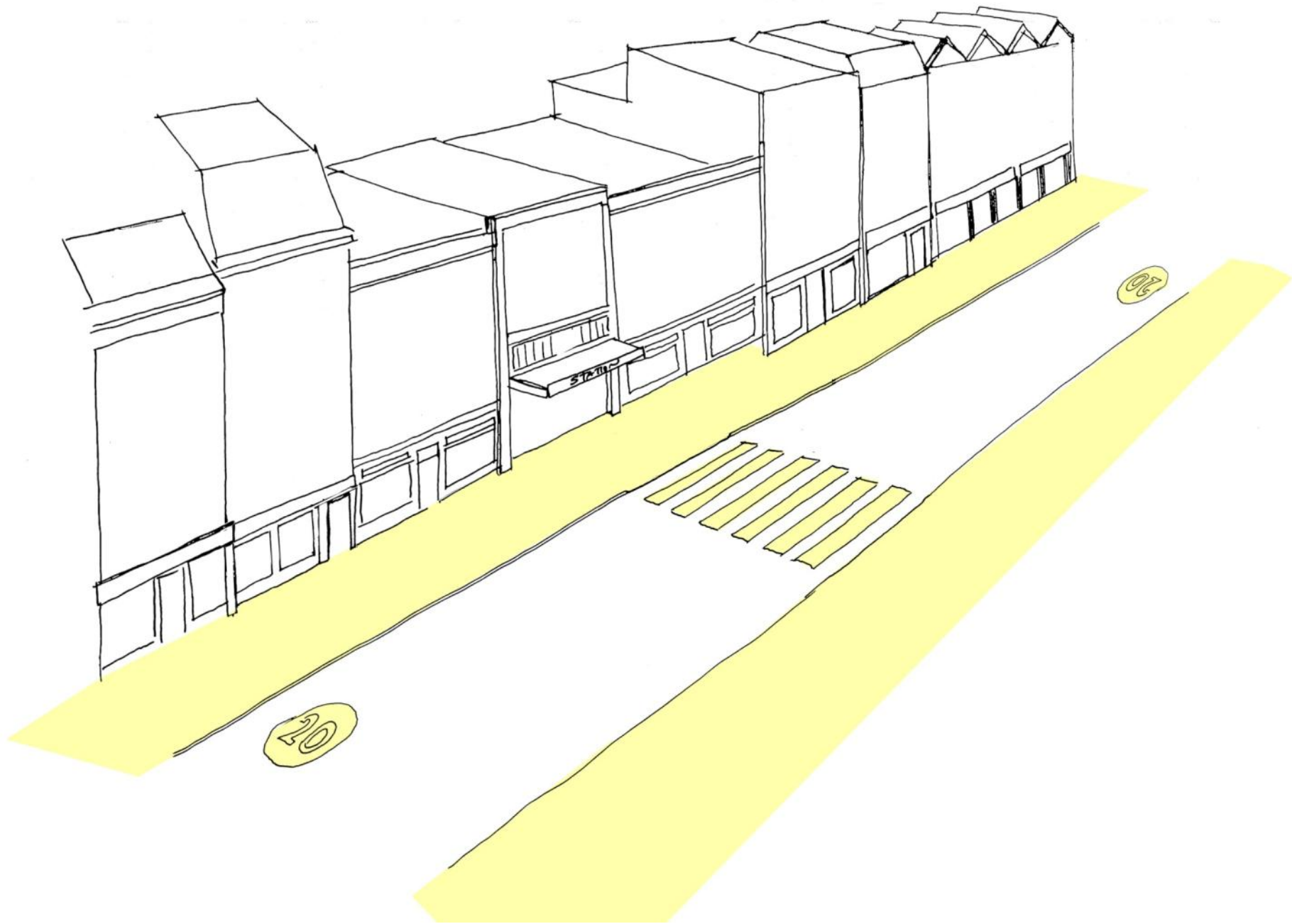
- Social Isolation
- Child development
- Anxiety
- Stress
- Sedentarism
- Bereavement
- Wellbeing
- Noise
- Severance

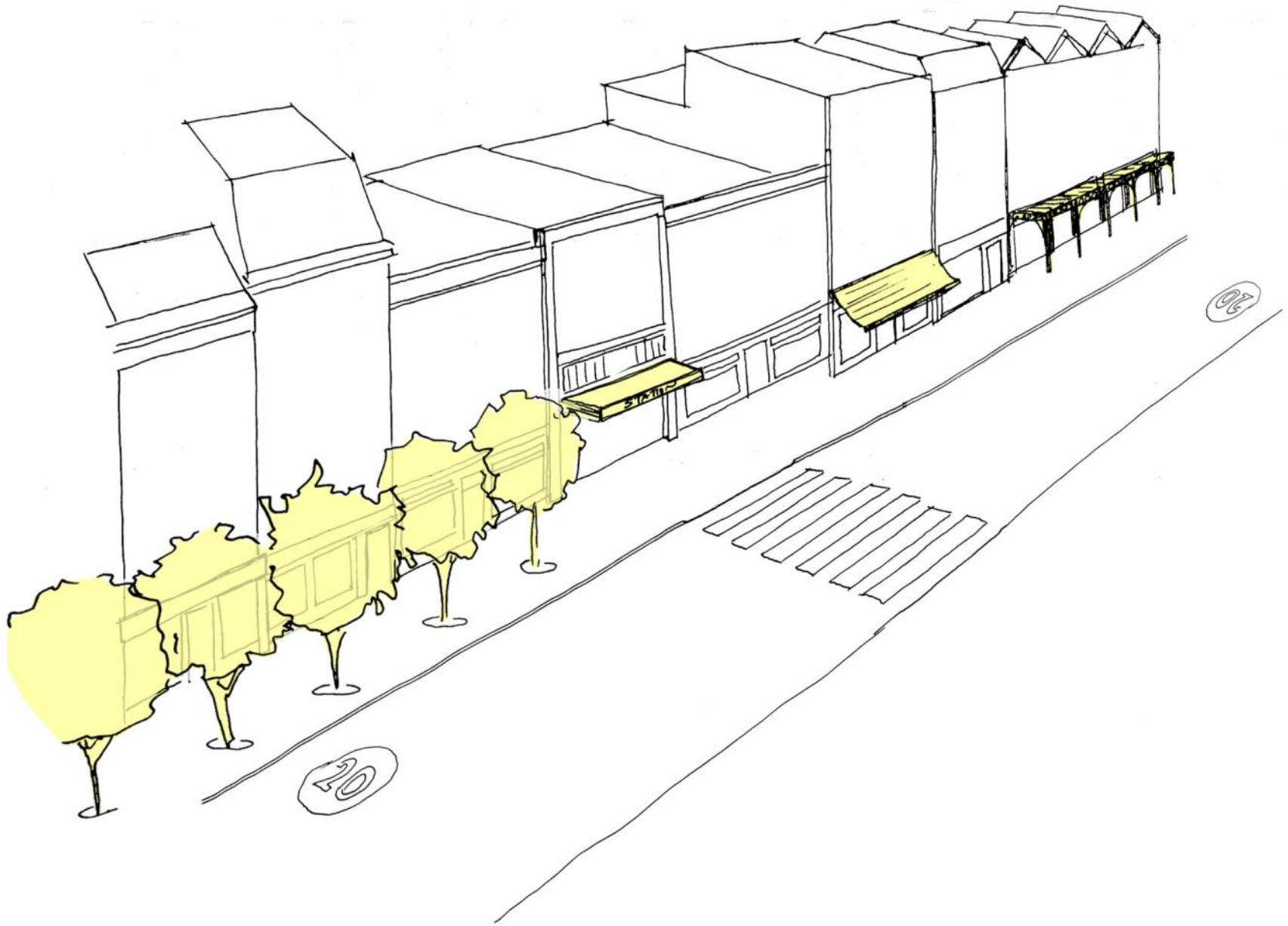
Healthy Streets

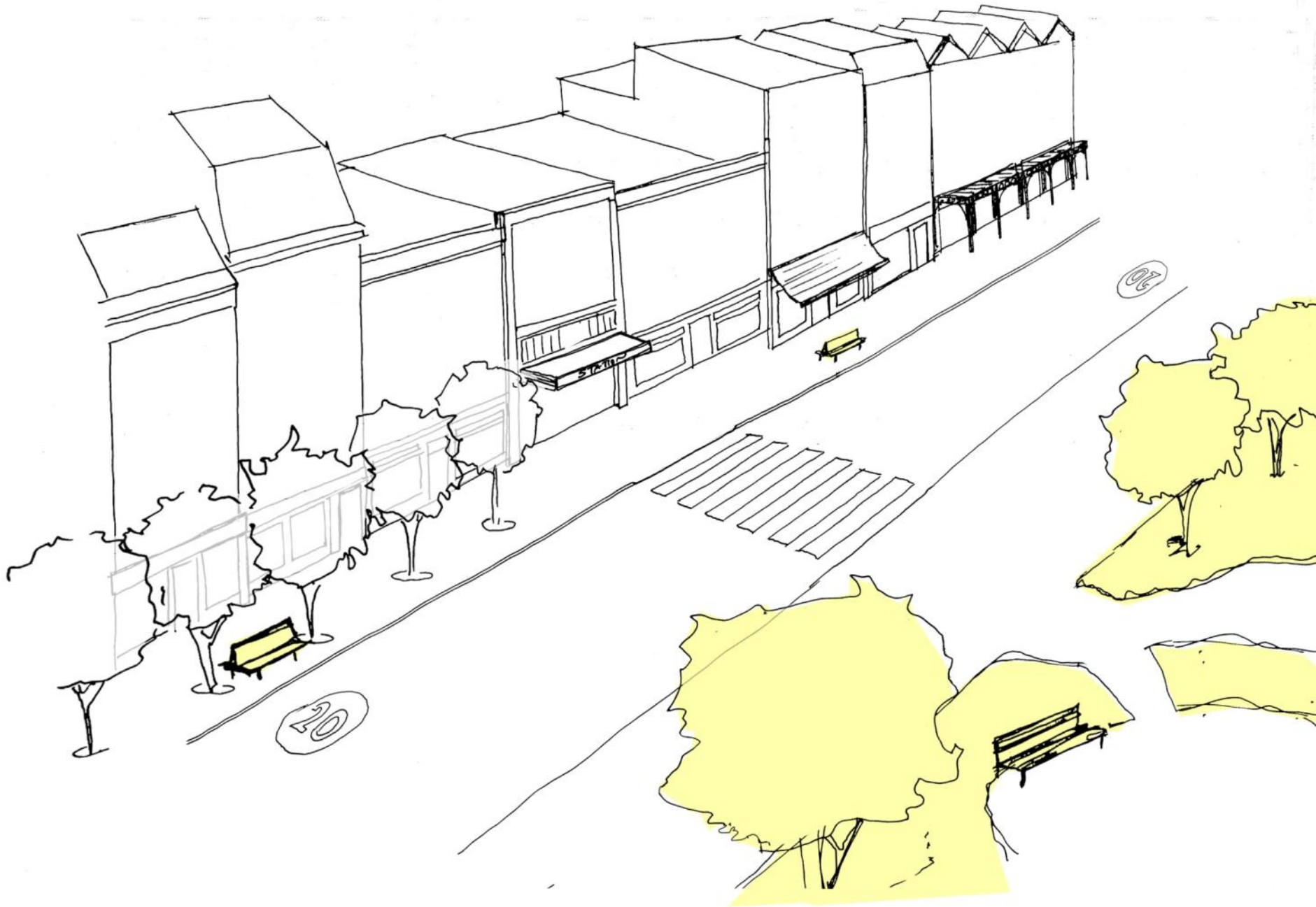
Indicators of a healthy street environment





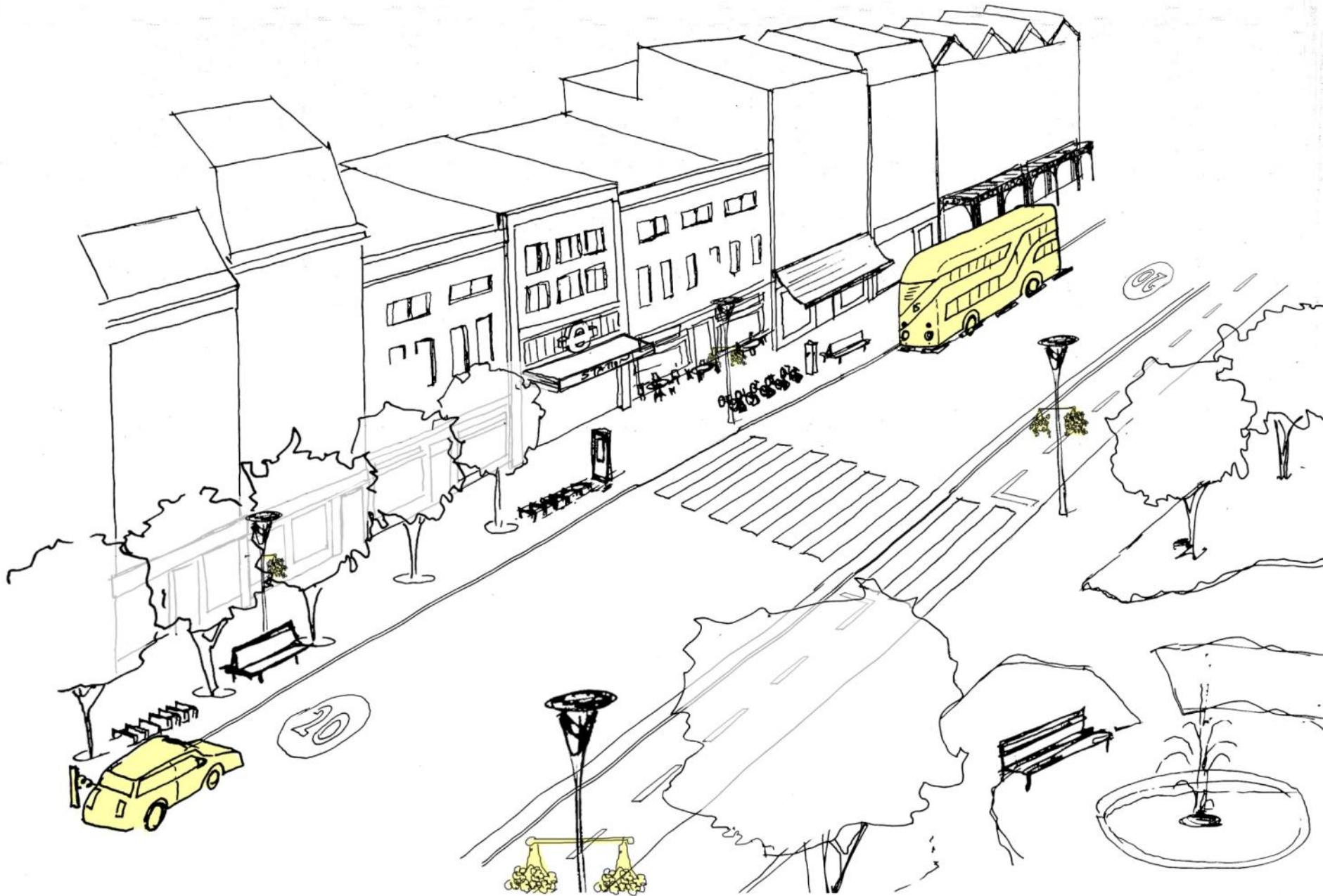




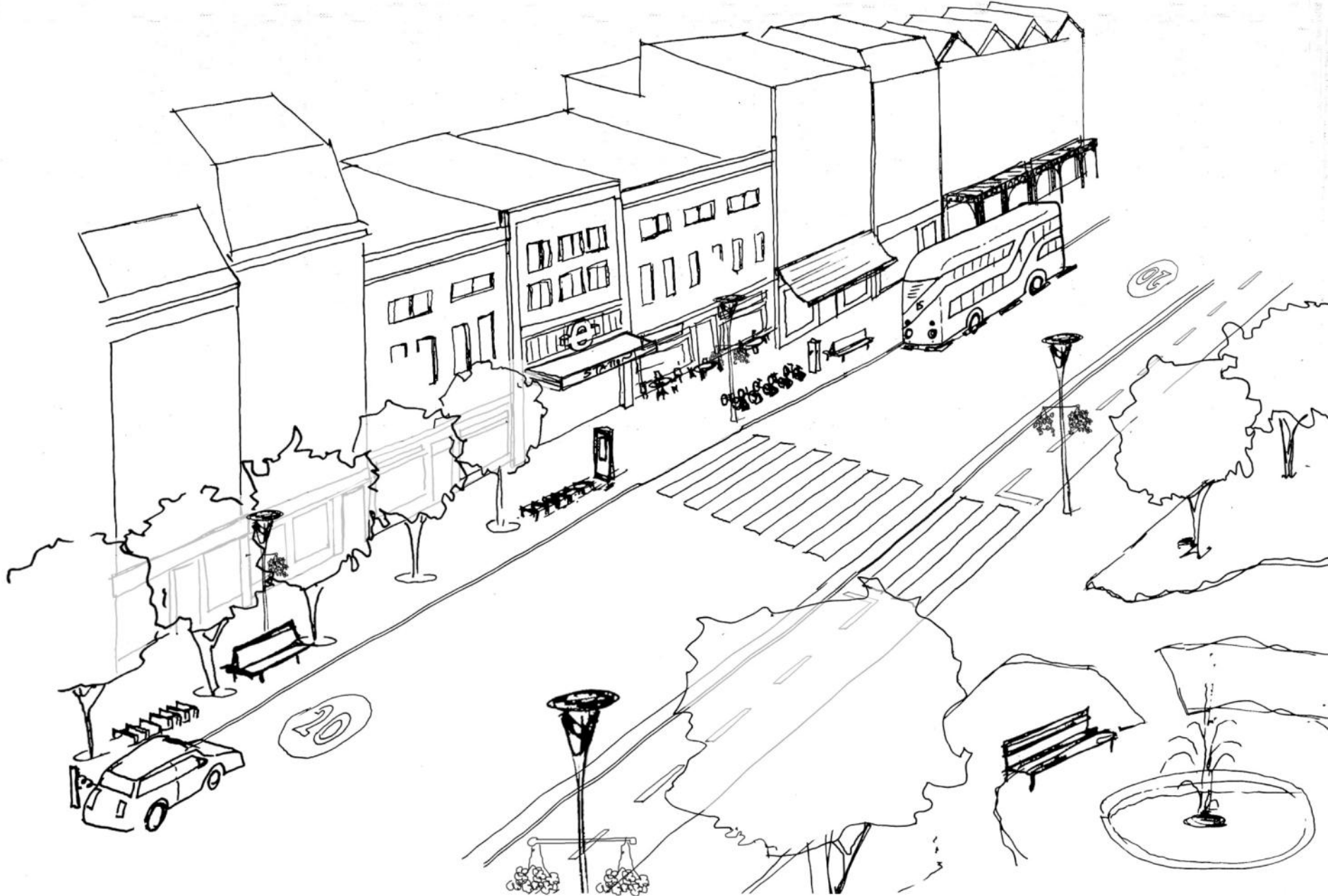








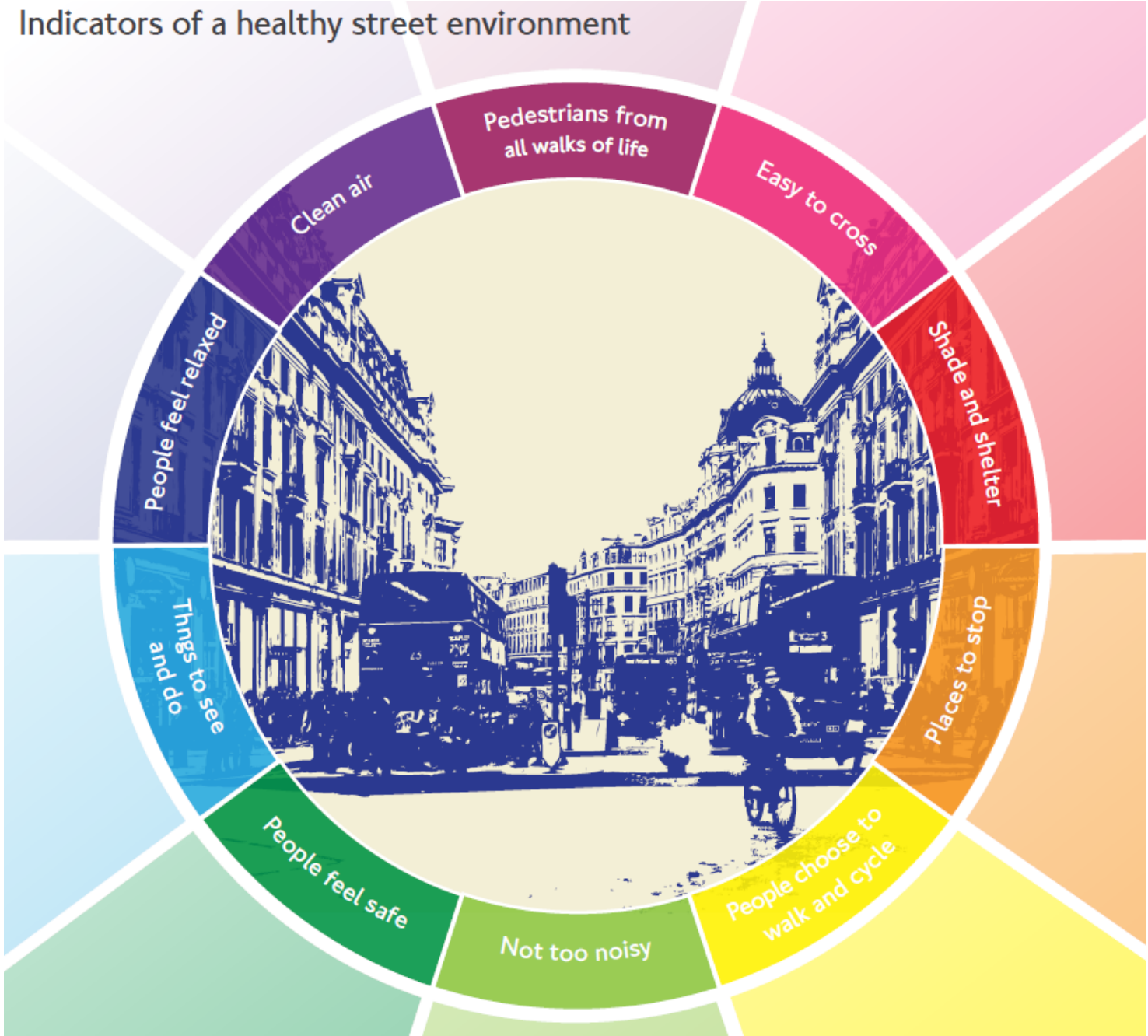
A street that works for people is a street that's good for health



What do we need to deliver?

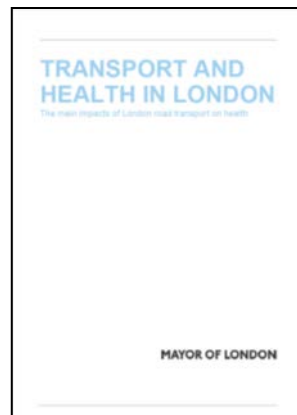
- ✓ Everyday physical activity for everybody
- ✓ Environmental resilience
- ✓ Climate change adaptation and mitigation
- ✓ Reduced health and social care costs
- ✓ Reduced costs to local authorities
- ✓ Boost social cohesion
- ✓ Boost local economy

Indicators of a healthy street environment



Thank you

lucy.saunders@london.gov.uk



Appendix

Questions raised during the
presentation

Questions raised

How do we encourage physical activity in the general population?

Increasing physical activity is a societal, not just an individual problem. Therefore it demands a population-based, multi-sectorial, multi-disciplinary, and culturally relevant approach (WHO).

The most effective way of increasing and sustaining physical activity is building it into the everyday routine. In urban areas the most cost-effective way to do this is through building walking and cycling into daily routine for travel (including as part of longer public transport trips).

Currently the main way that Londoners build physical activity into their daily routine is through walking as part of daily travel and there is potential for many more Londoners to meet all their physical activity needs through walking and cycling short trips which are currently done in cars. (Transport and Health in London, 2014 <http://www.london.gov.uk/priorities/health/focus-issues/transport-and-health>)

The Roads Task force (TfL) estimated that increasing the physical activity levels of Londoners to meet the minimum standard of 150 minutes per week could deliver a 20 per cent reduction in all deaths every year, which are 8,219 fewer deaths. We could also expect to see a 12 per cent reduction (1,761 people) in people diagnosed with coronary heart disease, a 23 per cent reduction in people diagnosed with breast cancer (831 people) and a 22 per cent reduction in people diagnosed with colorectal cancer (593 people). Road transport is the only sector with the potential to deliver public health gains on this scale. Walking is the most effective way of encouraging inactive people to take up physical activity. Cycling is an effective way of keeping a healthy weight and reducing anxiety and depression. Provision of public transport also contributes to levels of walking, walking is more common in neighbourhoods oriented towards public transport use than private car use and walking as part of public transport trips can achieve recommended physical activity levels. These measures are recommended by the National Institute for Health and Care Excellence (NICE).

There is good evidence that making the following changes to roads increases health-promoting walking and cycling:

- reallocating of road space to support physically active modes of transport (e.g. widening pavements, providing cycle lanes);
- restricting of motor vehicle access (e.g. closing or narrowing roads to reduce capacity);
- Specific demand management measures;
- introducing traffic calming schemes to restrict vehicle speeds (using signage and changes to highway design);
- creating safe routes to schools (e.g. traffic calming measures near schools, improving walking and cycling routes to schools).

<https://www.tfl.gov.uk/cdn/static/cms/documents/improving-the-health-of-londoners-transport-action-plan.pdf>

Questions raised

How do you define exercise/physical activity?

According to the World Health Organisation Physical activity is defined as any bodily movement produced by skeletal muscles that require energy expenditure. Physical inactivity (lack of physical activity) has been identified as the fourth leading risk factor for global mortality (6% of deaths globally).

The term "physical activity" should not be mistaken with "exercise". Exercise, is a subcategory of physical activity that is planned, structured, repetitive, and purposeful in the sense that the improvement or maintenance of one or more components of physical fitness is the objective. Physical activity includes exercise as well as other activities which involve bodily movement and are done as part of playing, working, active transportation, house chores and recreational activities.

The Department of Health (DH) recommends that adults take at least 150 minutes (2.5 hours) of moderate-intensity aerobic activity every week. Children over five should engage in at least 60 minutes of moderate to vigorous intensity physical activity every day. Physical activity that can be incorporated into everyday life, such as brisk walking and cycling, has been found to be as effective for weight loss as supervised exercise programmes.

Moderate-intensity Physical Activity (Approximately 3-6 METs)	Vigorous-intensity Physical Activity (Approximately >6 METs)
Requires a moderate amount of effort and noticeably accelerates the heart rate.	Requires a large amount of effort and causes rapid breathing and a substantial increase in heart rate.
Examples of moderate-intensity exercise include:	Examples of vigorous-intensity exercise include:
• Brisk walking	• Running
• Dancing	• Walking / climbing briskly up a hill
• Gardening	• Fast cycling
• Housework and domestic chores	• Aerobics
• Traditional hunting and gathering	• Fast swimming
• Active involvement in games and sports with children / walking domestic animals	• Competitive sports and games (e.g. Traditional Games, Football, Volleyball, Hockey, Basketball)
• General building tasks (e.g. roofing, thatching, painting)	• Heavy shovelling or digging ditches
• Carrying / moving moderate loads (<20kg)	• Carrying / moving heavy loads (>20kg)

Metabolic Equivalents (METs) are commonly used to express the intensity of physical activities. MET is the ratio of a person's working metabolic rate relative to their resting metabolic rate. One MET is defined as the energy cost of sitting quietly and is equivalent to a caloric consumption of 1kcal/kg/hour. It is estimated that compared with sitting quietly, a person's caloric consumption is three to six times higher when being moderately active (3-6 METs) and more than six times higher when being vigorously active (>6 METs). (WHO)

Questions raised

Have health divergences in inner and outer London been considered? & How do we deal with transforming outer London town centres when residents in Outer London residents want the same if not more parking spaces

The main health divergence referred to in this question is that people living in outer London are walking less than those living in inner London. This will be partly a reflection of their public transport accessibility and the 'walkability' of their local environment which is related to spatial planning (i.e. do they live within walking distance of local amenities) matters as well as more experiential elements (e.g. noise – see 10 indicators of a Healthy Street).

A key challenge for improving the health of residents in outer London is addressing the need to make changes to street environments which would make it easier and more pleasant for them to walk and cycle and bringing the community in to support that plan. The LEN concept of rewarding areas that make difficult decisions can help this.