## Public health grant and shortfall

<table>
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<th></th>
<th>Expected</th>
<th>Actual</th>
<th>Shortfall</th>
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<td>£20.8</td>
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<td>£3.8</td>
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<td>2020-21</td>
<td>£26.7</td>
<td>£22.9</td>
<td>£3.8</td>
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Some big issues:

- 0-19 service recommissioning
- Sexual health services recommissioning
- Sustainability and Transformation Plans
- Health and Social Care Commission
- Devolution...
“illegal highs”
Annual Report
of the
Director of Public Health
Newcastle upon Tyne

2015
<table>
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<tr>
<th>Period</th>
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<th>Lower CI</th>
<th>Upper CI</th>
<th>North East</th>
<th>England</th>
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<td></td>
<td></td>
<td></td>
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<td>2009 - 11</td>
<td>60.7</td>
<td>59.0</td>
<td>62.4</td>
<td>59.7</td>
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<td>2010 - 12</td>
<td>59.8</td>
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<td>61.5</td>
<td>59.5</td>
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<tr>
<td>2011 - 13</td>
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<td>59.6</td>
<td>59.3</td>
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<td><strong>Women</strong></td>
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<tr>
<td>2009 - 11</td>
<td>60.4</td>
<td>58.6</td>
<td>62.2</td>
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<td>58.0</td>
<td>61.7</td>
<td>60.1</td>
<td>63.9</td>
</tr>
</tbody>
</table>

Healthy Life Expectancy for men and women in Newcastle, the North East and England – 3-year rolling averages

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1. Source: [Link to the source data]
Public Health Responsibilities

• a role in dealing with health protection incidents and emergencies;
• provision of support to commissioning through the ‘core offer’;
• supporting, reviewing and challenging delivery of key public health funded and NHS delivered services;
• assessment and lifestyle interventions as part of the NHS Health Check Programme;
• behavioural and lifestyle campaigns to prevent cancer and long term conditions;
• dental public health services;
• **tobacco control**;
• **alcohol and drug misuse services**;
• promotion of community safety, violence prevention and response;

• comprehensive sexual health services;
• implementation of the National Child Measurement Programme;
• population level interventions to reduce and prevent birth defects;
• obesity and community nutrition initiatives;
• increasing levels of physical activity in the local population;
• accidental injury prevention;
• local initiatives to reduce excess deaths as a result of seasonal mortality;
• local initiatives on workplace health;
• public mental health services;
• local initiatives to tackle social exclusion.
“IF YOU COULD DO ONE THING...”
Nine local actions to reduce health inequalities

- The Role of Cost-Effectiveness Evidence in Reducing Inequality
- Addressing Ethnic Inequalities in Health
- Age-Friendly Communities
- Adult and Further Education
- Participatory Budgeting to Improve Mental Capital at the Local Level
- Implement a Living Wage Policy
- Early Childhood Education and Care
- 20mph Speed Limits for Cars in Residential Areas, by Shops and Schools
- Tackling Health-Related Worklessness: a ‘Health First’ Approach
Rudolf Virchow

Typhus outbreak of 1848:

Virchow recommended **social reconstruction**; including **full employment**, **higher wages**, the establishment of **agricultural co-operatives**, **universal education**.

"**Medicine is a social science and politics is nothing else but medicine on a large scale**"
Council priorities

- **A working city** ("full employment, higher wages")
  - creating good quality jobs and helping local people develop the skills to do them

- **Decent neighbourhoods** ("social reconstruction")
  - working with local communities to look after each other and the environment

- **Tackling inequalities** ("higher wages, universal education")
  - tackling discrimination and inequalities which prevent people from fulfilling their true potential

- **A fit for purpose council** ("politics is ... medicine on a large scale")
  - a council which leads by enabling others to achieve

- **Cross Cutting themes:**
  - A cooperative council – changing the way we work ("agricultural co-operatives")
  - A wellbeing and health improving city
  - A green and sustainable Newcastle
Factors in the general population

Example:
84% of cardiac events occur in the 'low risk' population

Example:
The 7% of individuals at highest risk suffer 16% of cardiac events
All-age directly standardised mortality from coronary heart disease for persons in Newcastle and England
EXPLAINING MORTALITY REDUCTION 1980-2000

Circa 60% from risk factor modification

Circa 40% from treatment

Informed assessment from analysis of English language literature in England, US, and Europe

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>Contribution</th>
</tr>
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<tbody>
<tr>
<td>Smoking reduced</td>
<td>48%</td>
</tr>
<tr>
<td>Blood pressure lowered</td>
<td>9.5%</td>
</tr>
<tr>
<td>Fat reduced</td>
<td>9.5%</td>
</tr>
<tr>
<td>Reduced deprivation</td>
<td>3%</td>
</tr>
<tr>
<td>Increased risk of obesity/physical inactivity</td>
<td>-12%</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Prevention</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secondary prevention</td>
<td>11%</td>
</tr>
<tr>
<td>Thrombolysis &amp; other AMI</td>
<td>8%</td>
</tr>
<tr>
<td>Surgery or drugs for angina</td>
<td>5%</td>
</tr>
<tr>
<td>Treatment for hypertension</td>
<td>3%</td>
</tr>
<tr>
<td>Other</td>
<td>13%</td>
</tr>
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</table>

Primary sources Belgin et al [2004], Capewell et al [1999], McPherson [2001]
NHS smoking cessation services and smoking prevalence: observational study

Eugene Milne

Recently published health improvement targets for England aim to reduce adult smoking rates (from 26% in 2002) to 21% or less by 2010, reducing prevalence among routine and manual socioeconomic groups (from 31%) to 26% or less. I estimate the contribution of current UK NHS smoking cessation services to delivery of these targets.

Participants, methods, and results

I took local smoking cessation data from quarterly returns, population estimates from 2001 census figures, and smoking prevalence estimates from the general household survey.
Reducing DALYs

- Improve the quality of diet
- Reduce high blood pressure (salt)
- Reduce smoking
- Reduce obesity
- Reduce air pollution
- Increase exercise
- Remove occupational risks to health
- Reduce alcohol consumption
- Increase social connectedness
- Increase locus of control for individuals and communities
- Increase lifelong learning
Figure 1: Life expectancy and disability-free life expectancy (DFLE) at birth, persons by neighbourhood income level, England, 1999–2003.

Source: Office for National Statistics
A PLAN FOR HEALTHY CITY
Strategies... what we will do...

- Core Strategy and Urban Core Plan
- Wellbeing for Life Strategy
- Working City Strategy
- Green Space Strategy
- Sustainability and Transformation Plans
Newcastle’s Wellbeing for Life Strategy

Our overarching ambition:
People who live, work or learn in Newcastle equally enjoy positive wellbeing and good health

Cross-cutting themes:

Area of action:

Getting a good start in life: laying the foundation for wellbeing and health throughout life.

Learning and employability across the life course: all people maximising their capabilities and potential.

Preventing wellbeing and health across the life course: making wellbeing and health a key dimension of all we do.

Safeguarding the life course: reducing potential harm from environmental hazards.

Maintaining the wellbeing of people who have long-term conditions: promoting further progression of our Illness and ensuring quality of life.

Area of action:

Tackle inequalities:... through strengthening the impact of services.

Working City: a healthy economy that affords fair employment and good work for all.

Decent Neighbourhoods: healthy places with a physical infrastructure that promotes positive wellbeing and good health for all.

Decent Neighbourhoods: healthy communities where people have good relationships and are active participants in community and civic life.

Connect
Keep Learning
Take Notice
Be Active
Give

Visit us more by downloading the full Wellbeing for Life Strategy at wellbeingforlife.org/about-strategy
CS14 Wellbeing and Health
The wellbeing and health of communities will be maintained and improved by:

1. Requiring development to contribute to creating an age friendly, healthy and equitable living environment through:
   i. Creating an inclusive built and natural environment,
   ii. Promoting and facilitating active and healthy lifestyles,
   iii. Preventing negative impacts on residential amenity and wider public safety from noise, ground instability, ground and water contamination, vibration and air quality,
   iv. Providing good access for all to health and social care facilities, and
   v. Promoting access for all to green spaces, sports facilities, play and recreation opportunities.

2. Promoting allotments and gardens for exercise, recreation and for healthy locally produced food.

3. Controlling the location of, and access to, unhealthy eating outlets.
Our plan for open space:

Make existing sites available to more New Yorkers
1. Open schoolyards across the city as public playgrounds
2. Increase options for competitive athletics
3. Complete underdeveloped destination parks

Expand usable hours at existing sites
4. Provide more multi-purpose fields
5. Install new lighting

Re-imagine the public realm
6. Create or enhance a public plaza in every community
7. Green the cityscape
12.9 The provision of open space, sport and recreation facilities is an important factor in the health and wellbeing of communities. Areas of open space that are valued by residents provide an important community function, and can make a significant contribution to quality of life. The accessibility, quality and quantity of open space, sport and recreation facilities will be addressed and monitored through the Local Plan.
Open Space

We must ensure that all New Yorkers live within a 10-minute walk of a park.
Wellbeing & health... why we do it...

- Articulate our expectations of parks and green space as promoters of health
  - as places for general wellbeing, as ‘green gyms’, as venues for events and as foci for collaboration between communities, agencies and businesses
- Articulate our expectations of urban space as a mechanism for wellbeing, and how the built environment can be used to support the health objectives of the city’s population
- Articulate the need for a transport infrastructure that appropriately rates health and social utility in choices and design, allowing further development of pedestrianisation and traffic speed control in residential, shopping and school vicinities
- Identify how asset-based approaches can be brought to bear on a sustained basis in achieving healthy change
- Propose targets for indicators of health and risk, such as air quality that are increasingly recognised to be key drivers of morality and morbidity, but also using measures of social isolation and connectivity in recognition of the broader wellbeing and health needs of the population.
Great cities look small

Abstract

Great cities connect people; failed cities isolate people. Despite the fundamental importance of physical, face-to-face social-ties in the functioning of cities, these connectivity networks are not explicitly observed in their entirety. Attempts at estimating them often rely on unrealistic over-simplifications such as the assumption of spatial homogeneity. Here we propose a mathematical model of human interactions in terms of a local strategy of maximising the number of beneficial connections attainable under the constraint of limited individual travelling-time budgets. By incorporating census and openly-available online multi-modal transport data, we are able to characterise the connectivity of geometrically and topologically complex cities. Beyond providing a candidate measure of greatness, this model allows one to quantify and assess the impact of transport developments, population growth, and other infrastructure and demographic changes on a city. Supported by validations of GDP and HIV infection rates across United States metropolitan areas, we illustrate the effect of changes in local and city-wide connectivities by considering the economic impact of two contemporary inter- and intra-city transport developments in the United Kingdom: High Speed Rail 2 and London Crossrail. This derivation of the model suggests that the scaling of different urban indicators with population size has an explicitly mechanistic origin.

The social-tie model provides an equally good fit for the GDP case ($R^2 = 0.92$ (social-ties) vs. 0.91 (power-law)) and has a significantly stronger statistical support compared to the power-law fit to population density in the HIV infection rate case ($R^2 = 0.94$ vs. 0.70). Much of this improvement stems from the shift from counting people to counting ties – specifically ties between HIV-positive and negative individuals (see Supp. Mat.). It is the overly-broad category of a city’s economic output and the lack of specificity in the nature of such relationships that explains the relatively marginal improvement in statistical support in the GDP example. Together, the examples support the view that the fundamental units of a city are not its inhabitants but the social relationships that exist between them.
MOTHER: Vicky aged eight in 1979 was allowed to walk to the swimming pool alone half a mile away.

SON: Ed, now eight is only allowed to walk on his own to the end of his street (300 yards).

GRANDFATHER: Jack aged eight in 1950. Able to walk about one mile on his own to the woods.

GREAT-GRANDFATHER: George aged eight in 1919. Allowed to walk six miles to go fishing.
Decent neighbourhoods

Source: Appleyard (1981)
### TABLE 1  England: baseline population, modelled population-weighted mean concentrations (μg m⁻³) and estimated effects on annual mortality in 2010 of anthropogenic PM₂.₅ air pollution

<table>
<thead>
<tr>
<th>Area</th>
<th>Population age 25+ (x 10⁵)</th>
<th>Deaths age 25+</th>
<th>Mean anthropogenic PM₂.₅ (μg m⁻³)</th>
<th>Attributable fraction (%)</th>
<th>Attributable deaths² age 25+</th>
<th>Associated life-years lost³</th>
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<tr>
<td>ENGLAND</td>
<td>35878.0</td>
<td>458743</td>
<td>9.9</td>
<td>5.6</td>
<td>25002</td>
<td>264749</td>
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<td>NORTH EAST</td>
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<td>County Durham UA</td>
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Urban design, transport, and health

Published: September 23, 2016

Executive Summary

Worldwide, the majority of people already live in cities and by 2050, it is estimated that 70% of 9 billion people will live in cities as an important social determinant of health. Air pollution, physical inactivity, noise, social isolation, unhealthy diets, and exposure to crime play a very important part in the non-communicable disease burden. This 3-part series explores how integrated multisector city planning, including urban design and transport planning, can be used as an important and currently underused force for health and wellbeing within the framework of the Sustainable Development Goals in both high-income countries and low- and middle-income countries.

Video

Urban Design - Transport and Population Health

Related content

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CORRESPONDENCE

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The Lancet, Vol. 387, No. 10034
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Delight as McDonald’s pulls out of Kenton drive-thru after 'David and Goliath' battle with residents

The fast food giant says changes to Newcastle City Council’s planning policy has forced them to withdraw the appeal.
Exercise therapy versus arthroscopic partial meniscectomy for degenerative meniscal tear in middle aged patients: randomised controlled trial with two year follow-up

Nina Jullum Kise,1 May Arna Risberg,2,3,4 Silje Stensrud,2 Jonas Ranstam,5 Lars Engebretsen,3,6,7 Ewa M Roos8

ABSTRACT

OBJECTIVE
To determine if exercise therapy is superior to arthroscopic partial meniscectomy for knee function in middle aged patients with degenerative meniscal tears.

DESIGN
Randomised controlled superiority trial.

SETTING
Orthopaedic departments at two public hospitals and two physiotherapy clinics in Norway.

PARTICIPANTS
140 adults, mean age 49.5 years (range 35.7-59.9), with degenerative medial meniscal tear verified by magnetic resonance imaging. 96% had no definitive radiographic evidence of osteoarthritis.

INTerventions
Participants were randomised to exercise therapy or surgery.

At three months, muscle strength had improved in the exercise group (P≤0.004). No serious adverse events occurred in either group during the two year follow-up. 19% of the participants allocated to exercise therapy crossed over to surgery during the two year follow-up, with no additional benefit.

CONCLUSION
The observed difference in treatment effect was minute after two years of follow-up, and the trial's inferential uncertainty was sufficiently small to exclude clinically relevant differences. Exercise therapy showed positive effects over surgery in improving thigh muscle strength, at least in the short term. Our results should encourage clinicians and middle aged patients with degenerative meniscal tear and no definitive radiographic evidence of osteoarthritis to consider supervised exercise therapy as a treatment option.

TRIAL REGISTRATION
[Further details about trial registration, if applicable]
Healthy City Plan – scope:

- Secondary prevention and social prescription
- How we achieve and support good mental health
- Food plan for the city
- Interaction of transport and health
- Clean air
- Healthy lifestyles plan
  - Sport, Arts & Culture, leisure
- Communities and assets
- Vision and plan for parks and green spaces
- How wellbeing and health work with planning
- Working City – good jobs as well as more jobs
- Closer working between housing and health
- How litter and environment interact with wellbeing and health
QUESTIONS...?