

Impact on Urban Health – Urban Health Index methodology

Impact on Urban Health

By 2050, nearly 70% of the world's population will live in cities. In the UK, over four in five people already live in urban areas. And so, we believe an understanding of urban health is more relevant than ever.

The places that we grow up, live and work impact how healthy we are. Living in urban areas, like inner-city London, carries distinct health challenges, many of which start early in life and are influenced by the wider determinants of health and wellbeing.

We seek to understand the deep causes of these health issues and explore different ways of addressing them through combining the best sources of data, robust evidence, lived experience and practical interventions. We believe that by removing the obstacles to good health, we can make urban areas healthier places for everyone to live.

Impact on Urban Health is a part of Guy's & St Thomas' Foundation.

Social Progress Imperative

The Social Progress Imperative's mission is to improve the lives of people around the world, particularly the least well off, by advancing global social progress by: providing a robust, holistic and innovative measurement tool—the Social Progress Index; fostering research and knowledge-sharing on social progress; and equipping leaders and change-makers in business, government and civil society with new tools to guide policies and programs. From the EU to India to Brazil and beyond, the Social Progress Imperative has catalysed the formation of local action networks that bring together governments, businesses, academia, and civil society organizations committed to using the Social Progress Index as a tool to transform societies and improve people's lives.

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Lambeth & Southwark, 2021

Introduction

Impact on Urban Health is committed to achieving health equity by helping urban areas become healthier places for everyone to live. We believe that health is hugely influenced by where we grow up, live and work. And in urban areas, we see the best and worst health outcomes, often just roads away from each other. We are focused on improving health in inner-city areas by understanding and changing how inequalities impact our health.

Our work is focused primarily in Lambeth and Southwark, two diverse boroughs in South London. We are increasingly putting data at the forefront to understand these boroughs, make funding decisions, and track impact and progress. Our hope in developing a Social Progress Index (or Urban Health Index) for Lambeth and Southwark is to have an easy to use tool to monitor social and health outcomes at MSOA level, identify priority areas to focus resources, and track progress over time. The tool will be used to:

- Demonstrate where there are strengths and growth opportunities within our boroughs
- Inform our internal programme funding and prioritisation decisions
- Gain insights into inequalities within our boroughs
- Contribute to our understanding of the relationship between financial security and social and health outcomes
- Engage with local and national stakeholders
- Measure progress across different areas of interest

What is the Social Progress Index?

The Social Progress Index is a composite index which represents the first comprehensive framework for measuring social progress that is independent of traditional economic indicators, while also being complementary to them. The Index focuses on what matters to societies and people by giving them the tools to better understand and seize opportunities, and building blocks to enhance and sustain the quality of their lives, as well as create the conditions to reach their full potential.

Developed in collaboration with a team of scholars led by Professor Michael E. Porter of Harvard Business School, the Index is being used by national and city leaders across Latin America, Australia, the United Kingdom, the US, Canada, and by the European Commission's Directorate General for Regional and Urban Policy for agenda setting and supports policymaking, prioritization of resource mobilization and impact measurement.

The Index presents a granular, actionable picture of what matters most to people regardless of their wealth. It creates a common understanding of how well a community performs on the things that matter to all societies, rich or poor. As a complement to traditional measures of economic performance, such as income, the Social Progress Index provides better understanding of the bi-directional relationship between economic gain and social progress. Its unique framework offers a systematic, empirical foundation for governments, businesses, civil society and communities to prioritise social and environmental issues, and benchmark performance against other countries, regions, cities and communities to inform and drive public policies, investments, and business and community decisions.

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Guided by a group of academic and policy experts, the Social Progress Index follows a conceptual framework that defines social progress as well as its key elements. In this context, social progress is defined as the “**capacity of a society to meet the basic human needs of its citizens, establish the building blocks that allow citizens and communities to enhance and sustain the quality of their lives, and create the conditions for all individuals to reach their full potential.**”

The Social Progress Index is built around a framework that comprises three architectural elements: dimensions, components, and indicators.

- Dimensions represent the broad conceptual categories that define social progress:
 - Basic Human Needs considers citizens’ ability to survive with adequate nourishment and basic medical care, clean water, sanitation, adequate shelter, and personal safety. These needs are still not met in many disparate countries and are often incomplete in more prosperous countries.
 - Foundations of Wellbeing captures whether a society offers building blocks for citizens to improve their lives, such as gaining a basic education, obtaining information, and access communications, benefiting from a modern healthcare system and live in a healthy environment.
 - Opportunity captures whether citizens have the freedom and opportunity to make their own choices. Personal rights, personal freedom and choice, tolerance and inclusion, and access to advanced education all contribute to the level of opportunity within a given society.

- Each dimension comprises four components - distinct but related concepts that together make up the Social Progress Index Framework (Figure 1).

Figure 1: Social Progress Index Framework

Basic Human Needs	Foundations of Wellbeing	Opportunity
Nutrition and Basic Medical Care	Access to Basic Knowledge	Personal Rights
Water and Sanitation	Access to Information and Communications	Personal Freedom and Choice
Shelter	Health and Wellness	Inclusiveness
Personal safety	Environmental Quality	Access to Advanced Education

Source: Social Progress Imperative (2018)

- Each component is composed of indicators that measure as many valid aspects of the component as possible.

Together, this interrelated set of factors represents the primary elements that combine to produce a given level of Social Progress Index. The methodology allows measurement of each component and each dimension, and yields an overall score and ranking.

The three dimensions and twelve components of the Social Progress Framework provide the backbone of the Social Progress Index. The twelve-component structure provides the guidelines, while the questions

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below provide a first guide for interpreting each component and help to identify locally relevant data to define it. To help guide this process, the following guiding questions (Figure 2) are used for selecting contextually appropriate indicators for each of the twelve components.

Figure 2: Social Progress Index Guiding Questions



Source: Social Progress Imperative (2018)

The Index is explicitly focused on non-economic aspects of performance. Unlike most other measurement efforts, the index treats social progress as distinct though associated with traditional economic measures such as income per capita. In contrast, other indices such as the Human Development Index (UNDP, 2016) or the OECD Better Life Index (OECD, 2015) combine economic and social indicators. The SPI objective is to utilize a clear yet rigorous methodology that isolates the non-economic dimensions of social performance.

The Index applies a set of unique design principles that allow an exclusive analysis of social progress and help the Index stand out from other indices:

Social and environmental indicators only: While economic development is generally beneficial for social progress, it is not sufficient to fully capture the wellbeing of societies, and certain kinds of economic development can reduce social progress. The relationship is complex: social progress can drive and be driven by economic progress. Consequently, social progress needs to be measured directly, without combining economic performance. Measuring social progress exclusively and directly, rather than utilizing economic proxies or combining economic and social variables is therefore the key principle of any Social Progress Index.

Outcomes, not inputs: There are two broad categories of conceptually coherent methodologies for index construction: input indices and outcome indices. Both can help countries to benchmark their progress, but in very different ways. Input indices measure a country's policy choices or investments believed or

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known to lead to an important outcome. In competitiveness, for example, an input index might measure investments in human capital or basic research. Outcome indices directly measure the outcomes of investments. The Social Progress Index has been designed as an outcome index. The Index measures the lived experience of real people, regardless of effort spent or the capacity to impart change. Given that there are multiple distinct aspects of social progress each measurable in different ways, the Social Progress Index has been designed to aggregate and synthesize multiple outcome measures in a conceptually consistent and transparent way that will also be salient to benchmarking progress for decision-makers.

Holistic and relevant to all communities: The Social Progress Index is a multidimensional measure of social progress that encompasses the many inter-related aspects of thriving societies everywhere. It aims to be a practical tool for decision makers in any given country regardless of its level of development. At the national level, the Social Progress Index fulfils this value proposition by deepening our understanding of the relationship between social progress and economic growth and by designing a very relevant tool to highlight strength and weakness at the component and indicator levels, using GDP comparator groups. Nevertheless, what matters at the national level to compare countries among themselves may not be what matters for the policy debate within a given country. For example, tuberculosis is not an issue in the Amazon region, but Malaria is. These examples illustrate how building subnational indices—by preserving the 12-components structure of the Social Progress Index and by customizing the indicators to be monitored and targeted—can increase the capacity of the Social Progress Framework to boost relevant and timely policy-debates in every country at every stage of development.

Actionable: The Index aims to be a practical tool with sufficient specificity to help leaders and practitioners in government, business, and civil society to benchmark performance and implement policies and programs that will drive faster social progress. At the national level, the Social Progress Index fulfils this value proposition by focusing on the granularity of the model. Every component supposes an essential area for human wellbeing. And every indicator implies a potential “entry-point” and an “explicit target” for public policy. Building subnational indices with local networks will strength the actionability of the social progress framework, if the process of disaggregating and customizing the index is also supported by strong political buy-in around socially legitimate targets. A practical tool that will help leaders and decision-makers in government, business and civil society to implement policies and programs that will drive faster social progress.

The successes of the Global Social Progress Index have resulted in an increased demand for subnational indices to address the need for greater actionability; the need to make the index relevant for all countries at all levels of development and at any level of geography; and a need to build common languages and to align interventions. As a result, local stakeholders around the world have developed innovative initiatives to build relevant and consistent social progress indices at the macro (national), meso (regional, municipal) and micro (community, organizational) levels, to influence the policy decision-making process and move the needle of social progress around the world.

Lambeth and Southwark Urban Health Index

The Lambeth and Southwark Urban Health Index follows the Social Progress Index rationale as well as its key principles and methodology. As such, it adopts the same dimension and component level framework as the global Social Progress Index. However, data availability restrictions, data at the appropriate geographic level and indicator relevance to our local boroughs and organisational aims meant that the

final list of indicators was developed uniquely for the Lambeth and Southwark Urban Health Index as outlined below in Figure 3.

We believe that all of the indicators included in the index play fundamental roles not only in social progress, but in the health of people in urban areas such as Lambeth and Southwark.

Figure 3: Lambeth and Southwark Urban Health Index Indicator List

Basic Human Needs	Foundations of Wellbeing	Opportunity
<p>Nutrition and Basic Medical Care</p> <ul style="list-style-type: none"> Low birth weight Obesity in adults Obesity in Children - Year 6 Obesity in Children - Reception Deaths under 65 <p>Water and Sanitation</p> <ul style="list-style-type: none"> Overcrowding Houses in poor condition Food hygiene rating <p>Shelter</p> <ul style="list-style-type: none"> Vacant dwellings Energy efficiency Households in fuel poverty <p>Personal safety</p> <ul style="list-style-type: none"> Burglary Drug crime Weapon possession Total offences 	<p>Access to Basic Knowledge</p> <ul style="list-style-type: none"> Pupils achieving Key Stage 4 basics Pupils achieving 'good level of development' at Early Years Foundation stage Persistent absentee pupils Adult skills and English language proficiency <p>Access to Information and Communications</p> <ul style="list-style-type: none"> Average download speed (Mbps) Superfast availability Receiving under 10 Mbps Receiving over 30 Mbps <p>Health and Wellness</p> <ul style="list-style-type: none"> Female healthy life expectancy at birth Diabetes prevalence Asthma prevalence Depression prevalence <p>Environmental Quality</p> <ul style="list-style-type: none"> Access to private outdoor space PM2.5 Concentration NO2 Concentration 	<p>Personal Rights</p> <ul style="list-style-type: none"> Voter turnout Racial aggravated crime Public order offences <p>Personal Freedom and Choice</p> <ul style="list-style-type: none"> People living with limiting illness Access to transportation index Youth unemployment gap <p>Inclusiveness</p> <ul style="list-style-type: none"> Active and Engaged Community score Community Needs score Connectedness score <p>Access to Advanced Education</p> <ul style="list-style-type: none"> Participation in higher education Participation of state school pupils in higher education Highest level of qualification: Level 4/5 qualifications

Geographic and Time Coverage

The Index was calculated for all 68 MSOAs in Lambeth and Southwark (outlined below) and included the most recent data available at point of pulling the indicators (October 2020). Detailed table with annual data availability for each indicator is presented in Annex 3: Data Availability.

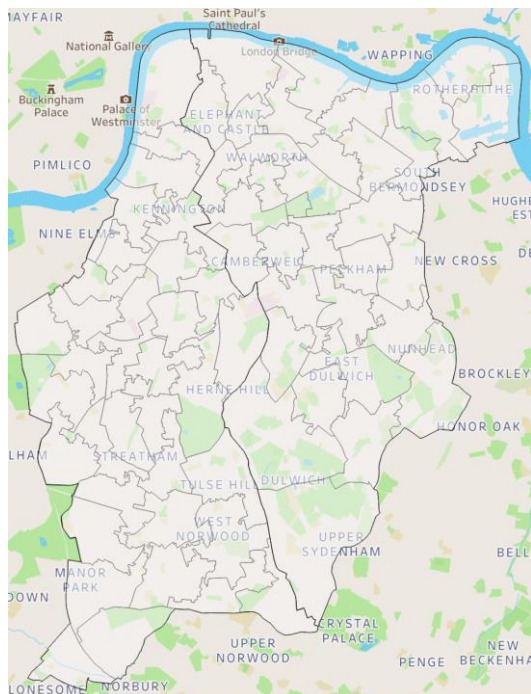
Table 1: List of Lambeth and Southwark MSOAs

MSOA	Associated Neighbourhood
Lambeth 002	Lambeth Walk and North Kennington
Lambeth 003	Kennington West and Vauxhall North
Lambeth 004	Vauxhall South
Lambeth 005	Oval
Lambeth 006	Stockwell North
Lambeth 007	Stockwell East
Lambeth 008	Stockwell West
Lambeth 009	Loughborough Road
Lambeth 010	Stockwell South
Lambeth 011	Brixton North
Lambeth 012	Clapham North
Lambeth 013	Clapham Old Town
Lambeth 014	Herne Hill East
Lambeth 015	Acre Lane
Lambeth 016	Brixton Central
Lambeth 017	Clapham Common North
Lambeth 018	Poets' Corner and Brockwell Park
Lambeth 019	Clapham South
Lambeth 020	Brixton Hill East
Lambeth 021	Brixton Hill West
Lambeth 022	Clapham Park East and Streatham Hill North
Lambeth 023	Clapham Park West
Lambeth 024	Tulse Hill
Lambeth 025	West Dulwich
Lambeth 026	Streatham Hill
Lambeth 027	Leigham Vale and Royal Circus
Lambeth 028	West Norwood East
Lambeth 029	Streatham Central
Lambeth 030	West Norwood West and Streatham East
Lambeth 031	West Norwood South
Lambeth 032	Streatham Green
Lambeth 033	Gipsy Hill
Lambeth 034	Streatham Common
Lambeth 035	Streatham Vale
Lambeth 036	Lambeth North, Waterloo and South Bank
Southwark 001	Rotherhithe
Southwark 002	Borough and Southwark Street

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Southwark 003	Bermondsey North
Southwark 004	Bermondsey East
Southwark 006	London Bridge and Bermondsey West
Southwark 007	Canada Water
Southwark 008	Surrey Quays
Southwark 009	Elephant and Castle
Southwark 010	South Bermondsey Central
Southwark 011	South Bermondsey East
Southwark 012	Walworth North
Southwark 013	South Bermondsey West
Southwark 014	Kennington East
Southwark 015	Burgess Park
Southwark 016	Walworth South
Southwark 017	Burgess Park West and John Ruskin Street
Southwark 018	Peckham Park Road
Southwark 019	Peckham North West
Southwark 020	Camberwell North
Southwark 021	Camberwell Green
Southwark 022	Peckham North
Southwark 023	Queens Road Peckham
Southwark 024	Camberwell South
Southwark 025	Peckham Rye
Southwark 026	Nunhead North
Southwark 027	North Dulwich
Southwark 028	Peckham Rye Common
Southwark 029	Nunhead South and Newlands
Southwark 030	East Dulwich
Southwark 031	Herne Hill and Dulwich Park
Southwark 032	Dulwich Hill
Southwark 033	Sydenham Hill
Southwark 034	Southwark St George's

Figure 4: Map of Lambeth and Southwark MSOAs



Index Calculation

Calculating the Lambeth and Southwark Urban Health Index was a multistep process involving:

- 1) Indicator Selection and Data Collection
- 2) Dealing with missing values
- 3) Data Transformation
- 4) Aggregation and scaling
- 5) Evaluating the fit

Indicator Selection and Data Collection

As an organization focused on urban health, our aim for the SPI was to focus the indicators around what would be most relevant for our work, our partners' work, the residents of Lambeth and Southwark and other stakeholders who might use the tool.

We started with a list of over 200 indicators and following a framework of selection, we shortlisted down to our eventual final list of 45 indicators. Some of the criteria used to shortlist included:

- Indicator is non-economic related
- Indicator is an outcome (rather than an input)
- Data is available at MSOA level
- Data is from a reputable source
- Data is not too old (note: some data comes from Census 2011, but we aimed to minimise this as much as possible)

- Indicator is relevant to our boroughs
- Indicators were not measuring the same thing (i.e. we generally did not use two indicators that had higher than 0.9 correlation – where a correlation of 1 means they are measuring the same thing)
- Indicator had no or minimal missing values

A list of indicators that were taken into consideration but are not included in the final index is presented in Annex 1: Indicators not Included in Final Framework. Detailed information on individual indicators included in the Index is presented in Annex 2: Indicator Definition and Sources.

Dealing with missing values

Data for most indicators were available for all MSOAs. One indicator, however, had missing values for two MSOAs, in which case we took the average value of the four surrounding MSOAs to impute a value. This was done for the following:

- Percent vacant dwellings
 - Lambeth 025 – took averages of Lambeth 018, Lambeth 024, Lambeth 027, Lambeth 028
 - Southwark 031 – took averages of Southwark 027, Southwark 030, Southwark 032, Southwark 033

Data Transformation

Several data transformations were done in order to complete the index calculations. Firstly, indicators that did not display a normal distribution were confined to the upper or lower boundaries. These are noted in Table 2.

Secondly, for indicators that had data at a smaller geographic area, we aggregated to MSOA level using the following methods.

- Food hygiene rating – data was at the business address level. We used a spatial tool to add up all the businesses in each MSOA and the proportion of businesses that were not meeting the standards (i.e. had a score under 2).
- Transport accessibility index – data was available at LSOA level. We averaged the scores of all LSOAs within an MSOA to determine the score at MSOA level.
- Racial aggravated crime – data was at LSOA level. We added up all the numbers for each LSOA to determine the rate at MSOA level.

Thirdly, as all the indicators are measured in different units, it is important to *standardize* them so that they become comparable. Otherwise, a variable that has less variation relatively but is measured on a larger scale compared to other variables may appear to have much greater variation than it actually does. Standardization helps solving the problem by making indicators unitless as it rescales them with a mean of zero and standard deviation of one.

Table 2: Data Transformations

Indicator	Treatment	Explanation of treatment
Average download speed	Upper boundary confined to 100	Eliminating outliers, based on distribution of observed values
NO2 Concentration	Lower boundary confined to 36	Based on international guidelines and distribution of observed values
Racial aggravated crime	Upper boundary confined to 1	Eliminating outliers, based on distribution of observed values
Access to transportation	Upper boundary confined to 40	Eliminating outliers, based on distribution of observed values
Youth unemployment gap	Upper boundary confined to -1 and lower boundary confined to 10	Theoretical objectives, while taking into account distribution of observed values
Participation in higher education	Upper boundary confined to 100	Theoretical best

Aggregation and scaling

The Urban Health Index for Southwark and Lambeth adopts an aggregation approach similar to other subnational Social Progress Indices, such as Social Progress Index for Barking and Dagenham or Social Progress Index for the United States. The Index applies geometric mean to aggregate the four components within each dimension into a dimension score and across dimensions into the index score. In contrast with arithmetic mean (aka simple average), geometric mean accounts for variation in performance across components and dimensions. This method of aggregation is particularly relevant for measuring social progress for two reasons. When the number of units of observations (MSOAs) is relatively small, it is essential to distinguish each unit's performance in a fair and balanced way. Secondly, geometric average embraces the imperative of social progress because it limits substitutability – i.e. good performance in one component/dimension cannot fully substitute for mediocre performance elsewhere. For example, an MSOA that performs very well on one of the four components but poorly on the other three will not receive the same score as an MSOA performing at a consistent level across all four components.

The Social Progress Index uses the Principal Component Analysis (PCA) for calculating the weights of indicators within a component¹. A list of weights is presented in Annex 4: Weighting.

The component values are calculated by summing the weighted scores using the following formula:

$$\text{Components} = \sum (w_i * \text{indicator})$$

To calculate component scores the Index transforms indicator values onto 0 to 100 scale. This is done by calculating scores using best- and worst-case scenarios which are defined at the indicator level according to desirable or theoretically possible upper and lower bounds. The best-case scenario in most cases reflects the best value identified across England or London (depending on which is more relevant) or a 20% improvement on the best performance recorded across the MSOA values. The value for worst-case scenario reflects the worst recorded value across England or London (depending on which is more

¹ Principal Component Analysis is a multivariate technique which was developed in early 20th century for the purpose of aggregating information. Calculations were done in STATA, using “factor, pcf” command.

relevant) or a 20% decrease of the worst performance recorded across the MSOA values. See Annex 5: High and Low Scores for the range of indicators.

This method enhances comparability as well as comprehensiveness across the dataset. The calculation is done using the following formula:

X_j – Worst Case

Best Case – Worst Case

Where, X_j represents the raw values.

Each **dimension** score is then taken to be the geometric average of its four components.

$$\text{Dimension}_d \text{ score} = \sqrt[4]{\left(\prod_{c=1}^4 \text{Component}_c \text{ score}\right)}$$

The overall **Index** score is the geometric average of the three dimensions.

$$\text{Social Progress Index} = \sqrt[3]{\left(\prod_{d=1}^3 \text{Dimension}_d \text{ score}\right)}$$

Evaluating the fit

The indicator selection process entails including the indicators that describe the concept of the component in the best possible way and are conceptually linked to each other. The rigor of the Social Progress Index methodology is strengthened by assessing multiple aspects of fit between those. First, exploratory factor analysis is used to test the underlying factors among the set of selected indicators in each component. In this process, the indicators that are statistically incompatible are removed.

Furthermore, the Social Progress Index methodology involves evaluating the fit between the individual indicators by calculating Cronbach's Alpha for each component. Alpha was developed by Lee Cronbach in 1951 to provide a measure of the internal consistency; it is expressed as a number between 0 and 1 (Tavakol & Dennick 2011). Internal consistency describes the extent to which all the items in a test measure the same concept or construct and hence it is connected to the inter-relatedness of the items within the test. An applied practitioner's rule of thumb is that the alpha value should be above 0.7 for any logical grouping of variables (Cortina, 1993). The alpha values are presented in Table 3.

Table 3: Cronbach's Alpha

	Component	Cronbach's Alpha
Basic Human Needs	Nutrition and Basic Medical Care	0.88
	Water and Sanitation	0.44
	Shelter	0.79
	Personal Safety	0.88
Foundations of Wellbeing	Access to Basic Knowledge	0.75
	Access to Information and Communications	0.83
	Health and Wellness	0.80
	Environmental Quality	0.93
Opportunity	Personal Rights	0.80
	Personal Freedom and Choice	0.70
	Inclusiveness	0.79
	Access to Advanced Education	0.83

After calculating each component, the goodness of fit is evaluated using the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy. The measure reflects the proportion of variance among variables that might be common variance. The KMO index ranges from 0 to 1, as a rule of thumb, KMO scores should be above 0.5 (Williams, Onsmann, & Brown 2010). The results of this analysis are shown in Table 4.

Table 4: Kaiser-Meyer-Olkin

	Component	Mean KMO
Basic Human Needs	Nutrition and Basic Medical Care	0.81
	Water and Sanitation	0.48
	Shelter	0.67
	Personal Safety	0.70
Foundations of Wellbeing	Access to Basic Knowledge	0.62
	Access to Information and Communications	0.68
	Health and Wellness	0.70
	Environmental Quality	0.72
Opportunity	Personal Rights	0.59
	Personal Freedom and Choice	0.60
	Inclusiveness	0.66
	Access to Advanced Education	0.68

Conclusion

Building the Urban Health Index for Lambeth and Southwark was a long-term endeavour lead by the Data & Analytics team at Impact on Urban Health, supported by the Social Progress Imperative. Throughout the process, the team constructed and tested several iterations of the index, and consulted many colleagues across the organisation and beyond. Despite numerous challenges, such as the lack of appropriate data, or the fit of indicators, the authors are confident that this is a robust and credible assessment of urban health.

The Index provides a benchmark by which MSOAs can be compared and enables stakeholders to identify priorities that need addressing in order to advance social progress and urban health. The Index is meant to be a unifying tool, which brings a common language and understanding of what social progress and urban health mean to Lambeth and Southwark's community members and local stakeholders.

References

Annoni, P. Dijkstra, L. and Hellman, T. (2016) The EU regional SPI: A measure of social progress in the EU regions, retrieved from http://ec.europa.eu/regional_policy/sources/information/maps/methodological_note_eu_s_pi_2016.pdf

Cortina, J. M. (1993). What is coefficient alpha? An examination of theory and applications. *Journal of applied psychology*, 78(1), 98. Social Progress Imperative (2018). Social Progress Index 2018. Retrieved from www.socialprogress.org

Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. *International journal of medical education*, 2, 53.

Annex 1: Indicators not Included in Final Framework

Dimension/component	Indicator Name	Reason not included
Basic Human Needs		
Nutrition and Basic Medical Care	Healthy eating	Data is too old
	Provides 50+ hours unpaid care a week	Data is too old
	Travel time to nearest GP by public transport/walk	Not an outcome
	Travel time to nearest Hospital by public transport/walk	Not an outcome
	Teenage mothers	Poor data quality - missing values
	Children providing unpaid care	Data is too old
	Children in poverty	Economic outcome
	Free school meals pupils	Economic outcome
	Still births/ infant mortality	Data availability at MSOA level
	A&E waiting times	Data availability at MSOA level
	Premature mortality	Alternative indicator used " Deaths under 65" We would need to have proportion of people registered - the absolute number doesn't tell us anything
	Registered at a GP	Data availability at MSOA level
	Use of food banks	We have not included Covid indicators
	PPE, Covid tests, antibody tests indicator relating to mental health (e.g. parental mental health)	Data availability
	Human rights in maternity care	We don't think this data is available at MSOA level. Hospitals will provide the same services across the boroughs, but people may approach
Water and Sanitation	Pest control visits	Data availability
	Presence of bacteria (coliforms - E Coli) in drinking water	Data availability
	Turbidity of drinking water	Data availability
	Lead in water	Data availability
	Calls to council for mold	Data availability
	Something about white goods/kitchen	Data availability
	Personal hygiene/menstrual hygiene	Data availability
	Numbers in arrears on basic utility payments	Economic outcome
	Something about shared bathrooms - thinking HMOs	Data availability
	Public toilets (declining)	Data availability
	Water purity from thames water	Data availability
Shelter	Social rented housing	Not clear whether a positive or negative outcome
	Houses lacking central heating	Older data
	Overcrowded housing	Used in Water and Sanitation
	Households not connected to the gas network	Not relevant if other sources of energy are available
	Potential average energy efficiency of domestic buildings	Using current average energy efficiency, which is practically the same
	Energy efficiency gap for domestic buildings	Using current average energy efficiency, which is practically the same
	IoD 2019 Homelessness indicator	Values not at Ward/MSOA levels
	IoD 2019 household overcrowding	Using overcrowded housing, which is practically the same
	Homelessness/ People on housing waiting list	Data availability at MSOA level
	Safety of housing construction (Grenfell)	Data availability
	Air quality in the home	Data availability
Personal Safety	Housing security	Data availability
	Anti-social behaviour	Keeping total offences, which is measuring the same thing
	Violent crime and sexual offences	Keeping total offences, which is measuring the same thing
	Robbery recorded offences	Keeping burglary
	Vehicle crime	Less applicable for this component
	Public order offences	Included in Personal Rights component
	Criminal damage	Not as relevant as other crime indicators selected
	Theft from the person offences	Keeping total offences, which is measuring the same thing
	Road traffic accidents indicator	Less applicable for this component
	Road accident casualty rate	Less applicable for this component
	Shoplifting	Not measuring personal safety
	Domestic abuse	Data availability
	Trafficking rates	Data availability
	Terrorist related incidents	Data availability
	Perception of safety	Data availability
	Serious youth violence	Data availability
	Children in the youth justice system/prison	Data availability
	Child in Need/Child Protection Plan/Looked after child (ie in the care system)	Data availability

Foundations of Wellbeing		
Access to Basic Knowledge	People with no qualifications	Older data
	Travel time to nearest Secondary School by public transport/walk	Not an outcome
	Road distance (meters) from the nearest Primary School	Not an outcome
	Pupil unauthorised absences	Using persistent absentee instead
	Travel time to nearest Primary School by public transport/walk	Not an outcome
	People aged 16-24 with no qualifications	Census data and quite old, also more aligned to higher education
	Road distance (meters) from the nearest Secondary School	Not an outcome
	Children providing unpaid care	Not an outcome and census data
	Schools judged as outstanding/good	School level data does not translate well at MSOA level
	Pupils getting free school meals vs not	Economic indicator
	School Exclusions	Not at MSOA level
	Numbers in PRUS, SEN schools	Not appropriate at MSOA level
	Speech and literacy	Data availability
	Access to Information and Communications	Low broadband speed
Broadband speed		Alternative indicators with better data included
Community Needs Index: Connectedness score		Included in Inclusiveness
ID 2015 Adult skills and English language proficiency indicator		Included in Access to Basic Knowledge
Internet Usier Index		Data does not fit statistically
Registered library users		Data availability
Residents without internet access		Data availability
My Account users		Data availability
Digital skills data		Data availability
How many people access the lambeth or southwark council website?		Data availability
How many people with 4g/5g?		Data availability at MSOA
Access to hardware (phones, tablets, etc.)		Data availability at MSOA
Support to acces/training to use IT		Data availability at MSOA
Health and Wellness		Female life expectancy at birth
	Male life expectancy at birth	Using Female Healthy Life Expectancy
	Male healthy life expectancy at birth	Used female Healthy Life Expectancy
	ID 2019 Years of potential life lost indicator	Alternative indicator selected
	Deaths under 65, all causes	Including in Basic Nutrition
	Deaths under 75, all causes	Keeping deaths under 65
	Deaths under 75, coronary heart disease (CHD)	Keeping deaths under 65
	Deaths under 75, circulatory disease	Keeping deaths under 65
	Deaths respiratory disease	Keeping deaths under 65
	Deaths Stroke	Keeping deaths under 65
	Deaths Cancers	Keeping deaths under 65
	Deaths under 75 Cancers	Keeping deaths under 65
	Deaths Circulatory disease	Keeping deaths under 65
	Deaths CHD	Keeping deaths under 65
	Obese children in reception year	Including in Basic Nutrition
	Obese children in year 6	Including in Basic Nutrition
	Overweight or obese children in reception year	Including obesity in Basic Nutrition
	Overweight or obese children in year 6	Including obesity in Basic Nutrition
	Obese adults	Including in Basic Nutrition
	People with a limiting long-term illness (aged 65+)	Keeping people with a limiting long term illness ages 16-64
	People with a limiting long-term illness (aged 16-64)	Used in Personal Freedom and Choice
	Female disability-free life expectancy (DFLE)	Close to 1 correlation with healthy life expectancy
	Male disability-free life expectancy (DFLE)	Close to 1 correlation with healthy life expectancy
	Atrial Fibrillation prevalence	Alternative indicators more relevant to our programmes were selected
	Cancer prevalence	Alternative indicators more relevant to our programmes were selected
	Coronary Heart Disease prevalence	Alternative indicators more relevant to our programmes were selected
	Chronic Kidney Disease prevalence	Alternative indicators more relevant to our programmes were selected
	COPD prevalence	Alternative indicators more relevant to our programmes were selected
	Cardiovascular Disease prevalence	Alternative indicators more relevant to our programmes were selected
	Dementia prevalence	Alternative indicators more relevant to our programmes were selected
	Heart Failure prevalence	Alternative indicators more relevant to our programmes were selected
	High Blood Pressure prevalence	Highly correlated to diabetes prevalence
	Learning Disabilities prevalence	Alternative indicators more relevant to our programmes were selected
	Cancer Incidence	Alternative indicators more relevant to our programmes were selected
	Serious Mental Illness prevalence	Alternative indicators more relevant to our programmes were selected
	Osteoporosis prevalence	Alternative indicators more relevant to our programmes were selected
	Rheumatoid Arthritis prevalence	Alternative indicators more relevant to our programmes were selected
	Stroke and Transient Ischaemic Attack prevalence	Alternative indicators more relevant to our programmes were selected
	Adults who are physically active (modelled MSOA estimates) (2017/18)	Less accurate data - comes from surveys and keeping obesity indicator
	Emergency Hospital Admissions	Alternative indicators more relevant to our programmes were selected
	Covid-19 vulnerability index	We have not included Covid indicators
	Suicide rates	Data availability at MSOA level
	A&E rates by gender, age, ethnicity	Data availability
	Life expectancy by ethnicity	Data availability at MSOA level
	Female health e.g Hormone Replacement Therapy or Heavy Menstrual Bleeding	Data availability at MSOA level
	Clinic use in informal settings migrant and refugees/homeless day centres	Data availability at MSOA level

Environmental Quality	ID 2019 Sulphur dioxide (component of air quality indicator)	Variation too low and skewed KMO
	ID 2019 Air quality indicator	Keeping the individual air quality measures for more granularity in air quality improvements
	AHAH Air quality domain	Keeping the individual air quality measures for more granularity in air quality improvements
	Greenspace coverage, total	Not an outcome
	Electric car charging stations	Data availability
	Bike lanes	Data availability
	Fly-tipping	Data availability
	Open space within 400m from households	Alternative indicators were selected
	Light pollution	Data availability
	Noise pollution	Data availability
	Tree canopy	Unlikely to change over the years and data unlikely to be updated regularly
Opportunity		
Personal Rights	Households who own their property	Data availability
	Gender pay gap	Data availability at MSOA level
	Minimum wage	Economic indicator
	Unemployment benefits	Economic indicator
	Disability benefits	Economic indicator
	Employment support schemes	Economic indicator
	Maternity/paternity leave	Data availability at MSOA level
	Discrimination rights	Data availability
	Time to access a hearing	Data availability
	Vulnerable employment - 0 hour contract	Economic indicator
	Access to art, community, literature, sciences (culture)	Data availability at MSOA level
	Stop and search	Alternative indicators were selected
	Access to legal advocacy and support	Data availability
	Reoffending statistics	Data availability
	Legal aid usage	Data availability
Women in prison	Data availability	
Personal Freedom and Choice	ID 2015 Adult skills and English language proficiency indicator	Used in Access to Basic Knowledge
	Teenage pregnancy	Poor data quality - missing values
	Modern slavery/human trafficking	Data availability
	Female genital mutilation	Data availability
	hate crimes	Used in Personal Rights
	disabled access issues	Data availability
	child exploitation	Data availability
	low birth rates	Data availability
Inclusiveness	Road distance (meters) from the nearest Job Centre	Not an outcome
	Voter Turnout at Local Elections	Used in Personal Rights
	Belonging: average score	Limited strength of data at lower level geography
	ID 2015 Adult skills and English language proficiency indicator	Used in Access to Basic Knowledge
	Community Needs Index: Civic Assets score	Not an outcome
	Broadband speed	Using for Access to information and communication
	Local_social_relationships_average_score	Small sample size, limited data
	Volunteering rates	Data availability
	Racial hate crimes	Used in Personal Rights
	When people are not using mainstream services such as health/housing support due to fear or status	Data availability
	Gender neutral spaces/bathrooms	Data availability
Disability access	Data availability	
Access to Advanced Education	Travel time to nearest Further Education Institution by public transport/walk	Not an outcome
	ID 2019 Staying on in education post 16 indicator	Old and irregular data updates
	ID 2019 Entry to higher education indicator	Old and irregular data updates
	ID 2015 Adult skills and English language proficiency indicator	Used in Access to Basic Knowledge
	Graduate outcomes from a gender or race lens in terms of income	Data availability
	Meaningful work	Data availability
	Entrepreneurship	Data availability
Apprenticeships	Data availability	

Annex 2: Indicator Definition and Sources

Dimension/component	Indicator Name	Definition	Source
Basic Human Needs			
Nutrition and Basic Medical Care	Low birth weight	Shows the proportion of babies born with a low birth weight. The low birth weight count is the number of live and still births occurring in the year with a stated birth weight greater than 0 and less than 2500 grams for all maternal ages. The denominator is all live and still births occurring in a year with a valid stated birth weight for all maternal ages. The figures presented here are expressed as percentages of total births with a stated birth weight. Rate calculated as = (Low birth weight births)/(Total births)*100	Office for National Statistics (ONS) (http://www.localhealth.org.uk/)
	Obesity in adults	Synthetic estimate of the proportion (%) of adults who obese. People are considered obese when their body mass index (BMI) a measurement obtained by dividing a person's weight by the square of the person's height, exceeds 30 kg/m2. Rate calculated as = (Adult population with obesity)/(Adults aged 16 or over)*100	Office for National Statistics (ONS) (http://www.localhealth.org.uk/)
	Obesity in Children - Year 6	Shows the % of year 6 children classified as obese (aged 10-11). Rate calculated as = (Children in year six with obesity)/(Children in year 6)*100	National Child Measurement Programme, NHS Digital (http://www.localhealth.org.uk/)
	Obesity in Children - Reception	Shows the % of children in reception year (aged 4-5) classified as obese. Rate calculated as = (Rate of children in reception year with obesity)/(Total children in reception year)*100	National Child Measurement Programme, NHS Digital (http://www.localhealth.org.uk/)
	Deaths under 65	Shows age standardised estimates of deaths from all causes for people aged under 65. The data is presented as a standardised mortality ratio of calculated by dividing the observed total deaths in the area (by five year age and gender band) by the expected deaths (applying age-specific death rates for England) and multiplying by 100.	Office for National Statistics (ONS) (http://www.localhealth.org.uk/)
Water and Sanitation	Overcrowding	Households are classified as overcrowded if there is at least one room fewer than needed for household requirements using standard definitions. Figures are based on responses to Census questions on the number of rooms and numbers of persons in a household. Rate calculated as = (Occupancy rating (rooms) of -1 or less (census KS403))/(All households (census KS403))*100	Census
	Houses in poor condition	The Indices of Deprivation (IoD) 2019 housing in poor condition indicator is a modelled estimate of the proportion of social and private homes that fail to meet the Decent Homes standard. A property fails the Decent Homes Standard if it fails to meet any one of four separate components: 1) Housing Health and Safety Rating System 2) Disrepair 3) Modernisation 4) Thermal comfort. Each of these components was modelled separately, using data from the 2015 English Housing Survey at national level, in combination with a commercial dataset that provides information on the age, type, tenure and occupant characteristics of the housing stock at individual dwelling level.	Ministry of Housing Communities and Local Government (MHCLG)
	Food hygiene rating	% of businesses in each MSOA that "needs improvement" (score 0-2). The food hygiene rating scheme gives businesses a rating from 5 to 0 which is displayed at their premises and online so you can make more informed choices about where to buy and eat food. 5 – hygiene standards are very good 4 – hygiene standards are good 3 – hygiene standards are generally satisfactory 2 – some improvement is necessary 1 – major improvement is necessary 0 – urgent improvement is required	Food standards agency
Shelter	Vacant dwellings	Percentage of all dwellings that are vacant (excluding second homes and holiday homes)-Shows the proportion of all dwellings that are vacant in an area, excluding second homes and holiday homes. This data is an estimate of vacant dwellings in 2017 at Output Area level and is based on Local Authority level estimates of vacant dwellings for 2017, Census 2011 household spaces with no residents and Census 2001 vacant dwellings. Local authority level 2017 estimates are drawn from several separately published sources including all vacants and long-term vacants from the Council Tax Base (CTB), Local Authority vacants and Other public sector vacants from the Local Authority Housing Statistics (LAHS) and Private Registered Provider (housing association) vacants and long-term vacants from the 2012 Homes and Communities Agency's Statistical Data return (SDR), see here for more information: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/685575/LT_6_15.xls .	Census/Council tax base (CTB) (published by MHCLG)/Census 2011/Census 2001
	Energy efficiency	Current average energy efficiency of domestic buildings Shows the average energy efficiency as derived from Energy Performance Certificates (EPC) for domestic buildings. Data has been calculated by averaging (mean) the median energy efficiencies of Output Areas. Only homes that have been built, bought, sold or retrofitted since 2008 have an EPC, which represents about 50 to 60 per cent of homes within a local authority area. Additionally, data has not been published where the holder of the energy certificate has 'opted-out' of disclosure, energy certificates are excluded on grounds of national security or energy certificates are marked as 'cancelled' or 'not for issue'.	Department for Communities and Local Government (CLG)
	Households in fuel poverty	Shows an estimate of the number of households in Fuel Poverty. The definition of fuel poverty is based on the Low Income High Costs framework, where a household is in fuel poverty if a) their required fuel costs are above average (the national median level), and b) were they to spend that amount they would be left with an income below the official poverty line. The indicator is estimated using regional data from the English Housing Survey and modelling down to local areas based on characteristics of the local area. Rate calculated as = (Households living in fuel poverty)/(Total households)*100	Department for Business, Energy and Industrial Strategy
Personal Safety	Burglary	Shows 12 month total of neighbourhood-level burglaries, and as a rate per 1,000 households. Burglary is defined using a series of National Crime Recording System codes covering different types of this crime. The incidents were located to the point at which they occurred and allocated to the appropriate output area and lower super output area (LSOA). Rate calculated as = (Burglary recorded offences)/(All households (census KS402))*1000 Note: Police.uk crime counts were not recorded for Cambridgeshire or Gloucestershire for May 2018, so data is missing for areas covered by in these police forces for this time point.	Police UK
	Drug crime	Shows 12 month total of neighbourhood-level incidents of drug crime, and as a rate per 1,000 residents. The incidents were located to the point at which they occurred and allocated to the appropriate output area and lower super output area (LSOA). Rate calculated as = (Drug crime offences)/(Total population)*1000 Note: Police.uk crime counts were not recorded for Cambridgeshire or Gloucestershire for May 2018, so data is missing for areas covered by in these police forces for this time point.	Police UK
	Weapon possession	Shows 12 month total of neighbourhood-level incidents of possession of weapons, and as a rate per 1,000 residents. The incidents were located to the point at which they occurred and allocated to the appropriate output area and lower super output area (LSOA). Rate calculated as = (Possession of weapons offences)/(Total population)*1000	Police UK
	Total offences	Shows 12 month total of neighbourhood-level incidents of criminal offences, and as a rate per 1,000 residents. The incidents were located to the point at which they occurred and allocated to the appropriate output area and lower super output area (LSOA). Rate calculated as = (Total offences)/(Total population)*1000	Police UK

Foundations of Wellbeing			
Access to Basic Knowledge	Pupils achieving key stage 4 basics	Shows the proportion of pupils achieving 'the basics' at GCSE (Key Stage 4). A pupil obtains the 'basics' if they achieve an A*-C grade in English and mathematics GCSEs or iGCSEs. Figures are based on postcode of the pupils residence and derived from the School Census. KS4 is the National Curriculum standard test for pupils in year eleven (aged 15-16).	Department of Education
	Pupils achieving 'good level of development' at Early Years Foundation stage	Shows the proportion of pupils achieving a "good level of development" at Early Years Foundation stage (an assessment of pupils in foundation year at school (aged 4 to 5)). A pupil achieving 6 or more points across the 7 Scales of PSE and CLL and who also achieves 78 or more points across all 13 scales is classed as having "a good level of development".	Department of Education
	Persistent absentee pupils	Shows the proportion of pupils (in Primary and Secondary schools) who have been absent for 56 or more sessions during the year (around 15 per cent of overall absence) based on location of pupil residence.	Department of Education
	Adult skills and English language proficiency	The Indices of Deprivation (ID) 2015 Adult skills and English language proficiency indicator shows a non-overlapping count of those adults with no or low qualifications, and/ or who cannot speak English or cannot speak English 'well'. The adult skills indicator is the proportion of working-age adults (women aged 25 to 59 and men aged 25 to 64) with no or low qualifications. The English language proficiency indicator is the proportion of the working-age population (women aged 25 to 59 and men aged 25 to 64) who cannot speak English or cannot speak English 'well'. A non-overlapping count of those adults with no or low qualifications, and/ or who cannot speak English or cannot speak English 'well' was provided by the Office for National Statistics from Census 2011 data. The denominator was the number of working-age adults (women aged 25 to 59 and men aged 25 to 64) in the same area, again taken from the 2011 Census. Shrinkage was applied to the indicator. A higher score indicates that an area is experiencing high levels of deprivation.	Communities and Local Government (CLG)
Access to Information and Communications	Average download speed	Speeds actually being received in June 2020 based on the mean average. This may reflect consumer choice as well as line quality, since users sometimes have access to packages offering higher speeds than those they are actually receiving. This is a mean average, meaning that lines with high speeds (e.g. gigabit speeds) will have a disproportionate impact on the average.	Ofcom's Connected Nations 2020 report (via House of Commons Library)
	Superfast availability	The percentage of lines that were capable of receiving download speeds of at least 30 Mbps in September 2020 (this is Ofcom's definition of 'superfast' – the UK Government uses 24 Mbps as its definition). Superfast availability measures the speeds available to consumers in an area. It doesn't show the proportion of lines that are actually receiving superfast speeds, because consumers often need to subscribe to specific packages in order to receive superfast speeds.	Ofcom's Connected Nations 2020 report (via House of Commons Library)
	Receiving under 10 mbps	The percentage of lines receiving these speeds in June 2020. These lines may have access to higher speeds. However, a high percentage of lines receiving under 10 Mbps suggest that the speeds available to basic broadband subscribers are low and below Ofcom's threshold for 'decent broadband'.	Ofcom's Connected Nations 2020 report (via House of Commons Library)
	Receiving over 30 mbps	The percentage of lines actually receiving superfast speeds in June 2020. Note that this does not show what lines are capable of receiving. Some lines not receiving 30 Mbps have the option of faster speeds available to them.	Ofcom's Connected Nations 2020 report (via House of Commons Library)
Health and Wellness	Female healthy life expectancy at birth	Female healthy life expectancy at birth. Healthy life expectancy (HLE) is the average number of years that an individual might expect to live in "good" health in their lifetime. The 'good' health state used for estimation of HLE was based on self-reports of general health at the 2011 Census; specifically those reporting their general health as 'very good' or 'good' were defined as in 'Good' health in this context. The HLE estimates are a snapshot of the health status of the population, based on self-reported health status and mortality rates for each area in that period. They are not a guide to how long someone will actually expect to live in "good" health, both because mortality rates and levels of health status are likely to change in the future, and because many of those born in an area will live elsewhere for at least part of their lives.	Office for National Statistics (ONS) (http://www.localhealth.org.uk/)
	Diabetes prevalence*	Shows the estimated percentage of Diabetes prevalence.	House of Commons Library
	Asthma prevalence*	Shows the estimated percentage of asthma prevalence	House of Commons Library
	Depression prevalence*	Shows the estimated percentage of depression prevalence	House of Commons Library
Environmental Quality	Access to private outdoor space	The proportion of addresses with access to private outdoor space (for both houses and flats). Data is based on analysis of Ordnance Survey (OS) data on access to private gardens, public parks and playing fields in Great Britain, available by country, region, Local Authority and Middle Layer Super Output Area. Rate calculated as = (Addresses with private outdoor space)/(Total addresses)*100	Ordnance Survey 2020 via ONS
	PM2.5 Concentration	Annual average level of concentration of PM2.5	London Atmospheric Emissions Inventory (LAEI)
	NO2 Concentration	Annual average level of concentration of NO2	London Atmospheric Emissions Inventory (LAEI)

* The estimate is calculated based on the number of people listed on GP registers in 2017/18, and the number of people recorded as having the relevant health conditions. The data from England's GP practices was published by NHS digital. Please note that these are only estimates and that they are sensitive to the accuracy of GP data reporting. For some conditions (e.g. obesity and dementia), GP-recorded prevalence is lower than the proportion of people living with the condition.

Impact on Urban Health

Opportunity			
Personal Rights	Voter turnout	Shows the valid voter turnout (%) at the most recent Local Council Elections (between 2016 and 2019). There is some local variation in the frequency and date of Local Elections, with different parts of the country going to the polls at different times and with different levels of regularity. Caution should therefore be advised when drawing direct comparisons between local areas, as the socio-political context varies from year to year with associated impacts on turnout rates. Another factor affecting turnout is whether the local election is concurrent with other elections (for example turnout is generally higher when General Elections coincide with Local Elections). Frequency can also have an impact on turnout with a risk of electoral fatigue in areas required to re-elect councillors on an annual basis. Because the electoral cycle varies in different parts of the country (with associated impacts on turnout) we have adjusted turnout figures from previous years either upwards or downwards to the 2018 average, to reflect variation in turnout across different years. For example if turnout was 30% in 2017 and 35% in 2018 then each area in 2017 would be revised upwards using the following calculation $35/30 = 1.166 * 2017$ turnout.	Electoral Commission (https://www.electoralcommission.org.uk/our-work/our-research/electoral-data)
	Racially aggravated crime	Number of public offences classified as "Racially or Religiously Aggravated Public Fear" per 1000 population	London Datastore https://data.london.gov.uk/dataset/recorded_crime_summary
	Public order offences	Shows 12 month total of neighbourhood-level incidents of public order offences, and as a rate per 1,000 residents. The incidents were located to the point at which they occurred and allocated to the appropriate output area and lower super output area (LSOA). Rate calculated as = (Public order offences)/(Total population)*1000	Police UK
Personal Freedom and Choice	People living with limiting illness	Shows the proportion of residents aged 16-64 with a limiting long-term illness.	Census
	Access to transportation index	Public Transport Accessibility Levels (PTALs) was used to calculate an average Access Index for all LSOAs within the same MSOA- A higher index corresponds to better access to transport	Transport for London
	Youth unemployment gap	Gap between the proportion of job seeker allowance and universal credit claimants age 18-24 and the proportion of all job seeker allowance and universal credit claimants aged 16-64 Unemployment benefit all ages (JSA and Universal Credit) (November 2020) Shows the proportion of people receiving benefits payable to people who are unemployed receiving either Jobseekers Allowance (JSA) or Universal Credit for those who are out of work. This has replaced the number of people claiming Jobseeker's Allowance as the headline indicator of the number of people claiming benefits principally for the reason of being unemployed and is sometimes referred to as the monthly claimant count. JSA is payable to people under pensionable age who are out of work and available for, and actively seeking, work of at least 40 hours a week. Please note, there are differences in conditionality rules and eligibility criteria between Universal Credit and Jobseeker's Allowance. The phased roll-out of Universal Credit across the country, means that these differences in eligibility and conditionality affect geographical places differentially depending on how advanced the roll out is in that area. Until Universal Credit is fully rolled out, it is not possible to get a consistent measure of unemployment benefit claimant rate. Furthermore, the Universal Credit 'searching for work' conditionality group includes some individuals who would not have been previously eligible for Jobseeker's Allowance under the old benefits system e.g. those with work limiting illness awaiting a Work Capability Assessment - see https://www.gov.uk/government/consultations/proposals-for-a-new-statistical-series-to-count-unemployed-claimants for more details. Rate calculated as = (Unemployment benefit claimants (Jobseekers Allowance and out of work Universal Credit claimants))/(Population aged 16-64)*100	Department for Work and Pensions (DWP)
Inclusiveness	Active and Engaged Community score	The Community Needs Active and Engaged Community score measures the levels of third sector civic and community activity and barriers to participation and engagement. It shows whether charities are active in the area, and whether people appear to be engaged in the broader civic life of their community.	Oxford Consultants for Social Inclusion (OCSI) and Local Trust
	Community needs score	The Community Needs Index was developed to identify areas experiencing poor community and civic infrastructure, relative isolation and low levels of participation in community life. The index was created by combining a series of 19 indicators, conceptualised under three domains: Civic Assets, Connectedness and Active and Engaged Community. A higher score indicates that an area has higher levels of community need.	Oxford Consultants for Social Inclusion (OCSI) and Local Trust
	Connectedness score	The Community Needs Connectedness score measures the connectivity to key services, digital infrastructure, isolation and strength of the local jobs market. It looks at whether residents have access to key services, such as health services, within a reasonable travel distance. It considers how good public transport and digital infrastructure are and how strong the local job market is.	Oxford Consultants for Social Inclusion (OCSI) and Local Trust
Access to Advanced Education	Participation in higher education	Shows the combined participation rates of those who entered higher education between the academic years 2009-10 and 2013-14 if they entered aged 18, or between 2010-11 and 2014-15 if they entered aged 19 as a proportion of the whole young person population cohort during those years. More information on the geographical classification can be found in the POLAR4 report on the HEFCE website. The numerator in this participation rate calculation is the combined cohort young entrant estimate entering Higher Education aged 18 in 2009-10 and 2013-14 and 19 in 2010-11 and 2014-15 (taken from HESA student records / Individualised Learner Records supplied by the Data Service / FES data provided by the Scottish Funding Council). The denominator is the total combined cohort young population estimate during the same year. Data is estimated at MSOA level and then converted to other geographies. Due to the inherent variability involved in the estimation of MSOA-level entrants and populations 130 MSOAs have participation rates which are estimated to be greater than 100 per cent. The rates in these MSOAs have been capped at 100 per cent. Entrant estimates along with population and participation rates for MSOAs with populations of less than 20 or less than 10 entrants have been omitted to prevent the identification of individuals.	Office for Students (OFS) (https://www.officeforstudents.org.uk/data-and-analysis/polar-participation-of-local-areas/)
	Participation of state school pupils in higher education	Shows the percentage of state school pupils in higher education. The data is recorded as the proportion of the 16 year old state-funded mainstream school pupils in the MSOA who sat their GCSEs in the summer of 2010 to 2014 that were in higher education at the age of 18 or 19. The denominator is the total number of Key Stage 4 pupils living in the MSOA, rounded to the nearest 5. Further information on how TUNDRA is calculated can be found here: https://www.officeforstudents.org.uk/data-and-analysis/young-participation-by-area/about-the-data/	Office for Students (OFS) (https://www.officeforstudents.org.uk/data-and-analysis/polar-participation-of-local-areas/)
	Highest level of qualification: Level 4/5 qualifications	Shows the proportion of adults (aged 16+) with qualification levels at level 4 or higher. The highest level of qualification variable was derived from responses in the 2011 Census to both the educational and vocational qualifications question, and the professional qualifications question. Level 4+ qualifications include Level 4/5: First degree, Higher degree, NVQ levels 4 and 5, HNC, HND, Qualified Teacher status, Qualified Medical Doctor, Qualified Dentist, Qualified Nurse, Midwife, Health Visitor Other qualifications/level unknown: Other qualifications (e.g. City and Guilds, RSA/OCR, BTEC/Edexcel), Other Professional Qualifications. Rate calculated as = (Level 4 qualifications and above (census KS501))/(All usual residents aged 16 and over)*100	Census

Annex 3: Data Availability

Dimension/component	Indicator Name	Year
Basic Human Needs		
Nutrition and Basic Medical Care	Low birth weight	2011-2015
	Obesity in adults	2006-2008
	Obesity in Children - Year 6	2015/16-2017/18
	Obesity in Children - Reception	2015/16-2017/18
	Deaths under 65	2011-2015
Water and Sanitation	Overcrowding	2011
	Houses in poor condition	2015
	Food hygiene rating	2019
Shelter	Vacant dwellings	2017
	Energy efficiency	2009 to 2016
	Households in fuel poverty	2017
Personal Safety	Burglary	2018-2019
	Drug crime	2018-2019
	Weapon possession	2018-2019
	Total offences	2018-2019
Foundations of Wellbeing		
Access to Basic Knowledge	Pupils achieving key stage 4 basics	2013-2014
	Pupils achieving 'good level of development' at Early Years Foundation stage	2013-2014
	Persistent absentee pupils	2013-2014
	Adult skills and English language proficiency	2011
Access to Information and Communications	Average download speed	2019
	Superfast availability	2019
	Receiving under 10 mbps	2019
	Receiving over 30 mbps	2019
Health and Wellness	Female healthy life expectancy at birth	2009-2013
	Diabetes prevalence	2017-2018
	Asthma prevalence	2017-2018
	Depression prevalence	2017-2018
Environmental Quality	Access to private outdoor space	2020
	PM2.5 Concentration	2016
	NO2 Concentration	2016
Opportunity		
Personal Rights	Voter turnout	2016-2019
	Racial aggravated crime	2018-2020
	Public order offences	2018-2019
Personal Freedom and Choice	People living with limiting illness	2011
	Access to transportation index	2015
	Youth unemployment gap	2020
Inclusiveness	Active and Engaged community score	2019
	Community needs score	2019
	Connectedness score	2019
Access to Advanced Education	Participation in higher education	2009-2015
	Participation of state school pupils in higher education	2012-2018
	Highest level of qualification: Level 4/5 qualifications	2011

Annex 4: Weighting

Dimension/component	Indicator Name	Weight	Scaled Weight
Basic Human Needs			
Nutrition and Basic Medical Care	Low birth weight	0.22	0.18
	Obesity in adults	0.26	0.21
	Obesity in Children - Year 6	0.25	0.21
	Obesity in Children - Reception	0.26	0.21
	Deaths under 65	0.23	0.19
Water and Sanitation	Overcrowding	0.36	0.25
	Houses in poor condition	0.48	0.34
	Food hygiene rating	0.58	0.41
Shelter	Vacant dwellings	0.36	0.30
	Energy efficiency	0.42	0.35
	Households in fuel poverty	0.41	0.34
Personal Safety	Burglary	0.25	0.22
	Drug crime	0.30	0.26
	Weapon possession	0.28	0.24
	Total offences	0.32	0.28
Foundations of Wellbeing			
Access to Basic Knowledge	Pupils achieving key stage 4 basics	0.34	0.26
	Pupils achieving 'good level of development' at Early Years Foundation stage	0.35	0.27
	Persistent absentee pupils	0.32	0.24
	Adult skills and English language proficiency	0.31	0.23
Access to Information and Communications	Average download speed	0.28	0.23
	Superfast availability	0.33	0.27
	Receiving under 10 mbps	0.25	0.21
	Receiving over 30 mbps	0.35	0.29
Health and Wellness	Female healthy life expectancy at birth	0.33	0.26
	Diabetes prevalence	0.32	0.26
	Asthma prevalence	0.30	0.24
	Depression prevalence	0.31	0.25
Environmental Quality	Access to private outdoor space	0.35	0.33
	PM2.5 Concentration	0.36	0.33
	NO2 Concentration	0.37	0.34
Opportunity			
Personal Rights	Voter turnout	0.30	0.26
	Racial aggravated crime	0.43	0.37
	Public order offences	0.43	0.37
Personal Freedom and Choice	People living with limiting illness	0.34	0.27
	Access to transportation index	0.44	0.36
	Youth unemployment gap	0.46	0.37
Inclusiveness	Active and Engaged Community score	0.42	0.35
	Community needs score	0.42	0.35
	Connectedness score	0.36	0.30
Access to Advanced Education	Participation in higher education	0.41	0.35
	Participation of state school pupils in higher education	0.37	0.32
	Highest level of qualification: Level 4/5 qualifications	0.38	0.33

Annex 5: High and Low Scores

Dimension/component	Indicator Name	Best Case	Worst Case
Basic Human Needs			
Nutrition and Basic Medical Care	Low birth weigh	0.4	11.9
	Obesity in adults	5.9	35
	Obesity in Children - Year 6	3.9	40.6
	Obesity in Children - Reception	2	20.7
	Deaths under 65	41.818	214.468
Water and Sanitation	Overcrowding	0.01	0.515
	Houses in poor condition	0.031	0.325
	Food hygiene rating	0	0.42
Shelter	Vacant dwellings	0	8.152
	Energy efficiency	86	36.9
	Households in fuel poverty	1.9	16.928
Personal Safety	Burglary	0	55.115
	Drug crime	0	34.192
	Weapon posession	0	4.199
	Total offences	0	504.505
Foundations of Wellbeing			
Access to Basic Knowledge	Pupils achieving key stage 4 basics	90.72	34.64
	Pupils achieving 'good level of development' at Early Years Foundation stage	93	32.8
	Persistent absentee pupils	1.04	8.845
	Adult skills and English language proficiency	0.05	0.442
Access to Information and Communications	Average download speed	100	34.210
	Superfast availability	1	0.630
	Receiving under 10 mbps	0	0.510
	Receiving over 30 mbps	1	0.360
Health and Wellness	Female healthy life expectancy at birth	78	46
	Diabetes prevalence	2.723	9.984
	Asthma prevalence	2	6.234
	Depression prevalence	3.1	11.337
Environmental Quality	Access to private outdoor space	100	24.395
	PM2.5 Concentration	10	17.031
	NO2 Concentration	36	55.942
Opportunity			
Personal Rights	Voter turnout	82.480	0
	Racial aggrevated crime	0	1
	Public order offences	0	29.489
Personal Freedom and Choice	People living with limiting illness	4.477	19.447
	Access to transportation	40	0
	Youth unemployment gap	-1	10
Inclusiveness	Active and Engaged Community score	0	75
	Community needs score	0	100
	Connectedness score	0	75
Access to Advanced Education	Participation in higher education	100	5.6
	Participation of state school pupils in higher education	100	0
	Highest level of qualification: Level 4/5 qualifications	71.400	4.8