# Neighbourhood characteristics and young people's wellbeing in Greater Manchester

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EDUCATION POLICY INSTITUTE

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Our experienced and dedicated team works closely with academics, think tanks, and other research foundations and charities to shape the policy agenda.

# About the author

**Whitney Crenna-Jennings** is Associate Director for Mental Health and Wellbeing at EPI. Prior to joining EPI in 2017, she was involved with several research projects focused on health inequalities and social determinants of health at University College London, Public Health England and FPA UK. At EPI, she has led on research exploring access to child and adolescent mental health services, drivers of young people's wellbeing and mental health, and the mobility and exclusion of vulnerable learners in the education system.

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# Executive summary

This report written by EPI for Policy@Manchester uses publicly available data to explore neighbourhood correlates of young people's wellbeing measured by the #BeeWell programme. Launched in 2021, the programme includes an annual survey of young people in Greater Manchester which asks a series of questions about different domains and drivers of wellbeing; 37,713 young people in years 8 and 10 (aged 12-13 and 14-15) attending schools in the Greater Manchester Combined Authority completed the #BeeWell survey in 2021/22 and are included in this analysis.

We find that neighbourhood characteristics are significantly correlated to different domains or drivers of wellbeing:

- Young people's wellbeing and affect appear to be slightly negatively affected by higher levels of **income disparities** in their area, while their life satisfaction is not. Income and health deprivation were not found to be significantly related to wellbeing scores at the neighbourhood level; this could be related to any significant differences at LSOA-level being diluted at a larger, neighbourhood level.[1,2]
- More **health deprived** areas were associated with fewer young people reporting good health and more young people reporting experiences of discrimination related to a disability.
- Neighbourhood **crime risk** was associated with fewer young people reporting they felt safe or that people in their area were trustworthy.
- A higher **density of sports facilities** was associated with better self-reported physical health, higher engagement with physical activity, and more young people reporting there were things to do in their free time.
- A **higher density of charities** serving children and young people was weakly related to higher wellbeing at the neighbourhood level.

While correlation is not causation, this analysis provides insight into the direction and strength of the relationship between neighbourhood characteristics and young people's wellbeing outcomes in Greater Manchester. Combined with the existing literature, these findings suggest that the government should prioritise:

- *Ensuring opportunities for physical activity exist in all areas:* This is especially important given the impact of the pandemic and stark rise in childhood obesity in the last few years.
- *Ensuring that young people feel safe and a sense of belonging in their communities:* These findings suggest that young people's perceptions reflect objective risk, supporting the idea that neighbourhood social capital is an important driver of wellbeing.
- *Equitable access to community resources*: The findings that access to sports facilities and programmes or support delivered by charities is linked to wellbeing suggests that government should ensure that resources and places for young people to spend time and engage in social and physical activities are accessible across the country.
- *Addressing income disparities:* While the wider body of evidence is conclusive that low income drives poor childhood outcomes, we find that young people's perceptions of income disparities are related to low wellbeing. Taken together, the literature suggests that a cross-government child poverty reduction strategy is urgently needed, particularly in the context of the current cost-of-living crisis.

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[1] Kwan, Mei-Po. "The uncertain geographic context problem." *Annals of the Association of American Geographers* 102, no. 5 (2012): 958-968.

[2] Arcaya, Mariana C., Reginald D. Tucker-Seeley, Rockli Kim, Alina Schnake-Mahl, Marvin So, and S. V. Subramanian. "Research on neighborhood effects on health in the United States: A systematic review of study characteristics." *Social Science & Medicine* 168 (2016): 16-29.

- *Further research into the drivers of wellbeing:* Given the importance of wellbeing in childhood and adolescence to lifelong outcomes, researchers in and outside of government should further explore how place affects the different aspects of wellbeing, accounting for commonalities between young people in local areas, the impact of different factors at different ages, and long-term effects which stretch into adulthood.

# Introduction

This report uses publicly available data to explore neighbourhood correlates of young people's wellbeing measured by the #BeeWell programme. Launched in 2021, #BeeWell includes an annual survey of young people in Greater Manchester which asks a series of questions about different domains and drivers of wellbeing.

## Policy background

Improving young people's mental health and wellbeing is a stated priority for education and health policymakers. There is increasing recognition of the importance of mental health and wellbeing in childhood and adolescence for educational attainment, mental health in adulthood, and associated outcomes including employment, earnings, relationships, and life expectancy.

The government has launched a number of programmes in recent years: mental health support teams are currently being rolled out to groups of schools and colleges across the country, funding has been allocated for teacher training, new Relationships and Sex Education guidance covers mental and emotional health and wellbeing, and published data on child and adolescent mental health services is slowly improving. There is also a growing interest in monitoring wellbeing: the Department for Education began publishing an annual 'State of the Nation' report in 2018 which collates the latest evidence on children and young people's wellbeing over the previous academic year.

Design of the Covid-19 education recovery programme provided an opportunity to embed a long-term focus on wellbeing in schools. However, the final package of measures was focused primarily on academic tutoring to address learning loss, with funding falling short of what EPI research has deemed necessary to prevent gaps from widening.[3] Despite this, it became obvious to policymakers during discussions of the education recovery plan that they do not currently have access to reliable data on wellbeing and mental health in schools, meaning that the DfE could start to take more interest in consulting on such measures and encouraging their development.

## What we know about young people's wellbeing

Young people's wellbeing is a product of much more than access to support services – a consensus in the literature which is not fully reflected in the government's approach. Drivers of wellbeing include physical health, health behaviours and habits; relationships with family and peers, including negative experiences of bullying and discrimination; the built and social environment in which children live; and the impact of wider policies and inequalities, including benefits reform and poverty levels. This is reflected in the wide range of questions included in the #BeeWell survey, which was co-designed by young people in Greater Manchester.

The role of place in young people's wellbeing has generated increasing interest from researchers over recent years. Yet the evidence base is still relatively small and studies often do not account for the complex interplay between an individual and their surroundings. There is some international evidence linking neighbourhood disadvantage to poorer child development, including worse cognitive skills and school readiness, and an increased prevalence of mental health problems, after

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[3] Crenna-Jennings, Whitney, Natalie Perera, and Luke Sibieta. "Education recovery and resilience in England: Phase One report." Education Policy Institute (2021) https://epi.org.uk/publications-and-research/education-recovery-and-resilience-in-england-phase-two-report-october-2021/

accounting for individual and family determinants.[4] In the UK, community deprivation has been found to be independently associated with emotional and behavioural problems in young children.[5,6] How a young person perceives their socio-economic position relative to those around them has also been linked to poorer wellbeing outcomes in adolescents.[7]

According to the literature the relationship between area disadvantage and wellbeing operates through a number of routes, including community social capital, or the networks, norms, and institutions that shape social interaction in a community; collective efficacy; community resources, including access to green space and after school programmes or other activities that promote healthy child development; and school quality in school-aged children.[2]

There has also been some investigation of place-based 'drivers of the drivers' of wellbeing. For example, evidence reviews have found that access to facilities; distance from home to school; local crime levels; and aspects of the built environment are all significant correlates of physical activity in young people.[8,9]

Concerns about young people's wellbeing and mental health were amplified as a result of the pandemic and its attendant disruptions. Young people were confined to their homes and missed out on opportunities to socialise, be active, access support, and engage in enrichment activities for weeks or months at a time. Studies and anecdotal evidence from teachers indicate that the social, emotional and behavioural wellbeing of children and young people worsened during school closures.[10] Findings from DfE's latest State of the Nation report suggest that wellbeing has begun to recover, but the authors reiterate the stark inequalities which exist in wellbeing outcomes, notably for girls and young women.[11]

The #BeeWell programme, through its annual surveys of tens of thousands of young people, will provide a unique opportunity for researchers and policymakers to build on this evidence base and target the drivers of wellbeing in young people. This report, which looks at the first wave of #BeeWell data, provides early indications of the impact of neighbourhood characteristics on young people's wellbeing and wellbeing-related outcomes in 2021/22.

[4] Minh, Anita, Nazeem Muhajarine, Magdalena Janus, Marni Brownell, and Martin Guhn. "A review of neighborhood effects and early child development: How, where, and for whom, do neighborhoods matter?" Health & place 46 (2017): 155-174.

[5] Leckie, George. "The complexity of school and neighbourhood effects and movements of pupils on school differences in models of educational achievement." Journal of the Royal Statistical Society: Series A (Statistics in Society) 172, no. 3 (2009): 537-554.

[6] Sutherland, Alex, Sonia Ilie, and Anna Vignoles. Factors associated with achievement: Key Stage 2. Department for Education, 2015.

[7] Crenna-Jennings, Whitney. "Young people's mental and emotional health: Trajectories and drivers in childhood and adolescence." Education Policy Institute (2021).

[8] Biddle, Stuart JH, Andrew J. Atkin, Nick Cavill, and Charlie Foster. "Correlates of physical activity in youth: a review of quantitative systematic reviews." International review of sport and exercise psychology 4, no. 1 (2011): 25-49.

[9] Kärmeniemi, Mikko, Tiina Lankila, Tiina Ikäheimo, Heli Koivumaa-Honkanen, and Raija Korpelainen. "The built environment as a determinant of physical activity: a systematic review of longitudinal studies and natural experiments." Annals of behavioral medicine 52, no. 3 (2018): 239-251.

[10]https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1052920/SoN_2021-_executive_summary_220204.pdf

[11]https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1052920/SoN_2021-_executive_summary_220204.pdf

# Data and analysis

## Neighbourhood characteristics data

We used publicly available data covering the 1,694 Lower Level Super Output areas (LSOAs) in Greater Manchester for six domains:

- Income deprivation amongst children: we used the Income Deprivation Affecting Children Index (IDACI) or the proportion of children aged 0-15 living in income deprivation, collated as part of the Index of Multiple Deprivation by the Ministry of Housing, Communities and Local Government (MHCLG, now the Department for Levelling up, Housing and Communities) in 2019, the latest available year of data.
- Health deprivation: score derived by the MHCLG measuring the risk of premature death and the impairment of quality of life through poor physical or mental health.[12]
- Crime risk: score derived by MHCLG measuring the risk of personal and material victimisation at the local level.[11]
- Income disparity: we used IDACI scores at LSOA-level to generate neighbourhood-level scores for disparities in low income.
- Sports facilities: real-time data obtained on 04/07/2022 for LSOAs from Sport England[13]
- Charities which support children and young people: real time data by postcode obtained on 04/07/2022 from the Charity Commission for England and Wales, filtered by 'who the charity helps'.[14]

## #BeeWell data

The data captures 37,713 young people in years 8 and 10 (aged 12-13 and 14-15) attending schools in the Greater Manchester Combined Authority who completed the #BeeWell survey in 2021/22. This represents around 53 per cent of the population of young people in age groups covered by years 8 and 10 in Greater Manchester.[15]

Participants answered a series of questions about different domains and indicators of their wellbeing; all items and measures were derived from existing instruments or cohort studies.[16] Aggregated data are publicly available for each of the 67 neighbourhoods in Greater Manchester.[17] For this analysis, we chose to focus on a subset of outcomes which the literature suggests may be related to certain neighbourhood characteristics:

- **Wellbeing**, measured using the short Warwick-Edinburgh Mental Wellbeing Scale (SWEMWBS). Young people answered seven statements about thoughts and feelings on a 5-point Likert scale ('none of the time' to 'all of the time').
- **Life satisfaction**, rated on a 10-point Likert scale ('not at all satisfied' to 'completely')

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[12] https://www.gov.uk/government/publications/english-indices-of-deprivation-2019-technical-report
[13] Sport England 'Active Places' Open data (https://www.sportengland.org/know-your-audience/data)
[14] Charity Commission for England and Wales register of charities (https://register-of-charities.charitycommission.gov.uk/)
[15] We used 2020 ONS population estimates to calculate this proportion: https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/populationestimatesforukenglandandwalesscotlandandnorthernireland
[16] The full #BeeWell survey questionnaire is available here: https://gmbeewell.org/wp-content/uploads/2021/09/BeeWell-Questionnaires-Booklet.pdf
[17] The #BeeWell neighbourhood dashboard is available here: https://uomseed.com/beewell-neighbourhoods/2021/

- **Negative affect**, measured through a series of questions about negative feelings rated on a 3-point Likert scale ('always' to 'never')
- How often young people **feel lonely**, rated on a 5-point Likert scale ('often or always' to 'never')
- **Happiness with material things**, rated on a 10-point Likert scale ('very unhappy' to 'very happy')
- **Physical health**, rated on a 5-point Likert scale ('poor' to 'excellent')
- Frequency and duration of **physical activity** during the week
- How often young people are made to **feel bad because of a disability**, measured on a 5-point Likert scale ('always' to 'never')
- Whether they **feel safe** in the area where they live, rated on a 5-point Likert scale ('strongly agree' to 'strongly disagree')
- Whether they can **trust people** in their area, rated on a 5-point Likert scale ('strongly agree' to 'strongly disagree')
- How often they **play sports, do exercise, or other physical activities**, not in school ('most days' to 'never or almost never')
- Whether there are **good places to spend free time** (for example, leisure centres, parks, shops), rated on a 5-point Likert scale ('strongly agree' to 'strongly disagree')
- How often young people attend **youth clubs, scouts, girl guides or other organised activities** ('most days' to 'never or almost never')

## Data preparation

For the six neighbourhood domains, we generated scores by aggregating the LSOA-level data up to neighbourhood level. Scores for each neighbourhood are provided in Annex 1.

- For **income deprivation affecting children**, we weighted LSOA-level IDACI scores by the population of young people aged 0 to 15 in the LSOA and summed the weighted proportions across neighbourhoods
- For **health deprivation** and **crime risk** scores, we rescaled raw LSOA-level scores (which contained negative values) to a 1-5 scale and summed the population-weighted scores across neighbourhoods to generate neighbourhood-level health deprivation and crime scores
- For our measure of **disparity in low income**, we took the ratio of the LSOA with the highest proportion of deprived children compared to the LSOA with the lowest proportion of deprived children for each neighbourhood
- For the **density of sports facilities**, we calculated the number per head using the latest ONS population estimates of young people aged 0 to 15 in Greater Manchester
- For **density of CYP charities**, we aggregated postcode-level data to neighbourhood level and calculated the number per head using the latest ONS population estimates of young people aged 0 to 15 in Greater Manchester

To aggregate the data, we used a look-up file generated by #BeeWell analysts which uses a population-weighted approach to join LSOAs together within neighbourhood boundaries.[18]

For domains and drivers of wellbeing, we used the following metrics which match those used in the neighbourhood dashboard heatmap:

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[18] The approach adopts a point-within-polygon logic using the population-weighted centroid of the LSOA for the spatial join.

- Wellbeing, life satisfaction, loneliness, negative affect & happiness with material things: mean neighbourhood score
- Physical activity: proportion of young people in the neighbourhood who responded 'yes'
- Physical health: proportion who responded 'excellent', 'very good' or 'good'
- Play sports or exercise & attend youth clubs: proportion who responded 'often' or 'sometimes'
- Safety: proportion who responded they felt safe
- Trustworthy people: proportion who responded yes
- Things to do in free time: proportion who responded 'almost always' and 'often'
- Experiences of disability-related discrimination: proportion who responded 'often', 'sometimes' or 'occasionally'

## Testing correlations

We tested the strength and direction of relationships between the following neighbourhood characteristics and drivers and domains of young people's wellbeing measured through the #BeeWell survey (Table 2.1). We decided to test these correlations based on discussions with #BeeWell analysts and findings from the literature on young people's wellbeing.

**Table 2.1: Correlations tested in this analysis**

|  | Income deprivation | Health deprivation | Crime risk | Income disparities | Sports facilities | Charities |
|---|---|---|---|---|---|---|
| Wellbeing | ✓ | ✓ |  | ✓ |  | ✓ |
| Happiness with material things | ✓ |  |  | ✓ |  |  |
| Physical health |  | ✓ |  |  | ✓ |  |
| Discrimination based on disability |  | ✓ |  |  |  |  |
| Safe area to live |  |  | ✓ |  |  |  |
| Trustworthy people |  |  | ✓ |  |  |  |
| Physical activity |  | ✓ |  |  | ✓ |  |
| Play sports / do exercise |  |  |  |  | ✓ |  |
| Things to do in free time |  |  |  |  | ✓ |  |
| Life satisfaction |  |  |  | ✓ |  |  |
| Negative affect |  |  |  | ✓ |  |  |
| Go to youth clubs |  |  |  |  |  | ✓ |
| Loneliness |  |  |  |  |  | ✓ |

To do this, we calculated Spearman's correlation coefficients using ranked values for each pair of variables and generated p-values to test significance at the 0.05 level.

For the following #BeeWell variables, we did not include all neighbourhoods in the analysis due to data suppression. For example, some have been suppressed in line with ONS disclosure guidance because there were fewer than 10 respondents for at least one response category. This may reduce the statistical power, and therefore the likelihood of detecting a true effect, of these correlation calculations. The number of neighbourhoods included in the analysis are provided in parentheses:

- Disability-related discrimination (n=24)
- Area safety (n=56)
- Trustworthy people (n=60)
- Physical health (n=47)
- Physical activity (n=65)
- Play sports (n=60)

- Things to do in free time (n=30)
- Attend youth clubs (n=49)

We investigated data missingness and found that average scores for neighbourhood characteristics did not vary when we excluded the neighbourhoods with low response rates on these questions. We therefore did a complete case analysis.

Outliers were checked and in all but one case (Figures 3.16 and 3.17) included in the analyses as Spearman's is less sensitive to outliers than other approaches, and removing them did not significantly impact overall relationships. We also generated Pearson correlation coefficients using the raw data, given that the relationships between the pairs of variables approximated linearity; these were broadly similar to our Spearman coefficients with corresponding significance levels.

# Findings

Results of the correlation analysis are presented below. Correlation coefficients range from -1 (perfect negative correlation) to 1 (perfect positive correlation). A positive correlation coefficient (RHO) means an increase in one variable predicts an increase in the other; a negative RHO indicates an increase in one variable predicts a decrease in the other. There are different perspectives in the social sciences literature regarding what constitutes a weak, moderate or strong association. For this analysis, we label the correlations with coefficients of 0.30 or less weak and those with coefficients greater than 0.31 moderate.[19] We have also reported the coefficient of determination ($r^2$), which describes the proportion of variation in the independent variable that can be predicted from the dependent variable. Coefficients of determination range from 0 to 1, where a value of 1 means 100 per cent of the variation of the dependent variable is explained by the variation from the mean of the independent variable.

Each bubble represents one neighbourhood and the grey dotted trendline represents the direction of the relationship between the two variables.

Table 3.22 at the end of this section presents correlation coefficients for all pairs of variables tested.

## Income deprivation amongst children and young people

We tested correlations between the proportion of income-deprived children aged 0 to 15 and a) wellbeing and b) happiness with material things at the neighbourhood level:

**Figure 3.1: We did not find a significant correlation between neighbourhood income deprivation and mean wellbeing scores (RHO=0.08, $r^2$=.01, p=0.498)**
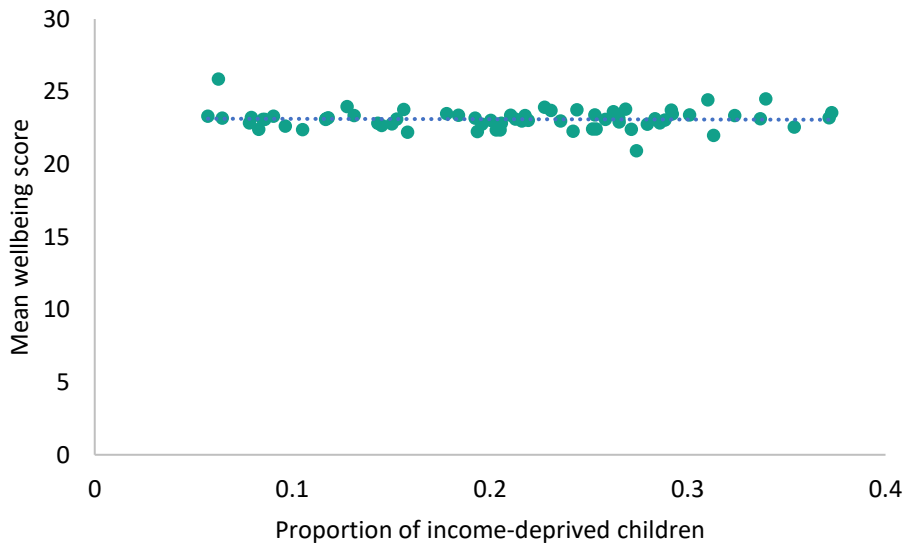
[19] Akoglu H. User's guide to correlation coefficients. Turk J Emerg Med. 2018 Aug 7;18(3):91-93. doi: 10.1016/j.tjem.2018.08.001. PMID: 30191186; PMCID: PMC6107969.

**Figure 3.2: We found a weak, negative correlation between neighbourhood income deprivation and levels of happiness with material things (RHO=-0.24, $r^2$ =.06, p=0.048)**
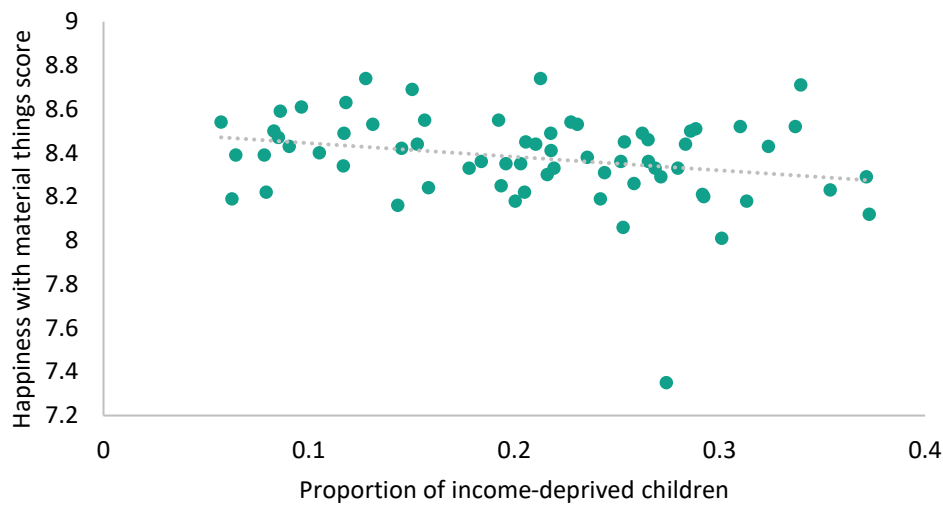


## Health deprivation

Next, we tested the relationship between neighbourhood health deprivation and a) wellbeing, b) experiences of disability-related discrimination, c) levels of physical activity and d) physical health:

**Figure 3.3: We did not detect a significant correlation between neighbourhood health deprivation and young people's wellbeing scores (RHO=0.06, $r^2$ =.004, p=0.658)**
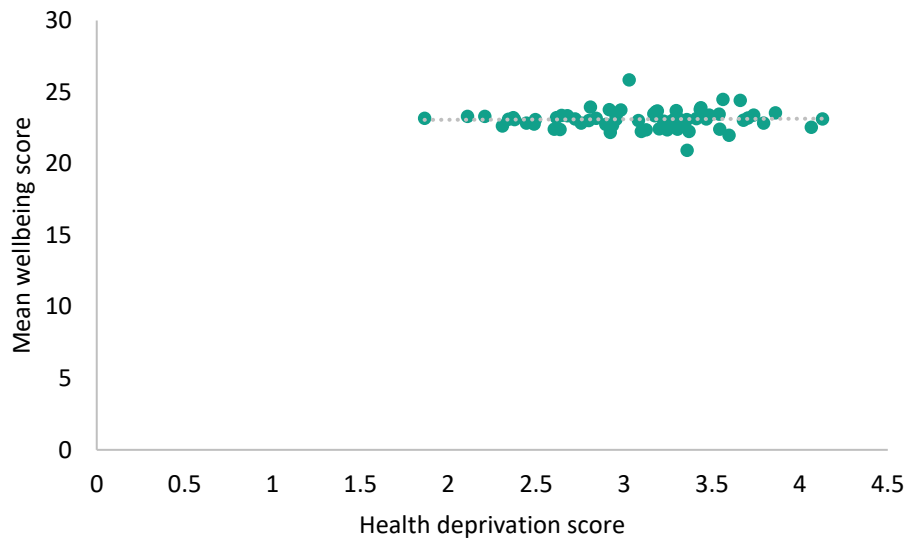
**Figure 3.4: We found a moderate, positive correlation between experiences of disability-related discrimination and health deprivation at the neighbourhood level (RHO=0.45, $r^2$ =.20, p=0.027)**
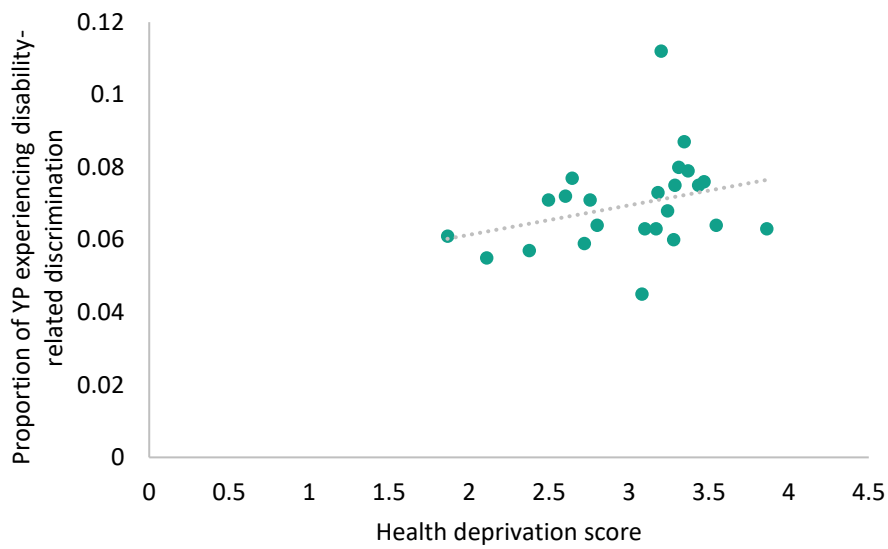


**Figure 3.5: We found a moderate, negative correlation between the proportion of young people who are physically active (> 1 hour per day of physical activity) and neighbourhood health deprivation score (RHO=-0.51, $r^2$ =.26, p<0.001)**
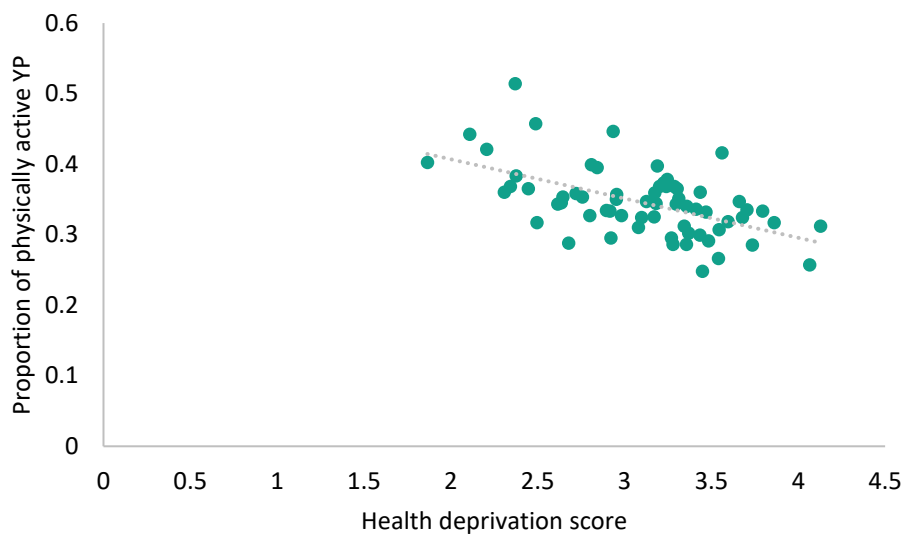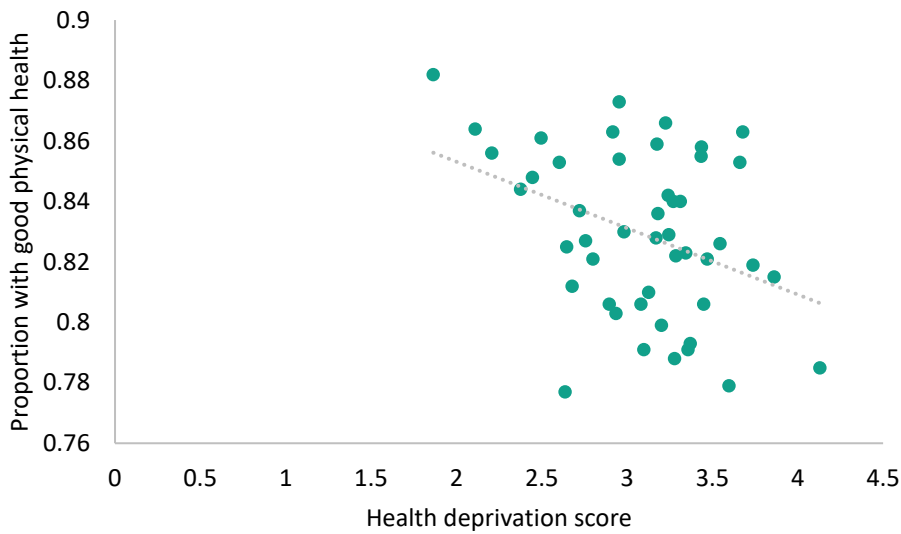
**Figure 3.6: We found a moderate, negative correlation between the proportion of young people reporting good physical health and neighbourhood health deprivation score (RHO=-0.30, $r^2$=.14, p=0.04)**



## Crime risk

We tested the relationship between neighbourhood crime risk scores and a) how safe young people feel in their area and b) whether they feel people in their area can be trusted:

**Figure 3.7: We found a moderate, negative correlation between the proportion of young people who report feeling safe in their area and neighbourhood crime risk score (RHO=-0.46, $r^2$=.21, p<0.001)**

**Figure 3.8: We also found a moderate, negative correlation between the proportion of young people who report that people in their area can be trusted and neighbourhood crime risk (RHO=-0.40, $r^2$ = .16, p=0.002)**
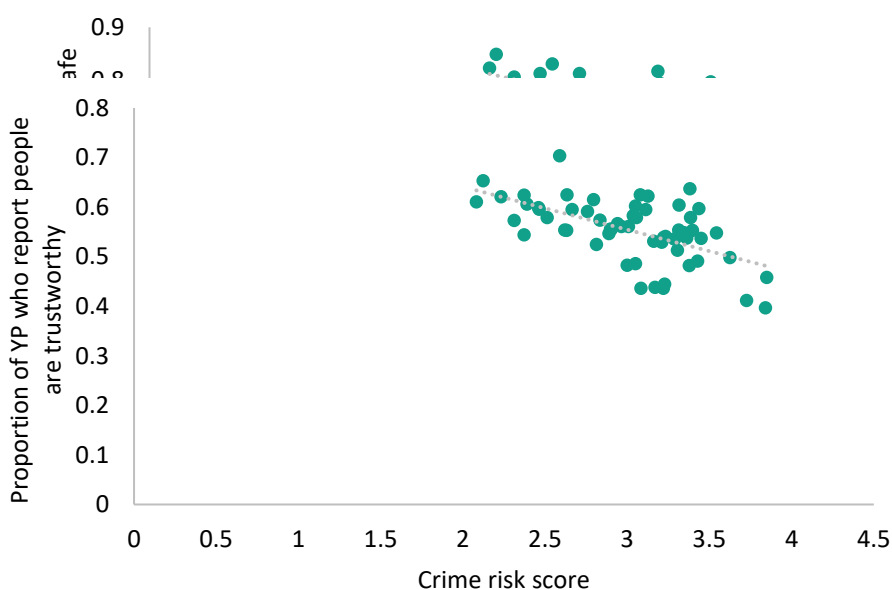
## Disparities in low income

We tested the relationship between our measure of neighbourhood income disparities and a) wellbeing, b) happiness with material things, c) life satisfaction, and d) negative affect:

**Figure 3.9: We did not find a significant correlation between young people's wellbeing and income disparity at the neighbourhood level (RHO=-0.20, $r^2$=.04, p=0.105)**
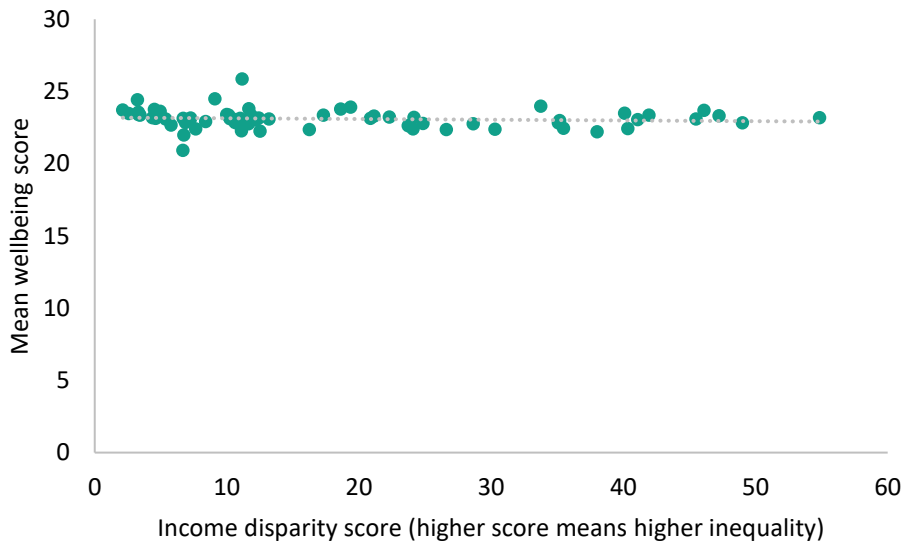


**Figure 3.10: We found a weak, positive correlation between happiness with material things and neighbourhood income disparity (RHO=0.26, $r^2$=.07, p=0.029)**
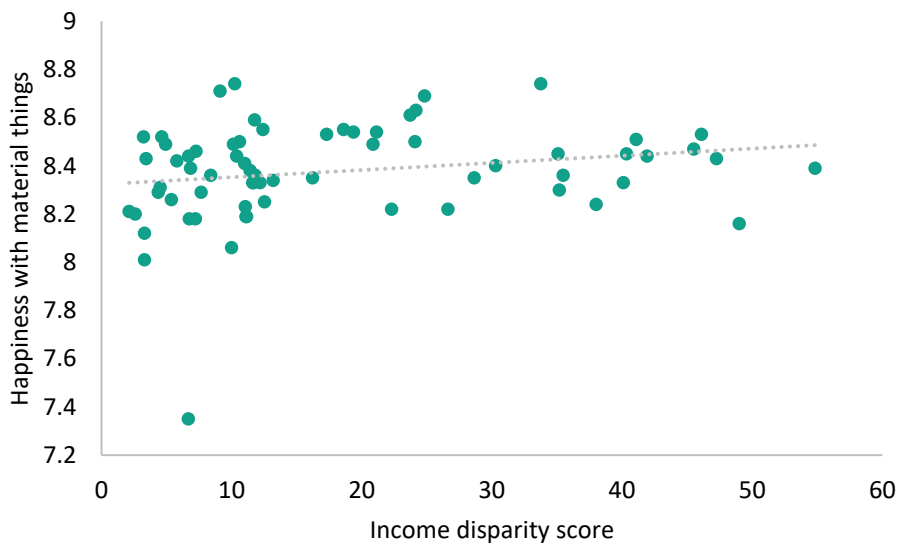
**Figure 3.11: We did not detect a significant correlation between life satisfaction and neighbourhood income disparity (RHO=0.12, $r^2$ =.01, p=0.349)**
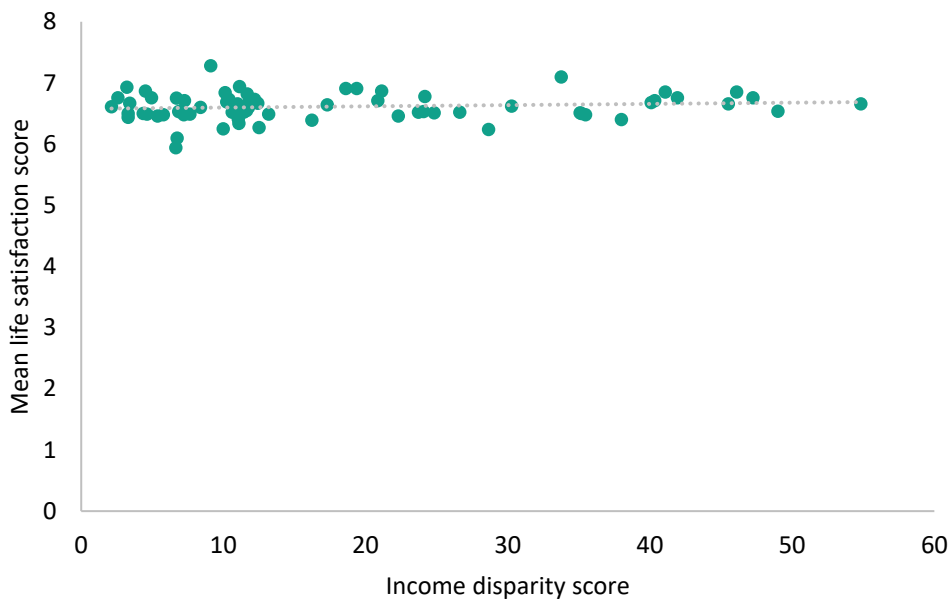


**Figure 3.12: We found a weak, positive correlation between negative affect and income disparity at the neighbourhood level (RHO=0.30, $r^2$=.09, p=0.015)**
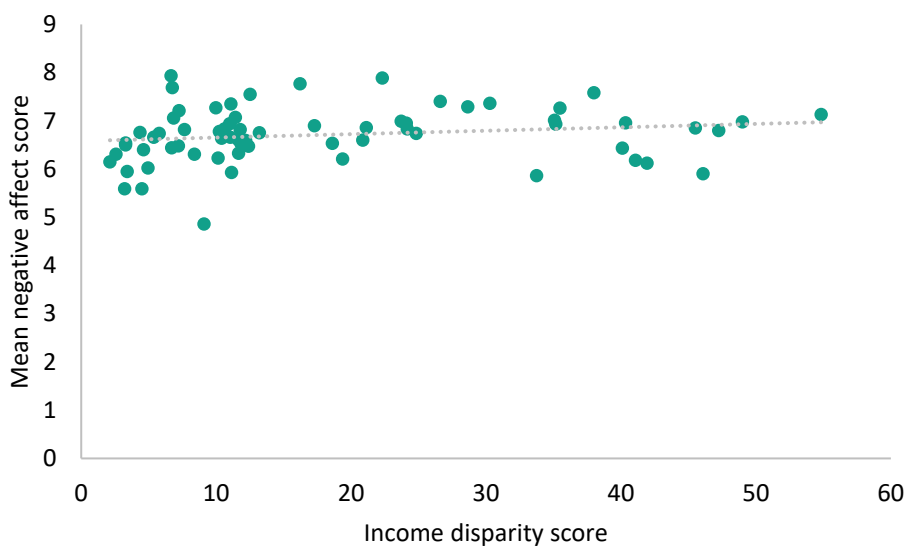


## Density of sports facilities

We tested the correlation between number of sports facilities per young person aged 0 to 15 and a) physical health, b) physical activity, c) frequency playing a sport and d) whether young people feel there are activities to do in their free time:

**Figure 3.13: We found a moderate, positive correlation between young people's self-reported physical health and the number of sports facilities in the neighbourhood (RHO=0.39, $r^2$ =.15, p=0.007)**
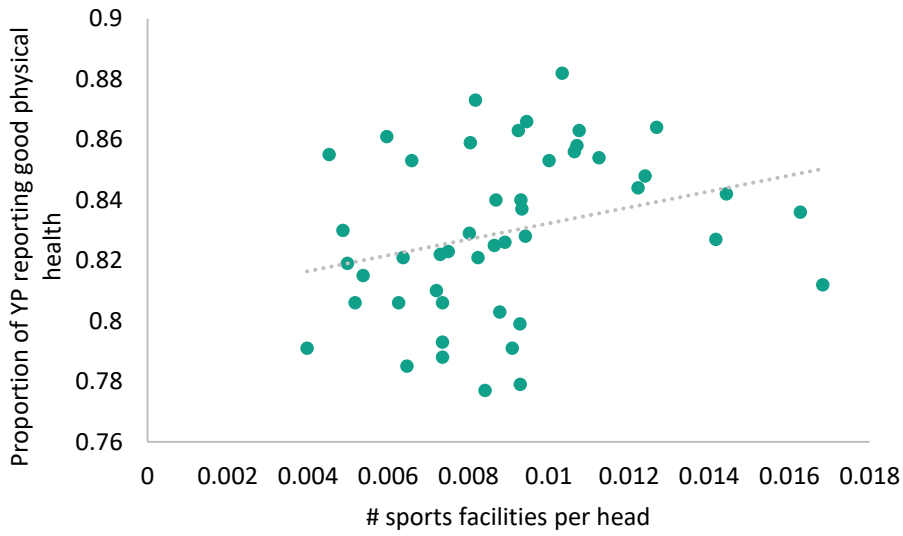


**Figure 3.14: We found a moderate, positive correlation between young people's level of physical activity and the number of sports facilities in the neighbourhood (RHO=0.45, $r^2$ = .20, p<0.001)**
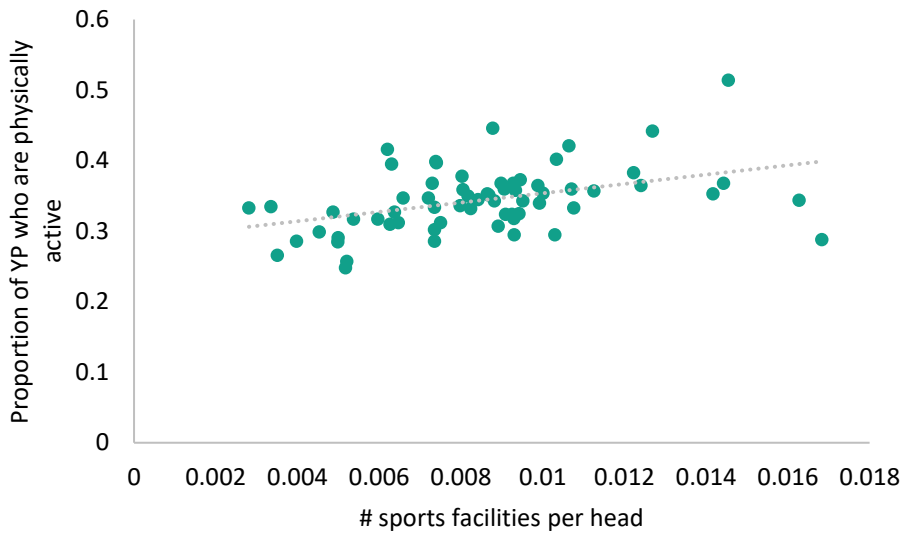
**Figure 3.15: We found a weak, positive correlation between frequency of playing sports and number of sports facilities in the neighbourhood (RHO=0.29, $r^2$=.08, p=0.026)**
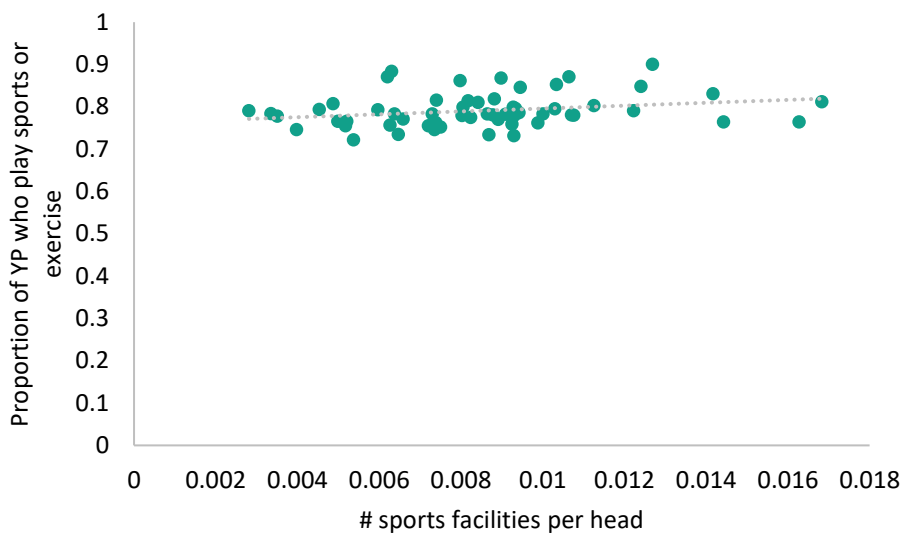


**Figure 3.16: We found a moderate positive correlation between young people reporting there are things to do in their free time and the number of facilities in the neighbourhood (RHO=0.44, $r^2$=.19, p=0.015)**
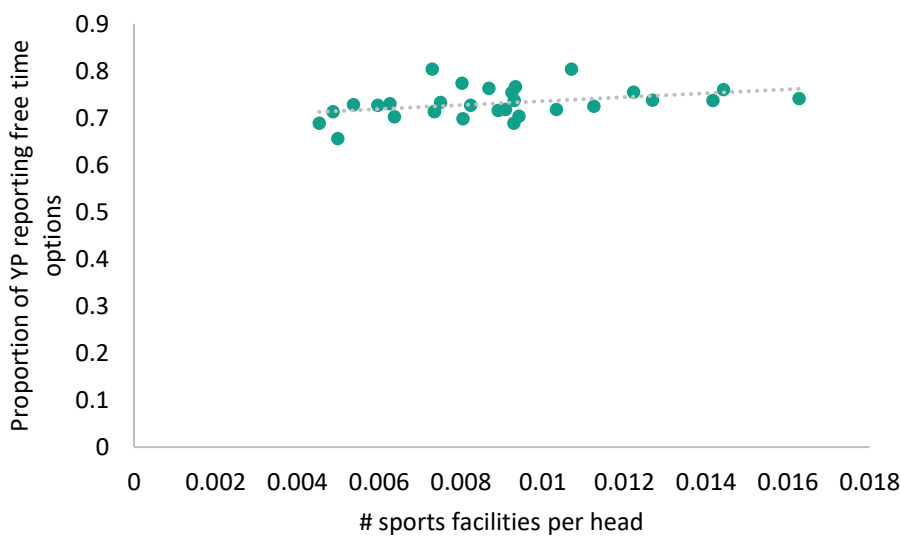


## Density of charities supporting children and young people

Finally, we tested the correlation between the number of charities supporting children and young people per head in the neighbourhood and a) wellbeing, b) loneliness and c) whether young people attend youth clubs:

**Figures 3.17 & 3.18: We found a weak, positive correlation between mean wellbeing scores and the number of charities in the neighbourhood (RHO=0.28, $r^2$ =.08, p=0.029). When we removed the outlying neighbourhood – City Centre, with a high charity density of 0.035 – from the analysis the relationship remained broadly similar in direction and magnitude but did not reach statistical significance at the 0.05 level (RHO=0.23, $r^2$ =.05, p=0.06)[20]**
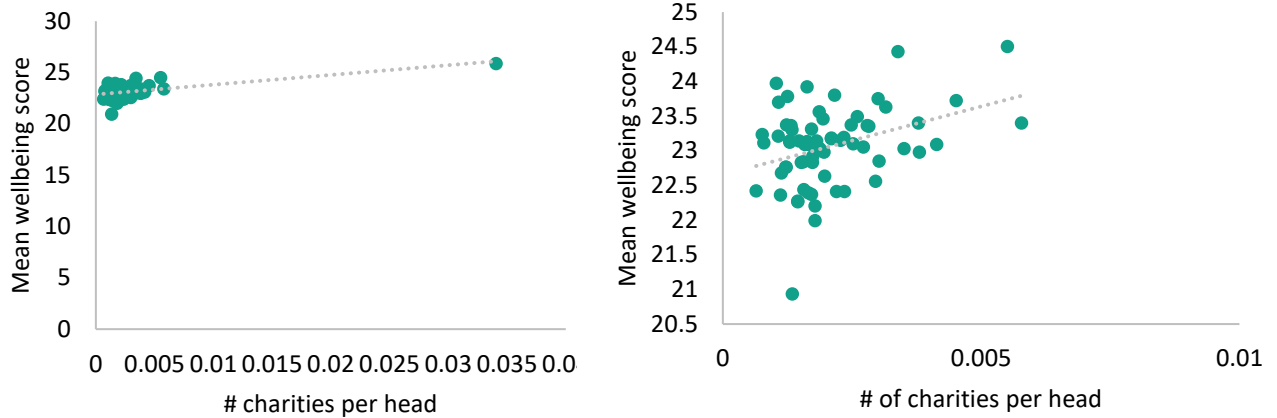


**Figures 3.19 & 3.20: We did not detect a significant relationship between levels of loneliness and the number of charities in the neighbourhood (RHO=-0.20, $r^2$=.04, p=0.873). The relationship was similar when we removed City Centre from the analysis.**



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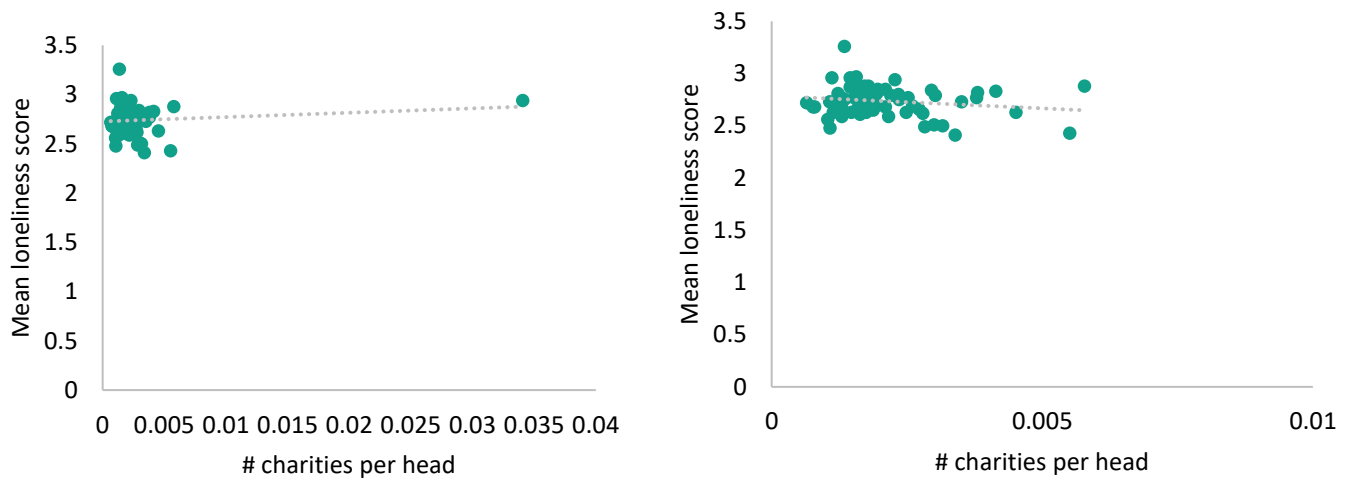
[20] The outlying bubble in the chart represents City Centre.

**Figure 3.21: We did not detect a significant relationship between young people's youth club attendance and the number of charities in the neighbourhood (RHO=-0.21, $r^2$=.04, p=0.145)**
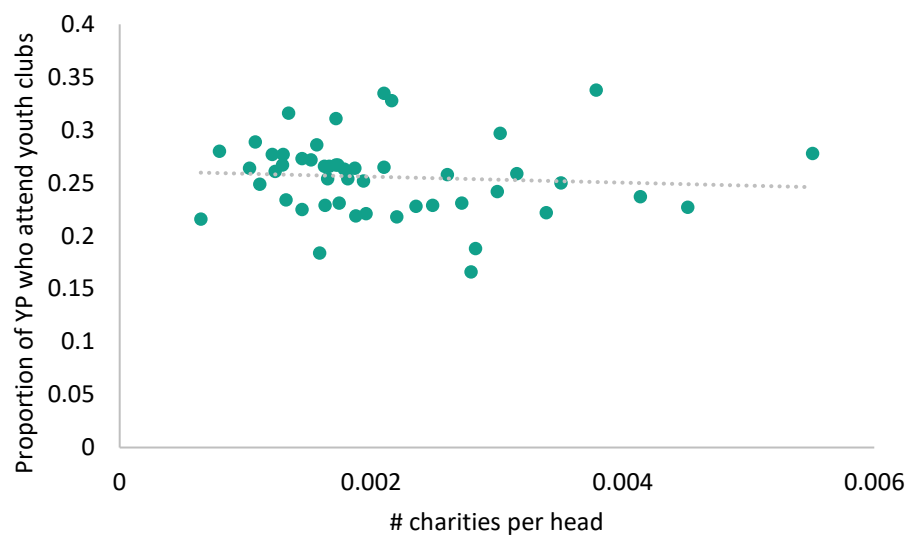
The table below summarises findings from the correlation analyses. A darker colour cell indicates a stronger relationship.

**Table 3.22: Correlation matrix for all pairs of variables tested**

| | Income deprivation | Health deprivation | Crime risk | Inequality | Sports facilities | Charities |
|---|---|---|---|---|---|---|
| Wellbeing | +0.08 | +0.06 | | -0.19 | | +0.28 |
| Happiness with material things | -0.24 | | | +0.26 | | |
| Physical health | | -0.30 | | | +0.39 | |
| Discrimination based on disability | | +0.45 | | | | |
| Safe area to live | | | -0.46 | | | |
| Trustworthy people | | | -0.40 | | | |
| Physical activity | -0.51 | | | | +0.45 | |
| Play sports / do exercise | | | | | +0.29 | |
| Things to do in free time | | | | | +0.44 | |
| Life satisfaction | | | | +0.12 | | |
| Negative affect | | | | +0.30 | | |
| Go to youth clubs | | | | | | -0.20 |
| Loneliness | | | | | | -0.21 |

# Discussion and policy recommendations

While correlation is not causation, this analysis provides insight into the direction and strength of the relationship between neighbourhood characteristics and young people's wellbeing outcomes in Greater Manchester. We find that most of the neighbourhood characteristics we explored are significantly related to different domains or drivers of wellbeing:

- Young people's wellbeing and mood appear to be slightly negatively related to higher disparities in income levels in their area, while life satisfaction was not. Income and health deprivation were not found to be significantly related to wellbeing scores at the neighbourhood level; this could be related to any significant differences at LSOA-level being diluted at a larger, neighbourhood level.
- More health deprived areas were associated with fewer young people reporting good health and more young people reporting experiences of discrimination related to a disability.
- Neighbourhood crime risk was associated with fewer young people reporting they felt safe or that people in their area were trustworthy.
- A higher density of sports facilities was associated with better self-reported physical health, higher engagement with physical activity, and more young people reporting there were things to do in their free time.
- A higher density of charities serving children and young people was weakly related to higher wellbeing at the neighbourhood level.

It is important to note the limitations of this analysis. First, because we do not control for other factors which may also play a role in these relationships, some of these correlations may appear stronger or weaker than they are in reality. For example, the positive outcomes associated with a higher density of sports facilities and charities may be related to the generally higher density of amenities and services in these areas. Second, our measure of income disparities does not fully account for differences between neighbourhoods; for example, a neighbourhood with income deprivation affecting children ranging from 5 per cent to 10 per cent would have the same score as one with a range of 20 per cent to 40 per cent. Additionally, while not explored in this analysis, it is likely that the impact of neighbourhood characteristics may vary depending on young people's individual characteristics. Despite this, this report provides a basis for more complex and conclusive analyses of the place-based drivers of wellbeing once further waves of #BeeWell data are released or if/when individual-level data is made available to external researchers.

Our findings chime with the wider literature on area-level determinants of young people's wellbeing and mental health, as explored in the introduction to this report. Given the importance of local factors, it is clear that policymakers must adopt a cross-government and multilevel approach, which takes into account local characteristics and needs, to effectively address deficits and inequalities in young people's wellbeing.

These early findings, in addition to the existing body of evidence, suggest that policymakers should prioritise:

- *Ensuring opportunities for physical activity exist in all areas:* This is especially important given the impact of the pandemic and stark rise in childhood obesity in the last few years.[21]

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[21] https://digital.nhs.uk/data-and-information/publications/statistical/national-child-measurement-programme/2020-21-school-year

- *Ensuring that young people feel safe and a sense of belonging in their communities:* These findings suggest that young people's perceptions reflect objective risk, supporting the idea that neighbourhood social capital is an important driver of wellbeing.
- *Equitable access to community resources*: The findings that access to sports facilities and programmes or support delivered by charities is linked to wellbeing suggests that government should ensure that resources and places for young people to spend time and engage in social and physical activities are accessible across the country.
- *Addressing income disparities:* The wider body of evidence is conclusive that low income drives poor childhood outcomes, and a growing number of studies, including this analysis, suggest that income disparities, and children's perceptions of these disparities, negatively impact wellbeing. A cross-government child poverty reduction strategy is urgently needed, particularly in the context of the current cost-of-living crisis.
- *Further research into the drivers of wellbeing:* Researchers in and outside of government should further explore how place affects the different aspects of wellbeing, accounting for commonalities between young people in local areas, the impact of different factors at different ages, and long-term effects which stretch into adulthood.

# Annex 1: Neighbourhood scores

| Neighbourhood | IDACI score | Health deprivation score | Crime risk score | Income disparity score | # of sports facilities | # of registered charities supporting CYP |
|---|---|---|---|---|---|---|
| Ancoats & Clayton, Clayton & Openshaw | 0.35 | 4.07 | 3.73 | 11.05 | 37 | 21 |
| Ardwick & Longsight | 0.30 | 3.74 | 3.38 | 3.29 | 50 | 38 |
| Baguley, Sharston & Woodhouse Park | 0.34 | 4.13 | 3.22 | 4.62 | 70 | 16 |
| Bramhall & Cheadle Hulme | 0.06 | 2.11 | 2.12 | 21.13 | 104 | 11 |
| Breightmet & Little Lever | 0.25 | 3.20 | 3.21 | 35.47 | 77 | 13 |
| Brooklands & Northenden | 0.29 | 3.79 | 3.26 | 10.62 | 18 | 10 |
| Broughton | 0.25 | 3.48 | 3.23 | 9.99 | 57 | 66 |
| Central & Great Lever | 0.29 | 3.30 | 3.34 | 2.13 | 59 | 28 |
| Central (St. Mary's, Alexandra and Coldhurst) | 0.32 | 3.45 | 3.45 | 3.41 | 64 | 35 |
| Cheadle, Gatley & Heald Green | 0.08 | 2.45 | 2.80 | 6.85 | 82 | 20 |
| Cheetham & Crumpsall | 0.27 | 3.43 | 3.54 | 11.67 | 44 | 21 |
| Chorley Roads | 0.21 | 2.95 | 3.13 | 41.92 | 69 | 21 |
| Chorlton, Whalley Range & Fallowfield | 0.22 | 3.23 | 3.11 | 35.17 | 77 | 31 |
| City Centre | 0.06 | 3.03 | 3.66 | 11.14 | 68 | 42 |
| Crompton & Halliwell | 0.31 | 3.66 | 3.44 | 3.22 | 33 | 17 |
| Didsbury, Burnage & Chorlton Park | 0.18 | 3.17 | 3.31 | 40.09 | 112 | 31 |
| East | 0.26 | 3.18 | 3.32 | 4.94 | 134 | 26 |
| East (Saddleworth, Lees, St James' and Waterhead) | 0.19 | 2.84 | 3.08 | 12.41 | 75 | 25 |
| Eccles and Irlam | 0.23 | 3.44 | 2.83 | 19.37 | 131 | 20 |
| Farnworth & Kearsley | 0.28 | 3.34 | 3.36 | 11.63 | 68 | 11 |
| Gorton, Abbey Hey & Levenshulme | 0.29 | 3.54 | 3.62 | 2.58 | 38 | 21 |
| Heatons | 0.09 | 2.34 | 2.83 | 45.50 | 57 | 16 |
| Heywood | 0.27 | 3.36 | 3.31 | 6.66 | 59 | 8 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Horwich | 0.13 | 2.68 | 2.63 | 17.29 | 89 | 7 |
| Hr Blackley, Charlestown & Harpurhey | 0.37 | 3.86 | 3.85 | 3.29 | 69 | 24 |
| Hulme, Moss Side & Rusholme | 0.34 | 3.56 | 3.38 | 9.10 | 63 | 56 |
| Ince, Hindley, Abram, Platt Bridge | 0.21 | 3.29 | 2.97 | 10.24 | 92 | 10 |
| Leigh | 0.25 | 3.30 | 3.23 | 40.33 | 92 | 6 |
| Lowton and Golborne | 0.12 | 2.72 | 2.31 | 20.86 | 72 | 14 |
| Marple | 0.08 | 2.37 | 2.26 | 22.30 | 57 | 3 |
| Middleton | 0.24 | 3.27 | 3.16 | 11.42 | 95 | 20 |
| Moston, Miles Platting & Newton Heath | 0.37 | 3.70 | 3.84 | 4.36 | 30 | 21 |
| North | 0.10 | 2.31 | 2.37 | 23.71 | 69 | 15 |
| North (Royton, Shaw and Crompton) | 0.15 | 2.95 | 3.05 | 10.39 | 78 | 9 |
| Offerton & Hazel Grove | 0.11 | 2.64 | 2.51 | 30.27 | 56 | 11 |
| Old Moat & Withington | 0.27 | 3.41 | 3.53 | 7.26 | 35 | 10 |
| Ordsall and Claremont | 0.29 | 3.68 | 3.08 | 41.08 | 85 | 25 |
| Pennines | 0.15 | 2.93 | 2.89 | 5.78 | 54 | 7 |
| Prestwich | 0.12 | 2.50 | 2.63 | 13.19 | 49 | 34 |
| Rochdale Central | 0.28 | 3.47 | 3.40 | 6.70 | 70 | 11 |
| Rochdale East | 0.26 | 3.36 | 3.43 | 5.37 | 35 | 14 |
| Rochdale West | 0.22 | 3.17 | 3.29 | 10.13 | 72 | 25 |
| Rumworth | 0.24 | 2.98 | 3.39 | 4.51 | 47 | 29 |
| South (Failsworth, Hollinwood and Medlock Vale) | 0.27 | 3.28 | 3.31 | 8.40 | 80 | 19 |
| South Wigan and Ashton North | 0.13 | 2.81 | 2.59 | 33.75 | 50 | 7 |
| Swinton | 0.22 | 3.31 | 2.90 | 11.00 | 64 | 12 |
| Tame Valley | 0.31 | 3.60 | 3.17 | 6.74 | 78 | 15 |
| Tameside East | 0.20 | 3.13 | 2.94 | 16.23 | 84 | 13 |
| Tameside Glossop | 0.15 | 2.49 | 1.77 | 24.82 | 68 | 1 |
| Tameside North | 0.27 | 3.54 | 3.29 | 7.65 | 97 | 24 |
| Tameside South | 0.24 | 3.37 | 3.05 | 11.09 | 76 | 15 |
| Tameside West | 0.19 | 3.10 | 3.00 | 12.51 | 119 | 19 |
| Trafford Central | 0.09 | 2.21 | 2.39 | 47.25 | 130 | 21 |
| Trafford North | 0.20 | 2.80 | 2.62 | 7.21 | 69 | 38 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Trafford South | 0.06 | 1.86 | 2.23 | 54.83 | 177 | 36 |
| Trafford West | 0.14 | 2.76 | 2.37 | 49.00 | 149 | 16 |
| Turton | 0.09 | 2.38 | 2.47 | 11.77 | 66 | 9 |
| Tyldesley and Atherton | 0.16 | 2.92 | 2.76 | 18.60 | 103 | 12 |
| Victoria | 0.20 | 3.25 | 3.04 | 26.61 | 98 | 21 |
| Walkden and Little Hulton | 0.23 | 3.19 | 3.01 | 46.09 | 96 | 14 |
| Werneth | 0.16 | 2.92 | 2.81 | 38.00 | 52 | 9 |
| West | 0.20 | 2.90 | 2.90 | 28.64 | 66 | 11 |
| West (Chadderton and Werneth) | 0.22 | 3.08 | 3.22 | 12.19 | 70 | 21 |
| Westhoughton | 0.12 | 2.62 | 2.46 | 24.17 | 41 | 5 |
| Whitefield | 0.18 | 2.65 | 2.66 | 11.82 | 49 | 7 |
| Wigan Central | 0.21 | 3.24 | 3.06 | 35.08 | 158 | 19 |
| Wigan North | 0.08 | 2.60 | 2.08 | 24.08 | 51 | 12 |