



Inequalities in Life Expectancy and Healthy Life Expectancy:

Insights from 2021 Census

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Summary and implications

- **Life Expectancy** and **Healthy Life Expectancy** are key measures of overall population health
- Life expectancy in Tower Hamlets overall has improved, but faster in less-deprived areas of TH. The gap between most- and least-deprived groups has grown. Males in the most deprived areas of Tower Hamlets live 8.8 years shorter, and females 6.3 years shorter, than those in the least deprived areas of the borough. This gap is driven by particular clinical conditions.
- Healthy Life Expectancy has improved for males, but for females remains much below regional averages. Females live 7.5 years less, on average than males.
- The sex differential in Healthy Life Expectancy is larger in Asian and Mixed ethnic groups. It is driven primarily by larger numbers of long-term unemployed females in TH than elsewhere.

Implications:

- Understanding the reasons behind differences in population metrics can help target our efforts to reduce health inequalities.
- Priorities for addressing gaps in **Life Expectancy** are the key conditions reflected in the CORE20+5 framework.
- Priorities for addressing sex differential in **Healthy Life Expectancy** is to enable more women to work, and improve the health of long-term unemployed women.



Life Expectancy and Healthy Life Expectancy are key measures of overall population health



- **Life Expectancy** is a metric of mortality for a group(s) of people;
- Life expectancy at birth is defined as the average number of years that would be lived by babies born in a given time period, if mortality levels at each age remain constant.
- Life expectancy provides one summary of the mortality affecting groups. It therefore allows comparisons between the burden of mortality affecting different areas or sub-groups.
- **Healthy Life Expectancy (HLE)** is a key headline measure of population health, constructed by combining mortality statistics with survey data on self-reported poor health.
- Healthy life expectancy (at birth) is defined as the average number of years babies born this year would live in a state of 'good' general health, if mortality levels at each age, and the level of good health at each age, remain constant in the future.
- The healthy life expectancy measure adds a 'quality of life' dimension to estimates of life expectancy by dividing it into time spent in different states of health.
- Self-reported general health is a key determinant of HLE, so understanding population differences and their drivers is key to tackling disparities in HLE.



Part 1: Inequalities in Life Expectancy



Life expectancy has improved for both males and females...

Life expectancy for both males (top chart) and females (bottom chart) has improved in Tower Hamlets.

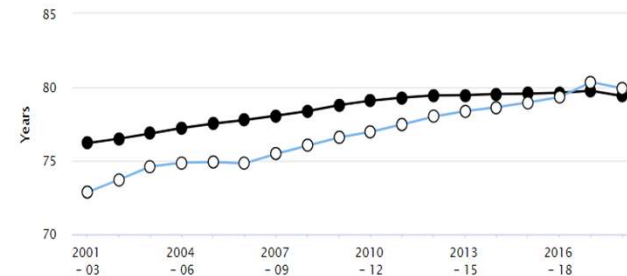
Overall, average Life Expectancy in TH in 2018-20 was 79.9 for Males and 83.3 for Females; both of which are slightly higher than national averages but slightly lower than London.

Life Expectancy declined slightly in 2020-21 due to the Pandemic.



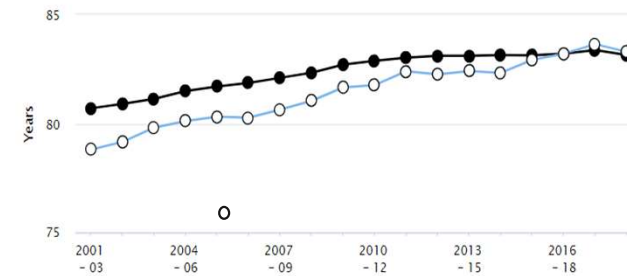
A01b - Life expectancy at birth (Male, 3 year range)

[Show confidence intervals](#) [Show 99.8% CI values](#)



A01b - Life expectancy at birth (Female, 3 year range)

[Show confidence intervals](#) [Show 99.8% CI values](#)



● England
○ Tower Hamlets

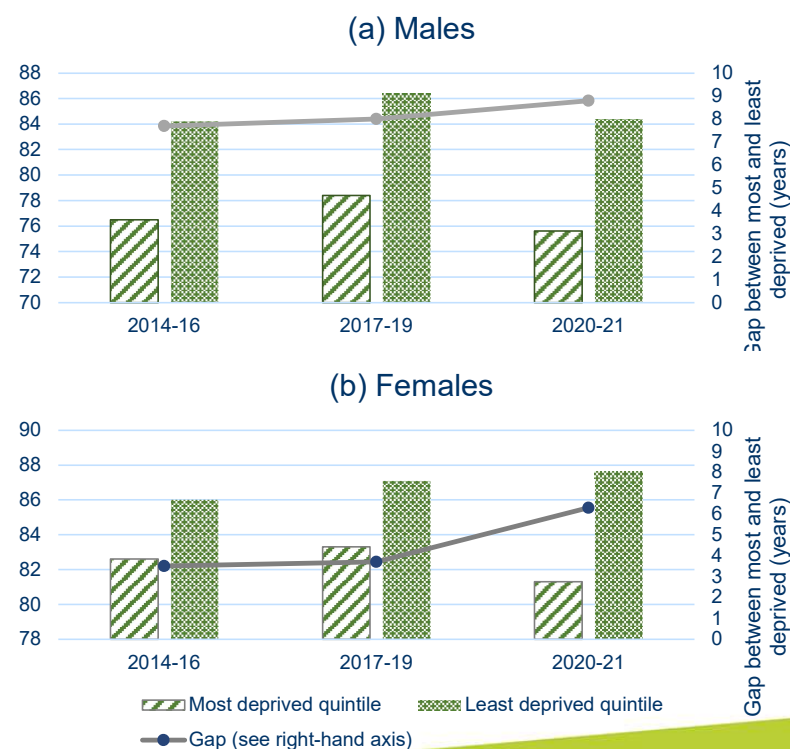


...however inequalities in life expectancy by deprivation persist and may be widening



- The overall improvement in Life Expectancy (shown on previous slide) hides persistent inequalities.
- Males living in deprived areas in TH live 8.8 years shorter LE than males in least deprived areas. For females the gap is 6.3 years.
- For both males and females, the gap has got bigger since 2014-16. The LE of the least deprived groups has increased faster than among more deprived groups

Inequalities in life expectancy, Tower Hamlets

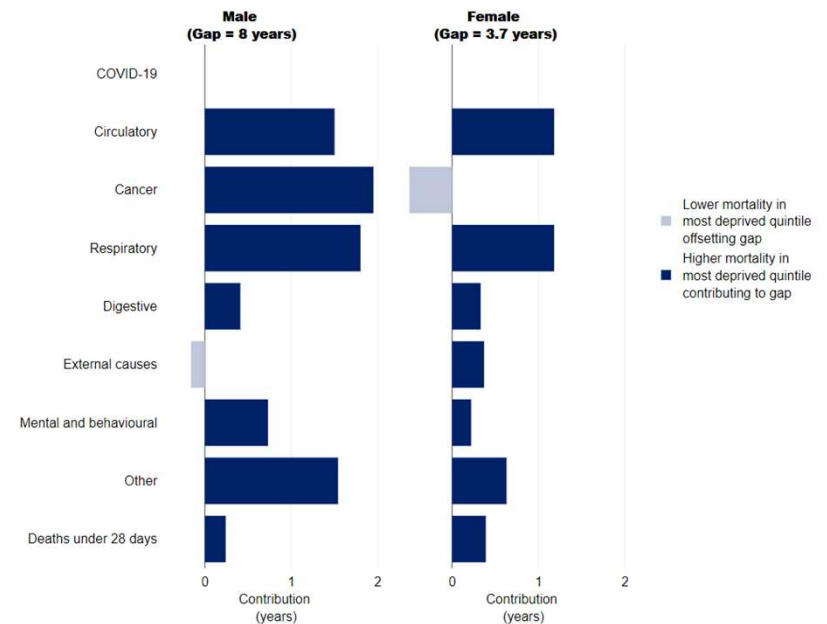


Circulatory, Respiratory and (for males) Cancer are more common in deprived groups and contribute to the life expectancy inequality.



- The main causes of death that contribute to the “deprivation gap” in Life Expectancy are shown to the right.
- Circulatory, Cancer, and Respiratory causes were the leading causes that contributed to the gap for males. For females, Circulatory and Respiratory causes.
- This is because these conditions are more common among more deprived than less deprived groups.
- The CORE20+5 framework identifies these as priority clinical areas to help reduce health inequalities between most and least deprived groups.

Breakdown of the life expectancy gap between the most and least deprived quintiles of Tower Hamlets by cause of death, 2017 to 2019



Part 2: Inequalities in Healthy Life Expectancy



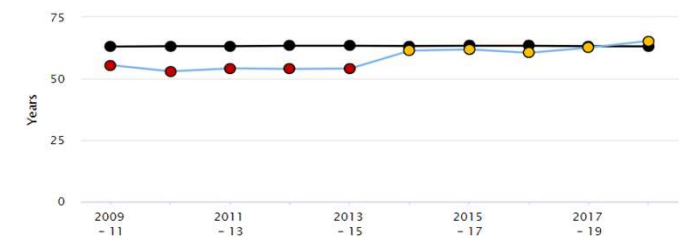
Females in Tower Hamlets live fewer years in good health than males. This is an unusual sex differential in Healthy Life Expectancy



- In Tower Hamlets, there is a known disparity between HLE of males vs females. Females have substantially shorter HLE than males.
- HLE for males in TH has improved over time; and in 2018-2020 was 65.3 years (higher than London, 63.8)
- HLE for females in TH remains lower, at 57.8 years in 2018-2020 (lower than London, 65.0).
- This means on average, females live 7.5 years fewer in good health than males in TH. (Across London, females live average 1.2 years more in good health).
- **The Tower Hamlets reversal of HLE between males and females, due to relatively low female HLE, is unusual relative to elsewhere in London and England.** Across London, Female HLE is slightly higher than male HLE.

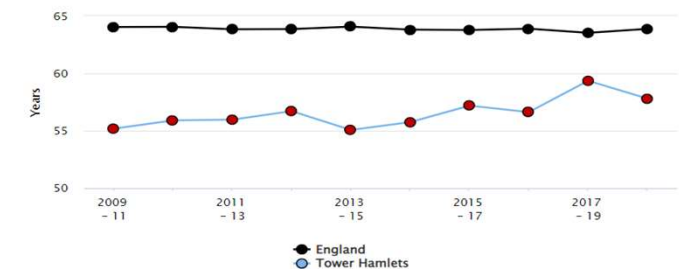
A01a - Healthy life expectancy at birth (Male)

[Show confidence intervals](#) [Show 99.8% CI values](#)



A01a - Healthy life expectancy at birth (Female)

[Show confidence intervals](#) [Show 99.8% CI values](#)



The sex differential in HLE is driven by different patterns of 'self-reported health'

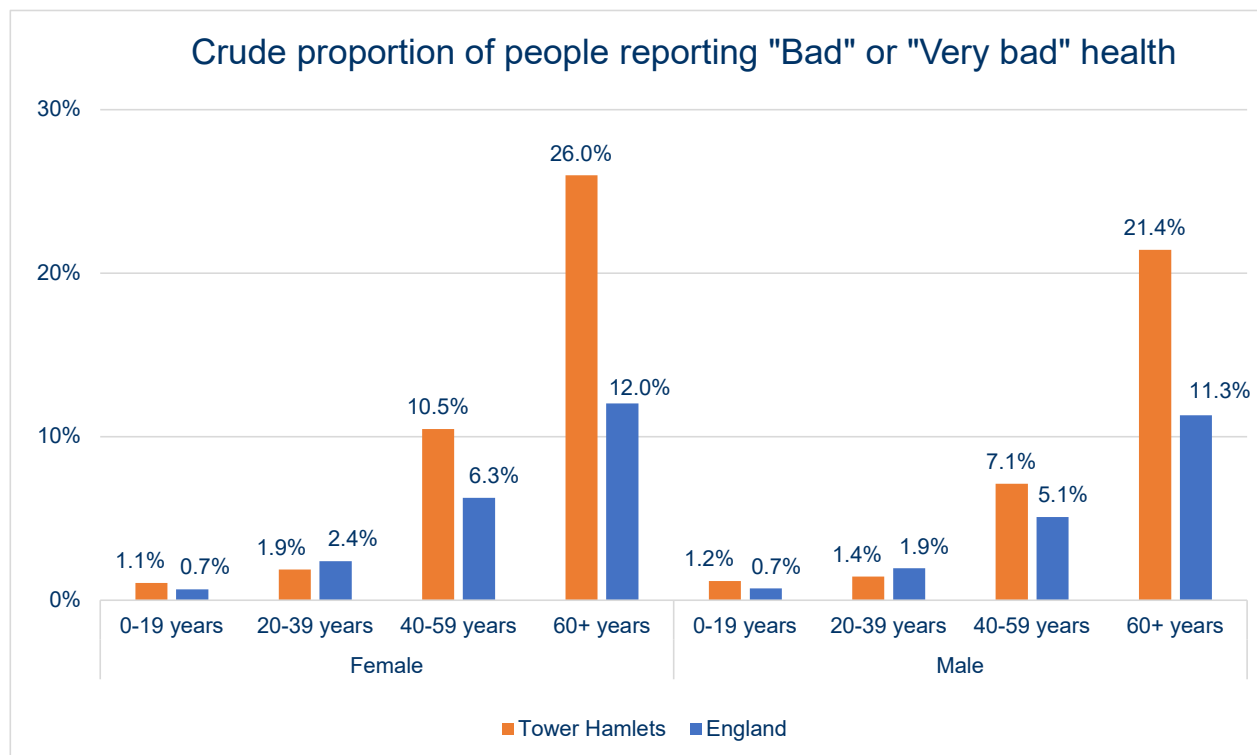
Census gives a good opportunity to understand further



- Life Expectancy is similar between sexes, so we can infer that the sex differential in *Healthy* Life Expectancy is driven not by mortality differences, but by sex differences in self-reported health.
- The Census asked people to rate their general health on a 5-point scale.
- This allows us to understand *which females* are living in particularly poor health and are driving low female Healthy Life Expectancy.
- The proportion of Tower Hamlets residents (9.5%) who report being in “Bad” or “Very bad” health is 83% higher than the national average.



Self reported health gets worse at older ages, which makes it important to age-standardise.



With the exception of those aged 20-39, across all other age bands, a higher proportion of Tower Hamlets residents reported being in poor health compared to England.

A greater deviation from the national average was seen in females than males, particularly in older females (aged 60+), where the proportion in Tower Hamlets was more than double that in England.



Females' self-reported health in Tower Hamlets, relative to London averages, is much worse than males'.



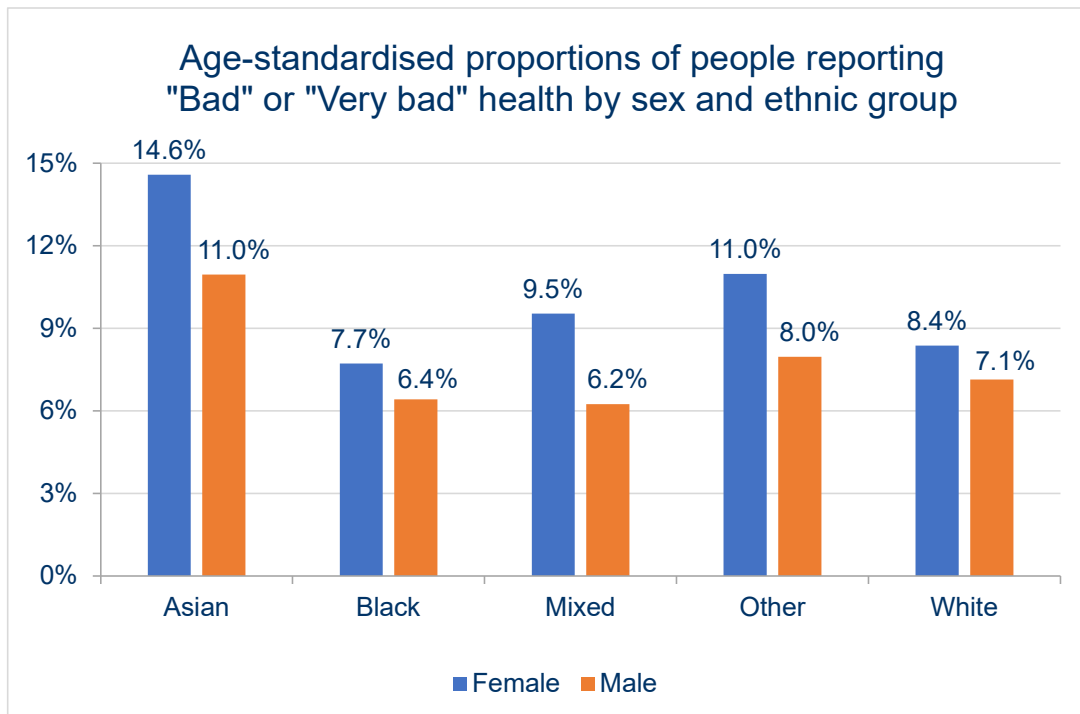
A higher proportion of female Tower Hamlets residents (11.6%) reported being in “Bad” or “Very bad” health compared to male residents (8.5%).

The proportion of females in TH who report themselves in poor health is substantially higher than the proportion of females in London overall. The gap for males is much smaller.

Conversely; the proportion of females who report good/very good health is much smaller for females (72.5%) than males (76.6%) and the gap between TH and London is larger for females.



Females' self-reported health is worse than males', across all ethnic groups in Tower Hamlets; The gap is wider in Asian and Mixed ethnic groups.

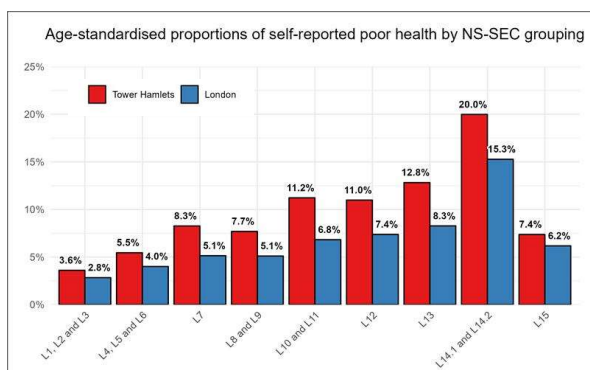


Asian residents in Tower Hamlets had the highest proportion of respondents reporting "Bad" or "Very bad" health. The lowest proportions were seen in Black residents for females and Mixed residents for males.

Larger gender differentials were seen in Asian and Mixed respondents than in White respondents: the proportion of females in poor health is 33% higher than males among Asian respondents vs 18% higher among White respondents.

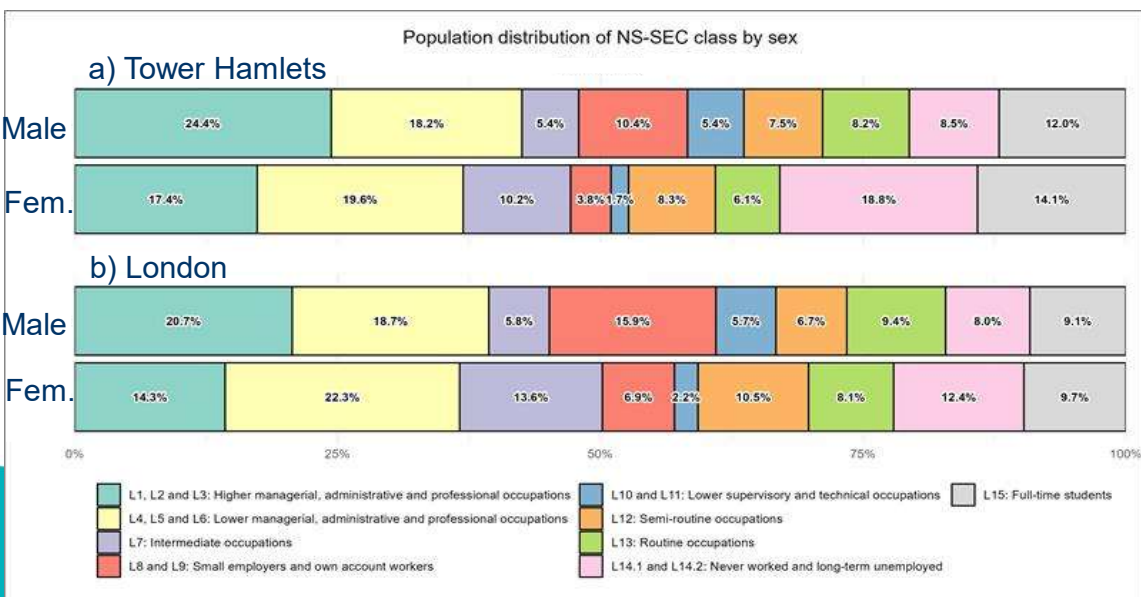


The larger cohort of females who are long-term unemployed explains the sex difference in HLE



The NS-SEC classifies people aged 16+ by occupation, giving an indication of socioeconomic position.

Across all occupation groups, self-reported health in TH is worse in TH than London. People in Routine occupations, or long-term unemployed are more likely to report poor health. [Top chart]



In Tower Hamlets, a much larger proportion of females (18.9%) are long-term unemployed than in London (12.4%). For males there is only a small difference (8.5% in TH vs 8.0% in London). [bottom chart]

The fact that Tower Hamlets has more females who are long-term unemployed, and that these females are more likely to suffer from poor health, is what leads to our large gender gap in HLE.





Summary

And Questions for HWBB





Summary and implications: Life Expectancy

Summary:

- Life expectancy at birth is defined as the average number of years that would be lived by babies born in a given time period, if mortality levels at each age remain constant.
- Life expectancy has improved for both men and women in Tower Hamlets and is now similar to the London and England averages.
- Life expectancy increased faster for least deprived groups in Tower Hamlets, meaning the gap in life expectancy has increased in recent years.
- The conditions that contribute most to the “deprivation gap” in life expectancy are circulatory, respiratory conditions, and in the case of Males: cancer.

Implications:

- The clinical priorities set out in the CORE20+5 framework should be the local focus for reducing health inequalities.



Summary and implications: Healthy Life Expectancy



Summary:

- Tower Hamlets has an unusual sex difference in Healthy Life Expectancy: females can expect to live 7.5 fewer years in good health than males.
- As mortality (LE) is similar between males and females, the sex differential is due to difference in years lived in poor health.
- In Tower Hamlets:
 - Sex disparities in self-reported health are greater in Asian ethnic groups.
 - Within occupational groups, there are minimal gender differences in self-reported health.
 - Many more females are Long-Term unemployed than males; and the proportion of females in this group is much larger than across London.
- In sum: females who are long-term unemployed are particularly likely to be in poor health, and the fact there are more of long-term unemployed females in TH than elsewhere is what leads to a wide sex gap in Healthy Life Expectancy.

Implications: In order to reduce inequalities in HLE in Tower Hamlets,

- a) initiatives and policies should seek to enable more women to be in employment, and
- b) health improvement should focus on long-term unemployed women. This would also reduce disparities between ethnic groups and areas of deprivation.



Questions for HWBB



- Based on this information, what action can HWBB members take to reduce inequalities in Life Expectancy and Healthy Life Expectancy?
- What additional insight would the Board find useful about inequalities in health? What questions do you need to be answered?



Appendix

Methods



Data and methods – General Health



- The Census asked people to rate their general health on a 5-point scale:
 - Very good
 - Good
 - Fair
 - Bad
 - Very bad
- By exploring the demographic characteristics of the people who reported being in poor health, we may improve our understanding of the reasons for differentials in Healthy Life Expectancy.
- The 2021 Census was conducted during the coronavirus (COVID-19) pandemic. This may have influenced how people perceive and rate their health and therefore may have affected how people chose to respond.



Data and methods – General Health



- The Census asks respondents to report their self-assessed general health, so is a key data source for understanding demographic differentials in HLE.
- Health and disability are both closely related to age, with older people being more likely to be in poorer health and/or to have a disability.
- Data for this report is taken from the 2021 Census published datasets via NOMIS.
- Census response rates were generally high, though slightly poorer in Tower Hamlets compared to London and England:

Metric	Tower Hamlets	London	England
Person response rate	94%	95%	97%
Household response rate	95%	96%	97%
Household return rate	96%	96%	97%
Person coverage	93%	94%	96%

- In Tower Hamlets, person response rates were particularly poor in very large households (≥ 7), people living in detached housing, people living rent-free, students, people aged 15-24, and people from White Roma, Arab, or Mixed (White and Black African) ethnicities.
- Age-standardised proportions (ASPs) were calculated using the 2013 European Standard Population. This is necessary to account for different population age structures when drawing comparisons across areas, e.g. Tower Hamlets vs England.
- We compared ASPs by sex, age, ethnicity, socioeconomic classification, and ward.



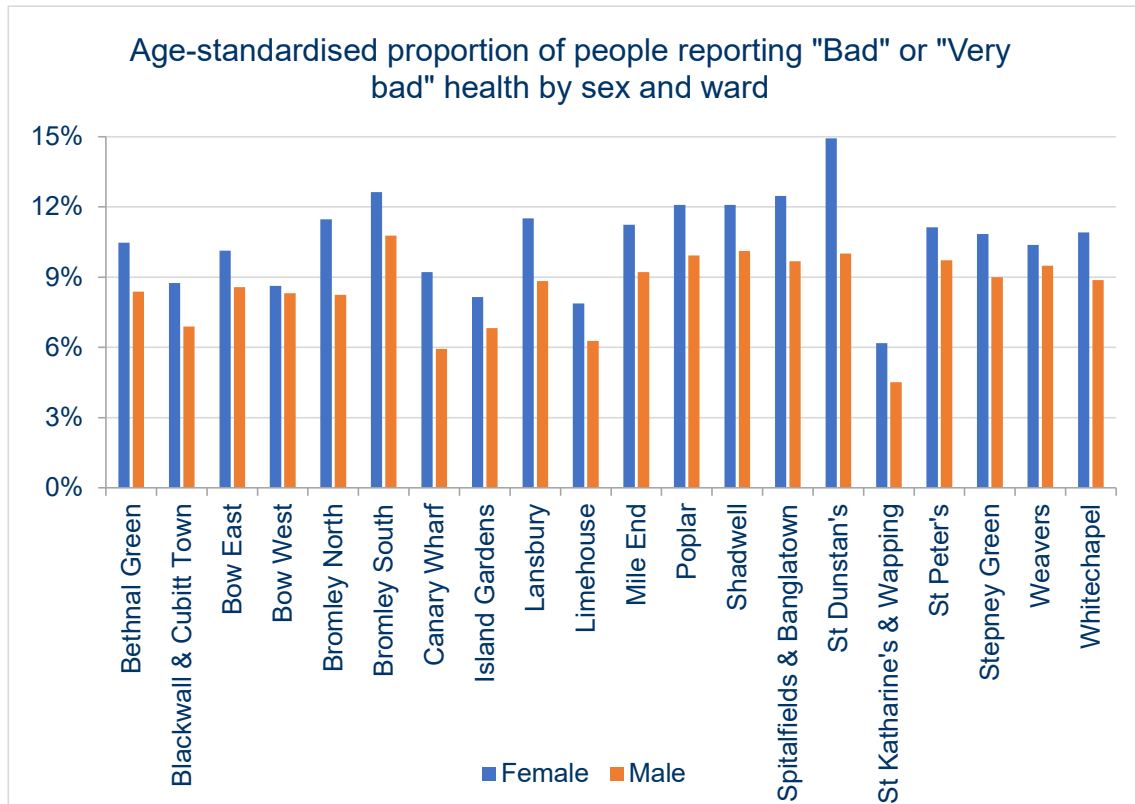
Appendix: NS-SEC Classifications



L1, L2 and L3: Higher managerial, administrative and professional occupations	L12: Semi-routine occupations
L4, L5 and L6: Lower managerial, administrative and professional occupations	L13: Routine occupations
L7: Intermediate occupations	L14.1 and L14.2: Never worked and long-term unemployed
L8 and L9: Small employers and own account workers	L15: Full-time students
L10 and L11: Lower supervisory and technical occupations	



General Health by Ward



St. Katharine's & Wapping has the lowest proportion of self-reported poor health for both males and females.

The highest proportion for females is seen in St Dunstan's while for males the highest proportion is seen in Bromley South.

A clear gender differential was seen in all wards. The largest gaps were seen in St Dunstan's and Canary Wharf where the proportions of females reporting poor health were about 50% higher than that of males.

