

Citizen Science Air Quality Project: Surveys

Liverpool Friends of the Earth

Air quality in Liverpool described by survey respondents



Summary of air quality survey results

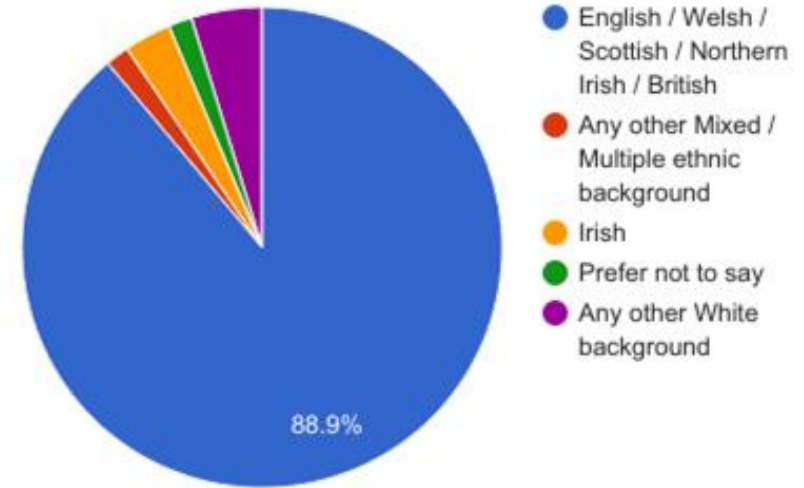


- 69 respondents filled in the primary survey
 - 35% from Breathe Easy groups
 - 65% from online respondents
- Of these respondents, 55% (38) completed the follow-on secondary survey (26% from Breathe Easy groups)

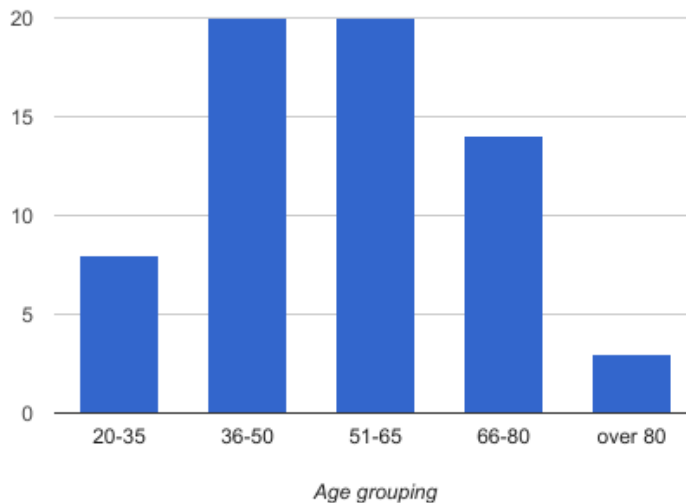
Demographics of survey respondents

- Wide range of Liverpool postcodes
- 38% male to 62% female (ratio 1:1.6)

Ethnicity of primary survey respondents



Age profile of survey respondents



- Wide range of ages
- Predominantly (89%) white British

How respondents normally travel

- Mix of modes used:
 - Car: occasional (43%), frequent (18%)
 - Taxi: occasional (55%)
 - Bus: occasional (59%)
 - Train: occasional (50%), frequent (19%)
 - Ferry: occasional (69%)
 - Bicycle: never (52%), occasional (16%)
 - Walking: frequently (28%), several times a day (23%)

Normal purpose of travel

- A balance of reasons:
 - Work: never (25%), usually (21%)
 - Meetings: occasional (26%), sometimes (21%)
 - Shopping: often (30%), occasional (27%)
 - Exercise: often (21%), sometimes (19%)
 - Leisure or relaxation: often (30%), occasional (22%)

Increase in air quality knowledge during the study?

- 29% reported increase in air quality knowledge (53% unchanged)
- 21% showed an increase in concern (63% unchanged)
- In relation to mode of travel:
 - 65% respondents showed an increase in knowledge between different modes of transport, i.e. respondents of the second survey showed an increased understanding that air quality can be poorer within a vehicle

Individual mitigation of own air quality: change over time of project

- 45% showed an increase in reported positive comments on how to mitigate their own air quality
- 13% showed a greater likelihood of taking a detour (79% unchanged)
- 26% increased the length of detour time they would take (55% unchanged)

Wellbeing of survey respondents: Reported physical activity

- 37% increased the number of days (by at least one) on which they engaged in physical activity (42% unchanged)

Wellbeing of survey respondents: Short Warwick Edinburgh Mental Well-being Scale (SWEMWBS)

© NHS Health Scotland, University of Warwick and University
of Edinburgh, 2007

Unexpectedly: Decrease in well-being reported (higher score
indicates a better well-being):

- Primary survey (n=36): mean score 25.03 (st. dev.=5.289)
- Second follow-up survey (n=36): mean score 23.55 (st.
dev.=5.207)

Accessible air quality information: suggestions from respondents



Conclusions: Surveys

- Respondents concerned about air quality in Liverpool
- Air quality knowledge increased
- Physical activity increased
- But, well-being decreased slightly
- Demand for more accessible local air pollution information
- Demand for more guidance on mitigation

Liverpool Friends of the Earth: Citizen science air quality surveys

*Thank you to the Liverpool CCG for providing
funding and support for this project*

and

*Many grateful thanks to all those participants
who filled in one or both surveys and
contributed so many useful comments*