



## WRS BOARD

### Air Quality Behaviour Change Project

<b>Recommendation</b>	That members note the report and actions taken by WRS Staff and assist in enabling positive discussions to improve air quality in Worcestershire
<b>Contribution to Priorities Recommendations</b>	Health and Wellbeing Environmental Protection
<b>Report</b>	<b>Background</b> <p>Air pollution has a significant effect on public health, and experts suggest that poor air quality is the largest environmental risk to public health in the UK. In 2010, the House of Commons Environmental Audit Committee considered that the cost of health impacts of air pollution was likely to exceed estimates of £8 to 20 billion<sup>1</sup>. More recently, the West Midlands Combined Authority published its Air Quality Framework Document which states that poor air quality in the WMCA area, contributes to 2900 early deaths and if air pollution was reduced to the WHO Air Quality Guidelines 2021, it would generate economic savings (primarily to the NHS) exceeding £3.2 Billion<sup>2</sup></p> <p>In this context, between 2018 and 2022, staff from Worcestershire Regulatory Services engaged with Public Health at Worcestershire County Council (WCC) to mirror work done by other Local Authorities to fund and engage</p>

<sup>1</sup> <https://www.gov.uk/government/publications/health-matters-air-pollution/health-matters-air-pollution>  
<sup>2</sup> Page 47, <https://www.wmca.org.uk/media/ruchg02c/wmca-air-quality-framework-reference-document-awaiting-approval-from-wmca-board.pdf>

behaviour change work. WRS utilised external funding to develop a behaviour change project including funding officer capacity. Worcestershire County Council's Public Health team provided help to establish the baseline of knowledge and appetite for behaviour change in the county, which was used to guide the early development of the project. A behaviour change officer (BCO) was recruited in late February 2024 on a fixed term contract for 2.5 years. The aim of the project was to improve air quality through encouraging sustainable travel initiatives, particularly within schools and local businesses in specific locations. Key aims include reducing short car journeys by encouraging walking and cycling, raising awareness of air quality impacts, and encouraging community partnerships.

The specific target areas for the project include London Road, Worcester and the Lickey End M42 Junction, Bromsgrove. This report sets out the work of the BCO to date and future work plans.

### **Key Activities and Achievements:**

The BCO's work can be classed into 4 workstreams:

1. *Survey Insights*: Collected data through a county wide survey and further follow up surveys, revealing high car usage for short trips and gaps in air quality awareness, guiding future behaviour change efforts.
2. *School Engagement*: Conducted 59 schools visits and work meetings, securing 6 schools committed to air quality projects with activities like workshops and assemblies.
3. *Community Outreach*: Engaged the Breathe Easy Group and care homes, identifying the need for improved air quality awareness and monitoring knowledge.
4. *Promotional Materials*: Developed infographics, surveys, and materials to promote AQ awareness in schools.

More detail on each is provided below.

#### **1. Survey Insights:**

Significant data collection has been achieved to gain an understanding of air quality perceptions in Worcestershire using 2 surveys:

### **WRS Air Quality Behaviour Change Survey (Public Health and WRS Collaboration)**

The first was a joint public health and WRS air quality behavioural change survey, carried out to gain baseline data for the project. The survey was conducted over 3-months, between February and May 2024. The survey was promoted online via district council websites and social media along with some paper copies available in community locations. The survey received 1,326 responses, primarily from adults aged 31-60+. The survey gathered insights on awareness of air quality health impacts, sources of pollution, travel habits, and suggested improvements. Key findings include moderate awareness of health impacts, strong concerns over road traffic as a pollution source, but a dominant preference for cars in travel, even on short trips. A summary of this is attached at Appendix 1.

### **HoW College – WRS AQ Survey**

As the main baseline survey failed to gather sufficient from the younger end of the population, those aged between 16 and 30 years old; a new survey was conducted in September and October 2024 with the participation of the HoW College group involving all campuses, in Worcester, Malvern, Bromsgrove and Redditch. This survey was developed in-house and the online survey reached 741 college students and staff, to assess transportation habits, awareness of air quality and barriers to sustainable commuting.

Respondents were mainly aged 16-30, with many living more than four miles from the relevant campus. Findings show a reliance on cars, gaps in understanding of pollution sources, and identified personal and infrastructure barriers to low-emission travel options like walking or cycling. Further details of the results appear in Appendix 2.

### **Key Information derived from the Surveys:**

Several issues and barriers were identified:

- *Awareness Gaps:* Significant gaps remain in public understanding of air quality's health impacts and pollution sources, especially among younger populations (HoW College survey).
- *Primary Pollution Sources:* Both surveys highlight vehicle emissions as a primary source of concern around pollution, with road traffic recognised by 88% in the general survey and 42.7% at HoW College.
- *Reliance on Cars:* A high percentage of participants prefer cars even for short journeys due to convenience, lack of alternatives, or travel distance, with 58% in the general survey and 34% at HoW College.

- *Sustainable Transport*: Key barriers include time constraints, distance to travel, weather, and the need to carry items. Infrastructure concerns, such as limited access to safe cycling or pedestrian routes, further discourage sustainable commuting.

These helped to identify several opportunities for initiatives:

- *Awareness Campaigns*: Using educational materials and social media to target awareness efforts on health impacts and pollution sources, with a focus on younger groups and areas with lower awareness,
- *Promoting Sustainable Transportation*: Encourage walking, cycling, and public transport through programs addressing the identified barriers (e.g., bike-friendly routes, encourage car sharing or bus use,).
- *Community Engagement*: Use data insights to foster partnerships with schools and community groups, emphasising air quality's relevance to health and the environment.
- *Localised Interventions*: Focus on areas with high car usage and help to develop school-based travel plans that aim to reduce reliance on vehicles.

## **2. School Engagement:**

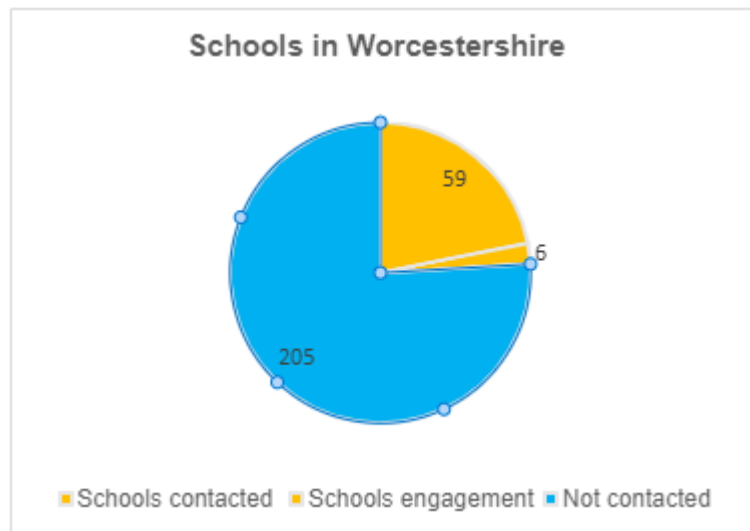
Survey data indicated that some focus was necessary on young people, with schools and colleges as potential venues for promoting air quality awareness. Hence, the BCO prioritised outreach to schools to foster engagement and identify participation opportunities.

A database was created with 264 schools as potential contact points across the County (242 state schools and 22 independent schools.) Between March and June 2024, 49 school visits were conducted, introducing the BCO role and promoting the AQ Worcestershire 2024 initiative.

From July to October 2024, emails were sent to schools to arrange meetings and explore potential air quality projects, resulting in 10 responses and collaborative meetings with schools in Worcester, Bromsgrove, Pershore, and Kidderminster, including the University of Worcester.

Following these efforts, 59 schools were contacted, achieving a significant milestone with six schools - including five schools and Heart of Worcestershire College (HoW)—committing to ongoing behaviour change projects and activities such as workshops and assemblies. Details of these appear in table to Appendix 3 – Table 3, and in Figure 1, below.

**Figure 1. School Engagement 2024**



While there has been successful participation from some schools, many have noted limited capacity to engage due to competing educational and financial priorities. This limitation has restricted the visibility and reach of our activities, especially in schools that have yet to participate.

To help address this, three targeted surveys are planned to reach parents, staff, and primary school children to further engage and encourage school involvement using the following strategies:

- (i) *Targeted Support for Schools Near Air Quality Monitors:* Given the BCO's focus on critical road and street areas in Worcester and Bromsgrove, providing additional resources and attention to schools close to air quality monitors in each of the six districts would make behaviour change impacts more tangible. Schools could use localised data to show students and staff how travel habits directly affect air quality, with real-time data sessions enhancing awareness and engagement.
- (ii) *Flexible, Tiered Participation Programs:* Offering flexible engagement levels (low, medium, high) allows schools with limited resources or time to participate in basic sustainable transportation activities. Observations from school visits suggest that most schools have bike parking, student commuting data, and access to some transportation options. Leadership and staff are also generally open to sharing air quality information with

parents, though few schools have a School Travel Plan (STP) in place. A tiered offering allows schools to select a participation level that fits their capacity and gradually increase their involvement should they be able and want to.

(iii) *Incentives for Participation*: Schools could be encouraged to join cost-free behaviour change initiatives through incentives like eco-certificates, and awards such as “Air Quality Ambassador” or “Air Quality Champion” for those making measurable progress. Supporting recognition for schools could improve their local media profile and help demonstrate their value to the community they serve. Whilst some of this may be done within current resource, building this into a larger scale initiative would require more and sustainable funding, which the service does not have at this stage.

To achieve these goals, successful partnerships will be essential including with Public Health, County Highways and Transport colleagues from the County Council, as well as colleagues in the District Councils. Community stakeholders, including members and potentially businesses too will also be important. Together, these efforts aim to boost participation and elevate air quality as a priority within the educational community.

### **3. Community Engagement**

The BCO also established key partnerships with community groups, including Breathe Easy in Redditch and local care homes along London Road in Worcester. This has helped reveal gaps in community awareness regarding air quality issues and emphasised the need for targeted monitoring and education.

The BCO also participated in five high-profile events including SustFest, Clean Air Day, and Freshers Fayres, providing direct engagement with hundreds of residents. These events offered valuable opportunities to raise awareness and encourage behaviour change, which highlighted opportunities to enhance the reach of our initiatives, significantly increasing the potential for public engagement and impact e.g., expanding our digital presence through a more robust website or interactive portal, linked to EarthSense, would enable real-time access to air quality data for community groups and schools. For further details see tables 4 and 5 in appendix 3.

#### **4 Promotional Materials**

The BCO has or is developing infographics, surveys, and materials to promote AQ awareness in schools. Examples of this appear at appendix 4:

*“Air Quality in Worcestershire”*: Infographic providing an overview of the public health situation and its relationship to Air Quality

*HoW College – WRS AQ Survey*: Leaflet designed to collect information from staff and students' at HoW

#### **5 Future Work**

With funding until approximately September 2026, the BCO's work programme is expected to continue, broadly along the following lines:

- 0-6 Months: Building awareness of air quality issues, especially through expanded partnerships, school engagement and other small events. Completion of a communication plan with Communication Officers in the Districts and beyond will aid messaging and promotion.
- 6-12 Months: Once 12 months of real time monitoring data becomes available, the BCO, linked to both developmental project work with the Technical Pollution Team will look to incentivise participation of the real-time AQ data (EarthSense), broaden community involvement and understanding.
- 12+ Months: Expand partnerships, seek infrastructure improvements, conduct annual impact reviews.

Further details appear in the Action Plan at Appendix 5.

No future funding options for continuing this work have been identified currently, with the removal of DEFRA's Local Authority Air Quality Grant programme taking away the most obvious access point to resources.

### **Contact Points**

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## Background Papers

**Appendix 1** -Summary Report – Public Health – WRS AQ Survey (Feb-May 2024)

**Appendix 2** - Summary Report – HoW College – WRS AQ Survey (Sept-Oct 2024)

**Appendix 3** -Summary of visits/contacts with schools / community groups

- Table 1 – Visits were made to school's March to June 2024
- Table 2 – List of school's respondents July to October 2024
- Table 3 – List of schools identified for behaviour change activities.
- Table 4 – Visits to Community and Care Sector Organisations
- Table 5 – Participation in events

**Appendix 4** - Material to promote information and collect data for behaviour change work

**Appendix 5** - Action Plan

## Appendix 1 - Summary Report – WRS/ Public Health – Baseline Survey (Feb-May 2024)

### Air Quality Survey Data Report

June 2024

#### Introduction

Air quality has improved in England over recent decades. However, it continues to be the biggest environmental risk to public health.

Children, the elderly and those with pre-existing heart and lung health conditions, being most affected.

It shortens lives and contributes to chronic illness. Health can be affected both by short-term, high-pollution episodes and by long-term exposure to lower levels of pollution.

#### Survey Aims

We wanted to better understand the views and experiences relating to air quality for the people who live and work in Worcestershire.

We asked people to complete a questionnaire to share their perceptions, behaviours, concerns and suggestions for improving air quality.

The survey was launched on the 09.02.24 and was closed on 17.04.24. Overall, there were 1326 respondents.



## Survey Respondents:

### Demographics

50% respondents identified as female, 46% male.

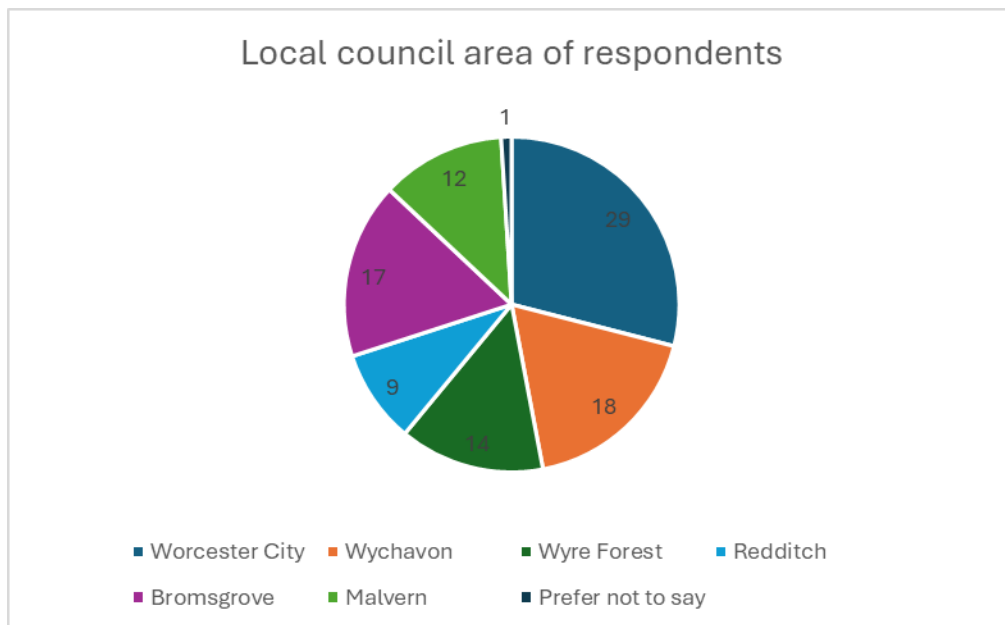
50% respondents were 31-60 years.

46% respondents were 61+ years.

36% respondents were not currently, or no longer working.

91% respondents were of White/ British/ Welsh/ Scottish/ Irish origin.

### Area of residency



### Health

75% of respondents told us they **do not** have a health condition that may be affected by poor air quality.

83% of respondents said they don't have any physical restrictions that prevent or make walking difficult.

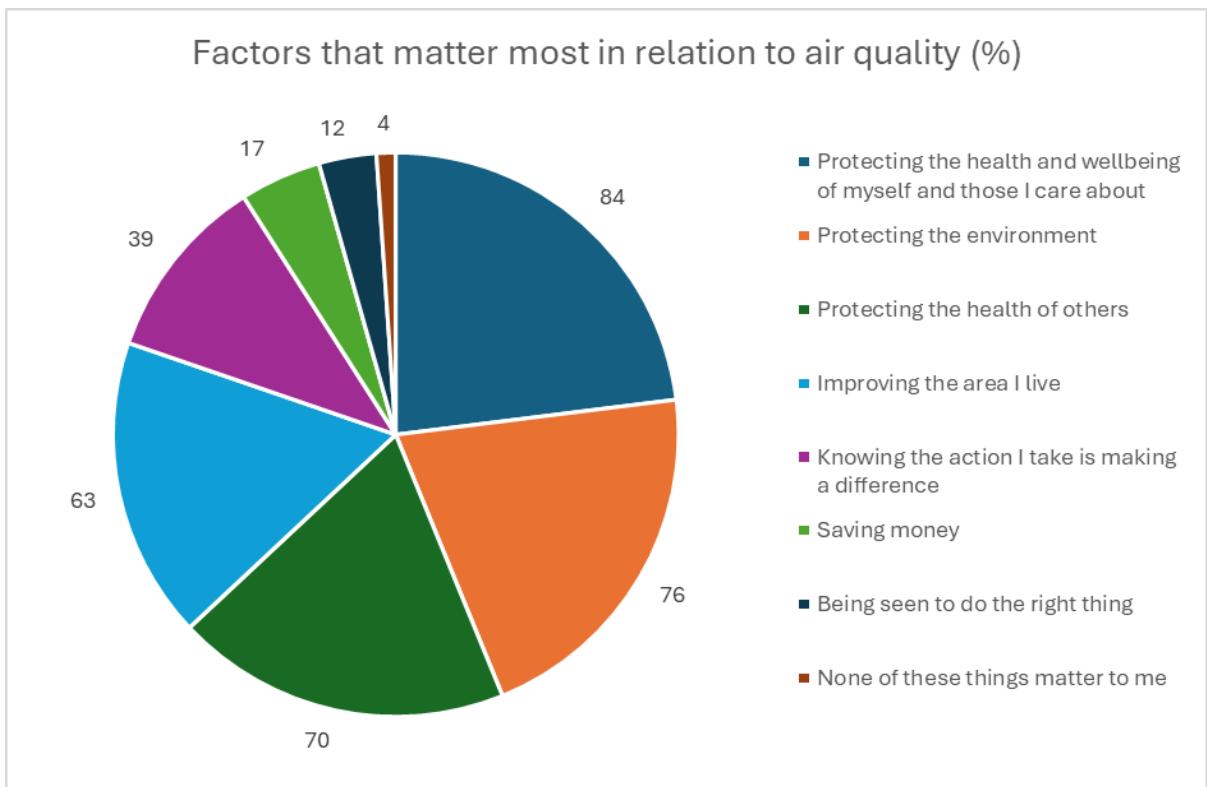
78% said they don't have any physical restrictions that prevent or make it difficult to cycle.

90% said they don't have any physical restrictions that prevent or make it difficult to use public transport.

94% said they don't have any physical restrictions that prevent or make it difficult to drive.

### What's important to you

Protecting the health of themselves and others, protecting the environment and improving the area in which respondents live mattered most to people in relation to air quality.



### Air Quality Awareness

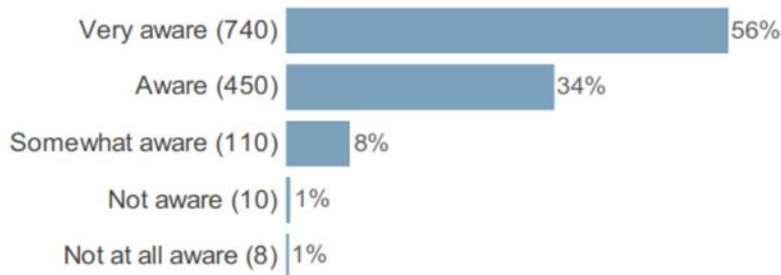
**43%** of respondents told us they were only slightly or moderately aware of the impact of air quality on their health or the health of others.

**41%** of respondents told us they were either extremely concerned or very concerned about the air quality where they live.

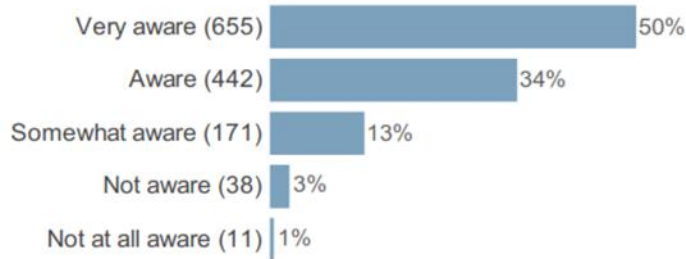
**Over a third (34%)** of respondents told us they were either extremely concerned or very concerned about the air quality where they work.

### We asked about air quality awareness and health on the following statements. You answered;

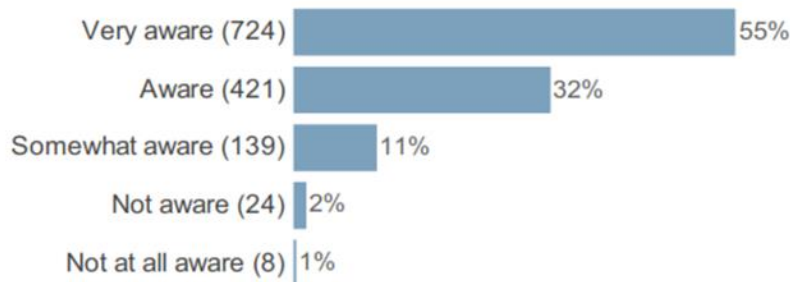
Air pollution affects everyone of all ages but the most vulnerable in the community including children, pregnant women, the elderly and those with heart and lung problems are most at risk.



When we breathe polluted air, small pollution particles can enter through our lungs into the blood stream and can reach the brain and other organs.

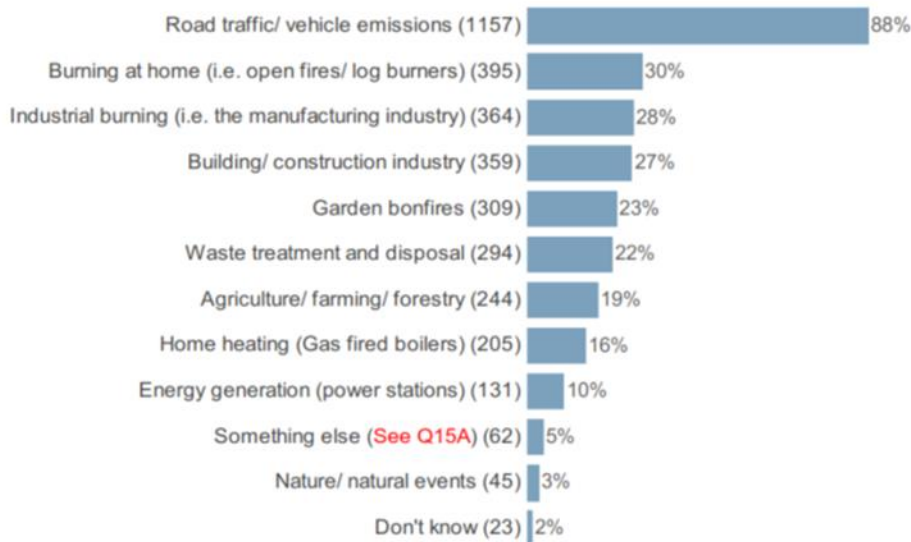


Serious health problems such as asthma, stroke, heart disease, dementia and lung cancer can be linked to the exposure to air pollution.

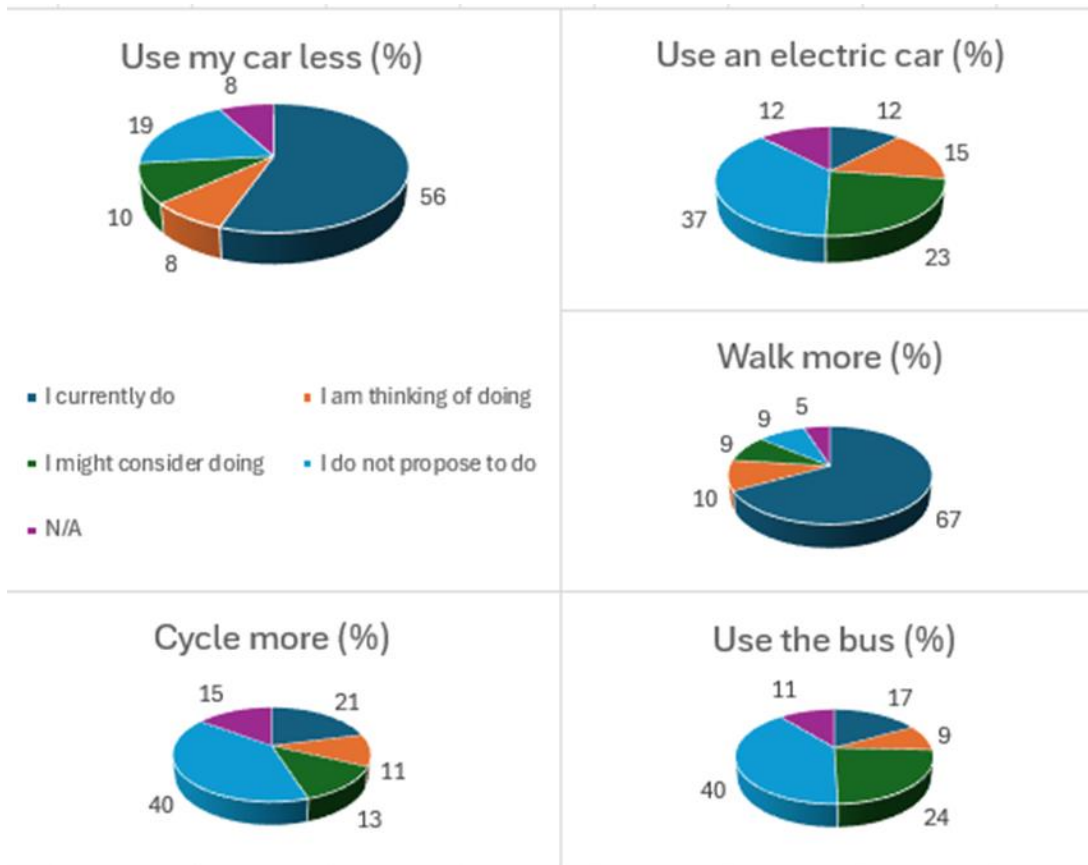
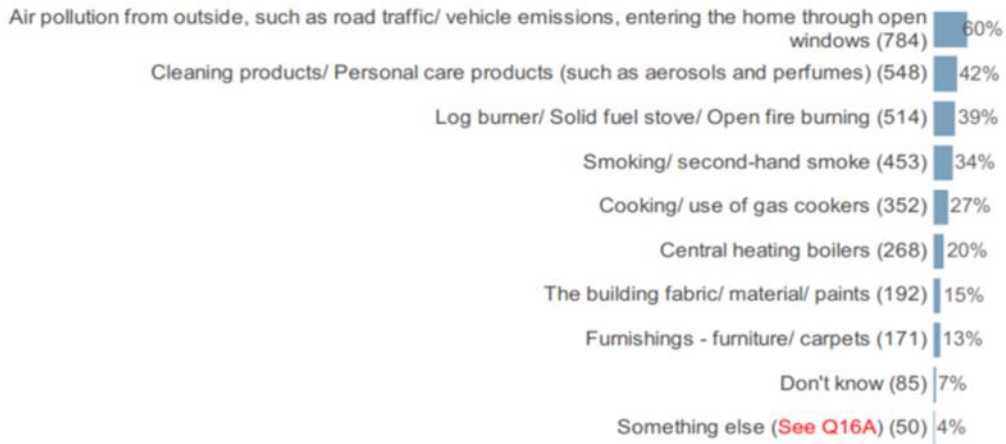


### Knowledge regarding air quality

**88%** of respondents told us they considered **road traffic/ vehicle emissions** to be the main source of outdoor air pollution and **almost 1/3 (30%)** of people told us it was **burning at home** (open fires/ log burners). This was followed by industrial burning (28%), building/ construction industry (27%), garden bonfires (23%), and waste treatment and disposal (22%). See below.



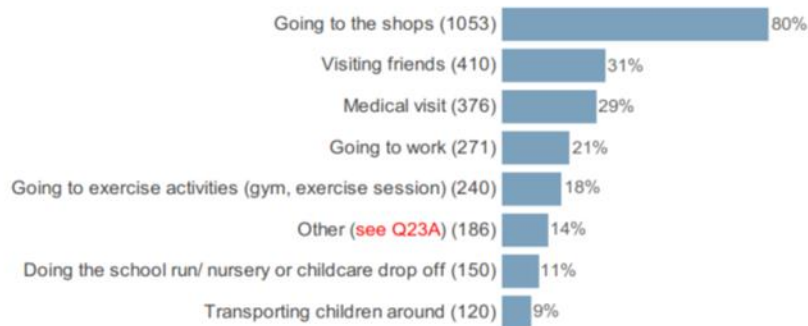
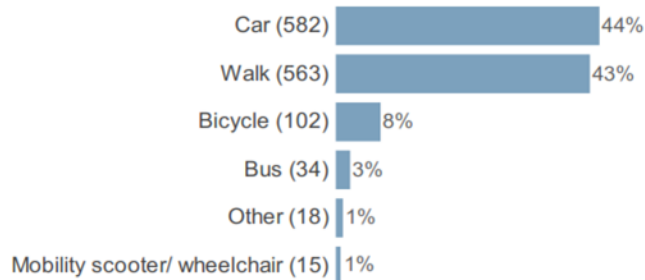
**60%** of participants told us the main source of indoor air pollution was from outside, such as road traffic/ vehicle emissions, entering the home, this was followed by cleaning products (42%) and log/solid fuel burning (39%).



### Travel Habits

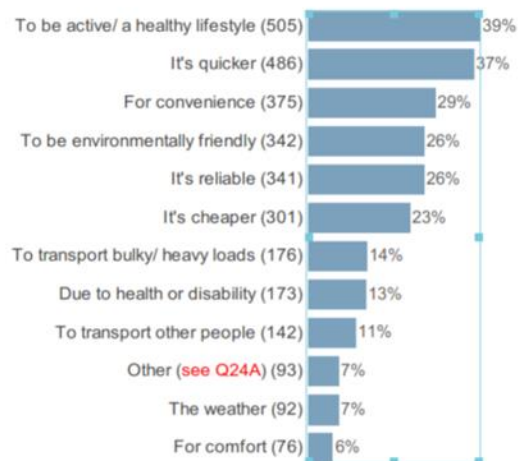
**Over half of all** respondents (54%) travelled 4 miles or less to their usual place of work.

**58%** of people usually use the car to get to work.



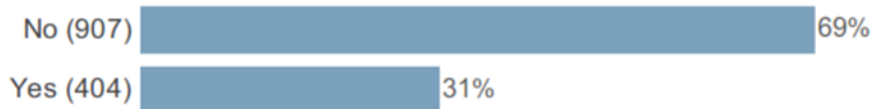
Some participants selected 'other' for Q23 when there were existing options available, so therefore should be included in the statistics above

- |                           |   |
|---------------------------|---|
| 1. Going to the shops – 4 | 4. Going to work – 1  |
| 2. Visiting friends – 5   | 5. Going to exercise activities (gym, exercise session) – 1 |
| 3. Medical visits – 3     | 6. School run - 3   |



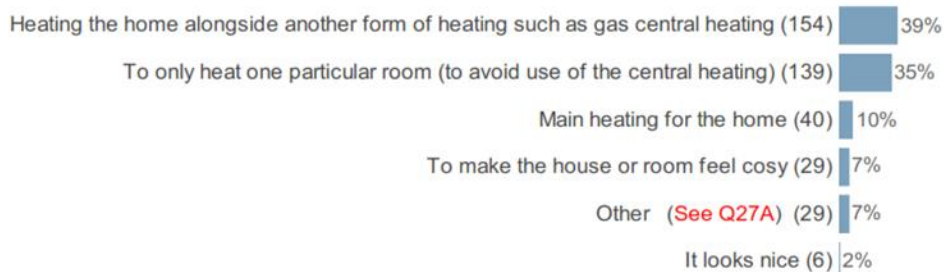
Some participants selected 'other' for Q24 when there were existing options available, so therefore should be included in the statistics above

- |                                       |                                       |
|---------------------------------------|---------------------------------------|
| 1. It's quicker – 3                   | 6. To transport bulky/heavy loads – 3 |
| 2. For convenience – 4                | 7. Due to health or disability – 5    |
| 3. To be environmentally friendly – 2 | 8. To transport other people – 3      |
| 4. It's reliable – 1                  | 9. The weather - 2                    |
| 5. It's cheaper - 4                   |                                       |



**What do you mainly use this for (Q27)?**

39% of people used their log burner/ open fire alongside another form of heating, 35% used it to heat one particular room in the home.



Some participants selected 'other' for Q27 when there were existing options available, so therefore should be included in the statistics above

- |  |                                |
|--|--------------------------------|
| 1. Heating the home with another heating system – 19 | 4. To make house/room cozy – 1 |
| 2. To heat one particular room – 2                   | 5. It looks nice - 3           |
| 3. Main heating for the home – 2                     |                                |

Themes that were identified from this question from a public health and behaviour change perspective were:

**1. Participants spoke about idling particular around school pick-ups and delivery drivers/taxis.**

*“Air pollution is not really a problem here however near school people wait for children with their engines running, perhaps some signs to help educate people about the impact on neighbourhoods”*

*“There needs to be more effort to stop the very many delivery drivers idling their engines whilst delivering goods from Amazon (must be thousands per week) and other delivery companies”*

*“Education and stop drivers from running their engines, as they don't seem to understand that it's not only affecting the environment but also them sitting in their cars. Once you can stop this then you are on your way to better air”*

**2. Improve opportunities and encourage active travel across Worcestershire**

*“Look at encouraging more ppl to use public transport or walk and not use their cars. There is a real culture in Worcester of people using their cars for everything even very short journeys”*

*“Encouraging active travel (walking and cycling) would reduce air pollution dramatically”*

*“Only active travel can work; it reduces cars AND makes car journeys quicker AND improves the health and wellbeing of those who are able to do it. Consider long term side benefits for health and social care budgets. Active travel is sociable. Car travel is isolating”*

**3. Participants spoke about how they worry about air quality.**

*“I have lived in this area for over 40 years and have seen the gradual deterioration of the quality of life here vastly change to the level it is now through the car fumes and congestion because of the build-up of traffic”*

*through the town and also the introduction of building work being carried on this area adding to the unacceptable level of pollution that we now have to endure”*

*“I have had a baby recently and the midwife did a breath test on me. It came back with high carbon monoxide levels which worried me. I went and purchased a carbon monoxide monitor for the home in case an appliance was leaking but it’s never picked anything up. The midwife said it could be due to poor air quality in the area where I live”*

*“My main concern is the quality of the air that I am exposed to on my walk”*

#### **4. Campaign information about air quality and support available**

##### **- Educate via campaigns about the dangers to health from idling.**

*“Education and stop drivers from running their engines, as they don’t seem to understand that it’s not only affecting the environment but also them sitting in their cars. Once you can stop this then you are on your way to better air”*

*“Campaigns to make drivers aware about pollution and fumes from sitting with engines running. We live near a school and parents and taxis sit along our road with engines on. Their children will be breathing in all those fumes”*

*“Could there be a campaign to stop people leaving cars running whilst waiting for kids to come out of school or more walking buses”*

##### **- Raise awareness of how air quality can affect your health.**

*“Poor air quality is one of the 12 risk factors for developing dementia. If more people were aware of this, they may take the problem more seriously”*

*“Get Parish, District and County Councils and schools involved in campaigns to raise awareness and improve air quality. Just like the biodiversity policy that all councils have had to include in their policies, have a clean air policy”*

*- “Educational awareness around the use of indoor air pollutants needs to be share”*

##### **- Participants want to know where they can go to find out more information about air quality.**

*“I don’t have any information on what air quality should be to avoid illness etc and have no idea what the air quality is in Harvington. Where can I find out?”*

*“I think log burners have become very trendy and people don’t know that they are a health risk, there isn’t enough information out there about this and it’s hard to convince people it is dangerous. I don’t think people understand what they are breathing in and how dangerous it is”*

*“I live close to M5 motorway and would like to know pollution levels in my garden”*

##### **- Support and grants for residents to insulate home and change heating**

*“Grants need to be made available to help those residents who cannot afford to insulate their homes to do so. If all residents had better insulated homes the impact would be considerable”*

*“Better information on home insulation and grants. Education”*

*“Subsidise low emission heating systems. Subsidise solar for homes. Offer free advice and guidance on reducing pollution in and around your home and to businesses”*

#### **Summary Points**

- Protecting the health of themselves, the health of others, the local environment and improving the local area mattered most to people regarding air quality
- 88% of respondents told us they considered road traffic/ vehicle emissions to be the main source of outdoor air pollution and 60% gave the same reason for indoor air pollution.

- Over half of all respondents (54%) travelled 4 miles or less to their usual place of work.
- 58% of people usually use the car to get to work
- 80% of people said their short journeys were to go to the shops
- 43% of people are slightly aware/ moderately aware of the impact of air quality
- 31% of respondents had a log burner. 39% of people used their log burner/ open fire alongside another form of heating, 35% used it to heat one particular room in the home.

#### **Opportunities**

- Raise awareness of air quality and the impact it has on the health of individuals and the environment
- Promote active travel modes of transport to improve air quality alongside the health benefits, especially for short journeys
- Raise awareness of the impact of idling vehicles
- Raise awareness of sources of air quality information and the action individuals can take to help improve it
- Raise awareness and promote the support available for home improvement and sustainability measures



# Air Quality Survey HoW College

**Collect information on students' and all staff Heart of Worcestershire College (HoW) transportation habits on their way to college and how these habits relate to Air Quality. The survey was conducted between September 17th and October 20th, 2024**

## Key Findings Summary

### 1 Demographics

741 responses.

49.7% (368) were male, 48% (356) were female, and 2,3% (17) preferred not to disclose their gender.

Over 80% of the respondents were between 16-30 years old (607), followed by 31-45 years (61), and 46-60 years (49).

### 2 Travel Habits

A significant portion of respondents (50.8%) live more than 4 miles from the college, and the main transport Methods:

Car: 252 respondents use cars as their primary mode of transport, which makes it the most common form of transport and bus: 201 respondents.

Only 17% (130) walk, while only 2.6% (20) use bicycles and 99 use trains. Just 17.6% (131) respondents used travel.

### 3 Perception of Air Pollution

The main source of air pollution identified by 42.7 % (317) respondents was vehicle emissions, followed by 36% (267) industrial burning and burning at home and garden fires were less significant. However, 13% indicated that they did not know the main sources of air pollution.

34% of the respondents expressed concern for the health and wellbeing of their family and 32% of them for the environment. A small group (8%) stated that none of these air quality issues mattered to them.

**741 responses (almost similar % male and female)**

**50.8 % live more than 4 miles from the college**

**252 respondents travel by car**

**17% Walk**

**2.6% cycle**

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## Key Findings Summary

### 4 Health Concern

Protecting family health (34.9%) and the environment (32.2%) were the top motivations for respondents concerned about air quality, reflecting a sense of social responsibility among the participants. A small group (8.5%) stated that none of these air quality issues mattered to them.



**34.9% responded that they are concerned about family health**



**32.2 % concerned for the environment.**



**8.5% none of these air quality issues mattered to them**

### 5 Willingness to Change

While many already walk for short journeys (64.3%) with 8.2% considering doing so in the future. Only 14.3% currently cycle for short journeys, with over a third (34.3%) stating they do not intend to.

40.5% of respondents currently use the bus, and 33.9% use trains. However, a significant percentage do not propose switching to public transport in the future (around 24-25%).



**64.3% consider walking**



**14.3% want to go by bike**



**40.5% use the bus, and 33.9% use trains (but over 20% do not propose use to public transport in the future)**



**70% lack of time**



**64% long distance to College**



**58% weather condition**



**37.7% carry things**

### 6 Barriers to Walking

The main reasons for not walking more include lack of time (70%), weather conditions (58%), distance to college (64%) and 37.7% carry things which makes walking less feasible. Only 14% of respondents reported having physical restrictions.

These barriers suggest that structural issues, like transportation infrastructure and climate, significantly impact behaviour .



**Appendix 3 - Table 1 – Visits were made to schools in Worcestershire March to June 2024**

<b>N.</b>	<b>School Name/Town</b>	<b>Visit Date mm/dd/aa</b>	<b>N.</b>	<b>School Name/Town</b>	<b>Visit Date mm/dd/aa</b>
1	Blessed Edward Oldcorne Catholic College/ Worcester	3/22/24	26	Perryfields Primary Pupil Referral Unit/ Worcester	4/24/24
2	Abbeywood First School/ Redditch	4/18/24	27	Pitmaston Primary School/ Worcester	4/24/24
3	Aston Fields Middle School/ Bromsgrove	5/1/24	28	Red Hill CE Primary School/ Worcester	3/22/24
4	Battenhall Nursery/ Worcester	4/24/24	29	Regency High School/ Worcester	5/2/24
5	Bishop Perowne CofE College/ Worcester	4/24/24	30	Rigby Hall Day Special School/ Bromsgrove	5/1/24
6	Bromsgrove School/ Bromsgrove	5/1/24	31	Riversides School/ Worcester	4/24/24
7	Busy Bees in Worcester/ Worcester	5/2/24	32	Royal Grammar School Worcester/ Worcester	4/24/24
8	Christopher Whitehead Language College and Sixth Form/ Worcester	4/24/24	33	Shooting Stars nursery's/ Worcester	4/24/24
9	Christopher Whitehead Language College/ Worcester	4/24/24	34	South Bromsgrove High/ Bromsgrove	5/1/24
10	Church Hill Middle School/ Redditch/ Redditch	4/18/24	35	Springfield RGS/ Worcester	4/24/24
11	Finstall First School/ Bromsgrove	5/1/24	36	St Barnabas C Of E Primary School/ Worcester	4/24/24
12	Fort Royal Community Primary School / Worcester	3/22/24	37	St George's C of E Primary School/ Worcester	4/24/24
13	Heart of Worcestershire College/ Redditch	4/18/24	38	St George's Catholic Primary School/ Worcester	4/24/24
14	Holly Trees Children's Centre/ Redditch	4/18/24	39	St John's Church of England Middle School Academy/ Bromsgrove	5/1/24
15	Hollymount School/ Worcester	5/5/24	40	St Joseph's Catholic Primary School/ Worcester	5/2/24
16	Millfields First School/ Bromsgrove	5/1/24	41	St Peter's Catholic First School/ Bromsgrove	5/1/24
17	Moon's Moat First School & Nursery/ Redditch	4/18/24	42	St Stephen's CE First School/ Redditch/ Redditch	4/18/24
18	Newbridge School/ Worcester	3/22/24	43	Stanley Road Primary School/ Worcester	3/22/24
19	North Bromsgrove High School/ Bromsgrove	5/1/24	44	The Forge Secondary Short Stay School/ Redditch	4/18/24
20	Northwick Manor Primary School/ Worcester	5/7/24	45	The King's School/ Worcester	5/7/24
21	Nunnery Wood High School/ Worcester	3/22/24 6/12/24	46	The River School/ Worcester	5/7/24
22	Nunnery Wood Primary School/ Worcester	5/7/24 6/12/24	47	Trinity High School and Sixth Form Centre/ Redditch	4/18/24
23	Oasis Academy Warndon/ Worcester/ Worcester	5/2/24	48	Tudor Grange Academy Worcester/ Worcester	5/7/24
24	Oldbury Park Primary School/ Worcester	5/7/24	49	Tudor Grange Primary Academy Worcester/ Worcester	5/7/24
25	Our Lady Queen of Peace Catholic/ Worcester	4/24/24			

**Appendix 3 - Table 2 – List of schools contacted July to October 2024**

<b>N0.</b>	<b>School/Town</b>	<b>Meeting Date mm/dd/aa</b>
1	Blessed Edward Oldcome Catholic College (Worcester)	9/11/24
2	Hanley Castle High School (Worcester)	10/14/24
3	Heart of Worcestershire College	7/18/24 8/7/24
4	Holy Redeemer Catholic Primary School (Pershore)	9/26/24
5	Meadow First Primary School (Bromsgrove)	7/22/24 10/3/24
6	South Bromsgrove High School (Bromsgrove)	9/30/24
7	St Oswald's C of E Primary School (Kidderminster)	9/25/24
8	St. George C of E Primary School (Worcester)	10/9/24
9	St. George Catholic Primary School (Kidderminster)	10/18/24
10	Worcester University	7/31/24

### **Appendix 3 - Table 3 – List of schools identified for behaviour change activities**

<b>N.</b>	<b>School/Town</b>	<b>Focus of Engagement</b>	<b>Next activities...</b>
1	St. George C of E Primary School (Worcester)	They have a School Travel Plans (STP)	(1) Next few months 2024: Conduct a survey to gather feedback from parents and staff on their perceptions of air quality around the school (2) January 2025: Promote the “Clean Air Night campaign”
2	Holy Redeemer Catholic Primary School (Pershore)	Educating younger students on air pollution and its health impacts. This school does not have information about travel plans to schools. It is interested in working on air quality issues because it has a very narrow access road, and its hours of greatest vehicle traffic are in the morning.	(1) 19 <sup>th</sup> November 2024: Assist in the delivery of the school assembly (2) Next few months 2024: Conduct a survey to gather feedback from parents and staff on their perceptions of air quality around the school (3) January 2025: Promote the “Clean Air Night campaign”
3	Meadow First Primary School (Bromsgrove)	The school has an environmental project within the framework of UNICEF’s support for children’s human rights, in which they carry out activities to promote air quality.	(1) Next few months 2024: Conduct a survey to gather feedback from parents and staff on their perceptions of air quality around the school (2) January: Promote the “Clean Air Night campaign”
4	St. George Catholic Primary School (Kidderminster)	The primary school has 214 students and provides financial assistance for van transportation for 22 children. 10 children between 7 and 11 years old belong to an environmental group (eco group)	(1) 28 <sup>th</sup> November 2024: Meeting to present the survey proposal and the clean air night activity, (2) Next few months 2024: Conduct a survey to gather feedback from parents and staff on their perceptions of air quality around the school (3) January 2025: Promote the “Clean Air Night campaign”
5	Hanley Castle High School (Worcester)	High School engagement on monitoring local air quality student projects. They have a founding project 'Engineering Solutions: Air Pollution' which has been produced by the James Dyson Foundation (16 air quality monitors)	(1) Next few months 2024: Help to design and assist in the delivery of the school assembly in the next few months to introduce the topic to more students. (2) January 2025: Promote the “Clean Air Night campaign”
6	Heart of Worcestershire College	Targeting college students to promote environmentally friendly habits. We are taking part in the student welcome festivals held at the Redditch, Bromsgrove, and Worcester campuses in September 2024. We are also conducting an air quality opinion survey among students and college staff.	(1) Late November 2024: Present the results of the survey conducted among students and staff of the college on the perception of air quality, conducted between September 19 and October 20, 2024. (2) January 2025: Promote the “Clean Air Night campaign”

### **Appendix 3 - Table 4 – Visits were made to Community and Care Sector Organisations**

<b>N.</b>	<b>Group Name/ Town</b>	<b>Activity</b>	<b>Visit Date mm/dd/aa</b>
1	Breathe Easy Group/ Redditch	Meeting – Assembly – promote AQ Survey	4/18/24
2	Prospect Place Care Home/ Worcester	Visit to promote information	6/12/24
3	South Hayes Care Home / Worcester	Visit to promote information	6/12/24
4	Stuar House Shaw Healthcare / Worcester	Visit to promote information	6/12/24
5	Worcester Intermedia Care Home / Worcester	Visit to promote information	6/12/24
6	Red Hill Care Centre / Worcester	Visit to promote information	6/12/24
7	West Midlands Ambulance Service	Visit to promote information	6/12/24

### **Appendix 3 - Table 5 – Participation in events**

<b>N.</b>	<b>Event Name</b>	<b>Description</b>	<b>Visit Date mm/dd/aa</b>
1	SustFest- Wyre Forest – Riverside Park Stourport-on-Severn		4/27/24
2	Promote the Clean Air Day campaign in schools		6/20/24
3	Running Out of Time – Worcester		6/24/24
4	Worcester Welcome – Worcester University		9/14/24
5	Freshers Fayres – Heart of Worcestershire College		9/18/24 9/19/24 9/20/24



# Air Quality

## In Worcestershire

Poor air quality is the largest environmental risk to public health and is estimated to kill over **40,000** people a year in the UK. In Worcestershire, it is mainly caused by small particles and gases in the air, which can't see and that can cause harm if you breathe them in.

### Sources of Air Pollution

The diagram illustrates the sources of air pollution and their impact on various locations. On the left, four sources are listed in clouds: Vehicle Emissions (with a truck icon), Indoor Burning (with a fireplace icon), Outdoor Burning (with a campfire icon), and Industry (with a factory icon). A central road with a red car driving on it is shown. Dotted arrows point from the car to a school, a building with a location pin, a shopping cart, and a church. A cloud at the bottom of the road is labeled 'Short Journeys (less than 2 miles)'.

Vehicle Emissions

Indoor Burning

Outdoor Burning

Industry

SCHOOL

Short Journeys (less than 2 miles)

Worcestershire  
Regulatory Services  
Supporting and protecting you

Worcestershire  
Air

[www.worcsregservices.gov.uk](http://www.worcsregservices.gov.uk)

## How can you help?

### Cycle, Walk or use Public Transport

Where you can, leave your car at home and walk, cycle or take public transport instead.



### Switch to an Electric Car

Electric cars have no emissions when driving.



### Don't Idle

When stopped or in traffic, turn off your engine to reduce emissions. Idle cars can produce more air pollution than moving ones!



## Visit Our Air Quality Portal



- 1 Visual air quality data of 27 sites across Worcestershire.
- 2 Find out what the local air quality is like near you
- 3 See the different pollutants and colour coding on the map
- 4 Information can be downloaded

[portal.earthsense.co.uk/WorcestershirePublic](http://portal.earthsense.co.uk/WorcestershirePublic)

Worcestershire Regulatory Services (WRS) is a shared service formed from the Environmental Health and Licensing departments of the six Worcestershire District Councils.

Worcestershire  
**Regulatory Services**

*Supporting and protecting you*



Worcestershire  
**Air**

[www.worcsregservices.gov.uk](http://www.worcsregservices.gov.uk)



## Appendix 5 - Action Plan

Short-Term (0-6 Months)	Medium-Term (6-12 months)	Long-Term (12+ Months)
<p><b>1. Raise Awareness</b></p> <ul style="list-style-type: none"> <li>Campaigns in Schools and Colleges: Conduct workshops, assemblies, and create posters targeting air quality awareness, specifically focusing on health impacts and sources of pollution.</li> <li>Social media and Online Engagement: Leverage digital platforms to share educational content about air pollution's effects and encourage sustainable habits.</li> </ul>	<p><b>1. Targeted Support for Schools Near AQ Monitors</b></p> <ul style="list-style-type: none"> <li>Local Data Usage: Provide schools with real-time AQ data and integrate these insights into classroom discussions to make the impact of behaviour changes more tangible.</li> <li>Educational Materials Development: Create toolkits for teachers and staff at high-impact schools, focusing on actionable steps for improving air quality.</li> </ul>	<p><b>1. Sustain and Scale Successful Initiatives</b></p> <ul style="list-style-type: none"> <li>Recognition Programs: Establish annual recognition programs for schools and community groups that achieve significant air quality improvements.</li> <li>Expand School Partnerships: Continue to engage additional schools each year, using testimonials and case studies from previously engaged schools to encourage new participation.</li> </ul>
<p><b>2. Data Collection and Analysis</b></p> <ul style="list-style-type: none"> <li>Survey Rollouts for Parents and Students: Implement surveys for students, staff, and parents in additional schools to gather more specific insights on travel habits and perceptions.</li> <li>Baseline Data Collection: Collect baseline data from schools near air quality monitoring stations to track changes over time.</li> </ul>	<p><b>2. Expand Participation and Engagement</b></p> <ul style="list-style-type: none"> <li>Develop Incentives for Schools: Offer mini-grants or eco-certificates to schools that make measurable progress, recognise them as "Air Quality Ambassadors" in local media.</li> <li>School Travel Plan Initiatives: Work with schools to develop or strengthen School Travel Plans, which can address barriers to walking, cycling, and carpooling.</li> </ul>	<p><b>2. Enhanced Infrastructure and Accessibility</b></p> <ul style="list-style-type: none"> <li>Support for Sustainable Infrastructure: Advocate for bike-friendly routes, safe pedestrian areas, and other infrastructure improvements to facilitate low-emission commuting.</li> <li>Seek Additional Funding: Work with stakeholders to secure funding for long-term projects, like installing air quality monitors at key locations and sustaining behaviour change initiatives.</li> </ul>
<p><b>3. Encourage Engagement</b></p> <ul style="list-style-type: none"> <li>Tiered Participation Levels: Allow schools with limited resources to engage through simple activities, like promoting clean travel in newsletters and sharing AQ information with parents.</li> <li>Small Group Events: Organise small events (e.g., mini workshops or Q&amp;A sessions) at schools, targeting initial levels of engagement with minimal resources required.</li> </ul>	<p><b>3. Broaden Community Involvement</b></p> <ul style="list-style-type: none"> <li>Community Events: Engage with groups like the Breathe Easy Group, and participate in community events (e.g., Clean Air Day) to increase public awareness.</li> <li>Collaborate with Local Organisations: Strengthen ties with local government agencies, health departments, and community organisations to expand support and visibility.</li> </ul>	<p><b>3. Review and Adaptation</b></p> <ul style="list-style-type: none"> <li>Impact Assessment and Adjustments: Conduct annual reviews of behaviour change activities to evaluate the effectiveness, adjusting approaches based on survey data and feedback.</li> <li>Long-Term Community Engagement Platform: Real time visualisations from local monitoring for classroom discussions, develop interactive modules tailored to different age groups, etc.</li> </ul>