Air Quality and Health across Leicestershire update

Objectives

- Context: Air pollution and Health in Leicestershire
- Work conducted to date
- Plan to address poor health outcomes linked to air pollution

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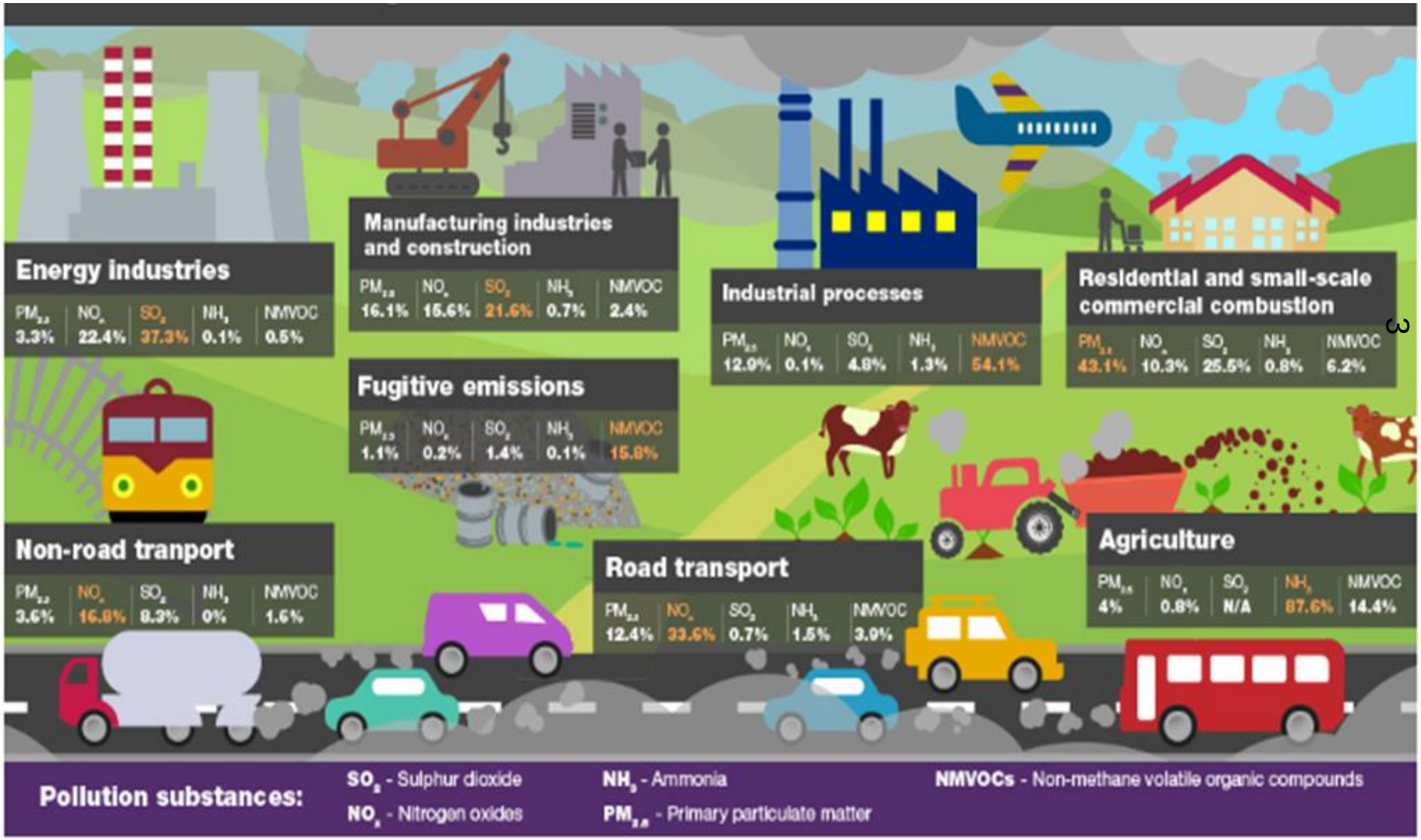
Sources of air pollution



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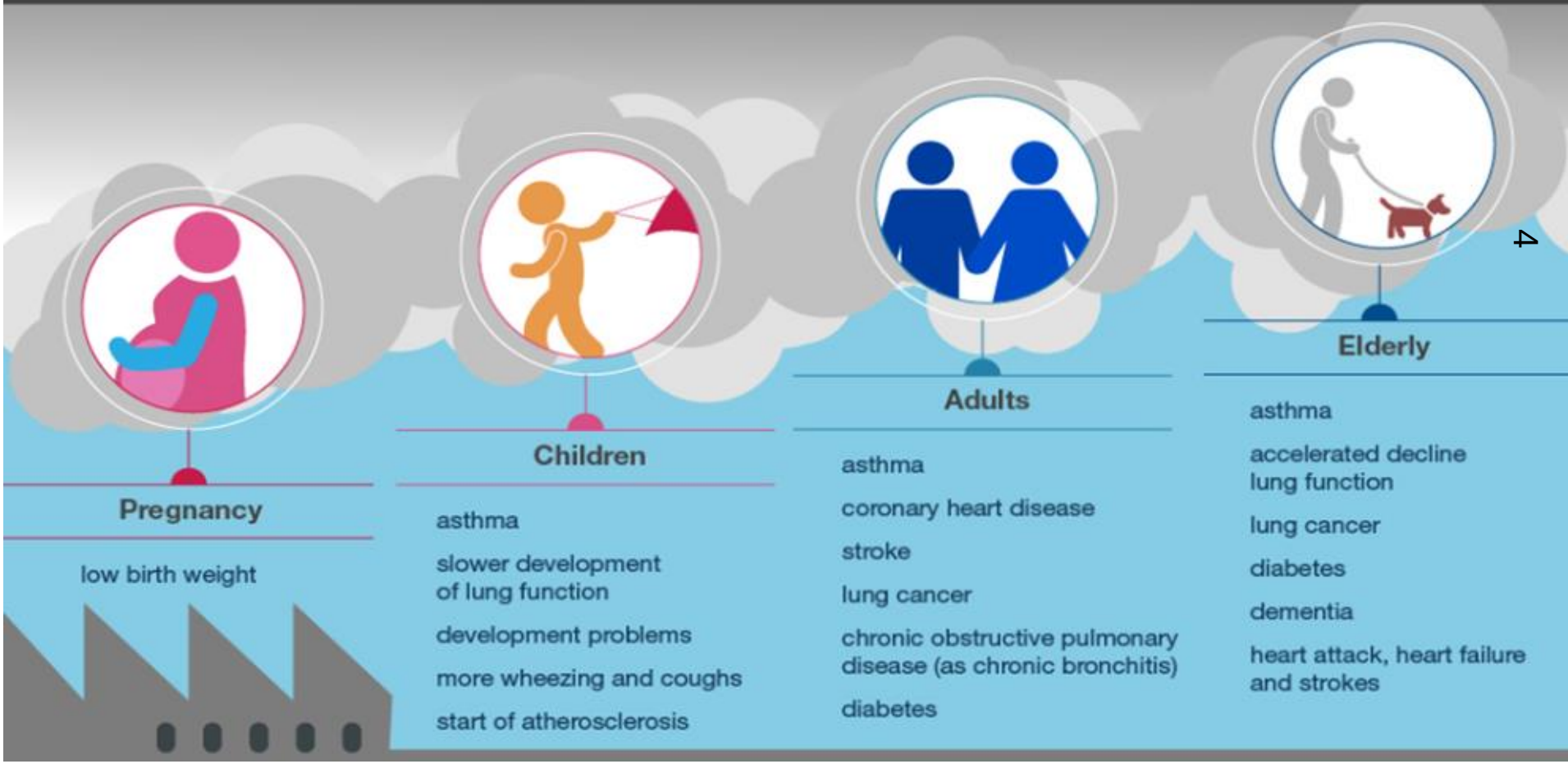
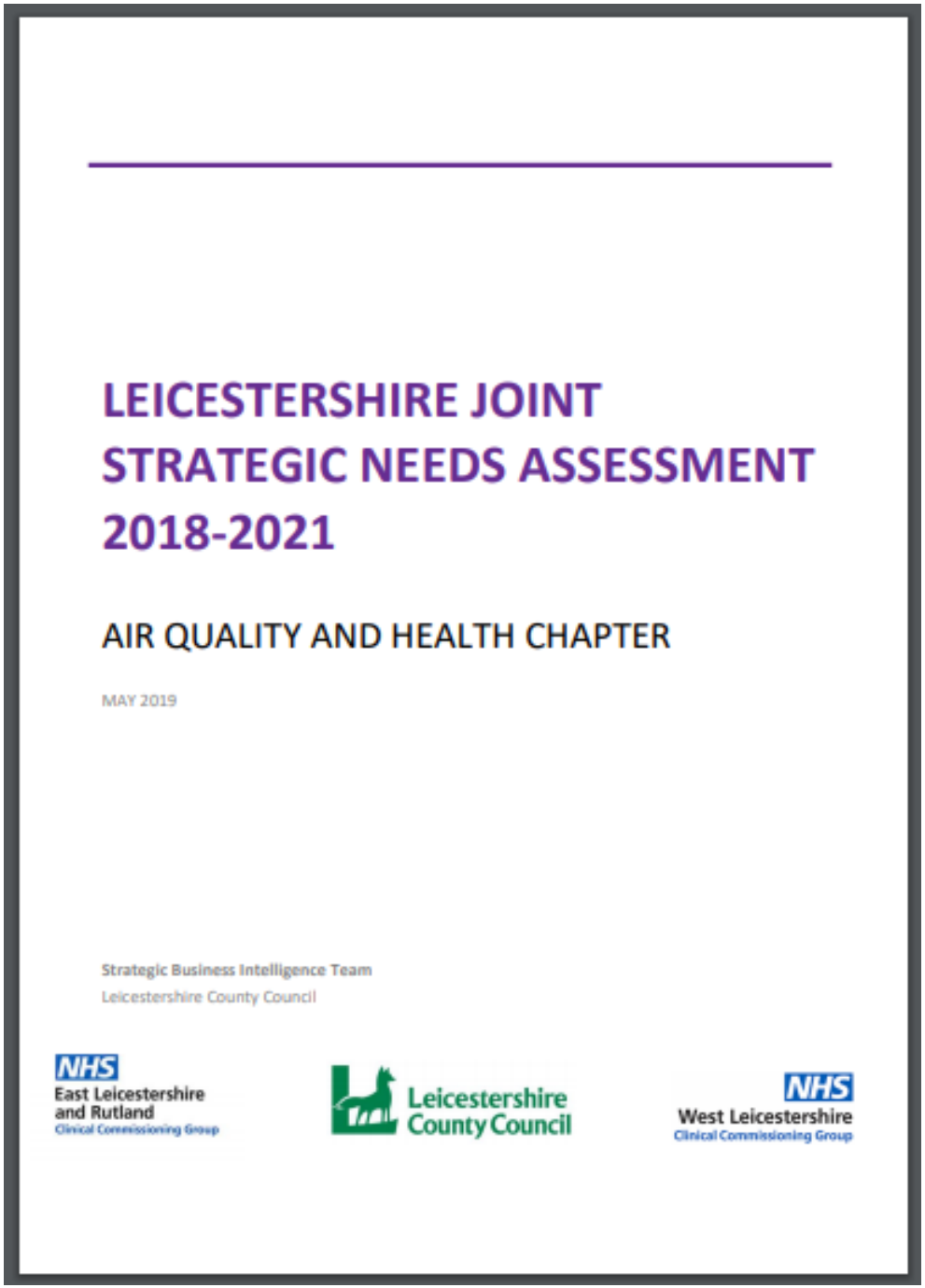
Public Health England

Health Matters

Air pollution affects people throughout their lifetime





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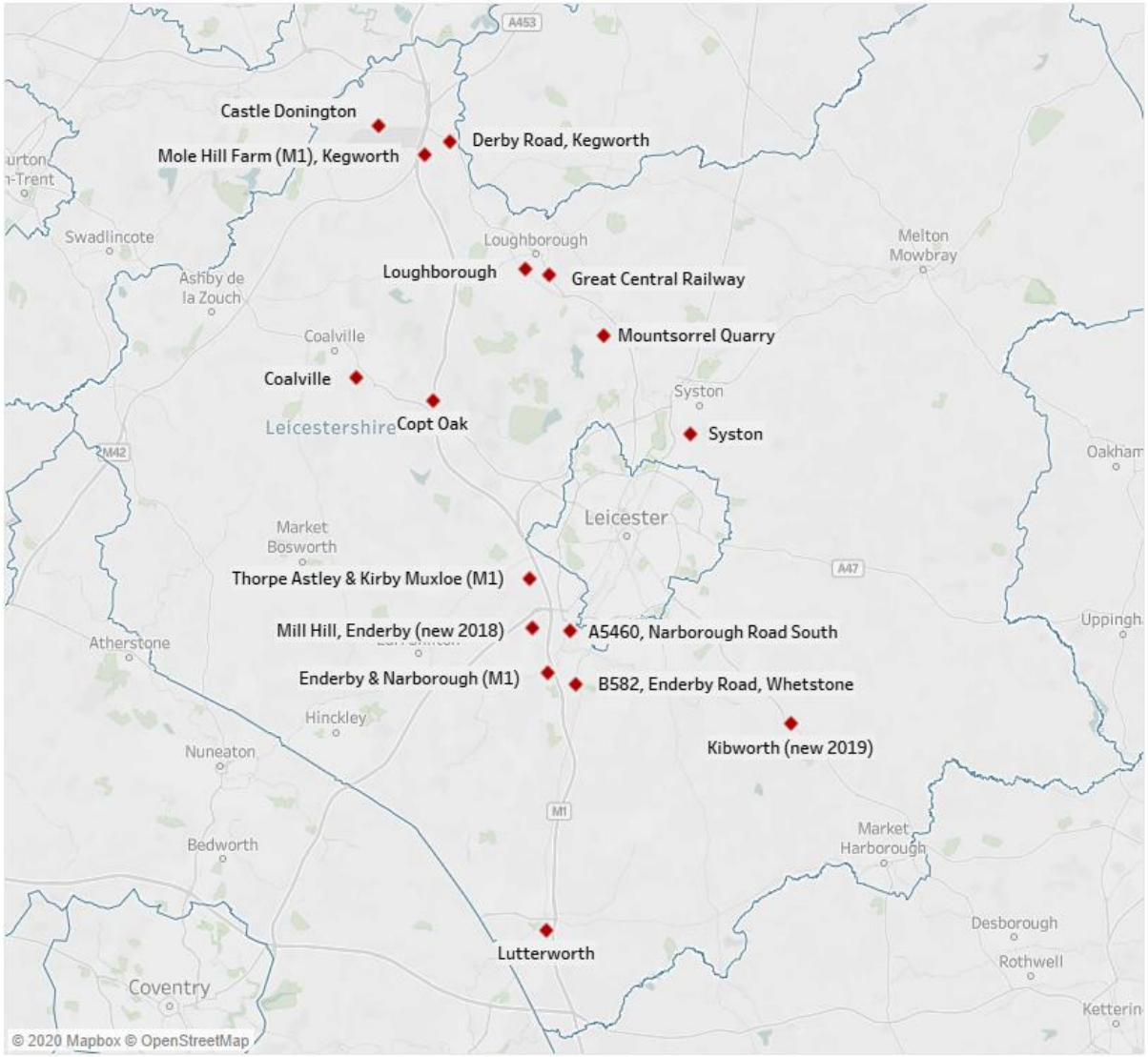
Published in May 2019.

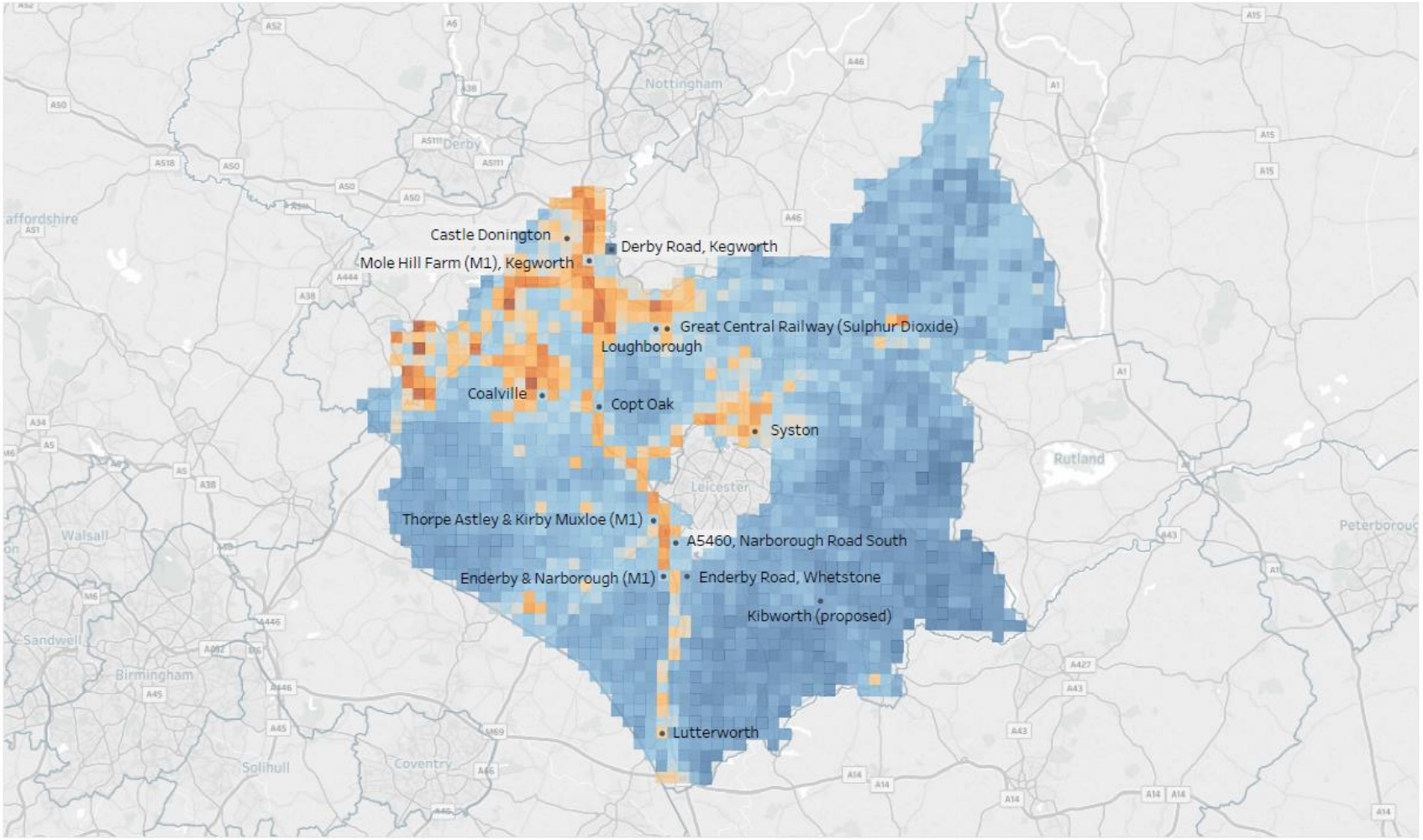
Scale of the air quality problem in Leicestershire

AIR QUALITY MANAGEMENT AREAS (AQMA'S) IN LEICESTERSHIRE



Air Quality

Air Quality in Leicestershire: Particulate Matter (PM2.5)



Please note, each square represents one Ordnance Survey 1km grid square.

Range of PM2.5 values throughout Leicestershire

8.2 — 13.3

Source: DEFRA, 2015

Produced by the Strategic Business Intelligence Team, Leicestershire County Council, 2017.

Burden of ill health

- Air pollution is the biggest environmental hazard in terms of mortality.

- Preventable deaths due to PM2.5 is the 3rd leading cause of preventable deaths in Leicestershire and approximately 88 deaths in 2018 could be attributed to it.

Leicestershire County Council

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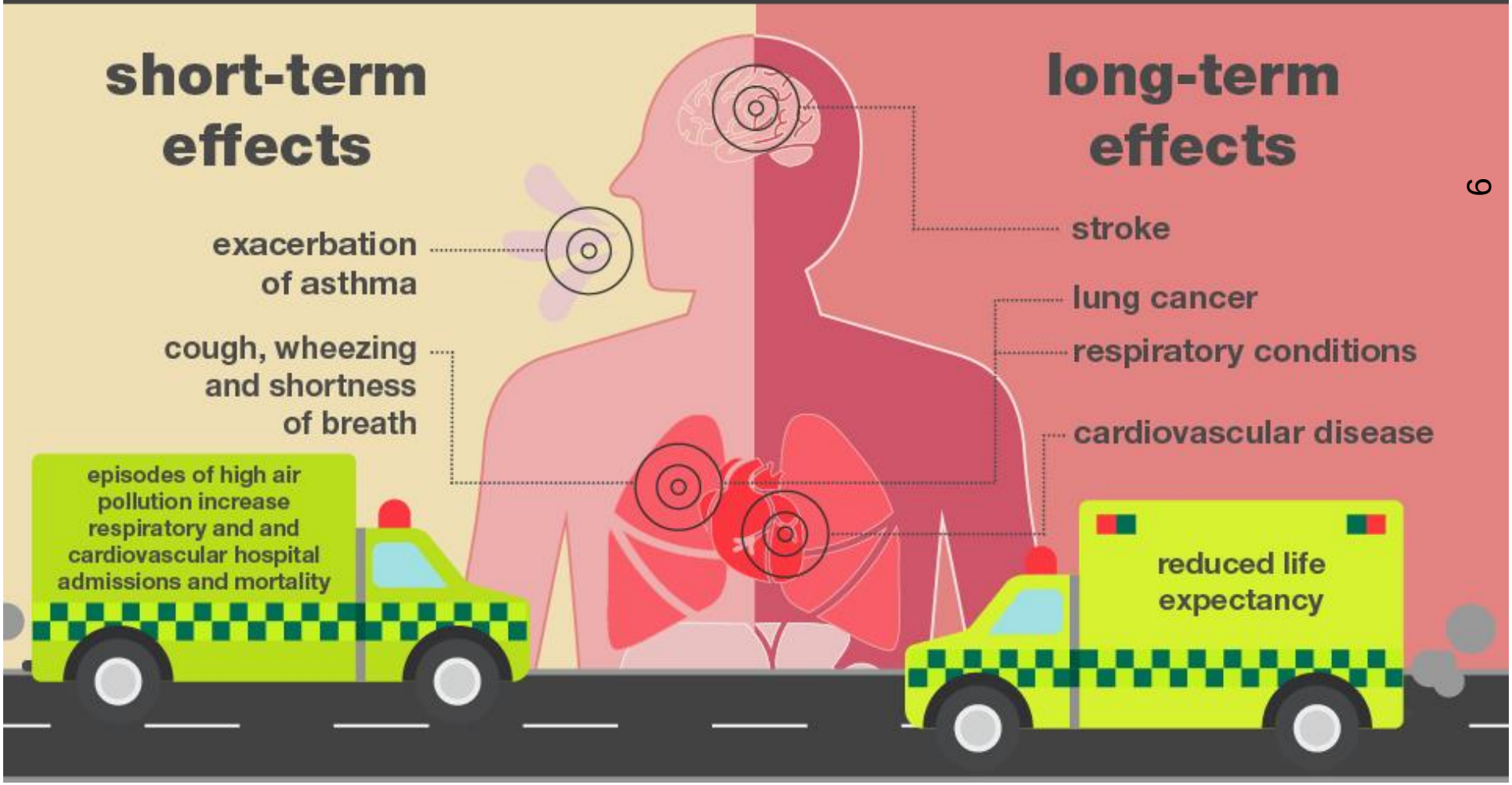
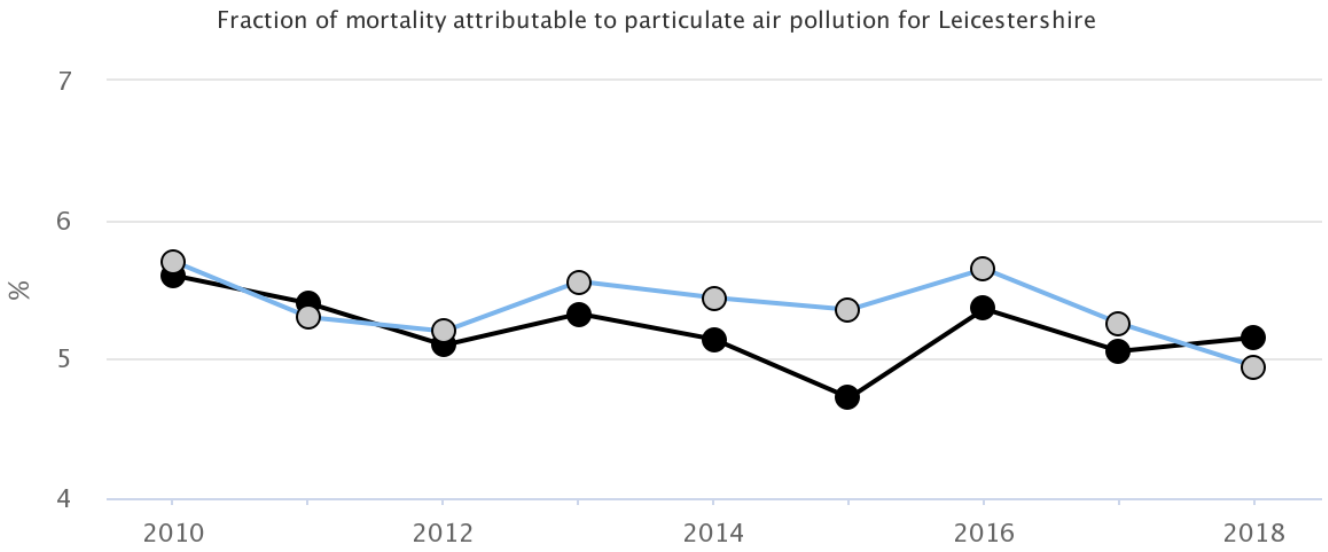
Health Matters

Health effects of air pollution



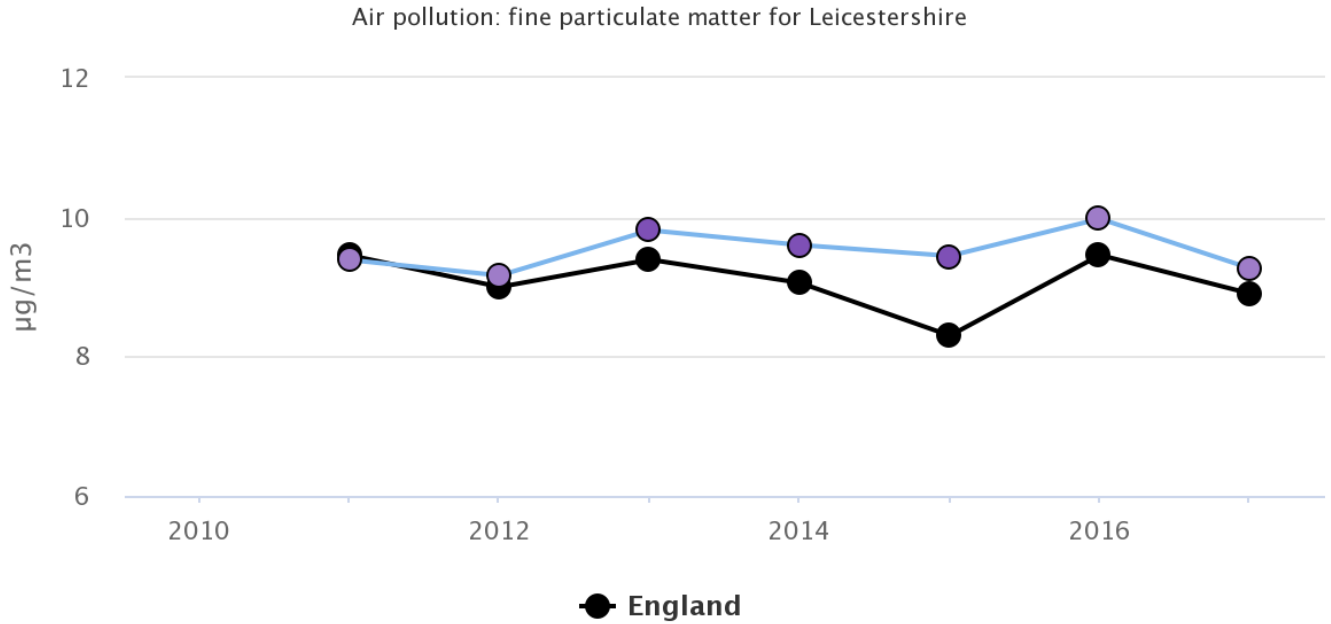
Burden of ill health



Period		Leicestershire				East Midlands	England
		Count	Value	Lower CI	Upper CI		
2010	○	-	5.7%	-	-	5.7%	5.6%
2011	○	-	5.3%	-	-	5.3%	5.4%
2012	○	-	5.2%	-	-	5.2%	5.1%
2013	○	-	5.6%	-	-	5.6%	5.3%
2014	○	-	5.4%	-	-	5.5%	5.1%
2015	○	-	5.4%	-	-	5.1%	4.7%
2016	○	-	5.6%	-	-	5.5%	5.4%
2017	○	-	5.3%	-	-	5.1%	5.1%
2018	○	-	4.9%	-	-	4.9%	5.2%

Source: Public Health England, Public Health Outcomes Framework Profile

Burden of ill health



Quintiles: Best ● ● ● ● ● Worst ○ Not applicable

Period		Leicestershire				East Midlands	England
		Count	Value	Lower CI	Upper CI		
2011	●	-	9.4	-	-	9.4	9.5
2012	●	-	9.2	-	-	9.2	9.0
2013	●	-	9.8	-	-	10.0	9.4
2014	●	-	9.6	-	-	9.7	9.1
2015	●	-	9.4	-	-	9.0	8.3
2016	●	-	10.0	-	-	9.7	9.5
2017	●	-	9.3	-	-	9.0	8.9

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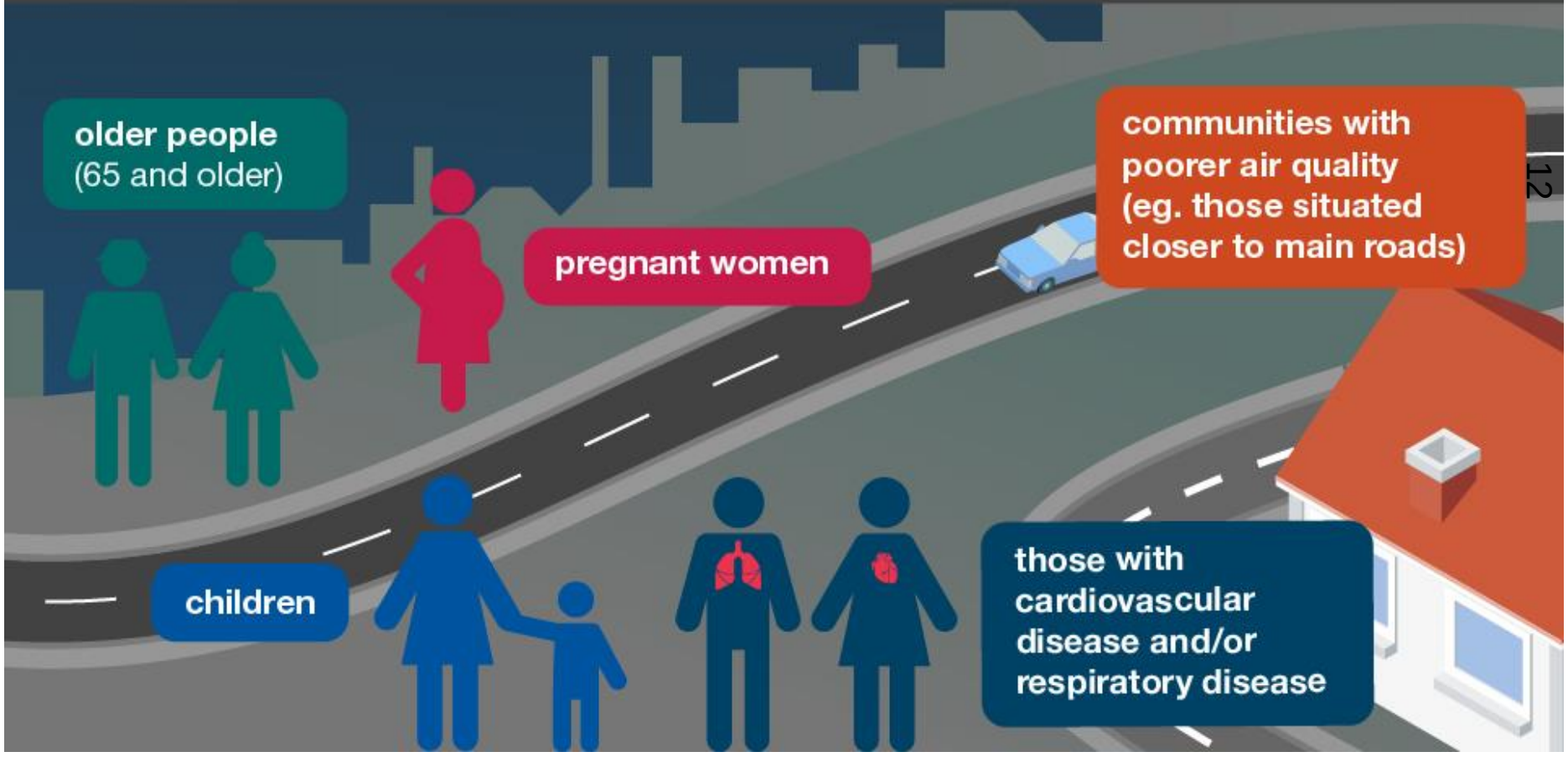
Source: Public Health England, Public Health Outcomes Framework Profile

Air pollution affects everyone but there are **inequalities in exposure** and **the greatest impact on the most vulnerable**



District burden of ill health (Death and Disease per 100,000 population due to $PM_{2.5}$) 2020

District	Asthma	Diabetes	Lung Cancer	COPD	CHD	Stroke	Deaths
Blaby	3	106	7	63	105	32	22
Charnwood	3	84	6	62	94	21	22
Harborough	2	85	5	52	84	21	11
H&B	2	85	5	53	85	22	22
Melton	2	75	5	53	85	32	22
NWL	3	95	7	63	105	32	22
O&W	4	161	12	117	190	54	33

Source: PHE Air Pollution Tool (2020)

Estimates of attributable prevalence cases per 100,000 population due to $PM_{2.5}$ at district level in 2035

District	Asthma	Diabetes	Lung Cancer	COPD	CHD	Stroke	Deaths
Blaby	91	495	8	219	486	126	751
Charnwood	67	316	7	176	406	102	515
Harborough	68	346	7	177	377	97	580
H&B	90	364	8	185	422	128	763
Melton	46	323	6	154	344	92	386
NWL	-46	492	10	237	522	139	736
O&W	0	681	13	374	740	177	1157

Source: PHE Air Pollution Tool (2019)

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Estimates of attributable prevalence cases per 100,000 population due to NO_2 for Districts, 2020

District	Asthma	Diabetes	Lung Cancer	Deaths
Blaby	0	31	1	0
Charnwood	0	41	1	0
Harborough	0	21	0	0
H&B	0	41	1	0
Melton	0	11	0	0
NWL	2	32	0	10
O&W	0	41	1	0

Source: PHE Air Pollution Tool (2020)

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Estimates of attributable prevalence cases per 100,000 population due to NO_2 for Districts for 2035

District	Asthma	Diabetes	Lung Cancer	Deaths
Blaby	0	267	2	0
Charnwood	128	256	1	0
Harborough	0	135	0	0
H&B	0	269	2	0
Melton	0	135	0	0
NWL	133	133	1	0
O&W	0	270	1	0

Source: PHE Air Pollution Tool (2019)

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Workshop with partners

Vision:

To improve air pollution in the County and reduce the impact of air pollution on the environment and human health, contributing to the reduction in health inequalities.

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Aims:

- Reduce the impact of poor air quality on the health of residents, workers and visitors, and the environment – contributing to the reduction of inequalities.
- Raise public awareness of air pollution, its impact on health and personal protection measures to promote sustainable behaviour change.
- Increase our understanding of the state of air pollution in Leicestershire and the impact of measures to improve air quality.
- Meet and exceed statutory obligations and national targets on air quality.

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Actions

JSNA Priority	Theme	Action
Clear leadership, vision and strategic direction		Local authorities to work together through the LLR Air Quality forum and East Midlands Air Quality network to integrate actions
Collaborative partnership working	Planning and development strategies and proposals	Consider the impact on air quality and health of all relevant organisational and cross Leicestershire strategies such as Transport plan
		Integration of sustainability and health into local planning and design frameworks
Consideration of air quality and health in planning and development		- Develop a joined-up process to ensure all planning proposals are rigorously and systematically scrutinised - using Health Impact Assessments for major developments - Use a Health in All Policies approach to influence wider policies and plans

Actions

JSNA Priority	Theme	Action
Alignment of air quality and health with environment and transport decisions	Active and Sustainable Travel	Prioritise investment in walking and cycling infrastructure to enable modal change, especially to schools (consider 20 mph zones) and workplaces in areas of high urban density
		Optimisation of green spaces to reduce people's exposure to poor air quality and encourage active and sustainable travel
		Promote active and sustainable travel of staff, customers and the public

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Actions

JSNA Priority	Theme	Action
General communication with the public and organisations about air quality and health	Information sharing, and behaviour change campaigns	Standardise communication with the public, professionals and other organisations on the short and long-term impacts on health of poor air quality
		Alignment of public health messages across the partnership around air quality and active and sustainable travel choices
Targeted communication and campaigns with priority, groups and key organisations about air quality and health		Empower local people and businesses to take action to reduce their emissions
		Clearer methods for engaging regularly with the public or organisations

Next steps

Plan to be endorsed by each partner organisation by December 2020

Implementation of the joint multi-agency plan with partners via Air Quality and Health partnership group

Progress to be reported to the Unified Prevention Board biannually with oversight from the Health and Wellbeing board.

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