

Noise in Europe

2017 overview of policy-related data



United Kingdom 

April 2017

Photo: © Matthias Hintzsche



The Environmental Noise Directive (END) requires EU member states to assess exposure to noise from key transport and industrial sources with two initial reporting phases: 2007 and 2012. Where the recommended thresholds for day and night indicators are exceeded, action plans are to be implemented. This country fiche presents data related to END assessments as reported to EEA by 15th April 2016 for the two key END indicators: L_{den} (day evening and night exposure) and L_{night} (night time exposure). 2012 strategic noise maps reported are presented, as well as HIA calculations for annoyance and sleep disturbance, hospital admissions and mortality. Trends are presented as the change in exposure from 2007 to 2012, for comparable sources only.

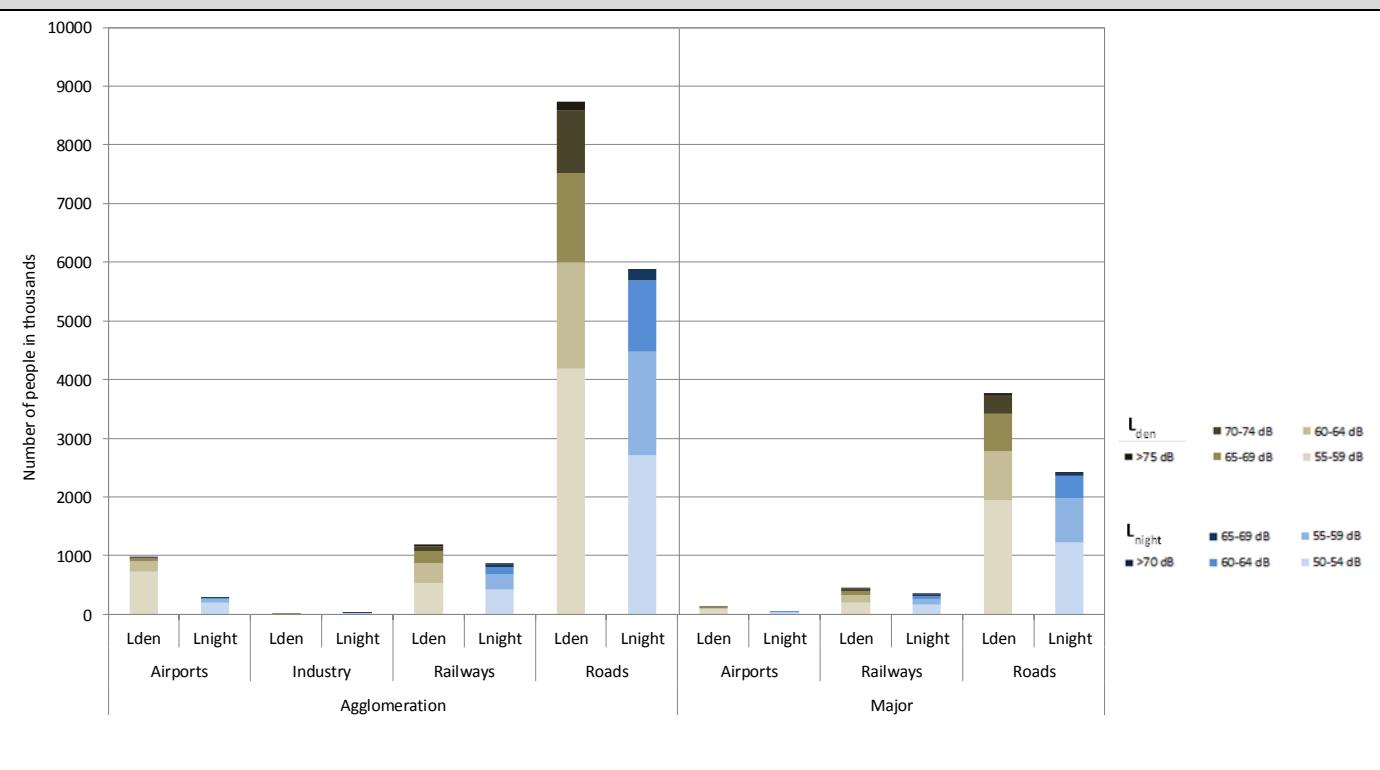


UNITED KINGDOM

Noise sources covered by this assessment

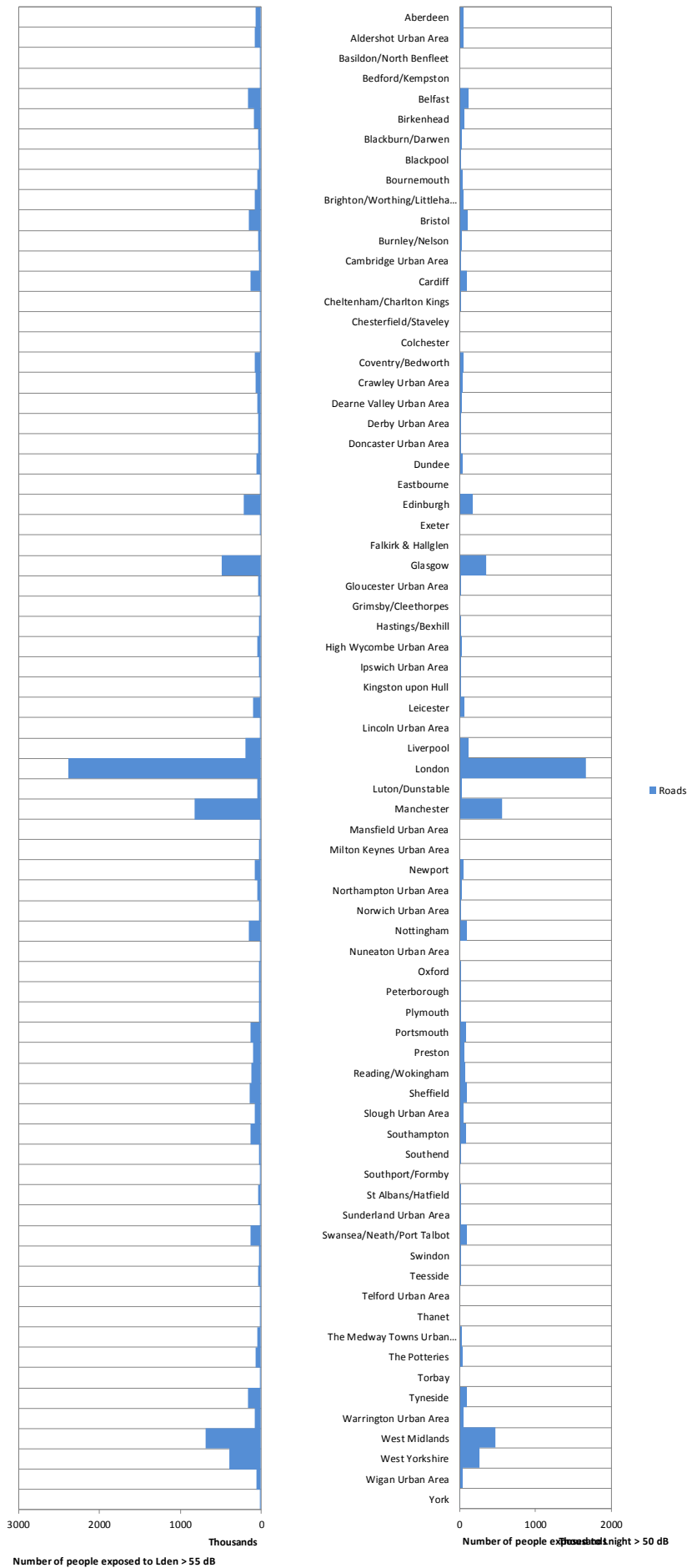
Agglomerations > 100.000 inhabitants	Aberdeen, Aldershot Urban Area, Basildon/North Benfleet, Bedford/Kempston, Belfast, Birkenhead, Blackburn/Darwen, Blackpool, Bournemouth, Brighton/Worthing/Littlehampton, Bristol, Burnley/Nelson, Cambridge Urban Area, Cardiff, Cheltenham/Charlton Kings, Chesterfield/Staveley, Colchester, Coventry/Bedworth, Crawley Urban Area, Dearne Valley Urban Area, Derby Urban Area, Doncaster Urban Area, Dundee, Eastbourne, Edinburgh, Exeter, Falkirk & Hallglen, Glasgow, Gloucester Urban Area, Grimsby/Cleethorpes, Hastings/Bexhill, High Wycombe Urban Area, Ipswich Urban Area, Kingston upon Hull, Leicester, Lincoln Urban Area, Liverpool, London, Luton/Dunstable, Manchester, Mansfield Urban Area, Milton Keynes Urban Area, Newport, Northampton Urban Area, Norwich Urban Area, Nottingham, Nuneaton Urban Area, Oxford, Peterborough, Plymouth, Portsmouth, Preston, Reading/Wokingham, Sheffield, Slough Urban Area, Southampton, Southend, Southport/Formby, St Albans/Hatfield, Sunderland Urban Area, Swansea/Neath/Port Talbot, Swindon, Teesside, Telford Urban Area, Thanet, The Medway Towns Urban Area, The Potteries, Torbay, Tyneside, Warrington Urban Area, West Midlands, West Yorkshire, Wigan Urban Area, York 74 agglomerations in total, covering 35.746.516 inhabitants
Major airports > 50.000 movements per year	Birmingham International Airport, Blackpool International Airport, Bournemouth Airport, Bristol Airport, East Midlands Airport, Leeds Bradford International Airport, Liverpool John Lennon Airport, London Luton Airport, London City Airport, London Gatwick Airport, London Heathrow Airport, London Stansted Airport, Manchester Airport, Newcastle International Airport, Southampton Airport, Belfast International Airport, Aberdeen Airport, Edinburgh Airport, Glasgow Airport, Glasgow Prestwick Airport 20 major airports in total
Major roads > 3 million vehicles per year	31006 km in total
Major railways > 30.000 train passages per year	5745 km in total

Number of people exposed to different noise bands per L_{den} and L_{night} (2012)

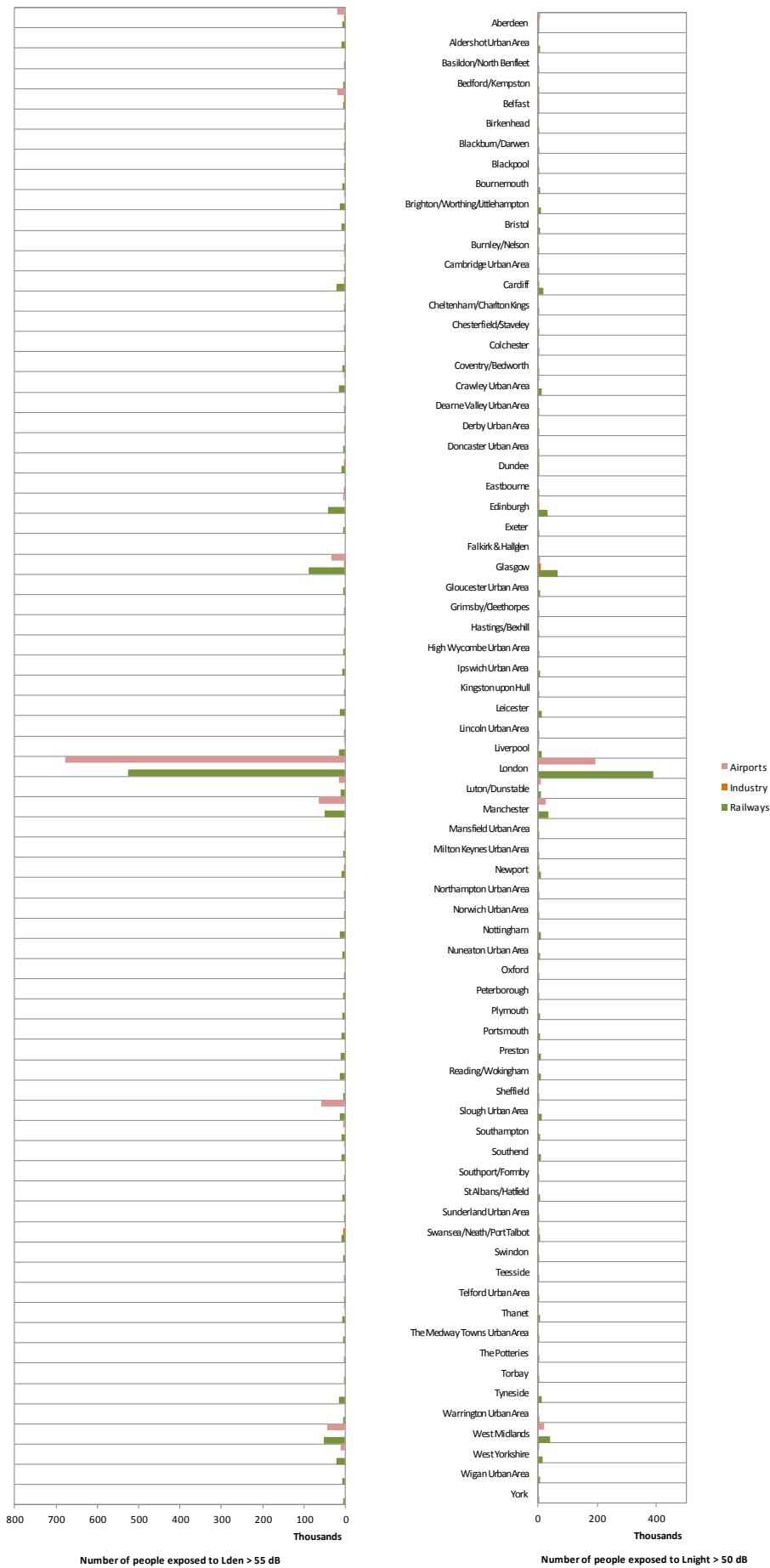


Data not provided in 65 for industrial noise out of 74 agglomerations.

Total number of people exposed to road noise inside agglomerations (2012)

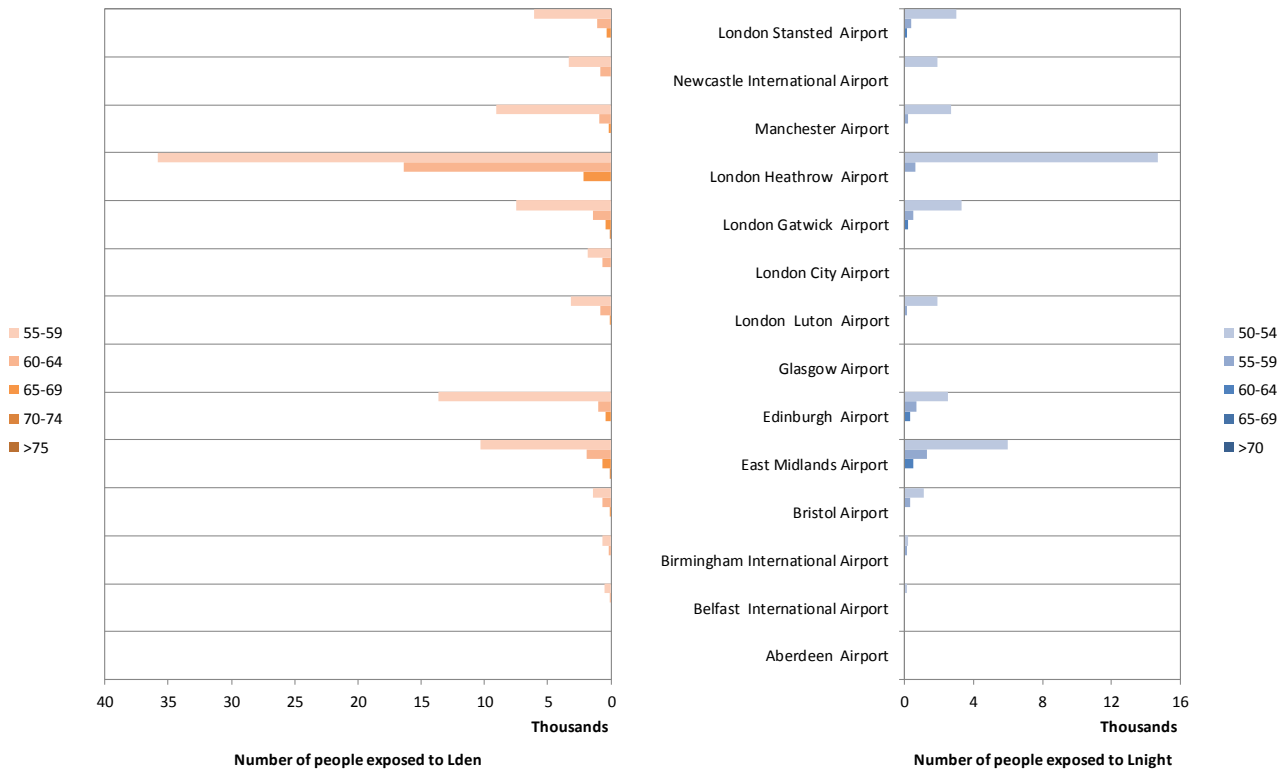


Total number of people exposed to railway, aircraft and industrial noise inside agglomerations (2012)



Assumptions used in the modelling mean the England industry results may result in misleading conclusions if used in subsequent analysis and have therefore been excluded for the purposes of this report.

Total number of people exposed to Major Airports outside agglomerations (2012)



Liverpool John Lennon Airport, Bournemouth Airport, Southampton Airport, Blackpool International Airport, Leeds International Airport and Glasgow Prestwick Airport have not provided data on noise exposure.

Noise contour maps (2012)

Major roads

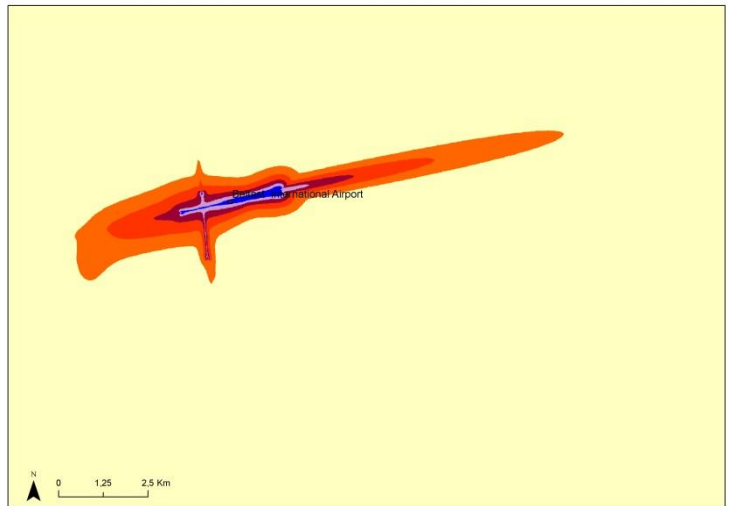


Major railways



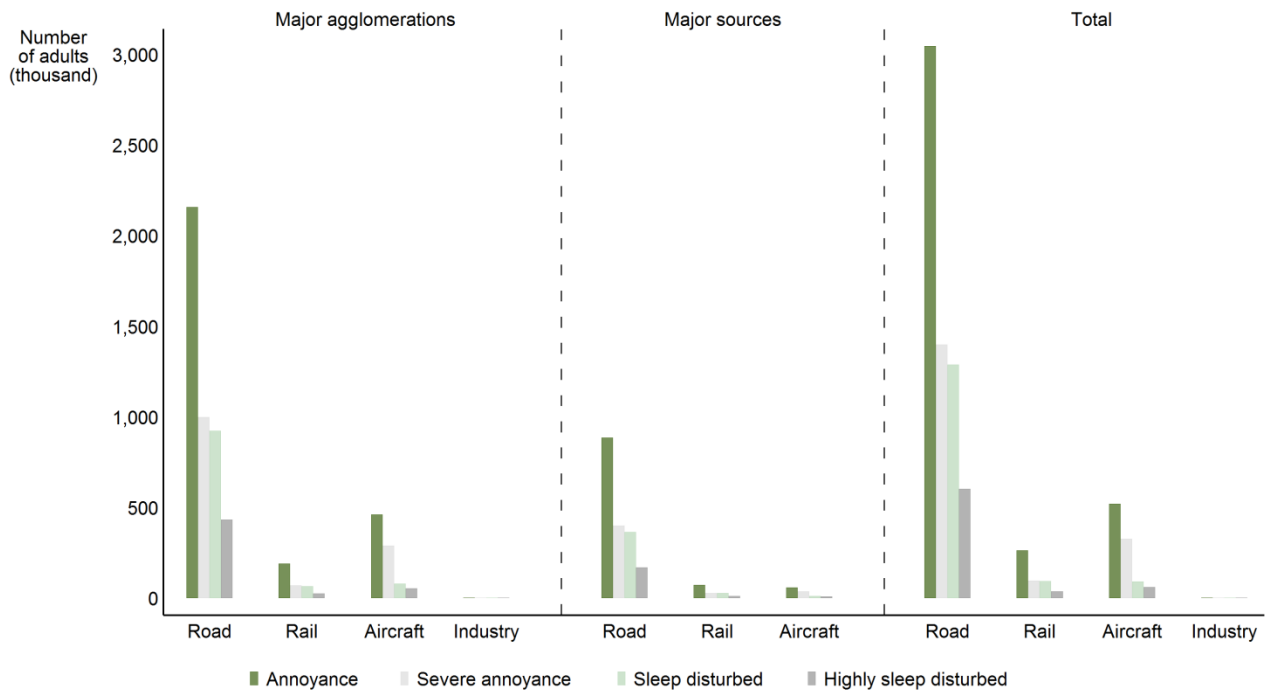
Major airports

Airport	ICAO	Annual traffic
Liverpool John Lennon Airport	EGGP	51560
Bournemouth Airport	EGHH	73164
Southampton Airport	EGHI	53861
Blackpool International Airport	EGNH	72929
Leeds Bradford International Airport	EGNM	52494
Birmingham International Airport	EGBB	95000
Manchester Airport	EGCC	159000
Bristol Airport	EGGD	61000
London Luton Airport	EGGW	94000
London Gatwick Airport	EGKK	240000
London City Airport	EGLC	68000
London Heathrow Airport	EGLL	455000
Newcastle International Airport	EGNT	66000
East Midlands Airport	EGNX	69000
London Stansted Airport	EGSS	155000
Belfast International Airport	EGAA	63963
Aberdeen Airport	EGPD	112999
Glasgow Airport	EGPF	102070
Edinburgh Airport	EGPH	126187
Glasgow Prestwick Airport	EGPK	42708



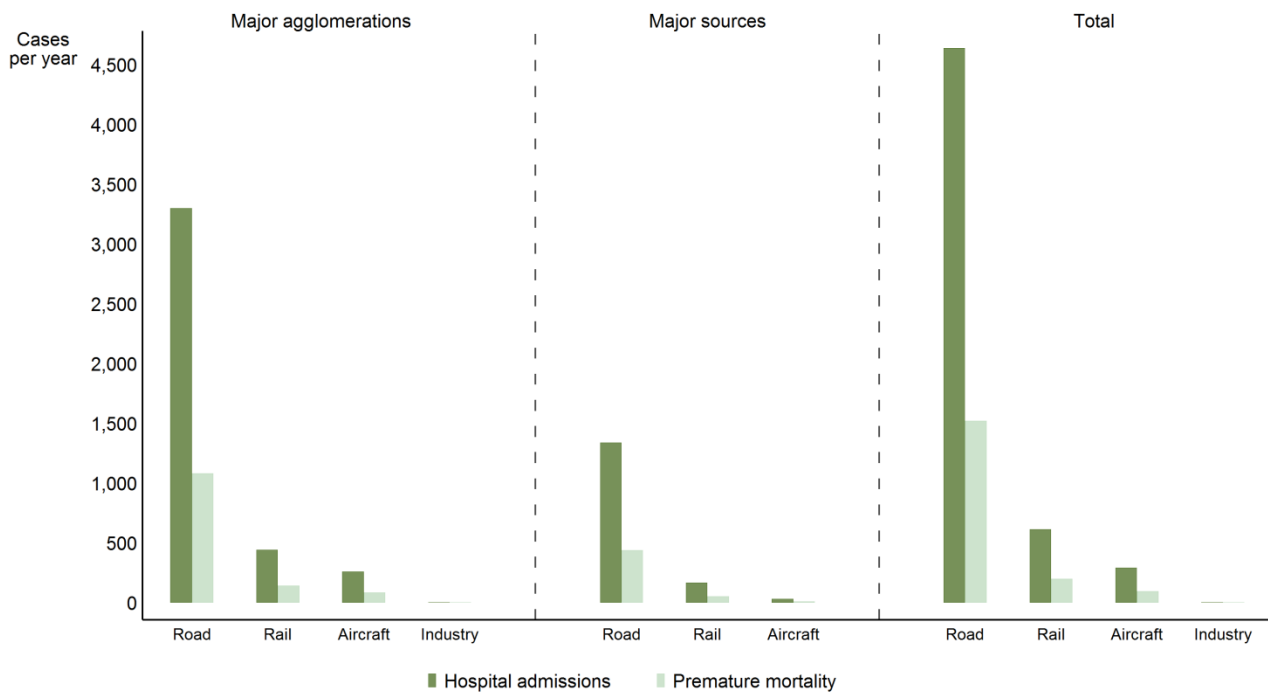
Health impact assessment

Annoyance and sleep disturbance



UK 02112016

Hospital admissions and mortality



UK 02112016

Trends on noise exposure 2007 - 2012

Trends on noise exposure are shown only in those cases where data is available for both implementation rounds:

- For major airports: total number of people exposed to more than 55 dB Lden and to more than 50 dB Lnight outside agglomerations.
- For agglomerations: percentage of population exposed to more than 55 dB Lden and to more than 50 dB Lnight due to different noise sources.

Major airports:

	Lden		Lnight	
	First Round	Second Round	First Round	Second Round
Birmingham International Airport	800	900	200	300
Newcastle International Airport	5800	4100	2100	1900
Belfast International Airport	600	600	100	100
Bristol Airport	4000	2200	1100	1400
London Luton Airport	8600	4100	2900	2000
East Midlands Airport	10400	13000	5900	7800
Aberdeen Airport	16400	0	3400	0
London City Airport	0	2500	0	0
London Gatwick Airport	11900	9400	4800	4000
London Heathrow Airport	107000	54400	21500	15300
London Stansted Airport	9300	7500	4100	3500
Manchester Airport	11600	10200	2500	2900




Agglomerations:

Air (values in %)	Lden		Lnight	
	First Round	Second Round	First Round	Second Round
Belfast	0.4	3.5	0.0	0.2
Birkenhead	0	0	0	0
Blackpool	0.3	0.2	0	0
Bournemouth	0.7	0.3	0	0
Brighton/ Worthing/ Littlehampton	0.3	0.3	0	0
Bristol (*)	0	0	0	0
Coventry/Bedworth	1.2	0.0	1	0
Edinburgh	0.9	0.9	0.5	0.6
Glasgow (*)	5.1	1.4	2.0	0.2
Kingston upon Hull	0	0	0	0
Leicester (*)	0	0	0	0
Liverpool	0.3	0.5	0.2	0.2
London (*)	7.6	7.3	2.2	2.1
Manchester	3.7	2.6	1.8	1.1
Nottingham	0	0	0	0
Portsmouth	0	0	0	0
Preston	0	0	0	0
Reading/Wokingham	0	0	0	0
Sheffield	0	0	0	0
Southampton	3.9	1.8	1.0	0.0
Southend	1.8	0.3	0.2	0.0
Teesside	0	0	0	0
The Potteries	0	0	0	0

Railway (values in %)	Lden		Lnight	
	First Round	Second Round	First Round	Second Round
Belfast	1.0	0.9	0.5	0.4
Birkenhead	2.0	0.8	1.2	0.4
Blackpool	2.5	1.5	1.6	1.1
Bournemouth	1.6	1.5	0.9	1.1
Brighton/ Worthing/ Littlehampton	2.9	2.8	1.9	1.9
Bristol (*)	0.8	1.5	0.4	1.1
Cardiff	6.5	6.7	4.1	5.0
Coventry/Bedworth	1.0	1.8	0.4	1.3
Edinburgh	9.8	8.8	7.9	6.7
Glasgow (*)	9.9	3.8	7.2	2.8
Kingston upon Hull	0.7	0.3	0.4	0.1
Leicester (*)	1.0	2.6	0.6	2.1
Liverpool	1.7	1.8	1.0	1.3
London (*)	5.5	5.6	3.8	4.2
Manchester	2.2	2.1	1.3	1.5
Nottingham	1.6	1.9	0.9	1.4
Portsmouth	1.9	1.9	1.3	1.5
Preston	2.3	4.3	1.4	3.5
Reading/Wokingham	2.3	3.4	1.4	2.6
Sheffield	1.3	0.7	0.7	0.5
Southampton	2.6	2.8	1.6	2.1
Southend	2.9	3.4	1.9	2.7
Swansea/ Neath/ Port	2.3	3.3	1.1	2.6

Industry	L _{den}		L _{night}	
(values in %)	First Round	Second Round	First Round	Second Round
Tyneside	0	0	0	0
West Midlands	2.1	1.8	0.9	0.8
West Yorkshire	0.6	0.7	0.1	0.2
Belfast	0.14	0.09	0.07	0.07
Birkenhead	0.50	0.34	0.38	0.31
Blackpool	0.11	0.27	0.11	0.23
Bournemouth	0.10	0.12	0.05	0.12
Brighton/ Worthing/ Littlehampton	0.26	0.12	0.20	0.10
Bristol (*)	0.11	0.07	0.07	0.07
Cardiff	0.09	0.67	0.06	0.46
Coventry/Bedworth	0.45	0.40	0.30	0.20
Edinburgh	22.28	0.00	20.23	0.21
Glasgow (*)	25.43	0.06	9.15	0.31
Kingston upon Hull	0.33	0.26	0.23	0.23
Leicester (*)	0.48	0.35	0.39	0.33
Liverpool	0.29	0.51	0.25	0.45
London (*)	0.20	0.25	0.17	0.22
Manchester	0.48	0.42	0.38	0.35
Nottingham	0.11	0.27	0.08	0.18
Portsmouth	0.23	0.06	0.18	0.02
Preston	0.53	0.70	0.45	0.59
Reading/Wokingham	0.08	0.13	0.05	0.08
Sheffield	0.19	0.36	0.08	0.19
Southampton	0.36	0.12	0.30	0.06
Southend	0.15	0.21	0.15	0.17
Swansea/Neath/Port Talbot	1.52	1.74	1.07	1.04
Teesside	0.03	0.22	0.03	0.16
The Potteries	0.58	0.12	0.50	0.08
Tyneside	0.20	0.14	0.16	0.12
West Midlands	0.37	0.49	0.28	0.41
West Yorkshire	0.43	0.66	0.35	0.54

Road	L _{den}		L _{night}	
(values in %)	First Round	Second Round	First Round	Second Round
Belfast	27	28	19	20
Birkenhead	96	29	84	18
Blackpool	97	9	75	7
Bournemouth	92	12	66	8
Brighton/ Worthing/ Littlehampton	92	15	81	10
Bristol (*)	95	25	78	16
Cardiff	37	41	26	29
Coventry/Bedworth	80	22	56	13
Edinburgh	49	46	38	36
Glasgow (*)	43	21	30	15
Kingston upon Hull	80	6	54	4
Leicester (*)	91	21	70	13
Liverpool	96	23	84	14
London (*)	39	26	30	18
Manchester	96	34	86	23
Nottingham	93	22	74	13
Portsmouth	97	28	85	18
Preston	97	38	85	22
Reading/ Wokingham	87	31	71	20
Sheffield	87	21	65	14
Southampton	97	40	87	27
Southend	94	11	68	8
Swansea/ Neath/ Port Talbot	43	49	31	36
Teesside	95	10	73	5
The Potteries	90	32	56	21
Tyneside	81	19	42	11
West Midlands	81	28	57	19
West Yorkshire	77	24	41	16

	Decrease in population exposed
	No change
	Increase in population exposed

(*) Increase of the number of inhabitants bigger than 10% between 2005 and 2010

For further information about environmental noise in Europe please consult <http://www.eea.europa.eu/themes/human/noise> or visit the Noise Observation & Information Service for Europe at <http://noise.eionet.europa.eu/> and EEA Data Service <http://www.eea.europa.eu/data-and-maps/data/data-on-noise-exposure-2>.