



APPENDIX AVAILABLE ON WEB

Research Report 138

Health Effects of Real-World Exposure to Diesel Exhaust in Persons with Asthma

Appendix H. Summary of Responses to Baseline Health and Exposure Questionnaires

Junfeng (Jim) Zhang et. al.

Note: Appendices Available on the Web appear in a different order than in the original Investigators' Report. HEI has not changed these documents. Appendices were relettered as follows:

Appendix E was originally Appendix B
Appendix F was originally Appendix C
Appendix G was originally Appendix D
Appendix H was originally Appendix E

Correspondence may be addressed to Dr. Junfeng Zhang, University of Medicine and Dentistry of New Jersey—School of Public Health, 683 Hoes Lane West, Piscataway, NJ.

Although this document was produced with partial funding by the United States Environmental Protection Agency under Assistance Award CR-83234701 to the Health Effects Institute, it has not been subjected to the Agency's peer and administrative review and therefore may not necessarily reflect the views of the Agency, and no official endorsement by it should be inferred. The contents of this document also have not been reviewed by private party institutions, including those that support the Health Effects Institute; therefore, it may not reflect the views or policies of these parties, and no endorsement by them should be inferred.

This document was reviewed by the HEI Health Review Committee but did not undergo the HEI scientific editing and production process.

APPENDIX E: Summary of Response to Baseline Health and Exposure Questionnaires

The questionnaires can be found in Appendix A.

Part 1. Response to the Baseline Health Questionnaire

	Mild asthma		Moderate asthma	
	%	N	%	N
Sex				
Female	45.16	14	51.72	15
Male	54.84	17	48.28	14
Race				
Asiatic	9.68	3	24.14	7
Black	0.00	0	3.45	1
Caucasian	83.87	26	72.41	21
Other	6.45	2	0.00	0
Respiratory conditions				
No	100	31	100	29
Diabetes				
No	100	31	96.55	28
Neurological conditions				
No	87.1	27	89.66	26
Gastrointestinal conditions				
No	96.77	30	82.76	24
Coronary heart disease				
No	100	31	93.1	27
Renal conditions				
No	100	31	96.55	28
Psychological conditions				
No	93.55	29	93.1	27
Thyroid conditions				
No	100	31	96.55	28
Liver Conditions				
No	100	31	96.55	28
Infectious diseases				
No	100	31	96.55	28
Any operations				
No	77.42	24	58.62	17
Any other medical conditions				
No	87.1	27	86.21	25

Part 1. Response to the Baseline Health Questionnaire

	Mild asthma		Moderate asthma	
	%	N	%	N
Any family history				
No	61.29	19	58.62	17
Occupation				
Account manager	3.23	1	0.00	0
Administrator	3.23	1	0.00	0
Call center supervisor	0	0	3.45	1
Clerical	3.23	1	0.00	0
Consultant	0	0	6.90	2
Fashion editor	3.23	1	0.00	0
Finance/Administration	0	0	6.90	2
IT Support	0	0	3.45	1
Housewife	0	0	3.45	1
Legal secretary	0	0	3.45	1
ITU sister	3.23	1	0.00	0
Media trainer	3.23	1	0.00	0
Mother	0	0	3.45	1
Nurse	0	0	6.90	2
Occupational therapist	3.23	1	0.00	0
Office manager	0	0	3.45	1
Payroll manager	0	0	3.45	1
Physiotherapist	3.23	1	3.45	1
Police cons.	3.23	1	0.00	0
Project manager	3.23	1	0.00	0
Quality manager	0	0	3.45	1
Radiographer	0	0	3.45	1
Research nurse	0	0	3.45	1
Research physic	0	0	3.45	1
Research tech	3.23	1	3.45	1
Retail assistant	3.23	1	0.00	0
Retail manager	0	0	3.45	1
Stockbroker	3.23	1	0.00	0
Store manager	0	0	0.00	0
Student psych	41.94	13	31.03	9
Teacher	3.23	1	0.00	0
Therapist	3.23	1	0.00	0
Unemployed	9.68	3	0.00	0

Part 1. Response to the Baseline Health Questionnaire

	Mild asthma		Moderate asthma	
	%	N	%	N
Smoking history				
EX	22.58	7	20.69	6
Never	77.42	24	79.31	23
Illicit drugs consumed				
No	100	31	100	29
Any wheezing in past 12 months				
Yes	96.77	30	93.10	27
Any asthma attacks in past 12 month				
No	58.06	18	55.17	16
Dr. diagnosed asthma				
Yes	96.77	30	100	29
Asthma reliever medication use				
Yes	100	31	100	29
Reliever medication taken				
Bricanyl turbo 500	0.00	0	3.45	1
Salbutamol	90.32	28	86.21	25
Terbutaline	9.68	3	0.00	0
Ventolin	0	0	10.34	3
Further asthma treatment				
No	100	31	82.76	24
Any alternative therapies				
No	96.77	30	100	29
Any steroid tablets in past 12 months				
No	93.55	29	82.76	24
Every taken course of steroids				
No	58.06	18	48.28	14
Any hospital admissions in past 12 month				
No	93.55	29	86.21	25
Ever been admitted to hospital				
Missing	0.00	0	3.45	1
No	67.74	21	65.52	19
Yes	32.26	10	31.03	9
Attend clinic for asthma				
No	96.77	30	65.52	19
Exercise tolerance				
<1 Mile	0.00	0	3.45	1
>1 Mile	9.68	3	17.24	5

Part 1. Response to the Baseline Health Questionnaire

	Mild asthma		Moderate asthma	
	%	N	%	N
Unlimited	90.32	28	79.31	23
Do colds affect your asthma				
Don't know	9.68	3	10.34	3
Missing	0.00	0	3.45	1
No	16.13	5	17.24	5
Yes	74.19	23	68.97	20
Does dust affect your asthma				
Don't know	9.67	3	3.45	1
No	3.23	1	10.34	3
Yes	87.10	27	86.21	25
Do cats affect your asthma				
Don't know	16.13	5	6.90	2
No	32.26	10	34.48	10
Yes	51.61	16	58.62	17
Do dogs affect your asthma				
Don't know	25.81	8	6.90	2
No	51.61	16	58.62	17
Yes	22.58	7	34.48	10
Do aerosols affect your asthma				
Don't know	16.13	5	17.24	5
No	61.29	19	44.83	13
Yes	22.58	7	37.93	11
Do work fumes etc affect your asthma				
Don't know	32.26	10	10.34	3
No	38.71	12	41.38	12
Yes	29.03	9	48.28	14
Do traffic fumes affect your asthma				
Don't know	61.29	19	37.93	11
No	16.13	5	27.59	8
Yes	22.58	7	34.48	10
Do cleaning products affect your asthma				
Don't know	38.71	12	24.14	7
No	54.84	17	44.83	13
Yes	6.45	2	31.03	9
Does smoke affect your asthma				
Don't know	9.68	3	3.45	1
Missing	48.39	15	41.38	12

Part 1. Response to the Baseline Health Questionnaire

	Mild asthma		Moderate asthma	
	%	N	%	N
No	9.68	3	17.24	5
Yes	32.26	10	37.93	11
Does pollen affect your asthma				
Don't know	19.35	6	13.79	4
No	16.13	5	34.48	10
Yes	64.52	20	51.72	15
Does cold weather affect your asthma				
Don't know	16.13	5	6.90	2
No	12.90	4	13.79	4
Yes	70.97	22	79.31	23
Does exercise affect your asthma				
Don't know	9.68	3	3.45	1
No	25.81	8	13.79	4
Yes	64.52	20	82.76	24
Does perfumes affect your asthma				
Don't know	19.35	6	13.79	4
No	70.97	22	58.62	17
Yes	9.68	3	27.59	8
Does foods affect your asthma				
Don't know	9.68	3	3.45	1
No	16.13	5	79.31	23
Yes	74.19	23	17.24	5
Does stress affect your asthma				
Don't know	12.90	4	20.69	6
No	64.52	20	41.38	12
Yes	22.58	7	37.93	11
Do you suffer hay fever				
Yes	54.84	17	68.97	20
Dr. diagnosed hay fever				
No	54.84	17	48.28	14
Do you take antihistamine tablets				
Missing	9.68	3	3.45	1
No	83.87	26	86.21	25
Yes	6.45	2	10.34	3
Any other allergies				
No	77.42	24	68.97	20

Part 1. Response to the Baseline Health Questionnaire

	Mild asthma		Moderate asthma	
	%	N	%	N
Daytime asthma symptom severity				
GINA1	61.29	19	51.72	15
GINA2	38.71	12	34.48	10
GINA3	0	0	13.79	4
Nocturnal asthma symptom severity				
GINA1	74.19	23	48.28	14
GINA2	25.81	8	20.69	6
GINA3	0.00	0	24.14	7
GINA4	0.00	0	6.90	2
Activity restriction severity				
GINA1	70.97	22	68.97	20
GINA2	29.03	9	24.14	7
GINA3	0.00	0	6.90	2
Asthma preventive therapy GINA step				
GINA1	61.29	19	13.79	4
GINA2	38.71	12	27.59	8
GINA3	0.00	0	44.83	13
GINA4	0.00	0	13.79	4
Overall GINA score				
GINA1	32.26	10	0.00	0
GINA2	67.74	21	0.00	0
GINA3	0.00	0	79.31	23
GINA4	0.00	0	20.69	6
Atopy				
Missing	12.90	4	20.69	6
No	9.68	3	17.24	5
Yes	77.42	24	62.07	18

Part 2. Response to the Baseline Exposure Questionnaire

	Mild asthma		Moderate asthma	
	%	N	%	N
Type of Building				
2 Families	0.00	0	3.45	1
3 Families	16.13	5	31.03	9
4 Families	67.74	21	37.93	11
5 Families	16.13	5	27.59	8
Age of Building				
<20	16.13	5	3.45	1
20-50	19.35	6	20.69	6
50-100	32.26	10	31.03	9
>100	9.68	3	10.34	3
Missing	22.58	7	34.48	10
No. of rooms in home				
1	3.23	1	0.00	0
2	3.23	1	6.90	2
3	9.68	3	13.79	4
4	25.81	8	20.69	6
5	19.35	6	17.24	5
6	9.68	3	20.69	6
7	12.90	4	3.45	1
8	9.68	3	3.45	1
9	3.23	1	13.79	4
10	3.23	1	0.00	0
Garage attached to home				
No	83.87	26	79.31	23
Presence of a fireplace				
No	77.42	24	62.07	18
Number of times fire used in last week				
0	96.77	30	89.66	26
1	0.00	0	3.45	1
6	0.00	0	3.45	1
7	3.23	1	3.45	1
Presence of wood burning stove				
N0	100	31	100	29
Number of times wood stove used in last week				
0	100.00	31	100.00	29
Presence of radiant heater (Radiators)				
Yes	96.77	30	86.21	25
Number of times radiators used in last week				

Part 2. Response to the Baseline Exposure Questionnaire

	Mild asthma		Moderate asthma	
	%	N	%	N
0	19.35	6	31.03	9
1	0.00	0	6.90	2
3	0.00	0	3.45	1
4	6.45	2	3.45	1
5	0.00	0	6.90	2
7	12.90	4	24.14	7
14	61.29	19	24.14	7
Presence of forced air heater				
No	90.32	28	96.55	28
Number of times force air heater used in last week				
0	93.55	29	96.55	28
2	3.23	1	0.00	0
4	3.23	1	0.00	0
Missing	0.00	0	3.45	1
Presence of portable kerosene heater				
No	100	31	100	29
Number of times portable kerosene heater used in last week				
0	100	31	100	29
Presence of portable gas heater				
No	96.77	30	100	29
Number of times gas heater used in last week				
0	96.77	30	100	29
7	3.23	1	0.00	0
Use of natural gas for heating at home				
Yes	70.97	22	86.21	25
Use of electricity for heating at home				
Yes	54.84	17	58.62	17
Use of oil for heating at home				
No	96.77	30	100	29
Use of coal for heating at home				
No	100	31	100	29
Use of wood for heating at home				
No	96.77	30	100	29
Spent most time in the room with fitted carpets				
Yes	61.29	19	68.97	20
Spent most time in the room with rugs				

Part 2. Response to the Baseline Exposure Questionnaire

	Mild asthma		Moderate asthma	
	%	N	%	N
No	64.52	20	62.07	18
Presence of cat				
No	90.32	28	79.31	23
Presence of dog				
No	96.77	30	93.10	27
Presence of birds				
No	100	31	100	29
Presence of rodents				
No	100	31	100	29
Use of air fresheners				
No	61.29	19	51.72	15
Number of times air freshener used in last week				
0	64.52	20	51.72	15
1	9.68	3	10.34	3
2	6.45	2	13.79	4
3	3.23	1	3.45	1
4	0.00	0	3.45	1
6	0.00	0	3.45	1
7	9.68	3	10.34	3
10	6.45	2	0.00	0
20	0.00	0	3.45	1
Use of carpet fresheners				
No	96.77	30	82.76	24
Number of times carpet fresheners used in last week				
0	100.00	31	86.21	25
1	0.00	0	6.90	2
2	0.00	0	6.90	2
Use of incense				
No	77.42	24	75.86	22
Number of times incense used in last week				
0	83.87	26	75.86	22
1	3.23	1	13.79	4
2	6.45	2	6.90	2
3	6.45	2	0.00	0
7	0.00	0	3.45	1
Use of scented candles				
No	70.97	22	62.07	18

Part 2. Response to the Baseline Exposure Questionnaire

	Mild asthma		Moderate asthma	
	%	N	%	N
Number of times scented candles used in last week				
0	77.42	24	72.41	21
1	0.00	0	17.24	5
2	16.13	5	6.90	2
3	3.23	1	3.45	1
4	3.23	1	0.00	0
Use of mothballs				
No	96.77	30	96.56	28
Number of times mothballs used in last week				
0	96.77	30	96.55	28
1	3.23	1	0.00	0
7	0.00	0	3.45	1
Presence of deodorizer				
No	77.42	24	75.86	22
Number of times deodorizer used in last week				
0	80.65	25	75.86	22
1	0.00	0	3.45	1
2	0.00	0	3.45	1
3	3.23	1	3.45	1
5	0.00	0	3.45	1
7	12.90	4	10.34	3
20	3.23	1	0.00	0
Any smokers in house				
No	87.10	27	96.56	28
Cook in home				
Yes	96.77	30	100	29
Type of oven				
Electric	32.26	10	20.69	6
Gas	64.52	20	79.31	23
Missing	3.23	1	0.00	0
Oven has pilot light				
Don't Know	19.35	6	24.14	7
No	48.39	15	48.28	14
Yes	6.45	2	17.24	5
Missing	25.81	8	10.34	3
Do you work away from home				
No	19.35	6	10.34	3

Part 2. Response to the Baseline Exposure Questionnaire

	Mild asthma		Moderate asthma	
	%	N	%	N
Yes	80.65	25	86.21	25
Missing	0.00	0	3.45	1
Car to work				
No	45.16	14	48.28	14
Yes	19.35	6	17.24	5
Missing	35.48	11	34.48	10
Get to work by bus				
No	35.48	11	27.59	8
Yes	41.94	13	48.28	14
Missing	22.58	7	24.14	7
Get to work by underground (tube)				
No	16.13	5	34.48	10
Yes	54.84	17	51.72	15
Missing	29.03	9	13.79	4
Get to work by train				
No	35.48	11	41.38	12
Yes	22.58	7	27.59	8
Missing	41.94	13	31.03	9
Get to work by foot				
No	35.48	11	27.59	8
Yes	38.71	12	48.28	14
Missing	25.81	8	24.14	7
Get to work by bike				
No	41.94	13	51.72	15
Yes	12.90	4	6.90	2
Missing	45.16	14	41.38	12
Get to work by motorbike				
No	51.61	16	51.72	15
Yes	3.23	1	6.90	2
Missing	45.16	14	41.38	12
