Table S1. Mean Scores, standard deviations (SD) and Kruskal-Wallis (KW) test results for income and AQ level for Abuja.

Locations		Mean	SD	KW
Area 1	0-50,000	2.25	1.040	
	51,000-100,000	2.79	0.932	
	Above 100,000	3.07	0.931	18.292***
Maitama	0-50,000	1.86	0.766	
	51,000-100,000	1.83	0.702	
	Above 100,000	2.05	0.749	2.268 ns
Area 3 Junction	0-50,000	2.44	1.134	
	51,000-100,000	2.83	0.917	
	Above 100,000	2.98	0.944	8.660**
Wuse Market	0-50,000	2.70	1.117	
	51,000-100,000	3.04	1.042	
	Above 100,000	3.34	0.920	10.417**
AYA Junction	0-50,000	2.63	1.046	
	51,000-100,000	2.67	0.868	
	Above 100,000	3.02	0.924	4.327 ns
Utako	0-50,000	2.46	1.001	
	51,000-100,000	2.46	0.884	
	Above 100,000	3.00	0.934	10.078**
Jabi	0-50,000	2.33	0.852	
	51,000-100,000	2.38	0.770	
	Above 100,000	2.80	0.942	7.180*
Wuye	0-50,000	2.42	0.981	
	51,000-100,000	2.29	0.806	
	Above 100,000	2.48	0.763	0.808 ns
Lugbe	0-50,000	2.46	1.103	
	51,000-100,000	2.67	0.963	
	Above 100,000	3.09	0.859	12.938**
Gwagwalada	0-50,000	2.77	1.225	
	51,000-100,000	2.79	1.179	
	Above 100,000	3.38	0.926	9.041**
Central Business District	0-50,000	2.02	0.767	
	51,000-100,000	1.96	0.806	
	Above 100,000	2.09	0.721	0.544 ns
Apo/ Apo Bridge	0-50,000	2.42	1.101	
	51,000-100,000	2.42	0.830	
	Above 100,000	2.95	0.980	8.166**
Durumi	0-50,000	2.35	1.026	
	51,000-100,000	2.50	0.722	
	Above 100,000	2.84	0.869	8.368**
Area 11	0-50,000	2.37	0.794	
	51,000-100,000	2.29	0.690	
	Above 100,000	2.57	0.710	2.782 ns
Berger Junction	0-50,000	2.32	1.152	
	51,000-100,000	2.50	0.933	
	Above 100,000	3.14	0.980	18.391***
Wuse 2	0-50,000	2.02	0.896	
	51,000-100,000	2.25	0.944	

	Above 100,000	2.34	0.668	5.301 ns
Kado	0-50,000	2.58	0.925	
	51,000-100,000	2.46	0.884	
	Above 100,000	2.55	0.893	0.475 ns
Mabushi	0-50,000	2.70	1.017	
	51,000-100,000	2.58	0.929	
	Above 100,000	2.86	0.883	1.649 ns
Gwarinpa	0-50,000	2.14	0.833	
	51,000-100,000	2.54	1.103	
	Above 100,000	2.43	0.806	4.501 ns

Figures in the table are the Kruskal-Wallis statistic. *P ≤ 0.05; **P ≤ 0.01; ***P ≤ 0.001; ns = not significant. Highlighted cells indicate the presence of significant differences within the demographic group by the level of AQ @ P 0.05 or greater.

Table S2. Mean Scores, standard deviations (SD) and Kruskal-Wallis (KW) test results for education and AQ level for Abuja.

	Locations	Mean	SD	KW
Area 1	None/ primary/ secondary or equivalent	2.11	1.100	
	Bachelors/ Diploma or equivalent	2.64	0.924	
	Masters/ PhD or equivalent	3.04	1.009	14.636***
Maitama	None/ primary/ secondary or equivalent	1.82	0.723	
	Bachelosr/ Diploma or equivalent	2.02	0.799	
	Masters/ PhD or equivalent	1.90	0.707	1.249 ns
Area 3 Junction	None/ primary/ secondary or equivalent	2.32	1.188	
	Bachelors/ Diploma or equivalent	2.80	0.924	
	Masters/ PhD or equivalent	2.88	1.062	5.746 ns
Wuse Market	None/ primary/ secondary or equivalent	2.50	1.139	
	Bachelors/ Diploma or equivalent	3.05	1.024	
	Masters/ PhD or equivalent	3.28	0.970	9.115**
AYA Junction	None/ primary/ secondary or equivalent	2.32	0.905	
	Bachelors/ Diploma or equivalent	2.83	0.894	
	Masters/ PhD or equivalent	3.02	1.040	8.236**
Utako	None/ primary/ secondary or equivalent	2.29	0.897	
	Bachelors/ Diploma or equivalent	2.71	0.983	
	Masters/ PhD or equivalent	2.86	0.990	6.706*
Jabi	None/ primary/ secondary or equivalent	2.04	0.744	
	Bachelor/ Diploma or equivalent	2.58	0.792	
	Masters/ PhD or equivalent	2.76	1.001	11.553**
Wuye	None/ primary/ secondary or equivalent	2.50	1.036	
	Bachelors/ Diploma or equivalent	2.36	0.826	
	Masters/ PhD or equivalent	2.46	0.813	0.291 ns
Lugbe	None/ primary/ secondary or equivalent	2.39	1.197	
	Bachelors/ Diploma or equivalent	2.75	0.958	
	Masters/ PhD or equivalent	2.96	0.947	7.382*
Gwagwalada	None/ primary/ secondary or equivalent	2.71	1.213	
	Bachelors/ Diploma or equivalent	3.02	1.042	
	Masters/ PhD or equivalent	3.20	1.178	2.948 ns
Central Business District	None/ primary/ secondary or equivalent	2.11	0.832	
	Bachelors/ Diploma or equivalent	2.03	0.718	
	Masters/ PhD or equivalent	2.00	0.756	0.648 ns
Apo/ Apo Bridge	None/ primary/ secondary or equivalent	2.43	1.103	
	Bachelors/ Diploma or equivalent	2.58	0.951	

	Masters/ PhD or equivalent	2.82	1.082	2.671 ns
Durumi	None/ primary/ secondary or equivalent	2.11	0.786	
	Bachelors/ Diploma or equivalent	2.64	0.866	
	Masters/ PhD or equivalent	2.76	1.021	10.138**
Area 11	None/ primary/ secondary or equivalent	2.32	0.772	
	Bachelors/ Diploma or equivalent	2.42	0.724	
	Masters/ PhD or equivalent	2.52	0.762	1.607 ns
Berger Junction	None/ primary/ secondary or equivalent	2.07	1.086	
	Bachelors/ Diploma or equivalent	2.69	0.987	
	Masters/ PhD or equivalent	3.02	1.134	14.173***
Wuse 2	None/ primary/ secondary or equivalent	1.96	0.838	
	Bachelors/ Diploma or equivalent	2.20	0.886	
	Masters/ PhD or equivalent	2.30	0.735	3.105 ns
Kado	None/ primary/ secondary or equivalent	2.61	0.994	
	Bachelors/ Diploma or equivalent	2.68	0.840	
	Masters/ PhD or equivalent	2.36	0.898	4.370 ns
Mabushi	None/ primary/ secondary or equivalent	2.71	1.084	
	Bachelors/ Diploma or equivalent	2.73	0.925	
	Masters/ PhD or equivalent	2.78	0.910	0.047ns
Gwarinpa	None/ primary/ secondary or equivalent	2.11	0.916	
	Bachelors/ Diploma or equivalent	2.44	0.876	
	Masters/ PhD or equivalent	2.32	0.868	3.764 ns

Figures in the table are the Kruskal-Wallis statistic. *P ≤ 0.05; **P ≤ 0.01; ***P ≤ 0.001; ns = not significant. Highlighted cells indicate the presence of significant differences within the demographic group by the level of AQ @ P 0.05 or greater.

Table S3. Mean Scores, standard deviations (SD) and Kruskal-Wallis (KW) test results for age and AQ level for Enugu.

Locations		Mean	SD	KW
Ogbete/ Ogbete Main Market	18-34	3.59	1.101	
	35 or older	3.78	1.076	1.049 ns
Abakpa/ Abakpa Junction	18-34	3.59	1.086	
	35 or older	3.94	0.957	3.344 ns
Ogui	18-34	2.64	0.895	
	35 or older	3.03	1.069	5.298*
Emene	18-34	3.02	1.008	
	35 or older	3.39	1.063	4.723*
Trans-Ekulu	18-34	2.36	0.932	
	35 or older	2.50	1.069	0.349 ns
Uwani	18-34	2.52	0.808	
	35 or older	2.67	0.927	0.747 ns
Coal Camp	18-34	3.38	0.952	
	35 or older	3.78	0.967	6.889**
Independence Layout	18-34	1.93	0.793	
	35 or older	1.91	0.610	0.011 ns
Asata	18-34	2.70	0.882	
	35 or older	3.08	0.931	5.629**
Awkunanaw	18-34	2.77	0.864	
	35 or older	3.13	0.984	4.233*
Thinkers Corner	18-34	2.51	0.924	
	35 or older	2.91	0.988	6.469**
NOWAS Junction	18-34	3.03	1.064	
	35 or older	3.14	1.067	0.295 ns

GRA	18-34	2.00	0.894	
	35 or older	1.84	0.623	0.419 ns
Maryland	18-34	2.52	1.010	
	35 or older	2.88	1.031	3.568 ns
Ugwuaji	18-34	2.92	1.005	
	35 or older	3.09	0.904	1.927 ns
New Haven	18-34	2.30	1.006	
	35 or older	2.50	0.976	1.565 ns
Old Park	18-34	3.52	1.089	
	35 or older	3.86	1.125	3.535 ns
Npkokiti	18-34	2.79	0.951	
	35 or older	2.78	0.845	0.039 ns

Figures in the table are the Kruskal-Wallis statistic. *P ≤ 0.05; **P ≤ 0.01; ***P ≤ 0.001; ns = not significant. Highlighted cells indicate the presence of significant differences within the demographic group by the level of AQ @ P 0.05 or greater.

Table S4. The instrument measured air quality data in some locations in Abuja.

Locations	**Total Particulate Matter (PM_2.)** (farming, construction, industrial processes etc.).	**Particulate Matter (PM_{10})** (farming, construction, industrial processes etc.).	**Sulphur Dioxide (SO_2)** (power generators, vehicles, metal processing and smelting, etc).	**Carbon Monoxide (CO)** (vehicles, power generators, some industrial processes).	**Nitrogen Dioxide** (NO_2) (vehicle, power generators).
Maitama	0.21μg/m³ (Kanee et al., 2020)	0.18μg/m³ (Kanee et al., 2020)	0.01ppm (Kanee et al., 2020)	2.00ppm (Kanee et al., 2020). 2.46ppm (Okobia et al 2021)	0.02ppm (Kanee et al., 2020)
Central Business District	0.39μg/m³ (Kanee et al., 2020). 0.01ppm (Otse et al., 2020).	0.32μg/m³ (Kanee et al., 2020). 0.05ppm (Otse et al., 2020).	0.01ppm (Kanee et al., 2020). 0.39ppm (Otse et al., 2020).	3.00ppm (Kanee et al., 2020). 13.80ppm (Otse et al., 2020)	0.04ppm (Kanee et al., 2020). 0.62ppm (Otse et al., 2020).
Wuse 2				5.83ppm (Okobia et al 2021)	
Gwarinpa	0.34μg/m³ (Kanee et al., 2020)	0.23μg/m³ (Kanee et al., 2020)	0.01ppm (Kanee et al., 2020)	3.00ppm (Kanee et al., 2020)	0.02ppm (Kanee et al., 2020)
Wuye	-	-	-	-	-
Area 11	-	-	-	-	-
Jabi	0.29μg/m³ (Kanee et al., 2020)	0.24μg/m³ (Kanee et al., 2020)	0.10ppm (Kanee et al., 2020)	7.00ppm (Kanee et al., 2020)	0.20ppm (Kanee et al., 2020)
Kado	-	-	-	-	-
Durumi	-	-	-	-	-
Apo/ Apo Bridge	0.38μg/m³ (Ishaya et al., 2017).	0.09ppm PM_{10} (Otse et al., 2020).	0.55ppm (Ishaya et al., 2017). 0.46ppm (Otse et al., 2020)	1.96ppm (Ishaya et al., 2017), 20.72ppm (Otse et al., 2020)	0.51ppm (Ishaya et al., 2017), 0.68ppm (Otse et al., 2020)
Area 1 Junction					
Utako	0.21μg/m³ (Kanee et al., 2020)	0.17μg/m³ (Kanee et al., 2020)	0.01ppm (Kanee et al., 2020)	2.00ppm (Kanee et al., 2020). 0.75ppm (Okobia et al 2021)	0.01ppm (Kanee et al., 2020)
Berger Junction	-	-	-	-	-
Area 3 junction	0.01 ppm (Otse et al., 2020).		0.42 ppm (Otse et al., 2020).	18.19ppm. (Otse et al., 2020).	0.66ppm (Otse et al., 2020).

Mabushi	-	-	-	-	-
Lugbe	-	-	-	-	-
AYA Junction	-	-	-	-	-
Wuse Market	-	-	-	-	-
Gwagwalada	0.32mg/m^3 (Magaji & Hassan, 2015). 4.05813ppm (Shehu et al., 2019).		0.61ppm (Magaji & Hassan, 2015). 0.0625005ppm (Shehu et al., 2019).	1.19ppm (Magaji & Hassan, 2015). 4.08ppm (Umaru et al., 2019). 0.00123ppm (Shehu et al., 2019).	0.51ppm (Magaji & Hassan, 2015)

Table S5. Instrument measured air quality dada in some locations in Enugu.

Locations	**Total Particulate Matter (PM 2.5 and 10)** (farming, construction, industrial processes).	**Sulphur Dioxide (SO_2)** (Power generators, metal processing and smelting).	**Carbon Monoxide (CO)** (vehicles, power generators, some industrial processes).	**Nitrogen Dioxide (NO_2)** (vehicle, power generators)**.**
Independence Layout	188µg/m^3 (Emodi, 2020).	0.00ppm (Emodi, 2020).	1.30ppm (Emodi, 2020).	0.00ppm (Emodi, 2020).
GRA	194µg/m^3 (Emodi, 2020).	0.00ppm (Emodi, 2020).	1.10ppm (Emodi, 2020).	0.00ppm (Emodi, 2020).
Hew Haven	236µg/m^3 (Emodi, 2020). 33µg/m^3 (Awokola et al., 2020)	0.00ppm (Emodi, 2020).	3.00ppm (Emodi, 2020).	0.00ppm (Emodi, 2020).
Trans-Ekulu	231µg/m^3 (Emodi, 2020). 30.30µg/m^3 (Awokola et al., 2020)	-	0.10ppm (Emodi, 2020).	0.00ppm (Emodi, 2020).
Uwani	238µg/m^3 (Emodi, 2020).	0.00ppm (Emodi, 2020).	3.60ppm (Emodi, 2020).	0.00ppm (Emodi, 2020).
Maryland	257µg/m^3 (Emodi, 2020).	-	0.00ppm (Emodi, 2020).	0.00ppm (Emodi, 2020).
Thinkers Corner	261µg/m^3 (Emodi, 2020).	-	0.10ppm (Emodi, 2020).	0.00ppm (Emodi, 2020).
Nkpokiti	-	-	-	-
Ogui	242µg/m^3 (Emodi, 2020).	0.00ppm (Emodi, 2020). 0.28ppm (Eze et al., 2019)	3.80ppm (Emodi, 2020). 26ppm (Eze et al., 2019).	0.00ppm (Emodi, 2020). 0.14ppm (Eze et al., 2019).
Asata	241µg/m^3 (Emodi, 2020).	0.00ppm (Emodi, 2020).	2.80ppm (Emodi, 2020).	0.00ppm (Emodi, 2020).
Awkunanaw	247µg/m^3 (Emodi, 2020).	0.00ppm (Emodi, 2020).	0.00ppm (Emodi, 2020).	0.05 ppm (Emodi, 2020).
Ugwuaji	-	-	-	-
NOWAS Junction		-	-	-
Emene	261µg/m^3 (Emodi, 2020).	0.00ppm (Emodi, 2020).	5.40ppm (Emodi, 2020). 0.15ppm (Ngele, 2014).	0.09ppm (Emodi, 2020).
Coal Camp	-	-	-	-

Ogbete/ Ogbete Main Market	261µg/m^3 (Emodi, 2020).	0.00ppm (Emodi, 2020). 2.60ppm (Eze et al., 2019)	5.60ppm (Emodi, 2020). 5.80ppm (Ngele, 2014). 60.66ppm (Eze et al. , 2019)	0.088ppm (Emodi, 2020). 1.38ppm (Eze et al., 2019)
Old Park	-	1.4ppm (Eze et al., 2019)	41.8ppm (Eze et al., 2019)	0.51ppm (Eze et al., 2019)
Abakpa/ Abakpa Junction	258µg/m^3 (Emodi, 2020).	0.00ppm (Emodi, 2020).	5.20ppm (Emodi, 2020).	0.01ppm (Emodi, 2020).