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## List of Tables

**Table 1. Descriptive statistics of bioaerosol concentration at the various sampling locations with the Anderson 6-stage sampler**

Bioaerosol	N	Active area of dumpsite (50 m from Active point)			Entrance to dumpsite (325 m from Active point)			Dormant area of dumpsite (531 m from Active point)			Dumpsite Boundary (788 m from Active point)		
		(cfu/m <sup>3</sup> )			(cfu/m <sup>3</sup> )			(cfu/m <sup>3</sup> )			(cfu/m <sup>3</sup> )		
		Median	Min	Max	Median	Min	Max	Median	Min	Max	Median	Min	Max
Total Bacteria	13	1.93×10 <sup>3</sup>	274	2994	1.3×10 <sup>3</sup>	231	1849	1.1×10 <sup>3</sup>	884	1379	7.4×10 <sup>2</sup>	195	1630
Gram-negative	13	2.2×10 <sup>3</sup>	1980	2439	1.1×10 <sup>3</sup>	786	2043	1.4×10 <sup>3</sup>	939	2521	1.2×10 <sup>3</sup>	311	2257
<i>A. fumigatus</i>	13	2.8×10 <sup>2</sup>	62	479	9.5×10	5.89	186.4	4.3×10	7.21	121	5.1×10	35	71
Total Fungi	13	6×10 <sup>2</sup>	231	1116	3.7×10 <sup>2</sup>	189	684	3.1×10 <sup>2</sup>	189	842	3.4×10 <sup>2</sup>	166	485

N = Total number of measurements

**Table 2 Number of times bioaerosols concentration at Olusosun Open dumpsite exceeded UK Environment Agency expected limits (Frederickson *et al.*, 2013; Pearson *et al.*, 2015)**

Microorganism	<i>N</i>	Expected limits (CFU/m <sup>3</sup> )	Number of sampling days the exceeded EA limits			
			<sup>a</sup> Entrance	<sup>a</sup> Active Area	<sup>a</sup> Dormant Area	<sup>a</sup> Boundary
Total bacteria	13	1000	10	10	12	5
Gram-negative bacteria	13	300	13	13	13	13
<i>Aspergillus fumigatus</i>	13	500	0	0	0	0
Total fungi	13	1000	0	0	0	0

*N* = Total number of measurements, <sup>a</sup> 13 sampling days

**Table 3. Bioaerosol exposure concentration (median) from activity-based sampling (burton sampler) and ambient air (Anderson 6-stage sampler)**

Microorganism (cfu/m <sup>3</sup> )	<sup>a</sup> Control (median)	<sup>b</sup> Ambient air sampling (median)	<sup>c</sup> Activity based sampling		
			Site Supervision	Sorting	Scavenging
Total bacteria	1.3×10 <sup>2</sup>	1.1×10 <sup>3</sup>	6.0 ×10 <sup>5</sup>	4.8×10 <sup>5</sup>	1.17×10 <sup>6</sup>
Gram-negative bacteria	3.1×10 <sup>2</sup>	1.5×10 <sup>3</sup>	2.1 ×10 <sup>5</sup>	1.7410 <sup>6</sup>	3.0×10 <sup>6</sup>
<i>Aspergillus fumigatus</i>	6.9	63	3.0×10 <sup>5</sup>	9.0×10 <sup>4</sup>	6.75×10 <sup>4</sup>
Total fungi	2.7×10 <sup>2</sup>	3.7×10 <sup>2</sup>	-	-	-

<sup>a</sup> Number of measurements = 3

<sup>b</sup> Number of measurements = 13

<sup>c</sup> Number of measurements = 2

**Table 4 Socio-demographic information of on-site participants**

<b>Variable</b>	<b>Category</b>	<b>Scavenger (n)</b>	<b>Food Vendors (n)</b>	<b>Waste workers (n)</b>	<b>Middle Men (n)</b>	<b>Business owner (n)</b>	<b>Overall N (%)</b>
Sample Size	Frequency	91	3	24	17	14	149 (100%)
Age	Median	32.1years	25.6years	32.9years	34.4years	29.2years	30years
Gender	Female	15	0	2	1	1	19(13%)
	Male	76	3	22	16	13	130(87%)
Hours of work/day (hours)	Median	10.2hrs	9.7hrs	11hrs	10.8hrs	12.8hrs	11 hours
Years of work	1-5yrs	42	1	10	7	10	70(46%)
	5-10yrs	27	2	6	4	2	41(28%)
	11-15yrs	11	0	4	2	3	20(11%)
	16-20yrs	8	0	4	4	0	16(13%)
	21+	3	0	0	0	0	3(2%)
	Median (yrs.)						
Smoking Status	Ever Smoked	37	0	12	8	4	61(41%)
	Non- smoker	51	3	11	9	10	84(56%)
Use of nose mask on site	NO	83	2	18	16	14	133(89%)
	YES	8	1	6	1	0	16(11%)

**Table 5 Association between Independent variables and chronic symptoms**

Independent variables	Chronic Cough	Chronic Phlegm	Asthma
	OR (95% CI) <sup>a</sup>	OR (95% CI) <sup>a</sup>	OR (95% CI) <sup>a</sup>
<b>Nose Mask</b>	0.8(0.19,3.4)	-	0.5 (0.15-6.56) <sup>d</sup>
<b>Years of work</b>			
1-5 years	Ref	Ref	Ref
6-10 years	1.0(0.3,2.8)	1.2 (0.4,3.4) <sup>d</sup>	1.8(0.6,5.2) <sup>e</sup>
11-15 years	0.6(1.9,2.6)	0.5(0.1,2.3) <sup>d</sup>	2.8(0.7,10.2) <sup>e</sup>
16-20 years	1.4(0.3,6.6)	0.5(0.08,3.7) <sup>d</sup>	1.2(0.2,5.4) <sup>e</sup>
21+ years	-	-	-

<sup>a</sup>= Adjusted for Age, Smoking status, Gender, Years at OOWD and Use of nose mask

\*\*\* $p \leq 0.001$ , \*\* $p \leq 0.01$ , \* $p \leq 0.05$ ; c =  $p \leq 0.001$  (Wald,  $\chi^2$ ), d =  $p \leq 0.01$  (Wald,  $\chi^2$ ), e =  $p \leq 0.05$  (Wald,  $\chi^2$ )