

Supplemental Material

Preterm birth, birth weight, infant weight gain and their associations with childhood asthma and spirometry: a cross-sectional observational study in Nairobi, Kenya.

Meme H, Amukoye E, Bowyer C, Chakaya J, Dobson R, Fuld J, et al

Questions reported in the manuscript.

1. In the home where this child lives is there
 2. electricity, (Y, N)
 3. a television, (Y, N)
 4. a cell phone, (Y, N)
 5. a refrigerator, (Y, N)
 6. an indoor bath or shower, (Y, N)
 7. an indoor tap, (Y, N)
 8. a flush toilet, (Y, N)
 9. a washing machine, (Y, N)
 10. a landline telephone. (Y, N)
 11. Does the family own a car (Y, N)
12. Has this child had wheezing or whistling in the chest in the past 12 months? (Y / N /DK)
13. Has this child ever had asthma? (Y / N /DK)
14. Was this child's asthma confirmed by a doctor? (Y / N /DK)
15. In the past 12 months, has this child had a dry cough at night, apart from a cough associated with a cold or chest infection? (Y / N /DK)
16. Does this child ever have trouble with his/her breathing? (never, only rarely, repeatedly, but it always gets completely better, continuously, so that breathing is never quite right)
17. Was this child born prematurely (more than 3 weeks before he/she was expected)? (Y / N /DK)
18. How close is your child's home to a major road? (a road that has lorries and/or regular buses/minibuses) (<100m, 100-500m, >500 m)
19. Does anyone smoke cigarettes or tobacco inside the building where your child sleeps? (Y / N /DK)
20. In your child's everyday life, does he/she breathe in vapours, dusts, gases or fumes for more than 15 hours per week? (Y / N /DK)
21. Is there ever a fire to burn refuse (waste, rubbish) within sight of your home? (Y / N /DK)
22. Do you burn mosquito coils at home? (Y / N /DK)

Table S1: Socio-economic, environmental, respiratory symptom, and lung function characteristics of participating children attending schools in Mukuru and Buruburu

	Buruburu (n=1096)	Mukuru (n=1277)	Combined (n=2373)
Girls (n, %)	567 (51.7%)	673 (52.7%)	1240 (52.3%)
Age (median, IQR)	10 (8-12)	11 (9-13)	10 (8-13)
Household assets owned (median, IQR)	6 (3-7)	3 (2-3)	3 (3-6)
Estimated 24-hour time weighted average PM _{2.5} (µg/m ³) mean (95% CI)	22.3 (22.1, 22.5)	39.9 (39.5, 40.2)	31.7 (31.3, 32.2)
Exposed vapours, dusts, gases, fumes >15hrs/week (n, %)*	565 (54.6%)	815 (70.3%)	1380 (62.9%)
Refuse burnt within sight of home (n, %)	330 (30.2%)	485 (38.1%)	815 (34.5%)
Proximity of home to major road (n, %)			
<100m	569 (51.9%)	554 (43.4%)	1123 (47.3%)
100-500m	397 (36.2%)	398 (31.2%)	795 (33.5%)
>500m	130 (11.9%)	325 (25.5%)	455 (19.2%)
Smoker in the home (n, %)	90 (8.2%)	159 (12.5%)	249 (10.5%)
Burn mosquito coils in home (n, %)	197 (18.0%)	342 (26.8%)	539 (22.7%)
Symptoms			
Wheeze in last 12 months (n, %)	70 (6.4%)	120 (9.5%)	190 (8.1%)
Trouble with breathing (n, %)	138 (12.6%)	208 (16.3%)	346 (14.6%)
Dry cough at night in past 12 months (n, %)	135 (12.4%)	152 (12.0%)	287 (12.2%)
Child ever had asthma (n, %)	33 (3.0%)	16 (1.3%)	49 (2.1%)
Asthma inhalers	17 (1.6%)	4 (0.3%)	21 (0.9%)
Spirometry	Buruburu (n=750)	Mukuru (n=872)	Combined (n=1622)
FEV ₁ z-score mean (95% CI)	0.289 (0.214, 0.363)	0.341 (0.270, 0.412)	0.317 (0.266, 0.368)
FVC z-score mean (95% CI)	0.238 (0.167, 0.308)	0.322 (0.252, 0.391)	0.283 (0.233, 0.332)
FEV ₁ /FVC z-score mean (95% CI)	0.075 (0.004, 0.146)	0.027 (-0.034, 0.089)	0.049 (0.003, 0.096)

The questions asked are documented in supplemental file

CI confidence interval