## **Supplementary material**

Table 1. Socio economic characteristics of cities included and excluded in the analysis

	Total n (% of sample) or mean (SD)	Included in the sample	Excluded from the sample	p-value
Overall number of cities n (%)	360	286 (79·4%)	74 (20·5%)	
Socio-economic predictors by domain mean, (SD)				
Living conditions				
% of households with piped water in the dwelling	87·1 (13·3)	89·7 (11·5)	77-0 (15-2)	<0.0001
% of households with overcrowding in the house <sup>a</sup>	5.8 (4.6)	4.9 (3.9)	9·2 (5·1)	<0.0001
% of population 15-17 attending school	79·1 (7·9)	80·4 (7·5)	74.6 (7.7)	<0.0001
Score	0.002(0.7)	0.14 (0.6)	-0.51(0.6)	<0.0001
Services provision				
% of households with water connected to municipal network	88.8 (12.0)	90.0 (10.5)	84·4 (15·7)	<0.0001
% of households with sewage system connected to municipal network	70·2 (24·4)	69-9 (25-2)	70.6 (21.5)	0.84
Score	0.002 (0.4)	0.03(0.4)	-0.08(0.4)	0.05
Women's Empowerment measures, mean (SD)				
Education and labor force participation compared to men				
Ratio female/ male in education achievement for complete high school level or above <sup>b</sup>	1.01 (0.1)	0.95(0.1)	1.02 (0.1)	<0.0001
Ratio female/ male in education achievement for complete university or above <sup>c</sup>	1.03 (0.2)	0.91 (0.2)	1.07(0.2)	<0.0001
Labor force participation among women <sup>d</sup>	48·1 (10·0)	41.0 (7.6)	49.8 (9.7)	<0.0001
Ratio female/male in labor force participation <sup>e</sup>	0.64 (0.1)	0.56 (0.1)	0.66 (0.1)	<0.0001
Score	0.15 (0.8)	-0·38 (0·7)	0.29 (0.8)	<0.0001

	Total n (% of sample) or mean (SD)	Included in the sample	Excluded from the sample	p-value
Educational attainment among women				
% of women 25+ who completed high school or above <sup>f</sup>	37·3 (8·0)	33·1 (9·0)	38·4 (7·3)	<0.0001
% of women 25+ who completed university or above <sup>g</sup>	12.8 (5.0)	13·1 (6·1)	12.7 (4.8)	0.56
Score	0.15 (0.4)	0.04 (0.4)	0.17 (0.3)	0.01
MMR1 coverage h, mean % (SD)	11.3 (3·1)	11.2 (2.7)	11.7 (4.3)	0.32
Overall Infant mortality rate <sup>i</sup> , mean (SD)	90-9 (14-2)	91·2 (13·7)	89·5 (15·8)	0.28

- (a) Overcrowding is defined as more than 3 people per room, excluding kitchen and bathroom in a household
- (b)Describes the ratio of the female to the male proportion of the population aged 25 or above who completed high school or above
- (c) Describes the ratio of the female to the male proportion of the population aged 25 or above who completed university or above
- (d) Describes % of women  $\geq$  15 years who are part of the labor force among all women  $\geq$  15 years (employed or unemployed)
- (e) Describes the ratio between female labor force participation rate and male labor force participation rate in population older than 15 years of age
- (f) Describes the % female population of 25 years or above with complete high school or above among overall female population of 25 years or above
- (g) Describes the % female population of 25 years or above with complete university level or above among overall female population of 25 years or above
- (h) Describes the % of children at age 1 who received the first dose of measles-mumps-rubella vaccine among overall population at age of 1.
- (i) Infant Mortality rate = number of infant deaths per 1,000 live births