

Supplementary File 3.**Supplementary Table 1. Percentage mark-ups occurring at various stages of the public and private sector supply chains of locally-produced and imported insulin**

	Size of mark-ups (range; %)											
	Stage 1		Stage 2		Stage 3		Stage 4		Stage 5		Cumulative total	
Public sector	Local	Import	Local	Import	Local	Import	Local	Import	Local	Import	Local	Import
Brazil	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
China (Hubei) (n=11)	nd	nd	0	33.5	8.7	8.7	0 - 15.2 ^a	0 - 24.0 ^a	0	0	8.7 & 23.7	45.2 - 80.0
China (Shaanxi) (n=14)	nd	nd	0	33.5	10.8 - 12.4	1.3 - 9.2	14.9 - 15.0	15.0 - 15.1	0	0	27.4 - 29.2	55.6 - 67.7
Ghana (n=2)	-	7.0	-	8.0	-	25.0	-	40.0 - 43.6	-	0	-	102.2 - 107.5
India (Haryana) (n=1)	nd	-	0	-	6.3	-	9.1	-	20.6	-	47.21	-
Indonesia ^c (n=6)	-	nd	-	26.8 - 121.3	-	15.0 - 20.0	-	26.0	-	7.9	-	98.3 - 261.2
Uganda (n=1) ^d	-	nd	-	0	-	10.0	-	0	-	0	-	10.0
Private sector	Local	Import	Local	Import	Local	Import	Local	Import	Local	Import	Local	Import
Brazil	nd	nd	nd	nd	nd	nd	nd	nd	20	20	nd	nd
China (Hubei) (n=8)	-	nd	-	33.5	-	4.0	-	4.5 - 20.7	-	0 ^b	-	45.2 - 67.7
China (Hubei) (Private hospital) (n=4)	nd	nd	0	33.5	8.7	8.7	15.0	14.5 - 20.1	0 ^b	0 ^b	25.0	66.2 - 74.3
China (Shaanxi) (n=12)	nd	nd	0	33.5	0.1 - 10.5	0.5 - 16.3	8.6 - 35.5	2.1 - 14.4	0 ^b	0 ^b	9.8 - 35.6	44.2 - 77.7
Ghana (n=11)	-	7.0	-	8.0	-	25.0	-	23.9 - 131.2	-	0	-	92.1 - 223.92
India (Haryana) (n=9)	nd	nd	6.3	26.5 - 27.6	8.7 - 11.1	8.7	13.1 - 18.8	13.1 - 14.0	5.3	5.3	37.6 - 47.7	41.7 - 65.1
Indonesia ^c (n=11)	-	nd	-	26.8 - 303.0	-	15.0 - 18.0	-	15.0 - 157.1	-	3.9 - 8.7	-	98.3 - 565.8
Uganda (n=3)	-	20.0	-	12.4	-	5.0	-	14.0 - 48.0	-	0	-	61.4 - 109.5

Key: nd – no data; Stage 1 – insurance & freight; Stage 2 – clearance charges; Stage 3 – wholesale mark-up; Stage 4 – retail markup; Stage 5 – sales tax/VAT.

^a 0% in District with zero mark-up policy

^b 17% VAT included in Stage 4

^c Includes supply for both national health insurance (NHI) and non-NHI patients

^d Insulin free to patients. Mark-up applies to medical store price to health centre.