

**Supplemental Table S1. First Visits with HTN clinical practices, pre- and post-intervention**

Visits	Full study period	Pre-intervention	Post-intervention	<i>p</i> value
Total visits	3,353	1,554	1,799	N/A
BP screening visits, <i>n</i> (%)	1,954 (58.3%)	695 (44.7%)	1,259 (70.0%)	< 0.05
HTN diagnosis visits, <i>n</i> (%)	880 (26.3%)	384 (24.7%)	496 (27.6%)	0.128
HTN medication visits, <i>n</i> (%)	670 (17.8%)	252 (14.2%)	418 (20.9%)	< 0.05

BP, blood pressure; HTN, hypertension.

**Supplemental Table S2. Revisits with HTN clinical practices, pre- and post-intervention**

Visits	Full study period	Pre-intervention	Post-intervention	<i>p</i> value
Total visits	421	216	205	N/A
BP screening visits, <i>n</i> (%)	296 (70.3%)	115 (53.2%)	181 (88.3%)	< 0.05
HTN diagnosis visits, <i>n</i> (%)	231 (54.9%)	90 (41.7%)	141 (68.8%)	< 0.05
HTN medication visits, <i>n</i> (%)	236 (56.1%)	91 (42.1%)	145 (70.7%)	< 0.05

BP, blood pressure; HTN, hypertension.

**Supplemental Table S3. First visits with HTN medication practice by HTN grade, pre- and post-intervention**

HTN Grade	Pre-intervention		Post-intervention		<i>p</i> value
	Total Visits	HTN medication visits <i>n</i> (%)	Total Visits	HTN medication visits <i>n</i> (%)	
Unknown	842	17 (2.0%)	513	27 (5.0%)	< 0.05
Normal BP	311	11 (3.5%)	763	17 (2.2%)	0.222
Grade 1 HTN	194	39 (20.1%)	255	39 (11.8%)	< 0.05
Grade 2 HTN	106	43 (40.6%)	141	106 (75.2%)	< 0.05
Grade 3 HTN	84	51 (60.7%)	184	144 (78.3%)	< 0.05

Grade of HTN: Grade 1, Systolic BP  $\geq$  140 or Diastolic BP  $\geq$  90 mmHg; Grade 2, Systolic BP  $\geq$  160 or Diastolic BP  $\geq$  100 mmHg; Grade 3, Systolic BP  $\geq$  180 or Diastolic BP  $\geq$  110 mmHg. BP, blood pressure; HTN, hypertension.

**Supplemental Table S4. Revisits with HTN medication practice by HTN grade, pre- and post-intervention**

HTN Grade	Pre-intervention		Post-intervention		<i>p</i> value
	Total Visits	HTN medication visits <i>n</i> (%)	Total Visits	HTN medication visits <i>n</i> (%)	
Visits without BP Screening	101	10 (9.9%)	24	12 (50.0%)	< 0.05
Normal BP	25	10 (40.0%)	40	17 (42.5%)	0.842
Grade 1 HTN	24	16 (66.7%)	52	31 (59.6%)	0.556
Grade 2 HTN	30	25 (83.3%)	49	46 (93.8%)	0.132
Grade 3 HTN	36	30 (83.3%)	40	39 (97.5%)	< 0.05

Grade of HTN: Grade 1, Systolic BP  $\geq$  140 or Diastolic BP  $\geq$  90 mmHg; Grade 2, Systolic BP  $\geq$  160 or Diastolic BP  $\geq$  100 mmHg; Grade 3, Systolic BP  $\geq$  180 or Diastolic BP  $\geq$  110 mmHg. BP, blood pressure; HTN, hypertension.

**Supplemental Table S5. Monthly average consumptions and costs for HTN medications at 1<sup>st</sup> level hospital in Chongwe district, pre- and post-intervention**

Medications	Unit Price (USD/ Tab)	Pre-intervention		Post-intervention	
		Consumption (Tablet)	Cost (USD)	Consumption (Tablet)	Cost (USD)
Nifedipine 20 mg	0.00925	780.0	7.22	1,252.5	11.59
Moduretic	0.00301	315.0	0.95	525.0	1.59
Atenolol	0.00178	262.5	0.47	217.5	0.39
Propranolol	0.00253	60.0	0.15	7.5	0.02
Enalapril	0.00267	45.0	0.12	277.5	0.74
Lasix	0.00301	292.5	0.88	345.0	1.04
Total			9.79		15.36

*Assumption for Analysis:* Unit prices for each drug are obtained from Medical Store Limited Catalogue 2016. Material Costs are calculated under the assumption that drugs are prescribed for one month (30 tab per each visit).

**Supplemental Table S6. Monthly average consumptions and costs for HTN medications at health center in Chongwe district, pre- and post-intervention**

Medications	Unit Price (USD/ Tab)	Pre-intervention		Post-intervention	
		Consumption (Tablet)	Cost (USD)	Consumption (Tablet)	Cost (USD)
Nifedipine 20mg	0.00925	50.0	0.46	370.0	3.42
Moduretic	0.00301	75.0	0.23	280.0	0.85
Atenolol	0.00178	62.5	0.11	15.0	0.03
Propranolol	0.00253	40.0	0.10	20.0	0.05
Enalapril	0.00267	0.0	0.0	22.5	0.06
Lasix	0.00301	45.0	0.14	10.0	0.03
Total			1.04		4.44

*Assumption for Analysis:* Unit prices for each drug are obtained from Medical Store Limited Catalogue 2016. Material Costs are calculated under the assumption that drugs are prescribed for one month (30 tab per each visit).

**Supplemental Table S7. Monthly average consumptions and costs for HTN medications at health post in Chongwe district, pre- and post-intervention**

Medications	Unit Price (USD/ Tab)	Pre-intervention		Post-intervention	
		Consumption (Tablet)	Cost (USD)	Consumption (Tablet)	Cost (USD)
Nifedipine 20 mg	0.00925	7.5	0.07	60.0	0.56
Moduretic	0.00301	3.8	0.01	71.3	0.22
Atenolol	0.00178	0.0	0.0	0.0	0.0
Propranolol	0.00253	0.0	0.0	0.0	0.0
Enalapril	0.00267	0.0	0.0	15.0	0.04
Lasix	0.00301	0.0	0.0	0.0	0.0
Total			0.08		0.81

*Assumption for Analysis:* Unit prices for each drug are obtained from Medical Store Limited Catalogue 2016. Material Costs are calculated under the assumption that drugs are prescribed for one month (30 tab per each visit).

**Supplemental Table S8. Monthly average costs for HTN service per 1<sup>st</sup> level Hospital in Chongwe**

**District, pre-and post-intervention**

Services	Pre-intervention		Post-intervention		Incremental Cost (USD)
	Visits	Cost (USD)	Visit	Cost (USD)	
BMI screening	2.5	0.0	97.8	0.0	0.00
*BP screening	122.0	214.72	142.8	251.24	36.52
**HTN consultation	78.5	1,106.85	77.8	1,096.28	-10.57
***HTN medication	43.3	9.79	53.5	15.36	5.57
Total		1,331.36		1,362.88	31.52
Fix cost****		1,321.88		1,347.52	25.64
Variable cost*****		9.48		15.36	5.88

*Assumption for Analysis:*

\*Average time of BP screening is one by eighth of the average time of OPD visit. Therefore, unit cost per BP screening is 1.76 USD.

\*\*Unit cost per OPD visit: 14.1 USD without material costs is used for the estimation.

\*\*\*Drug costs are calculated under the assumption that drugs are prescribed for one month (30 tab per each visit).

\*\*\*\*Fix cost includes the capital costs and labour costs for HTN management.

\*\*\*\*\*Variable cost includes the costs for drugs, reagents and other necessary consumables for HTN management.

BMI, body massindex; BP, blood pressure; HTN, hypertension.

**Supplemental Table S9. Monthly average costs for HTN service per health center in Chongwe District, pre-and post-intervention**

Services	Pre-intervention		Post-intervention		Incremental Cost (USD)
	Visits	Cost (USD)	Visits	Cost (USD)	
BMI screening	16.9	0.0	59.8	0.0	0.00
*BP screening	24.9	8.1	65.3	21.21	13.11
**HTN consultation	11.9	30.98	23.9	62.18	31.20
***HTN medication	6.3	1.17	14.5	4.44	3.27
Total		40.25		87.83	47.58
Fix cost****		39.08		83.39	44.31
Variable cost*****		1.17		4.44	3.27

*Assumption for Analysis:*

\*Average time of BP screening is one by eighth of the average time of OPD visit. Therefore, unit cost per BP screening is 0.33 USD.

\*\*Unit Cost per OPD visit: 2.6 USD without material costs is used for the estimation.

\*\*\*Drug Costs are calculated under the assumption that drugs are prescribed for one month (30 tab per each visit).

\*\*\*\*Fixed cost includes the capital costs and labour costs for HTN management.

\*\*\*\*\*Variable cost includes the costs for drugs, reagents and other necessary consumables for HTN management.

BMI, body massindex; BP, blood pressure; HTN, hypertension.

**Supplemental Table S10. Monthly average costs for HTN service per health post in Chongwe District, pre-and post-intervention**

Services	Pre-intervention		Post-intervention		Incremental Cost (USD)
	Visits	Cost (USD)	Visits	Cost (USD)	
BMI screening	0.6	0.0	19.0	0.0	0.00
*BP screening	2.9	1.19	10.8	4.43	3.24
**HTN consultation	2.1	7.01	4.9	16.09	9.08
***HTN medication	0.4	0.008	3.8	0.081	0.80
Total		8.21		20.60	12.39
Fix cost****		8.20		20.52	12.32
Variable cost*****		0.008		0.081	0.8

*Assumption for Analysis:*

\*Average time of BP Screening is one by eighth of the average time of OPD visit. Unit Cost per BP Screening is 0.41 USD.

\*\*Unit Cost per OPD visit: 3.3 USD without Material Costs is used for the estimation.

\*\*\*Drug Costs are calculated under the assumption that drugs are prescribed for one month (30 tab per each visit).

\*\*\*\*Fixed Cost includes the capital costs and labour costs for HTN management.

\*\*\*\*\*Variable Cost includes the costs for drugs, reagents and other necessary consumables for HTN management.