

## Supplementary data

### 1.1 Abbot fixed costs

Item	Unit cost (\$)
Abbot m2000	160,000.00
desktop computer	2,500.00
printer	800.00
UPS	1,000.00
Reference lab sample recipient log book	25.00
hardcover	3.73
Tonner	106.00
HH cost	0.52
<b>TOTAL</b>	<b>164,435.25</b>

### 1.2 Abbot variable costs

Item	Unit cost (\$)	Quantity	total cost (\$)
Abbott RealTime HIV-1 Amplification Reagent Kit	30.39157895	8	243.13
Abbott m Sample Preparation System	3.789473684	8	30.32
Abbott RealTime HIV-1 Control Kit	3.026315789	8	24.21
96 Well Deep Plates	8	69	552.00
96 Well Optical Reaction Plate	3.85	23	88.55
Optical Adhesive Cover	3.84	23	88.32
Master Mix Tube & Cap	0.96	23	22.08
200 mL Reagent Vessels	0.48	69	33.35

200 microliter Pipette Tips	0.13	960	124.80
1,000 microliter Pipette Tips (normal)	0.13	960	124.80
1,000 microliter Pipette Tips (Abotte)	0.13	960	124.80
Filtered tips 200ul	0.11	960	105.60
DBS kits	1.87	700	1,309.00
ziplock bags	0.10665	200	21.33
dessicants	0.05335	200	10.67
Conical tubes	0.26657	695	185.27
Blue paper towels	40	1	40.00
Biohazard Bags	0.31	100	31.47
Blue nitrite gloves	0.11	1000	110.00
Aprons	0.10	120	12.00
Masks	0.09	120	10.80
PI used car \$15 /day	15.00	40	600.00
paper	5.00	2.5	12.50
internet connection monthly	490.00	2	980.00
<b>TOTAL COST</b>			<b>4,884.99</b>
<b>TOTAL COST + UTILITIES</b>			<b>5,202.89</b>

### 1.3 Abbot HR costs

HR	UNIT COST (\$)	QUANTITY	TOTAL COST (\$)
nurse	0.75	695	521.25
Lab technician	3.66	695	2,543.70
Data encoders	0.04	695	27.80

Health surveillance assistant	0.90	695	625.50
<b>TOTAL</b>			<b>3,718.25</b>

- The cost of technical staff = hours spent on the job\*(monthly gross salary / 20 days per month/ 8 hours per day)

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Annexes

## 2.1 Cepheid fixed costs

Item	Unit cost (\$)
GeneXpert	17,500.00
software for Cepheid Xpert HIV-1 Qual assay - installation	2,740.00
UPS	1,000.00
Desktop computers	2,500.00
Virtual Private Network	150.00
Networking accessories	1,000.00
Generator - 33 kva open set with ATS panel (+16.5% surtax)	18,757.00
GeneXpert Inventors	822
GeneXpert Batteries	479
Refrigerator defy upright double door with freezer section	7,000.00
printer	800.00
Tonner	106.00
Hardcover	3.73
Registration book	25.00
Air malawi cargo	23.71
Fedex	247.35
Customs & clearances	26.67
Continental cargo clearance	46.67
Training	321.732
HH cost	0.52
<b>TOTAL</b>	<b>53,549.38</b>

## 2.2 Cepheid variable costs

Variable	Unit cost (\$)	quantity	total cost (\$)
Butterfly needles	0.93	1000	930.00
GeneXpert HIV-1 Qual cartridges (EID)	17.95	700	12,565.00
ETHANOL denaturated 95% 1 l bot,	28.63	80	2,290.40
Sharps box, 5 L	0.69	4	2.76
cotton wool	4.00	2	8.00
Alcohol swabs	0.03	1000	30.00
white paper towels	40.00	1	40.00
Biohazard bags	0.31	100	31.00
Aprons	0.10	120	12.00
N95 masks	0.09	120	10.80
On-going service and maintenance for generators	1,370.00	2	2,740.00
internet connection monthly	490.00	2	980.00
papers	5.00	2.5	12.50
<b>TOTAL VARIABLE COST</b>			<b>19,652.46</b>
<b>PLUS UTILITIES</b>			<b>20,352.59</b>

## 2.3 Cepheid HR costs

HR	UNIT COST(\$)	QUANTITY	TOTAL (\$)
Health Surveillance Assistant	0.90	680	612.00
Nurse	0.75	680	510.00
Lab Technician	3.66	680	2,488.80
Data Clerk	0.04	680	27.20
<b>TOTAL</b>			<b>3,638.00</b>

- The cost of technical staff = hours spent on the job\*(monthly gross salary / 20 days per month/ 8 hours per day)

#### 2.4 EID Data for the year 2018

	Q1	Q2	Q3	Q4	Total for 2018		
DNA-PCR samples were collected and recorded.	12,183	11,578	10993	10883	45,637		
results received at the sites	8,211	7,536	7734	8249	31,730	31730/45637 (70%)	70% results received at site
results had been communicated to the mother	5,060	4,577	5379	5022	20,038	20038/45637 (44%)	44% of mothers received results
HIV positive results	454	295	345	391	1,485		
% HIV positive results	454/8211(5.5%)	295/7536 (4%)	345/7734 (4%)	391/8249 (4.8%)		1485/31730 4.6%	4.6% HIV positive
Median time of sample collection to dispatch of results	22 days (50% dispatched between 16 -34	23 days (50% dispatched between 16 -34	21 days (50% dispatched between 15-30	20 days (50% dispatched between 15-34)			
Total number HIV exposed born in hospital							
	9801	9550	9509	9533	38393		
HIV exposed babies born	data on page 21 of each quarterly report						

&discharged from maternity						
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Above data is collected from page 14 of each Malawi Integrated HIV quarterly reports of Year 2018