This is a simplified version of the cost-effectiveness analysis. Explicit calculations are in the "CEA" tab.										
	Zambia	Cameroon								
Costs										
Years over which we're modeling impact	10	10								
Average annual cost to GW over 10 years	\$704,625	\$810,687								
Average annual cost to all actors over 10 years	\$1,416,491	\$1,629,696								
Increase in screening and treatment over counterfactual										
Number of pregnant women targeted annually	647,958	626,501								
Prevalence of active syphilis among ANC attendees	3.00%	4.55%								
Intervention scenario										
Average screening rate over 10 years	58%	58%								
Treatment rate among women screened	70%	60%								
Counterfactual scenario										
Average screening rate over 10 years	51%	49%								
Treatment rate among women screened	45%	44%								
Number screened and treated										
Average annual number of women screened in counterfactual scenario	329,332	308,696								
Average annual increase in number of women screened	48,274	55,481								
Average annual increase in number of women treated	3,484	3,720								
Benefits of increased treatment										
Pregnancy outcomes										
Benefits of subsequent pregnancies as proportion of current pregnancies	0.33	0.33								
Stillbirths and miscarriages averted	1,026	1,096								
Neonatal deaths averted	481	514								
Congenital syphilis averted	1,208	1,290								
Low birth weight averted	379	404								
Moral weights										
Units of value - averting stillbirth or miscarriage	21	21								
Units of value - averting neonatal death	84	84								
Units of value - averting congenital syphilis	10	10								
Units of value - averting low birth weight	3	3								
Total value generated, before leverage	75,183	80,277								
Leverage/funging										
Total counterfactual value of spending from partners (including Global Fund, go	-3,722	-4,282								

Impact of grant		
Total units of value generated	71,461	75,996
Cost-effectiveness of grant	30.3	28.0
Annual lives saved (including miscarriages, stillbirths, and neonatal deaths)	1,507	1,610
Cost per life saved	\$940	\$1,013
Overall impact		
Cost-effectiveness of overall grant	29	

	Overall	Zambia	Cameroon	Notes																		
Cost-effectiveness as multiple of GD	29	30	28																			
Budgets	45 453 440	67.040.040	50 400 070	Destants from D	dence better																	
Annual hufget (in USD)	\$3,030,624	\$1,046,249	\$1,621,374	Annual hudget of	wer period of gran	đ																
Assumptions																						
Attendance and baseline screening rates																						
Number of pregnant women annually		786,691 [1]	943,796 [2]																			
Amenatal care (ANC) attendance rate - at least one visit		97% [3]	87% [4]																			
Among those who attend at least 1 ANC visit, % of pregnant women who attend ber Current suphilic ecreacion rate	ore the 3rd tr	85% [5] 62% [7]	76% [6] 60% (9)																			
HIV screening rate		82% [9]	86% [10]																			
Number of syphilis screenings as percentage of projected HIV screenings once pro	ram is fully r	95%	95%	Guess Because	program is repla	cing HIV tests that	women receive d	uring ANC with d	ual HIV/syphilis	tests, we expect sy	philis screening ra	ate to reach simila	ar or slightly lower le	evels as HIV scre	ening rates amon	g ANC goers. We	guess a lower pe	rcentage in Niger	a because we thin	k the implementati	on barriers are hi	gher in Nigeria, t
Target screening rates																						
Number of pregnant women targeted annually		647,958	626,501																			
Syphilis screening rate at full scale if dual test is adopted		77.52%	82.08%																			
Average screening rate over scale-up period - intervention		65.09%	65.94%	Assume screeni	ng rate is increas	ed linearly over gra	ant period as more	e health workers	are trained in the	e use of dual HIV/sy	philis tests	halfs and of an als	in hereiter (er			ad language in a feat	and and and an					
Average screening rate over scale-up period - counterlacidal		05.09%	00.9476	Assume same s	creening rate wo	and without NGO	support, conciso	nar on scale-up. I	Man benefits ib I	NGO support come	from increasing i	Methodd of scale-	-op nappening (and	o olus expected s	creening rates), a	no increasing the	aument rates.					
Transmost rates																						
Treatment rate among those who test positive - intervention		70%	60%	Guess Assume	immediate increa	se in treatment rat	e due to NGO su	port. Because of	f various implem	entation barriers (in	particular, supply	chain challenges	a), we quess that th	e increase will be	relatively modes							
Treatment rate among those who test positive - counterfactual		45%	44%[11]	Guess based or	current treatmen	t rate estimates fro	m Cameroon (se	e cell note for Ca	imercon estimate	e), which I think are	the best available	e treatment rate es	stimates among the	se countries.	,,							
Prevalence																						
Prevalence of active syphilis among ANC attendees [12]		3.00% [13]	4.55% [14]	We expect bene	fits to be concent	ated in cases who	re the syphilis inf	ection is active. It	n "Treatment effe	ects," we have adjus	ated the treatment	t effects found in t	the literature by the	accuracy of the t	ests used in the I	terature in identif	ying active syphili	s cases.				
Percent of reactive treponemal tests that are "probable active syphilis"		53.6%	53.6%	Proportion of pro-	egnant women rei	ictive in one syphil	is test type that w	ere likely reactive	e in a second co	nfirmatory test. [15]												
Total prevalence of active and latent maternal syphilis among women attending AN		5.60%	8.49%	Calculation. This	s is to estimate th	e number of wome	n who will test por	sitive and thus be	s given treatment	t, whether or not the	ly have active infe	actions. Only facto	ors into costs. Right	t now not used be	cause costs are l	based on headling	e budget estimate	s rather than calcu	lated per test and	treatment perform	id.	
Assumptions about intervention and counterfactual scenarios																						
Percent chance that dual test is soccessfully adopted in intervention scenario Respect chance that dual test would have been adopted by opversment in counterfor	ctual	50%	40%	These appears t	e be faidu strong	ny depends on da	a tests being inte takeholders in the	grades into habor	to integrate dual	terting into routing	oncy galdernes,	all key country sa	akendiders being bi	orgent In, and cap	acity on the part of ad =2.4 million de	a the work in cone	socing the obail to wit much of a place	ist trainings. There	to distribute that	ce or parear scale-	d to go and provi	ide training of treat
Percent chance that operan is sustained after scale-up, conditional on successful	tual test ador	70%	70%	Our owess is the	at dual tests are a	relatively simple o	moram to maintai	n since it will be	leveraninn existi	ing HIV investments	Unfrastructure an	nd HIV testion has	remained consiste	antly fairly high in	these contexts H	inwever there's s	ome chance that	fual tests won't be	nronerly integrate	d into the routine it	ealth system (e.e.	n if the Global Fi
Number of years later that program would have been scaled up in counterfactual, or	nditional on	1	1	See note in prev	ious row. These	eographies have	demonstrated inte	rest in dual tests	, and if the gover	mments were to sur	cessfully scale-u	p the program wit	hout NGO support.	Evidence Action	may only be soe	ading up the proce	am by a relatively	short period of th	TR.		. , mar. (e.)	
Number of years beyond grant period that we're modeling impact		5	5	Assumption. Co	nsistent with othe	technical assistar	nce CEAs (IPTI, m	aternal syphilis i	n Liberia)													
Number screened and treated - intervention scenario																						
Number of women screened and treated over grant period																						
Duration of scale-up/grant period in years		5	5	Assume same a	s Liberia grant fo	now. Grant period	may differ across	countries.														
total number of women screened over scale-up period, conditional on successful di	ar test adopt	2,108,887	2,065,575																			
rown number of women screened over scale-up period, if dual test adoption fails		1,705,290	1,559,988																			
Expected number of women treated over scale-up period		42.596	52.249																			
Benefits in the five years after the grant period																						
Annual total number of women screened once dual test is adopted		502,297	514,232																			
Annual total number of women screened, if dual test isn't adopted		341,258	311,998																			
Expected number of women screened beyond grant period (years 6-10)		1,747,690	1,727,865																			
Expected number of women treated beyond grant period (years 6-10)		36,701	47,171	Assume that ev	en if dual test fails	to be adopted, Ev	idence Action's su	apport will lead to	an increase in t	he treatment rate a	mong women who	o are still screener	d, and that that incr	ease in treatment	t rate lasts beyon	d the period of the	e grant.					
Total expected number of women screened in intervention scenario		3,776,058	3,641,764																			
Total expected number of women treated in intervention scenario		79,297	99,420																			
Number and and and an and a sub-district second																						
Number screened and treated - counterfactual scenario																						
Number of women screened and realed over scale-up period		6	6	Accuración como o	need of scale up.	n in intervention of	centrio															
Total number of women screened over scale-up period	al test adont	2 108 887	2 065 575	Paralline annu a	peed or acate-up		Curiano.															
Total number of women screened over scale-up period, conditional of accessible of	ounterfactual	1 706 290	1 559 988																			
Expected number of women screened over scale-up period		1,907,588	1,762,223																			
Expected number of women treated over scale-up period		25,752	35,520																			
Benefits beyond scale-up period																						
Number of years of benefits beyond scale-up period		4	4	The more years	it would take to s	cale the program is	the counterfactu	al scenario relati	ve to the interver	ntion scenario, the f	ewer years of ber	nefits in the counts	erfactual we model	here								
Annual total number of women screened once dual test is adopted		502,297	514,232																			
Annual total number of women screened beyond scale-up period, if dual test adoption	on fails	341,258	311,998																			
Expected number of women screened beyond scale-up period		1,385,732	1,324,734																			
Expected number of women treated beyond scale-up period		18,707	26,702																			
Total expected number of women screened in counterfactual scenario		3 293 320	3 086 957																			
Total expected number of women registed in counterfactual scenario		44 490	62 222																			
Additional women screened and treated due to grant																						
Increase in total number of women screened in intervention scenario relative to cou	nterfactual	482,737	554,807																			
Increase in total number of women treated in intervention scenario relative to counter	rfactual	34,837	37,198																			
Intuition check - increase in number of women screened due to intervention as a pro-	portion of an	0.6	0.6																			
Intuition check - increase in number of women treated due to intervention as a prop	ortion of worm	1.5	0.9																			
Benefits of increased treatment																						
Pregnancy outcomes		0.00	0.00																			
Stillbiths and miscarcianas quarted		10.33	10.050																			
Neonatal deaths averted		4,811	5,137																			
Congenital syphilis averted		12,083	12,902																			
Low birth weight averted		3,786	4,043																			
Moral weights																						
Units of value - averting stillbirth or miscarriage		21	21																			
Units of value - averting neonatal death		84	84																			
ums urvaue - averting congenital syphilis		10	10																			
ourse or waves - watering low origin weights		3	3																			
Total value generated, before leverage		751,832	802,775																			
Costs																						
Costs of medical commodities																						
Cost of HIV test (US Dollars) [19]		\$0.80	\$0.80																			
Cost of dual rapid test (US Dollars) [20]		\$0.95	\$0.95																			
cosi or ouar rapid test attributable to syphilis (US Dollars)		\$0.15	\$0.15																			
Costs to all actors over entire grant																						
Costs to Evidence Action		\$7,046.249	\$8,106.870																			
Cost to Evidence Action per additional woman tested		\$14.60	\$14.61																			
Additional costs to Global Fund/PEPFAR [21]		\$72,411	\$83,221																			
Additional costs to other partners (guess)		\$7,046,249	\$8,106,870	Assume addition	al costs to partne	rs are similar to co	ists to Evidence A	ction over grant	period.													
Value generated																						
Counterfactual units of value of Global Fund/PEPFAR spending per \$100k		1,770	1,770	We assume the	counterfactual va	ue of PEPFAR sp	ending is the sam	e as the Global F	Fund.	malaman' 7	d Innersonal - 7											
Counterractual value of spending of government per \$100k		510	510	we assume the	same <u>counterfact</u>	uar value of goven	nment spending a	s we do with mal	iana, vitamin A si	upplementation, and	immunization pr	ograms.										
total counterfactual value of spending from the Global Fund/PEPFAR		-1,282	-1,473			a af an and an a		ufer and h	NGOAL AN A.													
Total value generated, after leverage		-30,836	-+1,345 759.957	-waume same o	ownerractual valu	- or spending of o	and paraters (incl	oung govt, local	wouse as gove													
		110,014	100,907																			
Cost-effectiveness																						
GiveDirectly units of value per 100K		335	335	From <u>GiveWell</u>	op charities cost-	zflectiveness anah	sis															
Evidence Action units of value per 100K		10,142	9,374																			
Cost-effectiveness as multiple of unconditional cash transfers		30	28																			
rotal rives saved (including miscarriages, stillbirths, and neonatal deaths)	31,169	15,074	16,095																			
Cost or IR stand	\$977	a 14,164,909	a 16,296,961																			
wan per me MMU	que/ /	au40	a:,013																			
For reference:																						
Percentage of benefits coming from averting:																						
Stilbiths	29%																					
Neonatal deaths	54%																					
Congenital syphilis	16%																					
Low birth weight	2%																					

Before internal and external validity adjustments									
Rates of adverse outcomes due to synhilis									
Likeliheed of maternal suchilis ease resulting in stillhigh or missogriage	0.26								
Likelihood of maternal systems case resulting in scientist of miscarrage	0.12								
Likelihood of maternal syphilis case resulting in reonatal death	0.12	conducted by Gomez et al. 2013. See Figure 3. Pg. 222							
Likelihood of maternal systems case resulting in congenital systems	0.10								
Likelihood or maternal syphilis case resulting in low birth weight [22]	0.12								
Treatment effectiveness of BPG									
Treatment effectiveness (in reducing stillbirth or miscarriage)	0.82 [23]	Enterstalla based on materials and shadles Discours at all							
Treatment effectiveness (in reducing neonatal death)	0.8	2011 which looked at the effect of BPG if the mother was treated with							
Treatment effectiveness (in reducing congenital syphilis)	0.97	at least one dose anytime within the first 32 weeks of pregnancy. [24]							
Treatment effectiveness (in reducing low birth weight)	0.64								
Reinfection after birth									
		Efficacy studies already include the possibility of reinfection between							
		treatment and delivery, so this estimate isn't used for the direct effect of treatment on the current pregnancy. However, this is used to							
Date of reinfection by partner ofter initial symbilis treatment before birth	1 60%	extrapolate to the rate of reinfection between treatment and the next							
Nate of reinfection by particle and initial systims deather before birth	1.00 /0	Rough calculation extrapolating from the rate of reinfection between							
		birth after this one. This is used to estimate the benefit to subsequent							
Rate of reinfection of mom by partner before next birth	32%	pregnancies of treating the current pregnancy.							
Internal validity, external validity, and diagnostic performance adjustments		See here for more detail on the reasoning for each of these adjustr	nent factors.						
Adjustments to baseline rates of adverse outcomes due to syphilis in Gomez et al. 2013									
		Adverse pregnancy outcomes (APOs) are worse in pregnant women with active syphilis infections. We want the baseline rates of APOs for							
		women with active infections, so we adjust the estimate of baseline							
		APO rates upwards to account for the studies treating all women who							
Adjustment for performance of tests used in the studies	1.3	infections. [26]							
		Some studies included a large proportion of women with latent syphilis							
		infections that's likely not entirely captured by our adjustment for							
		diagnostic performance. For example, one study (Ingraham, 1940-49,							
		asymptomatic, while another (Harmon, 1917, see p. 220) followed the							
		pregnancies of women long after their diagnosis. There seems to be a							
		wide consensus that the negative consequences of maternal syphilis							
		are higher for pregnancies that occur during the active stage of an infection compared to during the latent stage, and we are interested in							
		the baseline rates of APOs among women with active syphilis							
Internal validity adjustment to baseline adverse outcome rates due to syphilis	1.1	infections.							
		Two of the five studies that reported congenital syphilis outcomes had							
		no follow-up after delivery, which could lead those studies to							
		lower concenital syphilis rates than the other studies, so we adjust							
		upwards for including those studies. The effect sizes are pooled using							
		a random-effects model, but since the weights are not listed in the							
		these two studies weighted by study sample size to get a rough							
		adjustment factor. Only the reported number of congenital syphilis							
lateral colligity advector at the large line and so that work the other	4.0	cases is potentially biased by this, so we only apply the adjustment to							
Internal validity adjustment to baseline congenital syphilis rates	1.2	the estimate or congenital syphilis rates.							
A diversity to and involve of the strengt effective and in Directory at al. 0044									
Adjustments to estimates of treatment enectiveness in Diencowe et al. 2011		Since Planeous et al. 2011 consisted of naturalistic studies, we adjust							
		the effect size down to account for notential confounders. This							
		adjustment factor doesn't apply to the treatment effect on congenital							
Internet will die and weter and the terreture of a file allowers a	0.7	syphilis, since congenital syphilis only occurs in women with syphilis							
Internal validity adjustment to treatment ellectiveness	0.7	and so comounding ractors are uninkely to bias the effect size.							
		across studies and no mediators that would with high likelihood							
External validity adjustment to treatment effectiveness	1.0	moderate the treatment effect in Liberia compared to the literature.							
After internal and external validity adjustments									
Rates of adverse outcomes due to syphilis									
Likelihood of maternal syphilis case resulting in stillbirth or miscarriage	0.37								
Likelihood of maternal syphilis case resulting in neonatal death	0.18								
Likelihood of maternal syphilis case resulting in congenital syphilis	0.27	Note that we have an additional internal validity adjustment that applies	only to congenita	al syphilis rates to	account for a pote	ntial bias in repo	rted congenital svi	ohilis outcomes (s	ee row 22).
Likelihood of maternal syphilis case resulting in low-birth weight	0.17						J)		
Treatment effectiveness of BPG									
Treatment effectiveness (in reducing stillbirth or miscarriage)	0.60								
Treatment effectiveness (in reducing constal death)	0.58								
Treatment effectiveness (in reducing reconcented evabilie)	0.00	Note that we don't apply the internal validity adjustment for treatment of	fectiveness to co	ngenital supplies o	ee row 25 for the	evolanation			
Treatment effectiveness (in reducing congenital syphilia)	0.07	note that we contrapply the internal validity adjustment for treatment en		ngonitai aypinilis, s	55 10W 20 10F UIE	sapiditation.			
Treatment encouverless (in reducing low-birth weight)	0.47								
Prevalence of active and latent infections									
Prevalence of supplies among ANC attendees									
r revenence or syprims difforing Arvo dilationees		Proportion of pregnant women reactive in one synhilis test time that							
Percent of reactive treponemal tests that are "probable active syphilis"	53.6%	were likely reactive in a second confirmatory test. [27]							
Defermence of new transversal tests									
Perioritative of non-treponental tests		Dependion of program upman reading in any suchility to the							
Percent or reactive non-treponemal tests that are "probable active syphilis"	52 2%	Proportion or pregnant women reactive in one syphilis test type that were likely reactive in a second confirmatory test [28]							
	02.270	The evidence base used synhilis tests with different diagnostic							
		performance than the dual HIV/syphilis tests. Test performance affects							
		treatment effectiveness on those who test positive, so we adjust for							
Adjustment for performance of tests used in evidence base on adverse outcomes of ma	76.1%	that here. [29]							

[1] "In 2020, there were an estimated 786,691 pregnant women across the country and 762,409 first ANC visits reported via DHIS2 (96.9% attendance rate). "

Evidence Action, Zambia scoping report, March 2022, p. 4: https://files.givewell.org/files/DWDA% 202009/Evidence_Action/Evidence_Action_Scoping_Report_for_Zambia_March_2022.pdf

[2] "More recently, there were 785,253 first ANC visits in 2020 reported via DHIS2 (out of an estimated 943,796 pregnant women in the country). Taken together, the facility reported data suggests that 83.2% of pregnant women attended at least one ANC visit."

Evidence Action, Cameroon scoping report, March 2022, p. 5 https://files.givewell.org/files/DWDA% 202009/Evidence_Action/Evidence_Action_Scoping_Report_for_Cameroon_March_2022.pdf

[3] Table 9.1, p. 140 in Zambia DHS 2018 Report:

https://dhsprogram.com/pubs/pdf/FR361/FR361.pdf

[4] Table 9.1, p. 180 in Cameroon DHS 2018 Report:

https://dhsprogram.com/pubs/pdf/FR360/FR360.pdf

[5] We add together the percentage of women who attend their first ANC visit during the first trimester of their pregnancy and the percentage that have their first visit during the fourth or fifth month of their pregnancy.

"Over 3 in 10 women (37%) had their first ANC visit during the first trimester of their pregnancy; 48% had their first visit during the fourth or fifth month of their pregnancy, while 13% received ANC during their sixth and seventh month of pregnancy."

Zambia Demographic and Health Survey 2018, p. 132: https://dhsprogram.com/pubs/pdf/FR361/FR361.pdf

[6] We add together the percentage of women who attend their first ANC visit during the first trimester of their pregnancy and the percentage that have their first visit during the fourth or fifth month of their pregnancy. Percentages come from:

Cameroon Demographic and Health Survey 2018, Table 9.2, p. 181 https://dhsprogram.com/pubs/pdf/FR360/FR360.pdf

[7] "According to the 2017-2020 Annual Health Statistical Report, the syphilis screening rate in ANC was 56.3% in 2018, 54.1% in 2019, and 47.6% in 2020."

Evidence Action, Zambia scoping report, March 2022, p. 5 https://files.givewell.org/files/DWDA% 202009/Evidence_Action/Evidence_Action_Scoping_Report_for_Zambia_March_2022.pdf

[8] "To assess syphilis screening and treatment coverage in past years, facility-reported data from the DHIS2 was considered. The number of pregnant women screened each year for syphilis during ANC is depicted in Figure 1. Looking to 2020, there were 785,253 pregnant women who visited a health facility during the course of their pregnancy which therefore yields a syphilis screening coverage of 49.8%."

Evidence Action, Cameroon scoping report, March 2022, p. 6

https://files.givewell.org/files/DWDA% 202009/Evidence_Action/Evidence_Action_Scoping_Report_for_Cameroon_March_2022.pdf

[9] "According to the 2018 DHS report, 81.7% of women aged 15-49 who gave birth in the 2 years before the survey received counseling, were tested for HIV, and received their test results during ANC."

Evidence Action, Zambia scoping report, March 2022, p. 5 https://files.givewell.org/files/DWDA% 202009/Evidence_Action/Evidence_Action_Scoping_Report_for_Zambia_March_2022.pdf

[10] 2018 UNICEF data on "Per cent of pregnant women presenting at ANC who were tested for HIV or already knew their HIV positive status", country "Cameroon"

https://data.unicef.org/resources/data_explorer/unicef_f/?ag=UNICEF&df=GLOBAL_DATAFLOW&ver=1. 0&dq=.HVA_PMTCT_STAT_CVG..&startPeriod=2015&endPeriod=2018

[11] "The available data indicates treatment coverage has been:
2018: 63.7%
2019: 51.1%
2020: 34.6%
2021 (up to Oct): 27.8%

Based on the DHIS data, it would appear syphilis treatment coverage has been declining since it was first measured in 2018. It's possible this is an artifact of the way this data is captured at the facility; syphilis testing is included in the ANC register but syphilis treatment is only recorded in the outpatient register (see below for further description)."

Evidence Action, Cameroon scoping report, March 2022, p. 7 https://files.givewell.org/files/DWDA% 202009/Evidence_Action/Evidence_Action_Scoping_Report_for_Cameroon_March_2022.pdf

[12] Prevalence estimates for Zambia are based on the ZAMPHIA survey. For Cameroon, the data is drawn from a Sentinel Survey.

[13] "Overall, Evidence Action recommends relying on the active syphilis prevalence measured via the ZAMPHIA study as the survey was nationally representative and a sequence of tests was used to directly measure active syphilis. Thus, the prevalence of active syphilis is 3.0% nationally."

Evidence Action, Zambia scoping report, March 2022, p. 3 https://files.givewell.org/files/DWDA% 202009/Evidence_Action/Evidence_Action_Scoping_Report_for_Zambia_March_2022.pdf

[14] "Overall, among the estimates available, Evidence Action recommends relying on the 2016 Sentinel Survey as it provides the most rigorous estimate of active syphilis prevalence. Thus, the prevalence of active syphilis in Cameroon is 5.63% ... Using 2015 population data from Projections Demographique, we estimate the population-weighted prevalence is 4.55%."

Evidence Action, Cameroon scoping report, March 2022, p. 3 https://files.givewell.org/files/DWDA% 202009/Evidence_Action/Evidence_Action_Scoping_Report_for_Cameroon_March_2022.pdf

[15] See Ham et al. 2015 meta-analysis, Table 2: https://obgyn.onlinelibrary.wiley.com/doi/epdf/10.1016/j.ijgo.2015.04.012

[16] Intuition: Total benefits due to the grant are equivalent to this number of years of perfect compliance

[17] Intuition: Total benefits due to the grant are equivalent to this number of years of perfect compliance

[18] See calculations in CEA for Evidence Action Liberia grant:

https://docs.google.com/spreadsheets/d/17ivGP0KATv32vfrUCLzXUuoerXAkMXKkciLv-B_WwE8/edit#gid=0&range=A48:E53

[19] "For the HIV rapid test, our best guess is that it is \$0.80. We did not obtain specific cost data on HIV rapid tests from either Zambia or Cameroon. That said, the tests tend to be around the same cost across countries because they are purchased through Global Fund or PEPFAR pooled procurement. In both countries, the HIV screening tests in use are from Band #3 of the Global Fund HIV test kit pricing reference guide which has costs falling between \$0.71 to \$0.90 per test (see here: https://www. theglobalfund.org/media/7564/psm_hivrdtreferencepricing_table_en.pdf)." Anna Konstantinova, Senior Manager, Maternal Syphilis Program, Evidence Action, email to GiveWell, January 20, 2023 (unpublished)

[20] "For the dual test, there are three WHO pre-qualified brands: Abbott SD Bioline, Premier First Response, and Standard Q SD Biosensor. The prices of the dual tests range from \$0.95 (Standard Q SD Biosensor; pricing agreement announced by MedAccess Nov 2021) up to ~\$1.50 (Abbott SD Bioline). Cameroon and Zambia are still in the midst of finalizing the brands to be used in their algorithms and we anticipate it will be either the Premier First Response or the Standard Q SD Biosensor, though final decisions are pending official guideline amendments." Anna Konstantinova, Senior Manager, Maternal Syphilis Program, Evidence Action, email to GiveWell, February 1, 2023 (unpublished)

[21] Estimated by multiplying # of pregnant women screened by marginal cost of dual vs. single HIV test (\$. 95 vs. \$0.80)

[22] Gomez et al. 2013 reported the combined outcome of LBW or prematurity. Given our impression that prematurity and low birth rate are closely related, we use this outcome as a proxy for low birth weight.

[23] We are assuming that reductions in miscarriage resulting from treatment would be similar to reductions in stillbirth resulting from treatment.

[24] "The population of interest is pregnant women with active syphilis and the intervention being reviewed is serologic detection of syphilis in pregnant women and treatment of women with active syphilis (e.g RPR>1:4) with at least 2.4 million units penicillin given at least 28 days prior to delivery." Blencowe et al. 2011, p. 3.

[25] From Evidence Action: "Given low rates of male partner treatment, it is possible that women will get reinfected between when they've been treated and the delivery of their child. These reinfections will negate any benefit received from the initial screening and treatment. There is no data on reinfection rates but one possible proxy is the seroconversion rate. The seroconversion rate refers to the fraction of women who test negative during their first ANC visit but then test positive when they are retested at time of birth. In other words, it is the rate of women who become infected between their first ANC visit and their delivery date. According to Blencowe et al. (2011), 0.4% to 2.8% of pregnant women undergo seroconversion in high-prevalence areas... The average value was assumed for this model in high prevalence countries. The lowest estimate was assumed for Indonesia's low prevalence scenario."

[26] Half of the studies in Gomez et al. 2013 used only a non-treponemal test to diagnose syphilis, while the other half used both a non-treponemal and treponemal test to confirm probable active syphilis. I average the adjustment factors for using only a non-treponemal test and for using both tests.

[27] See Ham et al. 2015 meta-analysis, Table 2: https://obgyn.onlinelibrary.wiley.com/doi/epdf/10.1016/j.ijgo.2015.04.012

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[29] Half of the studies in Gomez et al. 2013 used only a non-treponemal test to diagnose syphilis, while the other half used both a non-treponemal and treponemal test to confirm probable active syphilis. I average the adjustment factors for using only a non-treponemal test and for using both tests.