

Multimedia Appendix 3. Parameters for probabilistic sensitivity analyses.

Deterministic values draw from 10 year estimates of costs and consequences of MOTECH implementation across 170 districts.

Parameter	Deterministic			Distribution	Probabilistic			Distribution parameters	Mean	SD
	Base case	High	Low		a	b	c			
Development										
Program Design	\$36,800	\$46,000	\$34,872	Gamma	\$36,396	174.977	210		36,800.00	2,782.00
Telecommunications	\$23,480	\$24,170	\$23,232	Gamma	\$23,554	10,020.685	2		23,480.12	234.56
Technology	\$16,907	\$18,599	\$16,011	Gamma	\$16,793	682.730	25		16,906.67	647.04
Vehicle Maintenance	\$8,910	\$9,515	\$8,443	Gamma	\$8,800	1,105.579	8		8,910.07	267.97
Office Maintenance	\$15,595	\$17,156	\$14,769	Gamma	\$15,945	682.730	23		15,595.37	596.86
Personnel and Benefits	\$596,955	\$746,193	\$553,634	Gamma	\$652,325	153.771	3,882		596,954.68	48,139.83
Subtotal Development	\$698,647	\$861,633	\$650,960	Gamma	\$659,540	175.961	3,970		698,646.91	52,668.26
Start Up										
District Profiling	\$150,919	\$198,874	\$102,963	Gamma	\$135,445	39.616	3,810		150,918.69	23,977.70
Content Localization	\$30,690	\$38,363	\$23,018	Gamma	\$30,798	64	480		30,690	3,836
Equipment	\$2,471,799	\$2,926,175	\$1,799,322	Gamma	\$2,492,618	77	32,107		2,471,799	281,713
Customer Support	\$249,746	\$312,182	\$187,309	Gamma	\$263,174	64	3,902		249,746	31,218
Training	\$2,406,578	\$3,008,222	\$1,804,933	Gamma	\$2,254,763	64	37,603		2,406,578	300,822
Community Mobilization / Marketing	\$627,638	\$784,547	\$470,728	Gamma	\$551,917	64	9,807		627,638	78,455
Partnership Building	\$10,449	\$13,061	\$7,837	Gamma	\$12,241	64	163		10,449	1,306
Vehicle Maintenance	\$172,082	\$215,102	\$129,061	Gamma	\$187,357	64	2,689		172,082	21,510
Office Maintenance	\$86,277	\$107,846	\$64,707	Gamma	\$87,258	64	1,348		86,277	10,785
Telecommunications	\$77,166	\$95,933	\$57,874	Gamma	\$73,622	66	1,173		77,166	9,515
Technology	\$26,318	\$32,898	\$19,739	Gamma	\$25,817	64	411		26,318	3,290
Personnel and Benefits	\$1,193,847	\$1,497,592	\$895,385	Gamma	\$1,121,524	63	18,986		1,193,847	150,552
Subtotal Start up	\$7,503,508	\$9,230,796	\$5,562,878	Gamma	\$8,574,782	67	112,061		7,503,508	916,980
Implementation										
Technical Groups	\$17,810	\$22,263	\$13,358	Gamma	\$17,684	64	278		17,810	2,226
M&E	\$1,700,567	\$2,125,709	\$1,275,425	Gamma	\$1,832,128	64	26,571		1,700,567	212,571
Continued Training	\$2,140,605	\$2,675,757	\$1,605,454	Gamma	\$1,885,825	64	33,447		2,140,605	267,576
Equipment & Materials	\$4,928,480	\$6,054,802	\$3,526,178	Gamma	\$5,170,477	61	81,084		4,928,480	632,156
Vehicle Maintenance	\$1,078,131	\$1,347,663	\$808,598	Gamma	\$972,268	64	16,846		1,078,131	134,766
Field Office Maintenance	\$209,521	\$211,407	\$164,481	Gamma	\$200,623	319	657		209,521	11,732
Office Maintenance	\$257,036	\$317,618	\$192,777	Gamma	\$275,448	68	3,790		257,036	31,210
Telecommunications	\$2,343,275	\$2,929,093	\$1,757,456	Gamma	\$2,544,513	64	36,614		2,343,275	292,909
Technology Support and Maintenance	\$241,582	\$301,977	\$181,186	Gamma	\$245,022	64	3,775		241,582	30,198
Personnel and Benefits	\$11,218,454	\$14,023,06	\$8,413,841	Gamma	\$11,327,320	64	175,288		11,218,454	1,402,307

			8						
Subtotal Implementation	\$24,135,461	\$30,009,358	\$17,938,754	Gamma	\$20,659,061	64	377,296	24,135,461	3,017,651
Total Societal Cost	\$32,337,616	\$40,101,787	\$24,152,592	Gamma	\$32,919,189	66	491,643	32,337,616	3,987,299
LIVES SAVED							Media ln(x)	SD ln(x)	
Maternal	6,298	8,519	1,133	Lognormal	4,625	9	0.51		6,298
Children < 5 years	33,797	43,390	8,356	Lognormal	15,686	10	0.42		33,797
Stillbirths	19,811	26,079	4,407	Lognormal	15,025	10	0.45		19,811
Total Lives Saved	59,907	77,988	13,896	Lognormal	66,824	11	0.44		59,907
DALYs									
Maternal	149,409	202,100	26,875	Lognormal	109,810	12	0.51		149,409
Children < 5 years	968,589	1,243,528	239,474	Lognormal	1,058,249	14	0.42		968,589
Stillbirths	567,767	747,402	126,298	Lognormal	627,775	13	0.45		567,767
Total DALYs Averted	1,685,765	2,193,029	392,647	Lognormal	2,081,914	14	0.44		1,685,765