

**TABLE S1** Uganda Results - Hypred Mid Tier: ME=0

		<b>Linreg</b>	<b>MSS</b>	<b>LRSOE</b>	<b>MiniPred</b>	<b>Mini+alg</b>
Sensitivity						
	Mean (95% CI)	100% (66.4%, 100%)	100% (66.4%, 100%)	100% (66.4%, 100%)	100% (66.4%, 100%)	100% (66.4%, 100%)
Efficiency						
	Mean (95% CI)	79% (76.3%, 81.5%)	78.6% (75.9%, 81.1%)	78.7% (76%, 81.2%)	86.4% (84.1%, 88.5%)	84.5% (82.1%, 86.7%)
	Median (Q1, Q3)	79% (79%, 79%)	79% (78%, 79%)	79% (78%, 79%)	86.5% (84.2%, 89%)	84% (81.2%, 87.5%)
	Min, Max	77%, 80%	76%, 80%	77%, 80%	81%, 90%	80%, 90%
Rounds						
	Mean (95% CI)	1.9 (1.5, 2.3)	1.8 (1.5, 2.1)	1.8 (1.5, 2.1)	4 (1.9, 6.1)	5.8 (3.3, 8.3)
	Median (Q1, Q3)	2 (2, 2)	2 (2, 2)	2 (2, 2)	3.5 (2, 4.75)	5.5 (3.5, 8.5)
	Min, Max	1, 3	1, 2	1, 2	1, 10	1, 11

**TABLE S2** Uganda Results - Hypred Mid Tier: ME=0.025

		<b>Linreg</b>	<b>MSS</b>	<b>LRSOE</b>	<b>MiniPred</b>	<b>Mini+alg</b>
Sensitivity						
	Mean (95% CI)	100% (66.4%, 100%)	100% (66.4%, 100%)	100% (66.4%, 100%)	100% (66.4%, 100%)	100% (66.4%, 100%)
Efficiency						
	Mean (95% CI)	78.9% (76.2%, 81.4%)	78.5% (75.8%, 81%)	78.7% (76%, 81.2%)	84.3% (81.9%, 86.5%)	84.1% (81.7%, 86.3%)
	Median (Q1, Q3)	79% (79%, 79.8%)	79% (78%, 79.8%)	79% (78%, 79.8%)	85% (80.8%, 88.8%)	83% (80%, 89.2%)
	Min, Max	77%, 80%	76%, 80%	77%, 80%	75%, 90%	78%, 90%
Rounds						
	Mean (95% CI)	1.9 (1.4, 2.4)	1.7 (1.4, 2)	1.7 (1.4, 2)	5.5 (2.7, 8.3)	6.3 (3.1, 9.5)
	Median (Q1, Q3)	2 (1.25, 2)	2 (1.25, 2)	2 (1.25, 2)	5.5 (1.75, 8.25)	7 (1.5, 10.75)
	Min, Max	1, 3	1, 2	1, 2	1, 11	1, 11

**TABLE S3** Uganda Results - Hypred Mid Tier: ME=0.05

		<b>Linreg</b>	<b>MSS</b>	<b>LRSOE</b>	<b>MiniPred</b>	<b>Mini+alg</b>
Sensitivity						
	Mean (95% CI)	100% (66.4%, 100%)	100% (66.4%, 100%)	100% (66.4%, 100%)	100% (66.4%, 100%)	100% (66.4%, 100%)
Efficiency						
	Mean (95% CI)	78.9% (76.2%, 81.4%)	78.5% (75.8%, 81%)	78.7% (76%, 81.2%)	84% (81.6%, 86.2%)	84.1% (81.7%, 86.3%)
	Median (Q1, Q3)	79% (79%, 79.8%)	79% (78%, 79.8%)	79% (78%, 79.8%)	85% (80.8%, 88.8%)	83% (80%, 89.2%)
	Min, Max	77%, 80%	76%, 80%	77%, 80%	72%, 90%	78%, 90%
Rounds						
	Mean (95% CI)	1.9 (1.4, 2.4)	1.7 (1.4, 2)	1.7 (1.4, 2)	5.7 (2.7, 8.7)	6.3 (3.1, 9.5)
	Median (Q1, Q3)	2 (1.25, 2)	2 (1.25, 2)	2 (1.25, 2)	5.5 (1.75, 9.75)	7 (1.5, 10.75)
	Min, Max	1, 3	1, 2	1, 2	1, 11	1, 11

**TABLE S4** Uganda Results - Hypred Mid Tier: ME=0.075

		<b>Linreg</b>	<b>MSS</b>	<b>LRSOE</b>	<b>MiniPred</b>	<b>Mini+alg</b>
Sensitivity						
	Mean (95% CI)	100% (66.4%, 100%)	100% (66.4%, 100%)	100% (66.4%, 100%)	100% (66.4%, 100%)	100% (66.4%, 100%)
Efficiency						
	Mean (95% CI)	78.7% (76%, 81.2%)	78.3% (75.6%, 80.8%)	78.6% (75.9%, 81.1%)	83.7% (81.3%, 85.9%)	83.8% (81.4%, 86%)
	Median (Q1, Q3)	79% (78.2%, 79.8%)	79% (76.5%, 79.8%)	79% (77.2%, 79.8%)	84% (80.5%, 88.8%)	83% (80%, 89%)
	Min, Max	76%, 80%	76%, 80%	77%, 80%	72%, 90%	78%, 90%
Rounds						
	Mean (95% CI)	2 (1.3, 2.7)	1.7 (1.4, 2)	1.7 (1.4, 2)	5.7 (2.7, 8.7)	6.4 (3.3, 9.5)
	Median (Q1, Q3)	2 (1.25, 2)	2 (1.25, 2)	2 (1.25, 2)	5.5 (1.75, 9.75)	7 (1.75, 10.75)
	Min, Max	1, 4	1, 2	1, 2	1, 11	1, 11

**TABLE S5** Uganda Results - Hypred Mid Tier: ME=0.1

		<b>Linreg</b>	<b>MSS</b>	<b>LRSOE</b>	<b>MiniPred</b>	<b>Mini+alg</b>
Sensitivity	Mean (95% CI)	100% (66.4%, 100%)	100% (66.4%, 100%)	100% (66.4%, 100%)	100% (66.4%, 100%)	100% (66.4%, 100%)
Efficiency	Mean (95% CI)	78.4% (75.7%, 80.9%)	78.1% (75.4%, 80.6%)	78.4% (75.7%, 80.9%)	83.2% (80.7%, 85.5%)	83.3% (80.8%, 85.6%)
	Median (Q1, Q3)	79% (77.2%, 79.8%)	79% (76%, 79.8%)	79% (77%, 79.8%)	83.5% (80%, 88.8%)	83% (80%, 89%)
	Min, Max	76%, 80%	76%, 80%	76%, 80%	72%, 90%	73%, 90%
Rounds	Mean (95% CI)	2.2 (1.4, 3)	1.7 (1.4, 2)	1.8 (1.3, 2.3)	6.1 (3.1, 9.1)	6.4 (3.3, 9.5)
	Median (Q1, Q3)	2 (1.25, 2.75)	2 (1.25, 2)	2 (1.25, 2)	6 (1.75, 10.5)	7 (1.75, 10.75)
	Min, Max	1, 4	1, 2	1, 3	1, 11	1, 11

**TABLE S6** Uganda Results - Hypred Mid Tier: ME=0.125

		<b>Linreg</b>	<b>MSS</b>	<b>LRSOE</b>	<b>MiniPred</b>	<b>Mini+alg</b>
Sensitivity	Mean (95% CI)	100% (66.4%, 100%)	100% (66.4%, 100%)	100% (66.4%, 100%)	100% (66.4%, 100%)	100% (66.4%, 100%)
Efficiency	Mean (95% CI)	78.4% (75.7%, 80.9%)	78.1% (75.4%, 80.6%)	78.4% (75.7%, 80.9%)	82.9% (80.4%, 85.2%)	82.9% (80.4%, 85.2%)
	Median (Q1, Q3)	79% (77.2%, 79.8%)	79% (76%, 79.8%)	79% (77%, 79.8%)	83% (80%, 88.8%)	83% (80%, 88.8%)
	Min, Max	76%, 80%	76%, 80%	76%, 80%	72%, 90%	71%, 90%
Rounds	Mean (95% CI)	2.2 (1.4, 3)	1.7 (1.4, 2)	1.8 (1.3, 2.3)	6.3 (3.1, 9.5)	6.6 (3.5, 9.7)
	Median (Q1, Q3)	2 (1.25, 2.75)	2 (1.25, 2)	2 (1.25, 2)	6 (1.75, 11)	7 (2, 11)
	Min, Max	1, 4	1, 2	1, 3	1, 11	1, 11

**TABLE S7** Uganda Results - Hypred Mid Tier: ME=0.15

		<b>Linreg</b>	<b>MSS</b>	<b>LRSOE</b>	<b>MiniPred</b>	<b>Mini+alg</b>
Sensitivity	Mean (95% CI)	100% (66.4%, 100%)	100% (66.4%, 100%)	100% (66.4%, 100%)	100% (66.4%, 100%)	100% (66.4%, 100%)
Efficiency	Mean (95% CI)	78.4% (75.7%, 80.9%)	78.1% (75.4%, 80.6%)	78.4% (75.7%, 80.9%)	82.9% (80.4%, 85.2%)	82.6% (80.1%, 84.9%)
	Median (Q1, Q3)	79% (77.2%, 79.8%)	79% (76%, 79.8%)	79% (77%, 79.8%)	83% (80%, 88.8%)	83% (80%, 88.8%)
	Min, Max	76%, 80%	76%, 80%	76%, 80%	72%, 90%	71%, 90%
Rounds	Mean (95% CI)	2.2 (1.4, 3)	1.7 (1.4, 2)	1.8 (1.3, 2.3)	6.3 (3.1, 9.5)	6.6 (3.5, 9.7)
	Median (Q1, Q3)	2 (1.25, 2.75)	2 (1.25, 2)	2 (1.25, 2)	6 (1.75, 11)	7 (2, 11)
	Min, Max	1, 4	1, 2	1, 3	1, 11	1, 11

**TABLE S8** Uganda Results - Hypred Mid Tier: ME=0.175

		<b>Linreg</b>	<b>MSS</b>	<b>LRSOE</b>	<b>MiniPred</b>	<b>Mini+alg</b>
Sensitivity	Mean (95% CI)	100% (66.4%, 100%)	100% (66.4%, 100%)	100% (66.4%, 100%)	100% (66.4%, 100%)	100% (66.4%, 100%)
Efficiency	Mean (95% CI)	78.4% (75.7%, 80.9%)	78.1% (75.4%, 80.6%)	78.4% (75.7%, 80.9%)	82.3% (79.8%, 84.6%)	82.1% (79.6%, 84.4%)
	Median (Q1, Q3)	79% (77.2%, 79.8%)	79% (76%, 79.8%)	79% (77%, 79.8%)	82% (80%, 88.8%)	83% (80%, 88.5%)
	Min, Max	76%, 80%	76%, 80%	76%, 80%	70%, 90%	70%, 90%
Rounds	Mean (95% CI)	2.2 (1.4, 3)	1.7 (1.4, 2)	1.8 (1.3, 2.3)	6.3 (3.1, 9.5)	6.7 (3.6, 9.8)
	Median (Q1, Q3)	2 (1.25, 2.75)	2 (1.25, 2)	2 (1.25, 2)	6 (1.75, 11)	7 (2.25, 11)
	Min, Max	1, 4	1, 2	1, 3	1, 11	1, 11

**TABLE S9** Uganda Results - Hypred Mid Tier: ME=0.2

		<b>Linreg</b>	<b>MSS</b>	<b>LRSOE</b>	<b>MiniPred</b>	<b>Mini+alg</b>
Sensitivity						
	Mean (95% CI)	100% (66.4%, 100%)	100% (66.4%, 100%)	100% (66.4%, 100%)	100% (66.4%, 100%)	100% (66.4%, 100%)
Efficiency						
	Mean (95% CI)	78.4% (75.7%, 80.9%)	78.1% (75.4%, 80.6%)	78.4% (75.7%, 80.9%)	81.7% (79.2%, 84.1%)	82% (79.5%, 84.3%)
	Median (Q1, Q3)	79% (77.2%, 79.8%)	79% (76%, 79.8%)	79% (77%, 79.8%)	80.5% (79.2%, 88.8%)	82.5% (80%, 88.5%)
	Min, Max	76%, 80%	76%, 80%	76%, 80%	70%, 90%	70%, 90%
Rounds						
	Mean (95% CI)	2.2 (1.4, 3)	1.7 (1.4, 2)	1.8 (1.3, 2.3)	6.7 (3.6, 9.8)	6.8 (3.7, 9.9)
	Median (Q1, Q3)	2 (1.25, 2.75)	2 (1.25, 2)	2 (1.25, 2)	7 (2.25, 11)	7 (2.5, 11)
	Min, Max	1, 4	1, 2	1, 3	1, 11	1, 11

**TABLE S10** Uganda Results - Hypred Mid Tier: ME=0.225

		<b>Linreg</b>	<b>MSS</b>	<b>LRSOE</b>	<b>MiniPred</b>	<b>Mini+alg</b>
Sensitivity						
	Mean (95% CI)	100% (66.4%, 100%)	100% (66.4%, 100%)	100% (66.4%, 100%)	100% (66.4%, 100%)	100% (66.4%, 100%)
Efficiency						
	Mean (95% CI)	78.4% (75.7%, 80.9%)	78.1% (75.4%, 80.6%)	78.4% (75.7%, 80.9%)	81.3% (78.7%, 83.7%)	81.5% (79%, 83.9%)
	Median (Q1, Q3)	79% (77.2%, 79.8%)	79% (76%, 79.8%)	79% (77%, 79.8%)	80% (79%, 88.8%)	80.5% (80%, 88.5%)
	Min, Max	76%, 80%	76%, 80%	76%, 80%	70%, 90%	70%, 90%
Rounds						
	Mean (95% CI)	2.2 (1.4, 3)	1.7 (1.4, 2)	1.8 (1.3, 2.3)	6.9 (3.7, 10.1)	7 (3.8, 10.2)
	Median (Q1, Q3)	2 (1.25, 2.75)	2 (1.25, 2)	2 (1.25, 2)	8 (2.25, 11)	8 (2.5, 11)
	Min, Max	1, 4	1, 2	1, 3	1, 11	1, 11

**TABLE S11** Uganda Results - Hypred Mid Tier: ME=0.25

		<b>Linreg</b>	<b>MSS</b>	<b>LRSOE</b>	<b>MiniPred</b>	<b>Mini+alg</b>
Sensitivity						
	Mean (95% CI)	100% (66.4%, 100%)	100% (66.4%, 100%)	100% (66.4%, 100%)	100% (66.4%, 100%)	100% (66.4%, 100%)
Efficiency						
	Mean (95% CI)	78.4% (75.7%, 80.9%)	78.1% (75.4%, 80.6%)	78.4% (75.7%, 80.9%)	81.1% (78.5%, 83.5%)	81% (78.4%, 83.4%)
	Median (Q1, Q3)	79% (77.2%, 79.8%)	79% (76%, 79.8%)	79% (77%, 79.8%)	80% (77.5%, 88.8%)	80% (77.5%, 88.5%)
	Min, Max	76%, 80%	76%, 80%	76%, 80%	70%, 90%	70%, 90%
Rounds						
	Mean (95% CI)	2.2 (1.4, 3)	1.7 (1.4, 2)	1.8 (1.3, 2.3)	7.1 (3.8, 10.4)	7.3 (4, 10.6)
	Median (Q1, Q3)	2 (1.25, 2.75)	2 (1.25, 2)	2 (1.25, 2)	9 (2.25, 11)	9.5 (2.5, 11)
	Min, Max	1, 4	1, 2	1, 3	1, 11	1, 11

**TABLE S12** Uganda Results - Hypred Mid Tier: ME=0.5

		<b>Linreg</b>	<b>MSS</b>	<b>LRSOE</b>	<b>MiniPred</b>	<b>Mini+alg</b>
Sensitivity						
	Mean (95% CI)	100% (66.4%, 100%)	100% (66.4%, 100%)	100% (66.4%, 100%)	100% (66.4%, 100%)	100% (66.4%, 100%)
Efficiency						
	Mean (95% CI)	72.1% (69.2%, 74.9%)	71.8% (68.9%, 74.6%)	70.2% (67.3%, 73%)	62.8% (59.7%, 65.8%)	62.6% (59.5%, 65.6%)
	Median (Q1, Q3)	79% (76%, 79.8%)	77.5% (74.2%, 79.8%)	77.5% (68.5%, 79.8%)	77% (46%, 87.5%)	76% (46%, 87.5%)
	Min, Max	26%, 80%	30%, 80%	27%, 80%	-10%, 90%	-10%, 90%
Rounds						
	Mean (95% CI)	4 (1.1, 6.9)	2.9 (0.8, 5)	2.3 (1.4, 3.2)	8 (4.5, 11.5)	8 (4.5, 11.5)
	Median (Q1, Q3)	2 (1.25, 4)	2 (1.25, 2.75)	2 (1.25, 3)	11 (3.5, 11)	11 (3.5, 11)
	Min, Max	1, 12	1, 11	1, 5	1, 11	1, 11

**TABLE S13** Uganda Results - Hypred Mid Tier: ME=0.75

		<b>Linreg</b>	<b>MSS</b>	<b>LRSOE</b>	<b>MiniPred</b>	<b>Mini+alg</b>
Sensitivity						
	Mean (95% CI)	100% (66.4%, 100%)	100% (66.4%, 100%)	100% (66.4%, 100%)	100% (66.4%, 100%)	100% (66.4%, 100%)
Efficiency						
	Mean (95% CI)	56.3% (53.2%, 59.4%)	56% (52.9%, 59.1%)	53.9% (50.8%, 57%)	47% (43.9%, 50.1%)	47% (43.9%, 50.1%)
	Median (Q1, Q3)	74.5% (48%, 79.8%)	72.5% (48%, 79.8%)	70% (41.2%, 79.8%)	62% (-1%, 87.5%)	62% (-1%, 87.5%)
	Min, Max	-20%, 80%	-20%, 80%	-20%, 80%	-10%, 90%	-10%, 90%
Rounds						
	Mean (95% CI)	8.6 (2.7, 14.5)	6 (1, 11)	3.2 (1.3, 5.1)	8 (4.5, 11.5)	8 (4.5, 11.5)
	Median (Q1, Q3)	6.5 (1.25, 14)	2.5 (1.25, 8)	2 (1.25, 4.5)	11 (3.5, 11)	11 (3.5, 11)
	Min, Max	1, 24	1, 21	1, 9	1, 11	1, 11

**TABLE S14** Uganda Results - Hypred Low Tier: ME=0

		<b>Linreg</b>	<b>MSS</b>	<b>LRSOE</b>	<b>MiniPred</b>	<b>Mini+alg</b>
Sensitivity						
	Mean (95% CI)	100% (54.1%, 100%)	100% (54.1%, 100%)	100% (54.1%, 100%)	100% (54.1%, 100%)	100% (54.1%, 100%)
Efficiency						
	Mean (95% CI)	79.7% (77.9%, 81.4%)	79.7% (77.8%, 81.4%)	79.7% (77.8%, 81.4%)	89.1% (87.7%, 90.4%)	88.9% (87.5%, 90.3%)
	Median (Q1, Q3)	80% (79.8%, 80%)	80% (79.8%, 80%)	80% (79.8%, 80%)	90% (89.8%, 90%)	90% (89.8%, 90%)
	Min, Max	78%, 80%	78%, 80%	78%, 80%	82%, 90%	80%, 90%
Rounds						
	Mean (95% CI)	1.3 (1, 1.6)	1.2 (1, 1.5)	1.2 (1, 1.5)	1.8 (0.9, 2.8)	1.8 (1, 2.6)
	Median (Q1, Q3)	1 (1, 1.25)	1 (1, 1.25)	1 (1, 1.25)	1 (1, 1.25)	1 (1, 1.25)
	Min, Max	1, 3	1, 2	1, 2	1, 8	1, 6

**TABLE S15** Uganda Results - Hypred Low Tier: ME=0.025

		<b>Linreg</b>	<b>MSS</b>	<b>LRSOE</b>	<b>MiniPred</b>	<b>Mini+alg</b>
Sensitivity	Mean (95% CI)	100% (54.1%, 100%)	100% (54.1%, 100%)	100% (54.1%, 100%)	100% (54.1%, 100%)	100% (54.1%, 100%)
Efficiency	Mean (95% CI)	79.7% (77.8%, 81.4%)	79.7% (77.8%, 81.4%)	79.7% (77.8%, 81.4%)	88.7% (87.2%, 90.1%)	87.5% (85.9%, 88.9%)
	Median (Q1, Q3)	80% (79%, 80%)	80% (79%, 80%)	80% (79%, 80%)	90% (88.8%, 90%)	90% (86.5%, 90%)
	Min, Max	78%, 80%	78%, 80%	78%, 80%	80%, 90%	72%, 90%
Rounds	Mean (95% CI)	1.4 (1.1, 1.6)	1.3 (1.1, 1.5)	1.3 (1.1, 1.5)	2.2 (1, 3.4)	3.1 (1.4, 4.8)
	Median (Q1, Q3)	1 (1, 2)	1 (1, 2)	1 (1, 2)	1 (1, 2.25)	1 (1, 4.5)
	Min, Max	1, 3	1, 2	1, 2	1, 11	1, 11

**TABLE S16** Uganda Results - Hypred Low Tier: ME=0.05

		<b>Linreg</b>	<b>MSS</b>	<b>LRSOE</b>	<b>MiniPred</b>	<b>Mini+alg</b>
Sensitivity	Mean (95% CI)	100% (54.1%, 100%)	100% (54.1%, 100%)	100% (54.1%, 100%)	100% (54.1%, 100%)	100% (54.1%, 100%)
Efficiency	Mean (95% CI)	79.7% (77.9%, 81.4%)	79.7% (77.9%, 81.4%)	79.7% (77.9%, 81.4%)	88.7% (87.2%, 90.1%)	87.5% (86%, 88.9%)
	Median (Q1, Q3)	80% (79.8%, 80%)	80% (79.8%, 80%)	80% (79.8%, 80%)	90% (88.8%, 90%)	90% (87.2%, 90%)
	Min, Max	78%, 80%	78%, 80%	78%, 80%	80%, 90%	72%, 90%
Rounds	Mean (95% CI)	1.3 (1, 1.6)	1.2 (1, 1.5)	1.2 (1, 1.5)	2.2 (1, 3.4)	3 (1.4, 4.7)
	Median (Q1, Q3)	1 (1, 1.25)	1 (1, 1.25)	1 (1, 1.25)	1 (1, 2.25)	1 (1, 3.75)
	Min, Max	1, 3	1, 2	1, 2	1, 11	1, 11



**TABLE S17** Uganda Results - Hypred Low Tier: ME=0.075

		<b>Linreg</b>	<b>MSS</b>	<b>LRSOE</b>	<b>MiniPred</b>	<b>Mini+alg</b>
Sensitivity						
	Mean (95% CI)	83.3% (35.9%, 99.6%)	83.3% (35.9%, 99.6%)	83.3% (35.9%, 99.6%)	100% (54.1%, 100%)	100% (54.1%, 100%)
Efficiency						
	Mean (95% CI)	79.8% (77.9%, 81.5%)	79.8% (77.9%, 81.5%)	79.8% (77.9%, 81.5%)	88.8% (87.3%, 90.1%)	87.6% (86.1%, 89%)
	Median (Q1, Q3)	80% (80%, 80%)	80% (80%, 80%)	80% (80%, 80%)	90% (89.8%, 90%)	90% (88.8%, 90%)
	Min, Max	78%, 80%	78%, 80%	78%, 80%	80%, 90%	72%, 90%
Rounds						
	Mean (95% CI)	1.2 (1, 1.5)	1.2 (1, 1.4)	1.2 (1, 1.4)	2.1 (0.9, 3.3)	3 (1.3, 4.6)
	Median (Q1, Q3)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 1.25)	1 (1, 2.25)
	Min, Max	1, 3	1, 2	1, 2	1, 11	1, 11

**TABLE S18** Uganda Results - Hypred Low Tier: ME=0.1

		<b>Linreg</b>	<b>MSS</b>	<b>LRSOE</b>	<b>MiniPred</b>	<b>Mini+alg</b>
Sensitivity						
	Mean (95% CI)	66.7% (22.3%, 95.7%)	83.3% (35.9%, 99.6%)	83.3% (35.9%, 99.6%)	100% (54.1%, 100%)	83.3% (35.9%, 99.6%)
Efficiency						
	Mean (95% CI)	79.8% (78%, 81.5%)	79.8% (77.9%, 81.5%)	79.8% (77.9%, 81.5%)	88.7% (87.2%, 90.1%)	87.8% (86.2%, 89.2%)
	Median (Q1, Q3)	80% (80%, 80%)	80% (80%, 80%)	80% (80%, 80%)	90% (89.8%, 90%)	90% (88.8%, 90%)
	Min, Max	79%, 80%	78%, 80%	78%, 80%	80%, 90%	75%, 90%
Rounds						
	Mean (95% CI)	1.2 (1, 1.4)	1.2 (1, 1.4)	1.2 (1, 1.4)	2.2 (0.9, 3.5)	3 (1.3, 4.6)
	Median (Q1, Q3)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 1.25)	1 (1, 2.25)
	Min, Max	1, 2	1, 2	1, 2	1, 11	1, 11

**TABLE S19** Uganda Results - Hypred Low Tier: ME=0.125

		<b>Linreg</b>	<b>MSS</b>	<b>LRSOE</b>	<b>MiniPred</b>	<b>Mini+alg</b>
Sensitivity						
	Mean (95% CI)	66.7% (22.3%, 95.7%)	83.3% (35.9%, 99.6%)	83.3% (35.9%, 99.6%)	100% (54.1%, 100%)	83.3% (35.9%, 99.6%)
Efficiency						
	Mean (95% CI)	79.8% (78%, 81.5%)	79.8% (77.9%, 81.5%)	79.8% (77.9%, 81.5%)	86% (84.4%, 87.5%)	85.4% (83.8%, 86.9%)
	Median (Q1, Q3)	80% (80%, 80%)	80% (80%, 80%)	80% (80%, 80%)	90% (85.2%, 90%)	90% (82%, 90%)
	Min, Max	79%, 80%	78%, 80%	78%, 80%	60%, 90%	60%, 90%
Rounds						
	Mean (95% CI)	1.2 (1, 1.4)	1.2 (1, 1.4)	1.2 (1, 1.4)	2.6 (1.2, 4.1)	3.2 (1.6, 4.9)
	Median (Q1, Q3)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 3)	1 (1, 4.5)
	Min, Max	1, 2	1, 2	1, 2	1, 11	1, 11

**TABLE S20** Uganda Results - Hypred Low Tier: ME=0.15

		<b>Linreg</b>	<b>MSS</b>	<b>LRSOE</b>	<b>MiniPred</b>	<b>Mini+alg</b>
Sensitivity						
	Mean (95% CI)	66.7% (22.3%, 95.7%)	66.7% (22.3%, 95.7%)	66.7% (22.3%, 95.7%)	83.3% (35.9%, 99.6%)	66.7% (22.3%, 95.7%)
Efficiency						
	Mean (95% CI)	79.8% (78%, 81.5%)	79.8% (78%, 81.5%)	79.8% (78%, 81.5%)	82.5% (80.8%, 84.1%)	82% (80.2%, 83.6%)
	Median (Q1, Q3)	80% (80%, 80%)	80% (80%, 80%)	80% (80%, 80%)	90% (86.8%, 90%)	90% (82.5%, 90%)
	Min, Max	79%, 80%	79%, 80%	79%, 80%	20%, 90%	20%, 90%
Rounds						
	Mean (95% CI)	1.2 (1, 1.4)	1.2 (1, 1.4)	1.2 (1, 1.4)	3.1 (1.4, 4.8)	3.6 (1.8, 5.5)
	Median (Q1, Q3)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 3.75)	1 (1, 6.5)
	Min, Max	1, 2	1, 2	1, 2	1, 11	1, 11

**TABLE S21** Uganda Results - Hypred Low Tier: ME=0.175

		<b>Linreg</b>	<b>MSS</b>	<b>LRSOE</b>	<b>MiniPred</b>	<b>Mini+alg</b>
Sensitivity						
	Mean (95% CI)	50% (11.8%, 88.2%)	50% (11.8%, 88.2%)	50% (11.8%, 88.2%)	83.3% (35.9%, 99.6%)	50% (11.8%, 88.2%)
Efficiency						
	Mean (95% CI)	79.8% (78%, 81.6%)	79.8% (78%, 81.6%)	79.8% (78%, 81.6%)	78.5% (76.6%, 80.2%)	78% (76.1%, 79.8%)
	Median (Q1, Q3)	80% (80%, 80%)	80% (80%, 80%)	80% (80%, 80%)	90% (86.8%, 90%)	90% (82.7%, 90%)
	Min, Max	79%, 80%	79%, 80%	79%, 80%	-10%, 90%	-10%, 90%
Rounds						
	Mean (95% CI)	1.1 (1, 1.3)	1.1 (1, 1.3)	1.1 (1, 1.3)	3.5 (1.6, 5.5)	4 (2, 6)
	Median (Q1, Q3)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 4.25)	1 (1, 8.25)
	Min, Max	1, 2	1, 2	1, 2	1, 11	1, 11

**TABLE S22** Uganda Results - Hypred Low Tier: ME=0.2

		<b>Linreg</b>	<b>MSS</b>	<b>LRSOE</b>	<b>MiniPred</b>	<b>Mini+alg</b>
Sensitivity						
	Mean (95% CI)	50% (11.8%, 88.2%)	50% (11.8%, 88.2%)	50% (11.8%, 88.2%)	83.3% (35.9%, 99.6%)	50% (11.8%, 88.2%)
Efficiency						
	Mean (95% CI)	79.8% (78%, 81.6%)	79.8% (78%, 81.6%)	79.8% (78%, 81.6%)	78.3% (76.5%, 80.1%)	78.2% (76.3%, 80%)
	Median (Q1, Q3)	80% (80%, 80%)	80% (80%, 80%)	80% (80%, 80%)	90% (85.2%, 90%)	90% (84.5%, 90%)
	Min, Max	79%, 80%	79%, 80%	79%, 80%	-10%, 90%	-10%, 90%
Rounds						
	Mean (95% CI)	1.1 (1, 1.3)	1.1 (1, 1.3)	1.1 (1, 1.3)	3.6 (1.7, 5.6)	3.8 (1.8, 5.8)
	Median (Q1, Q3)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 5.75)	1 (1, 6.5)
	Min, Max	1, 2	1, 2	1, 2	1, 11	1, 11

**TABLE S23** Uganda Results - Hypred Low Tier: ME=0.225

		<b>Linreg</b>	<b>MSS</b>	<b>LRSOE</b>	<b>MiniPred</b>	<b>Mini+alg</b>
Sensitivity	Mean (95% CI)	50% (11.8%, 88.2%)	50% (11.8%, 88.2%)	50% (11.8%, 88.2%)	50% (11.8%, 88.2%)	50% (11.8%, 88.2%)
	Efficiency					
Efficiency	Mean (95% CI)	79.8% (78%, 81.6%)	79.8% (78%, 81.6%)	79.8% (78%, 81.6%)	78.3% (76.5%, 80.1%)	78.3% (76.5%, 80.1%)
	Median (Q1, Q3)	80% (80%, 80%)	80% (80%, 80%)	80% (80%, 80%)	90% (84%, 90%)	90% (84%, 90%)
	Min, Max	79%, 80%	79%, 80%	79%, 80%	-10%, 90%	-10%, 90%
Rounds						
	Mean (95% CI)	1.1 (1, 1.3)	1.1 (1, 1.3)	1.1 (1, 1.3)	3.6 (1.7, 5.6)	3.6 (1.7, 5.6)
	Median (Q1, Q3)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 7)	1 (1, 7)
	Min, Max	1, 2	1, 2	1, 2	1, 11	1, 11

**TABLE S24** Uganda Results - Hypred Low Tier: ME=0.25

		<b>Linreg</b>	<b>MSS</b>	<b>LRSOE</b>	<b>MiniPred</b>	<b>Mini+alg</b>
Sensitivity	Mean (95% CI)	50% (11.8%, 88.2%)	50% (11.8%, 88.2%)	50% (11.8%, 88.2%)	50% (11.8%, 88.2%)	50% (11.8%, 88.2%)
	Efficiency					
Efficiency	Mean (95% CI)	79.8% (78%, 81.6%)	79.8% (78%, 81.6%)	79.8% (78%, 81.6%)	78.3% (76.5%, 80.1%)	78.3% (76.5%, 80.1%)
	Median (Q1, Q3)	80% (80%, 80%)	80% (80%, 80%)	80% (80%, 80%)	90% (83.8%, 90%)	90% (83.8%, 90%)
	Min, Max	79%, 80%	79%, 80%	79%, 80%	-10%, 90%	-10%, 90%
Rounds						
	Mean (95% CI)	1.1 (1, 1.3)	1.1 (1, 1.3)	1.1 (1, 1.3)	3.6 (1.7, 5.6)	3.6 (1.7, 5.6)
	Median (Q1, Q3)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 7.25)	1 (1, 7.25)
	Min, Max	1, 2	1, 2	1, 2	1, 11	1, 11

**TABLE S25** Uganda Results - Hypred Low Tier: ME=0.5

		<b>Linreg</b>	<b>MSS</b>	<b>LRSOE</b>	<b>MiniPred</b>	<b>Mini+alg</b>
Sensitivity						
	Mean (95% CI)	33.3% (4.3%, 77.7%)	33.3% (4.3%, 77.7%)	33.3% (4.3%, 77.7%)	50% (11.8%, 88.2%)	50% (11.8%, 88.2%)
Efficiency						
	Mean (95% CI)	78.2% (76.4%, 80%)	78.4% (76.5%, 80.2%)	78.2% (76.4%, 80%)	73.9% (71.9%, 75.8%)	73.9% (71.9%, 75.8%)
	Median (Q1, Q3)	80% (80%, 80%)	80% (80%, 80%)	80% (80%, 80%)	90% (85.2%, 90%)	90% (85.2%, 90%)
	Min, Max	47%, 80%	50%, 80%	47%, 80%	-10%, 90%	-10%, 90%
Rounds						
	Mean (95% CI)	1.4 (0.7, 2.2)	1.4 (0.8, 2)	1.2 (1, 1.4)	3.6 (1.6, 5.7)	3.6 (1.6, 5.7)
	Median (Q1, Q3)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 5.75)	1 (1, 5.75)
	Min, Max	1, 8	1, 7	1, 3	1, 11	1, 11

**TABLE S26** Uganda Results - Hypred Low Tier: ME=0.75

		<b>Linreg</b>	<b>MSS</b>	<b>LRSOE</b>	<b>MiniPred</b>	<b>Mini+alg</b>
Sensitivity						
	Mean (95% CI)	33.3% (4.3%, 77.7%)	33.3% (4.3%, 77.7%)	33.3% (4.3%, 77.7%)	50% (11.8%, 88.2%)	50% (11.8%, 88.2%)
Efficiency						
	Mean (95% CI)	71.5% (69.5%, 73.5%)	71.7% (69.6%, 73.6%)	71% (69%, 73%)	64% (61.9%, 66.1%)	64% (61.9%, 66.1%)
	Median (Q1, Q3)	80% (79.8%, 80%)	80% (79.8%, 80%)	80% (79.8%, 80%)	90% (50%, 90%)	90% (50%, 90%)
	Min, Max	-20%, 80%	-20%, 80%	-20%, 80%	-10%, 90%	-10%, 90%
Rounds						
	Mean (95% CI)	3 (0.5, 5.5)	2.8 (0.5, 5)	1.8 (0.9, 2.6)	4.5 (2.4, 6.6)	4.5 (2.4, 6.6)
	Median (Q1, Q3)	1 (1, 1.25)	1 (1, 1.25)	1 (1, 1.25)	1 (1, 8.75)	1 (1, 8.75)
	Min, Max	1, 24	1, 21	1, 9	1, 11	1, 11

