

Supplementary File 9 – Outcomes and results of all studies by type of comparison

Content:

Comparison 1.1 – SMS intervention vs. inactive control	pg. 1
Comparison 1.2 – SMS intervention vs. standard of care control with active SMS component ...	pg. 9
Comparison 1.3 – SMS intervention blended with face-to-face contact vs inactive control	pg. 9
Comparison 2 – Facebook intervention vs inactive control	pg. 10
Comparison 3 – Smartphone App intervention vs inactive control	pg. 11

Tables:

Comparison 1.1– SMS intervention vs. inactive control

Comparison, Review Outcome & Study	Study outcome (detail)	Direction of effect	Relative effect (CI)	Meta-analysis results
Biological outcomes				
<i>STI/HIV occurrence (objectively confirmed, at ≥12 months)</i>				
Free 2016	Cumulative chlamydia incidence over 12 months period, 12 m	Non-significant	RR 0.61 (0.28, 1.34)	<i>Not pooled (1 study only)</i>
<i>STI/HIV occurrence (objectively confirmed, at <12 months)</i>				
Free 2016	Positive chlamydia test result at 3 months	Non-significant	RR 2.17 (0.56, 8.40)	<i>Not pooled (1 study only)</i>
<i>STI/HIV occurrence (self-reported)</i>				
Nil				<i>Not pooled (0 studies)</i>
Adverse events				
<i>Car accident where participant was driver</i>				
Free 2016	Car accident, where participant was the driver over 12 months period, 12 m	Non-significant	RR 2.08 (0.19, 22.45)	<i>Not pooled (1 study only)</i>
Behavioural outcomes				
<i>Condom use (unidirectional sms; at ≥12 months)</i>				
Free 2016	Condom use at last sex, 12 m	Non-significant	OR 1.48 (0.76, 2.88)	<i>OR 1.10 [CI 0.77, 1.56] Heterogeneity: Tau² = 0.01; Chi² = 2.16, df = 2 (P = 0.34); I² = 7%</i>
Lim 2012	Not always used condom with risky partners (inverse), 12 m (f/m comb.) [not used: 'always used condom' as does not account for high number of people who did not have sex with risky partner, ITT]	Non-significant	OR 1.11 (0.71, 1.71)	
Rokicki 2017	<i>Unidirectional</i> SMS arm-Sexual interc. without condom past year	Non-significant	OR 0.67 (0.29, 1.54)	

	(inverse), 15 m (cluster RCT, OR, ICC 0.05) [not used: 'used condom in past year as primary contraception']			
<i>Condom use (interactive/quiz sms; at ≥12 months)</i>				
Rokicki 2017	Interactive quiz SMS arm- Sexual interc. without condom past year (inverse), 15 m (cluster RCT, OR, ICC 0.05)	Control significantly better	OR 0.36 (0.13, 0.98)	<i>Not pooled (less similar study arm)</i>
<i>Condom use (at < 12 months, self-reported)</i>				
Delamere 2006	Unprotected sexual intercourse (inverse), 3 m	Non-significant	SMD -0.51 (-1.52, 0.51)	<i>SMD 0.02 [-0.09, 0.14] Heterogeneity: $Tau^2 = 0.00$; $Chi^2 = 9.04$, $df = 8$ ($P = 0.34$); $I^2 = 12\%$</i>
Free 2016	Condom use at last sex, 1 m	Non-significant	SMD -0.23 (-0.56, 0.11)	
Gold 2011	Consistent condom use, 6 m, placebo-control	Non-significant	SMD -0.11 (-0.38, 0.16)	
Govender 2019	No condom use at last sex (inverse), 6 m, OR adjusted for baseline differences	Non-significant	SMD 0.17 (-0.02, 0.35)	
Lim 2012	Not always used condom with risky (casual/ new/ multiple) partners (inverse), 12 m (f/m combined) [not used: 'always used condom' as does not account for high number of people who did not have sex with risky partner in this ITT analysis]	Non-significant	SMD 0.17 (-0.09, 0.44)	
Reback 2019a	TXT arm, non-main partners (obtained from trialist), Episodes of CAI past month (inverse), 6 m, Mean [not used: 2,3 and 9 month time points, as mode of all pooled studies was 6 months]	Non-significant	SMD -0.01 (-0.32, 0.30)	
Rinehart 2019	Unprotected sex (inverse), 6 m [not used: 3 months timepoint, as mode of all pooled studies was 6 months; dual protection at last sex]	Non-significant	SMD -0.20 (-0.75, 0.35)	
Suffoletto 2013	Condom use last sex, 3 m [not used: consistent condom use past 28 days at 3 m]	Non-significant	SMD 0.34 (-0.40, 1.08)	

Ybarra 2017	No. of condomless sex acts (inverse), 4m1w; Mean; subgroup: sexually experienced, Placebo-control [not used: 5 weeks timepoint, as mode of all pooled studies was 6 months]	Non-significant	SMD -0.01 (-0.34, 0.32)	
Reback 2019a	TXT-PHE arm, non-main partners (obtained from trialist), Episodes of CAI past month (inverse), 6 m, Mean [not used: 2,3 and 9 month time points, for consistency, as mode of all pooled studies above was 6 months]	Non-significant	SMD -0.02 (-0.33, 0.29)	Not pooled (less similar study arm)
Reback 2019a	TXT arm, main partners, Episodes of CAI past month (inverse), 6 m, Mean [not extracted: 2,3 and 9 month time points, as above mode of all pooled studies was 6 months]	Non-significant	SMD 0.14 (-0.17, 0.45)	Not pooled (assumed less similar to other studies)
Reback 2019a	TXT-PHE arm, main partners, Episodes of CAI past month (inverse), 6 m, Mean [not extracted: 2,3 and 9 month time points, as above mode of all pooled studies was 6 months]	Non-significant	SMD 0.07 (-0.38, 0.24)	Not pooled (assumed less similar to other studies)
<i>STI/HIV testing (at ≥12 months)</i>				
Free 2016	STI test prior to first sex with new partner, 12 m	Control significantly better	OR 0.45 (0.21, 0.97)	OR 0.86 [0.25, 2.95] Heterogeneity: Tau ² = 0.67; Chi ² = 6.08, df = 1 (P = 0.01); I ² = 84%
Lim 2012	STI test in past 6 months, 12 m (f/m combined)	Non-significant	OR 1.58 (0.83, 2.99)	
<i>STI/HIV testing (at < 12 months, objective or self-reported)</i>				
de Tolly 2012 - excluded	HIV testing, 1m3w - data not extractable due to figures not adding up and no author response obtained			Not pooled (data not extractable)
Downing 2013	Chlamydia re-testing, 3-4 m (objective) [not used: treatment arm that combined SMS with incentives]	Intervention significantly better	OR 5.87 (1.16, 29.83)	OR 1.83 [1.41, 2.36] Heterogeneity: Tau ² = 0.03; Chi ² = 7.70, df = 6 (P = 0.26); I ² = 22%
Free 2016	STI testing prior to first sex with someone new, 1 m (self-reported)	Non-significant	OR 1.57 (0.53, 4.60)	
Gold 2011	STI test, 6 m (self-reported, placebo control)	Non-significant	OR 1.39 (0.79, 2.44)	

Govender 2019	HIV testing in previous 6 months, 6 m (self-reported, OR)	Intervention significantly better	OR 1.78 (1.21, 2.63)	
Lim 2012	STI test in past 6 months, 6 m (self-reported, f/m combined)	Non-significant	OR 1.31 (0.77, 2.23)	
Mugo 2016	HIV re-testing, 2 w (objective)	Intervention significantly better	OR 2.05 (1.38, 3.04)	
Ybarra 2017	HIV test (sexually experienced), 4m1w (self-reported, placebo control) [not used: 5wks timepoint, as less close to the mode of 6 m of all pooled studies]	Intervention significantly better	OR 3.13 (1.55, 6.31)	
Compliance - took treatment for curable STI				
Free 2016	Took STI treatment, 1 m (subgroup: participants with positive STI test at baseline)	Non-significant	RR 0.95 (0.82, 1.09)	<i>Not pooled (1 study only)</i>
Compliance - abstinence during treatment of curable STI				
Free 2016	Avoided sex for 7 days, 1 m (subgroup: participants with STI at baseline)	Non-significant	RR 1.12 (0.90, 1.40)	<i>Not pooled (1 study only)</i>
Partner notification				
Free 2016	Told last partner they had sex with to take treatment, 1 m (self-reported, subgroup: participants with STI at baseline)	Non-significant	OR 0.39 (0.06, 2.45)	OR 1.04 [0.31, 3.48] <i>Heterogeneity:</i> Tau ² = 0.45; Chi ² = 1.93, df = 1 (P = 0.17); I ² = 48%
Parkes-Ratanshi 2018, 2020	Partner attendance for Syphilis testing/treatment at next antenatal care visit (objective), about 3 w (median of 20 days)	Non-significant	OR 1.54 (0.85, 2.79)	
Other review outcomes				
Other behavioural outcomes - age at sexual debut				
Rokicki 2017	<i>Unidirectional arm - Age at sexual debut, 15 m, (conditional on ever having had sexual intercourse, cluster RCT, Linear model with clustered SE at school level, adjusted for home economics class and school category)</i>	Non-significant	[Crude diff. -0.25 (-0.88, 0.38) - as reported in article]	<i>Not pooled (1 study only)</i>

Rokicki 2017	Interactive/quiz arm - Age at sexual debut, 15 m, (conditional on ever having had sexual intercourse, cluster RCT, Linear model with clustered SE at school level, adjusted for home economics class and school category)	Non-significant	[Crude diff. 0.10 (-0.38, 0.59) - as reported in article]	Not pooled (1 study only)
<i>Other behavioural outcomes - abstinence</i>				
Suffoletto 2013	No sex in past 28 days, 3 m	Non-significant	OR 3.21 (0.63, 16.38)	OR 1.15 [0.22, 6.01] Heterogeneity: Tau ² = 1.07; Chi ² = 3.63, df = 1 (P = 0.06); I ² = 72%
Ybarra 2017	Abstinence in past 90 days, 4 m1w (in sexually experienced subgroup, placebo-control) [not used: abstinence at 5 w, and abstinence in sexually inexperienced youth, as less similar to other pooled study/ not relevant]	Non-significant	OR 0.58 (0.29, 1.14)	
Ybarra 2017	Abstinence in past 90 days, 4 m1w (in sexually inexperienced subgroup, placebo-control) [not pooled, as less similar to other included study]	Non-significant	[AOR 0.98 (0.38, 2.53) - as reported in article]	Not pooled (less similar subgroup)
<i>Cognitive outcomes - STI knowledge (≥ 12 months)</i>				
Lim 2012	STI knowledge (>5 of 8 questions correct), 12 m (female/male combined)	Intervention significantly better	OR 2.62 (1.71, 4.01)	Not pooled (1 study only)
Rokicki 2017	Unidirectional arm - Reproductive health knowledge score, 15 m, cluster RCT (crude model adjusted for school category and presence of home economics class, clustered SE at school level); [too different from other studies to pool, as only 7 questions about STIs, 6 about condoms use, and 11 about contraception only]	Non-significant	[Crude diff. 6 percentage points (0.1 to 11) - as reported in article]	Not pooled (outcome too different from the ones in other studies)

Rokicki 2017	<i>Interactive quiz</i> arm - Reproductive health knowledge score, 15 m, cluster RCT (crude model adjusted for school category and presence of home economics class, clustered SE at school level); [too different from other studies to pool, as only 7 questions about STIs, 6 about condoms use, and 11 about contraception only]	Intervention significantly better	[Crude diff. 15 percentage points (10 to 19) - as reported in article]	<i>Not pooled (outcome too different from the ones in other studies)</i>
<i>Cognitive outcomes - STI knowledge (< 12 months)</i>				
Gold 2017	Sexual health knowledge (all 3 questions correct), 5-6 m	Intervention significantly better	SMD 0.38 (0.07, 0.68)	SMD: 0.22 [0.09, 0.36]; Heterogeneity: Tau ² = 0.00; Chi ² = 1.41, df = 3 (P = 0.70); I ² = 0%
Lim 2012	STI knowledge (>5 of 8 questions correct), 6 m (female/male combined)	Non-significant	SMD 0.15 (-0.05, 0.36)	
Rinehart 2019	STI knowledge (score of 0-3), 6 m [not used for pooling: STI knowledge at 3 m, because the mode of assessment time points of all included studies is at 6 m]	Non-significant	SMD 0.23 (-0.11, 0.56)	
Ybarra 2017 - linked Ybarra 2018	HIV knowledge, 4m1w (>75% of 13 questions correct)	Non-significant	SMD 0.21 (-0.08, 0.50)	
Govender 2019	HIV knowledge score, 6 m	[Intervention slightly better]	[Adjusted B: 0.07 (<0.01, 0.14) - as reported in article]	<i>Not pooled (insufficient data, and only partial author response obtained)</i>
Rinehart 2019	Condom use knowledge (score of 0-3), 6 m [article also reports condom use knowledge at 3 m]	Intervention significantly better	SMD 0.36 (0.02, 0.70)	<i>Not pooled (less similar outcome)</i>
Rokicki 2017	<i>Unidirectional</i> arm - Reproductive health knowledge score, 3 m, cluster RCT (crude model adjusted for school category and presence of home economics class, clustered SE at school level); [too different from other studies to pool, as only 7 questions about STIs, 6 about condoms use, and 11 about contraception only]	Intervention significantly better	[Crude diff. 14 percentage points (7, 21) - as reported in article]	<i>Not pooled (outcomes too different)</i>

Rokicki 2017	Interactive quiz arm - Reproductive health knowledge score, 3 m, cluster RCT (crude model adjusted for school category and presence of home economics class, clustered SE at school level); [too different from other studies to pool, as only 7 questions about STIs, 6 about condoms use, and 11 about contraception only]	Intervention significantly better	[Crude diff. 27 percentage points (21, 33) - as reported in article]	Not pooled (outcomes too different)
<i>Cognitive outcomes - Self-efficacy (< 12 months)</i>				
Govender 2019	Self-efficacy to practice safer sex (scale of 6 variables), 6 m	Non-significant	[Adjusted B -0.02 (-0.28, 0.23) - as reported in article]	Not pooled (insufficient data, and only partial author response)
Rinehart 2019	Condom use self-efficacy, 3 m [not used: 6 m timepoint as less similar to other pooled studies]	Non-significant	SMD 0.39 (0.05, 0.73)	SMD 0.24 [-0.01, 0.48]; Heterogeneity: Tau ² = 0.01; Chi ² = 1.34, df = 1 (P = 0.25); I ² = 26%
Ybarra 2017 - linked Ybarra 2018	Perceived condom use behavioral skill, 4m1w	Non-significant	SMD 0.13 (-0.13, 0.40)	
<i>Other cognitive outcomes (that cannot be pooled)</i>				
Govender 2019	HIV risk perception score (high score= respondents did not see themselves at risk), 6 m	Non-significant	(Adjusted B: 0.02 (-0.05, 0.12) - as reported in article)	Not pooled (1 study only, but also insufficient data)
Rinehart 2019	Condom use benefit/cost (0-28 score), 6 m (also reported for 3 m)	Non-significant	SMD 0.32 (-0.02, 0.66)	Not pooled (1 study only)
Ybarra 2017 - linked Ybarra 2018	Motivation variables (6 variables, not extracted, as not among pre-specified outcomes and no other studies with similar outcomes)			
Partner communication				
Nil				
Costs				

[de Tolly 2012 - excluded]	Cost per additional HIV tester - computed for one of four treatment arms only [but not extracted, due to HIV testing figures not adding up and unable to obtain response from author.]		
Reback 2019a - linked Reback 2019b cost-effectiveness paper	TXT-Auto arm - Costs per reductions of CAI episode (CAI assessed at 9 m, costs assessed retrospectively for 2 m intervention period)	The TXT-Auto arm achieved greater reductions in CAI than the attentional control at a cost in the base case of \$37.47 per episode of CAI reduced per month	
[Reback 2019a - linked Reback 2019b cost-effectiveness paper]	TXT-PHE arm - Costs per reductions of CAI episode; note: results not available, because "The ICER [Incremental Cost-Effectiveness Ratio] is not reported when the more costly intervention achieves fewer reductions in risk"	The TXT-PHE arm did not reduce risk behaviour more than TXT-Auto arm, therefore additional costs not justified.	
[Rinehart 2019]	Costs not specified as outcome [but text reads: "There were costs to modify the existing system, but on average, the cost to send each text was less than 1 cent."]		

Comparison 1.2 – SMS intervention vs. SOC control containing active SMS component*

Comparison, Review Outcome & Study	Study outcome (detail)	Direction of effect	Relative effect (CI)	Meta-analysis results
Behavioural outcomes				
<i>STI/HIV testing (at < 12 months)</i>				
Kelvin 2019a	Truckers tested for HIV, 2 m (objective)	Non-significant	OR 1.02 (0.42, 2.46)	<i>OR 1.00 [0.68, 1.47] - RE-Tau² = 0.00; Chi² = 0.00, df = 1 (P = 0.96); I² = 0%</i>
Kelvin 2019b	Female sex workers tested for HIV, 2 m (objective)	Non-significant	OR 0.99 (0.65, 1.52)	
Other review outcomes				
<i>Costs</i>				
Kelvin 2019a (truckers) - linked George 2018	SMS cost per (additional) client (trucker) tested for HIV, 2 m (objective)	Additional costs of SMS not justified		
Kelvin 2019b (FSW) - linked George 2018	SMS cost per (additional) client (FSW) tested for HIV, 2 m (objective)	0.24 US\$ of SMS costs per additional client tested		

Comparison 1.3 – SMS intervention blended with in-person contact vs inactive control

Comparison, Review Outcome & Study	Study outcome (detail)	Direction of effect	Relative effect (CI)	Meta-analysis results
Biological outcomes				
<i>STI/HIV occurrence (objectively confirmed, at <12 months)</i>				
Trent 2019	Chlamydia/Gonorrhoea occurrence (objective), 3 m	Non-significant	OR 0.40 (0.15, 1.09)	<i>Not pooled (1 study only)</i>
Behavioural outcomes				
<i>Condom use (at < 12 months)</i>				
Trent 2019	Condom use at last sex, 3 m	Non-significant	SMD 0.17 (-0.11, 0.46)	<i>SMD 0.25 [0.02, 0.48] Heterogeneity: Tau² = 0.00; Chi² = 0.74, df = 1 (P = 0.39); I² = 0%</i>
Mimiaga 2017	Unprotected sex acts with non-paying male partners (inverse), 3 m, Mean [not used: same outcome at 6 m, as the other pooled study assessed condom use at 3 m; unprotected sex with male client reported separately, as less similar to other included study]	Non-significant	SMD 0.39 (-0.01, 0.78)	

Mimiaga 2017	Unprotected sex acts with male client (inverse), 3 m, Mean [this outcome has not been pooled and combined results not available from author; rather chosen 'sex with non-paying male partners' for pooling, and at 3 m rather than 6 m, as more similar to other included study]	Intervention significantly better	SMD 0.74 (0.33, 1.15)	Not pooled (1 study only)
<i>Compliance - took treatment for curable STI</i>				
Trent 2019	All medications taken, 2 w (self-reported)	Non-significant	OR 0.64 (0.39, 1.05)	Not pooled (1 study only)
<i>Compliance -abstinence during treatment of curable STI</i>				
Trent 2019	Sexual abstinence during 14-day treatment period, 2 w	Non-significant	OR 0.73 (0.39, 1.37)	Not pooled (1 study only)
<i>Partner notification</i>				
Trent 2019	Partner notification (self-reported), 2 w	Non-significant	OR 0.84 (0.36, 2.00)	Not pooled (1 study only)

Comparison 2 – Facebook intervention vs inactive control

Comparison, Review Outcome & Study	Study outcome (detail)	Direction of effect	Relative effect (CI)	Meta-analysis results
Behavioural outcomes				
<i>STI/HIV test kit request (objective, at < 12 months)</i>				
Young 2013	Requested HIV testing kit during past 3 months, 3 m (cluster RCT)	Intervention significantly better	[MD 24 pp (8 to 41 pp) - as reported in article] "a separate analysis using mixed-effects logistic regression gave consistent results"]	Not pooled (1 study only)

Comparison 3 – Smartphone App intervention vs inactive control

Comparison, Review Outcome & Study	Study outcome (detail)	Direction of effect	Relative effect (CI)	Meta-analysis results
Biological outcomes				
<i>STI/HIV occurrence (self-reported)</i>				
Nielsen 2019	Occurrence of STI during past 6 months, 6 m (self-reported)	Non-significant	OR 1.03 (0.69, 1.55)	<i>Not pooled (1 study only)</i>
Behavioural outcomes				
<i>Condom use (at < 12 months, self-reported)</i>				
Nielsen 2019	Consistent condom use during past 6 months, 6 m (mostly receptive vaginal/anal sex, as 100% female, 95% heterosexual) [Proportion of sexual partners with whom a condom was always used, expressed as percentage. Those who had a score of 100 were classified as 'fully protected'.]	Non-significant	OR 0.92 (0.55, 1.56)	<i>OR 0.85 [0.53, 1.37]</i> <i>Heterogeneity:</i> <i>Tau² = 0.00;</i> <i>Chi² = 0.48, df = 1</i> <i>(P = 0.49); I² = 0%</i>
Zhu 2019	Consistent condom use, receptive anal sex during past 6 months, 6 m	Non-significant	OR 0.60 (0.20, 1.82)	
Zhu 2019	Not pooled: Consistent condom use, insertive anal sex past 6 m	Non-significant	OR 1.00 (0.36, 2.74)	<i>Not pooled (less similar outcome)</i>
Zhu 2019	Not pooled: Consistent condom use, main male partner past 6 m	Non-significant	OR 1.02 (0.42, 2.48)	<i>Not pooled (less similar outcome)</i>
Zhu 2019	Not pooled: Consistent condom use, casual or commercial male partner past 6 m	Non-significant	OR 1.19 (0.41, 3.44)	<i>Not pooled (less similar outcome)</i>
Tang 2018	Excluded, as intervention did not target condom use			<i>Not pooled (excluded)</i>
<i>STI/HIV testing (at < 12 months)</i>				
Nielsen 2019	STI testing in last 6 months, 6 m (self-reported)	Non-significant	RR 1.10 (1.00, 1.20)	<i>All three studies:</i> <i>[RR 1.27 [1.05, 1.52];</i> <i>Heterogeneity:</i> <i>Tau² = 0.02;</i> <i>Chi² = 8.26,</i> <i>df = 2 (P = 0.02);</i> <i>I² = 76%</i> <i>→ substantial heterogeneity</i> <i>(therefore subgroup analysis performed)</i>

Subgroup analysis (pre-specified, by sexuality & region – MSM in LMIC only)				
Tang 2018	HIV testing in last 3 months (self-reported, stepped wedge cluster RCT, RR, ICC by city 0.016, ITT assuming fixed secular trend)	Intervention significantly better	RR 1.43 (1.19, 1.72)	<i>Sub-group analysis (MSM in LMIC/ China): RR 1.40 [1.22, 1.60] Heterogeneity: Tau² = 0.00; Chi² = 0.15, df = 1 (P = 0.69); I² = 0%</i>
Zhu 2019	Any HIV test in last 6 months, 6 m (self-reported)	Intervention significantly better	RR 1.35 (1.10, 1.66)	
Zhu 2019	Sent photo of oral HIV self-test in last 6 months, 6 m (objective) [not pooled, as different from self-reported outcomes in other studies]	Intervention significantly better	RR 4.56 (2.49, 8.35)	
Other review outcomes				
Cognitive outcomes -self-efficacy				
Tang 2018	HIV testing self-efficacy (stepped wedge cluster RCT, assessment in 3 m intervals, ICC by city <0.001)	Non-significant	[MD -0.008 (-0.039, 0.023) - as reported in article]	<i>Not pooled (1 study only)</i>
Other cognitive outcomes				
Tang 2018	Anticipated HIV stigma (stepped wedge cluster RCT, assessment in 3 m intervals, ICC by city 0.006)	Non-significant	[MD -0.027 (-0.064, 0.010) - as reported in article]	<i>Not pooled (1 study only)</i>
Tang 2018	HIV testing social norms (stepped wedge cluster RCT, assessment in 3 m intervals, ICC by city 0.002)	Non-significant	[MD -0.010 (-0.041, 0.020) - as reported in article]	<i>Not pooled (1 study only)</i>

Acronyms/ Abbreviations

(A)OR, (adjusted) odds ratio; CAI, condomless anal intercourse; CI, confidence interval; ICC, intra-cluster correlation coefficient; ITT, intention-to-treat analysis; MD, mean difference; pp, percentage points; RCT, randomized controlled trial; RR, risk ratio; SE, standard error; SMD, standardised mean difference; SMS, short message service (mobile phone text messaging); SOC, Standard of care; STI, sexually transmitted infection; TXT, text messaging; df, degree of freedom; f/m comb., female/male combined; m, month(s); w, week(s); w/o, without;

* In our protocol, we pre-specified inactive control groups as those with either “no intervention, standard care, a placebo intervention, or a waiting list control”; we also stated that “By ‘standard care’ we mean the usual care given to participants in the given setting at the time an eligible study was done (which might vary between studies and will have to be considered during synthesis).” Given that in the two Kelvin 2019a/b papers Standard of Care (SOC) already included an active SMS component (a text message reminding people to get tested for HIV), we have pooled these studies separately from the other studies.

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