

Table 1. Summary of studies

Author (Year)	Title	Country of Study	Study Design	Population	Sample Size	Intervention	Key Outcomes
Abdurahman (2015)	Factors affecting acceptance of provider-initiated HIV testing and counseling services among outpatient clients in selected health facilities in Harar town, Eastern Ethiopia	Ethiopia	Cross-sectional	General public	520	PITC	Uptake of PITC was 70.6% in this population. HIV+: not reported.
Abtew (2015)	Acceptability of provider-initiated HIV testing as an intervention for prevention of mother to child transmission of HIV and associated factors among pregnant women attending at Public Health Facilities in Assosa town, Northwest Ethiopia	Ethiopia	Cross-sectional	Pregnant Women, Partners, Infants	386	PITC	Participated in study: 97% (386/398). Accepted PITC: 80.8% (312/386). HIV+: not reported.
Adebajo (2015)	Evaluating the effect of HIV prevention strategies on uptake of HIV counselling and testing among male most-at-risk-populations in Nigeria; a cross-sectional analysis	Nigeria	Cohort with comparison group(s)	MSM, PWID	31,609	Facility-based testing, mobile testing, peer-educator testing	<b>Facility-based:</b> Accepted HCT: 78% (1,542/1,988), HIV+: 9% (177/1,956). <b>Mobile testing:</b> Accepted HCT: 85% (12,425/14,726), HIV+: 3% (480/14,671). <b>Peer Educator:</b> Accepted HCT: 94% (14,040/14,895), HIV+: (1,853/14,662).
Ahmed (2015)	Improved identification and enrolment into care of HIV-exposed and -infected infants and children following a community health worker intervention in Lilongwe, Malawi.	Malawi	Cohort with comparison group(s)	Children/Adolescents	7,658	Facility-based testing and HBHCT	1,781 HEI were enrolled, with 102 (5.7%) found HIV-infected by positive PCR. 7,658 children aged 18 months to 15 years were tested (out of 44,388 individuals tested), HIV+: 351/7658 (4.6%).
Ahmed (2017)	Index case finding facilitates identification and linkage to care of children and young persons living with HIV/AIDS in Malawi	Malawi	Cohort without comparison group	Partners or contacts of PLHIV	711	HBHCT and facility-based testing for household members of PLHIV	Index patients screened for eligibility: 65.7% (1,030/1,567). Eligible index patients: 44.8% (461/1,030). Consenting index patients: 93.5% (431/461). Number of households with at least 1 child or young person tested: 62.6% (270/431). HIV+: 4% (28/711).

Ansa (2014)	Delivering TB/HIV services in Ghana: a comparative study of service delivery models	Ghana	Pre- and Post-intervention	Other: People with TB	590	One-stop shops, partially integrated sites, referral sites	590 TB patients; 85.9% knew HIV status. HIV screening was highest (98.6% [95%CI: 97.6-99.5%]) at the one-stop shop and lowest (72.5% [71.9-73.9%]) at the referral site.
Asiimwe (2014)	Accuracy of un-supervised versus provider-supervised self-administered HIV testing in Uganda: a randomized implementation trial	Uganda	RCT	Other: Fishing community	246	Supervised vs unsupervised HIVST	Intent-to-treat analysis: HIVST sensitivity 90% in unsupervised arm and 100% in provider-supervised arm (difference: -10%, 90% CI -21 to 1%)- failed to prove non-inferiority. Per protocol analysis, difference in sensitivity was -5.6% (90% CI -14.4, 3.3%).
Ayieko (2018)	Mobile, population-wide, hybrid HIV testing strategy increases number of children tested in rural Kenya and Uganda	Kenya and Uganda	Cohort without comparison group	Children	87,700	Community health campaign followed by HBHCT	Total tested: 82% (72,241/87,700), 66,421 by campaign, 5,820 by HBHCT. HIV+: 1.1% (817/72,241).
Azuogu (2018)	Effect of multiple intervention models on uptake of HIV testing services and sexual behaviour among residents of military cantonments in south-east Nigeria	Nigeria	Cohort with comparison group(s)	Other: Residents of military containment	700	Peer educators, HBHCT, and awareness campaigns vs non-HIV health promotion	<b>Intervention group</b> HIV testing within 4 months: baseline 9% (13/145), post-intervention 99% (270/272). <b>Control group</b> HIV testing within 4 months: baseline 7% (9/127), follow-up 26% (37/144). HIV+: not reported.
Baisley (2012)	Uptake of voluntary counselling and testing among young people participating in an HIV prevention trial: comparison of opt-out and opt-in strategies	Tanzania	Cross-sectional	Children/Adolescents	12,590	Opt-out vs opt-in VCT	<b>Opt-out VCT:</b> 90.9% (2,822/3,128) <b>Opt-in VCT:</b> 60.5% (2,041/3,361) Prevalence ratio=1.51, CI=1.41-1.62 HIV+: 2.7% (334/12,590).
Baisley (2019)	Findings from home-based HIV testing and facilitated linkage after scale-up of test and treat in rural South Africa: young people still missing	South Africa	Cohort without comparison group	Adults	51,380	HBHCT	81% (41,815/51,380) individuals reached. Accepted HIV testing: 26% (10,257/38,827). HIV+: 8% (784/10,257).
Becker (2010)	Comparing couples' and individual voluntary counseling and testing for HIV at antenatal clinics in Tanzania: a randomized trial	Tanzania	RCT	Pregnant Women, Partners, Infants	1,521	Couples counseling and testing vs individual VCT in ANC	<b>Couples testing:</b> 39% (294/760) of women tested and received results. 16% (119/760) of couples both tested and received results. <b>Individual testing:</b> 71% (538/761) of women tested and received results. HIV+: 10% (93/922).

Bhattacharjee (2018)	Micro-planning at scale with key populations in Kenya: Optimising peer educator ratios for programme outreach and HIV/STI service utilisation	Kenya	Cohort without comparison group	FSW, MSM	FSW: 133,675 (estimated). MSM: 18,460 (estimated)	Country-wide Peer Educator program with quarterly quality improvement	Lower FSW:Peer Educator (<90:1) and MSM:Peer Educator (<60:1) ratios resulted in more frequent HIV testing (p<0.001, CI not reported). HIV+: not reported.
Bianchi (2019)	Evaluation of a routine point-of-care intervention for early infant diagnosis of HIV: an observational study in eight African countries	Cameroon, Côte d'Ivoire, Kenya, Lesotho, Mozambique, Rwanda, Swaziland, Zimbabwe	Cohort without comparison group	Pregnant Women, Partners, Infants	21,095	Conventional vs point of care HEI HIV testing	Caregivers received results within 30 days: <b>Conventional</b> 18.7% (542/2,898), <b>Point of care</b> 98.3% (18,737/19,058). HIV+: 3.8% (792/20,865).
Bochner (2019)	Strengthening provider-initiated testing and counselling in Zimbabwe by deploying supplemental providers: a time series analysis	Zimbabwe	Cohort with comparison group(s)	General public	468,858	Supplemental PITC at outpatient department clinics	Each person-week of PITC provider deployment at a facility was associated with an additional 16.7 (95% CI, 12.2–21.1) individuals tested and an additional 0.9 (95% CI, 0.5–1.2) individuals diagnosed with HIV.
Brown (2011)	HIV partner notification is effective and feasible in sub-Saharan Africa: Opportunities for HIV treatment and prevention	Malawi	RCT	Partners or contacts of PLHIV	302	Partner notification: passive, contract, or provider	84% (252/302) partners locatable. Passive referral HCT: 24% (20/82). Contract referral HCT: 51% (45/88). Provider referral HCT: 51% (42/82). HIV+: 64% (67/107).
Brunie (2016)	Expanding HIV testing and counselling into communities: Feasibility, acceptability, and effects of an integrated family planning/HTC service delivery model by Village Health Teams in Uganda	Uganda	RCT	Adults	137	Community-based HCT integrated with family planning services	Accepted testing: 80% (110/137). HIV+: not reported
Byamugisha (2010)	Dramatic and sustained increase in HIV-testing rates among antenatal attendees in Eastern Uganda after a policy change from voluntary counselling and testing to routine counselling and testing for HIV: a retrospective analysis	Uganda	Cohort with comparison group(s)	Pregnant Women, Partners, Infants	54,898	Voluntary vs routine counselling and testing	<b>VCT:</b> Pregnant women tested: 22.0% (6,570/29,834). Male partners tested: 87.5% (70/80). HIV+: 8.8% (581/6,640). <b>Routine Testing:</b> Pregnant women tested: 87.6% (21,538/24,595). Male partners tested: 100% (389/389). HIV+: 5.3% (1,172/21,927).

	of hospital records, 2002-2009						
Byamugisha (2011)	Male partner antenatal attendance and HIV testing in eastern Uganda: a randomized facility-based intervention trial	Uganda	RCT	Pregnant Women, Partners, Infants	1,060	Male partner antenatal invitation vs informational letter	<b>Invitation:</b> Male partner attended clinic: 16.2% (86/530). Received testing: 95% (82/86). HIV+ (men and women): 3.8% (11/290). <b>Informational Letter:</b> Male partner attended clinic: 14.2% (75/530). Received testing: 91% (68/75). HIV+ (men and women): 4.5% (14/310).
Cham (2019)	Methods, outcomes, and costs of a 2.5 year comprehensive facility-and community-based HIV testing intervention in Bukoba Municipal Council, Tanzania, 2014-2017	Tanzania	Cross-sectional	General public	133,695	PITC, HBHCT, venue-based testing implemented	In 2.5 years PITC, HBHCT, and venue-based accounted for 66%, 21%, and 13% of the 133,695 tests conducted, respectively. HIV+: 4.2% (5,550/133,695 tests)
Chamie (2018)	Comparative effectiveness of novel non-monetary incentives to promote HIV testing: a randomized trial	Uganda	RCT	Men	2,532	Community health campaign	Accepted Testing: 76% (1,924/2,532). HIV+: 7.6% (146/1,924)
Chanda (2017)	HIV self-testing among female sex workers in Zambia: A cluster randomized controlled trial	Zambia	RCT	FSW	965	Peer educator delivery of HIVST kit, coupon for HIVST, or referral to clinic for HCT	<b>HIV testing in previous month at 1 month:</b> delivery 95% (280/296), coupon 84% (248/294), referral 89% 262/296). <b>HIV testing in previous month at 4 months:</b> delivery 75% (248/295), coupon 78% (241/302), referral 75% (226/301). <b>HIV+:</b> 16% (144/886)
Choko (2015)	Uptake, Accuracy, Safety, and Linkage into Care over Two Years of Promoting Annual Self-Testing for HIV in Blantyre, Malawi: A Community-Based Prospective Study.	Malawi	Cohort without comparison group	Adults	16,660 (estimate)	HIVST kits offered to residents yearly	Year 1 testing: 84% (14,004/16,660). Year 2 testing: 83% (13,785/16,660). Year 1 HIV+ by returned kits: 10%. Year 2 HIV+ by returned kits: 7%
Choko (2018)	A pilot trial of the peer-based distribution of HIV self-test kits among fishermen in Bulisa, Uganda	Uganda	Cohort without comparison group	Other: Fishermen	116	19 community members recruited and offered HIVST kits	Completed HIV testing: 82% (95/116), HIV+: 5% (4/87)
Choko (2019)	HIV self-testing alone or with additional interventions, including financial incentives, and linkage to care or prevention among male	Malawi	RCT	Pregnant Women, Partners, Infants	2,091	Invitation for male to join vs interventions: (1) letter + self-testing kits (ST) to take to her partner, (2) ST + 3\$	<b>Evidence of male partner testing within 28 days</b> <b>Invitation Letter:</b> (56/408) <b>ST:</b> (85/442)

	partners of antenatal care clinic attendees in Malawi: An adaptive multi-arm, multi-stage cluster randomised trial					financial incentive, (3) ST + 10\$ incentive, (4) ST + 10% chance of winning 30\$, (5)ST + phone call reminder to male partner	<b>ST+\$3:</b> (155/380) <b>ST+\$10:</b> (266/51212) <b>ST+Lottery:</b> (30/155) <b>ST+Phone call:</b> (84/452) HIV+: 6.8% 46/676
Church (2017)	Impact of Integrated Services on HIV Testing: A Nonrandomized Trial among Kenyan Family Planning Clients	Kenya	Cohort with comparison group(s)	Adults	882	Integrated family planning and HCT services vs referral for HCT	<b>HIV testing uptake in intervention facilities:</b> baseline 28%, post-intervention 66% <b>HIV testing uptake in comparison facilities:</b> baseline 48%, follow-up 61%
Coleman (2017)	Effectiveness of an SMS-based maternal mHealth intervention to improve clinical outcomes of HIV-positive pregnant women	South Africa	Cohort with comparison group(s)	Pregnant Women, Partners, Infants	839	SMS-based maternal health/HIV support intervention to HIV+ mothers	HEI HIV testing at 6 weeks: Intervention 81.3%, Comparison 75.4%. HIV+ infants: 0.5% (3/639)
Conkling (2010)	Couples' voluntary counselling and testing and nevirapine use in antenatal clinics in two African capitals: a prospective cohort study	Rwanda, Zambia	Cohort without comparison group	Pregnant Women, Partners, Infants	3,625	Same-day individual VCT and weekend couples VCT at antenatal clinics was offered	<u>Kigali</u> 1,940 women tested: Couples testing: 49.3% (n=956), Individual: 50.3% (n=984). HIV+: 14% (271/1,940). <u>Lusaka</u> 1,685 women tested: Couples testing: 39.3% (n=663), Individual: 60.7% (n=1,022) HIV+: 27% (448/1,685).
Courtenay-Quirk (2018)	Increasing partner HIV testing and linkage to care in TB settings: findings from an implementation study in Pwani, Tanzania	Tanzania	Cohort without comparison group	Other: People with TB	1,288	Tools to record and facilitate couples HIV service delivery and training for TB clinic staff	Couples testing: baseline: 1.8%, post-intervention: 35.2%. TB patients testing HIV+: 44.9% (508/1,132). Others testing HIV+: 19.8% (253/1,288) couples HIV testing increased in both clusters from 1.8% to 35.2%
Dalal (2011)	Provider-initiated HIV testing and counseling: increased uptake in two public community health centers in South Africa and implications for scale-up	South Africa	Cohort with comparison group(s)	Adults	912	PITC vs referral for VCT	Significantly more participants in PITC intervention accepted HIV testing compared to those following referral for VCT (55% vs. 31%, OR 2.70, CI 1.65-4.42)
Dalal (2013)	Home-based HIV testing and counseling in rural and urban Kenyan communities	Kenya	Cohort without comparison group	Adults and high-risk children	24,450	HBHCT	Accepted testing: 81.7% (19,966/24,450), HIV+: 13.8% (2765/19,966).

Daniels (2017)	Shout-It-Now: A Mobile HCT Model Employing Technology and Edutainment in South Africa	South Africa	Cohort with comparison group(s)	Adults, adolescents	72,220	Community-based HCT	Accepted HCT: not reported. HIV+: 4.6% (3.343/69,479)
Darbes (2019)	Results of a couples-based randomized controlled trial aimed to increase testing for HIV	South Africa	RCT	Other: Couples	334	5 counseling sessions to encourage couples' HIV testing and disclosure	<b>Participation in Couples HCT:</b> Intervention group: 42% (71/168), Control group: 12% (20/164). <b>HIV rates:</b> Intervention couples: 46% were concordant HIV-negative, 30% were concordant HIV-positive, and 24% were serodiscordant. Control couples: 55% were concordant HIV negative, 30% were concordant HIV-positive, and 15% were serodiscordant.
DeTolly (2012)	Investigation into the use of short message services to expand uptake of human immunodeficiency virus testing, and whether content and dosage have impact	South Africa	RCT	General public	2,533	Use of motivational vs informational SMS to improve uptake of HCT	10 informational messages had no significant difference on testing uptake (OR=1.05, CI: 0.77-1.44, p=0.809). Receiving 10 motivational messages had a 1.7x increased odds of testing (CI: 1.19-2.44, p=0.0036).
Do (2014)	Impacts of four communication programs on HIV testing behavior in South Africa	South Africa	Cross-sectional	General public	6,004	Effect of TV series on promoting HIV testing	Exposure to the communication programs increased perceptions of peoples' friends getting testing (OR 1.05, standard deviation 0.01, P<0.001). This was associated with increased the likelihood of people talking to their friends and partners about being tested (OR 1.08, standard deviation 0.01, P<0.001). Those who perceived a high level of testing among friends were 25% more likely to have tested (standard deviation 0.09, p<0.01)
Doherty (2013)	Effect of home based HIV counselling and testing intervention in rural South Africa: cluster randomised trial	South Africa	RCT	Adults, adolescents	4,154	HBHCT vs Facility based HCT (standard care)	<b>Accepted HCT:</b> home-based 69% (1,392/2,025), facility-based 47% (99/2,129) (prevalence ratio 1.54, 95% confidence interval 1.32 to 1.81). <b>HIV+:</b> home-based: 6% (76/1,276), facility-based: 10% (85/841).
Dube (2012)	Implementing early infant diagnosis of HIV infection at the primary care level: experiences and challenges in Malawi	Malawi	Cohort without comparison group	General public	1,214	Early infant diagnosis program: education, community sensitization, free	HEI tested: 71.6% (869/1,214) Screening test HIV+: 14.5% (126/869). Received HIV+ results: 87.3% (110/126).

						infant testing at 6 weeks of age, and active tracing of HEI and referral for treatment and care.	Confirmatory testing showing true HIV+: 85.4% (88/103).
Ekoueivi (2012)	Feasibility and acceptability of rapid HIV screening in a labour ward in Togo	Togo	Cross-sectional	Pregnant Women, Partners, Infants	508	HIV testing in labor ward	Patients admitted for labor enrolled in study: 33.2% (508/1,530) Accepted testing: 91.9% (467/508) HIV+: 8.8% (41/467), 14 newly diagnosed
Ezeanolue (2015)	Effect of a congregation-based intervention on uptake of HIV testing and linkage to care in pregnant women in Nigeria (Baby Shower): a cluster randomised trial	Nigeria	RCT	Pregnant Women, Partners, Infants	3,002	Congregation-based antenatal intervention	The intervention was associated with higher HIV testing (4.6% vs. 91.9% [AOR= 11.2; 95% CI: 8.77-14.25, p <0.001]).
Ferrand (2016)	Implementation and Operational Research: The Effectiveness of Routine Opt-Out HIV Testing for Children in Harare, Zimbabwe	Zimbabwe	Pre- and Post-intervention	Children/ Adolescents	10,673	Routine Opt-Out HIV Testing (ROOT)	Testing uptake improved from 71% to 95% and the adjusted risk of receiving an HIV test during the ROOT period was 1.99 (CI 1.85-2.14).
Finocchario-Kessler (2015)	Lessons learned from implementing the HIV infant tracking system (HITSsystem): A web-based intervention to improve early infant diagnosis in Kenya	Kenya	Pre- and Post-intervention	Pregnant Women, Partners, Infants	estimated 2,625	HIV Infant Tracking System (HITSsystem)	Mean turn-around time from sample to results: 3.3 weeks (Standard deviation: 1.7). HIV+: 5.6% (n=147).
Flick (2019)	The HIV diagnostic assistant: early findings from a novel HIV testing cadre in Malawi	Malawi	Pre- and Post-intervention	Adults	457 facilities received intervention	Task shifting to workers solely focused on HIV and STI testing services	92% (399/436) sites saw significant increased average monthly testing post-intervention. Estimated post-intervention that 34% of tests (2.6 million/7.4 million) were attributable to intervention
Floyd (2018)	Towards 90-90: Findings after two years of the HPTN 071 (PopART) cluster-randomized trial of a universal testing-and-treatment intervention in Zambia	Zambia	Cohort without comparison group	Adults, adolescents	120,272	HBHCT	Accepted HCT: 64% (58,073/120,272). Known HIV status after intervention: 82% (74,401/120,272). HIV+: 12.8% (11,607/90,781).
Fylkesnes (2013)	Strong effects of home-based voluntary HIV counselling and testing on	Zambia	RCT	Adults, adolescents	1,702	HBHCT vs Facility based HCT (standard care)	Received HCT within a year of follow-up: HBHCT: 60.3% (504/836) Facility-based: 36.4% (312/858).

	acceptance and equity: A cluster randomised trial in Zambia						HIV prevalence among tested individuals: 8.8% in men and 9.7% in women (raw data not reported).
George (2018)	Costing analysis of an SMS-based intervention to promote HIV self-testing amongst truckers and sex workers in Kenya	Kenya	RCT	FSWs, male truck drivers	2,262 truckers and 2,196 FSWs	SMS promoting facility-based testing vs promoting HIVST kits	<b>Truckers tested:</b> HIVST promotion: 3.5% (26/750), standard of care: 1.3% (10/762). <b>FSWs tested:</b> HIVST promotion: 10.8% (81/750), standard of care: 6.2% (73/696). <b>HIV+:</b> not reported.
Gichangi (2018)	Impact of HIV self-test distribution to male partners of ANC clients: results of a randomized controlled trial in Kenya	Kenya	RCT	Pregnant Women, Partners, Infants	1,410	(1) Venue-based HIV testing services vs (2) Improved card stating the importance of male HIV testing vs (3) 2 oral HIV self-test kits and HIV testing information	<b>Reported testing as a couple:</b> Arm 1: 27% (110/406) Arm 2: 35.1% (136/387) Arm 3: 79.1% (334/422) <b>HIV+:</b> not reported.
Girault (2015)	Piloting a Social Networks Strategy to Increase HIV Testing and Counseling Among Men Who Have Sex with Men in Greater Accra and Ashanti Region, Ghana	Ghana	Cohort without comparison group	MSM	166	Peer referral from 25 "seeds"	12/25 seeds had no successful referrals. Referrals tested: 97.0% (161/166). HIV+: 32.9% (53/161).
Golden (2018)	HIV retesting in pregnant women in South Africa: Outcomes of a quality improvement project targeting health systems' weaknesses	South Africa	Cohort with comparison group(s)	Pregnant Women, Partners, Infants	16 facilities	Quality improvement project with testing before antenatal appointments	Retesting in intervention clinics rose from 36% pre-intervention to full coverage post-intervention. Control clinics rose from 66% retesting to 95%.
Govender (2018)	Effects of a Short Message Service (SMS) Intervention on Reduction of HIV Risk Behaviours and Improving HIV Testing Rates Among Populations located near Roadside Wellness Clinics: A Cluster Randomised Controlled Trial in South Africa, Zimbabwe and Mozambique	South Africa, Zimbabwe, Mozambique	RCT	FSW, male Truck Drivers	1,783	6 mo of SMS on HIV risk reduction and testing vs standard of care	Tested within past 6 months: SMS group: 86.1% (232/375), Standard of care: 77.7% (265/341). HIV+: not reported.
Hansoti (2018)	HIV testing in a South African Emergency Department: A missed opportunity	South Africa	Cohort without	Adults	2,355	Lay counselors provided non-targeted universal screening	Approached for testing: 24.6% (2,355/9,583) Accepted testing: 72.8% (1,714/2,355)



			comparison group			with rapid point of care HIV testing to patients presenting to the emergency department	HIV+ (including known cases): 21.6% (400/1,852), newly diagnosed: 115
Hayes (2017)	A universal testing and treatment intervention to improve HIV control: One-year results from intervention communities in Zambia in the HPTN 071 (PopART) cluster-randomised trial	Zambia	Cohort without comparison group	Adults	121,130	HBHCT	Known HIV status at end of intervention (accepted testing, known HIV+, or HIV-test within past 3 months): 68.9% (83,487/121,130). HIV+: 15.4% (12,840/83,487).
Hector (2018)	Acceptability and performance of a directly assisted oral HIV self-testing intervention in adolescents in rural Mozambique	Mozambique	Cohort without comparison group	Children/ Adolescents	496	Directly assisted oral HIVST intervention	Accepted testing: 60.3% (299/496). HIV+: 1.7% (5/299).
Henley (2013)	Scale-Up and Case-Finding Effectiveness of an HIV Partner Services Program in Cameroon: An Innovative HIV Prevention Intervention for Developing Countries	Cameroon	Cohort without comparison group	Partners or contacts of PLHIV	1607	Partner notification	Index cases offered partner notification: not reported. Partners notified: 1347/1607 (83.8%). Partners tested: 900/1347 (66.8%). HIV+ Partners: 451/900 (50.1%).
Herce (2018)	Achieving the first 90 for key populations in sub-Saharan Africa through venue-based outreach: challenges and opportunities for HIV prevention based on PLACE study findings from Malawi and Angola	Malawi and Angola	Cohort without comparison group	FSW, MSM, and transgender women	1,924	Venue-based HCT at venues where key populations meet new sex partners	Offered testing: not reported. 1,924 tested. HIV+: ranged from 2% to 62% by location and population. More than 70% of HIV+ individuals were not previously aware of diagnosis.
Hewett (2016)	Randomized evaluation and cost-effectiveness of HIV and sexual and reproductive health service referral and linkage models in Zambia	Zambia	RCT	Adults	3,963	Randomized to: (1) standard of care vs. (2) enhanced counseling and referral to add-on service with follow-up, (3) components of 2 plus offer of an escort to a testing facility.	<b>HCT uptake at 6 months in females:</b> Arm 1: 28.3%, Arm 2: 34.9%, Arm 3: 33.9%.
Hu (2018)	The impact of lay counselors on HIV testing rates: quasi-experimental evidence from	South Africa	Pre- and Post-intervention	General public	24,526 tests	Lay counselors removed from a primary care clinic	Losing one lay counselor from a clinic was associated with a mean of 29.7 (95%

	lay counselor redeployment in KwaZulu-Natal, South Africa						CI: 21.2 - 38.2, p<0.001) fewer HIV tests carried out at the clinic per month.
Ijadunola (2011)	Provider-initiated (Opt-out) HIV testing and counselling in a group of university students in Ile-Ife, Nigeria	Nigeria	Cross-sectional	Adults	252	Opt-out rapid tests at the university health center	Accepted testing: 99.6% (251/252). HIV+: 0%.
Jefferys (2015)	Official invitation letters to promote male partner attendance and couple voluntary HIV counselling and testing in antenatal care: an implementation study in Mbeya Region, Tanzania	Tanzania	Cohort without comparison group	Pregnant Women, Partners, Infants	318	Written invitation letters to male partners of women attending antenatal care.	Partner attendance: 53.5% (170/318). Accepted couples testing: 81% (138/170 couples). HIV+: not reported.
Jobson (2019)	Bridging the gap: reaching men for HIV testing through religious congregations in South Africa	South Africa	Cohort without comparison group	Adults	1,971	Venue-based HCT at church services	Accepted testing: 43% (856/1,971). HIV+: 3.2% (27/856)
Joseph Davey (2019)	HIV positivity and referral to treatment following testing of partners and children of PLHIV index patients in public sector facilities in South Africa	South Africa	Cohort without comparison group	Partners or contacts of PLHIV	16,033	Contact tracing of partners and children of PLHIV	16,033 tested, unknown number contacted. HIV+: 38% (6,038/16,033).
Jubilee (2019)	HIV index testing to improve HIV positivity rate and linkage to care and treatment of sexual partners, adolescents and children of PLHIV in Lesotho	Lesotho	Cohort without comparison group	Partners or contacts of PLHIV	14,986	HBHCT for household contacts of PLHIV	PLHIV accepting intervention: 75% (5,937/7,916). Eligible contacts (biological children and sexual partners) receiving HBHCT: 72.4% (10,854/14,986). HIV+: adults: 17.6% (314/1,784), Adolescents: 2.4% (26/1,088), Children: 1.4% (114/7,982).
Jurgensen (2013)	The seven Cs of the high acceptability of home-based VCT: results from a mixed methods approach in Zambia	Zambia	Cohort without comparison group	Adults	1,220	HBHCT. Follow-up of Fylkesnes et al, 2013.	<b>Follow-up self-report HIV testing within past year:</b> Intervention 81.6% (461/565), Control: 51.8% (287/555). <b>Main reasons for agreeing to testing:</b> 76.6% (419/547) wanted to know status, and 14.4% (79/547) because visited by home-based counsellor.
Kababu (2018)	Use of a counsellor supported disclosure model to improve the uptake of couple HIV testing and	Kenya	Cohort with comparison group(s)	Partners or contacts of PLHIV	276	Standard HCT vs counsellor-supported disclosure with follow-up for non-responders	<b>PLHIV who had a partner receive testing:</b> intervention: 28.4% (36/127), control: 7.4% (11/149). HIV+: not reported.

	counselling in Kenya: a quasi-experimental study						
Kahabuka (2017)	Addressing the first 90: a highly effective partner notification approach reaches previously undiagnosed sexual partners in Tanzania	Tanzania	Cross-sectional	Partners or contacts of PLHIV	438	Partner Notification	390/653 (59.7%) of index cases participated. Partners presenting to clinic: 56.8% (249/438). Agreed to testing: 96% (239/249) HIV+: 61.9% (148/239).
Katbi (2018)	Effect of clients Strategic Index Case Testing on community-based detection of HIV infections (STRICT study)	Nigeria	Cohort without comparison group	Partners or contacts of PLHIV	888	Contact tracing	879/1,277 (68.3%) of index cases participated. Partners traced: 97.9% (870/888). Tested: 85.2% (741/870). HIV+: 51% (378/741).
Kelvin (2018)	Offering self-administered oral HIV testing to truck drivers in Kenya to increase testing: a randomized controlled trial	Kenya	RCT	Other: Truck Drivers	305	Choice of HIVST or provider-administered test vs SOC (provider-administered test only)	<b>Choice arm:</b> Agreed to testing: 80% (120/150). HIV+: 0% . <b>SOC:</b> Agreed to testing: 72.9% (113/155). HIV+: 1.8% (2/113).
Kelvin (2019) A	A randomized controlled trial to increase HIV testing demand among female sex workers in Kenya through announcing the availability of HIV self-testing via text message	Kenya	RCT	FSW	2,196	SMS promoting facility-based testing vs promoting HIVST kits	Tested: HIVST promotion: 6.1% (46/750), facility-based testing promotion: 10.8% (81/750). HIV+: 0.2% (5/2196).
Kelvin (2019) B	Announcing the availability of oral HIV self-test kits via text message to increase HIV testing among hard-to-reach truckers in Kenya: A randomized controlled trial	Kenya	RCT	Other: Truck Drivers	2,262	SMS promoting facility-based testing vs promoting HIVST kits	Tested: HIVST promotion: 3.5% (26/750), facility-based promotion: 1.3% (10/750). HIV+: 0.2% (5/2,262).
Khumalo-Sakutukwa (2008)	Project Accept (HPTN 043): a community-based intervention to reduce HIV incidence in populations at risk for HIV in sub-Saharan Africa and Thailand	Tanzania and Zimbabwe	RCT	Adults	11,655	Mobile testing vs standard of care (facility-based testing)	10,187 individuals tested in mobile testing communities, 1,468 tested in standard of care communities. Individuals offered tests: not reported. HIV+: not reported.
Kose (2018)	Impact of a comprehensive adolescent-focused case finding intervention on uptake of HIV testing and linkage to care among adolescents in Western Kenya	Kenya	Pre- and Post-intervention	Children/ Adolescents	139 health care facilities, 103,164 tests	Health worker capacity building, program performance monitoring tools, adolescent-focused HIV risk screening	<b>Pre-intervention period:</b> 25,520 adolescents tested, unknown total offered testing, 198 testing HIV-positive (0.8%) <b>Post-intervention period:</b> 77,644 adolescents tested, unknown total

						tools, and adolescent friendly hours.	offered testing, 534 testing HIV-positive (0.7%)
Kranzer (2018)	Economic incentives for HIV testing by adolescents in Zimbabwe: a randomised controlled trial	Zimbabwe	RCT	Children/Adolescents	2,050 households	Facility-based testing with a) no incentive, b) US\$2 incentive for testing, or c) lottery	<b>Percent of households sending 1+ child to clinic for testing:</b> no incentive: 20% (93/472), US\$2: 48% (316/654), Lottery: 40% (223/562). <b>HIV+:</b> not reported
Labhardt (2014)	Home-based versus mobile clinic HIV testing and counseling in rural Lesotho: a cluster-randomized trial	Lesotho	RCT	General public	2,562	HBHCT vs mobile HCT	<b>Accepted Testing:</b> HBHCT: 92.5% (1,083/1,1371), Mobile HCT: 86.7% (1,207/1,392). <b>HIV+:</b> HBHCT: 3.6% (39/1,083), Mobile HCT: 6.2% (75/1,207).
Labhardt (2019)	Effect and cost of two successive home visits to increase HIV testing coverage: a prospective study in Lesotho, Southern Africa	Lesotho	Cohort without comparison group	General public	18,336	HBHCT with repeat visit	Known HIV+ or received testing after 2 visits: 71.0% (13,011/18,336). Offered and accepted HCT: 85.3% (11,590/13,586). HIV+: 9.6% (1,765/18,336)
Lafort (2018)	Effect of a 'diagonal' intervention on uptake of HIV and reproductive health services by female sex workers in three sub-Saharan African cities	South Africa, Mozambique, Kenya	Pre- and Post-intervention	FSW	1,207	Training healthcare workers, peer outreach, targeted clinical services, and FSW empowerment	<b>Tested for HIV in past 6 months:</b> Durban: baseline 40.9%, post-intervention 83.2%. Tete: baseline 56.0% to post-intervention 76.6%. Mombasa: baseline 70.9% to post-intervention 87.6%. <b>Self-report HIV+ post-intervention:</b> Durban: 67.3%, Tete: 34.0%, Mombasa: 5.8%.
Liambila (2009)	Feasibility and effectiveness of integrating provider-initiated testing and counselling within family planning services in Kenya	Kenya	Cohort with comparison group(s)	Adults	424	Integrated family planning and PITC vs referral for HCT	<b>New clients offered test:</b> Integrated 74%, Referral: 34%. <b>New clients accepted testing or referral:</b> Integrated 50%, Referral: 65%. <b>Testing among all clients:</b> Integrated 35%, Referral 20%. <b>HIV+:</b> not reported.
Lindgren (2011)	Using mobile clinics to deliver HIV testing and other basic health services in rural Malawi	Malawi	Cohort without comparison group	General public	38,647 contacts	2 mobile clinics for rapid HIV testing and treatment referral, diagnosis and treatment of malaria, sputum collection for	Of 714 pregnant women, 536 (75%) consented to HIV testing. Of these, 20% tested positive. Unclear if others were offered HIV testing.

						suspected TB, and prenatal care.	
Lippman (2017)	Community mobilization for HIV testing uptake: results from a community randomized trial of a theory-based intervention in rural South Africa	South Africa	RCT	General public	1,181	Community mobilization including outreach and community events	<b>Reported HIV testing within past year:</b> Intervention: 67% (baseline 60%), control: 69% (baseline 63%). <b>HIV+:</b> not reported.
Lugada (2010) A	Comparison of home and clinic-based HIV testing among household members of persons taking antiretroviral therapy in Uganda: results from a randomized trial	Uganda	RCT	Partners or contacts of PLHIV	7,184	HBHCT vs facility-based HCT for household members of PLHIV	<b>Received testing:</b> HBHCT 55.8% vs. Facility-based 10.9%, odds ratio: 10.41, 95% confidence interval: 7.89 to 13.73; p < 0.001. <b>HIV+:</b> Facility-based 17.3% vs. HBHCT 7.1%, odds ratio: 2.76, 95% confidence interval: 1.97 to 3.86, p < 0.001.
Lugada (2010) B	Rapid implementation of an integrated large-scale HIV counseling and testing, malaria, and diarrhea prevention campaign in rural Kenya	Kenya	Cohort without comparison group	Adults	51,178	Multi-disease prevention campaign with community-based HCT	Attended campaign: 92.4% (47,311/51,178). Accepted testing: 99.7% (47,173/47,311). HIV+: 4% (1,964/47,173).
Lyatuu (2018)	Engaging community leaders to improve male partner participation in the prevention of mother-to-child transmission of HIV in Dar es Salaam, Tanzania	Tanzania	Cohort with comparison group(s)	Pregnant Women, Partners, Infants	35,822	Training for healthcare providers and community leaders to promote male partner participation in antenatal care	<b>Couple HIV testing:</b> Intervention sites: baseline 11.9%, 1 year post-implementation 36.0%. Control sites: baseline 17.7%, 1 year post-implementation 18.3%. <b>HIV+ rates</b> ranged from 3.1% to 4.4%.
Lyons (2019)	Use and acceptability of HIV self-testing among first-time testers at risk for HIV in Senegal	Senegal	Cohort without comparison group	FSW, MSM, PWID, transgender women	1,839	Distribution of HIVST kits	Post-test survey respondents: 94.3% (768/814) reported using HIVST. Completed test collected: 76.5% (1407/1839). HIV+: 5.4% (76/1407).
Mabuto (2014)	Four models of HIV counseling and testing: utilization and test results in South Africa	South Africa	Cross-sectional	Adults	121,032	Facility-based testing, stand-alone testing centers, urban and rural mobile testing	Unknown total offered testing. Total testers: Facility-based: 18,298, Stand-alone: 28,937, urban mobile: 38,840, rural mobile: 31,984. HIV+ 9.3% (10,862/116,926).
Madsen (2019)	Acceptance and feasibility of partner notification to HIV infected individuals in Guinea-Bissau	Guinea-Bissau	Cohort with comparison group(s)	Partners or contacts of PLHIV	547	Partner Notification	Index cases accepted: 71.0% (495/697). Partners tested: 21.5% (118/547). HIV+: 37.3% (44/118).

Mahachi (2019)	Sustained high HIV case-finding through index testing and partner notification services: experiences from three provinces in Zimbabwe	Zimbabwe	Cohort with comparison group(s)	Partners or contacts of PLHIV	55,149	Contact Tracing	Index cases accepted partner notification: 95.1% (24,453/25,704). 55,149 contacts received HCT. Unknown number of contacts offered testing. HIV+: 29% (15,944/55,149).
Mandala (2019)	HIV retesting of HIV-negative pregnant women in the context of prevention of mother-to-child transmission of HIV in primary health centers in rural Zambia: what did we learn?	Zambia	Cohort without comparison group	Pregnant Women, Partners, Infants	16,838	Retesting of pregnant women	19,090 pregnant women tested at first antenatal visit. HIV+: 11.3% (2,165/19,090). 16,838 tested HIV-negative and offered retesting 3 months later. 67.3% (11,339/16,838) retested. HIV+ at retest: 0.5% (55/11,339).
Marwa (2019)	The effects of HIV self-testing kits in increasing uptake of male partner testing among pregnant women attending antenatal clinics in Kenya: a randomized controlled trial	Kenya	RCT	Pregnant Women, Partners, Infants	1,410 women and 1,033 men	ANC clients: Arm 1: standard of care involving invitation of male partner to clinic through word of mouth, Arm 2: improved invitation letter, Arm 3: improved invitation letter and two self-testing kits	Male Partner Reported HIV testing: Arm 1: 37% (n=133). Arm 2: 28% (n=106) Arm 3: 83% (327). HIV+: not reported.
Masyuko (2019)	Index participant characteristics and HIV assisted partner services efficacy in Kenya: results of a cluster randomized trial	Kenya	RCT	Partners or contacts of PLHIV	1,286	Immediate vs delayed partner notification	Index cases accepted and enrolled: 63.6% (1119/1760). 1286 partners identified. Partners tested: 30.1% (387/1286). New HIV+: 41.1% (159/387).
McGovern (2016)	Do gifts increase consent to home-based HIV testing? A difference-in-differences study in rural KwaZulu-Natal, South Africa	South Africa	Cohort with comparison group(s)	Adults	18,478	HBHCT with or without food voucher	Agreed to HCT in 2010: with gift: 51% (1,733/3,340), without gift: 38.3% (5,800/15,138). HIV+: 23.9% (1,786/7,462)
McNaghten (2015)	Implementation and operational research: Strengthening HIV Test Access and Treatment Uptake Study (Project STATUS): a randomized trial of HIV testing and counseling interventions	South Africa, Tanzania, Uganda	RCT	General public	35,853 (age eligible)	out-patient departments assigned to either: (1) health care providers refer eligible patients to onsite VCT, (2) providers offer and provide HCT(3) nurse or lay counselors offer	Test acceptance was highest for model 3 (54.1%, 95% confidence interval [CI]: 42.4 to 65.9), followed by model 1 (41.7%, 95% CI: 30.7 to 52.8), and then model 2 (33.9%, 95% CI: 25.7 to 42.1). 1596 newly identified HIV positive patients.

						and provide HCT before clinical consultation.	
Mohlala (2011)	The forgotten half of the equation: randomized controlled trial of a male invitation to attend couple voluntary counselling and testing	South Africa	RCT	Pregnant Women, Partners, Infants	1,000	Written invitations for VCT for male partners of pregnant women in antenatal care.	Male partners received testing: Intervention 32%, Control 11% (RR 2.82, 95% CI 2.14–3.72, P < 0.001). HIV+: not reported.
Moore (2019)	Comparing youth-friendly health services to the standard of care through "Girl Power-Malawi": a quasi-experimental cohort study	Malawi	Cohort with comparison group(s)	Adolescents	1,000	Standard of care facility-based testing vs youth-friendly health services	<b>Received HIV testing:</b> SOC: 72% of 250, youth-friendly: 97% of 750. HIV+: not reported.
Muhula (2016)	Uptake and linkage into care over one year of providing HIV testing and counselling through community and health facility testing modalities in urban informal settlement of Kibera, Nairobi Kenya	Kenya	Cross-sectional	General public	18,591	Facility-based testing, community-based testing	Unknown number offered tests. Tested at facility: 72.5% (13,485/18,591), Tested at community site: 27.5% (5,106/18,591). HIV+: 5.2% (961/18,591).
Mulubwa (2018)	Community based distribution of oral HIV self-testing kits in Zambia: a cluster-randomised trial nested in four HPTN 071 (PopART) intervention communities	Zambia	RCT	Adults	26,973	HBHCT vs home-based distribution of HIVST kits	Known HIV status at end of intervention: Self-test: 68% (9027/13,267), HBHCT: 65% (8952/13,706). HIV+: 9.4% (2,540/26,973).
Musarandega (2018)	Scaling up pediatric HIV testing by incorporating provider-initiated HIV testing into all child health services in Hurungwe District, Zimbabwe	Zimbabwe	Pre- and Post-intervention	Children/ Adolescents	12,556	Nurses HIV offer testing for all 0-5 children who have not been tested before.	12,556 children in clinic. 7,326 children were tested; 7,167 received test results of whom 122 (1.7%) were HIV-infected. Number of HIV-infected children identified compared to 6 mo prior to intervention: RR=1.55; 95% CI 1.22 - 1.96
Mwenda (2018)	Significant patient impact observed upon implementation of Point-Of-Care early infant diagnosis technologies in an observational study in Malawi	Malawi	Cohort without comparison group	Pregnant Women, Partners, Infants	1752	point of care HIV testing	Time from sample collection to patient receiving results decreased from 56 days (interquartile range [IQR], 30–81 days) in the baseline arm to <1 day in the POC arm (P < .001). HIV+ results: 4.6% (76/1,699).
Ndondoki (2013)	Universal HIV screening at postnatal points of care: which public health	Côte d'Ivoire	Cross-sectional	Pregnant Women,	3,013 children	Trained counselors offered systematic HIV	1,817 mothers (61%) accepted to test for HIV, of whom 81 were HIV-infected

	approach for early infant diagnosis in Côte d'Ivoire?			Partners, Infants	born to 2,986 mothers	screening to all children aged 6–26 weeks attending Postnatal POC, as well as their parents/caregivers.	(4.5%; 95% CI: [3.5%–5.4%]). Of the 81 HIV-exposed children, 42 (52%) had provided parental consent and were tested: five were HIV-infected (11.9%; 95% CI: [2.1%–21.7%]).
Ndori-Mharadze (2018)	Changes in engagement in HIV prevention and care services among female sex workers during intensified community mobilization in 3 sites in Zimbabwe, 2011 to 2015	Zimbabwe	Cohort with comparison group(s)	FSW	915	Nationally scaled comprehensive program with community mobilization and peer educators	<b>HIV-negative FSWs reporting HIV negative test in past 6 months:</b> Hwange: 78.1% (25.1% pre-intervention), Mutare: 78.6% (30.3% pre-intervention), Victoria Falls: 80.8% (13.4% pre-intervention). Post-intervention HIV prevalence: Hwange: 41.3%, Mutare: 63.7%, Victoria Falls: 62.1%. Raw numbers not reported.
Njuguna (2018)	Financial incentives to increase pediatric HIV testing: a randomized trial	Kenya	RCT	Partners or contacts of PLHIV	452 Caregivers	Randomized financial incentives for adults living with HIV to have their children tested	Caregivers who had their children test within 2 months of randomization: \$0 34% (n=31); \$1.25 35% (n=31); \$2.50 47% (n=44); \$5 55% (n=51); \$10 61% (n=54). Compared with the \$0 arm, and adjusted for site, caregivers in the \$10.00 arm had significantly higher uptake of testing [relative risk: 1.80 (95% CI 1.15--2.80), P=0.010]. HIV+: not reported.
Nsirim (2018)	Effectiveness of provider-initiated testing and counseling in increasing HIV testing and counselling utilization and HIV detection rates in Ebonyi State, South-Eastern Nigeria	Nigeria	Pre- and Post-intervention	General public	Pre-intervention: 50,898 Post-intervention: 22,153	PITC	<b>Received testing:</b> PITC: 53% (11,787/22,153), VCT: 6.2% (3,172/50,898). <b>HIV+:</b> PITC: 1.3% (158/11,787), VCT: 1.1% (34/3,172).
Nuwagaba-Biribonwoha (2010)	Introducing a multi-site program for early diagnosis of HIV infection among HIV-exposed infants in Tanzania	Tanzania	Cohort without comparison group	Pregnant Women, Partners, Infants	510	Health facility workers trained in identification of HIV-exposed infants	510 HIV-exposed infants identified, 86% tested with DNA PCR and 75 (17%) were PCR positive.
Nuwaha (2012)	Effect of home-based HIV counselling and testing on stigma and risky sexual behaviors': serial cross-sectional studies in Uganda	Uganda	Pre- and Post-intervention	Adults	2964	HBHCT	<b>Reported ever testing for HIV:</b> Pre-intervention: 18.6% (261/1402), Post-intervention: 62.1% (969/1,562). <b>Disclosed HIV+ Status:</b> Pre-intervention:



							14.2% (37/261), Post-intervention: 11.4 (110/969).
Odeny (2018)	Participation in a clinical trial of a text messaging intervention is associated with increased infant HIV testing: A parallel-cohort randomized controlled trial	Kenya	RCT	Pregnant Women, Partners, Infants	1,115	HIV pregnant women randomized to Arm A Trial SMS) 14 SMS sent throughout third trimester and post-partum or Arm B Trial Control) eligible for trial, randomized to standard of care. Comparison Cohort: Not eligible for trial, followed with standard of care	The cumulative probability of infant HIV testing was highest in the Trial SMS group (92.0%; 95% CI 87.5-95.3), followed by the Trial Control group (85.1%; 95% CI 79.5-89.8), and lowest among women in the Comparison Cohort (43.4%; 95% CI 39.2-47.8). HIV+: not reported.
Ogbo (2017)	Assessment of provider-initiated HIV screening in Nigeria with sub-Saharan African comparison	Nigeria	Cohort with comparison group(s)	General public	212	PITC	199/212 (94%) accepted HIV testing; HIV+: 9%.
Oldenburg (2018)	Effect of HIV self-testing on the number of sexual partners among female sex workers in Zambia	Zambia	RCT	FSW	965	Peer distribution of HIVST, coupons for HIVST, or referral to facility-based testing. Follow-up of (Chanda et al, 2017).	<b>Reported clients per night at 4 months:</b> significantly fewer in direct delivery arm (mean difference -0.78 clients, 95% CI -1.28 to -0.28, $P=0.002$ ) and coupon arm (-0.71, 95% CI -1.21 to -0.21, $P=0.005$ ) compared with standard of care. <b>Reported nonclient partners:</b> fewer in direct delivery arm (-3.19, 95% CI -5.18 to -1.21, $P=0.002$ ) and coupon arm (-1.84, 95% CI -3.81 to 0.14, $P=0.07$ ) arm compared with standard of care.
Orne-Gliemann (2013)	Increasing HIV testing among male partners	Cameroon	RCT	Pregnant Women, Partners, Infants	484	Couples-oriented post-test HIV counseling in ANC visits	HIV prevalence in the study sample was 11.6%. 59 partners (24.7%) were tested for HIV in couples-oriented counseling group versus 35 (14.3%) in standard post-test HIV counselling group.
Ortblad (2017)	Direct provision versus facility collection of HIV self-tests among female sex workers in Uganda: A cluster-randomized	Uganda	RCT	FSW	960	Peer distribution of HIVST, coupons for HIVST, or referral to facility-based testing	<b>HIV testing at 4 months from intervention:</b> HIVST provision: 99.6% (261/262), HIVST coupon: 97.0% (288/297), Facility-based testing: 87.1%

	controlled health systems trial						(263/302). <b>HIV+</b> : 21.0% (177/843).
Parker (2015)	Feasibility and effectiveness of two community-based HIV testing models in rural Swaziland	Swaziland	Cohort without comparison group	General public	12,269	mobile testing and HBHCT	<b>Mobile testing</b> : 2,034 individuals tested, unknown total offered. <b>HBHCT</b> : 26% (2,005/7,681) houses visited. 71% (8,768/12,269) of individuals present, 86% (6,452/7,484) of eligible individuals agreed to testing, additional 597 individuals tested outside of households. <b>HIV+</b> : 3.7% (339/9,060)
Rollins (2009)	Universal HIV testing of infants at immunization clinics: an acceptable and feasible approach for early infant diagnosis in high HIV prevalence settings	South Africa	Cohort without comparison group	Pregnant Women, Partners, Infants	646	Routine HIV testing of infants was offered to all mothers bringing infants for immunizations at three clinics	Acceptance: 584 (90.4%) agreed to HIV testing of their infant. Maternal HIV status: 247 of 584 (42.3%) infant dried blood spot samples had HIV antibodies. 9.2% (54/584) of all infants tested were positive for HIV DNA by PCR .
Rosenberg (2016)	Recruiting the social contacts of patients with STI for HIV screening in Lilongwe, Malawi: process evaluation and assessment of acceptability	Malawi	Cohort without comparison group	Other: People with STIs	135	Network referrals (coupons) to STI clinic by 1) patients with HIV, 2) patients with STIs, not HIV positive, and 3) community controls	1 month follow up: 66% (89/135) of recruiters returned to clinic. Mean of 4.1 coupons (of 5) distributed per recruiter. Mean of 2.6 contacts attended clinic per recruiter. Unknown number of contacts tested.
Sarna (2019)	Cell phone counseling improves retention of mothers with HIV infection in care and infant HIV testing in Kisumu, Kenya: a randomized controlled study	Kenya	RCT	Pregnant Women, Partners, Infants	404	Cell phone counselling intervention to promote retention in care and testing of HEI	HEI received testing: intervention: 92.8% (181/195), control: 68.1% (128/188). <b>HIV+</b> : 2.9% (9/308).
SEARCH Collaboration (2017)	Evaluating the feasibility and uptake of a community-led HIV testing and multi-disease health campaign in rural Uganda	Uganda	Cohort without comparison group	Adults	3,016	Multi-disease community health campaign	Campaign participation: 53% (1,584/3,016). Accepted HCT: 93% (1,474/1,584). <b>HIV+</b> : 7.1% (107/1,474).
Shah (2018)	A pilot study of "peer navigators" to promote uptake of HIV testing, care and treatment among street-connected children and youth in Eldoret, Kenya	Kenya	Cohort without comparison group	Children/ Adolescents	781	Referrals to testing by peers to street-connected youth	Consented to testing: 88.8% (647/781). <b>HIV+</b> : 8.1% (63/781), Newly diagnosed <b>HIV+</b> : 1.7%.

Shamu (2019)	Comparison of community-based HIV counselling and testing (CBCT) through index client tracing and other modalities: Outcomes in 13 South African high HIV prevalence districts by gender and age	South Africa	Cohort without comparison group	Partners or contacts of PLHIV	1,282,369	Index tracing with HBHCT compared to general population mobile, workplace, and HBHCT	Tested through index tracing: 3.9% of 1,282,369 testers in a 2 year period. Unknown number of contacts offered testing or failed to be traced. HIV+ in index tracing: 10.3%. HIV+ in all testing modalities: 7.4%.
Shamu (2018)	Social franchising of community-based HIV testing and linkage to HIV care and treatment services: an evaluation of a pilot study in Tshwane, South Africa	South Africa	Cohort with comparison group(s)	General public	84,556	Franchising of HCT (lay counsellors as independent small-scale business owners) vs employee-managed HCT program	Social franchisee HCT tested 42,697 individuals and employee HCT tested 41,859. Unknown number of individuals offered tests. HIV+: Social franchisee: 10.2% (4,342/42,697), Employee: 5.9% (2,453/41,859).
Shanaube (2017) A	Community intervention improves knowledge of HIV status of adolescents in Zambia: findings from HPTN 071-PopART for youth study	Zambia	Cohort without comparison group	Adolescents	15,465	HBHCT	Accepted intervention: 72.3% (11,175/15,465). Known HIV status at end of intervention: 88.5% (9,626/10,884). HIV+: 1.9% (210/10,884).
Shanaube (2017) B	What works - reaching universal HIV testing: lessons from HPTN 071 (PopART) trial in Zambia	Zambia	Cohort without comparison group	Adults	121,130	HBHCT	Accepted intervention: 83.5% (101,102/121,130). Accepted HIV testing: 72.2% (66,894/92,612). HIV+: 12.8% (12,840/100,344).
Singh (2012)	A venue-based approach to reaching MSM, IDUs and the general population with VCT: a three study site in Kenya	Kenya	Cohort without comparison group	MSM, PWID	Total: 2,238. MSM: 262. PWID: 154.	Venue-based testing	<b>Accepted testing:</b> MSM in Malindi 97.3% (255/262), PWID: 98.1% (151/154). General: 55.1% (1,004/1,822). <b>HIV+:</b> MSM: 19.8%, PWID: 22.7%, general population: 9.1% (58/634).
Sutcliffe (2017)	Use of mobile phones and text messaging to decrease the turnaround time for early infant HIV diagnosis and notification in rural Zambia: an observational study	Zambia	Cohort without comparison group	Pregnant Women, Partners, Infants	419	SMS messaging notifying mothers of HEI's HIV results or availability of results vs communicating via rural health centers.	<b>Median time from results to clinic to disclosure to mother:</b> <b>HIV+ results:</b> SMS: 18 days (IQR: 5, 40), 3 infants died before disclosure; Via Health Center: 15 days (IQR: 7, 57), 2 infants died before disclosure. <b>HIV- or indeterminate results:</b> SMS: 35 days (IQR: 21, 54). Via Health Center: 39 days (IQR: 18, 61). <b>HIV + Test Results:</b> 8.3% (42/509).

Tembo (2019)	Enhancing an HIV index case testing passive referral model through a behavioural skills-building training for healthcare providers: a pre-/post-assessment in Mangochi District, Malawi	Malawi	Pre- and Post-intervention	Partners or contacts of PLHIV	36 testing facilities	Training for HCW on eliciting more untested sexual contacts and increased partner disclosure counselling	<b>Mean number tested per clinic per month:</b> pre-intervention: 743.9, post-intervention: 854.9. <b>Newly identified as HIV+ per clinic per month:</b> pre-intervention: 24.7, post-intervention: 30.3. <b>Mean number tested with a family referral slip per clinic per month:</b> pre-intervention: 11.1, post-intervention: 24.8
Theron (2010)	Rapid intrapartum or postpartum HIV testing at a midwife obstetric unit and a district hospital in South Africa	South Africa	RCT	Pregnant Women, Partners, Infants	542	Women received VCT either while in labor or after delivery.	<b>Accepting VCT:</b> 66.8% (161 of 241) in the intrapartum arm and 60.5% (182 of 301) in the postpartum arm; the difference of 6.3% (95% CI, -1.8% to 14.5%) was not significant. <b>HIV+: 13.1% (45/343).</b>
Theuring (2016)	Increasing Partner Attendance in Antenatal Care and HIV Testing Services: Comparable Outcomes Using Written versus Verbal Invitations in an Urban Facility-Based Controlled Intervention Trial in Mbeya, Tanzania	Tanzania	RCT	Pregnant Women, Partners, Infants	199	Invitation letters to improve male involvement in antenatal care and couples VCT vs verbal invitation	30.9% of women in intervention group (30/97) returned with their male partners for ANC. 27.5% (28/102) returned with their partner in control. In both groups Couples VCT rates among jointly returning couples were 100%. HIV+: not reported.
Thurman (2016)	Promoting uptake of child HIV testing: an evaluation of the role of a home visiting program for orphans and vulnerable children in South Africa	South Africa	Cohort with comparison group(s)	Children/ Adolescents	1,324	HBHCT vs households not yet visited	History of testing for HIV: Cohort after intervention 44.3% (301/680). Control cohort (prior to intervention): 29.8% (192/644). HIV+: Not reported.
Tih (2019)	Assisted HIV partner notification services in resource-limited settings: experiences and achievements from Cameroon	Cameroon	Cohort with comparison group(s)	Partners or contacts of PLHIV	21,057	Index patients offered patient referral, contract referral, or provider referral.	18,730 index patients participated, unknown offered. 21,057 identified partners. Notified of exposure: 61.1% (12,867/21,057). Tested for HIV: 71.5% (9,202/12,867). HIV+: 51.8% (4,764/9,202). IPV reported: 1.1% (11/976).
Topp (2012)	Does provider-initiated counselling and testing (PITC) strengthen early diagnosis and treatment initiation? Results from an analysis of an urban cohort	Zambia	Cohort with comparison group(s)	Other: PLHIV	10,919	VCT (Voluntary HIV testing) vs PITC	<b>Baseline CD4 count &lt;200:</b> PITC: 45% (899/1,998); VCT: 38.3% (3,262/8,506). <b>Group Characteristics (Full test statistics not reported):</b> % Men: PITC: 43.7%; VCT: 39.7%, p<0.0005

	of HIV-positive patients in Lusaka, Zambia						Children <15 years old: PITC: 10%; VCT: 7.4% Adults >35 years old: PITC: 36.7%; VCT: 34.9% Received primary education: PITC: 30.2%; VCT: 42.1% (p<0.0001) Able to report partner's HIV status: PITC: 21.0%; VCT: 31.9% (p<0.0001)
Truong (2019)	Implementation of a community-based hybrid HIV testing services program as a strategy to saturate testing coverage in Western Kenya	Kenya	Cohort without comparison group	General public	28,885	Community health fair and HBHCT	Eligible for HIV testing: 11,316. Accepted testing: 83% (9,463/11,316). HIV+: 16.8% (1,589/9,463), Newly identified HIV+: 7.2% (115/1,589).
Tun (2018)	Uptake of HIV self-testing and linkage to treatment among men who have sex with men (MSM) in Nigeria: A pilot programme using key opinion leaders to reach MSM	Nigeria	Cohort without comparison group	MSM	319	Peer distribution of HIVST kits	Completed 3 month follow-up: 80.7% (257/319). Used HIVST: 97.7% (251/257). HIV+: 5.6% (14/251).
Uwimana (2013)	Community-based intervention to enhance provision of integrated TB-HIV and PMTCT services in South Africa	South Africa	Cohort with comparison group(s)	General public	3,584	HBHCT provided with additional services including TB testing and prevention of mother to child HIV transmission interventions	<b>Willing to disclose if they had previous HIV testing:</b> Pre-intervention: 68% (1,666/2,449), of which 57% (956/1,666) had previous testing. Post-intervention: 92% (3,299/3,584), of which 75% (2,476/3,299) had previous testing. <b>HIV+:</b> not reported.
van Rooyen (2013) A	High HIV testing uptake and linkage to care in a novel program of home-based HIV counseling and testing with facilitated referral in KwaZulu-Natal, South Africa	South Africa	Cohort without comparison group	Adults	739	HBHCT with point of care CD4 testing and ART linkage	Received testing: 91% (671/739). HIV+: 30.0% (201/671).
van Rooyen (2013) B	Mobile VCT: reaching men and young people in urban and rural South African pilot studies (NIMH Project Accept, HPTN 043)	South Africa	Cohort without comparison group	Adults	1,015	Mobile testing	1,015 participated in mobile services. Accepted testing overall: 97.3% (988/1,015), urban: 99.0% (624/630), rural: 94.5% (364/385). HIV+ overall: 14.9% (147/988), urban: 13.9% (87/624), rural: 16.5% (60/364).
Wall (2019)	HIV testing and counselling couples together for affordable HIV prevention in Africa	Zambia	Pre- and Post-intervention	Other: Couples	414,856	Couples' voluntary HIV counseling and testing in 73 clinics	207,428 couples tested, unknown number offered testing. Concordant positive: 13%, Discordant: 8%.

Wanyenze (2013)	Abbreviated HIV counselling and testing and enhanced referral to care in Uganda: a factorial randomised controlled trial	Uganda	RCT	Other: Hospital Patients	3,415	Abbreviated HIV counselling and testing	<b>HIV+</b> : 30% (1,003/3,389). <b>Unprotected sex with an HIV discordant or status unknown partner (sexual risk behavior)</b> : After abbreviated counseling: 27.9% (232/832); After traditional counseling: 28.2% (251/890).
Wroe (2018)	Delivering comprehensive HIV services across the HIV care continuum: a comparative analysis of survival and progress towards 90-90-90 in rural Malawi	Malawi	Cohort with comparison group(s)	General public	Intervention group: 13 facilities. Control: 682 facilities.	Program changes including: a) community health workers, b) focus on social determinants of health, and c) strengthened primary and secondary healthcare systems	Average tests performed annually as a percent of the total adult population: 12.6%. Testing rates did not significantly differ between intervention facilities and control facilities. HIV+ rate estimated for each district.
Yumo (2018)	Active case finding: comparison of the acceptability, feasibility and effectiveness of targeted versus blanket provider-initiated-testing and counseling of HIV among children and adolescents in Cameroon	Cameroon	Cohort with comparison group(s)	Children/ Adolescents	4,719	Targeted PITC of children of PLHIV (tPITC) vs Blanket PITC (bPITC)	<b>Parents willing to have children tested:</b> tPITC: 99.7% (1236/1240); bPITC: 98.8% (2430/2459). <b>Children tested:</b> tPITC: 56.7%; bPITC: 90.3%. <b>HIV+</b> : tPITC: 3.5% (CI:2.4-4.5); bPITC:1.6% (CI:1.1-2.1) p = 0.0008.
Yumo (2019)	Effectiveness of symptom-based diagnostic HIV testing versus targeted and blanket provider-initiated testing and counseling among children and adolescents in Cameroon	Cameroon	Cohort with comparison group(s)	Children/ Adolescents	10,534	Targeted PITC of children of PLHIV (tPITC) vs Blanket PITC (bPITC) implemented after baseline of symptom-based diagnostic testing (baseline).	Mean monthly number of patients seen in clinic: baseline: 981.8; bPITC+tPITC: 773.8. Mean monthly tests: baseline: 223.0; bPITC: 348.3; bPITC+tPITC: 542.2. Mean monthly number testing HIV+: baseline: 10.5; bPITC: 9.7; bPITC+tPITC: 20.3.

**Abbreviations:** PITC: Provider Initiated Testing and Counseling. VCT: Voluntary Counseling and Testing. HCT: HIV Counseling and Testing. HBHCT: Home-base HIV Counseling and Testing. ANC: Antenatal Clinic. HEI: HIV exposed infant. HIVST: HIV Self-test. PLHIV: People living with HIV. FSW: Female sex worker. MSM: Men who have sex with men. PWID: People who inject drugs. ART: Antiretroviral therapy. HCW: Healthcare worker. CI: 95% confidence interval. IQR: interquartile range. RCT: Randomized Controlled Trial.