

Correction: *The cost effectiveness and optimal configuration of HIV self-test distribution in South Africa: a model analysis*

Jamieson L, Johnson LF, Matsimela K, *et al*. The cost effectiveness and optimal configuration of HIV self-test distribution in South Africa: a model analysis. *BMJ Global Health* 2021;6:e005598. DOI: <http://dx.doi.org/10.1136/bmjgh-2021-005598>

An error in applying the average cost of one of the HIV self-test modalities, the distribution to workplaces modality, resulted in the cost of this modality to be less expensive than it should have been. As the cost is applied to both the baseline scenario and the workplace scenario, it affects several results throughout the paper. After corrections, workplace testing was not cost-saving in Scenario A, although it remained one of the more cost-effective distribution strategies with one of the lowest incremental cost effectiveness ratio. As a result of a change in the baseline, taxi rank distribution was cost-saving in Scenario A. Of note is that this error had minimal impact on the optimal configuration of HIVST distribution when scaling up HIVST distribution.

The following corrections are noted in the Results text:

1. Under the costs paragraph,
 - a. "...workplace distribution was estimated to be cost-saving compared with the status quo, saving an estimated \$76 million..." should read "...taxi rank distribution was estimated to be cost-saving compared with the status quo, saving an estimated \$13 million..."
 - b. "\$166 million each over 20 years" should read "\$144 million each over 20 years"
 - c. "distribution through taxi ranks and fixed point distribution had an incremental cost to the HIV programme of \$9 million and \$44 million, respectively" should read "distribution through workplaces and fixed point distribution had an incremental cost to the HIV programme of \$12 million and \$22 million, respectively."
 - d. "Compared with the status quo, distribution of 6.7 million HIVST kits through workplaces was cost-saving (\$52 million over 20 years)" should be removed.
 - e. "\$198 million (for taxi ranks)" should read "\$176 million (for taxi ranks)".
2. Under the cost-effectiveness paragraph,
 - a. "With the exception of workplace distribution, which was cost-saving" should read "With the exception of taxi rank distribution, which was cost-saving".
 - b. "taxi ranks (\$194/life year saved and \$438/HIV infection averted)" should read "workplaces (\$302/life year saved and \$1,286/HIV infection averted)".
 - c. "\$705/life year saved and \$3,092/HIV infection averted" should read "\$351/life year saved and \$1,541/HIV infection averted".
 - d. "\$1,394 and \$2,899/life year saved" should read "\$1,207 and \$2,510/life year saved".
 - e. "\$2,030/life year saved and \$4,019/HIV infection averted" should read "\$1,802/life year saved and \$3,568/HIV infection averted".
 - f. "\$4,162/life year saved and \$14,688/HIV infection averted" should read "\$4,106/life year saved and \$14,488/HIV infection averted".
3. Under the Optimisation paragraph,
 - a. "Distributing the majority (IQR 38%–63%) of the 1 million HIVST kits through workplaces led to cost savings over 20 years, compared with the status quo distribution; LYS was estimated to range between 100 and 24,000" should read "Distributing the majority (IQR 38%–63%) of the 1 million HIVST kits through primary PHC led to cost savings over 20 years, compared with the status quo distribution, however this had a relatively small, even harmful, impact on LYS, ranging between –10,000 (ie, a harmful effect) and 16,000"

- b. “large portion of HIVST kits were distributed to workplaces (IQR 13–38%)” should read “large portion of HIVST kits were distributed to taxi ranks (IQR 6–38%)”
 - c. “IQR 0%–38% each for fixed point and taxi rank distribution” should read “IQR 0%–38% each for fixed point and workplace distribution”
 - d. “IQR 0%–25% each for secondary distribution to partners of ART patients and primary distribution to PHC clients, while secondary distribution to partners of ANC clients had the lowest allocation (IQR 0%–13%)” should read “IQR 0%–25% for primary distribution to PHC clients, while secondary distribution to partners of ART patients and ANC clients had the lowest allocation (IQR 0%–13%)”
 - e. “IQR of \$2,100 to \$2,600 per life year saved” should read “IQR of \$1,900 to \$2,300 per life year saved”
 - f. “Configurations of HIVST distribution relying mainly on secondary distribution to partners of ANC clients (IQR 25%–63%) or primary PHC distribution (13%–50%) were the least cost-effective, with ICERs upwards of \$4,000 per life year saved, and even dominated (if 60% or more of HIVST was distributed to primary PHC)” should read “Configurations of HIVST distribution relying mainly on secondary distribution to partners of ANC clients (IQR 13%–38%) and primary PHC distribution (0%–38%) were the least cost-effective, with ICERs upwards of \$2,000 per life year saved, and even dominated (if 75% or more of HIVST was distributed to primary PHC)”
 - g. “\$2,400 to \$4,300 per life year saved” should read “\$3,309 to \$4,300 per life year saved”
 - h. “64% to partners of ART patients, 9% each epidemiological fixed point, taxi ranks and workplaces, and none to partners of PHC ANC clients and primary PHC clients” should read “55% to partners of ART patients, 18% each to fixed point and taxi ranks, 9% to partners of PHC ANC clients and none to workplaces or primary PHC clients”
 - i. “and it would have a lower ICER (\$3,990 vs \$4,493 per LYS)” should read “and it would have a lower ICER (\$3,923 vs \$5,373 per LYS).”
 - j. To be removed: “Distribution to workplaces was cost-saving only when 100% of all HIVST were distributed through this modality, and it had a moderate impact: saving 137,000 life years over 20 years”
 - k. “The distribution strategy with the lowest ICER/LYS were those where majority of HIVST kits were distributed to workplaces” should read “The distribution strategy with the lowest ICER/LYS were those where majority of HIVST kits were distributed to fixed point distribution points”
4. Under the “Comparing against a baseline of no HIVST” paragraph,
 - a. “Distributing most HIVST (>40%) to workplaces is the most cost-effective strategy, with ICERs falling below \$1,100 per life year saved” should read “Distributing a large portion HIVST (>25%) to taxi ranks is the most cost-effective strategy”
 - b. “Workplace distribution was the most cost-effective strategy (ICER <\$2,000/life year saved) but had a moderate epidemiological impact, ranging between 170,000 and 200,000 LYS” should read “Distributing majority of HIVST kits to fixed points was the most cost-effective strategy compared with other configurations (ICER <\$3,000/life year saved) but had a moderate epidemiological impact, ranging between 164,000 and 238,000 LYS”
 5. Under the Discussion, “workplaces will be cost-saving” should read “taxi ranks will be cost-saving”
 6. Under the Conclusion, “a mix between secondary distribution of HIVST kits to partners of ART patients and pregnant women in care at PHC, workplace testing and fixed point HIVST distribution.” should read “a mix between secondary distribution of HIVST kits to partners of ART patients and pregnant women in care at PHC, taxi ranks and fixed point HIVST distribution.”

Corrected versions of Table 2, Figures 1-3, Figures S1-S4 are below.

Table 2 Impact of HIVST distribution modalities on HIV infections, life years lost due to AIDS and incremental cost (2019 USD) on the HIV programme, over 2020-39, compared to a baseline status quo distribution of 1 million HIVST annually

| | Status quo distribution | HIVST | | | | | |
|--|-------------------------|-------------|-------------|---------------------|------------------------------|------------|--------------|
| | | Fixed point | Taxi ranks | Secondary PHC (ANC) | Secondary PHC (ART patients) | Workplace | Primary PHC |
| Scenario A: Distributing 1 million HIVST per year | | | | | | | |
| New HIV infections, millions | 2.57 | 2.55 | 2.55 | 2.54 | 2.54 | 2.56 | 2.58 |
| HIV infections averted, thousands (%) | | 14 (0.6%) | 20 (0.8%) | 28 (1.1%) | 27 (1.1%) | 9 (0.4%) | -14 (-0.6%) |
| Life years lost due to AIDS, millions | 36.5 | 36.44 | 36.45 | 36.44 | 36.38 | 36.46 | 36.55 |
| life years saved, thousands (%) | | 63 (0.2%) | 46 (0.1%) | 57 (0.2%) | 119 (0.3%) | 40 (0.1%) | -48 (-0.1%) |
| AIDS deaths, thousands | 1,011 | 1,010 | 1,011 | 1,010 | 1,008 | 1,010 | 1,012 |
| deaths averted, thousands (%) | | 1.4 (0.1%) | 0.70 (0.1%) | 0.8 (0.1%) | 3.6 (0.4%) | 0.9 (0.1%) | -1.0 (-0.1%) |
| Total cost of the HIV programme | 28.79 | 28.81 | 28.77 | 28.93 | 28.93 | 28.8 | 28.76 |
| incremental cost, millions | | 22 | -13 | 144 | 144 | 12 | -28 |
| Incremental cost-effectiveness ratio | | | | | | | |
| cost/infection averted | | 1,541 | Cost-saving | 5,186 | 5,270 | 1,286 | Dominated |
| cost/life years saved | | 351 | Cost-saving | 2,510 | 1,207 | 302 | Dominated |
| cost/AIDS death averted | | 15,797 | Cost-saving | 173,299 | 40,300 | 14,230 | Dominated |
| Scenario B: Distributing up to 6.7 million HIVST per year (to replace 40% of conventional HTS) | | | | | | | |
| New HIV infections, millions | 2.57 | 2.51 | 2.52 | 2.53 | 2.46 | 2.52 | 2.58 |
| HIV infections averted, thousands (%) | | 63 (2.5%) | 49 (1.9%) | 34 (1.3%) | 112 (4.3%) | 51 (2.0%) | -14 (-0.6%) |
| Life years lost due to AIDS, millions | 36.5 | 36.29 | 36.4 | 36.43 | 36.11 | 36.34 | 36.55 |
| life years saved, thousands (%) | | 205 (0.6%) | 98 (0.3%) | 66 (0.2%) | 393 (1.1%) | 156 (0.4%) | -48 (-0.1%) |
| AIDS deaths, thousands | 1,011 | 1,007 | 1,010 | 1,010 | 1,000 | 1,008 | 1,012 |
| deaths averted, thousands (%) | | 4.6 (0.5%) | 1.5 (0.2%) | 1.0 (0.1%) | 11.1 (1.1%) | 3.2 (0.3%) | -1.0 (-0.1%) |
| Total cost of the HIV programme, billions | 28.79 | 29.31 | 28.96 | 29.01 | 30.4 | 29.26 | 29.02 |
| incremental cost, millions | | 522 | 176 | 218 | 1,615 | 475 | 228 |
| Incremental cost-effectiveness ratio | | | | | | | |
| cost/infection averted | | 8,283 | 3,568 | 6,488 | 14,488 | 9,237 | Dominated |
| cost/life years saved | | 2,543 | 1,802 | 3,302 | 4,106 | 3,045 | Dominated |
| cost/AIDS death averted | | 114,438 | 114,850 | 227,875 | 145,395 | 148,111 | Dominated |

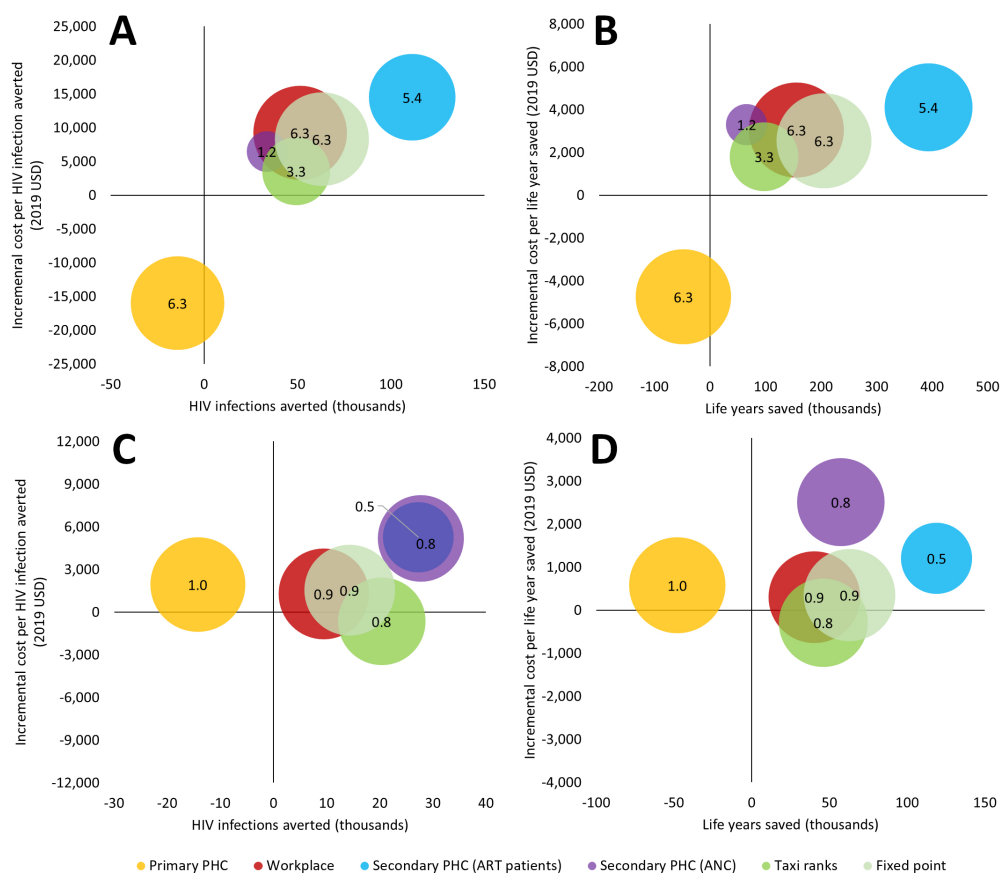


Figure 1

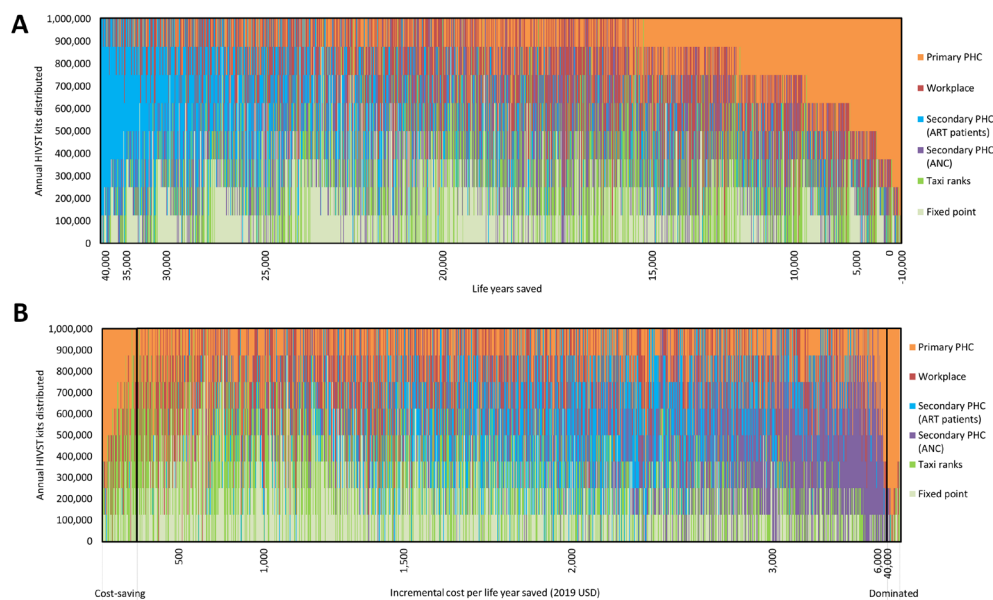


Figure 2

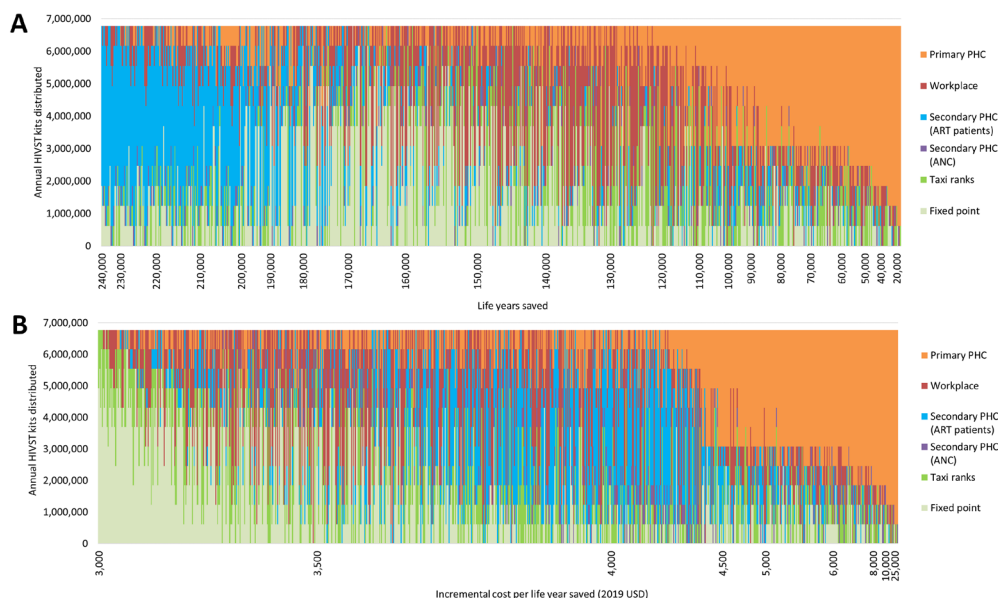


Figure 3

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