**Supplementary Digital Content 1: Primary and Secondary drivers of retention**

**Primary driver**

**Secondary driver**

Low uptake of FP methods

**Low utilization of Health services**

Stigma

Poor staff attitude

**Overall time spent**

**Quality of service**

Poor staff attitude

Inadequate skilled personnel

Poor Infrastructure

Poor culture of repeat testing of client after 3 months of 1st test

Poor staff punctuality

Limited HRH

Distance between service points

**Supplementary Digital Content 2: Facility and individual level strike exposure, facility level client satisfaction and overall time spent, by study arm.**

|  |  |  |
| --- | --- | --- |
| **Variables** | **Study arm** | |
| **Control (No. %)** | **Intervention (No. %)** |
| **Facility level of strike experience (%); N=26** | | |
| Mean(SD); median; range | 24.2 (15.5); 20.0; 0.0-40.0 | 18.9 (15.8); 17.5; 0.0-40.0 |
| **Woman's level of exposure to strike (%); N=511** | | |
| Mean(SD); median; range | 11.2 (21.5); 0.0; 0.0-100.0 | 11.8 (23.4); 0.0; 0.0-100.0 |
| **Baseline overall time spent by patient attending ANC services (minutes); N=26** | | |
| Mean(SD); median; range | 139.3 (50.8); 129.0; 52.0-229.0 | 182.2 (84.4); 175.0; 22.0-389.0 |
| **End of follow up level of overall time spent by patient attending ANC services (minutes); N=26** | | |
| Mean(SD); median; range | 203.7 (75.3); 201; 43.0-406.0 | 133.1 (54.8); 125.0; 40.0-270.0 |
| **Baseline client satisfaction assessment % score; N=26** | | |
| Mean(SD); median; range | 76.54 (8.98); 80.0; 40.0-90.0 | 78.11 (8.98);78.33; 53.3-100.0 |
| **End of follow up client satisfaction assessment % score; N=26** | | |
| Mean(SD); median; range | 79.21 (10.79); 79.17; 53.3-100.0 | 79.39 (9.54); 80.0; 61.67-100.0 |

**Supplementary Digital Content 3: Background characteristics of HIV-positive pregnant women, “per protocol” analysis (N=437).**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Variable | Study arm | | | |
| Control | | Intervention | |
| No. | % | No. | % |
| **Age-group (Years)** | | | | |
| 15-19 | 12 | 5.7 | 9 | 4.0 |
| 20-24 | 66 | 31.1 | 67 | 29.8 |
| 25+ | 134 | 63.2 | 149 | 66.2 |
| **Marital status** | | | | |
| Others | 14 | 6.6 | 11 | 4.9 |
| Married | 198 | 93.4 | 214 | 95.1 |
| **Highest level of education** | | | | |
| Less than secondary | 96 | 45.3 | 88 | 39.1 |
| Secondary | 86 | 40.6 | 119 | 52.9 |
| Tertiary | 30 | 14.2 | 18 | 8.0 |
| **Gestational age (weeks)** | | | | |
| Below 13 weeks | 26 | 12.3 | 28 | 12.4 |
| 13-27 weeks | 131 | 61.8 | 142 | 63.1 |
| >=28 weeks | 55 | 25.9 | 55 | 24.4 |
| **Parity** | | | | |
| 0 | 54 | 25.5 | 70 | 31.1 |
| 1-2 | 99 | 46.7 | 88 | 39.1 |
| 3 or more | 59 | 27.8 | 67 | 29.8 |
| **Religion** | | | | |
| Islam | 40 | 18.9 | 45 | 20 |
| Christian | 170 | 80.2 | 177 | 78.7 |
| Traditional/others | 2 | 0.9 | 3 | 1.3 |
| **Partner tested for HIV** | | | | |
| No | 142 | 67 | 160 | 71.1 |
| Yes | 70 | 33 | 65 | 28.9 |

**Supplementary Digital Content 4: Retention and operationalizing variables, “per protocol” analysis (N=437).**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Variable | **Attended 6-months scheduled visit** | | | |  |
| No | | Yes | |  |
| No. | % | No. | % |  |
| **Missed scheduled visit for more than 30 days** | | | | | |
| No | 85 | 65.4 | 215 | 70 |  |
| Yes | 45 | 34.6 | 92 | 30 |  |
| Total | 130 | 100 | 307 | 100 |  |
|  | **Study Arm** | | | |  |
| Control | | Intervention | |  |
| No. | % | No. | % | p-values\* |
| **Retention** | | | | | |
| Fully retained | 98 | 46.2 | 117 | 52.0 | 0.692 |
| Partially retained | 44 | 20.8 | 48 | 21.3 |  |
| Not retained | 70 | 33.0 | 60 | 26.7 |  |
| Total | 212 | 100.0 | 225 | 100.0 |  |
| **Retained in care(attended 6th month visit and did not miss a scheduled visit > 30 days)** | | | | | |
| No | 114 | 53.8 | 108 | 48 | 0.500 |
| Yes | 98 | 46.2 | 117 | 52 |  |
| Total | 212 | 100 | 225 | 100 |  |
| **Retained in care(attended 6th month visit )** | | | | | |
| No | 70 | 33 | 60 | 26.7 | 0.371 |
| Yes | 142 | 67 | 165 | 73.3 |  |
| Total | 212 | 100 | 225 | 100 |  |

\*Adjusted for clustering

**Supplementary Digital Content 5: Binomial log-linear regression of primary and secondary outcomes, “per protocol” analysis (N=437).**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Variable | (Model 1) | | (Model 2-ARR) | |
| RR | 95% CI | ARR | 95% CI |
| **Study arm** |  | | | |
| Control (reference) | 1 |  | 1 |  |
| Intervention | 1.084 | [0.80, 1.48] | 1.08 | [0.80, 1.47] |
| **Woman’s level of exposure to strike** |  |  | 0.99 | [0.99, 1.01] |

\* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001; RR = relative risk; ARR=Adjusted relative risk

**Supplementary Digital Content 6: Background characteristics of HIV-positive mothers by infant ARV initiation within 72 hours (N=403).**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Variables | Infant initiates ARV within 72hrs | | | | p-value  (adjusted for  clustering) |
| No | | Yes | |
| No. | % | No. | % |
| **Age-group(years)** | | | | | |
| 15-19 | 4 | 3.3 | 14 | 5.0 |  |
| 20-24 | 45 | 37.5 | 80 | 28.3 | 0.426 |
| 25+ | 71 | 59.2 | 189 | 66.8 |  |
| **Marital status** | | | | | |
| Others | 7 | 5.8 | 17 | 6 | 0.946 |
| Married | 113 | 94.2 | 266 | 94 |  |
| **Highest level of education** | | | | | |
| Less than secondary | 51 | 42.5 | 110 | 38.9 | 0.928 |
| Secondary | 57 | 47.5 | 140 | 49.5 |  |
| Tertiary | 12 | 10.0 | 33 | 11.7 |  |
| **Gestational age** | | | | | |
| Below 13 weeks | 15 | 12.5 | 36 | 12.7 | 0.903 |
| 13-27 weeks | 77 | 64.2 | 174 | 61.5 |  |
| >=28 weeks | 28 | 23.3 | 73 | 25.8 |  |
| **Parity** | | | | | |
| 0 | 34 | 28.3 | 82 | 29 | 0.981 |
| 1-2 | 53 | 44.2 | 121 | 42.8 |  |
| 3 or more | 33 | 27.5 | 80 | 28.3 |  |
| **Religion** | | | | | |
| Islam | 20 | 16.7 | 52 | 18.4 | 0.920 |
| Christian | 100 | 83.3 | 228 | 80.6 |  |
| Traditional/others | 0 | 0 | 3 | 1.1 |  |
| **Place of delivery** | | | | | |
| Outside facility | 66 | 55.0 | 63 | 22.3 | 0.003 |
| In facility | 54 | 45.0 | 220 | 77.7 |  |

**Supplementary Digital Content 7: Background characteristics of HIV-positive mothers by infant DBS collection within 6-10 weeks (N=403).**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Variables | Infant DBS collected within 6-10 weeks | | | | p-value  (adjusted for clustering) |
| No | | Yes | |
| No. | % | No. | % |
| **Age-group(years)** | | | | | |
| 15-19 | 13 | 5.2 | 5 | 3.3 |  |
| 20-24 | 70 | 27.8 | 55 | 36.4 | 0.415 |
| 25+ | 169 | 67.1 | 91 | 60.3 |  |
| **Marital status** | | | | | |
| Others | 13 | 5.2 | 11 | 7.3 | 0.383 |
| Married | 239 | 94.8 | 140 | 92.7 |  |
| **Highest level of education** | | | | | |
| Less than secondary | 124 | 49.2 | 37 | 24.5 | **0.039** |
| Secondary | 103 | 40.9 | 94 | 62.3 |  |
| Tertiary | 25 | 9.9 | 20 | 13.3 |  |
| **Gestational age** | | | | | |
| Below 13 weeks | 25 | 9.9 | 26 | 17.2 | 0.204 |
| 13-27 weeks | 160 | 63.5 | 91 | 60.3 |  |
| >=28 weeks | 67 | 26.6 | 34 | 22.5 |  |
| **Parity** | | | | | |
| 0 | 65 | 25.8 | 51 | 33.8 | 0.417 |
| 1-2 | 112 | 44.4 | 62 | 41.1 |  |
| 3 or more | 75 | 29.8 | 38 | 25.2 |  |
| **Religion** | | | | | |
| Islam | 47 | 18.7 | 25 | 16.6 | 0.886 |
| Christian | 202 | 80.2 | 126 | 83.4 |  |
| Traditional/others | 3 | 1.2 | 0 | 0 |  |
| **Place of delivery** | | | | | |
| Outside facility | 84 | 33.3 | 45 | 29.8 | 0.732 |
| In facility | 168 | 66.7 | 106 | 70.2 |  |

**Supplementary Digital Content 8: Background characteristics of HIV-positive mothers by infant CTX initiation within 6-10 weeks (N=403).**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Variables | Infant initiates CTX within 6-10 weeks | | | | p-value  (adjusted for clustering) |
| No | | Yes | |
| No. | % | No. | % |
| **Age-group(years)** | | | | | |
| 15-19 | 9 | 5.2 | 9 | 3.9 | 0.914 |
| 20-24 | 53 | 30.5 | 72 | 31.4 |  |
| 25+ | 112 | 64.4 | 148 | 64.6 |  |
| **Marital status** | | | | | |
| Others | 8 | 4.6 | 16 | 7 | 0.304 |
| Married | 167 | 95.4 | 212 | 93 |  |
| **Highest level of education** | | | | | |
| Less than secondary | 75 | 43.1 | 86 | 37.6 | 0.841 |
| Secondary | 81 | 46.6 | 116 | 50.7 |  |
| Tertiary | 18 | 10.3 | 27 | 11.8 |  |
| **Gestational age** | | | | | |
| Below 13 weeks | 21 | 12.1 | 30 | 13 | 0.973 |
| 13-27 weeks | 108 | 62.4 | 143 | 62.2 |  |
| >=28 weeks | 44 | 25.4 | 57 | 24.8 |  |
| **Parity** | | | | | |
| 0 | 45 | 25.7 | 71 | 31.1 | 0.519 |
| 1-2 | 75 | 42.9 | 99 | 43.4 |  |
| 3 or more | 55 | 31.4 | 58 | 25.4 |  |
| **Religion** | | | | | |
| Islam | 26 | 15 | 46 | 20 | 0.880 |
| Christian | 145 | 83.8 | 183 | 79.6 |  |
| Traditional/others | 2 | 1.2 | 1 | 0.4 |  |
| **Place of delivery** | | | | | |
| Outside facility | 84 | 48.0 | 110 | 48.2 | 0.133 |
| In facility | 91 | 52.0 | 118 | 51.8 |  |