Supplemental Digital Content 1: Antiretroviral and antihypertensive drugs used in the health facilities in the Bushbuckridge municipality in 2013.

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| **ART initiation and the criteria for initiation** | | |
| **Regimen** | **Criteria** | **ART** |
| 1 | 1. CD4 count is ≤ 350  2. Viral load < 400  3. Stage 3 or 4 disease,  pregnant or breastfeeding women regardless of CD4 count or viral load | Tenofovir (TDF), Lamivudine (3TC) and Efavirenz (EFV)  OR  Fixed Drug Combination (FDC) - Tenofovir/Emtricitabine/Efavirenz  **NB:**  1. Efavirenz (EFV) is replaced with Nevirapine (NVP) for patients with depression or psychosis.  2. Regimen 1 is replaced with Zidovudine (AZT) if pregnant with depression, psychosis, known kidney disease, disease, hypertension or ≥ 2+ proteinuria and refer patient to doctor. |
| 2 | Viral load > 1000 on two occasions | Lopinavir/ritonavir (LPV/r), Lamivudine (3TC) and AZT (if currently using TDF)  OR  TDF [if currently using AZT or Stavudine (d4T)] |
| **Antihypertensive and adjuvant drugs** | | |
| 1 | The most commonly prescribed antihypertensive drugs | Hydrochlorothiazide, Enalapril, Amlodipine and atenolol. |
| 2 | Adjuvant drugs prescribed for hypertension patients | Daily dose of simvastatin if the patient had Cardiovascular Disease (CVD) or a CVD risk > 20%  Daily aspirin dose if patients had CVD and/or diabetes |

\*Criteria for referral to doctor: abnormal blood results, poor adherence, TB symptoms depression or psychosis

Supplemental Digital Content 2a: Sampling of the study participants in the ICDM pilot facilities

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| Health facilities | Number of patients recorded in the clinic appointment roaster in July 2013. | | | | **\*Step 1 sampling**: proportionate sampling from the health facilities | **\*\*Step 2 sampling**: stratified sampling by chronic disease status | | |
| ART | HPT | DM | Total | ART | HPT | DM |
| A | 724 | 642 | - | 1366 | 165 | 88 | 77 | 0 |
| B | 146 | 715 | - | 861 | 104 | 18 | 86 | 0 |
| C | 41 | 325 | 7 | 373 | 45 | 5 | 39 | 1 |
| D | 84 | 274 | 6 | 364 | 44 | 10 | 33 | 1 |
| E | 66 | 50 | - | 116 | 14 | 8 | 6 | 0 |
| F | 50 | 215 | - | 265 | 32 | 6 | 26 | 0 |
| G | 49 | 208 | - | 257 | 31 | 6 | 25 | 0 |
| Total | 1160 | 2429 | 13 | 3602 | 435 | 141 | 292 | 2 |

***#ART, HPT and DM = HIV/AIDS, hypertension and diabetes mellitus patients, respectively.***

**\*Step 1: proportionate sampling for each health facility was achieved by multiplying the sampling fraction by the total number of patients in each health facility**

Sampling fraction = 435/3602 = 0.1207

Where 435 = calculated study sample size and 3602 = total sampling frame

Example of proportionate sampling for clinic A: 0.1207 x 1366 = 165, where 1366 is the total number of patients in health facility A.

**\*\*Step 2: stratified sampling in each health facility**

Example of stratified sampling in health facility A

53% (724/1366) and 47% (642/1366) of the total number of patients in health facility A were HIV and hypertension patients, respectively. Of the 165 patients recruited in health facility A, 53% (n=88) were HIV patients and 47% (n=77) were hypertension patients.

Supplemental Digital Content 2b: Sampling of patients in the comparison facilities

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| Health facilities | Number of patients recorded in the clinic appointment roaster in July 2013. | | | | **\*Step 1 sampling**: proportionate sampling from the health facilities | **\*\*Step 2 sampling**: stratified sampling by chronic disease status | | |
| ART | HPT | DM | Total | ART | HPT | DM |
| A | 365 | 115 | - | 480 | 58 | 44 | 14 | 0 |
| B | 231 | 175 | - | 406 | 49 | 28 | 21 | 0 |
| C | 107 | 125 | - | 232 | 28 | 13 | 15 | 0 |
| D | 233 | 156 | - | 389 | 47 | 28 | 19 | 0 |
| E | 1426 | 713 | 22 | 2161 | 261 | 173 | 86 | 2 |
| Total | 2362 | 1284 | 22 | 3668 | 443 | 286 | 155 | 2 |

***#ART, HPT and DM = HIV/AIDS, hypertension and diabetes mellitus patients, respectively.***

**\*Step 1: proportionate sampling for each health facility was achieved by multiplying the sampling fraction by the total number of patients in each health facility**

Sampling fraction = 443/3668 = 0.121

Where 443 = calculated study sample size and 3668 = total sampling frame

Example of proportionate sampling for clinic A: 0.121 x 480 = 58, where 480 is the total number of patients in health facility A.

**\*\*Step 2: stratified sampling in each health facility**

Example of stratified sampling in health facility A

76% (365/480) and 24% (115/480) of the total number of patients in health facility A were HIV and hypertension patients, respectively. Of the 58 patients recruited in health facility A, 76% (n=44) were HIV patients and 24% (n=14) were hypertension patients.

Supplemental Digital Content 3: Number of monthly visits of the sampled patients who utilized primary health care facilities from January 2011 to October 2014 in Bushbuckridge municipality

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| --- | --- | --- | --- | --- |
| Years-Months | ICDM pilot facilities | | Comparison facilities | |
|  | Hypertension (n=210) | HIV  (n=141) | Hypertension  (n=91) | HIV  (n=282) |
| 2011  January  February  March  April  May  June  July  August  September  October  November  December | 88  136  137  110  102  102  96  107  118  136  119  105 | 17  23  19  10  29  69  26  12  21  21  16  18 | 18  51  52  23  28  40  54  41  27  50  29  28 | 15  16  12  18  31  32  11  18  18  36  16  30 |
| 2012  January  February  March  April  May  June  July  August  September  October  November  December | 109  141  123  114  116  124  126  95  104  117  97  113 | 15  18  39  13  22  12  17  13  17  15  23  15 | 35  33  53  41  36  29  24  26  22  25  31  23 | 25  12  25  41  53  42  41  53  40  25  37  62 |
| 2013  January  February  March  April  May  June | 122  128  101  95  91  92 | 19  24  22  26  34  12 | 35  26  32  22  32  28 | 60  34  40  58  38  29 |

Table shows the number of patients managed for hypertension or HIV