# Supplemental material

FIGURE S1. 12-month prevalence of treatment for a mental disorder in men and women aged 15-49 years who were followed-up in private care (AfA), public primary care (Gugulethu, Khayelitsha), and public tertiary care (Tygerberg) ART programs, 2012-2017

Patients who had been admitted for a mental disorder or to a psychiatric health facility were considered to have received inpatient treatment for a mental disorder. Patients who had received antipsychotics (Anatomical Therapeutic Chemical [ATC] code N05A), anxiolytics (N05B), antidepressants (N06A), psychostimulants (N06B) or psychiatric combination drugs (N06C) were considered to have received pharmacological treatment for a mental disorder. Patients who received either inpatient or pharmacological treatment were considered to have received any treatment for a mental disorder.



TABLE S1: List of ICD-10 codes considered for defining inpatient treatment events

|  |  |
| --- | --- |
| **ICD-10 code** | **Code description** |
| F04 | Organic amnesic syndrome, not induced by alcohol and other psychoactive substances |
| F05 | Delirium, not induced by alcohol and other psychoactive substances |
| F06.1 | Organic catatonic disorder |
| F06.3 | Organic mood [affective] disorders |
| F06.4 | Organic anxiety disorder |
| F06.5 | Organic dissociative disorder |
| F06.6 | Organic emotionally labile [asthenic] disorder |
| F06.7 | Mild cognitive disorder |
| F06.8 | Other specified mental disorders due to brain damage and dysfunction and to physical disease |
| F06.9 | Unspecified mental disorder due to brain damage and dysfunction and to physical disease |
| F07.0 | Organic personality disorder |
| F09 | Unspecified organic or symptomatic mental disorder |
| F20-F29 | Schizophrenia, schizotypal and delusional disorders |
| F30-F39 | Mood [affective] disorders |
| F40-F48 | Neurotic, stress-related and somatoform disorders |
| F50-F59 | Behavioural syndromes associated with physiological disturbances and physical factors |
| F60-F69 | Disorders of adult personality and behaviour |
| F70-F79 | Mental retardation |
| F80-F89 | Disorders of psychological development |
| F90-F98 | Behavioural and emotional disorders with onset usually occurring in childhood and adolescence |
| F99-F99 | Unspecified mental disorder |
| G47.0 | Disorders of initiating and maintaining sleep [insomnias] |
| G47.1 | Disorders of excessive somnolence [hypersomnias] |
| G47.2 | Disorders of the sleep-wake schedule |
| G47.4 | Narcolepsy and cataplexy |
| G47.8 | Other sleep disorders |
| G47.9 | Sleep disorder, unspecified |
| R40.0 | Somnolence |
| R40.1 | Stupor |
| R40.2 | Coma |
| R40.3 | Persistent vegetative state |
| R40.4 | Transient alteration of awareness |
| R45 | Symptoms and signs involving emotional state |
| R46 | Symptoms and signs involving appearance and behavior |
| R47 | Speech disturbances, not elsewhere classified |
| R48 | Dyslexia and other symbolic dysfunctions, not elsewhere classified |
| R49 | Voice disturbances |
| Z03.2 | Observation for suspected mental and behavioural disorders |
| Z04.6 | Encounter for general psychiatric examination, requested by authority |
| Z04.72 | Encounter for examination and observation following alleged child physical abuse |
| Z13.4 | Encounter for screening for certain developmental disorders in childhood |
| Z64 | Problems related to certain psychosocial circumstances |
| Z81 | Family history of mental and behavioural disorders |
| Z81.9 | Family history of other mental and behavioural disorders |
| Z86.5 | Personal history of mental and behavioural disorders |
| Z86.59 | Personal history of other mental and behavioural disorders |

ICD-10: International Statistical Classification of Diseases and related health problems, 10th revision

TABLE S2: The treatment gap for mental disorders at private care (AfA), public primary care (Gugulethu, Khayelitsha), and public tertiary care (Tygerberg) antiretroviral therapy programs, 2012-2017.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Type of care** | | |
| **Calendar year** | Private care | Public primary care | Public tertiary care |
| 2012 | 68.2 (56.7-74.9) | 97.4 (96.3-98.1) | 82.8 (74.4-88.4) |
| 2013 | 63.6 (50.5-71.2) | 96.1 (94.6-97.0) | 79.4 (70.5-85.1) |
| 2014 | 42.7 (22.3-54.7) | 95.5 (93.9-96.5) | 80.7 (71.6-86.7) |
| 2015 | 39.6 (18.4-52.2) | 95.1 (93.3-96.2) | 77.6 (65.5-85.8) |
| 2016 | 39.3 (18.0-51.9) | 95.7 (94.1-96.7) | 72.2 (57.5-82.2) |
| 2017 | 40.5 (19.5-52.9) | 96.5 (95.0-97.5) | 65.0 (36.5-85.1) |

Data are percentages, with 95% confidence intervals in parentheses.

TABLE S3: Rates of treatment for mental disorders (per 100 person-years) among patients followed-up in private care (AfA), public primary care (Gugulethu, Khayelitsha), and public tertiary care (Tygerberg) ART programs, 2012-2017

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | **Type of care** | | | | | | | | | | |
| **Treatment** | **Calendar year** | Private carea | | |  | Public primary carea | | |  | Public tertiary carea | | |
|  |  | nb | Nc | Rated  (95% CI) |  | nb | Nc | Rated  (95% CI) |  | nb | Nc | Rated  (95% CI) |
| Inpatient | 2012 | 1129 (1410) | 61172 | 1.8 (1.7-2.0) |  | 33 (43) | 17846 | 0.2 (0.1-0.2) |  | 7 (11) | 1625 | 0.4 (0.1-0.7) |
| 2013 | 393 (512) | 37582 | 1.0 (0.9-1.1) |  | 46 (55) | 19675 | 0.2 (0.2-0.3) |  | 8 (13) | 1231 | 0.6 (0.2-1.1) |
| 2014 | 411 (532) | 42679 | 1.0 (0.9-1.1) |  | 49 (60) | 21068 | 0.2 (0.2-0.3) |  | 8 (11) | 945 | 0.8 (0.3-1.4) |
| 2015 | 1076 (1353) | 47223 | 2.3 (2.1-2.4) |  | 66 (91) | 21316 | 0.3 (0.2-0.4) |  | 2 (2) | 505 | 0.4 (-0.2-0.9) |
| 2016 | 1216 (1630) | 49917 | 2.4 (2.3-2.6) |  | 35 (42) | 18284 | 0.2 (0.1-0.3) |  | 4 (4) | 316 | 1.3 (0-2.5) |
| 2017 | 1279 (1695) | 49802 | 2.6 (2.4-2.7) |  | 25 (36) | 13788 | 0.2 (0.1-0.3) |  | 3 (3) | 180 | 1.7 (-0.2-3.5) |
| Pharmacological | 2012 | 13859 | 61172 | 22.7 (22.3-23) |  | 191 | 17846 | 1.1 (0.9-1.2) |  | 134 | 1625 | 8.2 (6.9-9.8) |
| 2013 | 4732 | 37582 | 12.6 (12.2-13) |  | 344 | 19675 | 1.7 (1.6-1.9) |  | 100 | 1231 | 8.1 (6.6-9.9) |
| 2014 | 9894 | 42679 | 23.2 (22.7-23.6) |  | 420 | 21068 | 2.0 (1.8-2.2) |  | 93 | 945 | 9.8 (7.9-12.1) |
| 2015 | 11410 | 47223 | 24.2 (23.7-24.6) |  | 461 | 21316 | 2.0.2 (2-2.4) |  | 57 | 505 | 11.3 (8.5-14.6) |
| 2016 | 11385 | 49917 | 22.8 (22.4-23.2) |  | 368 | 18284 | 2.0 (1.8-2.2) |  | 37 | 316 | 11.7 (8.2-16.1) |
| 2017 | 11542 | 49802 | 23.2 (22.8-23.6) |  | 298 | 13788 | 2.2 (1.9-2.4) |  | 21 | 180 | 11.6 (7.2-17.8) |
| Inpatient or pharmacological | 2012 | 14147 | 61172 | 23.1 (22.7-23.5) |  | 195 | 17846 | 1.1 (0.9-1.3) |  | 134 | 1625 | 8.2 (6.9-9.8) |
| 2013 | 4816 | 37582 | 12.8 (12.5-13.2) |  | 354 | 19675 | 1.0.8 (1.6-2) |  | 100 | 1231 | 8.1 (6.6-9.9) |
| 2014 | 10010 | 42679 | 23.5 (23-23.9) |  | 431 | 21068 | 2.0 (1.9-2.2) |  | 93 | 945 | 9.8 (7.9-12.1) |
| 2015 | 11616 | 47223 | 24.6 (24.2-25) |  | 474 | 21316 | 2..2 (2.0-2.4) |  | 57 | 505 | 11.3 (8.5-14.6) |
| 2016 | 11714 | 49917 | 23.5 (23-23.9) |  | 377 | 18284 | 2.1 (1.9-2.3) |  | 37 | 316 | 11.7 (8.2-16.1) |
| 2017 | 11910 | 49802 | 23.9 (23.5-24.3) |  | 299 | 13788 | 2.2 (1.9-2.4) |  | 21 | 180 | 11.6 (7.2-17.8) |

a Private care, Aid for AIDS program; public primary care: Gugulethu and Khayelitsha programs; public tertiary care: Tygerberg Hospital.

b Number of patients who received treatment in a year. For inpatient treatments, the total number of treatment events (accounting for repeated admissions of a patient in the same year) is shown in parenthesis.

c Number of person-years (PY) under follow-up in this type of care in a year.

d Rate per 100 person-years with 95% confidence intervals (CIs) in parentheses