

CONCLUSIONS:

ADULT PATIENTS AND CHILDREN:

- Mental illnesses are highly prevalent in general health facilities according to the research diagnostic tools.
- Mental illnesses go almost totally unrecognized by both patients and clinicians in general health facilities and therefore unmanaged.
- There is a patient-doctor two way communication breakdown on what the patient is being managed for in about 30% overall with widely varying percentages in different sites.
- There is need to develop and/or adopt and validate various psychometric instruments for screening and diagnostic purposes and routine clinical practice.
- As for the adults (unlike the children) a higher rate of psychiatric morbidity was found in those with chronic conditions such as TB, Cancer, HIV/AIDS, and also on diseases involving the reproduction functions i.e. genitor-urinary diseases.
- Many patients with physical illnesses also had alcohol and drugs abuse problems which were unrecognised.
- Those mental disorders recognised were generally referred to psychiatric nurses where available and were rarely managed by the doctors themselves.

Thus: All the general and specific objectives on prevalence's and management of mental disorders were met.

STAFFS

- The staffs do not generally recognise mental health disorders
- On average 30% of the staffs do not adequately communicate to their patients on their diagnoses and management even on physical condition.
- The staffs feel inadequate towards diagnosis and management of mental illness.
- The staff felt the need for continued medical education (CME) on clinical mental health service provision.

- A significant proportion of the staff had negative attitudes to and stigmatised mentally ill patients but also many of them were unaware or undecided.
- The mentally ill patients if recognised are not appropriately managed.
- **Stigma:** This is a major obstacle in provision and utilization of mental health services.

Thus: All the general and specific objectives on the staffs were met.

RECOMMENDATIONS

1. Training

- There should be a policy to incorporate mental health in the training of all medical and all paramedical staff (nurses, social workers, psychologists of all other specialities, clinical officers, rehabilitation officers etc) and medical students to empower them to recognise and manage mental health problems to a no lesser extent as they are capable of recognizing and managing physical conditions at their level of training.
- The training of psychiatric clinical officers in Kenya is long overdue and should be initiated without any further delay as a priority over and above training of psychiatrists.
- The Division of Mental Health, Ministry of Health in Liaison with other stakeholders should lobby and spearhead the above.

2. Continued Medical Education (CME)

- The Division of Mental Health, Ministry of Health in Liaison with other stakeholders should spearhead and lobby for CME's at all levels of healthcare provision.
- The Kenya Psychiatric Association, (a major stakeholder) in collaboration with the Division of Mental Health, Ministry of Health, should take up this challenge to all private institutions.

3. Mental Health Services

- Mental health services should be fully integrated within the general health care at all levels to reduce the stigma and improve mental health service provision.

4. Stigma

- This can be best minimised through integration of mental health training in all sectors of medical education and continued medical education. The Division of mental health, Ministry of Health should spearhead this and lobby for this in collaboration with all stakeholders.

5. Best Clinical Practices

- Clinicians should effectively communicate their finding with patients in all areas of their practice.
- Clinicians should be able to employ team work with appropriate support systems, referrals systems and networks.

6. The referrals system

- There should be clear guidelines on referral systems that are available at every level of medical health care facilities, which guidelines should be available to all staffs and patients.

7. Screening and diagnoses

- It is an expected good clinical practice in many centres to routinely administer screening and diagnostic psychometric instruments in non-psychiatric hospitals and facilities. This helps non-psychiatrists to detect and identify psychiatric morbidity. This approach should be considered in Kenya.

8. Research

- There is an urgent need to develop, adopt and validate appropriate tools that can be routinely used for screening and diagnostic purposes even by non-psychiatrists in general medical facilities. These instruments should be in various local languages.
- There is an urgent need for community based surveys to ascertain the incidence, prevalence and types of mental health disorders and best

community based prevention, interventions and management to decrease morbidity.

- There is an urgent need for research on evidence-based approach towards reduction of stigma, and evaluations of any approaches on stigma.

REFERENCES

1. Acuda, SW & Muhangi, J. (1979). Diazepam addiction in Kenya. *East Afri. Med. Jnl.*, Feb.
2. Adewuya AO (2005). Validation of the Alcohol Use Disorders Identification Test (AUDIT) as a screening tool for alcohol-related problems among Nigerian university studies. *Alcoholism* 40 (6): 575-577.
3. Ambrosini P.J., Metz C., Bianchi M.D., Rabinovich H., Undie A. (1991). "Concurrent validity and psychometric properties of the Beck Depression Inventory in outpatient adolescents." *J AM Acad Child Adolesc Psychiatry* 30: 51-57.
4. Anthony JC, LeResche L, Niaz U, VonKorff MR and Folstein MF (1982) Limits of the mini-mental state as a screening test for dementia and delirium among hospital patients. *Psychological Medicine*, 12: 397-408.
5. Antony, JC, Le Resche, L. Niaz, U., Von Corp. MR & Folstein MF (1982). Limits of the "Mini-Mental State as a screening tests for dementia and delirium among hospital patients. *Psychological Medicine* 12, 397-403 (123).
6. Beck, A. T., Steer, R. A., & Brown, G. K. (1996). Manual for the Beck Depression Inventory-II. San Antonio, TX: Psychological Corporation.
7. Beck, A. T., Steer, R..A., Garbin, M.. G., (1988) Psychometric properties of the Beck Depression Inventory: Twenty-five years of evaluation. *Clinical Psychology Review* 8 (1), 77-100.
8. Beck, A.T., Ward, C. H., Mendelson, M., Mock, J., & Erbaugh, J. (1961) An inventory for measuring depression. *Archives of General Psychiatry* 4, 561-571.
9. Bedard M., Felteau M., Mazmanian D., Fedyk K., Klein R., Richardson J., Parkinson W., Minthorn-Bigg MD. (2003). *Disability Rehabilitation* July 8; 25 (13) 722-31.
10. Bischof G., Reinhardt S., Grothues, J., Dybek I., Meyer C., Hapke U. et al (2005). Effects of items sequence on the performance of the AUDIT in general practice. *Drug and alcohol Dependence* 79 (3), 373-377.
11. Blanch J., Rousaud A., Hautzinger M. et al. Assessment of the efficacy of a cognitive-Behavioural group psychotherapy programme for HIV-infected patients

- referred to a Consultation-Liaison Psychiatry Department Psychotherapy Psychosomatic, 71 77-84.
12. Bonicatto, S. Dew, A. M., Soria, J. J., (1998). Analysis of the psychometric properties of the Spanish version of the Beck Depression Inventory in Argentina. *Psychiatric Research*, 79 (3), 277-285.
 13. Brown, C., Schulberg, H. C., & Madonia, M. J., (1995). Assessing depression in primary care practice with the Beck Depression Inventory and the Hamilton Rating Scale for Depression. *Psychological Assessment* 7 (1), 59-65.
 14. Central Bureau of statistics (CBS) (Kenya), Ministry of Health (MOH) (Kenya), and ORC Macro. (2004). Kenya Demographic and Health Survey 2003. Calverton, Maryland: CBS, HOH, and ORC Macro.
 15. Cherpitel CJ., Yey., Moskalewicz J., Swiathiewicz G. (2005). Screening for alcohol problems in two emergency service samples in Poland. Comparison of the RAPS4, CAGE and AUDIT. *Drug and alcohol dependence* 80 (2): 201 -207.
 16. Children's Act CAP 586 Laws of Kenya (2001). Government Printers, Nairobi, Kenya
 17. Clausen, J. A. (1981) Stigma and mental disorder: phenomena and terminology *Psychiatry*, 44,287-296.
 18. Cockrell JR and Folstein MF (1988) Mini Mental State Examination (MMSE), *Psychopharmacology*, 24: 689-692.
 19. Cook RL., Chung T., Kelly TM., Clark DB. (2005). Alcohol screening in young persons attending a sexually transmitted disease clinic. Comparison of AUDIT, CRAFT and CAGE – Instruments. *Journal of General Internal Medicine* 20 (1): 1-6).
 20. Corrigan, P.W., Edwards, A. B., Green, A., et al (2001) Prejudice, social distance, and familiarity with mental illness. *Schizophrenia Bulletin*, 27, 219-225.
 21. Cox, J.L., Holden, J.M., and Sagovsky, R. (1987). Detection of postnatal depression: Development of the 10-item Edinburgh Postnatal Depression Scale. *British Journal of Psychiatry* 150:782-786

22. Cruess s., Antoni MH., Hayes et al (2002). Changes in mood and depressive symptoms and related change processes during and cognitive in HIV infected men. *Cognitive therapy research* 26, 373-392.
23. Crum RM, Anthony JC, Bassett SS and Folstein MF (1993) Population-based norms for the mini-mental state examination by age and educational level, *JAMA*, 18: 2386-2391.
24. Dhadphale, M., (1984). Psychiatric morbidity among patients attending the district hospital outpatient clinics in Kenya. *M. D. Thesis, University of Nairobi*.
25. Dhadphale, M., Mengech, H.N.R., Syme, D., Acuda, S.W. (1982) Drug abuse among secondary school pupils. Preliminary Survey. *East African medical journal*. 59: 152-156.
26. Dolman JM & Hawkes ND (2005). Combining the AUDIT Questionnaire and biochemical markers to assess alcohol use and risk of alcohol withdrawal in medical inpatients. *Alcohol and Alcoholism* 40 (6) 515-519).
27. Finch, et al (1987). "Children's Depression Inventory: Reliability Over Repeated Administrations." *Journal of Clinical Child Psychology* 16: 339-341.
28. First M.B., Spitzer R.L., Gibbon M. & Williamson J.B. (1996). Structure Clinical Interview for DSM-IV Axis I Disorder Clinical Version. Washington DC American Psychiatric Press inc.
29. Foa, E. B., Riggs, Dancu, C. V. S., & Rothbaum B. O., (1993). Reliability and validity of a brief instrument for assessing Post Traumatic Stress Disorder. *Journal of Traumatic Stress*. 6 (4), 459-473.
30. Folstein MF, Folstein, SE and McHugh PR (1975) Mini-Mental State: A practical method for grading the state of patients for the clinician, *Journal of Psychiatric Research*, 12: 189-198.
31. Gache, P., Michaud P., Landry U., Accietto C., Arfaoui S., Wenger O. et al (2005). The Alcohol Use Disorders Identification Test (AUDIT) as a screening tool for excessive drinking in primary care. Reliability and validity of a French version. *Alcoholism: Clinical and Experimental Research* 29 (11) 2001-2007
32. General Register Office, (1968). A Glossary of Mental Disorder.

33. Giang KB., Spak F., Dzung TV., Allebeck P. (2005). The use of AUDIT to assess level of alcohol problems in and Alcoholism 40 (6) 578-583).
34. Gomez J. (1987): Liaison Psychiatry. Mental Health Problems in the General Hospital. Croom and Helm Publications, Kent, Grent Britain.
35. Granville-Grossman K.L. (1983): Mind and Body in Lader MH (Editor) Handbook of Psychiatry, 2 Cambridge University Press. Cambridge pp 5-13.
36. Groth-Marnat G. (1990). *The handbook of psychological assessment* (2nd ed.), John Wiley & Sons, New York.
37. Hamilton M (1969) Standardized assessment and recording of depressive symptoms. *Psychiatrica, Neurological and Neurochirurgia*, 72, 201-5).
38. Hamilton M, (1959). The assessment of anxiety state by rating. *British Journal of Medical psychology*, 32, 50-5.
39. Hamilton, M. (1967). Development of a rating scale for primary depressive illness. *British journal of Social and Clinical psychology* 6, 278-96.
40. Judd, F., Komiti, A., Chua, P., Mijich, A., Hoy, J., Grech, P., Stress, A., Lloyd, J., & Willianms B (2005). Nature of depression in patients with HIV/AIDS. *Australia & New Zealand Journal of Psychiatry*, 39 (9), 826-832.
41. Kangethe R., Njeri, Dhadphale M., (1991), Prevalence of Psychiatry Illness among Kenyan Child. *East Africa Medical Journal* 68: pp. 126-131, 526-531.
42. Kiima, D.T. (1987) Psychiatric morbidity among patients attending a Primary Health Care Centre in an under-privileged community in Nairobi. *M.Med Psych. Dissertation, University of Nairobi*.
43. Kovacs M. (1992) Children's Depression Inventory. North Tonawanda, N.Y.: Multi-Health System.
44. Lappalainen-Lehto R., Seppa K., Nordback I. (2005). Cutting down Substance. Present state and vision among surgeons and nurses. *Addictive Behaviour* 30 (5): 1013-1018.
45. Leonardson GR., Kemper F., Ness FK., Koplin BA., Daniels MC., Leonardson GA. (2005). Validity and reliability of the AUDIT and CAGE-AID in Northern Plains American Indians. *Psychological Reports*. 161-116.

46. Lima CT., Friere ACC., Silva APB., Teixeira RM., Farrel M., Prince M. (2005). Concurrent and construct validity of the AUDIT in an urban Brazilian Sample. *Alcohol and Alcoholism* 40 (6): 554-559.
47. Link, B. G., Struening, E. L., Rahav, M., et al (1997) On stigma and its consequences: evidence from a longitudinal study of men with dual diagnoses of mental illness and substance abuse. *Journal of Health and Social Behavior*, 38,177-190.
48. Link, B.G., Struening, E.I. Neese-Todd,S., et al (2001)The consequences of stigma for the self-esteem of people with mental illnesses *Psychiatric Services*, 52,1621-1626.
49. Lipowski Z.J. (1977): Psychiatric Consultation: Concepts and controversies. *AM J. Psychiatry* 134, 523-8.
50. Lutgendoff SK., Antoni MH., Ironson G. et al (1997). Cognitive-Behavioural stress management decreases dysphoric mood and herpes simplex virus-types 2 antibody titers in symptomatic HIV seropositive gay men. *Journal of Consulting Clinical Psychology*, 65: 31-43.
51. Makanyengo M.A., Othieno C.J., and Okech M.L. (2005). Consultation liaison psychiatry at Kenyatta National Hospital, Nairobi. *The East Africa medical Journal* Vol. 82 No. 2.
52. Markowitz JC., Klerman GL., Clougherry KF et al (1995). Individual Psychotherapy for depressed HIV-Positive patients. *American Journal of Psychiatry*, 152, 1504-1509.
53. Matthey, S. and Petruski, P., (2002). The children's depression screening purpose. *Psychological Assessment* 14 (2): 146-149.
54. Mayou, R. & Smith, E. B. O. (1986) Hospital doctors' management of psychological problems. *British Journal of Psychiatry*, 148, 194-197.
55. Michael, Kurt D. (1998) "Reliability of Children's Self-Reported Internalizing Symptoms Over Short- to Medium-Length Time Intervals." *Journal of the American Academy of Child and Adolescent Psychiatry* 37: February: 205-212.
56. Misri, S., Duke, M. Depression during Pregnancy and Postpartum. *Journal of the Society of Obstetrics & Gynecology of Canada* 1995; 17:657-65.

57. Moore M.J., Moore P.B., Shaw P.J. (1998) "Mood disturbances in motor neurone disease". *Journal of the Neurological Sciences* 160 Suppl 1: S53-S56.
58. Mor, Vincent. July 1996. SMMSE Measures Capacity for Advance Directives. Brown University Long-Term Care Quality letter: 6.
59. Morgan J. F. & Killoughery (2003) Hospital doctors management of psychological problems. *British Journal of Psychiatry*, 102, 153-157.
60. Mulder CL., Emmelkamp PM., Antoni MH., Mulder JW., Sandfort TG., de Vries MJ. (1994). Cognitive-Behavioural and experimental group psychotherapy for HIV infected homosexual men: a comparative study. *Psychosomatic Medicine*, 56, 435-431.
61. Musisi S., Tugumisirize J., et al (2001): Psychiatric Consultation Liaison at *Mulago Hospital, Makerere university Medical school journal Vol 35 pp 4-11, 2001.*
62. *Mutiso V., (2005). Psychological and Behavioural Disorders among Orphans and Non-Orphans in Mwala Division, Machakos District, Kenya. B. A. Dissertation, University of Nairobi.*
63. Nabarro J. (1984): Unrecognized Psychiatric Illness in Medical patients. *Psychiatry* 5, 15-24.
64. National Agency for Campaign Against Drug Abuse (NACADA) 2004: Youth in Peril, Government Printers.
65. Ndeti DM, Othieno C, Ongecha FA, Mutiso VM, et al . (2006). Psychometric properties of an African Symptoms check list scale NOK- *East African Medical Journal May. Pp280-287.*
66. Ndeti, D. M. & Muhangi J. (1979). The prevalence and clinical presentation of psychiatric illness in a rural setting in Kenya. *British Journal of Psychiatry*, 135, 269 – 272.
67. Newcombe DAL., Humeniuk RE., Ali R. (2005). Validation of the World Health Organization. Alcohol, Smoking and Substances Involvement Screening Test (ASSIST). Report of the results from the Australian site. *Drug and alcohol review* 24 (3) 217-226.

68. Nielsen, F., Videbech, P., Hedegaard, (2000). M. Postpartum depression: identification of women at risk. *British Journal of Obstetric and Gynaecology*, Oct; 107 (10): 1210-7.
69. Ongecha-Owuor F.A., Kathuku D.M., Othieno C., Ndeti D.M. (2004) Posttraumatic stress disorder among motor vehicle accident survivors attending the orthopaedic and trauma clinic at KNH, Nairobi, *East African Med. Journal*, 80, 356-362.
70. Peferson et al., (2004). Depression and the Childhood inventory. A paper presented at the American academy of Child and Adolescent psychiatry 2004 Annual General meeting.
71. Perlick, D.A., Rosenheck, R.A., CLARKIN, J. F., et al (2001) Adverse effects of perceived stigma on social adaptation of persons diagnosed with bipolar affective disorder. *Psychiatric Services*, 52,1627-1632.
72. Rabkin JG. (1996). Prevalence of Psychiatric disorders in HIV illness *International Review Psychiatry* 8, 157-166.
73. Richter, P., Werner, J., Heerlien, A., Kraus, A., Sauer, H., (1998). On the validity of the Beck Depression Inventory; A review. *Psychopathology* 31 (3), 160-168.
74. Rosenfield, S. (1997) Labeling mental illness: the effects of received services and perceived stigma on life satisfaction. *American Sociological Review*, 62,660-672.
75. Rouner Blue, Folstein MF. (1987) Mini-mental state Examination in Clinical practice. *Hospital Practice*. 22 1(A): 99, 103, 106-110.
76. Scottish Schizophrenia Research Group (1987) The Scottish First Episode Schizophrenia Study IV. Psychiatric and social impact on relatives. *British Journal of psychiatry*, 150, 340 – 344.
77. Sirey, J.A., Bruce, M.L, Alexopoulos, G S., et al (2001) Perceived stigma and patient-rated severity of illness as predictors of antidepressant drug adherence. *Psychiatric Services*, 52,1615-1620.
78. Skek, D.T., (1990) Reliability and factorial structure of the Chinese version of the Beck Depression Inventory. *Journal of Clinical Psychology* 46 (1), 34-43.

79. Slater J.A. (1996) Psychiatric Aspects of Cancer in Childhood and Adolescence. In Child and Adolescent Psychiatry – A comprehensive Textbook Ed. Melvin Lewis Lippincott Williams & Wilkins, London.
80. Snaith RP and McCoubrie M, (1972). Anti-hypertensive drugs and depression. *Psychological Medicine* 4, 393-9.
81. Snaith, R P., Almed SN., Mehtas S & Hamilton, M (1971). The assessment of the severity of primary depressive illness. *Psychological Medicine* 1, 143-9.
82. Snaith, RP., Bridge Gluk and Hamilton, M. (1976). The Leeds Scale for the Self-Assessment of Anxiety and Depression. *The British Journal of Psychiatry*, 128: 156-65.
83. Stallibrass C., Sissons P., Chalmers C., (2002). Clinical Rehabilitation Nov. 16 (7): 695-708.
84. Tombaugh TN. McIntyre NJ. (1992). The mini-mental state examination: a comprehensive review. *Journal of American Geriatric Society*, 40 (9), 922-935.
85. Torres LAPD., Fernandez-Garcia JA., Arias-Vega R., Muriel-Palomino M., Marquez-Rebollo E., Ruiz-Moral, R. (2005). Validity of AUDIT test for detection of disorders related with alcohol consumption in women. *Medicina Clinica*, 125 (19):727-730.
86. Twenge JM & Nolen-Hoeksema, S. (2002). Age, gender, race cohort differences on the Children's depression inventory. *America psychology*, 11 (14): 578-588.
87. Von Amon Cavanaugh S. (1983): The Prevalence of Emotional and Cognitive Dysfunctions in a General Medical Population. *Gen. Hospital Psychiatry* 5, 15-24
88. Wells, J. E., Robins, L. N., Bushnell, J. A., et al (1994). Perceived barriers to care in St Louis (USA) and Christchurch (NZ): reasons for not seeking professional help for psychological distress. *Social Psychiatry and Psychiatric Epidemiology*, 29, 155-164.
89. Wisner KL, Parry BL, Piontek CM. (2002). Postpartum Depression. *N Engl J Med* 347, No 3, July 18, 194-199.
90. Zigmond As, Snaith RP (1983) The Hospital Anxiety and Depression Scale. *Acta Psychiatrica Scandinavica* 67:361-79.

91. Zisook S., Peterkin J., Goggin KJ., ledge P., Atkinson JH., Grant 1 (1998).
Treatment of Major depression in HIV-Seropostive men. HIV Neurobehavioral
Research Centre Group. Journal of Clinical Psychiatry 59, 21-30.

APPENDIX I: (FIGURES FA24 – FA38) – CO-MORBIDITY OF MENTAL DISORDERS WITH PHYSICAL CONDITIONS IN ADULTS

Figure FA24

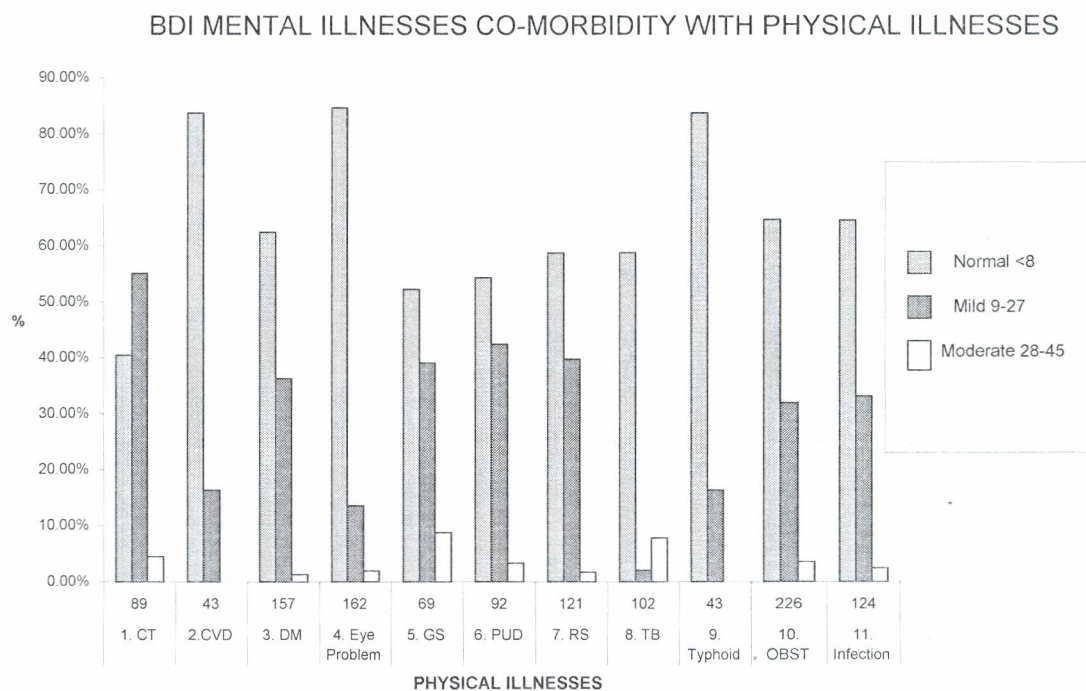


Figure FA25

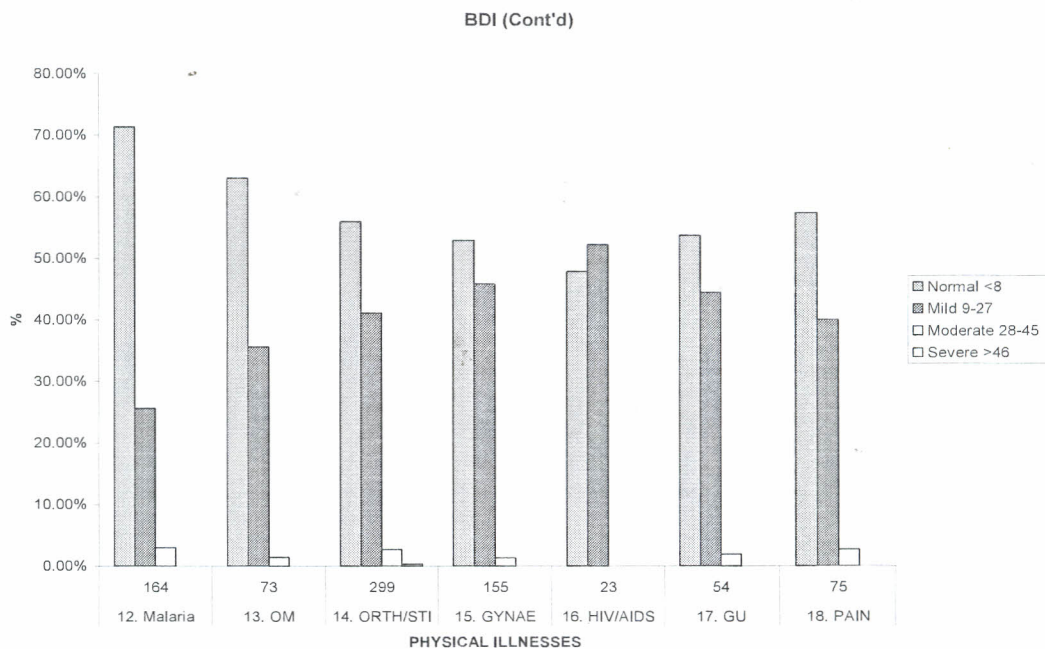


Figure FA26

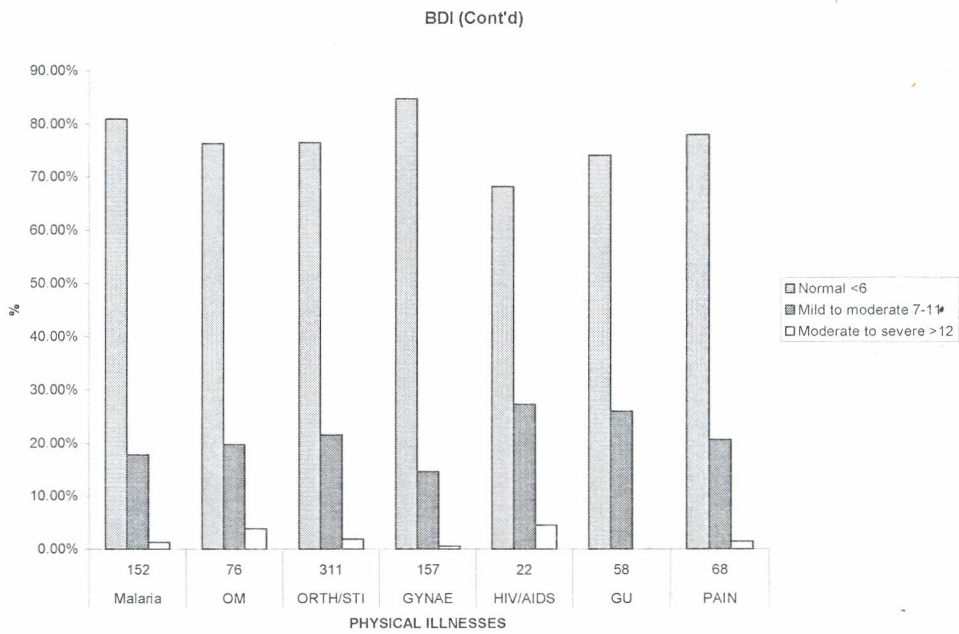


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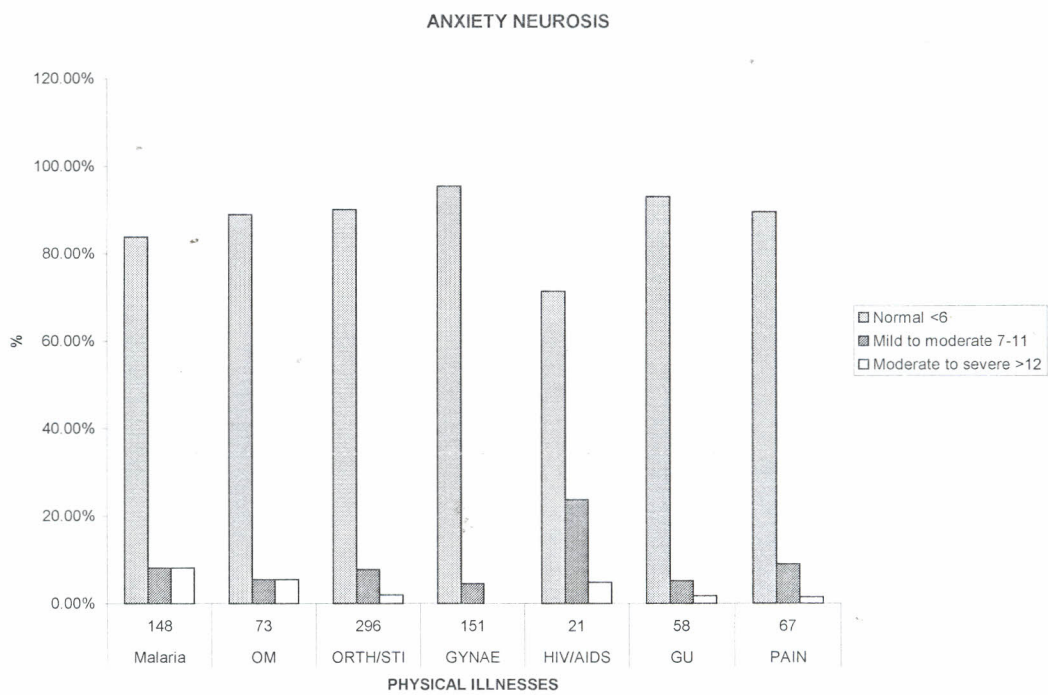


Figure FA28

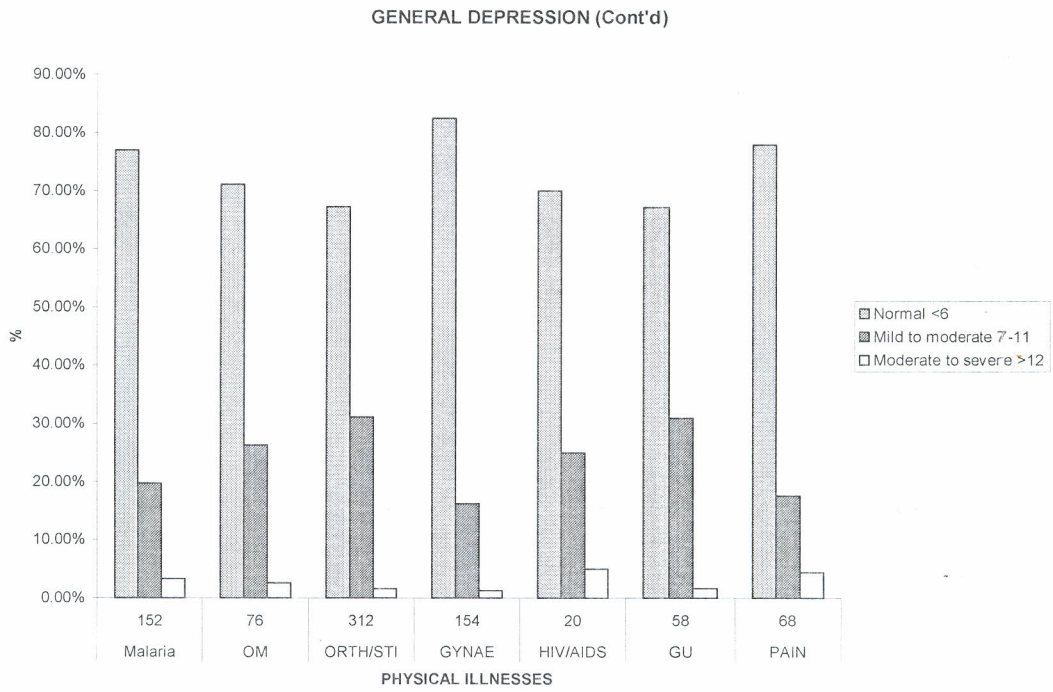


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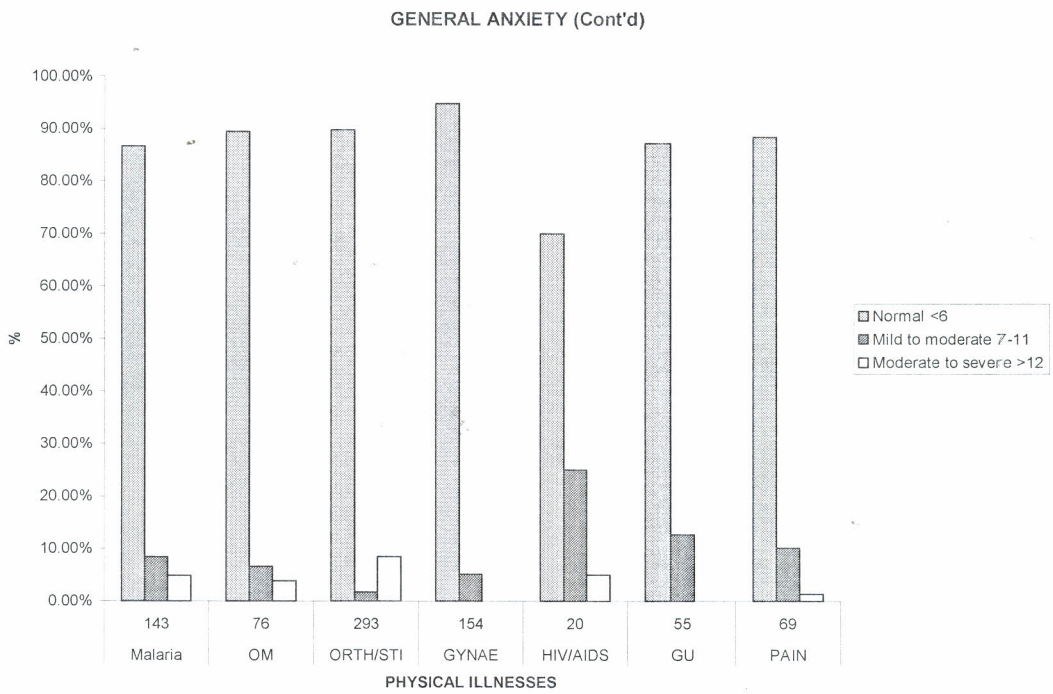


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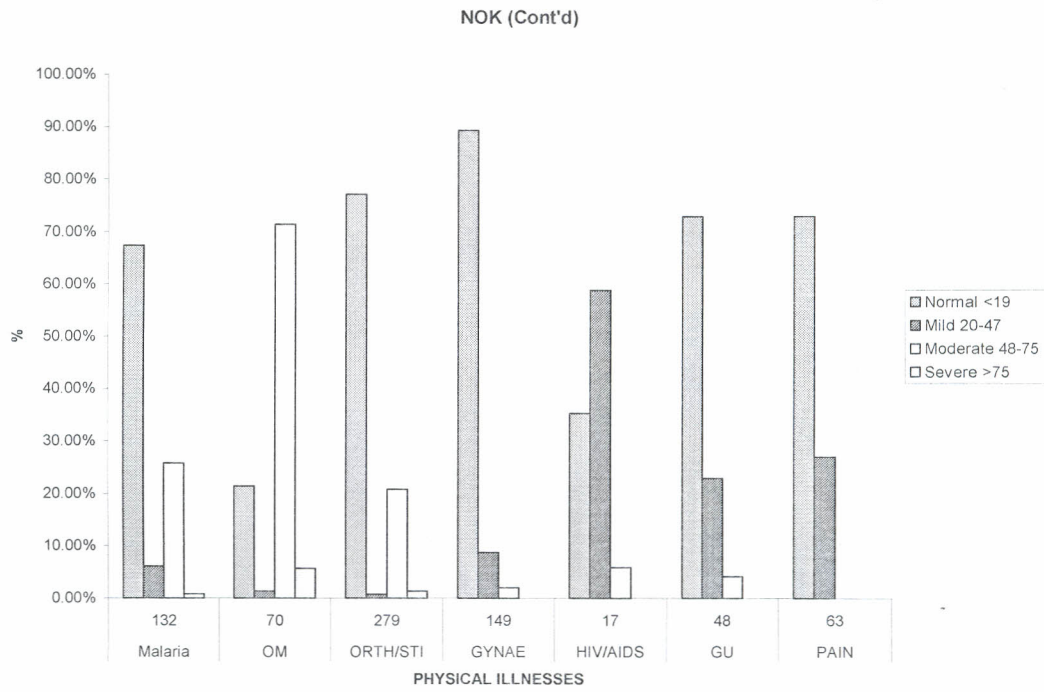


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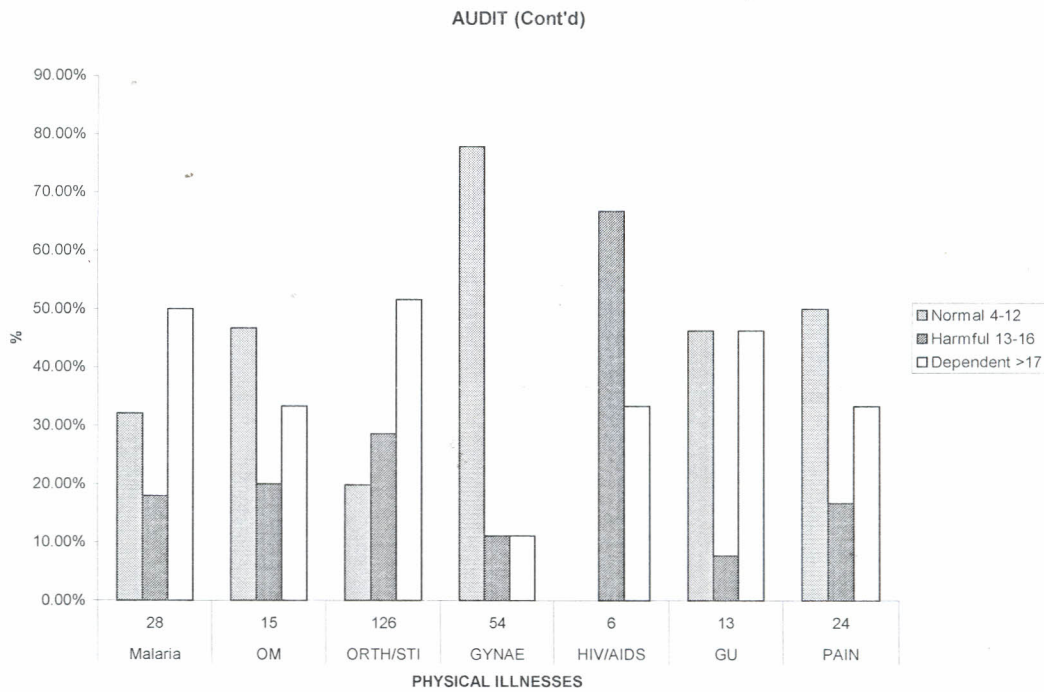


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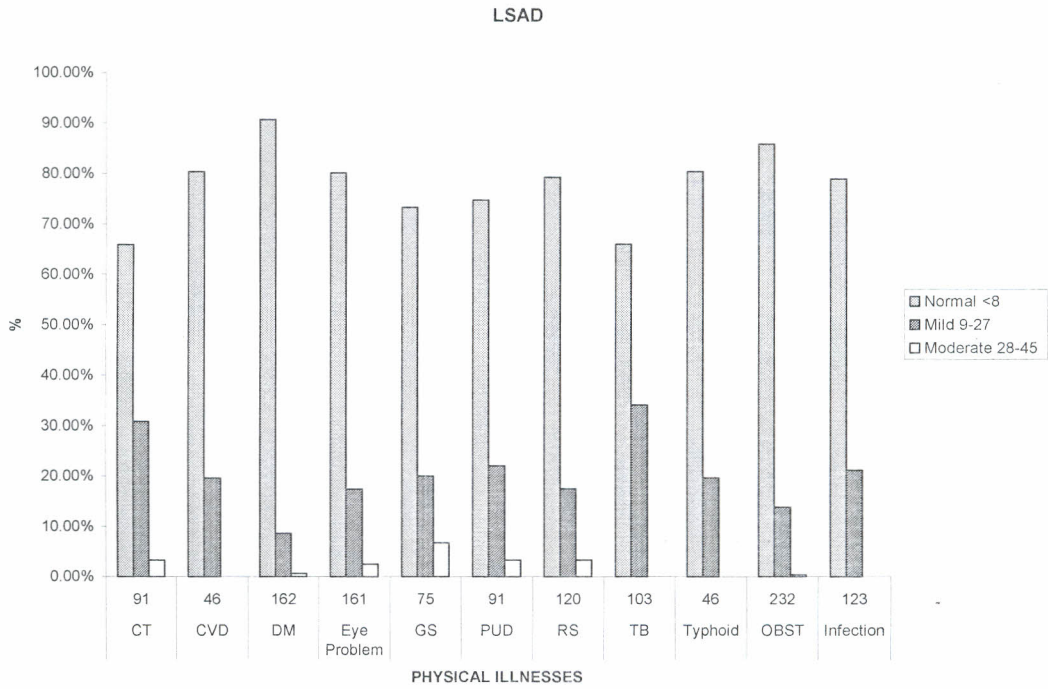


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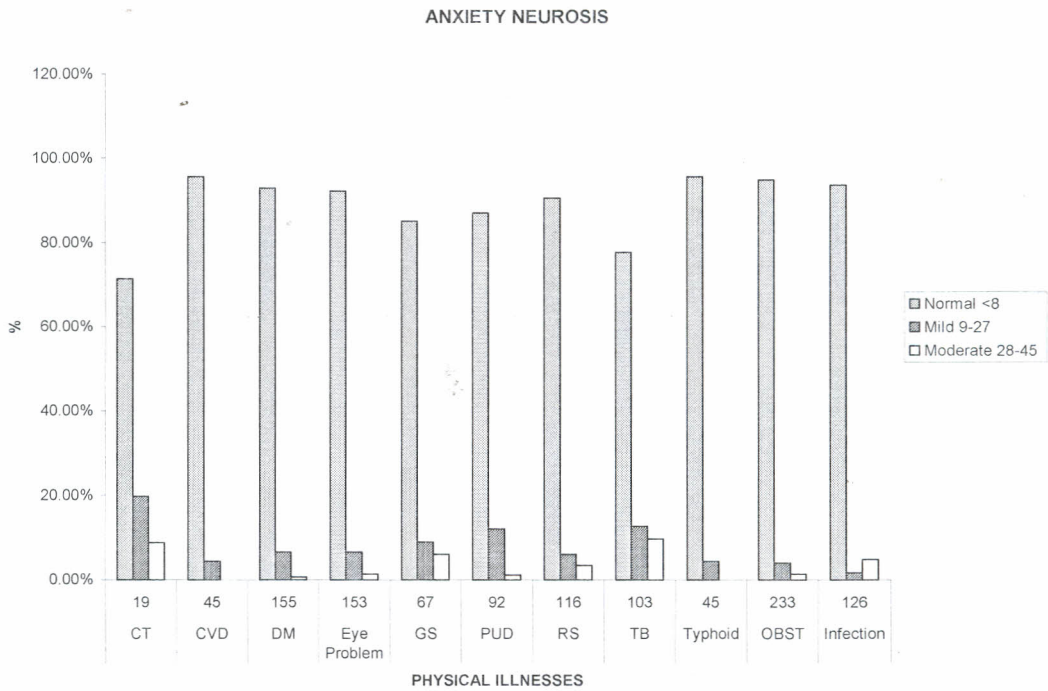


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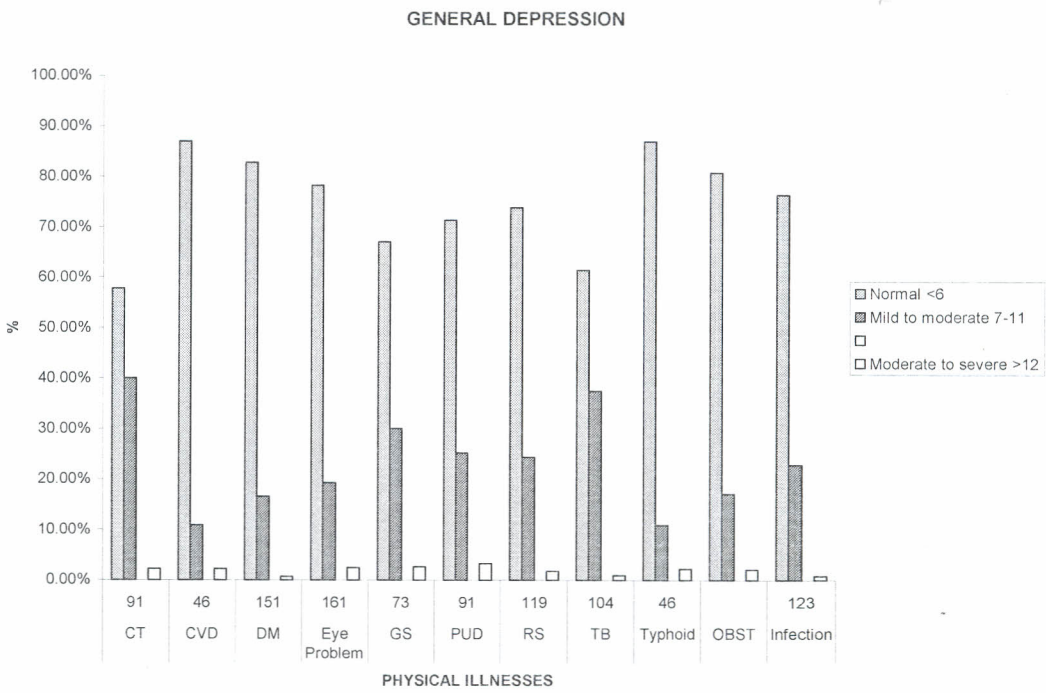


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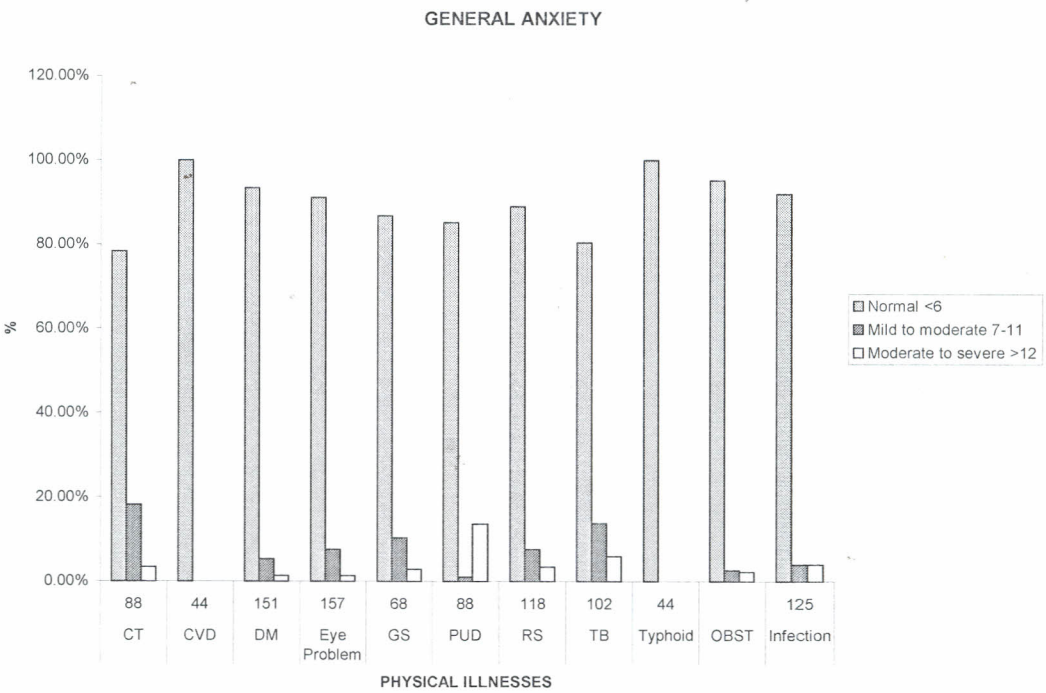


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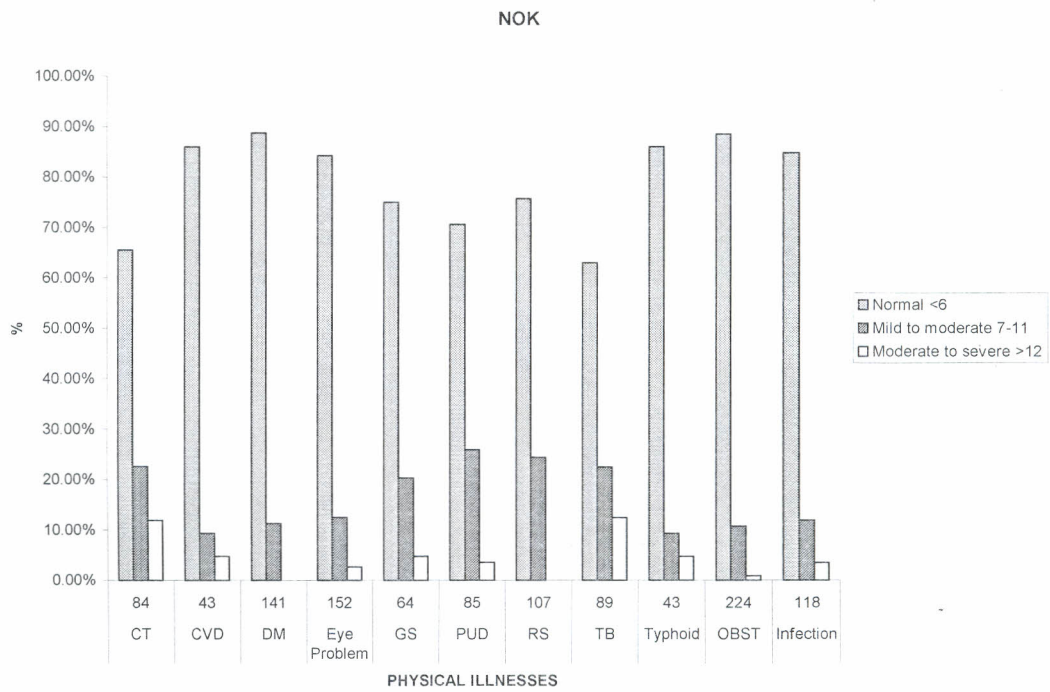
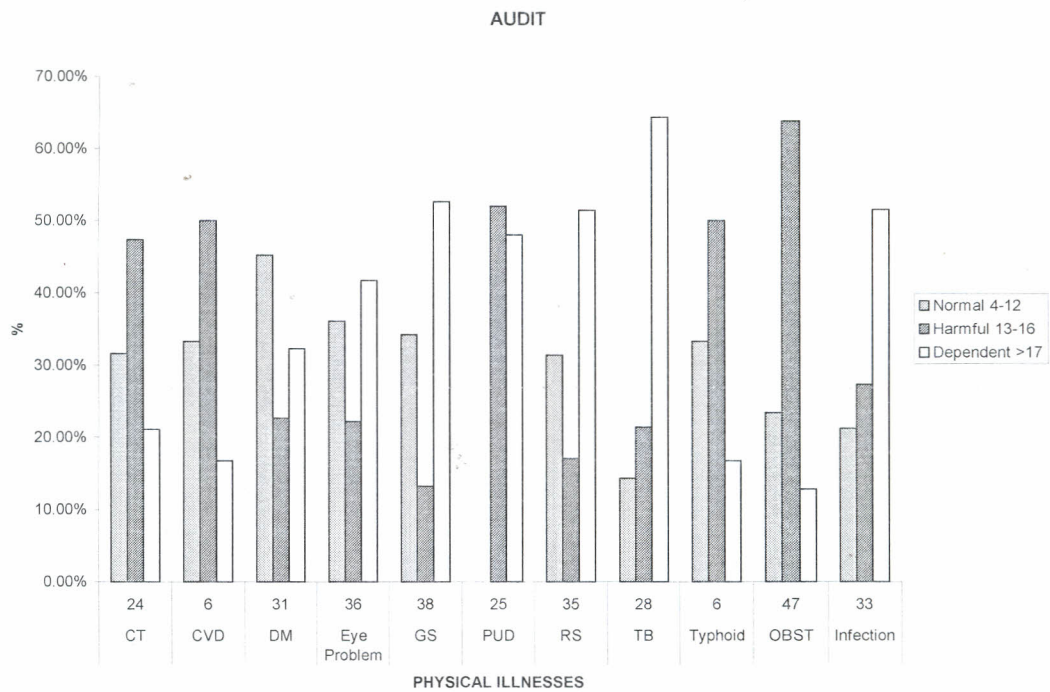


Figure FA37



APPENDIX 2

APPENDIX 2(i): RESULTS ON ADULTS (A)

Table A1: Age

	All Sites	KNH	Embu	Kiambu	Kikuyu	Kajiado	Kibera	Makindu	Naivasha	Magadi	Karuri
N	N=2797	1806(100%)	150(100%)	112 (100%)	200 (100%)	61(100%)	34 (100%)	44 (100%)	92 (100%)	125 (100%)	43 (100%)
18-20	10.5%	9.0%	11.3%	9.3%	9.0%	27.9%	23.5%	8.1%	27.9%	17.6%	18.6%
21-25	21.2%	20.2%	23.4%	27.7%	24%	14.7%	23.5%	19.3%	14.1%	25.6%	32.6%
26-30	21.1%	20.4%	20.6%	19.8%	26%	9.9%	23.5%	25.6%	19.6%	24.8%	23.2%
31-35	12.0%	12.2%	16.0%	8.6%	13%	4.9%	17.6%	10.5%	23.1%	9.6%	4.6%
36-40	10.1%	10.5%	13.0%	9.3%	9%	9.9%	5.9%	8.9%	18.5%	8.0%	13.9%
41-45	6.3%	6.4%	4.7%	8.6%	5.5%	3.3%	2.9%	9.7%	7.6%	5.6%	-
46-50	5.76%	6.2%	3.3%	5%	5.5%	18.5%	-	4.0%	5.5%	3.2%	-
51-55	4.72%	5.7%	2.7%	3.1%	4.5%	-	2.9%	4.8%	3.3%	1.6%	4.6%
56-60	3.36%	4.1%	1.3%	1.9%	-	3.3%	-	2.4%	2.2%	0.8%	2.3%
61-65	1.75%	2.4%	0.7%	1.2%	-	-	-	10.8%	-	-	-
66-70	1.65%	1.5%	3.3%	1.9%	2%	4.9%	-	11.6%	2.2%	-	-
71-75	0.68%	0.7%	-	1.9%	1%	1.6%	-	-	1.1%	-	-
>75	0.92%	0.7%	0.7%	1.9%	1%	1.6%	-	15.6%	-	-	-

Table A2: Sex

	All sites	KNH	Embu	Kiambu	Kikuyu	Kajiado	Kibera	Makindu	Naivasha	Magadi	Karuri
N	2797	1795	145	162	188	60	33	126	86	127	44
Male	46.3%	44.7%	43.4%	65.4%	48.4%	66.7%	51.5%	37.3%	30.2%	46.5%	50%
Female	53.7%	55.3%	56.6%	34.6%	51.6%	33.3%	48.5%	62.7%	69.8%	53.5%	50%

Table A3: Religion

	All Sites	KNH	Embu	Kiambu	Kikuyu	Kajiado	Kibera	Makindu	Naivasha	Magadi	Karuri
N	2730	1767	143	158	198	61	31	122	86	126	44
Christian	91.2%	94.1%	63.6%	89.9%	99%	73.7%	74.2%	85.2%	96.5%	89.7%	97.7%
Catholic	3.7%	2.1%	36.4%	-	-	-	-	3.3%	-	-	2.3%
Muslim	3.8%	3.5%	-	7.6%	1%	15.8%	25.8%	4.9%	2.2%	4.0%	-
Hindu	0.1%	0.1%	-	-	-	1.6%	-	-	-	1.6%	-
Others	1.1%	0.3%	-	2.5%	-	6.6%	-	6.6%	1.1%	4.8%	-

Table A4: Marital status

	All sites	KNH	Embu	Kiambu	Kikuyu	Kajiado	Kibera	Makindu	Naivasha	Magadi	Karuri
N	2730	1774	138	161	193	60	33	120	83	126	43
Single	34.8%	34.7%	41.3%	29.2%	35.8%	41.9%	57.6%	25%	41%	27.8%	41.9%
Married	59.5%	61.2%	53.6%	59.6%	59.6%	33.3%	36.4%	62.5%	45.5%	67.5%	58.1%
Polygamous	1.4%	0.9%	-	1.9%	1%	10%	2.9%	5.8%	1.1%	2.4%	-
Cohabiting	0.7%	0.6%	-	1.9%	1%	1.7%	-	0.8%	1.1%	2.4%	-
Divorced/separated	3.5%	2.5%	3.6%	7.5%	2.6%	11.7%	2.9%	4.2%	9.7%	-	-
Widowed	0.2%	0.2%	1.4%	-	-	-	-	1.7%	-	-	-

Table A5: Education Level*

	All Sites	KNH	Embu	Kiambu	Kikuyu	Kajiado	Kibera	Makindu	Naivasha	Magadi	Karuri
N	2656	1814	151	162	200	61	34	127	93	127	44
None	3.1%	7.3%	5.3%	11.8%	4.5%	31.1%	-	13.4%	7.5%	17.6%	4.5%
Primary	31.6%	29.4%	38.7%	24.6%	43%	27.9%	2.9%	81.9%	58.1%	23.6%	27.3%
Secondary	41.6%	41.4%	41.3%	42%	8.5%	27.9%	55.8%	3.1%	30.1%	38.6%	52.7%
Collage	18.9%	18.2%	12.7%	14.8%	33%	13.1%	35.2%	1.6%	4.35%	18.9%	15.9%
University	4.8%	3.7%	2.0%	6.8%	11%	-	2.9%	-	-	1.6%	-

* Primary = 1-8 years of formal education

* Secondary = 1-4 years of post primary education

* College = post secondary vocational education but not university education

Table A6: What do you do for a living?

	All Sites	KNH	Embu	Kiambu	Kikuyu	Kajiado	Kibera	Makindu	Naivasha	Magadi	Karuri
	1381		N=129	N=135	N=193	N=53	N=23	N=102	N=73	N=83	N=40
Gainful Employment	66.4%	71.2%	44.2%	54.8%	60.1%	77.4%	78.3%	45.1%	60.3%	48.2%	42.5%
Farmer	22.3%	16.4%	44.2%	28.1%	13.5%	13.2%	-	50.0%	27.4%	9.6%	2.5%
Housewife	3.9%	4.4%	2.3%	5.2%	7.8%	3.8%	4.3%	2.9%	9.6%	26.5%	12.5%
Student	3.3%	4.3%	3.1%	8.1%	17.1%	3.8%	4.3%	-	2.7%	4.8%	10.0%
Unemployed	3.9%	3.7%	6.2%	3.7%	1.6%	1.9%	13.0%	2.0%	-	-	10.0%

Table A7: Spouse's occupation?

	All Sites	KNH	Embu	Kiambu	Kikuyu	Kajiado	Kibera	Makindu	Naivasha	Magadi	Karuri
		1015	N=72	N=93	N=111	N=27	N=0	N=127	N=38	N=62	N=21
Gainful Employment	54.6%	54.6%	48.6%	48.4%	38.9%	44.4%	-	66.9%	68.4%	69.4%	57.1%
Farmer	15.1%	12.4%	43.1%	21.5%	6.2%	7.4%	-	27.5%	21.1%	9.7%	28.6%
Housewife	19.7%	20.5%	8.3%	27.9%	12.4%	37.0%	-	5.9%	10.5%	17.7%	14.3%
Student	0.6%	0.6%	-	1.1%	-	7.4%	-	-	-	3.2%	-
Unemployed	6.7%	8.4%	-	1.1%	-	3.7%	-	0.8%	-	-	-
Deceased	3.3%	3.5%				-					

Table A8: Number of children under 18 years

	All Sites	KNH	Embu	Kiambu	Kikuyu	Kajiado	Kibera	Makindu	Naivasha	Magadi	Karuri
	N=2364	N=1576	N=115	N=103	N=173	N=61	N=9	N=87	N=92	N=80	N=41
0	34.9%	36.6%	30.4%	17.5%	37.0%	63.9%	-	5.7%	34.8%	31.3%	48.8%
1-2	45.9%	46.4%	48.7%	52.4%	50.9%	19.7%	55.6%	52.9%	30.4%	48.8%	36.6%
3-4	15.3%	13.9%	17.4%	25.2%	9.2%	11.5%	22.2%	27.6%	28.3%	15.0%	12.2%
5-6	2.8%	2.2%	3.5%	1.9%	2.9%	-	22.2%	10.3%	4.3%	5.0%	2.4%
>6	1.8%	1.1%	-	2.9%	2.9%	4.8%	-	3.4%	2.2%	-	-

Table A9: Duration of illness

	All Sites	KNH	Embu	Kiambu	Kikuyu	Kajiado	Kibera	Makindu	Naivasha	Magadi	Karuri
N	N=2487	1618	137	162	213	61	21	120	72	64	44
1-6 days	12.2%	8.8%	10.2%	24.8%	2.8%	21.3%	28.6%	43.3%	13.9%	78.1%	25.0%
1-3 weeks	17.3%	14.2%	19.7%	37.3%	23.0%	6.6%	52.4%	15.0%	11.1%	20.3%	31.8%
1-3 months	22.4%	23.7%	23.4%	26.8%	16.0%	13.1%	9.5%	25.8%	16.7%	12.5%	4.5%
4-6 months	8.4%	8.9%	7.3%	3.3%	10.8%	3.3%	4.8%	4.2%	11.1%	7.8%	18.2%
7-9 months	5.7%	6.6%	2.2%	2.6%	8.5%	2.2%	0	0.8%	2.8%	3.1%	6.8%
10-11 months	0.9%	1.0%	0.7%	2.0%	0	1.6%	0	0.8%	0	0	0
1-2 years	13.1%	15.5%	17.5%	2.6%	5.6%	14.8%	0	5.0%	15.3%	6.3%	2.3%
3-5 years	9.5%	11.1%	8.8%	0.7%	8.0%	13.1%	4.8%	0.8%	19.4%	6.3%	6.8%
6-10 years	6.5%	6.7%	4.4%	0	13.6%	18.0%	0	2.5%	5.6%	3.1%	0
11-20 years	2.1%	2.4%	4.4%	0	2.3%	3.3%	0	0.8%	1.4%	1.6%	0
>20 years	1.9%	1.2%	1.5%	0	9.0%	1.6%	0	0.8%	2.8%	1.6%	4.5%

Table A10: Did Doctor give you chance to ask your diagnosis?

	All Sites	KNH	Embu	Kiambu	Kikuyu	Kajiado	Kibera	Makindu	Naivasha	Magadi	Karuri
	N=2668	N=1742	N=142	N=144	N=174	N=61	N=30	N=122	N=82	N=82	N=37
Yes	67.8%	74.6%	59.9%	48.6%	64.4%	54.1%	86.7%	35.2%	80.5%	47.6%	48.6%
No	32.2%	25.4%	40.1%	51.4%	35.6%	45.9%	13.3%	64.8%	19.5%	52.4%	51.4%

Table A11: Did Doctor tell you your diagnosis?

	All Sites	KNH	Embu	Kiambu	Kikuyu	Kajiado	Kibera	Makindu	Naivasha	Magadi	Karuri
	N=2708	N=1765	N=146	N=159	N=183	N=61	N=31	N=124	N=88	N=79	N=43
Yes	72.4%	77.7%	61.6%	58.5%	64.5%	86.9%	93.5%	51.6%	71.6%	39.2%	51.2%
No	27.6%	22.3%	38.4%	41.5%	35.5%	13.1%	6.5%	48.4%	28.4%	60.8%	48.8%

Table A12: What do you think you are suffering from? (Only %'s reproduced)

	All sites	KNH	Embu	Kiambu	Kikuyu	Kajiado	Kibera	Makindu	Naivasha	Magadi	Karuri
Disease	N=2813	N=1814	N=181	N=162	N=200	N=61	N=34	N=83	N=93	N=82	N=44
None response	5.0	4.6	3.3	4.3	8.5	-	-	1.2	8.6	N=82	2.3
Anxiety**	.1	0.1	-	-	-	1.6	-	-	-	-	-
AUA**	.0	-	0.6	-	-	-	-	-	-	-	-
CT	3.8	0.1	1.1	1.2	.5	-	-	-	-	-	-
CVD	7.3	5.5	6.6	4.3	1.5	8.2	-	1.2	2.2	-	-
dental problem	.5	0.2	1.1	0.6	-	-	-	1.2	3.2	1.2	-
Depression**	.3	0.2	-	-	-	8.2	-	-	1.1	1.2	-
DM	5.8	7.1	7.2	5.6	1.5	3.3	-	2.4	1.1	-	2.3
Ear Problem	1.1	1.5	1.7	-	-	-	-	1.2	-	2.4	-
Epilepsy**	.6	0.4	0.6	1.2	-	6.6	-	-	2.2	1.2	-
Eye Problem	4.6	2.1	1.7	2.5	41.0	-	-	1.2	-	-	2.3
Goitre	.4	.6	-	-	-	-	-	-	-	1.2	-
GS	2.2	3.1	0.6	0.6	0.5	3.3	-	-	-	-	-
GU	2.3	3.3	0.6	0.6	-	1.6	-	2.4	-	-	-
Gynae	4.4	6.0	0.6	1.9	1.0	3.3	-	4.8	2.2	2.4	-
HIV/AIDS	.6	.8	-	-	-	-	2.9	-	1.1	4.9	-
Infection	2.8	2.0	3.3	6.8	1.5	6.6	2.9	4.8	3.2	-	13.6
Malaria	6.7	1.4	23.8	13.0	4.0	9.8	38.2	27.7	14.0	4.9	9.1
MCH	.2	-	-	-	-	-	-	8.4	-	28	-
Neurosis**	.0	-	-	-	-	1.6	-	-	-	8.5	-
None	.7	.4	0.6	-	2.0	-	-	-	6.5	-	-
Obst	8.8	9.2	2.8	8.0	16.0	1.6	2.9	9.6	5.4	-	29.5
OM	3.7	4.2	6.1	3.1	2.5	1.6	2.9	-	2.2	9.8	-
Ortho/STI	12.9	14.9	13.8	14.2	3.5	9.8	8.8	6.0	7.5	-	4.5
Pain	7.7	7.5	6.6	8.6	5.0	6.6	5.9	14.5	6.5	6.1	18.2
Psychosis**	.7	.2	1.7	0.6	0.5	9.8	-	-	5.4	14.6	2.3
PUD	5.0	5.6	3.3	8.0	3.5	-	8.8	2.4	1.1	-	6.8
RS	6.6	5.7	9.9	4.9	4.5	11.5	8.8	10.8	15.1	2.4	2.3
Schizophrenia**	.1	0.1	-	-	-	1.6	-	-	-	11.0	-
Para-Suicide**	.0	-	-	-	-	-	-	-	1.1	-	-
TB	3.3	3.5	1.1	3.1	-	3.3	2.9	-	9.7	-	-
Typhoid	1.5	0.7	1.7	6.8	2.5	-	14.7	-	1.1	-	6.8

Table A13: What diagnosis did Doctor tell you? (Only %'s reproduced)

	All Sites	KNH	Embu	Kiambu	Kikuyu	Kajiado	Kibera	Makindu	Naivasha	Magadi	Karuri
N	2813		181	N=162	200	61	N=34	83	93	N=82	44
None response	39.0	34.6	38.7	67.3	45.5	14.8	23.5	60.2	32.3	60.2	63.6
Anxiety**	.1	0.1	-	-	-	3.3	-	-	1.1	-	-
AUA**	.1	-	-	-	-	1.6	-	-	1.1	-	-
CT	2.5	3.7	0.6	0.6	0.5	-	-	-	-	-	2.3
CVD	6.5	8.6	5.5	0.6	0.5	6.6	-	-	4.3	-	2.3
dental problem	.1	0.1	-	-	-	-	-	-	1.1	-	-
Depression Illness**	.5	0.1	-	-	-	9.8	-	-	6.5	-	-
DM	5.3	6.6	6.6	1.9	1.5	3.3	-	2.4	1.1	2.4	2.3
Ear Problem	.1	0.2	-	-	-	-	-	-	-	1.2	-
Epilepsy**	.4	0.2	0.6	0.6	-	4.9	-	-	2.2	-	-
Eye Problem	3.2	1.5	1.7	-	28.5	1.6	-	1.2	-	-	-
Goitre	.3	0.5	-	-	-	-	-	-	-	-	-
GS	2.3	3.4	0.6	-	0.5	3.3	-	-	-	-	-
GU	2.1	2.7	1.7	0.6	-	1.6	-	-	-	-	-
Gynae	2.6	3.6	1.1	0.6	1.0	-	-	1.2	1.1	1.2	-
HIV/AIDS	.9	0.7	1.7	0.6	-	3.3	-	-	-	-	-
Infection	2.3	2.2	2.8	1.2	1.0	1.6	11.8	2.4	2.2	2.4	9.1
Malaria	3.2	0.7	11.6	3.7	0.5	3.3	23.5	25.3	8.6	25.3	4.5
Mania**	.1	-	-	-	-	3.3	-	-	-	-	-
Neurosis**	.0	-	-	-	-	1.6	-	-	-	-	-
None	.1	.1	0.6	-	-	-	-	-	-	-	-
Obst	4.9	5.7	0.6	4.3	8.5	-	2.9	1.2	4.3	1.2	4.5
OM	2.3	2.4	3.9	0.6	4.0	1.6	-	-	2.2	-	-
Ortho/STI	8.5	10.5	9.9	4.9	2.0	6.6	5.9	1.2	3.2	1.2	-
Pain	1.8	2.0	2.2	1.9	-	4.9	-	-	1.1	-	2.3
peuperal Psychosis**	.1	-	0.6	-	-	-	2.9	-	-	-	-
Psychosis**	.2	.1	0.6	-	-	4.9	-	-	1.1	-	-
PUD	2.3	3.0	1.1	2.5	1.0	-	-	-	-	-	2.3
RS	2.9	2.5	5.0	1.2	2.0	8.2	5.9	3.6	6.5	3.6	2.3
Schizophrenia**	.1	.1	-	-	-	1.6	2.9	-	-	-	-
Stress**	.2	.1	-	1.2	-	-	2.9	-	1.1	-	-
SUA**	.0	-	-	-	-	1.6	-	-	-	-	-
TB	3.6	3.6	2.2	1.9	-	3.3	2.9	-	17.2	-	-
Testing	.0	.1	-	-	-	-	-	-	-	-	-
Typhoid	1.4	.7	0.6	3.7	3.0	3.3	14.7	1.2	2.2	-	4.5

Table A14: File Diagnosis (Only %'s reproduced)

	All Sites	KNH	Embu	Kiambu	Kikuyu	Kajiado	Kibera	Makindu	Naivasha	Magadi	Karuri
N	2813	1828	181	N=162	200	61	N=34	83	93	82	44
None response	7.4	6.9	6.6	6.8	4.5	4.9	-	-	22.6	-	11.4
Anxiety**	.1	-	-	-	-	3.3	-	-	-	-	-
AUA**	.1	-	0.6	-	-	-	-	-	1.1	-	-
CT	3.6	5.0	2.8	1.2	-	-	-	-	-	-	-
CVD	7.3	10.2	6.1	1.9	-	3.3	-	1.2	2.2	1.2	-
dental problem	.3	.2	-	0.6	-	-	-	1.2	-	1.2	-
Depression Illness**	.8	.2	-	-	0.5	16.4	2.9	-	6.5	-	-
DM	5.8	6.9	6.6	5.6	2.5	3.3	-	2.4	1.1	2.4	2.3
Ear Problem	.8	.9	2.2	-	-	-	-	1.2	-	1.2	-
Epilepsy**	.9	.8	0.6	1.2	-	6.6	-	-	4.3	-	-
Eye Problem	4.2	1.5	0.6	0.6	43.5	-	-	-	-	-	2.3
Goitre	.3	.5	-	-	-	-	-	-	-	-	-
GS	2.8	3.8	-	0.6	0.5	4.9	-	-	1.1	-	-
GU	2.2	2.9	0.6	0.6	-	3.3	-	2.4	-	2.4	-
Gynae	6.0	8.0	3.9	3.1	1.0	-	-	4.8	2.2	4.8	2.3
HIV/AIDS	.9	.9	1.1	-	-	1.6	-	-	1.1	-	-
Infection	4.8	3.7	5.5	8.0	4.5	4.9	5.9	7.2	6.5	7.2	20.5
Malaria	6.6	.9	23.2	18.5	4.5	3.3	35.3	36.1	14.0	36.1	11.4
MCH	-	-	-	-	-	-	-	7.2	-	7.2	-
Mania**	.1	-	-	-	-	3.3	-	-	-	-	-
Neurosis**	.2	-	0.6	-	-	4.9	-	-	-	-	-
None	.1	4.1	0.6	-	0.5	-	-	2.4	-	2.4	-
Obst	2.8	9.2	2.8	7.4	21.5	1.6	-	9.6	2.2	9.6	25.0
OM	9.0	3.0	1.1	3.1	1.5	1.6	2.9	4.8	3.2	4.8	-
Ortho/STI	2.8	13.6	15.5	10.5	5.0	3.3	5.9	3.6	5.4	3.6	9.1
Pain	11.8	3.0	2.8	4.9	2.5	1.6	-	2.4	1.1	2.4	-
peuperal Psychosis**	2.8	.7	1.7	-	-	-	2.9	-	-	-	-
PP**	.8	-	-	-	-	9.8	2.9	-	2.2	-	2.3
Psychosis**	.1	-	0.6	-	-	-	2.9	-	-	-	-
PTSD**	.2	.3	0.6	-	-	-	-	-	-	-	-
PUD	3.7	4.3	2.8	6.2	1.5	-	2.9	1.2	2.2	1.2	2.3

RS	4.6	4.0	8.3	4.9	1.5	4.9	8.8	10.8	7.5	10.8	2.3
Schizophrenia**	.1	.1	-	-	-	1.6	2.9	-	1.1	-	-
Stress**	.1	-	-	-	-	1.6	-	-	1.1	-	-
SUA**	.1	-	-	-	-	4.9	-	-	-	-	-
Para-Suicide**	.1	.1	0.6	-	-	-	-	-	-	-	-
TB	3.9	3.7	1.7	4.9	1.0	1.6	2.9	-	10.8	-	-
Testing	0	-	-	-	-	-	-	-	-	-	-
Typhoid	1.7	0.5	0.6	8.6	3.5	3.3	20.6	1.2	1.1	1.2	9.1

Table A15: Summaries Tables 12, 13, 14 only for mental health disorders (Only %'s reproduced)

	Patient	Doctor	File
AUA	0	0.1	0.1
Anxiety	0.1	0.1	0.1
Depression	0.3	0.5	0.8
Epilepsy	0.6	0.4	0.9
Mania	0	0.1	0.1
Neurosis	0	0	0.2
Psychosis	0.7	0.2	0.1
PP/Puerperal psychosis	0	0.1	3.6
PTSD	0	0	0.2
Schizophrenia	0.1	0.1	0.1
Para-suicide	0	0	0.1
Stress	0	0.2	0.1
SUA	0	0	0.1

Table A16: A member /covered by NHIF?

	All Sites	KNH	Embu	Kiambu	Kikuyu	Kajiado	Kibera	makindu	Naivasha	Magadi	Karuri
	N=2606	N=1684	N=128	N=159	N=192	N=61	N=33	N=100	N=83	N=83	N=39
Yes	18.2%	20.8%	22.7%	3.8%	16.7%	11.5%	21.2%	7.0%	15.7%	22.9%	-
No	81.8%	79.2%	77.3%	96.2%	83.3%	88.5%	78.8%	93.0%	84.3%	77.1%	100%

Table A17: Any other medical cover?

	All Sites	KNH	Embu	Kiambu	Kikuyu	Kajiado	Kibera	makindu	Naivasha	Magadi	Karuri
	N=2589	N=1734	N=118	N=148	N=160	N=61	N=25	N=113	N=64	N=82	N=39
Yes	5.3%	5.5%	7.6%	4.7%	3.8%	1.6%	16.0%	6.2%	12.5%	7.3%	-
No	94.7%	94.5%	92.4%	95.3%	96.2%	98.4%	84.0%	93.8%	87.5%	92.7%	100%

Table A18: Your monthly income in Kenya Shillings (Kshs.) (Only %'s reproduced)

* 70Kshs = 1 US Dollar	All Sites	KNH	Embu	Kiambu	Kikuyu	Kajiado	Kibera	makindu	Naivasha	Magadi	Karuri
	N=1397	N=916	N=71	N=96	N=106	N=33	N=16	N=39	N=46	N=37	N=23
<1000	5.7	3.8	36.6	9.4	0.9	3.0	-	31.8	10.9	2.7	-
1001-3500	17.3	17.2	12.7	11.5	4.7	12.2	25.0	43.6	37.0	13.5	30.4
3501-7000	25.9	25.8	25.4	35.4	20.8	18.1	18.8	20.5	37.0	10.8	30.4
7001-14000	27.1	27.8	16.9	31.3	44.3	21.2	18.8	2.6	8.7	18.9	39.2
14001-35000	21.1	22.5	8.5	10.4	29.2	30.3	37.5	2.6	6.5	37.8	-
35001-70000	2.4	2.9	-	-	-	25.2	-	-	-	16.2	-
>70000	0.5	0	-	2.1	-	-	-	-	-	-	-

Table A19: Who is paying for your treatment? (Only %'s reproduced)

	All Sites	KNH	Embu	Kiambu	Kikuyu	Kajiado	Kibera	makindu	Naivasha	Magadi	Karuri
	N=2704	1727	N=147	N=154	N=194	N=	N=32	N=125	N=84	N=83	N=44
Self	39.2	39.6	44.2	56.5	54.6	65.5	46.9	30.4	46.4	16.9	43.2
Self/spouse	0.8	0	-	5.8	4.6	-	-	-	1.2	-	-
Self/parent	0.3	0	-	-	-	-	-	-	1.2	2.4	-
Self/employer			0.7	-	-	-	-	-	-	-	-
Self/other family members	4.8	2.3				-					
Parent	15.0	15.7	22.4	17.5	16.5	14.7	37.5	14.4	16.7	4.8	15.9
Spouse	17.5	19.5	17.0	11.7	13.9	4.9	15.6	28.0	20.2	14.5	29.5
Sibling	2.4	3.1	2.0	1.9	0.5	-	-	4.0	2.4	1.2	-
Children	3.2	3.9	5.4	5.8	4.6	-	-	10.4	2.4	-	2.3
Other Relatives	1.6	2.9	3.4	0.6	0.5	1.6	-	5.6	1.2	2.4	2.3
Family Friends	0.6	5.9				-					
Well Wishers	1.5	1.2	-	-	1.0	-	-	1.6	1.2	-	2.3
Employer	5.5	4.7	0.7	5.8	3.6	1.6	-	4.0	2.4	57.8	2.3
Waived	0.4	0.1	1.4	-	-	6.5	-	-	3.6	-	-
Insurance	1.2	0.6	2.7	5.8	-	4.9	-	-	2.4	-	-
Other	0.3	0.6	-	-	-	-	-	1.6	-	-	-

Table A20: Any difficulties paying for your care? (Only %'s reproduced)

	All Sites	KNH	Embu	Kiambu	Kikuyu	Kajiado	Kibera	makindu	Naivasha	Magadi	Karuri
	N=2764	N=1779	N=150	N=162	N=197	N=60	N=34	N=126	N=89	N=83	N=42
Yes	57.7	66.9	46.7	51.9	24.4	45	41.2	46.0	64.0	26.5	7.1
No	42.3	33.1	53.3	48.1	75.6	55	58.8	54.0	36.0	73.5	92.9

Table A21 - BDI RESULTS

	All sites N=2555	KNH N=1654	Embu N=126	Kiambu N=160	Kikuyu N=195	Kajiado N=51	Kibera N=26	Makindu N=115	Naivasha N=74	Magadi N=122	Karuri N=40
Normal (0-8) n=1474	57.7%	53.8%	46.2%	75.6%	92.8%	47.1%	65.4%	36.5%	33.8%	86.1%	85.0%
Mild depression (9-20) n=994	38.9%	43.0%	38.7%	18.8%	6.7%	51.0%	30.8%	56.5%	58.1%	12.3%	15.0%
Moderate depression (21-40) n=82	3.2%	3.1%	5.2%	3.75%	0.5%	2.0%	3.8%	6.1%	6.8%	1.6%	-
Severe (>40) n=5	0.2%	0.1%	0.8%	1.9%	-	-	-	0.9%	1.4%	-	-
% BDI Depression	42.3%	46.2%	53.8%	24.4%	7.2%	52.9%	34.6%	63.5%	66.2%	13.9%	15%

Table A22: NOK RESULTS

N	All sites N=2347	KNH N=1511	Embu N=101	Kiambu N=155	Kikuyu N=190	Kajiado N=60	Kibera N=24	Makindu N=94	Naivasha N=58	Magadi N=119	Karuri N=36
Normal (0-19) n=1814	77.3%	80.0%	51.0%	85.9%	98.5%	48.3%	79.0%	25.7%	73.8%	68.8%	94.4%
Mild (20-49) n=437	18.6%	18.0%	38.0%	8.5%	1.5%	28.3%	12.6%	34.8%	13.6%	16.6%	2.8%
Moderate (50-70) n=80	3.4%	1.7%	9.0%	5.6%	-	16.7%	8.4%	13.0%	8.5%	2.4%	2.8%
Severe (>71) n=16	0.7%	0.3%	2.0%	-	-	6.7%	-	5.4%	3.4%	-	-
Total positive for NOK	22.7%	20%	49%	14.1%	1.5%	51.7%	21%	74.3%	26.2%	31.2%	5.6%

Table A23: Psychosis

PSYCHOSIS	All sites	KNH	Embu	Kiambu	Kikuyu	Kajiado	Kibera	Makindu	Naivasha	Magadi	Karuri
	N=82	N=58	N=1	N=0	N=0	N=9	N=2	N=3	N=12	N=0	N=0
No psychosis<12	-	-	-	-	-	-	-	-	-	-	-
Query Psychosis13-25	61.0%	65.5%	100%	-	-	11.1%	-	66.7%	83.3%	-	-
Psychosis>26	39.0%	34.5%	-	-	-	88.9%	10%	33.3%	16.7%	-	-

Table A24: LSAD

	All sites	KNH	Embu	Kiambu	Kikuyu	Kajiado	Kibera	Makindu	Naivasha	Magadi	Karuri
(i) Endogenous N	2613	1704	146	157	195	61	33	117	75	83	42
Normal <6	78.6%	79.0%	69.2%	80.3%	89.2%	62.3%	72.7%	70.1%	74.7%	81.9%	90.5%
Mild to moderate 7-11	19.5%	19.4%	27.4%	19.7%	10.3%	29.5%	27.3%	26.5%	16.0%	18.1%	9.5%
Moderate to severe >12	1.9%	1.6%	3.4%	-	0.5%	8.2%	-	3.4%	9.3%	-	-
Mild + Moderate (%)	21.4	21.0	30.8	19.7	10.8	37.7	27.3	29.9	25.3	18.1	9.5
(ii) Anxiety Neurosis N	2526	1650	121	157	197	61	33	111	70	83	43
Normal <6	88.4%	90.2%	80.2%	91.7%	98.5%	62.3%	84.8%	62.2%	80.0%	94.0%	93.0%
Mild to moderate 7-11	8.4%	7.9%	15.7%	7.0%	1.5%	24.6%	9.1%	16.2%	11.4%	2.4%	7.0%
Moderate to severe >12	3.2%	1.9%	4.1%	1.3%	-	13.1%	6.1%	21.6%	8.6%	3.6%	-
Mild + Moderate (%)	11.6	9.8	19.8	8.3	1.5	37.7	15.2	37.8	20.0	6.0	7.0
(iii) Depression General N	2605	1700	145	157	195	61	33	114	75	83	42
Normal <6	73.5%	73.0%	64.1%	80.9%	86.7%	63.9%	75.8%	60.5%	69.3%	74.7%	90.5%
Mild to moderate 7-11	24.4%	25.3%	30.3%	19.1%	13.3%	21.3%	21.2%	37.7%	24.0%	25.3%	9.5%
Moderate to severe >12	2.1%	1.7%	5.5%	-	-	14.8%	3.0%	1.8%	6.7%	-	-
Mild + Moderate (%)	26.5	27.0	35.8	19.1	13.3	36.1	24.2	39.5	30.7	25.3	9.5
(iv) Anxiety General N	2504	1628	118	156	194	61	33	113	74	83	43
Normal <6	88.5%	90.7%	75.4%	92.3%	97.9%	62.3%	84.8%	63.7%	77.0%	92.8%	97.7%
Mild to moderate 7-11	8.9%	7.8%	20.3%	5.8%	1.5%	24.6%	12.1%	23.0%	14.9%	4.8%	2.3%
Moderate to severe >12	2.6%	1.5%	4.2%	1.9%	.5%	13.1%	3.0%	13.3%	8.1%	2.4%	-
Mild + Moderate (%)	11.5	9.3	24.5	7.7	2.0	37.7	15.1	36.3	23.0	7.2	2.3

Table A25: Edinburgh Postnatal Depression Scale (EPDS)

EPDS	All sites	KNH	Embu	Kiambu	Kikuyu	Kajiado	Kibera	Makindu	Naivasha	Magadi	Karuri
N	226	134	32	7	6	2	3	48	10	23	1
Normal <10	4.1%	.7%	31.3%	-	-	-	-	-	-	-	-
Mild 11-20	6.0%	9.7%	-	-	-	-	-	2.1%	-	8.7%	-
Moderate 21-30	75.6%	79.1%	53.1%	85.7%	66.7%	100%	100%	89.6%	60.0%	56.5%	100%
Severe >31	14.3%	10.4%	15.6%	14.3%	33.3%	-	-	8.3%	40.0%	34.8%	-
Mild + Moderate + severe (%)	95.9	99.3	68.7	100	100	100	100	100	100	100	100

Table A26: AUDIT

Drugs	All sites	KNH	Embu	Kiambu	Kikuyu	Kajiado	Kibera	Makindu	Naivasha	Magadi	Karuri
Male											
Normal 4 – 12	117 (25.4%)	101 (26.3%)	-	2 (16.6%)	4 (17.4%)	-	-	2 (22.2%)	3 (33.3%)	4 (28.6%)	2 (28.6%)
Harmful 13 – 18	146 (11.3%)	106 (28.8%)	6 (33.5%)	6 (50.1%)	13 (56.7%)	-	2 (28.6%)	2 (22.2%)	6 (66.6%)	6 (42.9%)	4 (57.1%)
Dependent 19+	197 (63.3%)	250 (44.9%)	12 (66.5%)	4 (33.3%)	6 (25.9%)	4 (100%)	5 (71.4%)	5 (55.6%)	9 (0.1%)	4 (28.5%)	1 (14.3%)
Female											
Normal 4 – 12	178 (66.4%)	139 (69.5%)	3 (50%)	2 (25%)	3 (37.5%)	20 (100%)	16 (100%)	1 (50%)	1 (50%)	3 (75%)	3 (75%)
Harmful 13 – 18	26 (11.2%)	18 (1.8%)	-	3 (37.5%)	4 (50%)	-	-	-	-	1 (25%)	-
Dependent 19+	31 (22.4%)	43 (28.7%)	3 (50%)	3 (37.5%)	1 (12.5%)	-	-	1 (50%)	1 (50%)	-	1 (25%)

**Table A27: WHO-ASSIST -
THE TYPES OF DRUGS – ALL SITES (ASSIST)**

Key:

No – Intervention 0-3

Receive brief Intervention 4-26

More intensive Treatment 27+

Drugs	All sites	KNH	Embu	Kiambu	Kikuyu	Kajiado	Kibera	Makindu	Naivasha	Magadi	Karuri
Alcohol	N=706	N=423	N=26	N=30	N=46	N=14	N=14	N=29	N=14	N=28	N=4
No Intervention	160 (22.7%)	111 (21.2%)	1 (5.3%)	6 (20.7%)	16 (44.4%)	2 (14.3%)	8 (57.1%)	4 (13.8%)	1 (7.1%)	9 (32.1%)	2 (40%)
Receive Brief Intervention	536 (75.9%)	307 (77.9%)	25 (94.7%)	22 (75.9%)	30 (55.6%)	12 (85.7%)	6 (42.9%)	23 (79.3%)	10 (71.4%)	17 (60.8%)	2 (40%)
More intensive Treatment	10 (1.4%)	5 (0.9%)	-	1 (3.4%)	-	-	-	2 (6.9%)	3 (21.4%)	2 (7.1%)	1 (20%)
Tobacco	N=452	N=318	N=11	N=21	N=21	N=15	N=2	N=23	N=14	N=8	N=3
No Intervention	51 (11.3%)	37 (11.6%)	1 (12.5%)	4 (19%)	3 (14.3%)	1 (6.7%)	1 (50%)	1 (4%)	8 (57.1%)	1 (12.5%)	1 (33.3%)
Receive Brief Intervention	390 (86.6%)	275 (86.8%)	10 (87.5%)	16 (76.2%)	18 (85.7%)	14 (93.3%)	1 (50%)	22 (88%)	6 (42.8%)	7 (87.5%)	1 (33.3%)
More intensive Treatment	11 (2.1%)	6 (1.6%)	-	1 (4.8%)	-	-	-	2 (8%)	-	-	1 (33.3%)
Cannabis	N=107	N=72	N=2	N=4	N=5	N=10	N=1	N=6	N=4	N=1	N=1
No Intervention	4 (3.7%)	2 (2.8%)	-	-	-	2 (20%)	-	-	-	-	-
Receive Brief Intervention	92 (87.8%)	64 (90.4%)	2 (100%)	4 (80%)	5 (100%)	8 (80%)	-	4 (77.7%)	4 (100%)	1 (100%)	-
More intensive Treatment	11 (8.5%)	6 (6.8%)	-	1 (20%)	-	-	1 (100%)	2 (33.3%)	-	-	1 (100%)
Cocaine	N=33	N=20	N=2	N=2	N=2	N=3	N=1	N=2	N=0	N=0	N=1
No Intervention	1 (3%)	1 (5%)	-	-	-	-	-	-	-	-	-
Receive Brief Intervention	22 (66.7%)	14 (70%)	2 (100%)	1 (50%)	2 (100%)	3 (100%)	-	-	-	-	-
More intensive Treatment	10 (30.3%)	5 (25%)	-	1 (50%)	-	-	-	1 (100%)	-	-	1 (100%)

Amphetamine/ Khat	N=100	N=71	N=2	N=2	N=2	N=10	N=2	N=8	N=1	N=1	N=1
No Intervention	5 (5%)	3 (4.2%)	-	-	-	2 (20%)	-	-	-	-	-
Receive Brief Intervention	84 (84%)	62 (87.8%)	2 (100%)	1 (50%)	2 (100%)	8 (80%)	1 (50%)	6 (75%)	1 (100%)	1 (100%)	-
More intensive Treatment	11 (11%)	6 (8%)	-	1 (50%)	-	-	1 (50%)	2 (25%)	-	-	1 (100%)
Sedatives (Sleeping pills)	N=64	N=26	N=4	N=2	N=1	N=9	N=1	N=2	N=5	N=0	N=1
No Intervention	5 (9.3%)	-	3 (75%)	-	-	1 (11.1%)	-	-	4 (80%)	-	-
Receive Brief Intervention	48 (70.2%)	20 (86%)	1 (25%)	1 (50%)	1 (100%)	8 (98.9%)	-	-	1 (20%)	-	-
More intensive Treatment	11 (20.5%)	6 (12%)	-	1 (50%)	-	-	1 (100%)	2 (100%)	-	-	1 (100%)

Table A28: Mini Mental State

MINI MENTAL STATE	All sites 2276	KNH 1458	Embu 88	Kiambu 150	Kikuyu 199	Kajiado 61	Kibera 23	Makindu 86	Naivasha 84	Magadi 83	Karuri 44
Normal ≥ 24	91.5%	94.1%	93.2%	93.3%	99.5%	78.7%	100%	47.7%	84.5%	75.9%	100%
Abnormal 0-14	8.5%	5.9%	6.8%	6.7%	.5%	21.3%	-	52.3%	15.5%	24.1%	-

Table A29: Co-morbidity of Mental Health Disorders with 18 Diagnostic categories of diagnoses of physical Disorders

BDI	1. CT 89	2.CVD 43	3. DM 157	4. Eye Problem 162	5. GS 69	6. PUD 92	7. RS 121	8. TB 102	9. Typhoi d 43	10. OBST 226	11. Infection 124
Normal <8	40.4%	83.7%	62.4%	84.6%	52.2%	54.3%	58.7%	58.8%	83.7%	64.6%	64.5%
Mild 9-27	55.1%	16.3%	36.3%	13.6%	39.1%	42.4%	39.7%	2.0%	16.3%	31.9%	33.1%
Moderate 28-45	4.5%	-	1.3%	1.9%	8.7%	3.3%	1.7%	7.8%	-	3.5%	2.4%
Severe >46	-	-	-	-	-	-	-	30.4%	-	-	-
Mild to severe (%)	59.6	16.3	37.6	15.4	47.8	46.7	41.3	41.2	16.3	35.4	35.5
LSAD											
(i) Endogenous	CT 91	CVD 46	DM 162	Eye Problem 161	GS 75	PUD 91	RS 120	TB 103	Typhoi d 46	OBST 232	Infection 123
Normal <6	65.9%	80.4%	90.7%	80.1%	73.3%	74.7%	79.2%	66.0%	80.4%	85.8%	78.9%
Mild to moderate 7- 11	30.8%	19.6%	8.6%	17.4%	20.0%	22.0%	17.5%	34.0%	19.6%	13.8%	21.1%
Moderate to severe >12	3.3%	-	.6%	2.5%	6.7%	3.3%	3.3%	-	-	.4%	-
Mild to severe (%)	34.1	19.6	9.3	19.9	26.7	25.3	28.8	34.0	19.6	14.2	21.1
(ii) Anxiety Neurosis	CT 19	CVD 45	DM 155	Eye Problem 153	GS 67	PUD 92	RS 116	TB 103	Typhoi d 45	OBST 233	Infection 126
Normal <6	71.4%	95.6%	92.9%	92.2%	85.1%	87.0%	90.5%	77.7%	95.6%	94.8%	93.7%
Mild to moderate 7- 11	19.8%	4.4%	6.5%	6.5%	9.0%	12.0%	6.0%	12.6%	4.4%	3.9%	1.6%
Moderate to severe >12	8.8%	-	.6%	1.3%	6.0%	1.1%	3.4%	9.7%	-	1.3%	4.8%
Mild to	28.6	4.4	7.1	7.8	14.9	13.0	9.5	22.3	4.4	5.2	6.3

severe (%)											
(iii) Depression General	CT 91	CVD 46	DM 151	Eye Problem 161	GS 73	PUD 91	RS 119	TB 104	Typhoi d 46	OBST	Infection 123
Normal <6	57.8%	87.0%	82.8%	78.3%	67.1%	71.4%	73.9%	61.5%	87.0%	80.8%	76.4%
Mild to moderate 7-11	40.0%	10.9%	16.6%	19.3%	30.1%	25.3%	24.4%	37.5%	10.9%	17.1%	22.8%
Moderate to severe >12	2.2%	2.2%	.7%	2.5%	2.7%	3.3%	1.7%	1.0%	2.2%	2.1%	.8%
Mild to severe (%)	42.2	13.0	17.2	21.7	32.9	28.6	26.1	38.5	13.0	19.2	23.6
(iv) Anxiety General	CT 88	CVD 44	DM 151	Eye Problem 157	GS 68	PUD 88	RS 118	TB 102	Typhoi d 44	OBST	Infection 125
Normal <6	78.4%	100%	93.4%	91.1%	86.8%	85.2%	89.0%	80.4%	100%	95.2%	92.0%
Mild to moderate 7-11	18.2%	-	5.3%	7.6%	10.3%	1.1%	7.6%	13.7%	-	2.6%	4.0%
Moderate to severe >12	3.4%	-	1.3%	1.3%	2.9%	13.6%	3.4%	5.9%	-	2.2%	4.0%
Mild to severe (%)	21.6	0	6.6	8.9	13.2	14.8	11.0	19.6	0	4.8	8.0
NOK	CT 84	CVD 43	DM 141	Eye Problem 152	GS 64	PUD 85	RS 107	TB 89	Typhoi d 43	OBST 224	Infection 118
Normal <19	65.5%	86.0%	88.7%	84.2%	75.0%	70.6%	75.7%	62.9%	86.0%	88.4%	84.7%
Mild 20-47	22.6%	9.3%	11.3%	12.5%	20.3%	25.9%	24.3%	22.5%	9.3%	10.7%	11.9%
Moderate 48-75	11.9%	4.7%	-	2.6%	4.7%	3.5%	-	12.4%	4.7%	.9%	3.4%
Severe >75	-	-	-	.7%	-	-	-	2.2%		-	-
Mild to severe (%)											
AUDIT	CT 24	CVD 6	DM 31	Eye Problem	GS 38	PUD 25	RS 35	TB 28	Typhoi d	OBST 47	Infection 33

				36					6		
Normal 4-12	31.6%	33.3%	45.2%	36.1%	34.2%	-	31.4%	14.3%	33.3%	23.4%	21.2%
Harmful 13-16	47.4%	50.0%	22.6%	22.2%	13.2%	52.0%	17.1%	21.4%	50.0%	63.8%	27.3%
Dependent >17	21.1%	16.7%	32.3%	41.7%	52.6%	48.0%	51.4%	64.3%	16.7%	12.8%	51.5%
Additional	CT	CVD 1	DM	Eye Problem 3	GS 3	PUD	RS 4	TB 2	Typhoid 1	OBST 6	Infection 2
Normal <12	-	-	-	-	-	-	-	-	-	-	-
13-25	-	-	-	-	66.7%	-	75.0%	100%	-	50.0%	50.0%
Query Psychosis											
Psychosis >26	-	100%	-	100%	33.3%	-	25.0%	-	100%	50.0%	50.0%

Continuation of Table A29 above

BDI	12. Malaria 164	13. OM 73	14. ORTH/STI 299	15. GYNAE 155	16. HIV/AIDS 23	17. GU 54	18. PAIN 75
Normal <8	71.3%	63.0%	55.9%	52.9%	47.8%	53.7%	57.3%
Mild 9-27	25.6%	35.6%	41.1%	45.8%	52.2%	44.4%	40.0%
Moderate 28-45	3.0%	1.4%	2.7%	1.3%	-	1.9%	2.7%
Severe >46	-	-	.3%		-	-	-
Mild to Severe (%)	28.7	37.0	44.1	47.1	52.2	46.3	42.7
LSAD							
(i) Endogenous	Malaria 152	OM 76	ORTH/STI 311	GYNAE 157	HIV/AIDS 22	GU 58	PAIN 68
Normal <6	80.9%	76.3%	76.5%	84.7%	68.2%	74.1%	77.9%
Mild to moderate 7-11	17.8%	19.7%	21.5%	14.6%	27.3%	25.9%	20.6%
Moderate to severe >12	1.3%	3.9%	1.9%	.6%	4.5%	-	1.5%

Mild to Severe (%)	19.1	23.7	23.5	15.3	31.8	25.9	22.1
(ii) Anxiety Neurosis	Malaria 148	OM 73	ORTH/STI 296	GYNAE 151	HIV/AIDS 21	GU 58	PAIN 67
Normal <6	83.8%	89.0%	90.2%	95.4%	71.4%	93.1%	89.6%
Mild to moderate 7-11	8.1%	5.5%	7.8%	4.6%	23.8%	5.2%	9.0%
Moderate to severe >12	8.1%	5.5%	2.0%	-	4.8%	1.7%	1.5%
Mild to Severe (%)	16.2	11.0	9.8	4.6	28.6	6.9	10.4
(iii) Depression General	Malaria 152	OM 76	ORTH/STI 312	GYNAE 154	HIV/AIDS 20	GU 58	PAIN 68
Normal <6	77.0%	71.1%	67.3%	82.5%	70.0%	67.2%	77.9%
Mild to moderate 7-11	19.7%	26.3%	31.1%	16.2%	25.0%	31.0%	17.6%
Moderate to severe >12	3.3%	2.6%	1.6%	1.3%	5.0%	1.7%	4.4%
Mild to Severe (%)	23.0	28.9	32.7	17.5	30.0	32.8	22.1
(iv) Anxiety General	Malaria 143	OM 76	ORTH/STI 293	GYNAE 154	HIV/AIDS 20	GU 55	PAIN 69
Normal <6	86.7%	89.5%	89.8%	94.8%	70.0%	87.3%	88.4%
Mild to moderate 7-11	8.4%	6.6%	1.7%	5.2%	25.0%	12.7%	10.2%
Moderate to severe >12	4.9%	3.9%	8.5%	-	5.0%	-	1.4%
Mild to Severe (%)	13.3	10.5	10.2	5.2	30.0	12.7	11.6
NOK	Malaria 132	OM 70	ORTH/STI 279	GYNAE 149	HIV/AIDS 17	GU 48	PAIN 63
Normal <19	67.4%	21.4%	77.1%	89.3%	35.3%	72.9%	73.0%
Mild 20-47	6.1%	1.4%	.7%	8.7%	58.8%	22.9%	27.0%
Moderate 48-75	25.8%	71.4%	20.8%	2.0%	5.9%	4.2%	-
Severe >75	.8%	5.7%	1.4%	-	-	-	-
Mild to Severe (%)	32.6	78.6	28.9	10.7	64.7	27.1	27.0
AUDIT	Malaria 28	OM 15	ORTH/STI 126	GYNAE 54	HIV/AIDS 6	GU 13	PAIN 24
Normal 4-12	32.1%	46.7%	19.8%	77.8%	-	46.2%	50.0%
Harmful 13-16	17.9%	20.0%	28.6%	11.1%	66.7%	7.7%	16.7%
Dependent >17	50.0%	33.3%	51.6%	11.1%	33.3%	46.2%	33.3%

Additional	Malaria 5	OM 3	ORTH/STI 5	GYNAE 7	HIV/AIDS 1	GU 2	PAIN 2
Normal <12	-	-	-	-	-	-	-
13-25 Psychosis Query	60.0%	75%	64.3%	100%	100%	50%	50%
Psychosis >26	40.0%	25%	35.7%	-	-	50%	50%

Table A30: Investigation Results for Malaria

Description	Testing
People tested	83 (44.6%)
Persons not tested	103(55.4%)
Positive slide	78 (41.9%)
Negative slide	5 (2.7%)
Treatment	186 (100%)

Note: 55.4% of people on Malaria treatment were not tested for malaria parasites. Of those tested 78/83, i.e. 94% were positive and 6% negative.

Table A31: Type of mental disorders mentioned - Extracted from Table A14

	All sites N=114(%)	KNH N=39(%)	Embu 5(%)	Kiambu 1(%)	Kikuyu 1(%)	Kajiado 37(%)	Kibera 4(%)	Makindu 1(%)	Naivasha 24(%)	Magadi 1(%)	Karuri 1(%)
None	12.3%	12.8%	40%	0	100%	0	0	100%	20.8%	100%	0
Alcohol use/abuse	2.6%	5.1%	0	0	0	2.7%	0	0	0	0	0
Anxiety	5.3%	12.8%	0	0	0	2.7%	0	0	0	0	0
Bipolar disorder	4.4%	2.6%	0	0	0	2.7%	25%	0	0	0	100%
chronic illness	3.5%	10.3%	0	100%	0	0	0	0	0	0	0
Confusion	1.8%	5.1%	0	0	0	0	0	0	0	0	0
Dementia	2.6%	0	0	0	0	8.1%	0	0	0	0	0
Depression	21.9%	23.1%	40%	0	0	16.2%	0	0	29.2%	0	0
Epilepsy	6.1%	0	0	0	0	10.8%	0	0	12.5%	0	0
Insomnia	1.8%	2.6%	0	0	0	2.7%	0	0	0	0	0
Neurosis	4.4%	0	0	0	0	13.5%	0	0	0	0	0
Other psychiatric dis	4.4%	5.1%	0	0	0	0	0	0	12.5%	0	0
Personality disorder	0.9%	2.6%	0	0	0	0	0	0	0	0	0
Psychosis	5.3%	0	0	0	0	10.8%	50%	0	0	0	0
Schizophrenia	1.8%	0	0	0	0	2.7%	25%	0	0	0	0
Sexual dysfunction	1.8%	0	0	0	0	5.4%	0	0	0	0	0
Speech disorder	0.9%	2.6%	0	0	0	0	0	0	0	0	0
Stress	7.9%	10.3%	0	0	0	0	0	0	20.5%	0	0
Substance use disorder	7.9%	5.1%	20%	0	0	16.2%	0	0	0	0	0
Suicide	2.6%	0	0	0	0	5.4%	0	0	4.2%	0	0

Table A32: Referrals to mental health care specialist/clinic

	All sites	KNH	Embu	Kiambu	Kikuyu	Kajiado	Kibera	Makindu	Naivasha	Magadi	Karuri
Referrals made	N=114)	39	5	1	1	37	4	1	24	1	1
Yes	50.9%	20.5%	60%	100%	0	75.7%	75%	0	70.8%	0	100%
no	30.7%	46.2%	40%	0	0	21.6%	0	0	29.2%	0	0
No indicated	18.4%	33.3%	0	0	100%	2.7%	25%	100%	0	100%	0

Table A33: Referrals for psychiatric care

	All sites	KNH	Embu	Kiambu	Kikuyu	Kajiado	Kibera	Makindu	Naivasha	Magadi	Karuri
Which mental specialist referred to	N=114	15	3	1	0	28	3	0	15	0	1
Comprehensive care clinic	3%	13.3%	0	0	0	0	0	0	0	0	
Counselling clinic	7.6%	20.0%	33.3%	0	0	0	33.3%	0	0	0	
Embu mental h. clinic	3%	0	66.7%	0	0	0	0	0	0	0	
KNH	3%	0	0	0	0	3.6%	33.3%	0	0	0	
Mathare	9.1%	0	0	100%	0	10.7%	33.3%	0	0	0	100%
Psychiatric nurse	59.1%	0	0	0	0	85.7%	0	0	0	0	
Psychiatric clinic	9.1%	40%	0	0	0	0	0	0	100%	0	
None	6.1%	26.7%	0	0	0	0	0	0	0	0	

TABLE A34: BDI in Out-Patients Compared With Out-Patients

	All sites N=1575	KNH N=927	Embu N=59	Kiambu N=159	Kikuyu N=201	Kajiado N=39	Kibera N=25	Makindu N=26	Naivasha N=42	Magadi N=26	Karuri N=40
Normal (0-8)	1047 (66.5%)	577 (62.2%)	23 (39%)	120 (75.5%)	183 (91%)	46.2%)	17 (68.0%)	8 (30.8%)	13 (31%)	8 (30.8%)	34 (85%)
Mild depression (9-20)	423 (26.9%)	299 (32.3%)	21 (35.6%)	30 (18.9%)	14 (7%)	13 (33.3%)	5 (20%)	13 (50%)	19 (45.2%)	13 (50%)	5 (12.5%)
Moderate depression (21-40)	102 (6.5%)	50 (5.4%)	15 (25.4%)	8 (5%)	4 (2%)	8 (20.5%)	3 (12%)	4 (15.4%)	10 (23.8%)	4 (15.4%)	1 (2.5%)
Severe (>40)	3 (0.2%)	1 (0.1%)	-	1 (0.6%)	-	-	-	1 (3.8%)	-	1 93.8%)	-
	33.5%	37.8%	61%	24.5%	9%	53.8%	32%	69.2%	69%	69.2%	15%

TABLE A35: BDI in In-Patients Compared With In-Patients

	All sites N=1105	KNH N=889	Embu N=87	Kiambu N=1	Kikuyu N=10	Kajiado N=12	Kibera N=	Makindu N=79	Naivasha N=27	Magadi N=	Karuri N=
Normal (0-8)	481 (43.5%)	388 (43.6%)	42 (48.3%)	1 (100%)	7 (70%)	6 (50%)	-	28 (35.4%)	9 (33.3%)	-	-
Mild depression (9-20)	494 (44.7%)	398 (44.8%)	32 (36.8%)	-	2 (20%)	6 (50%)	-	40 (50.6%)	16 (59.3%)	-	-
Moderate depression (21-40)	123 (11.1%)	97 (10.9%)	12 (13.8%)	-	1 (10%)	-	-	11 (13.9%)	2 (7.4%)	-	-
Severe (>40)	7 (0.6%)	6 (0.7%)	1 (1.1%)	-	-	-	-	-	-	-	-
	56.5%	56.4%	51.7%	-	30%	50%	-	64.6%	66.7%	-	-

APPENDIX 2(ii): RESULTS ON CHILDREN (C)

Table C1: Age in years

	All sites	KNH	Embu	Kiambu	Kikuyu	Kajiado	Kibera	Makindu	Naivasha	Magadi	Karuri
	N=411	N=117	N=26	N=68	N=23	N=33	N=23	N=27	N=14	N=10	-
11	.5%	.9%	0	0	0	0	0	0	7.1%	0	-
12	.7%	.9%	0	0	0	6.1%	0	0	7.1%	0	-
13	12.7%	11.1%	11.5%	10.3%	21.7%	15.2%	21.7%	18.5%	14.3%	20%	-
14	14.4%	17.9%	19.2%	14.7%	21.7%	15.2%	21.7%	0	7.1%	0	-
15	19.5%	17.1%	15.4%	20.6%	21.7%	24.2%	21.7%	14.8%	21.4%	20%	-
16	22.1%	23.1%	23.1%	22.1%	13.0%	24.2%	13.0%	25.9%	7.1%	20%	-
17	23.8%	28.2%	26.9%	17.7%	17.4%	12.1%	17.4%	40.7%	35.7%	40%	-
18	6.3%	.9%	3.8%	14.7%	4.3%	3.0%	4.3%	0	0	0	-

Table C2: Gender

	All sites	KNH	Embu	Kiambu	Kikuyu	Kajiado	Kibera	Makindu	Naivasha	Magadi	Karuri
	N=387	N=111	N=23	N=65	N=22	N=31	N=22	N=23	N=14	N=10	-
Male	59.1%	62.5%	52.2%	70.8%	54.5%	45.2%	54.5%	52.2%	42.9%	0	-
Female	40.9%	37.5%	47.8%	29.2%	45.5%	54.8%	45.5%	47.8%	57.1%	100%	-

Table C3: Religion of affiliation

	All sites	KNH	Embu	Kiambu	Kikuyu	Kajiado	Kibera	Makindu	Naivasha	Magadi	Karuri
	N=400	N=116	N=25	N=66	N=22	N=31	N=22	N=26	N=14	N=10	-
Christian	93.5%	95.7%	96%	90.9%	100%	87.4%	100%	100%	69.2%	100%	-
Muslim	5.5%	3.4%	4%	9.1%	0	12.6%	0	0	7.7%	0	-
Hindu	.85	0	0	0	0	0	0	0	23.1%	0	-
Pagan/animist	.3%	.9%	0	0	0	0	0	0	0	0	-

Table C: 8 Number of brothers

	All sites	KNH	Embu	Kiambu	Kikuyu	Kajiado	Kibera	Makindu	Naivasha	Magadi	Karuri
	N=369	N=95	N=24	N=61	N=22	N=33	N=22	N=27	N=13	N=10	-
0	4.6%	0%	0	3.3%	0	9.1%	0	3.7%	23.1%	20%	-
1	32.0%	32.6%	41.7%	32.8%	45.5%	33.3%	45.5%	14.8%	15.4%	0	-
2	34.4%	31.6%	25.0%	41.0%	36.4%	30.3%	36.4%	25.95	38.5%	20%	-
3	14.4%	20.0%	25.0%	11.5%	0	6.1%	0	22.2%	7.7%	40%	-
4	11.9%	12.6%	0	9.8%	18.2%	18.2%	18.1%	25.9%	15.4%	40%	-
5	1.6%	2.1%	4.2%	1.6%	0	0	0	3.7%	0	0	-
6	.3%	0	4.2%	0	0	0	0	3.7%	0	0	-
7	.8%	1.1%	0	0	0	3.0%	0		0	0	-

Table C9: Number of sisters

	All sites	KNH	Embu	Kiambu	Kikuyu	Kajiado	Kibera	Makindu	Naivasha	Magadi	Karuri
	N=314	N=87	N=21	N=50	N=18	N=33	N=19	N=27	N=13	10	-
0	9.6%	0%	0	10.0%	0	24.2%	0	14.8%	7.7%	0	-
1	36.0%	31.0%	47.6%	38.0%	31.6%	33.3%	31.6%	14.8%	30.8%	60%	-
2	32.2%	35.6%	28.6%	32.0%	52.6%	30.3%	52.6%	29.6%	30.8%	40%	-
3	13.4%	18.4%	14.3%	14.0%	15.8%	6.1%	15.8%	22.2%	15.4%	0	-
4	5.1%	10.3%	4.8%	6.0%	0	0	0	7.4%	0	0	-
5	1.9%	2.3%	0	0	0	6.1%	0	3.7%	7.7%	0	-
6	1.3%	2.3%	4.8%	0	0	0	0	3.7%	0	0	-
7	.6%	0	0	0	0	0	0	3.7%	7.7%	0	-

Table C10: Birth position

	All sites	KNH	Embu	Kiambu	Kikuyu	Kajiado	Kibera	Makindu	Naivasha	Magadi	Karuri
	N=337	N=115	N=27	N=66	N=23	N=33	N=23	N=28	N=12	N=10	--
first	24.3%	30.4%	29.6%	22.7%	17.4%	42.4%	17.4%	28.6%	25.0%	20%	-
second	24.9%	32.2%	18.5%	16.7%	21.7%	24.2%	21.7%	28.6%	16.7%	60%	-
third	27.9%	18.3%	25.9%	34.8%	34.85	24.2%	34.8%	17.9%	8.3%	20%	-
fourth	10.1%	7.0%	11.1%	10.6%	8.7%	9.1%	8.7%	10.7%	41.7%	0	-
fifth	7.1%	7.0%	3.7%	9.1%	13.0%	0	13.0%	7.1%	0	0	-
sixth	1.8%	3.5%	0	1.5%	0	0	0	7.1%	0	0	-
Seventh	1.2%	.9%	3.7%	1.5%	0	0	0	-	0	0	-
Eighth	.6%	.9%	0	0	0	0	0	-	8.3%	0	-
last born	2.1%	0	7.4%	3.0%	4.3%	0	4.3	-	0	0	-

Table C11: What does the person who supports you do?

	All sites	KNH	Embu	Kiambu	Kikuyu	Kajiado	Kibera	Makindu	Naivasha	Magadi	Karuri
	N=378	N=110	N=20	N=65	N=19	N=33	N=19	N=23	N=9	N=10	-
Farmer	19.3%	18.2%	40%	10.8%	21.1%	18.2%	21.1%	60.9%	33.3%	20%	-
Gainful employment	79.4%	79.1%	60%	88.7%	79.9%	81.8%	78.9%	39.1%	67.7%	80%	-
Housewife	.3%	.9%	0	1.5%	0	0	0	0	0	0	-
unemployed	1.1%	1.8%	0		0	0	0	0	0	0	-

Table C12: Diagnoses - What do you think you are suffering from?

	All sites	KNH	Embu	Kiambu	Kikuyu	Kajiado	Kibera	Makindu	Naivasha	Magadi	Karuri
	N=344	117	27	68	24	33	23	28	16	11	-
None	8.4%	6.8%	7.4%	4.4%	37.5%	3%	4.35%	14.3%	12.5%	-	-
Asthma	1.7%	0.9%	-	2.9%	4.2%	-	8.75%	-	-	-	-
CVD	3.5%	10.3%	-	-	-	-	-	-	-	-	-
Dental problem	0.6%	-	-	-	-	3%	-	3.6%	6.3%	9.1%	-
Depression	0.6%	-	-	2.9%	-	6.1%	-	-	-	-	-
DM	3.5%	6.8%	3.7%	1.5%	-	-	-	3.6%	-	-	-
Ear problem	2.0%	5.1%	-	-	12.5%	-	-	-	-	-	-
Epilepsy	0.3%	-	-	-	-	3%	-	-	-	-	-
Eye problem	5.8%	6.8%	-	5.9%	-	-	8.7%	3.6%	-	18.2%	-
GS	5.5%	10.3%	14.8%	1.5%	-	3%	-	3.6%	-	-	-
GU	0.6%	1.7%	-	-	-	-	-	-	-	-	-
Gynae	0.9%	0.9%	-	1.5%	-	3%	-	-	-	-	-
HIV/AIDS	0.6%	-	3.7%	-	-	-	4.3%	-	-	-	-
Infection	4.7%	4.3%	3.7%	2.9%	4.2%	6.1^	4.3%	-	6.3%	18.2%	-
Insomnia	0.9%	-	-	-	-	9.1%	-	3.6%	-	-	-
Low backache	0.6%	-	-	2.9%	-	15.2%	-	-	-	-	-
Malaria	10.8%	0.9%	37.0%	13.2%	-	3.0%	17.4%	17.9%	6.3%	18.2%	-
Mental p	0.3%	-	-	-	-	15.2%	-	-	-	-	-
Obst	1.7%	2.6%	-	2.9%	-	3.0%	-	-	6.3%	-	-
OM	10.8%	9.4%	-	10.3%	12.5%	15.2%	8.7%	14.3%	6.3%	36.4%	-
Ortho/ST	11.3%	12.8%	14.8%	11.8%	16.7%	3.0%	-	14.3%	18.8%	-	-
Pains	8.1%	4.3%	-	11.8%	-	15.2%	30.4%	7.1%	6.3%	-	-
PUD	1.2%	3.4%	-	-	-	-	-	-	-	-	-
Rape cases	0.6%	-	-	-	-	-	-	3.6%	6.3%	-	-
RS	10.5%	10.3%	-	13.2%	8.3%	12.1%	13.0%	10.7%	18.8%	-	-
TB	2.9%	2.6%	11.1%	4.4%	-	-	-	-	6.3%	-	-
Typhoid	1.7%	-	3.7%	5.9%	4.2%	-	-	-	-	-	-

Table C15: What did doctor tell you was your diagnosis?

	All sites 181	KNH 64	Embu 18	Kiambu 30	Kikuyu 10	Kajiado 25	Kibera 6	Makindu 18	Naivasha 6	Magadi 4	Karuri
Asthma	1.7%	-	-	3.3%	-	-	33.3%	-	-	-	-
CT	.6%	1.6%	-	-	-	-	-	-	-	-	-
CVD	3.9%	10.9%	-	-	-	-	-	-	-	-	-
Dental problem	1.1%	-	-	-	-	4.0%	-	5.6%	-	-	-
Depression	1.7%	-	-	-	-	12.0%	-	-	-	-	-
DM	6.1%	9.4%	11.1%	6.7%	-	-	-	5.6%	-	-	-
Epilepsy	.6%	-	-	-	-	4.0%	-	-	-	-	-
Eye prob	5.0%	3.1%	-	-	20%	4.0%	-	5.6%	-	50%	-
GS	9.9%	17.2%	16.7%	3.3%	-	4.0%	-	11.1%	-	-	-
GU	.6%	1.6%	-	-	-	-	-	-	16.7%	-	-
Gynae	1.1%	-	-	3.3%	-	4.0%	-	-	-	-	-
HIV/AIDS	1.1%	-	5.6%	-	-	-	16.7%	-	-	-	-
Infection	5.0%	3.1%	-	3.3%	-	16.0%	-	5.6%	16.7%	-	-
Low bachache	.6%	-	-	3.3%	-	-	-	-	-	-	-
Malaria	12.7%	1.6%	22.2%	23.3%	10%	20.0%	-	16.7%	-	50	-
Obst	2.2%	4.7%	-	3.3%	-	-	-	-	-	-	-
OM	9.9%	15.6%	16.7%	6.7%	-	4.0%	16.7%	16.7%	16.7%	-	-
Ortho/ST	12.2%	12.5%	16.7%	3.3%	30%	4.0%	-	22.2%	33.3%	-	-
Pains	3.3%	4.7%	5.6%	6.7%	-	-	-	-	-	-	-
PUD	.6%	1.6%	-	-	-	-	-	-	-	-	-
RS	9.9%	7.8%	-	13.3%	40%	4.0%	33.3%	11.1%	-	-	-
Stress	.6%	4.7%	-	-	-	4.0%	-	-	-	-	-
TB	6.6%	1.6%	16.7%	6.7%	-	12.0%	-	-	16.7%	-	-
Typhoid	3.3%	-	5.6%	13.3%	-	4.0%	-	-	-	-	-

Table C16: Final Diagnosis in the Case Notes

	All sites 332	KNH 114	Embu 27	Kiambu 68	Kikuyu 22	Kajiado 30	Kibera 23	Makindu 24	Naivasha 13	Magadi 10	Karuri
CT	.3%	.9%	-	-	-	-	-	-	-	-	-
CVD	3.3%	9.6%	-	-	-	-	-	-	-	-	-
Dental problem	.3%	-	-	-	-	3.3%	-	-	-	-	-
Depression	1.2%	-	-	-	-	13.3%	-	-	-	-	-
DM	3.9%	-	3.7%	2.9%	-	-	-	8.3%	7.7%	-	-
Ear problem	2.1%	5.3%	-	1.5%	-	-	-	-	-	-	-
Epilepsy	.6%	.9%	-	-	-	3.3%	-	-	-	-	-
Eye problem	5.7%	7.0%	-	5.9%	18.2%	-	4.3%	8.3%	-	-	-
GS	6.0%	11.4%	11.1%	1.5%	-	3.3%	-	4.2%	7.7%	-	-
Gynae	1.5%	.9%	-	4.4%	-	3.3%	-	-	-	-	-
HIV/AIDS	.6%	-	3.7%	-	-	-	4.3%	-	-	-	-
HT	.3%	.9%	-	-	-	-	-	-	-	-	-
Infection	11.4%	10.5%	11.1%	10.3%	4.5%	6.7%	34.8%	4.2%	-	20%	-
Malaria	14.8%	.9%	40.7%	20.6%	9.1%	26.7%	17.4%	12.5%	-	20%	-
Obst	2.7%	3.5%	-	2.9%	-	-	8.7%	-	7.7%	-	-
OM	10.5%	14.0%	-	7.4%	18.2%	3.3%	8.7%	12.5%	-	40%	-
Ortho/STI	12.0%	10.5%	14.8%	11.8%	22.7%	10.0%	-	16.7%	30.8%	-	-
Pains	1.2%	1.8%	-	2.9%	-	-	-	-	-	-	-
Peuperal Psychosis	.3%	-	-	-	-	-	-	-	7.7%	-	-
PUD	1.2%	2.6%	-	1.5%	-	-	-	-	-	-	-
Rape	.9%	-	-	-	-	-	-	4.2%	7.7%	-	-
RS	10.5%	8.8%	-	17.6%	18.2%	6.7%	17.4%	4.2%	7.7%	-	-
Schizophrenia	.3%	-	-	-	-	-	-	-	7.7%	-	-
Stress	.3%	-	-	-	-	3.3%	-	-	-	-	-
Substance abuse(Drug withdr	.3%	-	-	-	-	3.3%	-	-	-	-	-
TB	4.8%	3.5%	11.1%	5.9%	-	10.0%	4.3%	-	7.7%	-	-
Typhoid	2.7%	.9%	3.7%	2.9%	9.1%	3.3%	-	-	-	20%	-

Table C22: The Leeds Scales for the Self-Assessment of Anxiety and Depression (LSAD)

	All sites	KNH	Embu	Kiambu	Kikuyu	Kajiado	Kibera	Makindu	Naivasha	Magadi	Karuri
(i) Endogenous	327	116	24	68	24	27	23	24	11	10	-
Normal <6	3.4%	4.3%	12.5%	2.9%	79.2	3.7%	87.0%	62.5%	72.7%	60.0%	-
Mild to moderate 7-11	69.4%	67.2%	54.2%	76.5%	20.8	59.3%	13.0%	37.5%	27.3%	40.0%	-
Moderate to severe >12	27.2%	28.4%	33.3%	20.6%	-	37.0%	-	-	-	-	-
(ii) Anxiety Neurosis	321	114	24	67	22	28	20	25	11	10	-
Normal <6	2.2%	3.5%	58.3%	1.5%	81.8%	3.6%	95.0%	80%	9.1%	20%	-
Mild to moderate 7-11	79.4%	76.3%	41.7%	89.6%	18.2%	78.6%	5.0%	20%	63.6%	80%	-
Moderate to severe >12	18.4%	20.2%	-	9.0%	-	17.9%	-	-	27.3%	-	-
(iii) Depression General	324	114	24	68	23	26	23	25	11	10	-
Normal <6	4.6%	5.3%	12.5%	4.4%	4.3%	65.4%	87.0%	8.0%	72.7%	40.0%	-
Mild to moderate 7-11	66.4%	61.4%	50.0%	80.9%	78.3%	34.6%	13.0%	44.0%	27.3%	60.0%	-
Moderate to severe >12	29.0%	33.3%	37.5%	14.7%	17.4%	-	-	48.0%	-	-	-
(iv) Anxiety General	323	115	20	66	23	28	23	26	12	10	-
Normal <6	2.2%	2.6%	5.0%	1.5%	82.6%	3.6%	95.7%	69.2%	8.3%	80.0%	-
Mild to moderate 7-11	82.4%	87.0%	60.0%	89.4%	17.4%	75.0%	4.3%	30.8%	58.3%	20.0%	-
Moderate to severe >12	15.5%	10.4%	35.0%	9.1%	-	21.4%	-	-	33.3%	-	-

Table C23: NOK

	All sites 295	KNH 107	Embu 100	Kiambu 54	Kikuyu 23	Kajiado 27	Kibera 23	Makindu 22	Naivasha 7	Magadi 10	Karuri
Normal <19	78%	82.6%	50%	77.8%	73.9%	81.5%	95.7%	63.6%	71.4%	80.0%	-
Mild 20-47	14.6%	14.7%	15%	16.7%	13.0%	3.7%	4.3%	36.4%	14.3%	20.0%	-
Moderate 48-75	7.5%	2.8%	35%	5.6%	13.0%	14.8%	-	-	14.3%	-	-
Severe >75	-	-	-	-	-	-	-	-	-	-	-

Table C24: Orphans children – by father or mother

	Father	Mother
CDI	N=9	N=9
Normal <10	-	-
Mild 11-26	-	-
Moderate 27-40	-	-
Severe 41-54	100%	100%
NOK	N=10	N=6
Normal <19	70.0%	83.3%
Mild 20-47	30.0%	16.7%
Moderate 48-75	-	-
Severe >75	-	-

Table C25: Psychosis

	12	-	2	4	-	3	-	3	-	-	-
Normal <12	-	-	-	-	-	-	-	-	-	-	-
13-25 Query Psychosis	83.3%	-	50%	100%	-	66.7%	-	100%	-	-	-
Frank Psychosis >26	16.7%	-	50%	-	-	33.3%	-	-	-	-	-

Table C26: AUDIT

	20	3	1	3	4	3	1	2	1	2	-
Normal 4-12	50%	66.7%	-	-	-	33.3%	100%	100%	100%	-	-
Harmful 13-16	10%	33.3%	-	33.3%	75%	-	-	-	-	-	-
Dependent >17	40%	-	100%	66.7%	25%	33.3%	-	-	-	100%	-

Table C27: ASSIST

Assist	All sites 342	KNH 117	Embu 27	Kiambu 68	Kikuyu 22	Kajiado 33	Kibera 23	Makindu 28	Naivasha 14	Magadi 10	Karuri
No Intervention <3	92.1%	94.9%	96.3%	89.7%	95.5%	87.9%	91.3%	92.9%	85.7%	80.0%	-
Receive brief intervention 4-26	7.9%	5.1%	3.7%	10.3%	4.5%	12.1%	8.7%	7.1%	14.3%	20.0%	-
More intense treatment >27	-	-	-	-	-	-	-	-	-	-	-

APPENDIX 2(iii): RESULTS ON STAFFS (S)

Table S1- Age

	All sites	KNH	Embu	Kiambu	Kikuyu	Kajiado	Kibera	Makindu	Naivasha	Magadi	Karuri
	N=614	N=265	N=64	N=93	N=29	N=54	N=2	N=75	N=23	N=4	N=5
19-29	31.4%	23.2%	48.4%	40.9%	55.3%	31.5%	50%	12.0%	13%	75%	100%
30-39	40.7%	45.5%	18.8%	36.9%	37.9%	48.1%	0	44%	43.5%	0	0
40-49	21.4%	23.4%	28.1%	14.0%	6.8	20.4%	50%	32%	34.8%	0	0
50-59	6.5%	7.9%	4.7%	8.6%	0	0	0	12%	8.7%	25%	0

Table S2: Gender

	All sites	KNH	Embu	Kiambu	Kikuyu	Kajiado	Kibera	Makindu	Naivasha	Magadi	Karuri
	N=631	N=273	64	N=96	N=31	N=56	N=2	N=78	N=22	N=4	N=5
Male	41%	45.4%	31.3%	38.5%	35.5%	35.7%	50%	42.3%	31.8%	100%	40%
Female	59%	54.6%	68.7%	61.5%	64.5%	64.3%	50%	57.7%	68.2%	0	60%

Table S3: Professional Area

Profession	N=647
Administrator	1.9%
Counselling	0.3%
Dentist	0.3%
Doctor	17.9%
Medical Student	2.6%
Nursing	50.5%
Nursing Student	5.7%
Nutritionist	0.9%
Occupational Therapist	3.2%
Pharmacy	1.4%
PHO	1.1%
Physiotherapist	6.3%
Radiographer	1.1%
RCO	4.0%
Social Worker	0.9%
STD-other	0.8%
Technician	0.9%

Table S4: Basic Qualifications (Only %'s reproduced)

	All sites N=646(%)	KNH N=280	Embu N=66	Kiambu N=98	Kikuyu N=32	Kajiado N=55	Kibera N=3	Makindu N=78	Naivasha N=25	Magadi N=4	Karuri N=5
Nursing (diploma/certi)	47.4	40.7	37.9	53.1	56.3	58.2	33.3	57.7	64.0	25	20
Administration	0.5	-	-	-	-	-	-	3.8	-	-	-
B A (soc)	0.9	1.8	-	1.0	-	-	-	-	-	-	-
BDS	0.5	-	3.0	1.0	-	-	-	-	-	-	-
BED Home Economics	0.6	1.4	-	-	-	-	-	-	-	-	-
Bsc. Nursing	1.5	1.4	-	-	6.3	-	33.3	3.8	-	-	-
Dip in environ. Health	0.5	-	-	-	-	-	-	3.8	-	-	-
Dip in nutritiorial sc.	0.9	1.4	-	-	-	3.6	-	-	-	-	-
Labtech	0.8	0.4	-	-	3.1	-	-	3.8	-	-	-
MBChB	18.7	35.0	4.5	10.2	12.5	-	-	3.8	12.0	-	-
Occupational Therapist	3.7	3.6	10.6	2.0	-	3.6	-	3.8	-	-	-
Pharmacy	1.2	-	1.5	-	-	7.3	-	3.8	-	-	-
Pharmtech	0.2	-	-	1.0	-	-	-	-	-	-	-
Physiotherapy	4.6	6.4	1.5	6.1	-	-	-	-	4	-	-
plaster technician	0.2	0.4	-	-	-	-	-	-	-	-	-
Public health	0.7	-	-	1.0	-	-	-	3.8	-	-	-
Radiographer	1.1	-	-	-	-	7.3	-	3.8	-	-	-
RCO	5.1	1.1	1.5	17.3	31.	3.6	3.3	3.8	20	-	-
Record keeping	0.9	0.7	-	-	-	-	-	3.8	-	25	-
Student	10.1	5.7	39.4	7.1	18.8	9.1	-	-	-	25	60

Table S5: Area of responsibility (Only %'s reproduced)

	All sites N=388	KNH N=200	Embu N=28	Kiambu N=36	Kikuyu N=20	Kajiado N=38	Kibera -	Makindu N=42	Naivasha 24	Magadi -	Karuri -
Administration	4.4	2.0	14.3	-	-	-	-	21.1	-	-	-
Counselling	3.9	5.5	-	11.1	-	-	-	-	-	-	-
Dentistry	1.0	-	7.1	-	-	5.3	-	-	-	-	-
Medical practice	27.6	39.5	7.1	27.8	15	5.3	-	7.1	33.3	-	-
Lab work	1.5	2.0	-	-	10	-	-	-	-	-	-
Nursing	46.1	37.5	60.7	58.3	70	63.2	-	35.7	54.2	-	-
Nutritional health	2.1	3.0	-	-	-	5.3	-	-	-	-	-
Occupation therapy	3.1	3.0	3.6	-	-	5.3	-	7.1	-	-	-
Pharmacy	1.0	-	3.6	-	5.0	5.3	-	-	-	-	-
Physiotherapy	4.6	6.0	3.6	-	-	5.3	-	-	12.5	-	-
Psychiatric Nursing	2.6	0.5	-	2.8	-	5.3	-	14.3	-	-	-
Public health	2.1	1.0	-	-	-	-	-	14.3	-	-	-

Table S6: Proportion of patients seen thought by the attending staff to have mental illness out of every 100

	All sites N=562	KNH 260	Embu 51	Kiambu 77	Kikuyu 24	Kajiado 52	Kibera 3	Makindu 63	Naivasha 23	Magadi 4	Karuri 5
0	6.4%	8.8%	17.6%	2.6%	25.0%	5.8%	-	-	4.3%	25.0%	-
1-2	26.9%	18.1%	21.6%	45.5%	33.3%	30.8%	100%	33.3%	34.8%	25.0%	-
3-5	23.3%	25.8%	19.6%	24.7%	12.5%	13.5%	-	23.8%	30.4%	25.0%	80.0%
6-10	19.0%	22.3%	23.5%	19.5%	8.3%	23.1%	-	9.5%	13.0%	-	20.0%
11-20	14.1%	15.4%	3.9%	6.5%	12.5%	11.5%	-	19.0%	4.3%	-	-
21-30	4.4%	4.6%	3.9%	-	4.2%	7.7%	-	9.5%	-	-	-
31-40	2.0%	2.3%	5.9%	1.3%	-	3.8%	-	-	-	25.0%	-
41-50	1.8%	1.9%	3.9%	-	-	-	-	-	4.3%	-	-
51-60	0.7%	0.4%	17.6%	-	-	3.8%	-	-	4.3%	-	-
61-100	1.4%	0.4%	21.6%	-	4.2%	-	-	4.8%	4.3%	-	-

Table S7: Proportion of patients out of every 100 patients seen with significant psychiatric component in addition to the physical condition

	All sites N=569	KNH 262	Embu 54	Kiambu 85	Kikuyu 21	Kajiado 51	Kibera 3	Makindu 63	Naivasha 21	Magadi 4	Karuri 5
0	5.3%	6.1%	-	-	23.8%	9.8%	-	-	4.8%	50.0%	20.0%
1-2	16.9%	12.2%	16.7%	36.5%	9.5%	19.6%	33.3%	14.3%	-	-	40.0%
3-5	18.5%	18.7%	18.5%	17.6%	28.6%	17.6%	33.3%	14.3%	14.3%	25.0%	40.0%
6-10	26.0%	26.7%	24.1%	20.0%	19.0%	21.6%	33.3%	33.3%	47.6%	25.0%	-
11-20	17.2%	21.4%	16.7%	16.5%	-	15.7%	-	14.3%	9.5%	-	-
21-30	6.2%	7.3%	13.0%	1.2%	14.3%	-	-	4.8%	9.5%	-	-
31-40	5.6%	3.4%	-	5.9%	4.8%	11.8%	-	14.3%	-	-	-
41-50	1.9%	1.9%	3.7%	-	-	-	-	4.8%	4.8%	-	-
51-60	0.9%	0.8%	3.7%	-	-	3.9%	-	-	4.8%	-	-
61-100	1.6%	1.5%	3.7%	2.4%	-	-	-	-	4.8%	-	-

Table S8: Proportion of patients out of every 100 patients seen thought by the staff to have a mild psychiatric component in addition to the physical condition

	All sites N=575	KNH 262	Embu 54	Kiambu 89	Kikuyu 23	Kajiado 51	Kibera 3	Makindu 63	Naivasha 21	Magadi 4	Karuri 5
0	4.3%	5.7%	-	-	13.0%	5.9%	-	4.8%	-	25.0%	-
1-2	14.3%	11.1%	14.8%	24.7%	17.4%	23.5%	33.3%	4.8%	4.8%	25.0%	20.0%
3-5	13.7%	11.8%	20.4%	16.9%	4.3%	17.6%	-	9.5%	9.5%	25.0%	60.0%
6-10	17.2%	13.4%	14.8%	28.1%	17.4%	19.6%	-	14.3%	28.6%	25.0%	20.0%
11-20	22.4%	24.8%	22.2%	16.9%	21.7%	7.8%	66.7%	28.6%	38.1%	-	-
21-30	12.2%	17.9%	3.7%	3.4%	4.3%	3.9%	-	23.8%	-	-	-
31-40	5.4%	5.3%	5.6%	5.6%	4.3%	7.8%	-	4.8%	4.8%	-	-
41-50	5.4%	4.2%	11.1%	1.1%	8.7%	5.9%	-	9.5%	9.5%	-	-
51-60	1.9%	2.7%	1.9%	1.1%	-	3.9%	-	-	-	-	-
61-100	3.1%	3.1%	5.6%	2.2%	8.7%	3.9%	-	-	4.8%	-	-

Table S9: Proportion of patients out of every 100 patients thought by the attending staff to have no psychiatric component at all

	All sites 547	KNH 248	Embu 51	Kiambu 84	Kikuyu 21	Kajiado 49	Kibera 3	Makindu 63	Naivasha 20	Magadi 3	Karuri 5
0	7.9%	5.6%	-	-	14.3%	26.5%	-	19.0%	-	33.3%	-
1-2	2.7%	2.8%	2.0%	4.8%	4.8%	4.1%	-	-	-	-	-
3-5	3.8%	4.4%	5.9%	2.4%	-	6.1%	-	-	10.0%	-	-
6-10	5.7%	3.6%	17.6%	4.8%	14.3%	4.1%	-	-	15.0%	33.3%	-
11-20	5.1%	4.8%	11.8%	3.6%	-	4.1%	-	4.8%	5.0%	-	20.0%
21-30	3.3%	2.0%	3.9%	-	-	8.2%	-	9.5%	5.0%	-	-
31-40	3.3%	4.8%	-	3.6%	-	4.1%	-	-	5.0%	-	-
41-50	9.7%	8.9%	7.8%	7.1%	9.5%	8.2%	33.3%	19.0%	10.0%	-	-
51-60	7.7%	6.5%	13.7%	6.0%	4.8%	8.2%	33.3%	9.5%	50.0%	-	40.0%
61-100	50.8%	56.5%	37.3%	67.9%	52.4%	26.5%	33.3%	38.1%	10.0%	33.3%	40.0%

Table S10: Proportion of patients referred to mental health specialists out of every 100 patients attended to by the staff

	All sites 472	KNH 228	Embu 45	Kiambu 41	Kikuyu 23	Kajiado 48	Kibera 1	Makindu 60	Naivasha 18	Magadi 3	Karuri 5
0	11.2%	12.3%	-	-	30.4%	14.6%	-	15.0%	-	66.7%	-
1-2	31.6%	22.4%	35.6%	51.2%	30.4%	43.8%	100%	35.0%	33.3%	-	100%
3-5	19.1%	21.5%	13.3%	19.5%	21.7%	25.0%	-	5.0%	33.3%	33.3%	-
6-10	21.0%	24.6%	20.0%	19.5%	8.7%	12.5%	-	25.0%	16.7%	-	-
11-20	10.6%	13.6%	15.6%	2.4%	4.3%	4.2%	-	10.0%	11.1%	-	-
21-30	1.7%	1.3%	6.7%	2.4%	-	-	-	-	5.6%	-	-
31-40	0.2%	0.4%	-	-	-	-	-	-	-	-	-
41-50	1.9%	0.4%	2.2%	2.4%	-	-	-	10.0%	-	-	-
51-60	0.4%	0.4%	2.2%	-	-	-	-	-	-	-	-
61-100	2.3%	3.1%	4.4%	2.4%	4.3%	-	-	-	-	-	-

Table S11: Access to mental health worker (Only %'s reproduced)

	All sites N=633(%)	KNH N=274	Embu 61(%)	Kiambu N=98(%)	Kikuyu N=31	Kajiado N=55(%)	Kibera N=3	Makindu N=78	Naivasha N=24	Magadi N=4	Karuri N=5
Yes	90%	92.7%	90.2%	91.8%	67.7%	90.9%	66.7%	88.5%	95.8%	25%	100%
No	10%	7.3%	9.8%	8.2%	32.3%	9.1%	33.3%	11.5%	4.2%	75%	0%

Table S12: Location of mental health specialist

	All sites N=577	KNH N=260	Embu N=56	Kiambu N=90	Kikuyu N=21	Kajiado N=53	Kibera N=2	Makindu N=66(%)	Naivasha N=23(%)	Magadi N=1	Karuri N=5
Public institutions	64.5%	53.1%	82.1%	57.8%	47.6%	75.5%	50%	86.4	100%	0%	100%
Private institutions	1.7%	1.9%	0%	2.2%	14.3%	0%	0%	0%	0%	0%	0%
Both public and private	33.8%	45.0%	17.9%	40.0%	38.1%	24.5%	50%	13.6	0%	100%	0%

Table S17: Reason for not going for a refresher course in mental health (Only %'s reproduced)

	All sites	KNH	Embu	Kiambu	Kikuyu	Kajiado	Kibera	Makindu	Naivasha	Magadi	Karuri
a) No time –already too busy	N=416(%)	N=223	36(%)	N=35(%)	N=22	N=27(%)	N=1	N=48	N=22(%)	N=2	N=5
Yes	36.1	40.4	33.3	37.1	22.7	44.4	100	18.8	31.8	50	100
No	63.9	59.6	66.7	62.9	77.3	55.6	0	81.2	68.2	50	0
b) I am not interested	N=393	N=219	N=32	N=36	N=21	N=21	N=1	N=39	N=22	N=2	N=0
Yes	16.5	18.3	3.1	41.7	19.0	0	0	7.7	9.1	0	0
No	83.5	81.7	96.9	58.3	81	100	100	92.3	90.9	100	0
c) It is a waste of time	N=385	N=213	N=34	N=34	N=20	N=21	N=1	N=39	N=21	N=2	0
Yes	3.4	1.9	8.8	17.8	0	0	0	0	0	0	0
No	96.6	98.1	91.2	82.2	100	100	100	100	100	100	0

Table S18: Reason for going for a refresher course in mental health (Only %'s reproduced)

	All sites	KNH	Embu	Kiambu	Kikuyu	Kajiado	Kibera	Makindu	Naivasha	Magadi	Karuri
a) relevant to what I see at work	N=599	N=274	56	N=77	N=28	N=55	N=2	N=75	N=24	N=3	N=6
Yes	80.1	66.1	89.3	98.7	89.3	100	100	84	87.5	66.7	100
No	19.1	33.9	10.7	1.3	10.7	0	0	16	12.5	33.3	0
b) It is just another addition	N=501	N=250	N=48	N=66	N=24	N=40	N=1	N=42	N=24	N=2	N=4
Yes	27.1	19.2	50	37.9	8.3	27.5	100	42.9	25	50	0
No	72.9	80.8	50	62.1	91.7	72.5	0	57.1	75	50	100
c) It is a good way of getting time off	N=486	N=248	N=42	N=59	N=25	N=40	N=0	N=42	N=24	N=2	N=4
Yes	2.5	1.2	4.8	10.2	0	2.5	0	0	0	0	0
No	97.5	98.8	95.2	89.8	100	97.5	0	100	100	100	100

Table S19 (i-iv): Attitudes of staff who should manage patients with mental illness

	All sites	KNH	Embu	Kiambu	Kikuyu	Kajiado	Kibera	Makindu	Naivasha	Magadi	Karuri
What do you think of mental illness	N=585	N=269	N=52	N=90	N=2	N=47	N=2	N=63	N=22	N=4	N=4
(i) It can only be managed by psychiatrist											
Yes	17.3%	22.7%	15.4%	7.8%	12.5%	21.3%	-	14.3%	9.1%	-	-
No	82.7%	77.3%	84.6%	92.2%	87.5%	78.7%	100%	85.7%	90.9%	100%	100%
(ii) Non-psychiatric doctors have an important role to play	N=628	N=273	N=60	N=97	N=32	N=52	N=3	N=78	N=24	N=4	N=5
Yes	89.0%	84.2%	95.0%	87.6%	93.8%	96.2%	100%	96.2%	91.7%	75.0%	80.0%
No	11.0%	15.8%	5.0%	12.4%	6.3%	3.8%	-	3.8%	8.3%	25.0%	20.0%
(iii) It is managed by witchdoctors	N=576	N=266	N=50	N=89	N=32	N=43	N=2	N=63	N=24	N=3	N=4
Yes	3.1%	4.5%	-	3.4%	-	-	-	4.8%	-	-	-
No	96.9%	95.5%	100%	96.6%	100%	100%	100%	95.2%	100%	100%	100%
(iv) It is a problem only for the relatives	N=551	N=265	N=50	N=89	N=32	N=43	N=2	N=63	N=24	N=3	N=4
Yes	2.1%	2.6%	-	1.1%	-	-	-	4.8%	4.2%	-	-
No	97.9%	97.4%	100%	98.9%	100%	100%	100%	95.2%	95.8%	100%	100%

Table S20 (i-iv): Attitudes of the staff on the setting for managing patients with mental illness

	All sites	KNH	Embu	Kiambu	Kikuyu	Kajiado	Kibera	Makindu	Naivasha	Magadi	Karuri
patients with mental illness											
(i) can only be managed in a psychiatric hospital	N=610	N=275	N=60	N=96	N=32	N=47	N=2	N=66	N=24	N=3	N=5
Yes	22.1%	26.8%	30%	13.5%	21.9%	17%	-	18.2%	8.3%	33.3%	20%
No	77.9%	73.2%	70%	86.5%	78.1%	83%	100%	81.8%	91.7%	66.7%	80%
(ii) can be successfully managed in general hospitals	N=616	N=269	N=61	N=97	N=32	N=52	N=3	N=69	N=24	N=4	N=5
Yes	73.7%	65.1%	72.1%	92.8%	71.9%	78.8%	100%	78.3%	83.3%	50.0%	40.0%
No	26.3%	34.9%	27.9%	7.2%	28.1%	21.2%	-	21.7%	16.7%	50.0%	60.0%
(iii) can be successfully managed at out patient in general hospitals	N=611	N=268	N=56	N=99	N=31	N=49	N=3	N=72	N=24	N=4	N=5
Yes	60.9%	56.7%	53.6%	71.7%	48.4%	69.4%	66.7%	66.7%	70.8%	50.0%	20.0%
No	39.1%	43.3%	46.4%	28.3%	51.6%	30.6%	33.3%	33.3%	29.2%	50.0%	80.0%
(iv) can be successfully managed in their homes by families	N=591	N=266	N=54	N=95	N=31	N=44	N=2	N=66	N=24	N=4	N=5
Yes	37.6%	38%	35.2%	41.1%	35.5%	43.2%	50%	27.3%	45.8%	50%	0
No	62.4%	62%	64.8%	58.9%	63.5%	56.8%	50%	72.7%	54.2%	50%	100%

Table S21 (a-h): Knowledge, attitudes, practice and Stigma of 17 different: Types of General Hospital Staff (A-Q) on Persons with Mental Illness (Note: This table should be interpreted in consultation with the instrument used, appendix...)

Staff's response on knowledge, practice and attitudes on mental health	(A) Administrator	(B) Counselling	(C) Dentist	(D) Doctor	(E) Medical Student	(F) Nursing	(G) Nursing Student	(H) Nutritionist	(I) Occupational Therapist
(a) Knowledge about mental disorders	N=12	N=2	N=2	N=116	N=17	N=316	N=36	N=6	N=21
4-8 -Aware	33.3%	-	50%	50%	52.9%	34.2%	44.4%	66.7%	42.9%
9-12 - Uncertain	41.7%	100%	50%	31.9%	41.2%	57.3%	50.0%	-	57.1%
>12 - Unaware	25.0%	-	-	18.1%	5.9%	8.5%	5.6%	33.3%	-
(b) Practice: responsibility for following common types of psychological disorders	N=12	N=2	N=2	N=116	N=17	N=308	N=35	N=4	N=21
<15 - Aware	25.0%	100	100%	60.3%	76.5%	66.2%	60.0%	-	66.7%
15-21 - Uncertain	50.0%	-	-	31.9%	23.5%	32.1%	37.1%	50.0%	33.3%
>21 -Unaware	25.0%	-	-	7.8%	-	1.6%	2.9%	50.0%	-
(c) Practice: Assessment of psychological disorders and time as a constraint	N=9	N=2	N=2	N=113	N=17	N=307	N=33	N=6	N=21
<13 - Aware	11.1%	50%	50	38.1%	17.6%	15.6%	21.2%	33.3%	14.3%
13-18 - Uncertain	77.8%	50%	50	21.1%	82.4%	69.1%	69.7%	33.3%	85.7%
>18 - Unaware	11.1%	-	-	50.9%	-	15.3%	9.1%	33.3%	-
(d) Knowledge on treatments in general hospitals/facilities	N=9	N=2	N=2	N=113	N=15	N=307	N=33	N=6	N=21
<13 - Aware	33.3%	-	50%	54.0%	66.7%	5.2%	45.5%	33.3%	66.7%
13-18 - Uncertain	33.3%	100%	50%	42.5%	33.3%	32.2%	51.5%	33.3%	33.3%
>18 - Unaware	33.3%	-	-	3.5%	-	54.4%	3.0%	33.3%	-
(e) Knowledge on psychiatry in general	N=9	N=2	N=2	N=115	N=16	N=303	N=32	N=6	N=21
<7 - Aware	-	-	50%	12.2%	18.8%	26.1%	18.8%	33.3%	9.5%
7-9 - Uncertain	66.7%	100%	50%	73.0%	81.3%	61.7%	71.9%	-	76.2%
>9 - Unaware	33.3%	-	-	14.8%	-	12.2%	9.4%	66.7%	14.3%
(f) Attitudes of staff in general hospitals towards mental health	N=9	N=2	N=2	N=115	N=16	N=302	N=28	N=6	N=21
<13 – Positive	-	-	50%	46.1%	43.8%	30.8%	39.3%	33.3%	23.8%
13-18 – Uncertain	33.3%	-	50%	34.8%	50.0%	59.3%	57.1%	50.0%	76.2%
>18- negative	66.7%	100%	-	19.1%	6.3%	9.9%	3.6%	16.7%	-
(g) Stigma towards persons with depression	N=9	N=2	N=2	N=115	N=16	N=313	N=33	N=6	N=20
<19 – Stigmatise	-	-	-	3.5%	6.3%	2.6%	9.1%	66.7%	5.0%
19-35 – Uncertain	77.8%	-	50%	33.0%	81.3%	78.0%	81.8%	-	75.0%
36-45 – Not stigmatising	22.2%	100%	-	63.5%	12.5%	19.5%	9.1%	33.3%	20.0%
(h) Stigma –General views on people with depression	N=6	N=2	-	N=93	N=10	N=195	N=22	N=6	N=20
<19 – Stigmatise	-	-	-	-	-	-	-	66.7%	20.0%
19-35 – Uncertain	100%	-	-	30.1%	100%	92.4%	100%	33.3%	80.0%
>35 – Not stigmatising	-	-	-	69.9%	-	7.6%	-	-	-

Table S21 continued

Staff's response on knowledge, practice and attitudes on mental health	(J) Pharmacy	(K) PHO	(L) Physiotherapist	(M) Radiographer	(N) RCO	(O) Social Worker	(P) STD-other	(Q) Technician
(a) Knowledge about mental disorders	N=9	N=7	N=40	N=4	N=24	N=6	N=5	N=6
4-8	33.3%	-	27.5%	100%	33.3%	66.7%	40.0%	16.7%
9-12	66.7%	100%	65.0%	-	54.2%	33.3%	60.0%	83.3%
>12	-	-	7.5%	-	12.5%	-	-	-
(b) Practice: responsibility for following common types of psychological disorders*	N=8	N=7	N=38	N=4	N=23	N=5	N=5	N=6
<15	62.5%	85.7%	55.3%	50.0%	52.2%	80.0%	40.0%	66.7%
15-21	12.5%	14.3%	42.1%	50.0%	47.8%	20.0%	60.0%	33.3%
>21	25.0%	-	2.6%	-	-	-	-	-
(c) Practice: Assessment of psychological* disorders and time as a constrain	N=9	N=7	N=38	N=7	N=25	N=6	N=5	N=6
<13	33.3%	-	15.8%	28.6%	8.0%	33.3%	20.0%	-
13-18	55.6%	57.1%	71.1%	71.4%	80.0%	66.7%	80.0%	100%
>18	11.1%	42.9%	13.1%	-	12.0%	-	-	-
(d) Knowledge on treatments in general hospitals/facilities	N=8	N=6	N=39	N=7	N=25	N=6	N=3	N=6
<13	75.0%	-	2.6%	-	40.0%	50.0%	-	16.7%
13-18	25.0%	50.0%	61.5%	100%	60.0%	50.0%	100%	83.3%
>18	-	50.0%	35.9%	-	-	-	-	-
(e) Knowledge on psychiatry in general	N=8	N=6	N=37	N=7	N=25	N=6	N=3	N=5
<7	37.5%	50.0%	16.2%	-	16.0%	16.7%	33.3%	-
7-9	62.5%	50.0%	75.7%	100%	80%	66.7%	33.3%	100%
>9	-	-	8.1%	-	4.0%	16.7%	33.3%	-
(f) Attitudes of staff in general hospitals towards mental health	N=8	N=6	N=39	N=4	N=25	N=6	N=4	N=6
<13	37.5%	-	43.6%	-	48.0%	-	25.0%	-
13-18	62.5%	50.0%	51.3%	100%	44.0%	66.7%	50.0%	100%
>18	-	50.0%	5.1%	-	8.0%	33.3%	25.0%	-
(g) Stigma towards persons with depression	N=9	N=7	N=38	N=4	N=26	N=5	N=5	N=6
<19	33.3%	-	2.6%	-	-	20.0%	-	-
19-35	44.4%	42.9%	73.7%	50.0%	84.6%	80.0%	80.0%	83.3%
36-45	22.2%	57.1%	23.7%	50.0%	15.4%	-	20.0%	16.7%
(h) Stigma –General views on people with depression	N=9	N=7	N=38	N=4	N=25	N=5	N=4	N=6
<19	33.3%	-	7.9%	-	-	20%	-	16.7%
19-35	66.7%	42.9%	68.4%	50%	92%	80%	100%	83.7%
> 35	-	57.1%	23.7%	50%	8%	-	-	-

Table S22 (a-h): Knowledge, Attitude, Practice and Stigma Amongst Doctors and Nurses by Age (This table should be interpreted in cross consultation with the appropriate (Questionnaire Appendix...))

	Doctor			Nursing		
(a) Age	25-30 years	31-40 years	>40 years	20-30 years	31-40 years	>40 years
(b) Knowledge about mental disorders	N=51 (44.4%)	N=44 (38.3%)	N=20 (17.4%)	N=85 (28.85%)	N=126 (42.7%)	N=84 (28.5%)
4-8 - Aware	45.1%	47.7%	70.0%	38.8%	31.7%	34.5%
9-12 - Uncertain	31.4%	36.4%	20.0%	50.6%	61.1%	57.1%
>12 - Unaware	23.5%	15.9%	10.0%	10.6%	7.1%	8.3%
(c) Practice: responsibility for following common types of psychological disorders	N=51	N=44	N=20	N=85	N=126	N=77
<15 - Aware	58.8%	54.5%	75.0%	67.1%	69.0%	61.0%
15-21 - Uncertain	31.4%	40.9%	15.0%	29.4%	30.2%	37.7%
>21 - Unaware	9.8%	4.5%	10.0%	3.5%	.8%	1.3%
(d) Practice: Assessment of psychological disorders and time as a constrain	N=51	N=42	N=20	N=80	N=124	N=82
<13 - Aware	33.3%	23.8%	25.0%	22.5%	13.7%	14.6%
13-18 - Uncertain	37.3%	64.3%	65.0%	65.0%	71.0%	70.7%
>18 - Unaware	29.4%	11.9%	10.0%	12.5%	15.3%	14.6%
(e) Knowledge on treatments in general hospitals/facilities	N=48	N=44	N=20	N=81	N=126	N=76
<13 - Aware	54.2%	56.8%	50.0%	49.4%	24.6%	31.6%
13-18 - Uncertain	43.8%	38.6%	45.0%	42.0%	62.7%	65.8%
>18 - Unaware	2.1%	4.5%	5.0%	8.6%	12.7%	2.6%
(f) Knowledge on psychiatry in general	N=51	N=43	N=20	N=84	N=116	N=79
<7 - Aware	9.8%	9.3%	25.0%	33.3%	20.7%	26.6%
7-9 - Uncertain	76.5%	74.4%	65.0%	52.4%	66.4%	65.8%
>9 - Unaware	13.7%	16.3%	10.0%	14.3%	12.9%	7.6%

(g) Attitudes of staff in general hospitals towards mental health	N=50	N=44	N=20	N=83	N=123	N=78
<13 – Positive	40.0%	18.2%	65.0%	45.8%	20.3%	30.8%
13-18 – Uncertain	38.0%	38.6%	20.0%	47.0%	67.5%	57.7%
>18 - Negative	22.0%	43.2%	15.0%	7.2%	12.2%	11.5%
(h) Stigma towards persons with depression	N=50	N=44	N=20	N=84	N=129	N=80
<19 – Stigmatise	2.0%	4.5%	5.0%	6.0%	1.6%	1.3%
19-35 – Uncertain	32.0%	38.6%	20.0%	71.4%	81.4%	82.5%
36-45 – Not stigmatising	66.0%	56.8%	75.0%	22.6%	17.1%	16.3%
(i) Stigma: General views on people with depression	P=50	N=44	N=20	N=86	N=113	N=81
<19 – Stigmatise	16.0%	29.5%	5.0%	54.7%	28.3%	27.2%
19-35 – Uncertain	24.0%	22.7%	25.0%	39.5%	69.0%	66.7%
>35 – Not stigmatising	60.0%	47.7%	70.0%	5.8%	2.7%	6.2%

APPENDIX 3: INSTRUMENTS

Appendix 3(i): STUDY ON MENTAL HEALTH IN ADULTS IN GENERAL HOSPITALS AND FACILITIES

CONSENT AND CONSENT EXPLANATION TO THE ADULT PATIENTS

My name is Professor David M. Ndetei, from the Department of Psychiatry, University of Nairobi and Africa Mental Health Foundation. I am doing a study to find out about mental health issues in people who are being treated in non-psychiatric hospitals, whether as in-patients or outpatients. This information is important for doctors, nurses and hospital management to know how much of such problems exist and plan the best way to ensure we offer comprehensive services.

We will do this by asking you questions on a set questionnaire by a trained research assistant. There is apparent repetitions in the questionnaire tests, but answer each question to the best of your ability. He/she will also look into your hospital notes for specific information specified at the end of this questionnaire. However your personal identity will not be recorded anywhere, but the Research Assistant will ask your names only so that he/she will be able to match them with your names on the hospital notes. These questions will help us understand how your physical condition may have affected your mind. I thank you for your time and for your endurance.

The research assistant will not examine you physically or take any blood sample or carry out any tests on you. However if they feel you need further treatment following the interview they will mention this to the in charge of the ward.

I am requesting you for your permission to participate. If you agree the research assistant will show you somewhere to sign on the questionnaire. There will be no loss of any benefit to you, if you do not participate. You may also stop participation at any stage of the interview but this will not in any way affect the care being given to you in this facility.

Yours sincerely,

 17/10/05

Prof. David M. Ndetei
Department of Psychiatry
University of Nairobi
Tel: 020-2716315/Mobile: 0722 518365

CONSENT

I whose signature appears below confirm that I have been explained the nature of this study and have agreed to participate. I have also been explained that I can stop participation any time and that this will not in any way affect the care I am getting from this medical facility.

Signature _____ Date _____
Name of research Assistant/witness _____ Signature _____ Date _____

PERSONAL DATA FOR THE ADULTS

- 1. Age in years ... 2. Date of birth: Year...Month...Date... 3. What is your religion... 4. Sex: ... (1= Male 2= Female) 5. Specify your marital status (Tick correct one): Single/married/Polygamous/Cohabiting/Separated/Divorced
6. If married what does your spouse do for a living? ...
7. How many children do you have that are under the age of 18 years? ...
8. What is the highest level of education that you achieved? ... 9. What is your occupation? ...
10. What do you do for a living? ... 11. If you are an in-patient when were you admitted? ...
12. If you are an out-patient when did you start attending this clinic for the first time? ...
13. What do you think you are suffering from? ...
14. For how long have you suffered from this condition (specify) year... Months... Weeks... Days...
15. Have you been told by the doctor what you are suffering from 1= Yes 2= No
If yes what did he tell you was your diagnosis? ... (If more than one diagnosis specify) ...
16. Has your doctor given you a chance to ask him/her about your condition? 1= Yes 2=No
17. Who is paying for your treatment costs? ...
18. Are you a member OR covered by the National Insurance Hospital Fund? ...
19. Do you have any Medical Insurance Cover/OR covered by any private Medical Insurance Cover? 1= Yes 2= No. If Yes, What is the maximum cover? ... 20. What is your monthly income in Ksh...
21. Do you have any difficulties in meeting the costs of your treatment? 1= Yes 2= No

BDI (BECK'S DEPRESSION INVENTORY)

On this questionnaire are groups of statements. Please read each of the statements carefully, then pick out the one statement in each group which best describes the way that you have been feeling the **PAST WEEK, INCLUDING TODAY!**

Circle the number beside the statement you picked. Be sure to read all the statements in each group before making your choice.

1	I do not feel sad. <i>I feel sad.</i> I am sad all the time and I can't get out of it. I am so sad or unhappy that I can't stand it.	<i>Sina huzuni.</i> <i>Nina huzuni.</i> <i>Nina huzuni wakati wote na siwezi kujiondoa katika hali hii ya huzuni.</i> <i>Nina huzuni sana mpaka siwezi kustahimili/kuvumilia.</i>
2	I am not particularly discouraged about the future. I feel discouraged about the future. I feel I have nothing to look forward to. I feel that the future is hopeless and that things cannot improve.	<i>Sijavunjika moyo hasa na siku za usoni.</i> <i>Nahisi nimevunjika moyo na siku za usoni.</i> <i>Nahisi sina ninalo tarajia siku za usoni.</i> <i>Nahisi nimekata tamaa ya siku za usoni, na naona mambo hayawezi kuwa bora zaidi.</i>
3	I do not feel like a failure. I feel that I have failed more than the average (normal) person. As I look back on my life, all I can see is a lot of failures. I feel am a complete failure as a person.	<i>Sijihisi kama nimeanguka maishani.</i> <i>Nahisi nimeanguka maishani zaidi ya mtu wa kawaida.</i> <i>Nikiangalia maisha yangu yaliyopita naona nimeanguka sana.</i> <i>Nahisi nimeanguka kabisa maishani.</i>
4	I get as much satisfaction as I used to from things I normally do. I don't enjoy things the way I used to. I don't get real satisfaction out of anything anymore I am dissatisfied or bored with everything.	<i>Naridhika na mambo kama ilivyo kawaida yangu.</i> <i>Si furahii mambo kama nilivyokuwa nikifurahia.</i> <i>Sitosheki tena kikamilifu na jambo lolote.</i> <i>Sitosheki wala sichangamshwi na chochote tena.</i>
5	I don't feel particularly guilty. I feel guilty sometimes. I feel quite guilty most of the time. I feel guilty all the time.	<i>0 Sihisi hasa kama nina hatia fulani.</i> <i>1 Nahisi nina hatia wakati mwingine.</i> <i>2 Nahisi nina hatia wakati mwingi.</i> <i>3 Nahisi nina hatia wakati wote.</i>
6	I don't feel I am being punished. I feel I may be punished. I expect to be punished. I feel I am being punished.	<i>0 Sihisi kama nina adhibiwa.</i> <i>1 Nahisi kama naweza kuadhibiwa.</i> <i>2 Natarajia kuadhibiwa.</i> <i>3 Nahisi nina adhibiwa.</i>
7	I don't feel disappointed in myself. I am disappointed in myself. I am disgusted with myself. I hate myself.	<i>0 Sihisi kama nimeikasirikia nafsi yangu.</i> <i>1 Nimeikasirikia nafsi yangu.</i> <i>2 Najidharau.</i> <i>3 Najichukia.</i>
8	I don't feel I am any worse than anybody else. I am critical of myself for my weaknesses or mistakes. I blame myself all the time for my faults. I blame myself for everything bad that happens.	<i>0 Sihisi kama mimi ni mbaya zaidi ya mtu yeyote yule.</i> <i>1 Najisuta (kujitoa makosa) sana katika makosa yangu ama udhaifu wangu.</i> <i>2 Najilaumu wakati wote kwa makosa yangu.</i> <i>3 Najilaumu kwa ovu lolote linalo tendeka.</i>
9	I don't have any thoughts of killing myself. <i>I have thoughts of killing myself, but I would not carry them out.</i> I would like to kill myself. I would kill myself if I had the chance.	<i>0 Sina wazo lolote la kujiuwa.</i> <i>1 Nina wazo la kujiua, lakini sitalitimiza wazo hilo.</i> <i>2 Ningetaka kujiuwa.</i> <i>3 Nitajiua nikipata nafasi.</i>
10	I don't cry any more than usual. I cry more now than I used to. I cry all the time now. I used to be able to cry, but now I can't cry even though I want to.	<i>0 Silii siku hizi zaidi ya vile ilivyo kawaida yangu.</i> <i>1 Nalia siku hizi zaidi ya ilivyokuwa kawaida yangu.</i> <i>2 Nalia wakati wote siku hizi.</i> <i>3 Nilikuwa nikiweza kulia, lakini sasa hata nikitaka kulia siwezi.</i>
11	I am no more irritated now than usual. I get annoyed or irritated more easily than I used to. I feel irritated all the time now. I don't get irritated at all by the things that used to irritate me.	<i>0 Sikasirishwi kwa urahisi siku hizi zaidi ya ilivyo kawaida yangu</i> <i>1 Nakasirishwa kwa urahisi zaidi ya ilivyokuwa kawaida yangu.</i> <i>2 Nahisi nimekasirishwa wakati wote siku hizi.</i> <i>3 Sikasirishwi kamwe na mambo ambayo yalikuwa yakinikasirisha.</i>
12	I have not lost interest in other people. I am less interested in other people than I used to be.	<i>0 Sijapoteza hamu ya kujihusisha au kujumuika na watu.</i> <i>1 Hamu yangu ya kujihusisha na watu imepungua zaidi ya</i>

	I have lost most of my interest in other people. I have lost all of my interest in other people.	<i>ilivyokuwa.</i> 2 <i>Nimepoteza sana hamu yangu ya kujihusisha na watu.</i> 3 <i>Nimepoteza hamu yangu yote ya kujihusisha na watu.</i>
13	I make decisions just as well as I ever could. I put off making decisions more than I used to I have greater difficulty in making decisions than before. I can't make decisions at all anymore.	0 <i>Ninafanya uamuzi kuhusu jambo lolote kama kawaida.</i> 1 <i>Ninahairisha kufanya uamuzi zaidi ya vile nilivyokuwa nikifanya.</i> 2 <i>Nina uzito mkubwa wa kufanya uamuzi kuliko hapo awali.</i> 3 <i>Siwezi tena kufanya uamuzi wa jambo lolote lile.</i>
14	I don't feel I look any worse than I used to. I am worried that I am looking unattractive. I feel that there are permanent changes in my appearance that make me look unattractive. I believe that I look ugly.	0 <i>Sihisi kuwa naonekana vibaya zaidi ya vile nilivyokuwa.</i> 1 <i>Nina wasi wasi kuwa naonekana sivutii.</i> 2 <i>Ninahisi kuwa kuna mabadiliko yasio ondoka kwenye umbo langu yanayofanya nisivutie.</i> 3 <i>Nina amini ya kuwa nina sura mbaya.</i>
15	I can work just as well as before. It takes an extra effort to get started at doing something. I have to push myself very hard to do anything I can't do any work at all.	0 <i>Naweza kufanya kazi kama vile ilivyokuwa hapo awali.</i> 1 <i>Nilazima nifanye bidii, ndipo nianze kufanya jambo lolote</i> 2 <i>Inabidi nijilazimishe sana ili niweze kufanya jambo lolote</i> 3 <i>Siwezi kabisa kufanya kazi yoyote.</i>
16	I can sleep as well as usual. I don't sleep as well as I used to. I wake up 1-2 hours earlier than usual and find it hard to get back to sleep. I wake up more than 2 hours earlier than I used to and cannot get back to sleep.	0 <i>Ninalala kama kawaida yangu.</i> 1 <i>Silali vyema kama nilivyo kuwa nikilala hapo awali.</i> 2 <i>Naamka mapema kwa saa limoja au masaa mawili, ambayo sio kawaida yangu, halafu ni vigumu kupata usingizi tena.</i> 3 <i>Naamka mapema zaidi ya masaa mawili, ambayo sio kawaida yangu, halafu siwezi kupata usingizi tena.</i>
17	I don't get more tired than usual. I get tired more easily than I used to. I get tired from doing almost anything. I am too tired to do anything.	0 <i>Sichoki zaidi ya nilivyokuwa nikichoka hapo awali.</i> 1 <i>Nachoka kwa urahisi zaidi ya kawaida yangu.</i> 2 <i>Nachoshwa (Nachokeshwa), karibu na kila jambo ninaloifanya.</i> 3 <i>Ninachoka sana hata siwezi kufanya lolote.</i>
18	My appetite is no worse than usual. My appetite is not as good as it used to be. My appetite is much worse now. I have no appetite at all anymore.	0 <i>Hamu yangu ya chakula sio mbaya zaidi ya vile ilivyokuwa hapo awali.</i> 1 <i>Hamu yangu ya chakula sio nzuri kama vile ilivyokuwa hapo awali.</i> 2 <i>Hamu yangu ya chakula ni mbaya zaidi siku hizi.</i> 3 <i>Sina tena hamu ya chakula hata kidogo.</i>
19	I haven't lost any noticeable weight, lately. I have lost more than 2 kilograms. I have lost more than 5 kilograms. I have lost more than 7 kilograms . I am purposely trying to lose weight by eating less Yes _____ No _____	0 <i>Sijapunguza uzito wa mwili wakuonekana hivi karibuni.</i> 1 <i>Nimepunguza uzito wa mwili zaidi ya kilo mbili.</i> 2 <i>Nimepunguza uzito wa mwili zaidi ya kilo tano.</i> 3 <i>Nimepunguza uzito wa mwili zaidi ya kilo saba.</i> <i>Ninakula chakula kiasi kidogo kwa kusudio la, kujaribu kupunguza uzito wa mwili Ndivyo _____ Sivyo _____</i>
20	I am no more worried about my health than usual. I am worried about physical problems such as aches and pains; or upset stomach; or constipation. I am very worried about physical problems and it is hard to think about much else. I am so worried about my physical problems that I cannot think about anything else.	0 <i>Sina wasiwasi usio wa kawaida kuhusu hali yangu ya afya.</i> 1 <i>Nina wasiwasi kuhusu shida za mwili kama vile maumivu hapa na pale; au shida ya tumbo, au kufunga choo.</i> 2 <i>Nina wasiwasi sana kuhusu matatizo ya mwili mpaka inakuwa nivigumu kuwaza jambo lengine lolote.</i> 3 <i>Nina wasiwasi sana kuhusu matatizo yangu ya mwili mpaka siwezi kuwaza jambo lingine lolote.</i>
21	I have not noticed any recent change in my interest in sex. I am less interested in sex than I used to be. I am much less interested in sex now. I have lost interest in sex completely.	0 <i>Sijaona mabadiliko yoyote hivi karibuni kuhusu hamu yangu ya kufanya mapenzi.</i> 1 <i>Hamu yangu ya kufanya mapenzi imepungua zaidi ya vile ilivyokuwa.</i> 2 <i>Hamu yangu ya kufanya mapenzi imepungua sana siku hizi.</i> 3 <i>Nimepoteza kabisa hamu yangu ya kufanya mapenzi.</i>

LEEDS DEPRESSION AND ANXIETY

For the following questions answer by inserting 0 or 1 or 2 or 3 on the dotted line after each question depending on how you are feeling **now or within the last day** or two of completing this questionnaire.

The numbers and their equivalents in words are as follows:

0 = not at all = I have not experienced this at all.
1 = not much = on average I feel this less than half of the time.
2 = sometimes = on average I feel this about half of the time.
3 = definitely = on average I feel this more than half of the time.

1. I feel miserable and sad
2. I find it as easy as before (i.e. I do not exert effort now than before) in doing the same things I used to do
3. I get very frightened or panic feelings for apparently no reason at all...
4. I have weeping spells, or feel like it
5. I still enjoy the things I used to (hobbies, leisure, etc.)....
6. I am (i.e. my body is) restless and cannot keep still ...
7. I can get off to sleep easily without sleeping tablets (i.e. within 1 hour of retiring to bed)....
8. I feel anxious for no apparent reason when I go outdoors even if to familiar places and with trusted friends and there is no apparent danger to me or other people....
9. I have lost, for no apparent reason, interest in things I used to take interest and would wish to regain my interest in those same things
10. I get tired for no reason
11. I am more irritable (easy upset by things) than usual ...
12. I wake early and then sleep badly for the rest of the night (unless I take sleeping pills)
13. I have a good appetite
14. I feel in some way to blame (i.e. responsible) for the way I am....
15. I get bad headaches..... (If yes described briefly which part of the head and what type of headaches you get.....)
16. I feel life is not worthy living.....
17. I get palpitations (not related to exercise), or a sensation of butterflies in stomach or chest (palpitations are feeling of the heart beating faster than usual. Rate this if these palpitations are present or are more noticeable when you are resting than when you are involved in some kind of physical exercise).....
18. I often think I have done wrong.....
19. I feel sleepy during the day (even though I retire to bed early enough)....
20. I get dizzy attacks or feel unsteady.....
21. I feel scared and frightened for no apparent reason or out of reasonable proportion to any apparent reason.....
22. I feel tense or wound up and cannot relax in my mind.....

NOK (NDETEI-OTHIENO-KATHUKU) SCALE

Over the last one week and even today, how much were you distressed by: (Answer all questions)

0= Not at all 1= a little bit 2= Moderately 3= Quite a bit 4 = Extremely

1. Feeling as if insects or ants are crawling under your skin .

2. Feeling pressure on the top of your head
 3. Feeling as if you are carrying a heavy load on your head .
 4. Feeling a lot of pressure between your shoulders
 5. Often having joint pains
 6. Often having pain in your bones
 7. Sweating a lot even when it is cold
 8. Feeling as if your blood is slowed down
 9. Your blood running too fast
 10. Often having a ringing feeling/sensation in your ears... Thinking your illness is due to bewitchment
 12. Feeling your heart is heavy
 13. Feeling your heart has fallen down
 14. Getting frequent attacks of malaria
 15. Feeling pains in the upper part of your stomach/abdomen
 16. Getting disturbed by noise.....
 17. Crying until you can cry no more
 18. Feeling you look older than you really are.....
 19. Feeling your desire for sex is much decreased
 20. Feeling there are worms/snakes crawling through your body
 21. Passing hard stool
 22. Passing loose stool
 23. Often getting treatment for the following illnesses:
 - (a) Malaria
 - (b) Stomachaches.....
 - (c) Headaches
 - (d) Chest pains
 - (e) Heart disease
 24. Having too little sleep
 25. Finding it difficult to wake up/get out of bed in the morning
 26. Getting bad dreams
 27. Having trouble with your visions
 28. Feeling as if the eyes are being drawn inside the head
 29. Feeling a terrible pain migrating to different parts of the body
- For how long have you had this disease?
- I have been previously treated for this same disease:-
- By self.....
- In hospital
- Other medical persons
- Traditional medicine persons
- Other (specify).....
32. Any other symptoms?

PSYCHOSIS

1. Over the past year, have there been times when you felt very happy indeed without a break for days on end? 1 = Yes
 2 = Unsure 3 = No
 - (a) If yes was there an obvious reason for this? 1 = Yes
 2 = Unsure 3 = No
 - (b) If yes did your relatives or friends think it was strange or complain about it? 1 = Yes 2 = Unsure 3 = No
2. Over the past year, have you ever felt your thoughts were directly interfered with or controlled by some outside force or person? 1 = Yes 2 = Unsure 3 = No
 - (a) If yes did this come about in a way that many people would find hard to believe, for instance thorough telepathy? 1 = Yes
 2 = Unsure 3 = No

- (3) Over the past year, have there been times when you felt the people were against you? 1 = Yes 2 = Unsure 3 = No
- (a) If yes has there been times when you felt people were deliberately acting to harm you or your interests? 1 = Yes 2 = Unsure 3 = No
- (b) If yes has there been times you felt that a group of people were plotting to cause you serious harm or injury? 1 = Yes 2 = Unsure 3 = No
4. Over the past year, have there been times when you felt that something strange was going on? 1 = Yes 2 = Unsure 3 = No
- (a) If yes did you feel it was strange that other people would find it very hard to believe? 1 = Yes 2 = Unsure 3 = No
5. Over the past year, have there been times when you heard or saw things that other people could not? 1 = Yes 2 = Unsure 3 = No
- (a) If yes did you at any time hear voices saying quite a few words or sentences when there was no one around that might account for it?

- 8. I have felt sad or miserable -**
1 = Yes, most of the time 2 = Yes, quite often
3 = Not very often 4 = No, not at all
- 9. I have been so unhappy that I have been crying -**
1 = Yes, most of the time 2 = Yes, quite often
3 = Only occasionally 4 = No, never
- 10. The thought of harming myself has occurred to me -**
1 = Yes, quite often 2 = Sometimes
3 = Hardly ever 4 = Never

THE WHO AUDIT – By all patients

Please tick the answer that is correct for you.

- 1. How often do you have a drink* containing alcohol?**
1 = Never 2 = Monthly or less 3 = Two to four times a month
4 = Two to here times a week 5 = Four or more times a week
- 2. How many drinks containing alcohol do you have on a typical day when you are drinking?**
1 = 1 or 2 2 = 3 or 4 3 = 5 or 6 4 = 7 or 9
5 = 10 or more

Edinburgh Post Natal Depression Scale (EPDS)

Only for Mother with infants

As you have recently had a baby, we would like to know how you are feeling. Please underline the answer which comes closest to how you have felt in the past 7 days - Not just how you feel today. Here is an example, already completed:

I have felt happy:

1. Yes, all the time 2. Yes, most of the time
3. No, not very often 4. No, not at all

This would mean "I have felt happy most of the time during the past week". Please answer the following 10 questions by placing a tick in the appropriate box. Thank You.

In the past 7 days:

- 1. I have been able to laugh and see the funny side of things;**
1 = As much as I always could 2 = Not quite so much now
3 = Definitely not so much now 4 = Not at all
- 2. I have looked forward with enjoyment to things -**
1 = As much as I ever did 2 = Rather less than I used to 3 =
Definitely less than I used to 4 = Hardly at all
- 3. I have blamed myself unnecessarily when things went wrong -** 1 = Yes, most of the time 2 = Yes, some of the time 3 =
Not very often 4 = No, never
- 4. I have been anxious or worried for no good reason -**
1 = No, not at all 2 = Hardly ever
3 = Yes, sometimes 4 = Yes, very often
- 5. I have felt scared or panicky for no good reason**
1 = Yes, quite a lot 2 = Yes, sometimes
3 = No, not much 4 = No, not at all
- 6. Things have been getting on top of me -**
1 = Yes, most of the time I haven't been able to cope at all
2 = Yes, sometimes I haven't been coping as well as usual
3 = No, most of the time I have coped quite well
4 = No, I have been coping as well as ever
- 7. I have been so unhappy that I have had Never difficulty sleeping -**
1 = Yes, most of the time 2 = Yes, sometimes
3 = Not very often 4 = No, not at all

- 3. How often do you have six or more drinks on one occasion?**
1 = Never 2 = Less than monthly 3 = Monthly
4 = Weekly 5 = Daily or almost daily
- 4. How often during the last year have you found it difficult to get the thought of alcohol out of your mind?**
1 = Never 2 = Less than monthly 3 = Monthly
4 = Weekly 4 = Daily or almost daily
- 5. How often the last year have you found that you were not able to stop drinking once you had started?**
1 = Never 2 = Less than monthly 3 = Monthly
4 = Weekly 5 = Daily or almost daily
- 6. How often during the last year have been UNABLE to remember what happened the night before because you had been drinking?**
1 = Never 2 = Less than monthly 3 = Monthly
4 = Weekly 5 = Daily or almost daily
- 7. How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?**
1 = Never 2 = Less than monthly 3 = Monthly
4 = Weekly 5 = Daily or almost daily
- 8. How often during the last year have you had a feeling of guilt or remorse after drinking?**
1 = Never 2 = Less than monthly 3 = Monthly
4 = Weekly 5 = Daily or almost daily
- 9. Have you or someone else been injured as a result of your drinking?**
1 = No 2 = Yes, but in the last year. 3 = Yes, during the last year
- 10. Has a relative or friend or a doctor or other health worker, been concerned about your drinking or suggested you cut down?**
1 = No 2 = Yes, but in the last year. 3 = Yes, during the last year No

THE ALCOHOL, SMOKING AND SUBSTANCE INVOLVEMENT SCREENING AND TEST (ASSIST)

1. In your life, which of the following substances have you ever used?	0=No	1 = Yes			
(a) Tobacco products (cigarettes, chewing tobacco, cigars, etc.)					
(b) Alcoholic beverages (beer, wine, spirits, changaa, (kumi kumi.)					
(c) Caffeine					
(d) Cannabis (marijuana, pot, grass, hash, bhang)					
(e) Cocaine (coke, crack, etc.)					
(f) Amphetamine type stimulants (speed, diet pills, ecstasy, Khat/Miraa)					
(g) Inhalants (nitrous, glue, petrol, paint thinner, etc.)					
(h) Sedatives or Sleeping Pills (Valium, Serepax, Rohypnol.)					
(i) Hallucinogens (LSD, acid, mushrooms, PCP, Special K.)					
(j) Opioids (heroin, morphine, codeine, Brown sugar)					
(k) Other - specify:					
Q2 – Q5 tick: 0=Never, 1=once or twice, 2=Monthly, 3=Weekly 4=Daily or almost daily					
2. In the past 3 months, how often have you used the substances you mentioned?	0	1	2	3	4
(a) Tobacco products (cigarettes, chewing tobacco, cigars, etc.)					
(b) Alcoholic beverages (beer, wine, spirits, changaa, (kumi kumi.)					
(c) Caffeine					
(d) Cannabis (marijuana, pot, grass, hash, bhang)					
(e) Cocaine (coke, crack, etc.)					
(f) Amphetamine type stimulants (speed, diet pills, ecstasy, Khat/Miraa)					
(g) Inhalants (nitrous, glue, petrol, paint thinner, etc.)					
(h) Sedatives or Sleeping Pills (Valium, Serepax, Rohypnol.)					
(i) Hallucinogens (LSD, acid, mushrooms, PCP, Special K.)					
(j) Opioids (heroin, morphine, codeine, Brown sugar)					
(k) Other - specify:					
3. During the past 3 months, substance you have mentioned in Q1 how often have you had a strong desire or urge to use them?					
(a) Tobacco products (cigarettes, chewing tobacco, cigars, etc.)					
(b) Alcoholic beverages (beer, wine, spirits, changaa, (kumi kumi.)					
(c) Caffeine					
(d) Cannabis (marijuana, pot, grass, hash, bhang)					
(e) Cocaine (coke, crack, etc.)					
(f) Amphetamine type stimulants (speed, diet pills, ecstasy, Khat/Miraa)					
(g) Inhalants (nitrous, glue, petrol, paint thinner, etc.)					
(h) Sedatives or Sleeping Pills (Valium, Serepax, Rohypnol.)					
(i) Hallucinogens (LSD, acid, mushrooms, PCP, Special K.)					
(j) Opioids (heroin, morphine, codeine, Brown sugar)					
(k) Other - specify:					
4. During the past 3months, how often has your use of drugs mentioned in question Q1 led to health, and social, legal or financial problems? (Specify the four leading drugs).	0	1	2	3	4
Health Problems (specify the four leading drugs).					
Drug i)					
Drug ii)					
Drug iii)					
Drug iv)					
Social Problems (specify the four leading drugs).					
Drug i)					
Drug ii)					
Drug iii)					
Drug iv)					
Legal Problems (specify the four leading drugs).					
Drug i)					
Drug ii)					

Drug iii)					
Drug iv)					
Financial (specify the four leading drugs).					
Drug i)					
Drug ii)					
Drug iii)					
Drug iv)					
5. During the past 3 months, how often have you failed to do what was normally expected of your because of your use of: (specify the four leading drugs).					
Drug i)					
Drug ii)					
Drug iii)					
Drug iv)					
Q6-Q8 Tick 0=No, never, 1=Yes, but not in the past 3 months, or 2=Yes in the past 3months					
6. Has a friend or relative or anyone else ever expressed concern about your use of drug (If yes specify the four leading drugs).	0	1	2		
Drug i)					
Drug ii)					
Drug iii)					
Drug iv)					
7. Have you ever tried to control, cut down or stop using drug (If yes specify the four leading drugs).					
Drug i)					
Drug ii)					
Drug iii)					
Drug iv)					
8. Have you ever used any drug by injection (non-medical use only) (If yes specify the four leading drugs).					
Drug i)					
Drug ii)					
Drug iii)					
Drug iv)					

THANK YOU DEAR PATIENT FOR YOUR PARTICIPATION AND WISH YOU QUICK RECOVERY - If you have more information or comments write at top or bottom of any of the pages.

**OFFICIAL – TO BE COMPLETED BY THE RESEARCH ASSISTANT ON INTERVIEWING THE PATIENT
MINI-MENTAL STATE EXAMINATION (MMSE) QUESTIONNAIRE**

- 1. Orientation** (maximum marks = 10, 1 for each correct answer 0= for incorrect answer if no response indicate N/R)
- (A) Name this hospital _____
 - (B) What city are you in now? _____
 - (C) What year is it? _____
 - (D) What month is it? _____
 - (E) What is the date today? _____
 - (F) What province/district are you in? _____
 - (G) What country is this? _____
 - (H) What ward are you in? _____
 - (I) What day of the week is it? _____
 - (J) What season (dry, wet) of the year is it? _____

2. Registration (Three marks, are for a, b, c, each)
I am going to give you names of three objects, you will be required to say and remember them. I will ask you for the objects after some time. Repeat after me: hen, tree, cup.

Name the three objects and have the patient repeat them. Score number repeated by the patient. Name the three objects several more times it needed for the patient to repeat correctly (record trials ____).
The scores (a) hen (number of trials before it is correctly recalled) ____
(b) tree (number of trials before it is correctly recalled) ____
(c) cup (number of trials before it is correctly recalled) ____

3. Attention and calculation (i) (maximum score = 5 are for each correct answer (a – e)

Subtract 7 from 100 in serial fashion to 65. Score: _____

(ii) Maximum score = 5 **or** say the days of the week forward then backwards _____ (1/2 score for every correct squire -

4. Recall (Three marks one for each)

What are the three object repeated above/Do you recall the three objects named before? (a) hen ____ (b) tree ____ (c) cup ____

5. Language tests (8 marks)

(a) Confrontation naming: A pencil/pen and a watch/key are shown to the patient and he/she asked to name them -(i) watch (1 mark) _____ (ii) pen (1 mark) _____

(b) Repetition: "No ifs, ands, or buts" (1 mark) _____

(c) Comprehension: (i) Pick up the paper in your right hand, (ii) fold it in half, and (ii) set it on the floor **or** (i) Take a pen (ii) remove the cover and (iii) put it on the bed/table (3 marks for correctly carried out instructions) _____

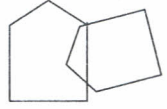
(d) Read and perform the command "close your eyes" (1 mark) _____

(e) Write any sentence (subject, object, verb) (1 mark)

6. Construction (maximum 1 mark)

Copy the design below (1 mark)

Or draw a clock face



Total MMSE questionnaire score (maximum = 30) _____

OFFICIAL USE ONLY (TO BE COMPLETED BY THE RESEARCH ASSISTANT AFTER THE PATIENT HAS COMPLETED HIS/HER QUESTIONNAIRE

Name of Facility 2. If inpatient type of ward3. If outpatient type of clinic

4. Working diagnose(s) (list them) from the Notes.....

.....

5. In the Notes is there any mention of a mental health related condition(s). 1= Yes 2 = No

6. If so specify.....

7. If yes in 5 above, has there been any referral, or indication of referral to a psychiatrists, clinical sychologi8st, counselling psychologist, psychiatric, social worker etc? 1= Yes 2 = No

8. If Yes specify which mental health specialists and whether actually referred or just a mention of referral.....

9. Indicate how the patient completed the questionnaire – indicate only one of following options: -

- On their own without assistance
- On their own but with your assistance because he did not understand the question
- On their own but with your assistance because he was physically unable
- You read the questions to him and you noted the answers.
- Others: Specify.....

I certify that the above information is correct and also the data by the patient was collected under my supervision. I also certify that this information refers to the same patient.

Name.....

Signature.....

Date.....

Appendix 3(ii): STUDY ON MENTAL HEALTH IN ADOLESCENT CHILDREN IN GENERAL HOSPITAL AND FACILITIES

CONSENT EXPLANATION TO PARENTS OF CHILDREN AGED BETWEEN 13-17 YEARS

My name is Prof. David M. Ndeti. I am doing a study to find out about mental health in children aged 13-18 years in non-psychiatric hospitals, whether as in-patients or out-patients. This information is important, for doctors, nurses and hospital management to know how much of such problems exist and plan the best way to ensure we offer comprehensive services.

We will do this by interviewing your child on a set questionnaire by a trained research assistant. He/she will also look into the hospital notes for specific information specified at the end of this questionnaire. No personal identity will be recorded anywhere. However the research assistant will ask your specific names, and those of your child **ONLY** so that he/she will be able to match them with the names on the hospital notes. I thank you for your endurance.

The research assistant will not examine your child and will not conduct any physical tests. However if he/she feels there is need for further treatment following the interview they will mention it to the in-charge of the ward.

I am requesting you for permission to interview your child. If you agree, sign in the consent form below. There will be no loss of any benefit to your child if you do not want the child to participate.

You may also stop the participation at any stage of the interview but this will not in any way affect the care being given to your child. Your child will also be explained to the nature of the study and requested for his/her permission. Whether he/her refuses or withdraws the permission, will not in anyway affect the care given to the child.

Yours faithfully,

 17/10/05

Prof. David M. Ndeti
Department of Psychiatry
University of Nairobi
Tel: 020-2716315, Mobile: 0722 518365

CONSENT BY PARENT/GUARDIAN

I whose signature appears below confirm that I have been explained the nature of this study and that I have consented to my child being treated in this hospital/clinic participating in this study. I have also been explained that I can stop the participation at any time and also my child can refuse or stop participation at anytime without any loss of benefit

Signature _____ Date _____

Witnessed (Research Assistant) Name: _____ Signature _____ Date _____

ASSENT BY THE CHILD

Your parent/guardian has consented that we can interview you in a study in which we want to know the nature of mental health issues in children attending general hospitals and health centres so that plans can be made to take care of these as well. There will be no tests done on you. This is therefore to request for your permission to be interviewed. You can withdraw the permission any time. Either way this will not affect your management. If we detect anything that needs attention we will inform the nurse/doctor. If you agree, sign on the form below.

Yours faithfully,

 17/10/05

Prof. David M. Ndeti
ASSENT

I whose signature appears below confirm that I have been explained the nature of the study and that my parent/guardian has consented to my participation. I have agreed to participate. I also understand I can withdrawal my participation at anytime without any loss of benefit.

Signature _____ Date _____

Witnessed Name (Research Assist): _____ Signature _____ Date _____

PERSONAL DATA FOR THE CHILDREN

1. Age in years 2. Date of birth: Year....Month....Date.... 3. What is your religion?..... 4. Sex: 1= Male 2= Female
5. Level of education 6. Who do you live with 7. How are you related with people you live with
8. Are the following alive: (i) Your father..... (ii) Your mother 9. How many brothers do you have?
10. How many sisters do you have? 11. Out of all your brothers and sisters, what is your birth position?.....
12. What does the person who supports you financially do for income?
13. If you are an **in-patient** when were you admitted?
14. If you are an **out-patient** when did you start attending this clinic for the first time?
15. What do you think you are suffering from?.....
16. For how long have you suffered from this condition (specify) year.... Months.... Weeks.... Days....
17. Have you been told by the doctor what you are suffering from 1= Yes 2 = No
If yes what did he tell you was your diagnosis.....(If more than one diagnosis specify).....
18. Has your doctor given you a chance to ask him/her about your condition? 1 = Yes 2=No

CDI (CHILDREN DEPRESSION INVENTORY)

This form lists feelings and ideas in groups. From each group, pick one sentence that describes you best for the **past two weeks**. After you pick a sentence from the first group go on to the next group. There is no right or wrong answer. Just pick the sentence that best describes the way you have been recently. Put a circle around the letter of the sentence that best describes how you feel.

Here is an example of how this form works. Try it. Put a circle around the letter next to the sentence that best describes your feelings and ideas in the **past two weeks**.

Example: a. I read books all the time
c. I never read books

b. I read books once in a while

1. a. I am sad once in a while
b. I am sad many times
c. I am sad all the time
2. a. Nothing will ever work out for me
b. I am not sure if things will work out for me
c. Things will work out for me O.K
3. a. I do most things o.k.
b. I do many things wrong
c. I do everything wrong
4. a. I have fun in many things
b. I have fun in some things
c. Nothing is funny at all
5. a. I am bad all the time
b. I am bad many times
c. I am bad once in a while
6. a. I think about bad things happening to me once in a while
b. I worry that bad things will happen to me
c. I am sure that terrible things will happen to me
7. a. I hate myself
b. I do not like myself
c. I like myself
8. a. All bad things are my fault
b. Many bad things are my fault
c. Bad things are not usually my fault
9. a. I do not think about killing myself
b. I think about killing myself but I would not do it
c. I want to kill myself
10. a. I feel like crying every day
b. I feel like crying many days
c. I feel like crying once in a while
11. a. Things bother me all the time
b. Things bother me many times
c. Things bother me once in a while
12. a. I like being with people
b. I do not like being with people many times
c. I do not want to be with people at all
13. a. I cannot make up my mind about things
b. It is hard to make up my mind about things
c. I make up my mind about things easily
14. a. I look o.k.
b. There are some bad things about my looks
c. I look ugly.

15. a. I have to push myself all the time to do my school work
 b. I have to push myself many times to do my schoolwork.
 c. Doing schoolwork is not big problem
16. a. I Have trouble sleeping every night
 b. I have trouble sleeping many nights
 c. I sleep pretty well
17. a. I am tired once in a while
 b. I am tired many days
 c. I am tired all the time
18. a. Most days I do not feel like eating
 b. Some days I do not feel like eating
 c. I eat pretty well
19. a. I do not worry about aches and pains
 b. I worry about aches and pains many times
 c. I worry about aches and pains all the times
20. a. I do not feel alone
 b. I feel alone many times
 c. I feel alone all the times
21. a. I never have fun at school
 b. I have fun at the school only once in a while
 c. I have fun at school many times
22. a. I have plenty of friends
 b. I have some friends but I wish I had some more
 c. I Do not have any friends.
23. a. My schoolwork is all right
 b. My schoolwork is not as good as before
 c. I do very badly in subjects I used to be good in
24. a. I can never be as good as other kids
 b. I can be as good as other kids if I want to
 c. I am just as good as other kids
25. a. Nobody really loves me
 b. I am not sure if anybody loves me
 c. I am sure that somebody loves me
26. a. I usually do what I am told
 b. I do not do what I am told most times
 c. I never do what I am told
27. a. I get along with people
 b. I get into fights many times
 c. I get into fights all the time

LEEDS DEPRESSION AND ANXIETY

For the following questions answer by inserting **0 or 1 or 2 or 3** on the dotted line after each question depending on how you are feeling **now or within the last day or two** of completing this questionnaire.

The numbers and their equivalents in words are as follows:
0 = not all = I have not experienced this at all.

1 = not much = on average I feel this less than half of the time.

2 = sometimes = on average I feel this about half of the time.

3 = definitely = on average I feel this more than half of the time.

1. I feel miserable and sad
2. I find it as easy as before (i.e. I do not exert effort now than before) in doing the same things I used to do
3. I get very frightened or panic feelings for apparently no reason at all...
4. I have weeping spells, or feel like it
5. I still enjoy the things I used to (hobbies, leisure, etc.)....
6. I am (i.e. my body is) restless and cannot keep still ...
7. I can get off to sleep easily without sleeping tablets (i.e. within 1 hour of retiring to bed)....
8. I feel anxious for no apparent reason when I go outdoors even if to familiar places and with trusted friends and there is no apparent danger to me or other people.....
9. I have lost, for no apparent reason, interest in things I used to take interest and would wish to regain my interest in those same things
10. I get tired for no reason
11. I am more irritable (easy upset by things) than usual ...
12. I wake early and then sleep badly for the rest of the night (unless I take sleeping pills)
13. I have a good appetite
14. I feel in some way to blame (i.e. responsible) for the way I am....
15. I get bad headaches..... (If yes described briefly which part of the head and what type of headaches you get.....)
16. I feel life is not worthy living.....
17. I get palpitations (not related to exercise), or a sensation of butterflies in stomach or chest (palpitations are feeling of the heart beating faster than usual. Rate this if these palpitations are present or are more noticeable when you are resting than when you are involved in some kind of physical exercise).....
18. I often think I have done wrong.....
19. I feel sleepy during the day (even though I retire to bed early enough)....
20. I get dizzy attacks or feel unsteady.....
21. I feel scared and frightened for no apparent reason or out of reasonable proportion to any apparent reason.....
22. I feel tense or wound up and cannot relax in my mind.....

NOK (NDETEI-OTHIENO-KATHUKU) SCALE

Over the last one-week and even today, how much were you distressed by: (Answer all questions)

0= Not at all 1= a little bit 2= Moderately 3= Quite a bit 4 = Extremely

1. Feeling as if insects or ants are crawling under your skin
 2. Feeling pressure on the top of your head
 3. Feeling as if you are carrying a heavy load on your head
 4. Feeling a lot of pressure between your shoulders
 5. Often having joint pains
 6. Often having pain in your bones
 7. Sweating a lot even when it is cold
 8. Feeling as if your blood is slowed down
 9. Your blood running too fast
 10. Often having a ringing feeling/sensation in your ears...
Thinking your illness is due to bewitchment
 12. Feeling your heart is heavy
 13. Feeling your heart has fallen down
 14. Getting frequent attacks of malaria
 15. Feeling pains in the upper part of your stomach/abdomen
 16. Getting disturbed by noise.....
 17. Crying until you can cry no more
 18. Feeling you look older than you really are.....
 19. Feeling your desire for sex is much decreased
 20. Feeling there are worms/snakes crawling through your body
 21. Passing hard stool
 22. Passing loose stool
 23. Often getting treatment for the following illnesses:
 - (a) Malaria
 - (b) Stomachaches.....
 - (c) Headaches
 - (d) Chest pains
 - (e) Heart disease
 24. Having too little sleep
 25. Finding it difficult to wake up/get out of bed in the morning
 26. Getting bad dreams
 27. Having trouble with your visions
 28. Feeling as if the eyes are being drawn inside the head
 29. Feeling a terrible pain migrating to different parts of the body
- For how long have you had this disease?
- I have been previously treated for this same disease:-
- By self.....
 - In hospital
 - Other medical persons
 - Traditional medicine persons
 - Other (specify).....
32. Any other symptoms?

Psychosis

1. Over the past year, have there been times when you felt very happy indeed without a break for days on end? 1 = Yes 2 = Unsure 3 = No
 - (a) If yes was there an obvious reason for this? 1 = Yes 2 = Unsure 3 = No
 - (b) If yes did your relatives or friends think it was strange or complain about it? 1 = Yes 2 = Unsure 3 = No
2. Over the past year, have you ever felt your thoughts were directly interfered with or controlled by some outside force or person? 1 = Yes 2 = Unsure 3 = No
 - (a) If yes did this come about in a way that many people would find hard to believe, for instance through telepathy? 1 = Yes 2 = Unsure 3 = No
3. Over the past year, have there been times when you felt the people were against you? 1 = Yes 2 = Unsure 3 = No
 - (a) If yes has there been times when you felt people were deliberately acting to harm you or your interests? 1 = Yes 2 = Unsure 3 = No
 - (b) If yes has there been times you felt that a group of people were plotting to cause you serious harm or injury? 1 = Yes 2 = Unsure 3 = No
4. Over the past year, have there been times when you felt that something **strange** was going on? 1 = Yes 2 = Unsure 3 = No
 - (a) If yes did you feel it was strange that other people would find it very hard to believe? 1 = Yes 2 = Unsure 3 = No
5. Over the past year, have there been times when you heard or saw things that other people could not? 1 = Yes 2 = Unsure 3 = No
 - (a) If yes did you at any time hear voices saying quite a few words or sentences when there was no one around that might account for it?

THE WHO AUDIT

Please tick the answer that is correct for you.

1. **How often do you have a drink* containing alcohol?**
1=Never 2=Monthly or less 3=Two to four times a month 4= Two to four times a week 5=Four or more times a week
2. **How many drinks containing alcohol do you have on a typical day when you are drinking?**
1= 1 or 2 2=3 or 4 3= 5 or 6 4= 7 or 9 5=10 or more
3. **How often do you have six or more drinks on one occasion?**
1 Never 2= Less than monthly 3= Monthly
4= Weekly 5= Daily or almost daily
4. **How often during the last year have you found it difficult to get the thought of alcohol out of your mind?**
1= Never 2= Less than monthly 3=Monthly
4= Weekly 4=Daily or almost daily

5. How often during the last year have you found that you were not able to stop drinking once you had started?

1= Never 2= Less than monthly 3= Monthly
4= Weekly 5= Daily or almost daily

6. How often during the last year have you been unable to remember what happened the night before because you had been drinking?

1= Never 2= Less than monthly 3= Monthly
4= Weekly 5= Daily or almost daily

7. How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?

1= Never 2= Less than monthly 3= Monthly
4= Weekly 5= Daily or almost daily

8. How often during the last year have you had a feeling of guilt or remorse after drinking?

1= Never 2= Less than monthly 3= Monthly
4= Weekly 5= Daily or almost daily

9. Have you or someone else been injured as a result of your drinking?

1= No 2= Yes, but in the last year.

3= Yes, during the last year

10. Has a relative or friend or a doctor or other health worker, been concerned about your drinking or suggested you cut down?

1= No 2= Yes, but in the last year.

3= Yes, during the last year No

156535 how

THE ALCOHOL, SMOKING AND SUBSTANCE INVOLVEMENT SCREENING AND TEST (ASSIST)

1. In your life, which of the following substances have you ever used?	0=No	1= Yes			
(l) Tobacco products (cigarettes, chewing tobacco, cigars, etc.)					
(m) Alcoholic beverages (beer, wine, spirits, changaa, (kumi kumi.)					
(n) Caffeine					
(o) Cannabis (marijuana, pot, grass, hash, bhang)					
(p) Cocaine (coke, crack, etc.)					
(q) Amphetamine type stimulants (speed, diet pills, ecstasy, Khat/Miraa)					
(r) Inhalants (nitrous, glue, petrol, paint thinner, etc.)					
(s) Sedatives or Sleeping Pills (Valium, Serepax, Rohypnol,)					
(t) Hallucinogens (LSD, acid, mushrooms, PCP, Special K,)					
(u) Opioids (heroin, morphine, codeine, Brown sugar)					
(v) Other - specify:					
Q2 - Q5 tick: 0=Never, 1=once or twice, 2=Monthly, 3=Weekly 4=Daily or almost daily					
2. In the past 3 months, how often have you used the substances you mentioned?	0	1	2	3	4
(l) Tobacco products (cigarettes, chewing tobacco, cigars, etc.)					
(m) Alcoholic beverages (beer, wine, spirits, changaa, (kumi kumi.)					
(n) Caffeine					
(o) Cannabis (marijuana, pot, grass, hash, bhang)					
(p) Cocaine (coke, crack, etc.)					
(q) Amphetamine type stimulants (speed, diet pills, ecstasy, Khat/Miraa)					
(r) Inhalants (nitrous, glue, petrol, paint thinner, etc.)					
(s) Sedatives or Sleeping Pills (Valium, Serepax, Rohypnol,)					
(t) Hallucinogens (LSD, acid, mushrooms, PCP, Special K,)					
(u) Opioids (heroin, morphine, codeine, Brown sugar)					
(v) Other - specify:					
3. During the past 3 months, substance you have mentioned in Q1 how often have you had a strong desire or urge to use them?					
(l) Tobacco products (cigarettes, chewing tobacco, cigars, etc.)					
(m) Alcoholic beverages (beer, wine, spirits, changaa, (kumi kumi.)					
(n) Caffeine					
(o) Cannabis (marijuana, pot, grass, hash, bhang)					
(p) Cocaine (coke, crack, etc.)					
(q) Amphetamine type stimulants (speed, diet pills, ecstasy, Khat/Miraa)					
(r) Inhalants (nitrous, glue, petrol, paint thinner, etc.)					
(s) Sedatives or Sleeping Pills (Valium, Serepax, Rohypnol,)					
(t) Hallucinogens (LSD, acid, mushrooms, PCP, Special K,)					
(u) Opioids (heroin, morphine, codeine, Brown sugar)					
(v) Other - specify:					
4. During the past 3 months, how often has your use of drugs mentioned in question Q1 led to health, and social, legal or financial problems? (Specify the four leading drugs)	0	1	2	3	4
Health Problems (specify the four leading drugs)					
Drug 1					

Drug ii)					
Drug iii)					
Drug iv)					
Social Problems (specify the four leading drugs).					
Drug i)					
Drug ii)					
Drug iii)					
Drug iv)					
Legal Problems (specify the four leading drugs).					
Drug i)					
Drug ii)					
Drug iii)					
Drug iv)					
Financial (specify the four leading drugs).					
Drug i)					
Drug ii)					
Drug iii)					
Drug iv)					
5. During the past 3 months, how often have you failed to do what was normally expected of your because of your use of: (specify the four leading drugs).					
Drug i)					
Drug ii)					
Drug iii)					
Drug iv)					
Q6-Q8 Tick 0=No, never, 1=Yes, but not in the past 3 months, or 2=Yes in the past 3months					
6. Has a friend or relative or anyone else ever expressed concern about your use of drug (If yes specify the four leading drugs).	0	1	2		
Drug i)					
Drug ii)					
Drug iii)					
Drug iv)					
7. Have you ever tried to control, cut down or stop using drug (If yes specify the four leading drugs).					
Drug i)					
Drug ii)					
Drug iii)					
Drug iv)					
8. Have you ever used any drug by injection (non-medical use only) (If yes specify the four leading drugs).					
Drug i)					
Drug ii)					
Drug iii)					
Drug iv)					

THANK YOU DEAR PATIENT FOR YOUR PARTICIPATION AND WISH YOU QUICK RECOVERY - If you have more information or comments write at top or bottom of any of the pages.

OFFICIAL – TO BE COMPLETED BY THE RESEARCH ASSISTANT ON INTERVIEWING THE PATIENT

MINI-MENTAL STATE EXAMINATION (MMSE) QUESTIONNAIRE

1. Orientation (maximum marks = 10, 1 for each correct answer 0= for incorrect answer if no response indicate N/R

- | | |
|------------------------------------|--|
| a. Name this hospital _____ | f. What province/district are you in? _____ |
| b. What city are you in now? _____ | g. What country is this? _____ |
| c. What year is it? _____ | h. What ward are you in? _____ |
| d. What month is it? _____ | i. What day of the week is it? _____ |
| e. What is the date today? _____ | j. What season (dry, wet) of the year is it? _____ |

2. Registration (Three marks, are for a, b, c, each)

I am going to give you names of three objects, you will be required to say and remember them. I will ask you for the objects after some time. Repeat after me: hen, tree, cup.

Name the three objects and have the patient repeat them. Score number repeated by the patient. Name the three objects several more times it needed for the patient to repeat correctly (record trials ____).

The scores (a) hen (number of trials before it is correctly recalled) ____
(b) tree (number of trials before it is correctly recalled) ____
(c) cup (number of trials before it is correctly recalled) ____

3. Attention and calculation (i) (maximum score = 5 are for each correct answer (a – e)

Subtract 7 from 100 in serial fashion to 65. Score: _____

(ii) Maximum score = 5 **or** say the days of the week forward then backwards ____ (1/2 score for every correct square -

4. Recall (Three marks one for each)

What are the three object repeated above/Do you recall the three objects named before? (a) hen ____ (b) tree ____ (c) cup ____

5. Language tests (8 marks)

(a) Confrontation naming: A pencil/pen and a watch/key are shown to the patient and he/she asked to name them -(i) watch (1 mark) ____ (ii) pen (1 mark) ____

(b) Repetition: "No ifs, ands, or buts" (1 mark) ____

(c) Comprehension: (i) Pick up the paper in your right hand, (ii) fold it in half, and (ii) set it on the floor **or** (i) Take a pen (ii) remove the cover and (iii) put it on the bed/table (3 marks for correctly carried out instructions) ____

(d) Read and perform the command "close your eyes" (1 mark) ____

(e) Write any sentence (subject, object, verb) (1 mark)

6. Construction (maximum 1 mark)

Copy the design below (1 mark)

Or draw a clock face



Total MMSE questionnaire score (maximum = 30) _____

OFFICIAL USE ONLY (TO BE COMPLETED BY THE RESEARCH ASSISTANT AFTER THE PATIENT HAS COMPLETED HIS/HER QUESTIONNAIRE)

Name of Facility 2. If inpatient type of ward 3. If outpatient type of clinic

4. Working diagnose(s) (list them) from the Notes.....

5. In the Notes is there any mention of a mental health related condition(s). 1= Yes 2 = No

6. If so specify.....

7. If yes in 5 above, has there been any referral, or indication of referral to a psychiatrists, clinical psychologist, counselling psychologist, psychiatric, social worker etc? 1= Yes 2 = No

8. If Yes specify which mental health specialists and whether actually referred or just a mention of referral.....

9. Indicate how the patient completed the questionnaire – indicate only one of following options: -

On their own without assistance

On their own but with your assistance because he did not understand the question

On their own but with your assistance because he was physically unable

You read the questions to him and you noted the answers.

Others: Specify.....

I certify that the above information is correct and also the data by the patient was collected under my supervision. I also certify that this information refers to the same patient.

Name.....

Signature.....

Date.....

Appendix 3(iii): STUDY ON MENTAL HEALTH IN GENERAL HOSPITALS AND FACILITIES

CONSENT AND CONSENT EXPLANATION TO THE STAFF

My name is Professor David M. Ndeti. I am carrying out a survey to find out what doctors, nurses etc working in non-psychiatric hospitals and settings/clinics think about mental health problems.

This information will be useful in finding out how we all professionals could best work together in regard to mental health. This questionnaire has three sections. Section I is about your professional background, Section II about psychiatric illness in General and Section III is more focused on Depression.

Apart from your precious time this exercise will not inconvenience you in anyway. I thank you for your endurance.

If you do agree to participate in this exercise kindly complete the questionnaire to the best of your ability. Your identity will remain anonymous.

Fold it and staple it. The research assistant will collect it from you within the next 24 hours.

Thank you for your participation.

Prof. David M. Ndeti

Department of Psychiatry
University of Nairobi

&
Director, Africa Mental Health Foundation
Tel: 020-2716315 Mobile: 0722 518365

Official: Name of Facility/Hospital/H/C.....

SECTION I

Date:

1. Age in years 2 Sex..... 1 = Male 2= Female 3. What is your professional area? Medical/Nurse/ Other specify.....
4. If a student specify year of study
5. If already qualified what are your professional qualifications: (a) Basic..... (b) Post-basic (if any).....
6. Which year did you achieve your basic qualification?.....
7. For those with post-basic qualifications: (a) Which year did you achieve your post-basic qualification?..... (b) Within your professional area what do you specialize in?

SECTION II – THIS IS ON WHAT YOU THINK ABOUT MENTAL HEALTH IN GENERAL

1. In your own estimation, out of every 100 patients that you see how many do you think: (Answer each of the following)
 - (i) Are predominantly psychiatric cases that need only psychiatric management?.....
 - (ii) Have a significant psychiatric component in addition to the physical condition?
 - (iii) Have a mild psychiatric component in addition to the physical condition
 - (iv) Have no psychiatric component at all?
 - (v) You refer to mental health specialists?.....
2. Do you have access to a Mental Health Worker incase you need to refer?.....
3. If yes, are they in public institution or private or both?
4. Are you comfortable managing the psychiatric patients you see: (Tick only one)?
 - (1) Very comfortable
 - (2) Comfortable

- (3) A little bit comfortable
- (4) Not comfortable at all
5. Do you think there is need for psychiatric input in the Training of professionals in your field
 - (a) At College or undergraduate level?
 - (b) At postgraduate level?
6. Have you had a chance to attend a refresher course in mental health? (1) Yes (2) No
7. If you had a chance for refresher course of mental health would you consider taking it?
8. If you would not like to go for any refresher course is it because?(Answer each with Yes or No).
 - (1) I have no time because of my already busy schedule.....
 - (2) I am not interested
 - (3) It is a waste of time
9. If you would like to go for a refresher course is it because? (Answer each with Yes or No).
 - (1) It is very relevant to what I see in my work
 - (2) It will just be another addition
 - (3) It is a good way of getting time off.....
10. What do you think of mental illness: (Answer each with Yes or No).
 - (1) It can only be managed by psychiatrists
 - (2) Non-psychiatrists doctors have an important role to play
 - (3) It is best managed by witchdoctors....
 - (4) It is a problem only for the relatives
11. Patients with mental illness (Answer each with Yes or No).
 - (1) Can only be treated in psychiatric hospital
 - (2) Can be successfully managed in general hospitals
 - (3) Can be successfully managed at out-patients in general hospitals
 - (4) Can be successfully managed in their homes by families.....

SECTION III – THIS FOCUSES ON DEPRESSION IN PATIENTS

Answer each of the following questions by inserting 1,2,3, & 4 in the space provided. 1=Strong agree 2= Agree 3= Uncertain 4= Disagree 5= Strong disagree

A. How much do you agree or disagree with following?

1. Psychological factors can influence the cause and outcome of physical disorders
2. Emotional and social aspect of care enhance job interest in the patient
3. Management of emotional issues is solely a medical responsibility.....
4. Emotional and social aspect of care enhance my job interest.....

B. I have a responsibility for following common types of psychological problems

1. Depression
2. Acute confusional state
3. Overdoses
4. Chronic drinking problems
5. Disturbed behaviour
6. Emotional care of dying patients
7. Suicide, schizophrenia, mania

C. Time Constrains and Assessment

1. I would welcome more time to talk to my patients.....
2. It is impractical for hospital doctors to assess and treat emotional problems
3. Psychological and social factors should be routinely assessed and recorded for inpatients...
4. Psychological and social factors should be routinely assessed and recorded for outpatients...
5. When psychological factors appear to be an important cause of the presenting problem, I confine myself to physical assessment
6. I should concern myself with emotional care of regular attenders with chronic physical illnesses..

D. On treatments in General Hospitals/Facilities

1. Doctors should be able to use psychological methods such as: Listening/reassurance
2. Doctors should discuss anxieties and problems of patients
3. I frequently discuss emotional problems with relatives of patients
4. I use cognitive or behavioural methods of treatment on patient.....
5. Hospital doctors should be able to use psychotropic drugs on patient.....
6. I use antidepressants frequently or occasionally on patient.....

E. On Psychiatry in General

1. I would like more contact with psychiatric services..
2. I would like to know more about what psychiatry has to offer in the management of medical or surgical patients
3. Psychiatrists have little to offer in a general hospital.....

F. Attitudes of Staff in General Hospitals towards mental health

1. Emotional problems are part of hospital doctor's work
2. Psychological factors are important in the course of physical illness
3. The variety of emotional and social care enhances interest in patient.....
4. General practitioners are responsible for assessment of emotional problems in new out-patients
5. Management of emotional problems is an important part of my care for chronic out-patients
6. Management of my patients' emotional problems is mainly responsibility of nursing staff.....

G. My views on people with depression

1. People with depression could snap out of it if they wanted.....
2. Depression is a sign of personal weakness.....
3. Depression is not a real medical illness.....
4. People with depression are dangerous.....
5. It is best to avoid people with depression so you do not become depressed yourself.....
6. People with depression are unpredictable.....
7. If I had depression I would not tell anyone.....
8. I would not employ someone if I knew they had been depressed.....
9. I would not vote for a politician if I knew they had been depressed.....

H. General (not necessarily your own) views on people with depression

1. Most people believe that people with depression could snap out of it if they wanted.....
2. Most people believe that depression is a sign of personal weakness.....
3. Most people believe that depression is not a real medical illness.....
4. Most people believe that people with depression are dangerous.....
5. Most people believe that it is best to avoid people with depression so you don't become depressed yourself.....
6. Most people believe that people with depression are unpredictable.....
7. If they had depression, most people would not disclose
8. Most people would not employ someone they knew had been depressed.....
9. Most people would not vote for a politician they knew had been depressed.....

Note: If you have any more comments/suggestions, write them on top or bottom of these two pages.

THANK YOU