**CURRICULUM VITAE**

**BETTY ROBERTA NORMAN**

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| Personal statement |  | I am a clinician, an Educator and a Mentor. I have contributed to science in the areas of HIV Medicine, Kidney Diseases, and General Internal Medicine with the objective of improving patient care. I have also played key roles for developing modules and training manuals for inter professional education in HIV care in Ghana |
| Professional EXPERIENCE |  | **Current Appointments**  **Academic Appointment**  •Senior Lecturer, Department of Medicine, KNUST School of Medicine and Dentistry, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana  **Hospital Appointment**  •Honorary Senior Specialist Physician, Department of Medicine, Komfo Anokye Teaching Hospital (KATH), Kumasi; Ghana  **Responsibilities**  **Teaching**  •Didactic lectures on General Internal Medicine, Infectious and Tropical Diseases  •Small group teaching incorporating Bedside and Simulated teaching sessions in General Internal Medicine, Infectious and Tropical Diseases  **Clinical**  **Expertise: HIV Medicine and General Internal Medicine**  •Lead HIV Clinician at the HIV Clinic, KATH, Kumasi  •Provision of antiretroviral therapy and comprehensive care to HIV patients  •Provision of telephone consultation on antiretroviral therapy and Post-Exposure Prophylaxis to clinicians from other antiretroviral treatment sites in Ghana  •Outpatient management of patients with infectious diseases  •Management of infectious disease emergencies  •Provision of infectious disease consultations to clinicians from other sub-specialties in Internal Medicine and specialists from other departments at KATH  •Management of inpatients with infectious and tropical diseases including issues relating to HIV infection and antiretroviral therapy  **Past Appointments**  **Academic**  •Lecturer, Department of Medicine, School of Medical Sciences, Kwame Nkrumah University of Science & Technology, Kumasi, Ghana  •Teaching Assistant, Department of Medicine, School of Medical Sciences, Kwame Nkrumah University of Science & Technology, Kumasi, Ghana  **Hospital**  •Head, HIV Clinic, 2008-2018, KATH, Kumasi, Ghana  •Specialist Physician, 2008 – 2010, Department of Medicine, KATH, Kumasi, Ghana  •Teaching Assistant, 2008 – 2010, Department of Internal Medicine, SMS; KNUST  •Medical Officer, 2002 – 2007, Department of Medicine, KATH, Kumasi, Ghana  •Medical Officer, March 2002 – August 2002, Department of Obstetrics and Gynaecology, KATH  •Medical Officer, October 2001 – February 2002 Department of Child Health, KATH October  •House Officer, May 2001 to September 2001, Department of Surgery, KATH  •House Officer, November 2000 to April 2001, Department of Medicine, KATH  **Other Duties**  **External Examiner**   * West Africa College of Physicians, West Africa Postgraduate Medical College * School of Medicine, University of Health and Allied Sciences, Ho * School of Medicine and Dentistry, University of Ghana, Accra * School of Medicine and Health Sciences University of Development Studies, Tamale * School of Medical Sciences, University of Cape Coast   **Training facilitator** on Antiretroviral treatment and the care of the HIV infected patient  **Member**   * HIV Technical Committee, KATH * Emergency Response Team, KATH |
| EDUCATION and training |  | **Postgraduate Training**  Fellow, West African College of Physicians (FWACP), October 2009  Member, West African College of Physicians, (MWACP) October 2006  Diploma in Project Design & Management (DPD&M) Liverpool School of Hygiene & Tropical Medicine/ Komfo Anokye Teaching Hospital (KATH), December 2005  Diploma in Tropical Medicine & Hygiene (DTM&H), London School of Hygiene &Tropical Medicine, April 2005  **Undergraduate Education**  Bachelor of Medicine, Bachelor of Surgery (MBChB), Kwame Nkrumah University of Science &Technology (KNUST), July 2000  BSc. Human Biology, KNUST, June 1997 |
|  |  | **Additional Training**   * European AIDS Clinical Society (EACS) Online training on Pre-Exposure Prophylaxis via EACS/iversity, July 2017 * EACS Online training on Clinical Management of HIV via EACS/iversity, March 2016 * Doctors as Educators training, Royal College of Physicians & West African College of Physicians (WACP), January 2015 * Fellowship training in the clinical management of HIV Disease, New York Presbyterian Hospital, Weil Cornell Medical College, November 2008 * Short Course on Antiretroviral treatment for people living with HIV/AIDS in countries with limited resources, Prince Leopold Institute of Tropical Medicine, August 2006 * Training in Logistics Management Information for the Management of anti-retroviral Drugs, Accra, Ghana, June 2004 * Training in antiretroviral therapy, National AIDS Control Programme, Accra, Ghana; October 2003 * Clinical update course on HIV/AIDS management, AIDS Ally & Foundation for African Relief in collaboration with National AIDS Control Programme and HIV Specialists from Harvard Medical School, Accra, Ghana, July 2003 |
| Professional Memberships |  | * Ghana Medical Association * West African College of Physicians |
| Research Publications |  | **Publications List**  **Publications In Peer-Reviewed Journals**   1. **Co-Morbid Health Conditions Among Patients Living with HIV**   Research conducted in this area relates to understanding the prevalence, course, and treatment of co-morbid health conditions, including co-infections, among patients living with HIV.   1. Prevalence and incidence of pre‐diabetes and diabetes mellitus among people living with HIV in Ghana: Evidence from the EVERLAST Study. Sarfo F.S., **Norman B**, Nichols M., Appiah L., Osei Assibey S., Tagge R. Ovbiagele B. HIV Med (2021) https://doi.org/10.1111/hiv.13007 2. Molecular Characterization and Clinical Description of Non-Polio Enteroviruses Detected in Stool Samples from HIV-Positive and HIV-Negative Adults in Ghana. V Di Cristanziano, K Weimer, S Böttcher, FS Sarfo, A Dompreh, LG Cesar, E Knops, E Heger, M Wirtz, R Kaiser, **B Norman,** RO Phillips, T Feldt, KA Eberhardt. Viruses. 2020, 12 (2), 221 3. Characteristics of hypertension among people living with HIV in Ghana: Impact of new hypertension guideline. Sarfo FS, Nichols M, Singh A, Hardy Y, **Norman B**, Mensah G, Tagge R, Jenkins C, Ovbiagele B. J Clin Hypertens (Greenwich). 2019 May 24. doi: 10.1111/jch.13561. 4. Lower prevalence of Blastocystis sp. infections in HIV positive compared to HIV negative adults in Ghana. V Di Cristanziano, R D Alfonso, F Berrilli, FS Sarfo, M Santoro, L Fabeni, E Knops, E Heger, R Kaiser, A Dompreh, RO Phillips, **B Norman**, T Feldt, KA Eberhardt. PloS one. 2019, 14 (10), e0224000 5. High prevalence of multidrug-resistant tuberculosis among patients with rifampicin resistance using GeneXpert Mycobacterium tuberculosis/rifampicin in Ghana. Boakye-Appiah JK, Steinmetz AR, Pupulampu P, Ofori-Yirenkyi S, Tetteh I, Frimpong M, Oppong P, Opare-Sem O, **Norman BR**, Stienstra Y, van der Werf TS. International journal of mycobacteriology. 2016 Jun 1;5(2):226-30. 6. Helicobacter pylori Coinfection Is Associated with Decreased Markers of Immune Activation in ART-Naive HIV-Positive and in HIV-Negative Individuals in Ghana. Eberhardt KA, Sarfo FS, Dompreh A, Kuffour EO, Geldmacher C, Soltau M, Schachscheider M, Drexler JF, Eis-Hübinger AM, Häussinger D, Bedu-Addo G, Phillip RO, **Norman B,** et al. Clinical Infectious Diseases, Volume 61, Issue 10, 15 November 2015, Pages 1615–1623, https://doi.org/10.1093/cid/civ577 7. Incidence and determinants of nevirapine and efavirenz-related skin rashes in West Africans: nevirapine's epitaph? Sarfo FS, Sarfo MA, **Norman B**, Phillips R, Chadwick D. PloS one. 2014 Apr 11;9(4): e94854. 8. **Women and HIV Infection**   This line of research is focused on identifying factors impacting the reproductive health of women infected with HIV   1. Awareness of HIV status and partner disclosure among antenatal clinic attendants: experience from a regional hospital in Ghana. B Mensah, **BR Norman**, JJK Annan, A Enimil, M Agyei. World Journal of Advanced Research and Reviews 2020, 8 (3), 014-027 2. Assessing Reproductive Decision-making Among HIV-Positive Women in Kumasi, Ghana, AE Hersey, **B Norman**, R Reece. International Journal of MCH and AIDS. 2019, 8 (1), 54 3. Retention in Care of HIV-Positive Postpartum Females in Kumasi, Ghana. Reece R, **Norman B**, Kwara A, Flanigan T, Rana A. Journal of the International Association of Providers of AIDS Care (JIAPAC), 2016 15(2): 406-411. 4. **Challenges and Outcomes of HIV Treatment**   This line of research is focused on identifying factors related to antiretroviral treatment and examines HIV-related health outcomes among HIV patients on antiretroviral treatment   1. The Effect of Antiretroviral Stock-Outs on Medication Adherence Among Patients Living with HIV in Ghana: A Qualitative Study. Moriarty K, Genberg B, **Norman B**, Reece R. Journal of the Association of Nurses in AIDS Care. 2018 Mar -Apr;29 (2):231-240. 2. Saving Up for The Future: HAART Stock-Outs as a Contributor to Treatment Non-Compliance Among HIV-Positive Patients in Kumasi, Ghana. Moriarty K, Reece R, **Norman B.** Annals of Global Health. 2016; 82 (3), 515-516. 3. A Retrospective Chart Review of Treatment Initiation and Outcomes Following Antiretroviral Therapy (ART) Delivery at the Komfo Anokye Teaching Hospital (KATH) HIV Clinic in Kumasi, Ghana. Heyward Q, Brown V, **Norman B**, Reece R, Rana A. Annals of Global Health. 2016; 82 (3), 390. 4. Delayed entry to care by men with HIV infection in Kumasi, Ghana. Kumar N, Reece R, **Norman B,** Kwara A, Flanigan T, Rana A. Pan African Medical Journal. 2015;22(1). 5. Risk of deaths, AIDS-defining and non-AIDS defining events among Ghanaians on long-term combination antiretroviral therapy. Sarfo FS, Sarfo MA, **Norman B**, Phillips R, Bedu-Addo G, Chadwick D. PLoS One. 2014 Oct 23;9(10):e111400 6. Sustained immunological responses to highly active antiretroviral therapy at 36 months in a Ghanaian HIV cohort. Clinical Infectious Diseases. Collini P, Schwab U, Sarfo S, Obeng-Baah J, **Norman B**, Chadwick D, Bibby D, Bedu-Addo G. 2009 Apr 1;48(7):988-91. 7. **Kidney Disease**   I have also conducted research with patients at our hospital who suffer from kidney disease. This includes understanding their risk for mortality and morbidity, as well as their quality of life.   1. Hyponatremia as a predictor on mortality in medical admissions in Ghana-a case control study. EK Tannor, YA Boateng, E Akumiah, **B Norman**. Kidney International Reports. 2020, 5 (3), S28 2. Outcomes in medical admissions with hyponatraemia in Ghana–a single-centre study. EK Tannor, EO Akumiah, **BR Norman**. African Journal of Nephrology. 2019, 22 (1), 40-45 3. Quality of life among patients with moderate to advanced chronic kidney disease in Ghana-a single centre study. EK Tannor, **BR Norman**, KK Adusei, FS Sarfo, MR Davids, G Bedu-Addo. BMC Nephrology, 2019 20 (1), 122 4. A 10-Year retrospective review of renal cases seen in a Tertiary Hospital in West Africa. EK Tannor, K Adusei, **BR Norman**. African Journal of Current Medical Research, 2018, (2) 2. 5. High prevalence of renal dysfunction and association with risk of death amongst HIV-infected Ghanaians. Sarfo FS, Keegan R, Appiah L, Shakoor S, Phillips R, **Norman B**, Hardy Y, Bedu-Addo G, Longstaff L, Chadwick DR. Journal of Infection. 2013 Jul 1;67(1):43-50. 6. **Case Reports** 7. Acute uncontrolled hyperglycemia, a non-specific presentation and predictor of covid-19 severity-a report of three cases. Mensah Boniface, **Norman Betty**, Annan John, Kokuro, Collins. 10.30574/gscarr.2021.6.1.0001. 8. A forgotten parasitic infestation in an immunocompromised patient-a case report of crusted scabies. Agyei M, Ofori A, Tannor EK, Annan JJ, **Norman BR.** The Pan African Medical Journal 36 (238), 2020 9. A Near Fatal Puerperal Flare of Systemic Lupus Erythematosus: Case Report and Review. Agyei M, Annan JJ, Ofori A, **Norman BR**. Global Journal of Medical Research: EGynecology and Obstetrics, Volume 20 Issue 5 Version 1.0, 9-16, 2020   **Book Chapters**  •Guide to History Taking and Clinical Examination for Medical Students. Department of Medicine, College of Health Sciences, KNUST. Second Edition, 2018  •Guide to History and Examination for Medical Students. Department of Medicine, College of Health Sciences, KNUST. First Edition, 2016 |
| AWARDS & HONOURS |  | •The Arthur Ashe Endowment for the Defeat of AIDS, Clinical fellowship in management of HIV Disease, 2008  •The Belgian Directory General for Development Cooperation Scholarship for the Short Course on Antiretroviral treatment for people living with HIV/AIDS in countries with limited resources, Prince Leopold Institute of Tropical Medicine, 2006  •Sir Halley Stewart Fellowship Scholarships for Diploma in Tropical Medicine and Hygiene, LSH&TM, 2005.  •Best Doctor for the year 2003, Department of Medicine, Komfo Anokye Teaching Hospital, Kumasi, Ghana  •Best Doctor for the year 2001, Department of Child Health, Mother Baby Unit (MBU), Komfo Anokye Teaching Hospital, Kumasi, Ghana |
| References |  | **Professor George Bedu-Addo**  School of Medicine and Dentistry  Kwame Nkrumah University of Science and Technology  Kumasi, Ghana  Telephone: +233208111264  Email: [gbeduaddo@gmail.com](mailto:gbeduaddo@gmail.com)  **Prof. Fred Stephen Sarfo**  School of Medicine and Dentistry  KNUST/KATH, Kumasi, Ghana  Telephone: +233243448464  Email: [stephensarfo78@gmail.com](mailto:stephensarfo78@gmail.com) |