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Board of Trustees, Boston University A Tool of Empire: The British Medical Establishment in Lagos, 1861-1905 Author(s): Spencer H. Brown Reviewed work(s): Source: The International Journal of African Historical Studies, Vol. 37, No. 2 (2004), pp. 309343 Published by: Boston University African Studies Center Stable URL: http://www. jstor. org/stable/4129011 . Accessed: 04/01/2013 14: 02 Your use of the JSTOR archive indicates your acceptance of the Terms & Conditions of Use, available at . http://www. jstor. org/page/info/about/policies/terms. jsp . JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor. org. . Boston University African Studies Center and Board of Trustees, Boston University are collaborating with JSTOR to digitize, preserve and extend access to The International Journal of African Historical Studies. http://www. jstor. org This content downloaded on Fri, 4 Jan 2013 14: 02: 15 PM All use subject to JSTOR Terms and Conditions International Journal of African Historical Studie 37, 2 (2004) 309 A TOOL OF EMPIRE: THE BRITISHMEDICAL ESTABLISHMENTIN LAGOS, 1861-1905* By Spencer H. Brown medicine, andits handmaiden, " European publichealth, servedas 'tools of Empire,' of both symbolic and practicalconsequence, and as images representative Euroof to conquer, occupy or settle.... medicineservedas an peancommitments, variously instrument empire, as well as an imperializing of culturalforce in itself.... " I So arguedRoy MacLeod in 1988. William Bynum statedthat tropicalmedicine itself grew from the mid-1800s on because of "

the intensificationof imperialrivalries" and because of its " increasedcapacity ... to aid in Christianizing, civilizing, comthat the mercialising, or simply dominating" new territories had come underEuroin pean rule. " If medicinecould tamethe diseases thatwere rampant the tropics, it had undoubted force as a tool of empire...." 2 Therewere those in the late political 1800s who felt " thatmedicine itself justifiedimperialism." 3 David Arnoldasserted in 1988 that" medicinewas a partof the ideology ... of empire" and that" imperial powerswere beginning[in the late 1800s]to use medicineas a way of winningsupof portfrom a newly subjectpopulation, balancingout the coercivefeaturesof colonial rule, andof establishing widerimperialhegemonythancould be derivedfrom a conquest alone." 4 The positionthatcolonial medicine, especiallyits tropicalcomponent, was a and tool of Europeanimperialism--bothin its establishment in its justification--is in an interpretation commonamong scholars, especiallythose interested non-

West- I would like to thank my friend and colleague, William L. Burton, for photocopying the many pages of the Lagos Blue Books; his kindness in doing so has literally made this study possible. My thanks to the Western Illinois University Foundation for a Summer Stipend that facilitated the latter stages of this research. My special thanks also to Kathy Dahl of the WIU Libraryfor her referenceknowledge and skills in locating pertinent sources. Finally, this study is in memory of Doris, my wife and friend. 1 Roy MacLeod, " Preface," in Roy MacLeod and Milton Lewis, eds., Disease, Medicine, and Empire: Perspectives on WesternMedicine and the Experience of European Expansion (London, 1988), x. 2 William F. Bynum, Science and the Practice of Medicine in the Nineteenth Century (Cambridge, 1994), 148. 3 Ibid., 152. 4 David

Arnold, " Introduction: Disease, Medicine, and Empire," in David Arnold, ed., Imperial Medicine and Indigenous Societies (Manchester, 1988), 16. This content downloaded on Fri, 4 Jan 2013 14: 02: 15 PM All use subject to JSTOR Terms and Conditions 310 SPENCER H. BROWN ern cultures. 5 has arisen, in part, from an effort by many scholarsfrom the 1950s It on to reevaluate of from the perspective colonialpeoples and theirculimperialism with those who arguesuchrevisionism. 6 tures, and I have no quarrel In such reevaluationsof imperialismand the role of colonial medicine and healththerein, however, it is essentialto maintain and public objectivity avoidjudgthe Western liberal mentsbaseduponcurrent valuesoften held by those educatedin and tradition. is also essentialto comparethe effects of imperialism colonial mediIt cine upon the indigenes living in the colonies with the effects of European government and medicine upon the citizens of the metropoles. Gwyn Prins, for example, assertsthat" inthe old-fashioned of diseaseenvironment colonial Africa, Hygaea ... was for many Africans seen as the colonialist's whore" because the districtcommissioner's public healthorders" were amongthe most intrusivein ruralAfrica." 7 With respect to Feierman'sstress upon reckoningthe social costs of production, Prins states that " it will complete the destructionof the image of allopathicmedicine's political detachment tightenthe linkageof occupational and epidemiologyto the studyof the politicaleconomyof colonialism." 8 Acceptingthatcolonial medicinewas an integralpartof the typicalcolonial what were the and administration can thusbe describedas a " tool" of imperialism, characteristics this tool, and what effects did it actuallyhave on the health and of welfare of the indigenes? If therewere social costs of productionfor colonial peoples

resultingfrom developmentprojects(e. g., dams bringingan increasein schistosomiasis and highways and railroadsmakingthe spreadof disease easier), must theseprojectswith indifferenceto one chargethe colonialofficialswho implemented and the indigenes'welfare? Yet indifference callousnesshave been ascribedto these officials, though they lacked the knowledge that scholars of the late 1900s have for of and aboutdisease transmission the importance good nutrition the maintenance of health. 9 5 In addition to the authors previously cited, see also Gwyn Prins, " But What Was the Disease? The Present State of Health and Healing in African Studies," Past and Present 124 (1989), 159-79, esp. 164-66; Megan Vaughan, Curing Their Ills: Colonial Power and African Illness (Stanford, 1991), 204-205; and Steven Feierman," Struggles for Control: The Social Roots of Health and Healing in Modem Africa," African Studies Review 28 (1985), 73-147, esp. 93-105 on the social costs of productionas related to development and consequent ill health and 120-24 on colonial health services. 6 Spencer H. Brown, " A History of the People of Lagos, 1852-1886" (Ph. D. thesis, Northwestern University, 1964), embodies this revisionist view of imperialism. 7 Prins, " But What Was the Disease?" 164. " Colonial medicine" as used in this study usually encompasses public health. 8 Ibid., 166. 9 See MacLeod, " Introduction," 5, on the consistently critical interpretations of colonial medicine in the InternationalJournal of Health Sciences. This content downloaded on Fri, 4 Jan 2013 14: 02: 15 PM All use subject to JSTOR Terms and Conditions A TOOL OF EMPIRE 311 Feiermanleans toward such imputationof guilt when he writes that " the cost of makingworkingconditionshealthy, the cost of feeding workers and their

retiredworkers, and of either controllingor suffering the families, of maintaining environmental effects of the production process" are amongthe social costs of production.'0While not explicitly assertingthat these social costs should have been anticipatedand takeninto accountby colonial officials of the late 1800s and early of 1900s, he notes that" thepotentialAfricanbeneficiaries improvedhealthcare had this little influencein the colonialmother-country."'' Supporting idea is the concept and of the welfarestateandthe properrelationsbetweengovernment capitalismthat should follow therefrom. Needless to say, ideas about social security and unemployment benefits were just emerging slowly on the Europeanscene by the late in 1800s andearly 1900s. To assumetheirfull acceptance the mothercountry, much less in the colonies, is to imposelatervaluesandprograms uponan earlierage. 12 The ideal still held by many historiansthat the past must be understood throughthe intellect and emotions of those who lived in it, seems to be a principle often forgottenby those who condemncolonial medicinefor its deliberatesupport flaws of staffing, financing, and of imperialism. Colonialmedicinehad innumerable humansfrom becomingill. As Bruce but practice, it also saved lives and prevented Fetterconcludes, " Critiques colonial rule and capitalismin Africa are certainly of but they need deny neitherthe germ theory of epidemic disease nor the justified, from theirhiseffectivenessof investmentsin healthfacilitiesnor wrenchmaterials torical context."'3" Does bad colonial conductin the economic spherenecessarily exclude good intentions toward African health?"'4Continuing his appeal for balancein evaluatingcolonial medicine, Fetterwrites:" Since about 1905 the combinedpowersof

medicaltechnology, private hygiene, and public healthhave made it possible to reduce mortalityand morbidity from infectious diseases, wherever money is spentwisely andin sufficientquantity.... The tragedyof colonial medicine was thattherewas neverenoughof it."'" " Struggles for Control," 93. 11 Ibid., 123. 12 Arthur Marwick, The Nature of History, 3d ed. (Chicago, 1989), 270-71, indicates that the term " welfare state" was not even used in English until the 1930s and that its meaning varied among countries. 13 Bruce Fetter, " Pitfalls in the Application of Demographic Insights to African History," History in Africa 19 (1992), 304. John V. Pickstone, " Introduction," in Medical Innovations in Historical Perspective, ed. Pickstone (New York, 1992), 15, after stressing the responsibility of historians to be true to the " perceptionsand judgements of the historical actors," warns them " not to 'read back' later knowledge and assume that our actors in the past 'must have known'" what later generations see as truth. 14 Bruce Fetter, " Pease Porridgein a Pot: The Social Basis of Health and Healing in Africa," History in Africa 20 (1993), 49. 15 Ibid., 44. 10 Feierman, This content downloaded on Fri, 4 Jan 2013 14: 02: 15 PM All use subject to JSTOR Terms and Conditions 312 SPENCER H. BROWN as and recriminations, inferences to motiveprompted by Overgeneralizations, an author'sideology are unprofitable the avenuesfor understanding variedroles of colonial medicine. If colonial medicine sometimes erredin its efforts to improve healthamong indigenes, one need only compareits actions to those of European In medicinein the metropolesto gain valuable perspective. her study of " the intersectionbetweenthe rising tide. of eugenic thoughtin early twentieth centuryBritain and ... 'social medicine' or 'social hygiene,"'GretaJones

concludes: The influenceof social hygienewas possible preciselybecause it was easily healthreform. The public into integrated the discourseof nineteenth-century healthreformerof the nineteenthcenturyurged the poor to be thrifty, farseeing, hardworkingas well as physicallyandmentallyhealthy. At the same The residuumwere discoveredthe residuum. time, the publichealthreformer those among the workingclass whom no admonition, advice, discipline, or instructionseemed able to save from unemployment, immorality, and ill health. These conceptseasily dovetailedwith the type of social Darwinism the whichdividedthe nationintothe fit and the unfit and ... attributed existence of the residuum largelyto heredity. 16 Social Darwinismwas thoughtto providescientificjustificationfor social management and appropriatetechniques for achieving it. " By 1900 these techniques and includedbirthcontrol, segregation, sterilisation, the use of legislative measures the stateto alterthe relativebirthratesof the fit andunfit."" 7 by of The substitution " Africans" for " the unfit" in Jones's conclusion sugthat, in its missteps and abuses of power, colonial medicine's practitioners gests were following the generalexample derivedfrom their own educationand set for associatedwith Racismandthe attitudes medicine'spractitioners. themby European and as it can often be equatedwith class consciousnessand its attitudes, Brantlinger a critic of colonial medicine, has correctly others have noted.'8 As MacLeod, with moregeneralstudyof the stateandits citizensandtheirmedical practitioners, emphasison 16 Greta Jones, Social Hygiene in Twentieth Century Britain (London, 1986), 160. For a with 8 Times(London, 1999). Parker's parallels Chapter has interesting fromAncientto Modern in Britain's colonialexperiences Africa, esp. 128-29,

146. 17 Jones, Social Hygiene, 160. Anthony S. Wohl, Endangered Lives: Public Health in western Europe, especially Britain, see Dorothy Parker, Health, Civilization and the State: Health that public Victorian Britain(Cambridge, Mass., 1983), 332, 334-35, notes that some argued Britishhuman thus weakening healthmeasures allowedmoreof the poorto live andreproduce, that was stock. ThesocialDarwinists' position generally thepoorandweakshoulddie. 18 Patrick The and " Victorians Africans: Genealogyof the Myth of the Dark Brantlinger, are CriticalInquiry12 (1985), 166-203, esp. 166, 181, 194, where" savages" equated Continent," class system." or as oftenfunctions a displaced surrogate class" and" racism with the " working Lives, 77-79, 319, statesthatthe poorwerelookeduponby manyas animals Wohl, Endangered to couldbe likened thatof colonialpeoples. See slumclearance forced andthattheirplightamidst also Roy Lewis and Yvonne Foy, Painting Africa White: The Human Side of British Colonialism (New York, 1971), 57; H. Alan C. Cairns, Prelude to Imperialism: British Reactions to Central This content downloaded on Fri, 4 Jan 2013 14: 02: 15 PM All use subject to JSTOR Terms and Conditions A TOOL OF EMPIRE 313 observed, " Europeanmedicine fostered a powerful discourse of authority and progress, committedto the extension of 'expert' controlover otherwiseintractable social systems."'9Bynum, too, recognizesthis need for perspective when he attributes the mortalitydecline of 1850-1900 to " some combinationof socioeconomic and the improvement social intervention," latterresultingfrom " scientific medicine ... [having]receivedthe sanctionof the stateand doctors ... [having]become inextricably linked to existing social and welfare movements.... " 20 It is within this broaderhistorical context of

scientific medicine that colonial medicine must be evaluated. In an insightfuldiscussion of the state of colonial medicinestudies, Megan Vaughanurges those interestedin eitherthe medical or social/politicalaspects of colonialmedicineto pursuea middlepath. Few of us, I think, wouldwish to arguethe case for seeing colonial medicine simply as a directandoppressivearmof the colonial state (though there are occasionalinstanceswhen it looks just like this). On the otherhand, neither would manyof us wish to reinstate kind of triumphalist the history of imperial and colonial medicinewhich came before. The study of colonial medicine has been one of those areaswhich has illuminated most clearlythe limits of colonialpower: in Africaat least, colonialmedics were simply too thin on the ground and theirinstruments bluntto be viewedeitheras agents too of oppressionor as liberators fromdisease, and studies of Africandemograin phy confirmthis view.... colonialmedicinewas less important eitherconcolonialpopulations controllingdisease than we might once have or trolling supposed. 21 In pursuingthis middlepath, Vaughanencouragesstudiesof scientific medicinethat examineits practicein detail, ratherthanfocusing upon its underlyingtheory:" the to AfricanSociety, 1840-1890 (London, 1965), 92-93, refers Livingstone's frequent comparison of Africanswith the Englishpoor; andDouglasA. Lorimer, Colour, Class and the Victorians: English Attitudes to the Negro in the Mid-NineteenthCentury(New York, 1978), 153. 19 MacLeod, in 6. " Introduction," Similarly, HilaryMarland, herMedicineand Society in and as 1780-1870(Cambridge, Wakefield Huddersfield, 1987), 172, viewedmedicine a toolbothof colonialismand of capitalismand the state. See also Shula Marks," WhatIs Colonial about

ColonialMedicine? And WhatHas Happened Imperialism Health?" Social History of and to Medicine10, 2 (1997), 206-207, 211. 20 Bynum, Science and the Practice, 226. He observes that just as " travelersand or rites they missionaries" themid-1800s Africaoftenrecoiled of the in " from cannibalism puberty witnessed savages," " early in so statisticians oftenrepelled the sloth, drunkenness, were sexual by and 66. of promiscuity, fiscal irresponsibility theunwashed," 21 MeganVaughan, of and Issuesin the Social HistoryandAnthropology " Healing Curing: Medicinein Africa," Social Historyof Medicine7 (1994), 288. A comparable evaluationof colonial medicine can be found in Rita Headrick, Colonialism, Health and Illness in French Equatorial Africa, 1885-1935, ed. Daniel R. Headrick(Atlanta, 1994); see esp. xvii, 412. This content downloaded on Fri, 4 Jan 2013 14: 02: 15 PM All use subject to JSTOR Terms and Conditions 314 SPENCER H. BROWN practiceof scientificmedicine in its variousforms needs to be specified with the same attention detailas arethose of its Africancounterparts." 22 to Whatfollows is an attempt providesuch a detailedstudyof the practiceof to colonial medicine in Lagos from 1861 to 1905. Throughout, effort is made to an this practicewithinthe broadercontext of Europeanmedicinein the British place also, we will present the metropole, specificallyEnglandandWales. 23 Throughout Britishmedicalestablishment Lagos as realistically possible, noting both sucin as cesses and failures. Finally, the degree to which the colonial medicinepracticedin Lagos through1905 was a tool of empirewill be considered. The General Hospitals, New and Old " The attemptto make the towns and villages of West Africa healthy under the existing system is a Sisyphean task, because of no comprehensivegrasp of the many-sidednessof

sanitationand the relationof each to one another, no very definite object in view, no special organization the purpose, and no continuity." 24 for This was the judgmentof a medicalexpert, William John Ritchie Simpson, in his 1908 reportto the Colonial Office. Simpson then held an M. D. and a Diploma in Public Health and was a professor of hygiene at King's College, University of London, anda lecturerin tropicalhygiene at the London School of TropicalMedicine. He hadformerlybeen the healthofficerin Calcutta. Althoughhe felt that sanireformwould be more difficultto implement Lagos than in eitherFreetown in tary or Accra, because of the low-lying island site on which Lagos had grown, he asserted that the town was " already the most progressive and advancedon the coast." 25 One reasonfor this conclusionwas the new Lagos ColonialHospital, begun in late 1894 and operationalby 1896. 26It was " the best on the Coast" and com- 22 Vaughan, " Healing and Curing," 291. 23 Scotlandand Irelandare usually excludedfrom the data cited for Britain, though datajust for London are sometimes provided. 24 William J. R. Simpson, Report by Professor W. J. Simpson on Sanitary Matters in Various WestAfrican Colonies and the Outbreakof Plague in the Gold Coast (London, 1909), 20. 25 Ibid., 69; and Spencer H. Brown, " Public Health in Lagos, 1850-1900: Perceptions, Patterns, and Perspectives," InternationalJournal of African Historical Studies 25, 2 (1992), 337. For an evaluation of Simpson's life, see R. A. Baker and R. A. Bayliss, " William John Ritchie Simpson (1855-1931), Public Health and Tropical Medicine," Medical History 31 (1987), 450-65. 26 Lagos Blue Book (hereafterLBB), 1896, " Hospital Return" section. Apart from those relatedto budget, most subsequentreferencesare to this section of the Blue Books cited. Accra in the

British colony of the Gold Coast did not secure a new hospital until 1916, and that was reserved for Europeans only. A new hospital for Africans was not built until 1923. K. David Patterson's account of hospital and clinic development, especially good for the early 1900s, is This content downloaded on Fri, 4 Jan 2013 14: 02: 15 PM All use subject to JSTOR Terms and Conditions A TOOL OF EMPIRE 315 paredwell with " any hospitalfor natives" in the Britishcolonies he had visited. It possessed an operatingtheater " well up to the most modern scientific requirements." 27It was also ideally sited along the Lagos Lagoon to receive the onshore breezes fromthe Bight of Benin. Its 12 buildingswere distributed over the 350 feet from the Marinaalong the shore to BroadStreetto the northeastand over the 500 feet between PrisonStreetto the northwestand Regis Ain6 Streetto the southeast. These 4 acres (1. 6 hectares)of prime land in what was increasinglythe European of quarter Lagos had been bought in the early 1890s from the Frenchtradingfirm of Regis Aine. 28 The core of the hospitalconsistedof four buildingsfor Africanpatientsand one for Europeanpatients, of the paviliondesign then consideredmost healthfulin as EnglandandWales. 29The surgerywas separatefrom these five structures, were the laboratory chemicalandbacteriological and for the nurses'quarters, the analysis, two smallerbuildings, each with its own compound builtas asylums for female wall, andmale mentalpatients. Some of the open land on the hospitalgrounds was used for gardening. the 12 buildingsin the hospitalcomplex, only the housing for the Of nurses, the firstof whomarrivedin 1898, evoked criticismfrom Simpson European since fournurseswere now compelledto live in a house intended two. 30 for Each of

the fourbuildingsfor Africanpatientshad a single story built 7 feet from the groundand supportedby 22 iron pillars. There was a large single ward with beds for 16 patients, thus permittingthe hospital to treat up to 64 African patientsat any given time. The wardswere45 feet in length, 24 feet in width, and 13 feet to the 5 ventilators along each lengthof the hip roof. The roof's four surfaces sloped upward for another 8 feet to their summit. There they were capped by that another ventilator ranabovethe wardfor 23 of the 34 feet of ridge. Each patient thushad over 68 squarefeet of floor spaceandwell over 800 cubic feet of air space air fromthe additional up to the peak of fromthe heightof the side ventilators, apart found in " Health in Urban Ghana: The Case of Accra, 1900-1940," Social Science and Medicine 13B (1979), 251-68, esp. 257. 27 Simpson, Report, 82. 28 Nigerian Archives, Central SecretariatOffice (hereafterNCS), 1/7, 4, Carterto Secretary of State, 11 Nov. 1891; and Lagos maps of December 1885 (revised June 1887) and May 1908 issued by the colonial government. 29 The popularity of the pavilion design is discussed in Brian Abel-Smith, The Hospitals, 1800-1948: A Study in Social Administration in England and Wales (Cambridge, Mass., 1964), 154-55; John Woodward, To Do the Sick No Harm: A Study of the British Voluntary Hospital System to 1875 (London, 1974), 113-14; and Grace Golden, " Building a Hospital of Air: The Victorian Pavilions of St. Thomas' Hospital, London," Bulletin of the History of Medicine 49 (1975), 512-13. 30 Simpson, Report, 82-83; and Michael J. C. Echeruo, " The Lagos Scene in the 19th Century," Presence Africaine NS 82 (1972), 87. This content downloaded on Fri, 4 Jan 2013 14: 02: 15 PM All use subject to JSTOR Terms and Conditions 316 SPENCER H. BROWN the roof. 31Eight large windows,

four per length, opened like doors and thus also air Eachbuildinghada lavatory, earthclosets, and a storetwo promoted circulation. room at one end of the floor, with a nurse's room and a light isolationwardat the otherend. An 8-foot wide verandah alongboth lengthsof the building; narrower ran verandahswere along the widths. Three stairwaysled up to each ward from the ground. 32 The single buildingfor European patientsconsisted of threeseparatewards, dividedby two interior walls with doors, designedto hold fourbeds on each end and two beds in the middle. The overall dimensionsof these wardswere 59 by 24 feet and 14 feet to the 5 ventilatorsalong each length of the hip roof. At its summit, 8 feet higher, a 50-foot ventilator rested on the 59-foot ridge above the wards. The internalwardmeasurements gave to each patientan averageof 140 square feet of more than floor space and over 1, 900 cubic feet of air space to the side ventilators, the 10 beds was placed double that affordedto each Africanpatient. 33Each of lengthwise beside a window thatwas 7 by 3. 5 feet and was divided verticallylike from the Frenchwindows. Duringheavy andblowingrain, these could be shuttered outsidealongthe 8-foot wide verandahs ranthe lengthof the building, or during that dry weatherthey couldbe openedcompletelyinto the wardsthemselves. The crossventilation from ocean breezes was consequently quite good, as Simpson had remarked the Africanwards. At one end of the wardswere a bathroom, of lavatory, and and office. Acrossthe hall at the otherend were a pantry an ice room. All of the whereasthe Afriwardshad screensover windows, doors, and ventilators, European can wardswere unscreened. 34 This first story also rested upon iron pillars, 13 feet high, to accommodate the groundfloor thathoused a generaloffice, a

storeroom, a healthoffice, a drugs storeroom, and the office of the medical officer (M. O.) of Lagos. A 9-foot wide verandah along bothgroundlengths, while one almost5 feet wide ranalong both ran widths. The totaldimensionswere 97 by 44 feet. 35 This new colonial hospital had been in full operationfor about a decade withthe cleanlinessof the wardsand when Simpsonvisitedit, andhe was impressed in the admirable level of maintenance each buildinghe visited. The cross-ventilation 31 W. J. R. Simpson, Principles of Hygiene As Applied to Tropical and Sub-Tropical feet that Climates(London, 1908), 320, recommended eachpatientshouldhave80-100 square of spaceandthatthereshouldbe no morethan12bedsperward. 32 Simpson, Report, 82, and Lagos Fig. 4, Hospital Native Ward. of 33 Golden," Building Hospital," a 524, statesthatin the planning St. ThomasHospital, have 1, 900 cubicfeet of space, should that reasonable eachpatient openedin 1871, it was thought for Nightingale argued evenmore. though Florence 34 Simpson, Report, 82, and Lagos Fig. 3, EuropeanHospital Ward, Upper Floor plan. 35 Simpson, Report, Lagos Fig. 3, EuropeanHospital Ward, Ground Floor plan. This content downloaded on Fri, 4 Jan 2013 14: 02: 15 PM All use subject to JSTOR Terms and Conditions A TOOL OF EMPIRE 317 resultingfrom the design of the wardswith their many large French windows and theirsiting with lengthat rightanglesto the prevailing onshore winds southwesterly was an importantconsiderationin Simpson's favorableevaluationof the hospital complex. He judged good ventilationan absolute necessity for health in the tropics. 36Planned inspections, be they militaryor civil, can result in quite erroneous conclusionsas to the conditionof the inspectedduringnormaldays of activity. It is unlikely, however, that Simpson was seriously misled in his

evaluation, given his of experienceas a colonial medicalhealthofficer in Calcutta and as a teacher years of public health and hygiene in London. He neverthelessundoubtedlysaw the hospitalandits staff at theirbest since his visit was knownto themin advance. The old colonialhospitalhad been a converted West IndianRegimentarmy in 1867 shortlyafterit was built. 37 was locatedon 2 acres (0. 8 It barracks, acquired hectares)of land about 500 feet fartherto the southeastalong the Marinafrom the eventualsite of the new hospital. The buildingwas consideraRegis Ain6 property, removedfromthe lagoon shore, by over 500 feet, and was situatedjust south of bly the Lagos Race Tracknearits grandstand. buildingrevertedto its militaryfuncThe tion betweenOctober1873 and March 1874, duringthe AshantiWar fought in the Gold Coast. The hospital was moved to the Oil Mills building during that period. the Having reoccupiedthe structure, colonial hospitalremainedtherefrom 1874 to 1895. 38A dwarf wall was built aroundthe large compoundin 1880-1881, along with buildingsfor a laundry, kitchen, anda stable. Majorimprovements were made a to the hospitalitself during1888 and 1889. 39 36 For Simpson's views on health in the tropics, see his The Maintenanceof Health in the Tropics, 2nd ed. (New York, 1917), esp. 37-38, 40, and Principles of Hygiene, esp. 305, 311, 320. 37 Patterson, " Health in Urban Ghana," 257, indicates that the first hospital in Accra was opened in 1882, with 40-46 beds for Africans and a smaller number for Europeans. For an evaluation of army surgeons stationed in West Africa, see Spencer H. Brown, " British Army Surgeons Commissioned 1840-1909 with West Indian/WestAfrican Service: A Prosopographical Evaluation," Medical History 37 (1993), 411-31. For details on the lives of two of these surgeons in

Lagos, see Brown's " Colonialism on the Cheap: A Tale of Two English Army Surgeons in Lagos, Samuel Rowe and FrankSimpson, 1862-1882," InternationalJournal of African Historical Studies 27, 3 (1994), 551-88. 38 There is referenceto a " temporary" hospital in the 1895-96 budget; this may have been one of the wards later to become a part of the new hospital complex. 39 NCS, 1/1, 4, Lees to Berkeley, 6 Oct. 1873; Strahan to Governor-in-Chief, 12 May 1874; and Lees to Strahan, 14 June 1875. See also 1/1, 9, Griffith to Rowe, 31 Dec. 1881; and 1/7, 4, Carter to Secretary of State, confidential, 9 Nov. 1891. See also LBB, 1880, 1881; and Lagos government maps, 1887 and 1908. So extensive were the 1888-1889 repairs that P. Amaury Talbot, The Peoples of Southern Nigeria: A Sketch of Their History, Ethnology ad Languages [1926] (London, 1969), I, Historical Notes, 124, states that the colonial hospital was " rebuilt." This content downloaded on Fri, 4 Jan 2013 14: 02: 15 PM All use subject to JSTOR Terms and Conditions 318 SPENCER H. BROWN Therewere two storiesto the structure. first had a hip roof whose slopThe ing ceilings met 18 feet abovethe floorthathousedthreewards: one with 8 beds for Europeanship captains, one with 8 beds for Europeanmerchantsailors, and one with 16 beds for Africans (referred to as " natives")- usually from the Sierra Leoneanor Brazilianimmigrant communitiesof Lagos. The crampedground floor, with horizontalceilings just over 6 feet high, could contain two 8-bed wards for ordinaryAfricansnot consideredprominent enoughfor beds on the firstfloor. With 32 beds for Africansand an estimatedpopulationof 35, 000 in Lagos in 1867, there would have been 0. 91 beds per thousand of population. This in compareswith 0. 73 beds per thousand all voluntary general, teaching, and

special in Englandand Wales in 1861. Comparable hospitals figures for 1896 for the new colonial hospitalof 64 beds for Africanswould have been 1. 28 beds per thousand with an estimatedpopulationof 50, 000. In Englandand Wales in 1891, there were 1. 02 beds per thousandfor all types of voluntary hospitals.(Public medicalinstitutions are not includedin the Englandand Wales estimates.)London alone in 1861 had 1. 63 beds per thousand voluntary in hospitals, while in 1891 the figurewas 1. 71 per thousand. 40 The captains' wardmeasured21 feet in length, that for sailors 18 feet, and thatfor prominent Africans49 feet, for a totallengthof 88 feet and uniformwidth of 24 feet. Each captainthus had an averageof 63 squarefeet of floor space; sailors had 54 squarefeet, and prominent Africanshad 73 squarefeet per bed. With some 13 feet of uniformceiling heightperbed, each sailor had 700 cubic feet of air, each African950. 41 captainover 800, andeach prominent The groundfloor had a dispensary, office, storeroom, bathroom, and quarters for the assistantcolonial surgeon, in additionto the two wards for Africans. Eachwardwas 24 feet in length, thus occupyingjust over half of the total length of the building. Variouslyreportedin the Blue Books, the widths were generally 17 or 19 feet through1884. Africansin NativeWard 1 and NativeWard 2, as they were called, usuallyhad 50 square feet per bed. With a ceiling 6-7 feet in height, the cubic feet perbed was only 300. 42 40 Robert A. Pinker, English Hospital Statistics, 1861-1938 (London, 1966), 68-70, Table and p. 84, Table 15; and NCS, 1/8, 17, Glover to Kennedy, 18 May 1871; 1/8, 25, F. 10, Simpson to Berkeley, 15 Jan. 1873, enclosure in Berkeley to Hennessy, 15 Jan. 1873; LBB, 1871-1895. Viewed differently, with the population of Lagos around40, 000 in the mid-1880s, there would then have

been 1 bed per 1, 250 residents. For the 1880s Francis B. Smith, The People's Health, 1830-1910 (New York, 1979), 251, states that England had I bed per 980 residents, while the ratio for Wales was 1: 2, 340 and for Scotland 1: 930. He deems these ratios reasonable for the 1880s. 41 LBB, 1871, 1872, 1874-1884. 42 Ibid. This content downloaded on Fri, 4 Jan 2013 14: 02: 15 PM All use subject to JSTOR Terms and Conditions A TOOL OF EMPIRE 319 From 1885 through 1890, the first floor retainedthe three wards for captains, sailors, andprominent Africans, but the numberof beds reservedfor captains was reducedfrom 8 to 6 in 1885 and to 4 in 1889. Those for sailors were reduced from 8 to 6 in 1885, while the numberfor prominentAfricanswas increasedfrom 16 to 19 in 1885 and to 20 in 1889. Since warddimensionsremainedessentiallythe same, captainsandsailorsenjoyedmoreareaand volumeof space per bed, whereas Africans experienced reductions. The ground floor during this period generally retained860 squarefeet of ward space. The numberof beds was reducedin 1889, however, from 16 to 12, thusthe squarefeet perbed actuallyrose from 50 to 70 and the cubic feet per bed from 300 to 500. The wardson the ground floor were also now specified for Kru seamanand Africanfemales, so it is probablethatLagosian or males, whetherprominent not, were now assignedto the Africanwardon the first floor. 43 The final yearsof the old colonialhospitalbegan in 1891. The wardson the first floor remained same in size. Captains the still had 4 beds, sailors also now had and African males 20, and these proportionscontinuedthrough 1895, the old 4, hospital's last full year of operation. The averagesquarefeet per bed thus ranged from 130 for captainsto 60 for Africanmales. The groundfloor

devotedto African patientsremainedat 860 squarefeet for 6 Kru seamenand 6 Africanfemales, each Two separatewardswere built in having70 squarefeet and 500 cubic respectively. 1891, each 21 by 17 by 10 feet, for male and female paupers. These structures remainedas partof the old colonial hospital through 1895. Each building constituteda wardfor its 6 beds, thuseach patienthad about60 squarefeet and 600 cubic feet of space, comparableto the space per patientin the groundwardsof the main hospital. 44 From 1871 through1895 the total numberof beds in the old hospital hovered around50, from48 in 1871 to 52 in 1891. The proportion beds reservedfor of from 33 to 15 percent. The new hospital however, dropped Europeans, significantly further reducedthis percentage 13. 5. Throughout entireperiodthe importance to the of sea tradefor Lagos is obvious, and it was only with the opening of the new hospital in 1896 that the terms " Captains'Ward" and " Sailors'Ward" were dropped, to be replacedby a letterof the alphabetto designatethe European building in the new hospitalcomplex. 45 43 Ibid., 1885-1890. 44 Two similar buildings of thatch and bamboo, with beds for a total of 16 African females, were built and used for 1872 only. 45 LBB, 1871, 1885, 1891, 1896. Simpson, Report, 8, recommended that quarantine regulations for ships should " hamper trade and commerce as little as possible compatible with safety," adding that, although deck passengers were most likely to carry disease, any lengthy detention of sick passengers would " disorganizelabour, commerce, and the economic conditions of the country." This content downloaded on Fri, 4 Jan 2013 14: 02: 15 PM All use subject to JSTOR Terms and Conditions 320 SPENCER H. BROWN on Expenditures the MedicalEstablishment The expenditures the

medicalestablishment 1896 totaled? 8, 304 13s 9d, with on in ? 5, 600 9s 9d for salariesand allowances, ? 342 5s for transportation horse, and by ? 2, 361 19s for services, supplies, andprovisions. The yearbefore, the old hospital's last, total expenditureswere ? 5, 939 1ls 8d. Both totals are gargantuan compared with that of 1862, the first year for medical data in a Lagos Blue Book. (Lagos became a Britishcolony in August 1861, though the first governordid not arrive until January 1862.) Total medical expendituresamountedto ? 160 3s 9d in that year, all but? 1 7s 2d going for personalsalariesandallowances. 46 Table 1 is a compilation dataderivedfrom the " Net Revenueand Expenof diture" and the " ComparativeYearly Statementof the Colonial Expenditure" sections of the annualBlue Book. These were handwritten, except for 1879 and and 1880, until 1883, thereafter again being printed. Both the handwritten printed books areat timesdifficultto read, the recordingcategorieschange, and some years are missing from the Public RecordOffice's microfilmholdings. There are, nevertheless, a minimumof 36 years of datafor all and a maximumof 39 years of data for some categoriesof analysisduringthe 42 yearsconsideredin Table 1. 47 In the 1860s, the averageannualexpenditureon the medical establishment was ? 581. Of this averagetotal,? 481 went towardsalaries/allowances, is, 82. 8 that percentof the medicalbudget. The rangein annualtotals was from ? 160 in 1862 to ? 1, 377 in 1869. The establishmentof the first colonial hospital in 1867 largely explains the increase in total medical expenditureduring the 1860s, while also amountdevotedto services, supplies, andprovisions. 48 accountingfor the increasing 46 LBB, 1862, 1895, 1896. 47 Institutional data are subject to

many variables, some considered later, but it is worth noting the general skepticism expressed by others. For example, Mary H. Kingsley, Travels in WestAfrica, 3d ed. (New York, 1965), 33, assertedthat death statistics were difficult to secure in British colonies " because Government reports are as a general rule very badly prepared, and dodge giving important details like this with an almost diabolical ingenuity." Smith, People's Health, 250, stressed the irregularities in British hospital record keeping, including in some cases the counting of patients as " new" every 35-40 days. Anne Hardy, " Death Is the Cure of All Diseases: Using the General Register Office Cause of Death Statistics for 1837-1920," Social History of Medicine 7 (1994), 472-92, evaluates the various problems associated with using General Register Office data, noting on p. 472 that because several factors are usually involved in a death, " this diversity has exercised medical statisticians, who are aware that registeredcauses of death often bear only an approximationto the truth." 48 LBB, 1862, 1863, 1865-1869. See Brown, " History of the People of Lagos," 357-58, for salaries and allowances drawn by the earliest colonial surgeons, Henry Eales and Frank Simpson. This content downloaded on Fri, 4 Jan 2013 14: 02: 15 PM All use subject to JSTOR Terms and Conditions A TOOL OF EMPIRE 321 Table 1 Lagos Medical Establishment Average Annual Expenditures by Decade, 1862-1903 (in pounds sterling) Decade (yearsof data) Personal Salaries and Allowances 1862-69 (7) 331 1870-79 (9) 1, 172 1880-89 (7) 1, 274 1890-99 (10) 4, 313 1900-03 (3) 9, 564 Personal Other 151 180 171 270 382 Services, Supplies, Provisions 100a 1, 227 1, 007b 1, 737 3, 472 Total Recurrent Personal & Services 581 2, 579 2, 526 6, 321 13, 418 Exceptional Total Recurrent and Exceptional 211 192

374 3, 119 2, 713 792 2, 771 2, 900 9, 440 16, 131 Notes: Annualaverageshavebeenrounded. a Yearsof dataare8. b Yearsof dataare9. This content downloaded on Fri, 4 Jan 2013 14: 02: 15 PM All use subject to JSTOR Terms and Conditions 322 SPENCER H. BROWN The averageannualexpenditures medicalpurposesduringthe 1870s and for 1880s were essentiallythe same,? 2, 579 and ? 2, 526. The distribution betweensalaries/allowances and services duringthe 1870s markedthe only decade in which these were almost equal, 52. 4 percentand47. 6 percentrespectively. The inauguration of a government smallpoxvaccination programin 1872, for which the government paid 1s for each successful vaccinationuntil 1877, accountsfor much of this In data, the government equalization. 1873, for example, the firstyearfor vaccination Griffithreducedthe amountpaid per spent ? 106. In 1877, althoughAdministrator vaccinationto 6d, as of 15 October, the total programhad cost ? 1, 140. 49With the modifiedvaccination of program duringthe 1880s, the averagepercentage the medical budget allocated for salaries/allowancesrose to 60. 1 per year, that is, ? 1, 519 with ? 1, 007 for services. compared With the transitionto the new hospital in the 1890s, average total annual was expendituresrose to ? 6, 321. The averageannualfigurefor salaries/allowances ? 4, 584 (72. 5 percent)while thatfor services was ? 1, 737 (27. 5 percent). This basic distribution continuedinto the early 1900s, though the total annualaveragemore than doubled, reaching ? 13, 418 for the years 1901-1903. The percentageswere 74. 1 for salaries/allowancesand 25. 9 for services. For comparison, in 1891, salahospiby ries/wagesaccountedfor 26. 9 percentof expenditures London

voluntary tals; provincialvoluntaryhospitalswere allocating24. 2 percentof all expenditures toward salaries/wages. By 1911 the two figures stood at 30. 9 and 25. 4 respecIt tively. 50 is importantto remember, however, thatsalariesof doctorswere usually not includedin the Londondatabut were in thatfor Lagos. With actualexpendituresrising from ? 4, 169 for the seven years duringthe when the medicalestablishment in its infancyin Lagos, to ? 40, 253 durwas 1860s, ing the initialthreeyearsof the 1900-1909 decade, it seems evidentthatthe British colonial governmentwas committedto majorinvestmentin the medicalestablishof ment. Fromthe averageannualexpenditure ? 581 duringthe 1860s, therewas an increase of over 400 percent to the annual averages of ? 2, 579 in the 1870s and ? 2, 526 in the 1880s. From this temporary budgetaryplateau, annualexpenditures furtherincreased250 percentto ? 6, 321 in the 1890s and another200 percentto ? 13, 418 in 1901-03. Given an averageof 50 beds in the old colonial hospital, a crudeestimateof averageordinary/recurrent expendituresper bed can be secured. For the 1870s it was ? 51. 6 (decimalpounds, not shillings) per bed. For the 1880s ? 50. 5 was spent per bed, while for the 1890s it was ? 126. 4 for the 50-bed old hospitaland ? 85. 4 for 49 LBB, 1870-1874, 1876-1884, 1887, 1888; Brown, " Colonialism on the Cheap," 580-83. 50 Pinker, English Hospital Statistics, 157, Table 34; and LBB, 1890-1899, 1901-1903. The Blue Book shifted from a calendar year to a fiscal year in 1901 with the result that the data for 1900 are limited. This content downloaded on Fri, 4 Jan 2013 14: 02: 15 PM All use subject to JSTOR Terms and Conditions A TOOL OF EMPIRE 323 the 74-bed new hospital. By the early 1900s it had risen to ? f181. 3per bed. London voluntary hospitalsin

1891 were expending? 74. 5 of ordinary expenditures bed, per provincial hospitals ? 45. 3. As late as 1921, these two figures had risen only to ? 215. 3 for Londonand? 127. 9 for provincialhospitals. 51 Viewed froma different perspective, duringthe period 1862-1869 the medical departmentranked an average of 7th among an average of 13 government in departments (excludingthe administrator's) budgetaryallocation, the 46th percentile. Duringthe 1890s, with an averageof 21 budgetdepartments, medicalranked 5th on average, at the 76th percentile. For the years 1901-1903 the medicaldepartment's budget ranked3rd among an averageof 27 departments, 89th percenthe tile. 52 Amid competingclaimsfor limitedbudgetary resources, even from the 1860s Britishadministrators realizedthe importance a well-fundedmedicaldepartment, of as the earlieranalysisof salariesandservicesandthese percentile confirm. rankings Recurrent for operating expenditures the mainhospitaland its staff were but commitmentthe colonial governmentmadetowardthe health partof the budgetary of Lagos residents. Priorto the formationof a PublicWorks Department (PWD) in 1876, money for publicworksandbuildinghadbeen allocatedseparately project, by the work being overseen by the surveyoror othergovernmentofficial. From 1876 and for on, most expenditures physicalimprovement, maintenance, new construction were itemized under the PWD. Land and building purchases were also distinct whose exceptionalexpenses budget items apart from the medical establishment, included the purchaseof the armybarracksthat became the first colonial hospital and the land upon which the second colonial hospitalwas built in the 1890s. The cost of building, repairing, and maintaining

structuresassociatedwith the general hospitalwere also separatebudgetentriespriorto 1876. The same was true for the expenses associatedwith the smallpox(or " contagious diseases" as of 1885) hosbeach south of Lagos-then in pital, first mentioned 1871 and locatedon the barrier moved to a new buildingalong Five CowrieCreek in 1874, closer to the main hospital. 53 Table 2 provides summary data by decade of the exceptional expenses was the relatedto the medicalestablishment Lagos. The most strikinginvestment in to ? 19, 641 required build the new colonialhospitalin the 1890s, with an additional ? 768 neededfor maintenance duringthe early 1900s (including? 311 for the roofs in 1902). Considering adverseeffect of a tropicalclimateand environment the upon manmadestructures, especially those of wood or vegetablefibers, it is likely that 51 Pinker, English Hospital Statistics, 162, Table B. 52 LBB, 1862-1869, 1890-1899, 1901-1903. 53 LBB, 1871, 1874, 1876, 1891, 1894-1896. Although the second smallpox hospital on Five Cowrie Creek was simply built at an initial cost of ? 65, it may nevertheless have had certain health advantages over the hulk of the warship Dreadnaught that was anchored at Greenwich and was being used as a smallpox hospital in 1871. See Abel-Smith, Hospitals, plate facing p. 114. This content downloaded on Fri, 4 Jan 2013 14: 02: 15 PM All use subject to JSTOR Terms and Conditions 324 SPENCER H. BROWN neededrepairswere seldompromptlymadeduringthe 1860s throughthe 1880s. An annualaverageof ? 211 for repairsandmaintenance duringthe 1860s seems unusufor ally low, even withouta colonialhospitaluntil 1867. The annualaverageof ? E192 the 1870s, with a hospital, tends to confirmthe probability disrepairwas comthat mon amongmedical/health structures.

situationmay have improvedduringthe The 1880s when the annual average for repairs/maintenance reached almost ? 400 for the samephysicalplant. Witha new colonialhospital, a new mental(then essentially termed" lunatic")asylum, and a new leper asylum, all built duringthe 1890s, and the beginning of the colonial hospitals established outside Lagos (at Ikorodu, and with medicalservicesleaped to an costs associated Ibadan, Epe), the exceptional annualaverageof ? 3, 119, fallingonly slightly to ? 2, 713 during 1901-1903 because of additionalinvestmentin Epe, Ibadan, and Ebute Meta, as well as in the Lagos mentalasylum. 54 The annualaverageof recurrent and exceptionalmedicalexpenditureswas ? 792 duringthe 1860s, increasingto ? 2, 771 in the 1870s and ? 2, 900 in the 1880s in (see Table 1). The averageannualtotalinvestment the healthof Lagos rocketedto ? 9, 440 duringthe 1890s andcontinuedrisingto ? 16, 131 duringthe early 1900s. Of these annualaveragesin recurrent exceptionalmedicalexpenses, the percentage and devotedto salariesrangedaround50 duringthe 1870s throughthe 1890s and never rose much above 60 during the 1860s and early years of the 1900s. The overdoctors throughwhelmingportionof the salaries, of course, went to the European out the period. 55 of 1871 and 1872, for example, there was only one full-time As day nurse and one part-timeday nurse, both Africanmales. No other employees were reportedfor these years. From 1873 through 1879, there were 5 male day nurses and 1 female day nurse employed, plus generally 4 workers who did no of The nursing-again, all Africans. 56 number full-timeday nurses reached6 males and 2 females in 1881, declining to 5 and 1 in 1889. The number of workers, however, rose from 5 in 1881 to 13 in 1889. 57 54 LBB, 1862-1903. 55 See AdelolaAdeloye,

AfricanPioneersof ModernMedicine: NigerianDoctors of the of and Nineteenth (Ibadan, 1985), 55-56, for 1891-1892 salaries both European African Century on doctors. See Brown," Colonialism the Cheap," 565-66, 579, for detailson the salariesand with West AfricanMedical indeedwhencompared perksdrawnby FrankSimpson--handsome Staff salaries in 1909, n. 47, 565. Ralph Schram, A History of the Nigerian Health Services (Ibadan, 1971), 115, indicates that as of 1897 there was a chief medical officer, a senior assistant medical (3 officer, and12colonialsurgeons of whomwereAfrican). 56 NCS, 1/1, 6, Moloney to Lees, 24 Apr. 1879; 1/1, 7, Moloney to Griffith, 5 Mar. 1881; and Moloney to Rowe, 25 Mar. 1881. 57 LBB, 1871-1879, 1881-1889. This content downloaded on Fri, 4 Jan 2013 14: 02: 15 PM All use subject to JSTOR Terms and Conditions A TOOL OF EMPIRE 325 Table 2 Exceptional Expenditures on Hospitals and Other Health Facilities, 1862-1903 Decade (yearsof data) Rents, colonial surgeon, dispensary Old ColonialHospital SmallpoxHospitala Jail Hospital Sanitoriumb New Coklial Hospital Hospital Temporary LeperAsylum LunaticAsylum Lagos Hospitalsoutside Total ? s Annual Average ? s 1862-69 (7) 436 1, 042 1870-79 (10) 293 1, 109 471 45 1880-89 (9) 1890-99 (10) 1900-03 (3) 922 2, 414 27 432 19, 641 6, 392 1, 895 1, 879 755c 4, 246 3, 119d 31, 188 3, 119 8, 140 2, 713 768 194 7 1, 478 211 1, 918 192 3, 363 374 Notes: Annualaverageshavebeenrounded. a ContagiousDiseases Hospitalas of 1885 b Located nearthe lighthousealong the shore of the Bight of Benin, near the mouthof the Lagos Lagoon c Ikoroduin 1897, Ibadanin 1899, andEpe in 1899 d Epe (? 2, 154), Ibadan (? 679), andEbutaMetta(f286) This content downloaded on Fri, 4 Jan 2013 14: 02: 15 PM All use subject to JSTOR Terms and Conditions 326 SPENCER H.

BROWN By the 1880s, the annualsalaryfor a nurse was between? 24 and ? 30. For comparison, nursesin Londonduringthe mid-1800s receivedfrom? f15 12s to ? 24 14s annually. Provincialnursesat RadcliffeInfirmary receivedonly ? 6 10s per year. As of 1866, 53 nursesin 11 Londonworkhousesearnedan averageof ? 20 18s, the rangebeing from? 12 to ? 30. As late as 1890, afterthe reformsof FlorenceNightingale associated with training nurses had improved their quality, probationers receivedonly ? 10 the firstyear,? 15 the second, and ? 20 the third, thereafter receivincreases of ? 1 per year to a maximumof ? 26. (Sisters and head nurses had ing base salariesrangingfrom? 30 to ? 60 per year.) To these annualsalariesadditional sums were often allocatedfor boardand lodging; nevertheless salariesfor nursthe to ing in Lagos seem roughlycomparable those in many areasof Britainduringthe time of this study. 58 Duringthe 1880s therewere 5. 0 male and 1. 6 female nurseson averageeach assisted by 7. 1 other workers(see Table 3). During the 1890s, male nurses year, averaged7. 0 andfemale nurses2. 8, assisted by 4. 1 male and 1. 2 female apprentice nurses, all helped by 17. 0 workers. By the early 1900s, the averageof male nurses continuedat 7. 0, while that of female nurses rose to 4. 2. Male apprenticenurses on to to increased, average, 7. 8, as did female apprentices 2. 8. The averagenumber of workersincreasedto 24. 7. Includedamong these were the categoriesof clerk, steward, and cook, gatekeeper, washwoman, washman, dispenser, messenger, carrier, laborer. Positions for warden, storeman, and watchmanwere added in 1899. The laborerswere the most numerous, rangingfrom4 in 1892 to 10 or more from 1898 on. Duringthe 1880s, therewere generally2 clerks, 2 dispensers, 3

cooks, 1 gatekeeper(untila secondwas neededwith the openingof the new hospital), 1 washman As (there was no washwomanuntil 1896), and 1 messenger. 59 of 1891, the senior received? 70 a year, the juniordispenser? 48; F. D. Cole, appointedas a dispenser clerkin 1867, earned? 72 plus a personalallowanceof ? 28 to cover local transportationconnectedwith his duties. 58 Brian Abel-Smith, A History of the Nursing Profession in Great Britain (New York, 1960), 14, 280, and Tables 1-2, 281-82; and Hector C. Cameron, Mr. Guy's Hospital, 1726-1948 (London, 1954), 194-95. Walter I. Ofonagoro, " From Traditionalto British Currency in Southern Nigeria: Analysis of a Currency Revolution, 1880-1948," Journal of Economic History 39 (1979), 628, and Table 1 on 630-31, stresses the low cost of living in Lagos and Southern Nigeria from 1894 to 1918. He considered the 9d per day paid by the government to for unskilled laborers(? 13 10s per year) more than adequate living in Lagos, while even less was needed in the interiorregion of SouthernNigeria. 59 LBB, 1870-1905. This content downloaded on Fri, 4 Jan 2013 14: 02: 15 PM All use subject to JSTOR Terms and Conditions Table 3 Nurses and Hospital Employees, Male and Female, by Decade, 187 Decade (years of data) Regular Nurses Full-time Day Annual Avg. Male Female 1. 0 4. 1 (80%) (20%) 5. 0 (76%) 7. 0 (71%) 7. 0 (62%) 1. 6 (24%) 2. 8 (29%) 4. 2 (38%) 4. 1a (77%) 7. 8 (74%) 1. 2a (23%) 2. 8 (26%) Apprentice Nurses Full-time Day Annual Average Male Female 3. 9b Hospital Employees Annual Average M 1870-79 (9) 1880-89 (10) 1890-99 (10) 1900-05 (6) 7. 1 17. 0c 24. 7d R M 5 (72 Ap M 5 (75 Oth M 1 (9 Notes: Annualaveragesand percentageshave been rounded. d There were 2 female em a Years of dataare 8. e Years of dataare 35. b Years of data are 7. c The

first female employee was hired in 1896. f Years of dataare 14. This content downloaded on Fri, 4 Jan 2013 14: 02: 15 PM All use subject to JSTOR Terms and Conditions 328 SPENCER H. BROWN Throughoutthe period studied, and reflectingthe cultures of Briton and African, men far outnumbered women on the medicaland supportstaffs. Among 2. 5 regularnursesthe ratio was approximately to 1. 0 over a 35-year period. The ratiofor apprentice in nurses, for the 14 yearsfollowingtheirintroduction 1891, was 5. 7 males to 1. 9 females, or 3: 1. Among otheremployees the proportion male to of female was 95 percentand5 percent, or 19: 1. 60 Patients Utilizing the Medical Establishment If the colonialgovernment Lagoshadfully committed in itself to a large and modem medical establishmentby the 1890s, as arguedabove, to what extent did it get its money's worth and to what extent did the variouscommunitiesof Lagos benefit from thatinvestment? As Table 4 indicates, it is possible to examine the flow of patientsin the main hospital from the 1870s to 1905. 61During the 35 years for which dataexist, 20, 970 patientswere admitted the mainhospital, an averageof to almost600 per year. By the 1890s well over 700 were being admitted annuallyand almost800 duringthe early 1900s. 62 Duringfour years of the 1880s, 24, 778 outpatientswere treatedat the hospital, and duringeight years of the 1890s 42, 270 were treated. Duringthe same eight years, the Ereko dispensaryhandled 33, 714 outpatients. 63 contagiousdiseases hospital had 1, 120 patientsduring nine years of The the 1890s and 458 for the first six years of the 1900s. The average number of for and 5, 587 outpatients the main patientsperyearof datawas thus 599 inpatients while the contagiousdiseases hospitaltreated105 and the Ereko dispenhospital,

sarytreated 4, 214. 64 With respect to the outpatientservices, there can be little doubt of their to importance the generalLagosianfrom 1883 through1897 (the years on record). With the mainhospital's5, 587 annualaverageandErekodispensary's 4, 214 annual over 9, 800 persons were presumablybenefitingfrom the British colonial average, healthservicesto its subjects. The estimated of government's population Lagos pertinentyears. 61 Although patients can be analyzed as a group, as in the flow of patients and the diseases of patients, many have noted that patients as human individuals are remarkablyabsent from most studies of hospitals and of the practice of medicine in general. We know almost nothing of the treatmentadministeredto patients. See, for example, Lindsay Granshaw," Introduction," Lindsay in Granshaw and Roy Porter, eds., The Hospital in History (London, 1989), 1-2; and Woodward, Do the Sick No Harm, xii. 62 MacLeod, " Introduction," 1-2, states that Europeanmedicine was generally reserved for Europeansfor three generations in colonial areas, but this is inaccuratefor Europeanmedicine as practicedin Lagos. 63 Ereko was chosen as the site of the dispensarybecause it was located far from the colonial hospital at the extreme northwestern edge of the island, near the densest concentration of indigenous Lagosians. 64 LBB, 1870-1905. 60 Table 3 and LBB, This content downloaded on Fri, 4 Jan 2013 14: 02: 15 PM All use subject to JSTOR Terms and Conditions A TOOL OF EMPIRE 329 Table 4 Annual Average Admissions, Discharges, Deaths of Lagos Hospital Patients by Decade, 1870-1905 Decade (yearsof data) No. in Hospital, Beginning of Year No. Admitted during Year Cured Relieved Not Improved Died 1870-79 (9) 21 402 345 4 5 52 1880-89 (10) 24 530 419 53 13 46 1890-99 (10) 35

729 369 206 28 88 1900-05 (6) 25 792 556 122 22 96 Total (35) 26 599 409 96 16 68 Note: Annualaverageshave been rounded. duringthe periodrangedfrom 35, 000 to 50, 000, ignoringnonresidentswho visited Lagos daily in largenumbersfor personalor businessreasons. If the lower estimate is used and multiplevisits by the same individuals not considered(no dataexist are on revisits), then28. 0 percentof the Lagosianscould havereceivedoutpatient help. The higherpopulation estimatewouldresult in a still significant19. 6 percentof the residentsprobablyso benefiting. 65 Withrespectto inpatients, degree of benefitis less clearlyevident, espethe cially when comparedwith the bed capacityof the main hospitals. Throughoutthe 1870s, for example, thoughjust over 400 patientson averagewere admittedto the hospitaleach year, the daily averageof patientsin hospitalrangedfrom 12 in 1875 to 29 in 1872. Considering that the hospital usually had a total of 48 beds for patientsduringthatdecade (32 for Africans), the impressionis one of underuseof facilities. Duringthe 1880s an averageof 530 patientswere admitted each year with the daily average in hospital rangingfrom 24 for four of the years to 37 in 1884. each year, the daily averDuringthe 1890s, with some 700 patientsbeing admitted 65 LBB, 1883-1897. See Brown, " Public Health," for some of the effects of the population increase upon public health in Lagos. This content downloaded on Fri, 4 Jan 2013 14: 02: 15 PM All use subject to JSTOR Terms and Conditions 330 SPENCER H. BROWN age in hospitalrangedfrom25 in 1899 to 42 in 1891, the low occurringin the new hospitalandthe high in the old hospital, 74 beds as comparedwith 48 beds. 66Dureach year, yet ing the first six yearsof the 1900s, almost800 patientswere admitted the daily

averageoccupancyrangedfrom a low of 25 in 1903 to a high of 47 in 1905. 67 Averagesarenotreality, however, and therecan be littledoubt thatthe main hospitalswereoften crowded, with insufficientbeds for patients. During the 1870s, for example, the averagepatientstay was 37. 6 days for those who eventuallydied and 45. 6 days for those who were discharged(see Table 5). These respectiveaverages were 42. 1 and 51. 3 duringthe 1880s, droppingto 29. 3 and 38. 7 during the 1890s anddeclinigfurther 21. 8 and35. 8 duringthe early 1900s. 68It is possible to to calculatethe averageannualpatient-daysand comparethem with the maximum patient-days possible for a hospitalwith 48 beds and74 beds. The old colonial hosbeds x 365 days) had a maximumof 17, 520 patient-days year. During pital (48 per the 1870s (see Tables 4 and 5), with 349 patientsstaying 45. 6 days prior to disin charge, and 5 patientsremainingundischarged the hospitalfor 32 days, and 52 for patientsdying after37. 6 days in the hospital, the totalof patient-days the average yearof the 1870s was 18, 038, exceedingthe maximum capacityby over 500 patientdays. This average annual usage rose to 27, 492 patient-daysduring the 1880s, the droppingto 26, 639 duringthe 1890s. Fortunately, new hospital that was fully becauseof its 74 beds, had a highermaximumof patient-days, operational 1898, by namely 27, 010. The new hospital thus apparentlymatchedthe initial demandfor beds for patients. By the early 1900s, however, the average annual number of patient-dayshad reached28, 010, exceeding the new increasedcapacity by 1, 000, the approximately samedeficitexperienced the old hospitalduringthe 1870s, but by well below the 10, 000 deficitof the 1880s and 1890s priorto the new hospitalbeing opened. 66 Pinker, English

Hospital Statistics, 58, Table 8. The average size of general voluntary hospitals in England and Wales was 51 beds in 1861, 39 in 1891, and 41 in 1911. 67 LBB, 1870-1905. 68 Woodward, Do the Sick No Harm, 137-41, discusses the use of average-stay data as an indicator of a hospital's efficiency. See also Pinker, English Hospital Statistics, 110-11, Tables 23, 26, 28. The average stay of patients in the voluntary hospitals of England and Wales in 1861 was 36. 2 days while in 1891 it was 28. 4 days. For London voluntary hospitals alone, the average stay was 33. 3 days in 1861 and 25. 3 for 1891. London public hospitals had a much longer average stay in 1891 of 63. 7 days. This content downloaded on Fri, 4 Jan 2013 14: 02: 15 PM All use subject to JSTOR Terms and Conditions A TOOL OF EMPIRE 331 Table 5 Hospital Days by Patients, by Category, by Decade, 1870-1905 Decade (years of data) Days Spent by Those Who Died Total 1870-79 339 421 293 131 1, 184 Annual Average 38 42 29 22 34 Days Spent by Those Who Were Discharged Total 410 513 387 215 1, 525 Annual Average 46 51 39 36 44 Days Spent by Those Remaining at the End of the Year Total 286 1, 079 656 446 2, 467 Annual Average 32 108 66 74 70 (9) 1880-89 (10) 1890-99 (10) 1900-05 (6) Total (35) Note: Annualaverageshave been rounded. The data with respect to inpatientusage of the two hospitals thus seem inconsistent. The average daily numberof patients, year by year, would seem to indicatelack of full bed usage. The patient-day totals, however, calculatedby cateof patient(cured/relieved, improved, died)and the days spent in hospinot and gory tal by these categories, seem to have morespecificityandareprobably more accurate as to how much the hospital was used by the residents of Lagos. Although European and

Africanpatientsare not distinguishedin the data, with such excesses of capacity in patient-daysand since 32 of the 48 beds availablein the old and 64 of the 74 beds in the new hospitalwere reservedfor Africans, it seems reasonableto conclude that both hospitals were much used by resident Lagosians who were to indigenousor immigrant the city. 69 69 K. David Pattersonand GeraldW. Hartwig," The Disease Factor: An Introductory Overview," in Hartwig and Patterson, eds., Disease in African History: An IntroductorySurvey and Case Studies (Durham, N. C., 1978), 17, argue non-usage of hospitals by Africans; as does the Lagos Observer, 13 and 20 Oct. 1888, 10 and 17 Nov. 1888. Abel-Smith, Hospitals, 152, asserts the same of the British, indicating the general dread of hospitals that prevailed " among the vast majority of the population" during the 1870s and 1880s. This content downloaded on Fri, 4 Jan 2013 14: 02: 15 PM All use subject to JSTOR Terms and Conditions 332 SPENCER H. BROWN DiseasesEncountered the MedicalEstablishment by The colonial government'sinvestmentin its medicalestablishment appearsto have been justifiedin termsof the numberof people who receivedtreatment, certainlyas Little and probablyas inpatients. What of the qualityof the treatment? outpatients of for can be said aboutthe treatment outpatients lackof data. Dataareavailablewith respect to inpatientsfor the years 1871 to 1905, casting light on the categories of rate diseases in Lagos and the mortality of each (see Table 6). 70Some conclusions can concerningthe qualityof treatment thusbe reached. An examinationof the 13 categoriesof disease rankedfirst by frequency and then by mortalityprompts two tentativegeneralizations: the number of (1) diseases is low when comparedwith those readilyfound duringthis time "

tropical" climatesand(2) the 6 deadliestdiseasesbelong to periodamongpeople in temperate associthis " temperate" group--not to the dreadtropicalfevers and other ailments ulcers/abcesses and ated with the West Coast of Africa. 71Of the 13 categories, feverswerethe most numerous. Both can be associatedwith, but are not limitedto, the tropics. 72 the remainingcategories, only guinea worm is unarguably tropical, Of and it rankedeleventhin frequency. Digestive/dysentery (third in frequency) and (ninth) are usually thoughtof as tropicalin distribution, but parasites/hookworm climatesduring the second half of the both were far more common in temperate thanthey now are. 73 1800s in Europeandthe Americas It has been asserted that doctors trainedin Europe had limited ability in treatingtropical diseases and that even Europeansoften utilized African doctors, 70 Abel-Smith, Hospitals, ix, asserts that " little is known about what hospitals [in England and Wales] actually did for particularpatients and diseases, about the cost of implementing new developments in medicine, the number of staff to operate them or the amount of floor space allocated to different purposes." See also n. 61 above. 71 Woodward, Do the