

# **The epistemic injustice underlying international partnerships for treatment of public health crises in Africa**

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by

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*“When the first African government took power it inherited a medical service which had evolved over some 70 years. . . Its most important weaknesses were early recognised . . . in the . . . relative neglect of preventive medicine; sanitation and preventive health, housing, abolition of congested areas, elevation of general economic status of the people and dietary improvement . . . in spite of the modern advances in curative treatment . . . a similar situation exists today . . .”*

Stephen Addae (1996) pp. 79, 392, 480 [medical historian]

## **§1. Introduction**

In Ghana it is commonplace knowledge that minimising premature mortality and reducing chronic contagions requires safe drinking water, adequate nutrition and housing, sanitation and sewage infrastructure, non-polluting stoves, road networks linking farms and markets, post-harvest storage and food processing capacity, protection of wetlands and biodiversity, viable terms of world trade, as well as access to functional primary health care facilities and affordable basic medicines. However, as in most nation states of Africa today, Ghana’s epidemic control strategies are dominated not by any of the local multi-sectoral proposals on offer but instead by the way epidemics in Africa are understood and addressed in the global health arena.

I will provide examples of the gender and race-specific epistemic injustices that underlie the disproportionately short life expectancy and high rates of chronic contagion that are conventionally attributed to Africans’ widespread ignorance and lack of self control. By ‘epistemic injustice’ I follow Elizabeth Anderson’s (2012) further development of Miranda Fricker’s (1999) analysis. The institutionalised ways that the global ‘HIV/AIDS’ and ‘ebola response’—orthodox methodologies of data collection and analysis, diagnostic instruments, classifications of diseases, statistical reportage, treatment agendas—discourage researchers, demographers, and medical workers from retrieving and recognising essential information from informants because of the latter’s cultural and regional identities.

Foreign experts’ preconceptions reflect centuries of conflict between African and non-African medical knowledge traditions, reinforcing the myth of African ineptitude, and ratifying the doctrine that improved life expectancy and decrease in fatal contagions requires abundant experimental drug imports, foreign monitoring, modification of Africans’ sexual conduct, and military control of infected populations. Meanwhile, US and UK hospitals continue to drain eighty percent of their foreign trained staff from Ethiopia, Nigeria, Ghana, and South Africa. Pharmaceutical research teams continue to pillage Africa’s regional biodiversity, and deny patent protections to Africans who disclose their indigenous intellectual property. indigenous medical resources and epistemic wealth. These are further structural aspects of epistemic injustices that directly deplete Africans’ medicinal resource wealth.

African scientists, indigenous herbal practitioners, traditional leaders and community health activists have little or no direct say in defining what is wrong, nor control over what is done to fix it. But if the legacy of de-legitimizing African medical experience and expertise were corrected, then the overall yield of global investment in Africans’ health might be more germane, and more effectively focused upon multi-sectoral solutions.

In this paper we examine the historical roots of the gross oversimplification that inappropriately links sex with death in Africa, and inaccurately purveys the tacit conviction that African medical professionals require *foreign* expertise to alleviate their regional disease burden. These are false assumptions shared at the highest levels of global health discourse. An important first step for scholars to gain clarity about the conundrum labelled ‘HIV/AIDS in Africa’ and more recently the ‘2014 ebola crisis’ is to apply some historical perspective and context specificity to the phenomena.

At this conference, scholars are well aware of the mistaken tendency in global health discourse to treat Africa as a seamless, homogenous, a-historical unit. The chronic illnesses that prevail in Africa plague varied populations of culturally and pathogenically diverse regions of a very wide continent. Nonetheless, the global discourse tacitly rests on the shared misimpression that African societies are governed by unruly, chaotic norms, by superstitious, misguided traditions, by populations that are profoundly ignorant as well as lacking self control. These denigrating assumptions obscure and mystify the huge gap between national public health policy and popular media education campaigns concerning disease in Africa on the one hand, *versus* on the other hand a hundred years of research that spearheads the cutting edge of tropical epidemiology, population studies and mortality rate surveillance. In other words, in Ghana, the track record of medical expertise in research runs far ahead of the practice in public and community health services. For accuracy in the brief compass of this paper, specific focus will remain chiefly upon Ghana and the disparity between that exists in that particular country’s current HIV/AIDS national policy and the advances made in research by Ghanaians and tropical disease experts who come and work in-country.<sup>1</sup> But the patterns gleaned and the conclusions drawn in this talk about Ghana do in fact resonate in varied ways in other African countries, so that specific details about a particular country should weigh considerably when attempting an accurate yet more general assessment is attempted concerning: (i) the reasons for immunity dysfunction, chronic illness, and premature death in economically compromised, post colonial countries, and (ii) how the health ministries and related agencies of African countries are responding to their domestic public health crises.

At the beginning of the 21<sup>st</sup> century in Ghana, policies which were created and established as long ago as the 1880s by colonial regimes still dominate public sector and international spending on public health care delivery. Antiquated and discriminatory approaches to epidemics—specifically volunteerism, segregation, “education prophylaxis”<sup>2</sup> via mass education campaigns designed to reform behaviour—are reinforced by the orthodox global AIDS discourse and funding agenda.<sup>3</sup> In consequence, post colonial countries including Ghana remain hamstrung by epidemiological research and policy that would be untenable in G8 countries, because economically fractured nations in Africa are highly dependent upon foreign fiscal advice, neo-liberal demands to remain open and pliable to international business

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<sup>1</sup> Ghana’s current epidemic surveillance methods and treatment strategies discussed here have been documented most recently in two public documents produced in 2005 by the Ghana Health Service (National AIDS/STIs Control Programme HIV Sentinel Survey Report 2004 and Policy Implementation & Interventions Report 2005). Ghana AIDS Commission policies had not changed as of 2012. Policies and problems that predominated from 1880 to 1960 are documented by Stephen Addae (1996). Details of surveillance surveys monitoring procreative sex in the 1960s and 1970s were gathered from contributions to a major international conference of the Population Impact Project at the University of Ghana (1986). Features of the geo-political context for addressing national health are evident through local newspapers, international scientific journals, *CNN* and *BBC Worldservice*, health services management and marketing literature.

<sup>2</sup> The term is used by Addae (1996) p. 147.

<sup>3</sup> Eileen Stillwaggon (2006) especially pp. 134-157 reveals how the details of institutionalized scientific racism burdening Ghana’s current medical administrators is perpetuated within other African countries’ health care administrations.

marketing initiatives,<sup>4</sup> and outright aid for development. But before focussing upon these geopolitical pressures that help to sustain dysfunctional legacies in the public health sector of Ghana and post colonial Africa more generally, we will review key facts about the human immuno-deficiency virus itself which will help clarify the degree of misrepresentation committed by drawing an unestablished and chiefly ideological link between sexually transmitted pathogens and the complicated causal chain leading to chronic illness and premature death in Africa.<sup>5</sup> After reviewing features of the biomedical picture that are typically suppressed in orthodox HIV/AIDS discourse, two historical phases of public health care delivery in Ghana will be reviewed. The first phase begins in the 1880s; the second phase concerns the focus upon African population control studies in the 1960s and 1970s. Remarkably, some of the same themes featured in these earlier historical periods, even the same players, dominate HIV/AIDS discourse today, yielding certain dysfunctional trends in public care and treatment policies with which we are currently encumbered. In closing, a brief rundown will be given of a key Ghanaian medical opinion leader and administrator's view of how the problems of chronic epidemics and immune deficiency should be handled. It contrasts mutely but starkly with the emphasis on behaviour modification and ubiquitous access to antiretroviral drugs advised by the orthodox HIV/AIDS industry.

## **§ 2. Some suppressed biomedical facts about HIV and AIDS**

The global media masks the fact that despite billions of dollars invested over 25 years in the study of AIDS in Africa, the actual causes of the syndrome remains an “unsolved jigsaw.”<sup>6</sup> Experts barely understand the specific role played by viruses attacking the immune system in this complicated syndrome (involving the nutritional and health status of the individual host, the pathogenic environment in a given geographical region, and specifics of the genomic profile of the population where the virus lives). No one has come up with a fully satisfactory picture of the role played by viral material in the step-wise causal sequence of cellular events culminating in AIDS in the tropics. Nonetheless even the briefest consideration of available evidence makes clear that if there is a dysfunctional immunity characteristic of African societies today, it cannot be traced to any single nor key ubiquitous cause. Experts who are sequencing the HIV genome observe it as widely variant, with many unpredictable sub-strains evolving with different degrees of virulence, impacting on the human immune system in different populations at different speeds and sometimes making no empirical impact at all. Most recent genetic research in Ghana reveals that anti-retroviral treatments are inducing these mutations in the HIV, creating a more virulent sub-strain family of genetic material in the Ghanaian population.<sup>7</sup> Regionally specific strains of HIV are now known to

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<sup>4</sup> As per the Millennium Development Goal number 8. Jeffrey Sachs, Millennium Development Project.

<sup>5</sup> Apart from the cited literature here (and in H. Lauer, 2006) details concerning the pathogenesis of AIDS in Ghana presented in this paper were provided in person by James A. M. Brandful of the Virology Department, Noguchi Memorial Institute of Medical Research, currently at Cambridge University, UK; also Prof. Emeritus C. L. Gesheker of African History, California State University at Chico and member of the South African Presidential AIDS Advisory Panel; Prof. A. B. Akosa, pathologist and General Director of the Ghana Health Service; Prof. Richard Biritwum, Vice Dean of Ghana Medical School and former epidemiological consultant for UNAIDS in Geneva, and Prof. Serge Lang of the Mathematics Department of Yale University.

<sup>6</sup> Those who do not reject the orthodox HIV-AIDS causal hypothesis nonetheless stress that the theory of how the virus functions to undermine helper T-cells, how it is transmitted, and how to eradicate it remain outstanding questions. In conversation with viral geneticist J.A.M. Brandful (2004) and Prof. A. B. Akosa, President of the Commonwealth Medical Association and Director-General of the Ghana Health Service in Accra. See also A. Hassig *et al.* (1998) quoting Paul Johnson of the Harvard Medical School: “The riddle of CD4 cell loss remains unresolved.” Website posted version p. 3. Brandful's phrase was also quoted in conversation by Professor B. Akosa, former Director General of Ghana Health Services, 2006.

<sup>7</sup> J.A.M. Brandful, in conversation.

respond differently to anti-retroviral drugs and vaccines.<sup>8</sup> Yet anti-retroviral drugs are imported to Ghana, as to other African countries, without first establishing whether they will be useful or counterproductive in reducing the virulence of local strains of HIV. In Ghana, first rate medical research into the HIV genome has been a mainstay for many generations; so such a basic and glaring shortfall in developing an efficient treatment strategy to address AIDS in Ghana requires some explanation.

Two snapshots of data that are adroitly neglected by the orthodox HIV/AIDS discourse can help to correct popular misperceptions that failures in treating HIV/AIDS in Africa must be due to failures of African expertise and failures of African sexual morality. Consider firstly a community-based study organised by a British medical team and published in 2001.<sup>9</sup> The field work involved 15,127 subjects, and surprisingly it corroborated the findings of a previous independent ten-year study of HIV-transmission through vaginal fluids in Northern California which was conducted in 1997 by a research team from Canberra, Australia. The results of both studies demonstrated that for these populations there were very low rates of sexually transmitted infectivity. For male-to-female transmission, the possibility of infection was “approximately 0.0009 per contact.” That is, an HIV-negative woman might convert to positive on average only after *one thousand* unprotected contacts with an HIV-positive man. Transmission to a man through vaginal fluids was 8 times less efficient; he might become positive on average only after *eight thousand* contacts with an HIV-positive female partner.<sup>10</sup> Independent researchers reviewing both studies have concurred that these results demonstrate “there is no more heterosexual transmission of HIV in Africa than anywhere else, including UK, USA, Australia and Europe. So the explosive epidemic in Africa” cannot be explained by sexual transmission. Other studies corroborate this conclusion.<sup>11</sup>

A second key consideration emerges from reflections of a top ranking geneticist working in a high-tech research institute in Ghana, studying the evolution of DNA in the human immunodeficiency virus (HIV) on several continents over the last twenty years, with special focus on its divergent permutations most recently in West and South Africa.<sup>12</sup> J.A.M. Brandful remarks: “For me, the most troubling misconception in the public mind is the belief that there is only one type of microbial entity called ‘HIV’. In Ghana, recombinant combinations are now co-circulating with pure strains of HIV unlike anywhere else. Recombinants are very unstable; there is no specific pattern to the combinatorial pairings of nucleic acids in the DNA molecule. That means the genome shuffling of the virus in Ghana is now completely at random, so the gene expression of HIV here can be anything.” Brandful explains that many factors are involved in determining the mutation of HIV: the potential host’s individual health status, features of the environment, the population’s overall genome profile, and previous changes in the virus itself. Once the virus’ genetic profile has changed and comes under the influence of a new promoter, then whatever genes are transcribing and expressing will all be peculiar in their own ways. The general outlook of the virus’ behaviour

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<sup>8</sup> Ibid.

<sup>9</sup> Gray, R. H. *et al.* (2001). “HIV transmission probability in Uganda comparable to USA: HIV infectivity cannot explain the explosive epidemic in Africa.” Presented to the *Eighth Conference on Retroviruses and Opportunistic Infections*, Chicago Illinois.

<sup>10</sup> Padian, N., Shiboski, S., Glass, S., & Vitlinghoff, E. (1997). “Heterosexual transmission of human immunodeficiency virus (HIV) in Northern California: Results from a ten year study.” *American Journal of Epidemiology*, 146, 350-357.

<sup>11</sup> Quoting from Johnston, R., Irwin, M., & Crowe, D. (2003). (Eds.) *H.E.A.L.’s Rebuttal to the NIAID/NIH report: The Evidence that HIV Causes AIDS, updated Nov. 29 2001*. <<http://www.niaid.nih.gov/factsheets/evidhiv.htm>>. Posted at <<http://www.virusmyth.net>> page last revised 7<sup>th</sup> March 2006. See also H. Lauer (2006).

<sup>12</sup> Conversations with Dr. J.A.M. Brandful (June 2005-July 2006) Virology Department, Noguchi Memorial Institute of Medical Research, University of Ghana, Legon.

or phenotype in different populations is completely idiosyncratic. For instance the evolution of HIV in South Africa now is 92% due to HIV-1 subtype C—as a pure strain. And in North America the strain is predominantly HIV-1 subtype B. But in Ghana the virus has evolved from HIV-1 so that the HIV-2 recombinants dominate now, to about 98%, with hardly any pure strain left. Drugs effective in South Africa or in North America may prove completely useless in Ghana. Brandful emphasizes, “This is why local researchers should be keeping up a constant surveillance of the HIV in Ghana. But nobody’s paying attention to the necessity for such research.” When asked why the studies just cited show such extreme reluctance of HIV to transfer heterosexually in California and in Uganda, this viral geneticist said:

Yes, the same thing has been found in some regions of Kenya. Those results may indicate population-specific variations. They may have some mutation in their co-receptor that the virus normally latches on to when infection and transmission occur. If we looked at the chromosome profiles of those populations they might reveal that the transmission system is particularly inefficient. So maybe all the elements that must come together to establish an infection are not present in those populations. Generally, though, vaginal transmission appears everywhere to be secondary to direct deposit in the blood. HIV infection is a multi-stage process, genetically based but sensitive to varying factors we don’t yet understand. We also don’t understand why, or how, or when, a given HIV infection will develop into AIDS.

Meanwhile, the global media does not reveal the central fact stressed by this scientist and a world wide network of others, who admit openly that the pathogen called *the* AIDS virus and more recently *the* ebola killer is not one virus but many. The media perpetuates the false assumption that HIV is one phenotype which behaves identically over time and all geographical regions, infecting every population in precisely the same way, and capable of eradication by uniform intervention strategies applied worldwide. It is lucrative to purvey the false assumption that global pharmaceutical brands advertising their incomparable superiority are necessary uniformly everywhere.<sup>13</sup> These false premises lead to the further misplaced emphasis on condom distribution,<sup>14</sup> mass education campaigns to encourage non-procreative behaviour, and dangerously invasive, toxic drugs to stamp out the “evil” viral devil.<sup>15</sup> It is not just an oversimplification, but fatally detrimental to African health, to sustain the claim that one sexually transmitted virus can be singly responsible for causing immune deficiency uniformly worldwide.<sup>16</sup> This fallacy in the microbiology of AIDS underlies the false assumption that variations in HIV prevalence rates are reliable indicators of variations in sexual behaviour as an independent variable. But this tendency is nonetheless the basis for

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<sup>13</sup> Big pharma’s billion dollar investments in creating international AIDS conferences sustain the orthodox HIV/AIDS ideology and the urgency of anti-retrovirals as the singular solution to the HIV/AIDS crisis.

<sup>14</sup> According to a comprehensive cost-effectiveness survey published in *The Lancet* condom distribution is the cheapest of effective methods and therefore the preferred strategy for HIV prevention and control in poor countries.

<sup>15</sup> Here I am quoting from Ato Amoaning-Annan, in his welcoming address as President of the League of HIV/AIDS Reporters in Ghana, delivered to the Media Sensitization Workshop in Accra (*op. cit.*) on November 18, 2005: “HIV/AIDS, as we all know, is not relenting [*sic*] in its evil mission of destroying humanity through its never-stopping rise and spread.”

<sup>16</sup> AIDS has been defined and diagnosed in Africa for at least a decade in accordance with the 1986 WHO conference in Bangui, Central African Republic when the operational definition was created for diagnosing AIDS in Africa without reference to any HIV test result. WHO and UNAIDS statistics and projections are based on this definition. See C. L. Gesheker (2004) and H. Lauer (2006). Many people with an HIV sero-positive test result never have and never will contract any of the symptoms of AIDS.

Ghana's AIDS Commission's prevention strategic plan. Efforts to eradicate epidemics in Ghana are, for obvious practical reasons, consistent with the orthodox social scientists and epidemiologists analysing of HIV and AIDS in Ghana. But the orthodox experts, collaborating and publishing under the aegis of the most prestigious institutes and journals, are failing to reveal the extent of the problem and the multi-sectoral nature of the solution to chronic ill health in Africa.<sup>17</sup>

To further help dislodge the conviction that procreative sex alone can be a high risk factor for chronic disease and early death, compare what is happening to prevalence rates in Ghana with recent statistics from Canada and US. Quoting a member of the South African Presidential AIDS Advisory Panel, an political historian of Africa in the State University of California system: "... from 1996 to 2003, the total number of female AIDS cases annually reported in Canada had *dropped* 82% to 218 cases."<sup>18</sup> Similar reductions were in evidence from the raw data of reports culled in the United States. But no increase in condom use was reportable in the US. Nor are Americans practicing safe sex. Teen pregnancies and venereal diseases continue to be on the rise, yet AIDS cases continue to decrease sharply. 'Even the estimated projections of Americans assumed to be HIV-antibody positive declined from 1 million out of a population of 200 million in 1985 to 700,000 out of 200 million in 1996'."<sup>19</sup> In contrast, Ghana's incidence of HIV increased slightly among 15 to 19 year olds and 24 to 29 year olds in 2003-2004 (according to the GHS HIV Sentinel Survey HSS 2004 p. 39). The co-dependency of several factors that cause immune breakdown is not fully understood to explain and intercede effectively in the epidemics plaguing Ghana today.

This point echoes a picture that has been sketched repeatedly by the geographer and urban environmentalist Jacob Songsore, concerning the role played by population growth in causing environmental disintegration and poverty in Northern Ghana. In response to the boom in population surveillance and control that surged in the 1960s and 1970s, Songsore argued that population growth does not act in isolation but is co-dependent with other factors including economic neglect of the Northern region, escalating poverty, and mounting rural densities in isolated pockets of otherwise under-populated areas, to cause environmental degradation in Northern Ghana.<sup>20</sup> Likewise I am arguing here that facts about the genome of HIV suggest that procreative or commercial sex *in isolation* does not cause AIDS nor does it otherwise contribute *in isolation* to the general increase in Ghana's burden of chronic diseases since the 1980s.

Rather than promiscuity, one factor likely to contribute today to the breakdown of immunity in Ghana today is the famine that broke out in Ghana in 1983. The women who reached 22 or 23 years old in 2006 and constituted a heightened risk group for HIV infection in that year were born during or immediately after Ghana experienced the worst of a period of food shortage, during a peak of observed negative impact from IMF economic experimentation on African populations known as 'structural adjustment'. It was three years after that famine, in 1986 that HIV was first detected in Ghanaian blood using test-kits designed to screen hospital blood banks.

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<sup>17</sup> S. Agyei Mensah (2005) p. 22: "... decline in HIV prevalence is indicative of the intervention [behavioural modification] programmes in place."

<sup>18</sup> C.L. Gesheker *et al* (2004) quoting the Canadian Laboratory of the CDC, pp. 28-30.

<sup>19</sup> Charles L. Gesheker *et al.*(2004) quoting J.A. Catania, *et al.* (1995) "Risk Factors for HIV and Other Sexually Transmitted Diseases and Prevention Practices Among U.S. Heterosexual Adults: Changes from 1990 to 1992," *American Journal of Public Health*, 85.11 (November) pp. 1492-1499. See Lauer (2006).

<sup>20</sup> J. Songsore (2004) p. 242-243 points out that G-8 countries constitute 23% of the world population but imposes the bulk of environmental insult and pollution through resource consumption and industrial waste discharge. Universals do not apply to analysis of population impact: given the historical divergence in land distribution patterns, population growth in Kenya is entirely distinct from the scenario in Northern Ghana. (p. 257).

Famine is known to stunt growth. It delays development of the endocrine system *in utero*; and it is known that hormone function in the immune system's building a response to viruses like the common cold. Might severe food shortage shortly after birth or *in utero* manifest later in life as a rise in susceptibility to HIV infection now in evidence among young women in their peak procreative years?<sup>21</sup> This is an important question in the estimation of every public health official and medical researcher to whom I have presented it in Ghana. Yet no international funding is available to pursue it. Funds continue to be devoted to teaching young women how to negotiate safe sex, how to use a condom, and why monogamy is preferable to polygamy for a long and healthy life.<sup>22</sup>

The conflicted history between African and non-African knowledge traditions not only rationalises a centralised, top-down management of HIV/AIDS research and product development from a distance. It also perpetuates a research-hostile environment in Africa, despite the fact that nearly 80% of imported medical expertise employed in the UK and USA has been trained in either Ethiopia, Nigeria, Ghana, and South Africa.<sup>23</sup> Uncannily, it is still presumed that African research personnel and institutes are inadequate, lacking the skills and equipment for conducting cutting edge R & D in viral genetics.<sup>24</sup> The local media in Ghana has been explicitly mandated to regard with cautious suspicion potentially dangerous or useless quackery, in keeping with the worldwide directives to launch the '3 by 5' initiative (3 million people on ARV treatment by 2005).<sup>25</sup>

### **§3. Early historical precedents of volunteerism and lifestyle improvement as strategies of prevention**

<sup>21</sup> Kofi Annan publicized at the UN General Assembly a worrying increase in the prevalence of infection among African women now in their twenties. In particular, a definite causal relation between famine in Ghana in 1983 and children's growth rates has been widely and firmly established by Prof. Richard Biritwum, Vice Dean of Korle Bu Teaching Hospital in Accra. He demonstrates steadily over the last twenty years that children in Goma Fetteh born during or immediately after the famine in 1983 were not only deprived of average healthy birth weights as you'd expect, but subsequently their puberty was retarded as well, especially the girls, who reached their menses later in life than their counterparts borne before and well after the famine period. Famine *in utero* affects the endocrine system's functioning in later development, and hormone deficiencies are observed to affect immune system functioning. For instance changes in estrogen level render women who are approaching menopause periodically highly susceptible to viral infections like influenza.

<sup>22</sup> B. Duda, *et al* (2005) p. 22, at Harvard School of Public Health's Department of Population and International Health in collaboration with Korle Bu Teaching Hospital's Dept of Ob/Gyn, and Institute of Statistical, Social and Economic Research (ISSER), University of Ghana, Legon. The team drew the conclusion in 2005 from a "community based study [in Accra]" is that the results "confirm the need to target young, sexually active women [with] a strong public health initiative . . ." Strangely, the strong public health initiative advocated here is not to target young women when they are highly susceptible to HIV infection with vitamin supplementation and training in nutritional food crop productivity. The initiative is rather supposed "to increase awareness of the risks and the link to STIs . . . to prevent the further increase in HIV prevalence and the resultant HIV-associated illnesses." The researchers claim this even with evidence that the HIV prevalence does not correlate positively with syphilis as expected, and that it does not correlate positively with number of sexual partners. The lack of statistical correlation is attributed to the likelihood that the women are lying about their STIs and the number of sexual partners (p. 63 abstract and p.65).

<sup>23</sup> Akosa (2005).

<sup>24</sup> In Ghana, where government support of scientific research has been at a low ebb for decades, experts routinely perform viral isolations, antigens for ELISA testing and for immuno-fluorescent assays in blood diagnoses, with funding from the Japanese for the period 1986-2003. J.A.M. Brandful, Virology Department, NMIMR, in conversation, July 2005. There is vast experience and capacity to train technicians within a year or two to top grade competence at this long established laboratory.

<sup>25</sup> HIV/AIDS in Ghana: Current Situations, Projections, Impacts, Interventions (2004) Ghana AIDS Commission, 4<sup>th</sup> edition, September, p. 47. Extracted from WHO (2004) Report to the Technical Working Group on HIV/AIDS. Presented at the 2004 TWG Meeting, Accra.

Treating Ghanaians' sexuality and Ghanaian women's reproductive power as potentially pathological and destructive to society has well established history in colonial West Africa.<sup>26</sup> And blaming contagious illnesses on unscrupulous behaviour of individuals has a comparably long legacy. Since the late 1800s, blaming those infected by malaria and other epidemics for their "indolence, recklessness, laxity and contempt for prophylactic methods," has been a key element of official anti-malarial campaigns and mass education publications. Yet in the very same period it was recognised that poor sanitation and septic dwellings were causing the spread of contagious diseases including yaws, tuberculosis and other upper respiratory illnesses, dysentery, mosquito borne yellow fever and malaria. In 1883 and 1884, Ghana's first medical officers Dr. McCarthy and Dr. Easmon, instituted bye-laws and regulations to ensure the construction of latrines and cemeteries, routine public cleaning, water sourcing, regular reporting of diseases. But these rules were rarely enforced.

Instead, from the early 1900s education campaigns urged attitudinal change and conversion to what is now called 'positive living' in the discourse of HIV/AIDS treatment and prevention.<sup>27</sup> In the early 20<sup>th</sup> century, government distributed information through campaigns to teach nutrition, hygienic habits, precautions to protect against infectious diseases, as the keys to reducing incidence of malaria, yaws, guinea worm and infant deaths. The need for overall municipal works to improve housing infrastructure, water source protection, street and public space sanitation upkeep were well known.<sup>28</sup> Yet infrastructural development to protect against contagions in the urban centres remained conspicuously inadequate.<sup>29</sup> A plague outbreak in 1908 prompted the authorities to revisit plans for sanitation reform. This inspired new administrative posts for the purpose of promoting urban sanitation by reducing housing congestion, organising refuse disposal, building drains and sewage systems, lagoon management, mosquito control and nutritional protection of mothers and infants.<sup>30</sup> But these plans were never brought to adequate fruition. Despite an active medical research community, emphasis remained on public education rather than infrastructural development in the early part of the 20<sup>th</sup> century.<sup>31</sup>

As of the early 1900s the source and responsibility for growing death rates due to malaria were placed squarely in the moral domain of the individual blameworthy sufferer, while information about environmental hygiene and sanitation was disseminated through

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<sup>26</sup> Sander Gilman (1985) p. 235 interprets this as "reflect[ing] the general 19<sup>th</sup> century understanding of female sexuality as pathological: the female genitalia were of interest partly as examples of the various pathologies which could befall them but also as . . . a pathological summary of the entire individual." He demonstrates that in the Great Evolutionary Chain of Being presupposed by the medical establishment of the 19<sup>th</sup> century, female Africans were ranked closest of all to the apes; empirical evidence was demonstrated by sketches of their excessively large private parts and buttocks, heavy facial structure, swarthy skin tone, body mass, ear shape, skull and jaw size. Just above them were European prostitutes of the lower classes. See also A. R. JanMohamed 1985 the demonizing the cultural Other.

<sup>27</sup> Addae (1996) p. 361. People were fatalistic about contracting yaws, and this attitude was blamed for contributing to its spread.

<sup>28</sup> *Ibid.* p. 86. In 1900 it was known that yellow fever was spread by mosquitoes, and that infestation was exacerbated by the septic and congested living quarters that the majority of Gold Coasters lived in. Disease carrying agricultural pests, biting insects and worms that thrived under substandard living conditions and in polluted waters were under investigation in Kumasi and Accra over the last hundred years, as were industrial related illnesses generated in the mining sector. Cerebrospinal meningitis in the north was already under study in 1907. (p. 181, 182). The etiology of major killers today, including tuberculosis, dysentery and malaria, were under scrutiny as major killers since the early 1900s. The need to clean streets and improve housing ventilation were known prevention strategies to subdue tuberculosis.

<sup>29</sup> *Ibid.* p. 113. Until 1877 no settlement in Ghana had streets, town plans or drainage except in the capital Cape Coast.

<sup>30</sup> *Ibid.* p. 118-119.

<sup>31</sup> *Ibid.* pp. 146, 181, 182, 392. Medical research enjoyed well publicized breakthroughs beginning in 1899, so there was no shortage of understanding that a mental attitude is not sufficient to sustain an epidemic.



brigades to control mosquitoes and campaigns to control venereal diseases.<sup>32</sup> Back in 1913, Principle Medical Officer Hopkins blamed malarial fatalities on the laxity of Europeans who had knowledge of the necessary precautions yet fell ill because of “indolence, sheer stupidity or recklessness.”<sup>33</sup>

Addae records that in 1917 infant deaths were documented in Ghana at a rate of nearly 1 in 3. Although sanitation was documented as appalling throughout the colony since 1870,<sup>34</sup> the cause of infant mortality was attributed to mothers’ ignorance of modern hygienic practice.<sup>35</sup>

Through house to house visits, volunteers in the 1930s stressed behavioural change by lecturing and counselling mothers on infant care and hygiene.<sup>36</sup> Native Authorities were urged to assume responsibility for building their own village dispensaries. Initially Government “suppl[ied] building materials, drugs, equipment, and trained personnel.”<sup>37</sup>

Government’s decentralization of health care delivery through Medical Field Units anticipated widely celebrated community health centers that nowadays are called “functional service delivery points” in the jargon of HIV/AIDS Community Management training manuals (Management Sciences for Health, 2002).<sup>38</sup>

Private/public partnerships to fight contagious disease took off in the mining sector, where companies assumed the duty of securing their labourers’ protection against contagions through sanitation control. Working with government they reduced incidences of TB, other upper respiratory infections, hookworm and silicosis.<sup>39</sup>

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<sup>32</sup> Addae, *ibid.*, pp. 92, 86, 143, 146. Sexually transmitted disease education campaigns were organised in 1922 and 1923 by doctor and historian C. E. Reindorf. Health Days and Weeks were organised through schools.

<sup>33</sup> *Ibid.* p. 49. Addae recounts how Governor Clifford described the “scandalous laxity . . . and contempt for malarial prophylactic measures,” of his European officers, urging that risky behaviour should attract a penalty discount in salary. Regulations to improve drainage, sanitation and environmental hygiene were put into effect but not enforced. Ghana was the only colony in West Africa whose urban centres had no drainage system as of 1870.

<sup>34</sup> Through the 1870s and 1880s the Gold Coast was the only colony in West Africa without any drainage system. There were neither roads nor city plans laid except for the capital city Cape Coast until 1877. By 1910 sanitary reforms were launched in Accra, p. 82.

<sup>35</sup> *Ibid.* p. 126. This is still the norm. In 2005, the National Malaria Campaign Programme issued an announcement to introduce a new prescription for malaria. Pregnant mothers’ recalcitrance and indiscipline is portrayed as the reason for the fatalities following from chloroquine’s ineffectiveness, even though it is widely recognized that drug resistance of the malarial parasite has slowly rendered chloroquine ineffective, no matter how assiduously it is used. In two local free health education newsletters the announcement reads that “All pregnant women were expected to take two tablets of chloroquine each week from conception to birth. Most women found the tablets bitter and few adhered to the treatment with the result that nearly 9% of all deaths in pregnancy is due to malaria.” *CARETalk* newsletter, ed. D.E. Mensah *et al.*, December 2004, vol. 1. no. 1 ISSN 0855711X. Also in *Nduro*, published by the Catholic Pharmaceutical Service April 2005 vol. 1. no. 3 ISSN 0855 5877. A subsequent issue of *CARETalk* (vol. 1 no. 2) no longer invoked mothers’ failure to adhere to a drug regime which was useless.

<sup>36</sup> In 1932, this initiative was institutionalised as the Gold Coast League for Maternal and Child Welfare.

<sup>37</sup> *Ibid.* p. 76. N. Kaleeba *et al.* (2000) Action AID literature. Management Health Services (2002) presents itself as introducing decentralization of health care, community participation, client-provider interaction, public information, CBO leadership training in Afghanistan, in Guinea, Haiti, Nicaragua, Senegal and South Africa. But in Ghana, MFUs and the Gold Coast League engaged in precursors of these initiatives 70 years ago.

<sup>38</sup> Addae (1996) pp. 86-88, 169. The 1950s marked a brief heyday of expanding and enriching Medical Field Units in rural areas. MFRUs were developed in earnest from 1960 to 1966 when Nkrumah was deposed. MFUs successfully controlled epidemics for the first time in the country: yellow fever most famously, yaws, leprosy, smallpox, leprosy, malaria, onchocerciasis, trypanosomiasis.

<sup>39</sup> Addae (1996) pp. 156-167 observes that mining companies were frontrunners alongside missions in building hospitals and cooperative in applying state sanitary regulations while government was considerate of the mining companies’ profit margins in bearing responsibilities for sanitation in the residential areas of Obuasi and Tarkwa. In November of 2003, Kwaku Sekyi-Addo of the *BBC Worldservice* publicized Ashanti Goldfields supplying four

By the 1920s disease prevention was located among the responsibilities of individuals by improving their personal lifestyle habits. Public and social health policy was viewed as successful when it effectively motivated individuals to self care in the home and self-help in the community into the 1930s. As a corporate body, the state's knowledge of contagious disease grew steadily through vigorous and prolific programmes of medical research. But the state's practical implementation of such knowledge in order to fight epidemics effectively remained largely dormant. The knowledge *vs.* practice gap (that is the gap between awareness of prevention principles and their practical application) which has been the main focus of researchers studying behaviour of individuals in high risk groups in Ghana's post-independence period, reifies what has been occurring at the bureaucratic level in the state's modern health institutions since the days of British military occupation.

#### **§4. The womb as target**

In the HIV/AIDS research industry today, pregnant women and new mothers in Africa enjoy a nostalgic regard as the window on a whole population's health. Pregnant women and new mothers of a certain economic sector who visit public antenatal clinics provide the data base for all the computer generated HIV estimates and projections for Africa produced and published in Geneva by WHO and UNAIDS, despite the rudely physical fact that pregnancy constitutes the most non-representative sampling criterion possible for any community of men, women and children in all age groups.<sup>40</sup> More awkward still, earlier generations of antibody test kits for HIV were non-specific and were known to sometimes yield a false positive result for pregnancy alone.

According to Sander Gilman (1985), throughout the 19<sup>th</sup> and early 20<sup>th</sup> centuries the chief concern of the medical establishment in Europe was to eliminate sexually transmitted disease through social control. With respect to the colonies, Gilman thinks this was a critical motive in social reform programmes, because native sexuality was understood to be primitive so it required monitoring, reformation and control. It was recorded as a fact through the 1800s and in the early 20<sup>th</sup> century that syphilis was a type of leprosy that spread to Europe from Africa some time during the Middle Ages. Blackened skin was regarded as a symptom of this endemic form of leprosy.<sup>41</sup>

#### **§5. Segregation and physical separation as prevention strategies**

In a felt sense, contagious disease is pollution and contamination. Racial segregation was urged as early as 1893 and enforced strictly until the 1920s, when non-Caucasian military personnel in the British service confused the basis for the colonial government prohibiting the

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condoms per month in pay envelope to all workers. The reporter went round gathering opinions of miners as facts about the HIV risk factors in that locality.

<sup>40</sup> Rian Milan (2003). The most common of earlier generations of HIV antibody tests (Western Blot and ELISA) registered pregnancy as a false positive result, among 70 other cross reactions. More recent test kits used in Ghana are quite specific by comparison and avoid the pitfalls of earlier models which were intended strictly for blood screening, not individual AIDS diagnosis. See R. Richards (2003).

The "limitation" of relying exclusively upon pregnant women of economic classes that frequent public clinics as the statistical sample for national populations is mentioned by the Ghana Health Service (2005) in its HIV Sentinel Survey 2004 Report, p. 38. Agyei-Mensah (2005) contrasts the self selected sampling of sentinel surveys with the costs and benefits of population demographic censuses which are more expensively and less frequently conducted, p. 14. See also Lauer §5 (2006).

<sup>41</sup> Gilman (1985) discovered that the received explanation for the spread of syphilis and gonorrhoea attributed these epidemics up through 1905 to the sexually deviant behaviour of lower class European prostitutes, whose immorality was evidenced in drawings that highlighted their similarities in jaw, ear lobe, genitalia, body shape and colour tone to African females, p. 245. Prestigious medical journals of the late 18<sup>th</sup> and 19<sup>th</sup> century detailed the observable physiological signs of African females' inferior character. As late as 1926, Freud alluded to "the dark continent" when characterizing contemporary ignorance of women's sexuality (see Gilman p. 257).

majority of people in appropriated territory from health services on the basis of skin colour.<sup>42</sup> Government spending and allocation of resources were reserved for centres calculated to be important enough, according to the principle that the degree of concentration of Europeans in residence determines a region's importance.<sup>43</sup> The government was responsible for protecting Europeans' health exclusively. Governor Griffith in 1889 decided to stop spending on public sanitation, reserving safe drinking water in metal tanks exclusively for European use.<sup>44</sup>

A recurrence of this approach to urban renewal emerged in the Ghana government's recent 2000 plan for the Modernisation of Accra, steered by the Ministry of Tourism and Diasporan Relations. A central enclave in the city has been zoned off for special rehabilitation with streamlined world class commercial facilities to attract foreign investors, and gleaming antiseptic public toilets to suit Japanese visitors. Re-routing public transport is planned, and open markets will be relocated, so that the area will be effectively off limits for the average Ghanaian worker who rides tro-tro and buys live chickens.<sup>45</sup>

The same rationalisations have been invoked over the last century to justify Government's failure to provide a more equitable urban development plan. The infamous brain drain and chronic medical personnel shortage still dogs Ghana health agencies since the mid-1930s.<sup>46</sup> As Addae notes, the high staff turnover and job instability discouraged substantive programme development as early as 1931.<sup>47</sup>

Beginning in the 1880s the initial response to epidemics by foreigners having seized power by force, was to safeguard themselves specifically and exclusively by separating from those regarded in various respects as inherently threatening.<sup>48</sup> Racial segregation was the primary tool colonials used for preserving the health of those worth salvaging from the potentially fatal defilement of contagious disease, up until 1925 when it became unwieldy.

From the very beginning of Gold Coast hospital construction, the arrangement of medical services implemented the principle of preserving the pure from contamination by the impure. I have not read anything that suggests the mission hospitals did not also segregate by racial category, religious affiliation notwithstanding in this case.

Nowadays the same principle of securing salvation through segregation is regarded as central to the orthodox formula for solving the life and death crisis of HIV infection.<sup>49</sup> The subgroup worthy and deserving of salvage is supposed to be self-selected, in accordance with the Voluntary Testing and Counselling scheme currently encouraged by foreign experts and their local agents (Health Management Sciences, 2002).

## **§5. Roots of behaviour modification campaigns in population control policy and research**

Regarding reproductive activity *in itself* as a threat to national health and development took centre stage in the 1960s when volunteerism was pushed up a notch as an ornament to the diplomatic relations between what used to be called the 'have' and the 'have not' nations during the escalation of Cold War politics. In 1969 the Ghana state, as an individual member

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<sup>42</sup> Addae, (1996) pp. 41, 46, 47.

<sup>43</sup> *Ibid.* p. 61.

<sup>44</sup> *Ibid.* pp. 115, 117.

<sup>45</sup> As explained to a workshop of foreign diplomats addressed by Hon. Minister J. Obetsebi-Lamprey in Accra, June 2003.

<sup>46</sup> However Malawi, Gabon and the Cameroons, also poor countries, benefit from the work of medically trained Ghanaians, as does Botswana, because of the attractive remuneration and conditions of service. As pointed out by Prof. Richard Black, Director of the Centre for Migration at University of Sussex, at an International Workshop on Migration held at collaborating institution ISSER, August 1<sup>st</sup>-4<sup>th</sup>, 2005.

<sup>47</sup> Addae (1996) p. 81.

<sup>48</sup> *Ibid.* p. 29.

<sup>49</sup> On the Manichean duality, see Jan Mohamed (1985). Addae points out that the impact of chronic illness on productivity was promulgated in official government publications

of the global community, voluntarily signed up to pledge its cooperation and engagement with US-allied nations in protocols, resolutions and projects about ostensibly politically neutral concerns like global health. As often has been with cooperation between economically aggressive industrial nations and resource-rich agrarian societies, the focus of these collaborations was population monitoring and control.

A stark parallel exists between the research conundrums defined in the population studies literature from roughly 1960 to the mid-1980s on the one hand, and today's HIV/AIDS surveillance and prevention campaign industry from the mid-1980s to the present. Both traditions feature behaviour modification of procreative women as a goal. Both document and then lament the gap between the knowledge that individual women disclose about effective contraception methods and its importance, vs. what they actually do to curtail their reproductive behaviour.<sup>50</sup>

Actually there was no break in this preoccupation with mass behavioural psychology. In the person of John Caldwell, a demographer who is widely influential in Ghana and based in Canberra Australia, we find a seamless transition from the surveillance of behaviour causing fertility rates to surveillance of behaviour causing HIV infection rates. In the 1960s Caldwell studied and subsequently supervised others to study the gap between knowledge and practice of effective methods of contraception.<sup>51</sup> Four decades later he is still training social scientists to study various aspects of relation between exposure to mass education campaigns and behaviour change.<sup>52</sup> That this gap is pathological is taken as self-evident. The fact that the gap persists is treated as the data to be explained.

Agyei-Mensah (2005) comments on this gap as the most compelling aspect of the failure in today's HIV prevention schemes. "After more than two decades of educational campaigns . . . the chief puzzle facing scholars . . . is why knowledge and awareness of the epidemic is not translating into changes in sexual behaviour."<sup>53</sup>

But what does this gap amount to? Apparently neither Caldwell nor his students have considered exactly what knowledge content is attributable to an individual who responds correctly to a questionnaire administered under the auspices of a foreign donor responsible for providing antenatal or primary care clinical services where there are no options for health care. In light of the fact that AIDS etiology remains a confessed mystery confronting the experts who have been studying HIV for over 22 years, what should be counted as a knowledge claim about the sex risks of HIV attributable to a non-expert? The knowledge attributable to a respondent who provides the 'correct' answers to questions ostensibly concerning the HIV and sex is more likely to be knowledge about the values and convictions that the respondent correctly infers to be presupposed by such questionnaires and the campaigns that occasion them. It should be expected that a well socialised informant in a post-colonial "frontier or boundary situation"<sup>54</sup> will say the approved thing according to the knowledge tradition dominant in her formal education, while doing something to the contrary because it is condoned in the primordial public wherein she conducts her important permanent relationships.

If someone persistently says one thing about her sexual behaviour and then does another, then the way to understand this incongruity requires finding the implicit coherence between what she says and does, from her point of view. This typically entails using the right situation-specific criteria for attributing to her knowledge about the social context in which she is functioning. If someone's spoken responses persistently contradict their behaviour then this should suggest that there are some influential factors or considerations influencing the person

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<sup>50</sup> S. Agyei-Mensah (2005) p.22; R. Appiah (1986) p.57; D.K. Bedele (1986) p.87.

<sup>51</sup> J. Caldwell (1965, 1967, 1977)

<sup>52</sup> J. Caldwell (1995, 1999)

<sup>53</sup> S. Agyei-Mensah (2005) p. 22.

<sup>54</sup> This image was conjured by the Irish philosopher of language, Alisdair MacIntyre (1987) p. 388.

of which the investigator is unaware. But the norm of investigation into social circumstances of HIV/AIDS is not to search for hidden variables that affect women operating as optimally rational agents in a globalised African society.<sup>55</sup> It is rather to suppose that continent-wide incongruous response patterns reveal a perplexing moral incontinence or gender specific oppression peculiar to the plight of African women as a genre.

## **§6. How it should look**

One former Director-General of the Ghana Health Service set a precedent, clearly establishing the understanding throughout the nation that to alleviate the disease burden requires a multi-sectoral,<sup>56</sup> socio-economic solution. Donor imperialism prevails, however. We persist in treating contagious diseases in Ghana as if these diseases require expensive imported drug regimes, and are caused by moral laxity, ignorance, inadequately trained professionals, incontinence of the will, or gender-specific oppression of sexually active young African women. Currently the crisis is ebola, again an example of abusing historical data from the 1970s, redefining horrific symptoms to embrace a wide range of early symptoms of contagious illnesses, using inadequate testing markers to create the impression of a desperately needy environment which justifies fast tracking of human experimental trials and a guaranteed market for vaccines to eradicate a plethora of contagions.<sup>57</sup> The Ghana Health Service,<sup>58</sup> on the other hand, has marshalled the cooperation of other ministries, agencies and departments, and is approaching local private corporations for commercial advertising sponsorship, to utilize media and research funds for ailments that really require nationwide campaigns about environmental sanitation and personal hygiene. At a cost equivalent to £160,000, a celebrative float with live band and street theatre artists moved in 2006 through 11 major urban centres all around Ghana over a three week period. Radio jingles accompanied by a one sentence message in all languages will be heard at least six times per day. A popular song to encourage hand washing and personal hygiene was aired at regular prime-time slots throughout weeks using corporate advertising budgets. A market-place and job-place hand-washing campaign was instituted in major towns and cities, school clean up competitions offered cash prize incentives, open air teach-ins to present proper management of livestock around living quarters were staged, campaigns were launched to fumigate disease carrying rodents, and to end toleration of flies and mosquitoes. Marketplace renovators built raised cement structures. Local farmers were offered alternatives to the infectious practice of using gutter water and so-called night compost to grow commercial vegetable crops, a common means of transmitting our chronic typhoid, cholera, diarrhoeal infections, parasitic and intestinal worms. Plastics and other refuse recycling industries were urged as income generating activities. Personal tips for controlling foot rot, body odour, and for promotion of oral hygiene will be stressed. In the Director-General's campaign nearly a decade ago, to tackle contagions through grass roots enlightenment of the population, sex was never mentioned once.

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Legon, January 2015

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<sup>55</sup> One such actual condition is the impact of famine on development of the woman's endocrine and immune systems while she was *in utero*.

<sup>56</sup> A.B. Akosa, in conversation July 2005.

<sup>57</sup> November 2014, Peter Piot on *BBC HardTalk* described the requirement set by WHO Ethics Committee for a 'tragic epidemic crisis' to justify human experimental trials in West Africa of a new trio of vaccines in production by GSK, Johnson & Johnson, and Pfizer, by March 2015.

<sup>58</sup> A. B. Akosa is a pathologist trained for several degrees at the Royal College of Surgeons and served extensively at Hammersmith and Whipps Hospitals, is also the current president of the Commonwealth Medical Association.

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