

The Shield of Islam? Islamic Factor of HIV Prevalence in Africa*

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Abstract

HIV first appeared in West-Central Africa, then spread to the South, East and West and, at the same time, had hardly reached North Africa. A possible explanation of this pattern can be the role of Islam that pays particular attention to the prevention of extramarital sexual relations. In addition, one can mention that the circumcised men suffer from HIV significantly less frequently than the non-circumcised. Against such background, we had certain grounds to expect that Islamic societies would have lower levels of HIV prevalence than non-Islamic. Our cross-cultural tests have supported this hypothesis. The data have been analyzed with power-law regression. We have found a significant ($p < .001$) and really strong ($r = -.747$) negative power-law correlation between percentage of Muslims and the HIV prevalence in African countries. Of course, one should take into account that the stigma attached to HIV is also much higher among Muslims and so, the Muslims tend to be tested, identified and monitored at lower numbers than those from other religious and cultural backgrounds, which implies that further in-depth research is necessary in order to detect the real relationship between variables in question.

Keywords: *HIV prevalence, Africa, power-law correlation, Muslims, extramarital sexual relations, circumcision.*

The HIV (Human Immunodeficiency Virus) first appeared in West-Central Africa, then spread to the South, East and West and, at the same time, had hardly reached North Africa. In the last decade of the twentieth century an acquired immunodeficiency syndrome (AIDS) caused by the HIV became a critical issue of socio-economic and demographic development of the Third World, and, especially, in Africa. By 2000, three quarters of 22 million of deaths from AIDS in the world were reported from Africa (United Nations 2001). The origin of HIV is still a matter of scientific debate, although there are many suppo-

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sitions about its West-Central African origins (Garenne and Zwang 2008; Preston and Alcibes 2001). Examining the emergence and diffusion of HIV in Central Africa, one should pay particular attention to ‘the historical association between soldiers, prostitute contact and the spread of sexually-transmitted diseases in countries which have recently experienced civil war’ (Cliff and Shallman-Raynor 1992). Some geneticist associate the emergence of circumstances facilitating the HIV diffusion with the advent of colonialism and the growth of large colonial African cities leading to social changes, including a higher degree of disorder in sexual relations, the spread of prostitution, and the concomitant emergence of a high frequency of genital ulcer disease (such as syphilis) in the population of nascent colonial cities (De Sousa *et al.* 2010).

The epidemic started in Africa around the late 1970s and early 1980s. According to one version, some African monkeys are carriers of the virus, but they do not become sick with AIDS. As a result of contacts between people and infected monkeys or their bites the virus could get into the human body. Virologists have found that a simian immunodeficiency virus (SIV) which is observed among West African monkeys is genetically similar to a weakly contagious form of the AIDS and could be considered as its precursor (Moore 2004). HIV-1 and HIV-2 viruses are believed to have originated in West and Central Africa and transferred (a process known as zoonosis) from monkeys to humans. HIV-1 first appeared in southern Cameroon through the evolution of simian immunodeficiency virus (SIVcpz) which infects wild chimpanzees (HIV-1 descends from SIVcpz endemic in the chimpanzee subspecies *Pan troglodytes troglodytes*) (Gao, Bailes *et al.* 1999; Keele and van Heuverswyn *et al.* 2006). Next of kin HIV-2 is SIVsmm, a virus of sooty mangabeys (*Cercocebus atys*), Old World monkeys in West Africa (from southern Senegal to western Ivory Coast) (Reeves and Doms 2002).

Thus, there are all grounds to make a conclusion about cross-species (chimpanzee-to-human) transmissions of AIDS in African region. Paul M. Sharp and his associates mention that M, N, and O – different groups of HIV-1 virus – represent three distinct cross-species transmissions of HIV-1cpz, evidently pointing to Western Equatorial Africa as the territory where they occurred (Sharp, Bailes *et al.* 2001). Sharp insists that the common ancestor of HIV-1 group M existed before 1940 already infecting humans at that point. The transmission of the virus became possible only in the latter half of the twentieth century due to the changes in population structure and behavior in Africa during the twentieth century and perhaps medical interventions that provided the opportunity for rapid human-to-human spread of the virus (Chitnis and Rawls *et al.* 2000).

The first epidemic of HIV/AIDS is believed to have occurred in Kinshasa, the Democratic Republic of Congo, in the 1970s. Later, HIV has been carried to Eastern Africa (Kenya, Uganda, Tanzania, *etc.*) from its eastern equatorial

origin and has gained rapid transmission rates due to labor migration, sexually transmitted diseases (Iliffe 2006) and the prevalence of sex workers as well (Piot *et al.* 1987). The spread of HIV into Western Equatorial Africa continued further in the 1980s, although it did not reach the proportions of East African states. In this decade HIV had been identified in all countries of West Africa. In the middle of the 1980s the virus spread into the rural areas of South Africa through traders, migrants, soldiers or mostly by truck drivers (New Scientist 1987). By the end of the decade Malawi, Zambia, Mozambique, Botswana and Zimbabwe were enveloped by the epidemic that acquired devastating nature in the general population. It is thought that HIV in South Africa had been mostly homosexually transmitted (Hiza 1988). HIV prevalence in South African states continued to increase in the 1990s at the same time as in some parts of East Africa it stabilized or even declined (Mayanja 1999). Note, however, that the HIV diffusion in the northern direction was much less successful. As a result the HIV diffusion pattern looks now as an inversed pattern of the diffusion of Islam in the African continent (see Figs 1 and 2).

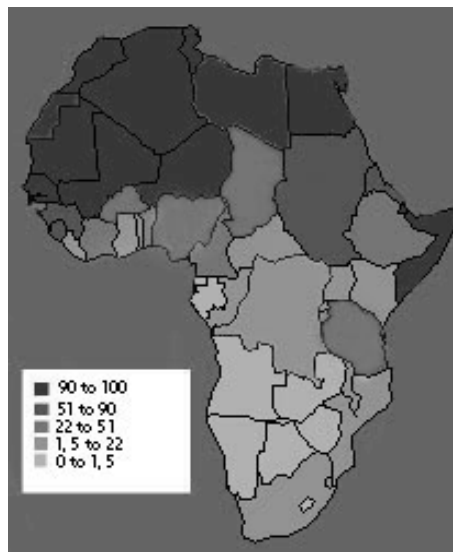


Fig. 1. Share of Muslims in total population of African countries (%)

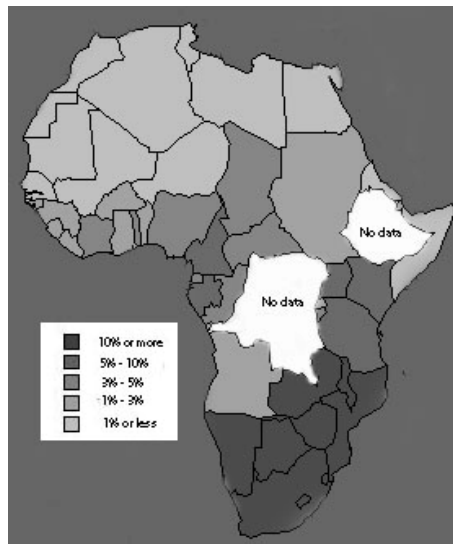


Fig. 2. HIV prevalence in African countries in 2009

There are certain features in Islam (which we will spell out in the final part of the present article) that would inhibit the diffusion of the AIDS epidemic; hence, there are certain grounds to expect that Islamic societies would have lower levels of HIV prevalence than non-Islamic. Our cross-national tests have supported this hypothesis.

The data on prevalence of HIV have been taken from the World Development Indicators database (Washington: World Bank, 2012); the data on percentage of Muslims in the population of respective countries are from the Pew Research Center (*The Future of the Global Muslim Population*. Pew Research Center, 2011. URL: <http://pewresearch.org/pubs/1872/muslim-population-projections-worldwide-fast-growth>). The data have been analyzed through a power-law regression analysis.

The cross-country association between share of Muslims in total population of African countries and HIV prevalence in 2009 is shown in Fig. 3.

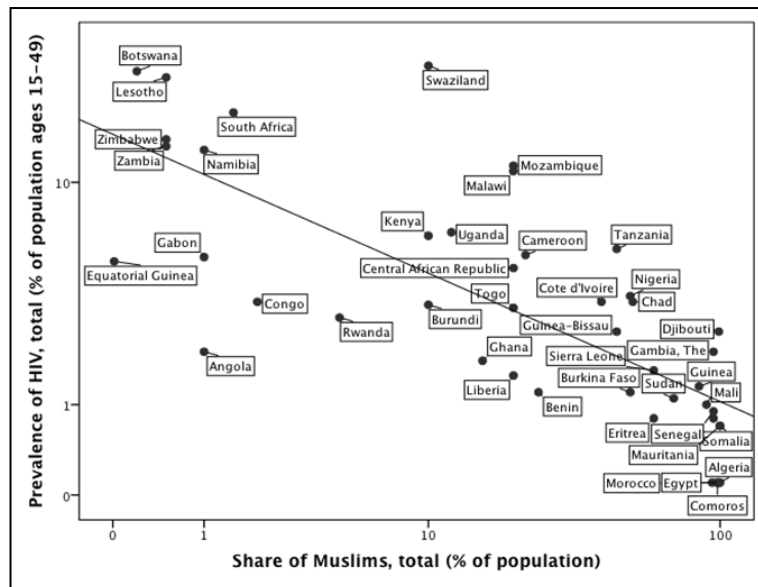


Fig. 3. Cross-sectional relationship between share of Muslims in total population of African countries and HIV prevalence in 2009 (double logarithmic scale with fitted power-law regression line)

The power-law correlation between the two variables has turned out to be in the predicted direction, rather strong ($r = -0.64$; $R^2 = 0.412$) and significant beyond any doubt ($p \ll 0.0001$). It was obtained with the least squares method through a power-law regression analysis; the best fit is produced by the following power-law equation:

$$H = 8.03 \times M^{-0.454}$$

where H is HIV prevalence in a country, M is share of Muslims in the population of a respective country.

Thus, we believe that one of the possible explanations of the pattern of HIV diffusion in Africa can be connected with the role of Islam, which pays particular attention to the prevention of extramarital sexual relations. Unlike Christianity, which also decries the extramarital sexual relations, Islam not only condemns them, but punishes. This is primarily due to the close relationship between legal and religious precepts of Islam, a religious basis of Islamic law. This is a fact confirmed by the analysis of Muslim law as a system of existing legal norms (Sykiyainen 2007a, 2007b). First of all, we speak about common origins of all regulations of Islam. Thus, al-Qur'an and al-Sunnah are recognized as the main sources of Islamic law; they are based on the divine revelation and consolidate basic foundations of faith, rules of worship and morality, generally determining the content of Islamic law in the legal sense.

Its focus on the realization of the ideals of Islam as a religious system, the inclusion of a number of religious cult rules explain why Islamic law is often rightly called the quintessence, the main part of Islam, the most clear expression of Muslim ideology (David 1967). In particular, the ‘concept of interest’ coming out of focus of law to defend the five core values, among which the first is given to religion, is important to understand not only the general ideological framework, but also a number of legal features of Islamic law (Zayyed 1966–1967). Students of Islamic Law generally point its two characteristic and interdependent features: the religious origin (‘the divine nature’), and the close relationship of legal orders with Muslim dogma, morals and religious law of Islam in general. Famous modern specialists in the Islamic Law, such as Muhammad Moussa Youssuf and Subhi Mahmasani note that Islamic law is religious in origin and faithful people consider it as a divine revelation (Moussa 1952). On the base of universal nature of Islam and its regulatory requirements, it is concluded that Islam is both ‘faith and state’, and Islamic Law (*fiqh*) is not only a law itself, but a religion as well (Mahmasani 1952). A similar point of view is expressed by many famous specialists in the Islamic Law. Thus, Joseph Schacht notes that Islamic law is characterized by the dualism of religion and state (Schacht 1966). According to R. Charle, Islamic law is primarily a religion, and then – a state and culture (Charle 1959). Islam is a religion of law, and Islamic law nature is not rational, but religious (divine), – emphasizes Rene David (David 1967). This is not applicable to Christianity where the Canon law could not become an imperative norm and, respectively, a part of current legislation.

Thus, we can summarize that the essential feature of Islamic law is in close dependence of its norms implementation on religious consciousness. At the same time, this approach helps to identify another important feature of socio-psychological mechanism of Islamic law implementation which explains the high efficiency of its regulatory effect on the behavior of Muslims who, in practice, in many cases refer to the norms of Islamic law as religious precepts. This is not typical for Canon law. As a consequence, Christian Canon law, in contrast to the Muslim law, could not be a part of the current legislation, including that in African countries.

Islam not only condemns extramarital sexual relations (*zinā*), but considers it as a serious crime (*hadd*) like, for example, crimes against the *Ummah* and infringement of the Allah rights (al-Qur’ān 4: 19–22; 7: 32; 25: 68–69; 17: 32; al-Bukhārī 2475, 6878; Muslim 57/100, 1676/25; Ibn Mājah 4019; al-Manhaj 2/40). This is due to the fact that this kind of law breaking impinges on the basis of the Islamic *Ummah* – the family, and therefore should be punished to the fullest extent of the law. It is no accident that adultery and extramarital sexual relations are governed by the criminal law, not the Muslim family law in Africa (Al-Riahi 2011; Sykiyainen 2007a, 2007b).

Obviously, we should remember regarding this point that there exist some kind of disjuncture between religious law and beliefs and practices (see, e.g., Korotayev 2000, 2004). We can suppose that the Muslims who follow the reli-

gious doctrine, and also pronouncedly worship and confirm to the rules actually have lower risk of HIV infection.

In addition, one can mention that the circumcised men suffer from HIV significantly less frequently than the non-circumcised, whereas the circumcision is practiced very consistently by the African Muslims (but, of course, not only African). Thus, some of epidemiological studies have shown that in high-risk sub-Saharan Africa the male circumcision that is performed for different reasons including religious, ritual, cultural, and medical, is often associated with a reduced risk of HIV infection (Bloemenkamp and Farley 2002). Although in some cases there is no sufficient evidence, the proposition about protective effect of male circumcision against HIV infection becomes more and more popular day by day, and it is regarded as one of the more powerful reducers of infection risk (Harmon 2011; Short 2006; Bonner 2007).

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