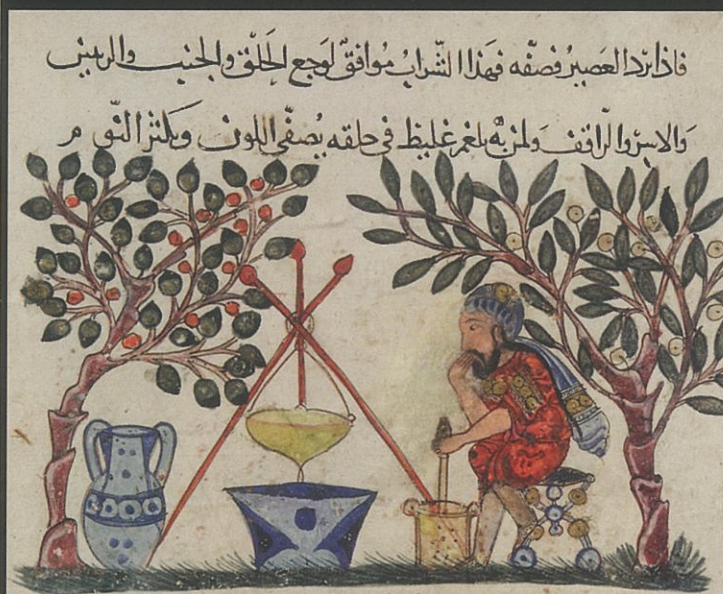


MEDICAL SYSTEMS OF NON-EUROPEAN PEOPLES, VOL. 1

# Traditional Medical Systems of Africa and Asia and Their Transformations

Editors:

Bożena Płonka-Syroka, Arin Namal,  
Mateusz Daśal and Grzegorz Wiktorowski



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Wrocław 2017

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Arin Namal

## **Beliefs, Traditions, Witchcraft and Superstitions Hampering the Fight against AIDS in Africa**

The Centers for Disease Control and Prevention (CDC) made a brief announcement on June 5, 1981 about five young men in Los Angeles found to be suffering from pneumocystis jiroveci pneumonia (PJP) between November 1980 and May 1981. This infection is rarely seen and not encountered unless the immune system is compromised. Two of the young men died as a result of pneumonia, and it was interesting that all five were homosexual.<sup>1</sup> Specialists at the CDC made the comment that they might face an immune cellular defect or sexually transmitted disease in these patients. Similar cases were soon reported from New York, San Francisco and other cities, which were followed by statements from other countries and continents, notably France, Spain, Switzerland and Uganda. The name of the disease and the viral infectious agent were still uncertain. The original cases recognized in Los Angeles were not the first individuals in the world who died because of this disease. It was realized that the disease had been present since the 1970s and had proliferated. According to the data of the United Nations (UN), more than 30 million people have died from this disease globally over 30 years. It is recognized that 7,000 people are infected with HIV every day, among them 1,000 juveniles. HIV infection became pandemic in the second half of the 1970s and has spread to almost all countries in the world. The concept of Primary Health Care (PHC) was developed in the 1970s and 1980s. It was quickly realized by those fighting AIDS that primary prevention techniques involving isolation, chemoprophylaxis, vaccination and close observation are not possible in this disease. Early diagnosis (secondary prevention) was also not practical in preventing the spread of disease since it has a long latent stage.

The dynamics behind the spread of HIV infection across the world are threefold:

- 1) Deepening gap between wealth and poverty,
- 2) Growing socio-cultural alienation, dismemberment of the family and culture,
- 3) Increasing persistence of violence against women.<sup>2</sup>

<sup>1</sup> K. U. Benner, *Gesundheit und Medizin heute*, Bechtermünz Verlag, Augsburg 1994, p. 48.

<sup>2</sup> K. Ochel, *AIDS in Afrika*, [in:] H. Wilderrotter, M. Dormann (eds.), *Das große Sterben. Seuchen machen Geschichte*, Jovis, Dresden 1995, p. 310.

Consequently, most of the infected individuals live in developing countries and are mainly among the disadvantaged and less fortunate members of the community who are separated from their origins and whose rights are revoked. The source of the epidemic was reported as Africa in the CDC report. Two-thirds of known HIV infected individuals are in Africa and two-thirds of those who have died from AIDS are also in Africa. Sub-Saharan Africa is the most affected region in the world. This condition causes serious problems: the life expectancy is reduced to 20 years in certain countries. The countries most affected by the epidemic are Swaziland, Botswana, Lesotho, Malawi, Nigeria and Kenya. There are 15 million children who have lost their mother, their father or both parents in sub-Saharan Africa.<sup>3</sup> The term "child-headed-households" is used to describe these orphans who have to fend for themselves.<sup>4</sup>

It has been claimed that people in Africa were diagnosed by major clinical findings such as ongoing fever, diarrhea and weight-loss (WHO Definition-Bangui Definition),<sup>5</sup> instead of by performing HIV Antibody Tests, thus these high numbers were misleading.<sup>6</sup> There are also people known as *AIDS denialists* who refute the presence of a connection between HIV and AIDS.<sup>7</sup>

The reasons behind the rapid spread of HIV infection in Africa are summarized as follows:

*Poverty:* Of the people in sub-Saharan Africa, 40% are living below the poverty line and starving. Poverty prevents the use of condoms, being tested for HIV and having access to antiretroviral medicines.

*Inadequate medical care:* Although attempts have been made to improve the conditions, there are inadequate numbers of physicians and hospitals.

*Protection and elucidation campaigns are inadequate:* African governments underestimated the truth about AIDS and even they totally denied its existence. So, the initiation of protection campaigns was delayed. Thus, HIV has been spread for at least 20 years. The low level of education also complicated the success of campaigns. Even though they might have access to medicine, it is unreasonable to expect them to use that medicine meticulously and properly. In fact, the problem in Africa is not the price of medicines or its lack of availability

<sup>3</sup> UNAIDS, *Fact Sheet 2014* (from *The Gap Report*), [http://files.unaids.org/en/media/unaids/contentassets/-documents/factsheet/2014/20140716\\_FactSheet\\_en.pdf](http://files.unaids.org/en/media/unaids/contentassets/-documents/factsheet/2014/20140716_FactSheet_en.pdf) [access: 19.12.2016].

<sup>4</sup> A. J. Mturi, *Child-Headed Households in South Africa: What We Know and What We Don't*, "Development Southern Africa" 2012, Vol. 29, No. 3, pp. 506–516.

<sup>5</sup> World Health Organisation's "Weekly Epidemiological Record/Relevé Épidémiologique Hebdomadaire" 1986, Vol. 61, No. 10, p. 71.

<sup>6</sup> N. Hodgkinson, *Zur AIDS-Frage in Afrika... AIDS-Epidemie in Afrika – »ein Mythos«*, "AIDS-Report" 1993, No. 4, <http://www.vordenker.de/hiv/hodgkinson.pdf> [access: 19.12.2016].

<sup>7</sup> *Presidential AIDS Advisory Panel Report: A Synthesis Report of the Deliberations by the Panel of Experts Invited by the President of the Republic of South Africa, the Honourable Mr Thabo Mbeki*, 2001, <http://www.virusmyth.com/aids/hiv/panel/aidsreport.pdf> [access: 11.09.2016].

but rather its improper use. People taking their medicine properly appear to be cured but are still infected. It is very hard for illiterate patients to understand their conditions and to act properly. A tragicomic example caused by illiteracy tells of the involuntary conception of an African woman. She did what she had been told to do before sexual intercourse and complained about becoming pregnant even though she had unrolled a condom over a banana and put it under the bed.<sup>8</sup>

*Taboo and Stigma:* AIDS is still a taboo in various African countries and HIV positive people are stigmatized and excluded from society. Therefore, many HIV positive people hide their condition from the community and their partners, which means transmitting the disease to others on purpose.

*Sexual behavior:* Sexual behaviors such as polygamy and promiscuity are important factors in the transmission of HIV.

*Prostitution:* Prostitution is very common in Africa because of poverty. Men frequently make use of prostitutes and they might be infected or infect others as a result of sexual intercourse with prostitutes.

*Violence against women:* South Africa is the region most affected by the HIV epidemic and also one of the countries with the highest rate of violence against women. Many women are infected with HIV as a result of rape. The social results include the reduction of life expectancy in the community, increase in the number of parentless children, poverty, labor loss, reduction in manufacturing, exports and imports, increased health spending and failure to meet growth targets.<sup>9</sup>

## A Glance at Traditional and Modern Medicine in Africa

The perception of medicine in Africa before the mid-20<sup>th</sup> century, the knowledge available and those using that knowledge could not be effectively researched. Recent studies reveal the effects of Islamic and Indian-Asian culture since the 7<sup>th</sup> century. After the 16<sup>th</sup> century, contacts with the West were initiated. Healthcare services were begun by the military and colonial officials. Christian missions have been established since the 1800s. Healthcare services provided by missions became one of the most important supporters of religious propaganda given that Africa had been suffering from infectious diseases such as malaria. After the 2<sup>nd</sup> World War, many mission hospitals were built. There are still two health systems in African countries: the government system with an inadequate number of hospitals and physicians and the more developed and better qualified mission

<sup>8</sup> Anonymus, *Ein Kontinent stirbt – AIDS in Afrika*, <http://www.hinter-dem-horizont.net/themen/aids.htm> [access: 11.09.2016].

<sup>9</sup> P. Fourie, *The Political Management of HIV and AIDS in South Africa: One burden too many?*, foreword by A. Whiteside, Palgrave Macmillan, New York 2006.



healthcare system.<sup>10</sup> The high transmission rate of HIV infection exposed these two systems to significant difficulties.

Preventative precautions such as hygiene and vaccination must be activated in the fight against infectious diseases in Africa. In the past, those teaching and providing medical care were white missionaries. Missionary medicine was imposed by destroying the customary medical system in which traditional healers explained the occurrence of disease within the scope of their religious beliefs. Meanwhile, they were the religious authority in the communities.<sup>11</sup> Missionaries were not prepared to accept another religious authority. For example, the healers in Shona tribes in Zimbabwe are called *n'anga* and do not make diagnoses or give treatment but are accepted as ecclesiastics.<sup>12</sup> However, the number of traditional healers is still higher in most African countries. African traditional healers mirror the great variety of cultures and belief systems on the continent, and possess equally heterogeneous experience, training and educational backgrounds. For example, there is one healer for every 288 people and one graduate physician for every 1,606 people.<sup>13</sup> In sub-Saharan Africa, traditional healers play a major role in providing for the needs of the people. It is estimated that some 70% of sub-Saharan Africans access traditional healers.<sup>14</sup> The reason is not only the lack of availability of western medicine but also that an attitude is revealed while consulting a healer. Disease is discussed as it interests all family members in traditional medical implementation. All the family members have to attend rituals regarding a mystical diagnosis and reversing a spell. This protects the patients from being isolated and offers them support.<sup>15</sup>

In European nations, people consult physicians when they are sick. It is perfectly normal in a country with a modern health system but it is not the same in Africa. Superstition and religion revive and give hope to people. In Africa, science is still considered a compulsion of western white people and is approached with suspicion. Inadequate education, among others important reasons, lies behind this attitude.

In addition to western physicians, *sangomas* ("diviners") who apply traditional medicine and *inyanga* (herbalists) are very common in South Africa.<sup>16</sup> *Sango-*

<sup>10</sup> B. Pfeiderer, K. Greifeld, W. Bichmann, *Ritual und Heilung: Eine Einführung in die Ethnomedizin*, Ethnologische Paperbacks, Dietrich Reimer Verlag, Berlin 1995, p. 43.

<sup>11</sup> Ibidem, p. 44.

<sup>12</sup> E. Schmitt, *AIDS und Gesellschaft in Zimbabwe. Eine qualitative Untersuchung*, Beiträge zur Ethnomedizin, Vol. 3, Verlag für Wissenschaft und Bildung, Berlin 1999, p. 62.

<sup>13</sup> [www.unaids.org/hivaidsinfo/statistic/june00/fact\\_sheets/pdfs/zimbabwe.pdf](http://www.unaids.org/hivaidsinfo/statistic/june00/fact_sheets/pdfs/zimbabwe.pdf) [access: 22.11.2016].

<sup>14</sup> E. Mills, S. Singh, K. Wilson, E. Peters, R. Onia, I. Kanfer, *The Challenges of Involving Traditional Healers in HIV/AIDS Care*, "See comment in PubMed Commons below International Journal of STD & AIDS" 2006, Vol. 17, No. 6, pp. 360–363.

<sup>15</sup> E. Schmitt, *op. cit.*, p. 102.

<sup>16</sup> N. O'Farrell, *AIDS and the Witch Doctor*, "The Lancet" 1987, Vol. 330, No. 8551, pp. 166–167.

*mas* perform a holistic and symbolic form of healing by drawing on embedded black South African culture that professes that ancestors in the afterlife guide and protect the living. According to the research results of Pietermaritzburg Institute of Natural Resources, among the ethnicity of Zulu, Xhosa, Ndebele and Swazi, 84% of the population are first treated by *sangomas*.<sup>17</sup> The word "Africa" is not enough to define location. The President of the Republic of South Africa, the uneducated Jakob Zuma, belongs to the Zulu tribe and believes in the supernatural powers of *sangomas*. Traditional midwives have been an integral part of African medicine for centuries. This is not only because African people still love and fear the spirits, but also because a great percentage of the South African population does not have access to existing health services.<sup>18</sup>

In South Africa, *sangomas* are legally equal to western physicians. They are legally recognized as "traditional health practitioners", under the Traditional Health Practitioners Act of 2007 (Act. 22 of 2007) alongside herbalists, traditional birth attendants, and traditional surgeons. The act calls for the establishment of a national council of traditional health practitioners to regulate and register *sangomas* in the country.<sup>19</sup> *Sangomas* are not just healer-type physicians. They also work as social service specialists and mediums. Therefore, their socio-economic roles cannot be overestimated.

An *umthandazi* or *umprofiti* ("faith healer" or "prophet") is usually a professed Christian who belongs to either a mission or one of the African independent churches. They heal mostly through prayer, laying hands on patients, or providing holy water and ashes. They believe that their healing power comes from God through ecstatic states and trance-contact with a spirit (*uMoya*), or sometimes a combination of both the Christian Holy Spirit and an ancestral spirit. They use a combination of herbs, remedies and holy water in their treatment. Their healing system is molded on the *sangoma* group pattern whereby the afflicted live for months and sometimes years at the prophet's residence.<sup>20</sup>

In certain regions of Africa, it is almost impossible to treat people using the modern medicines of the West. So, social service specialists are undertaking studies for Doctors without Borders in villages and trying to overcome the fears and prejudices of people against modern medicine. It has been recognized that

<sup>17</sup> I. Truter, *African Traditional Healers: Cultural and Religious Beliefs Intertwined in a Holistic Way*, "SAPJ: SA Pharmaceutical Journal/SA Tydskrif vir Apteekwet" 2007, Vol. 74, No. 8, pp. 56–60.

<sup>18</sup> T. R. Troskie, *The Importance of Traditional Midwives in the Delivery of Health Care in the Republic of South Africa*, "Curationis: Journal of the Democratic Nursing Organisation of South Africa" 1997, Vol. 20, No. 1, pp. 15–20.

<sup>19</sup> *Traditional Health Practitioners Act, 2007*, No. 22 of 2007, "Government Gazette: Republic of South Africa" 2008, Vol. 511, No. 30660, <http://www.gov.za/sites/www.gov.za/files/a22-07.pdf> [access: 20.12.2016].

<sup>20</sup> I. Truter, *op. cit.*, p. 58.

the existing conditions cannot be changed by considering superstitions as absurd and ridiculous. The aggressive fight against superstitions in Europe would not be appropriate for Africa. Public health specialists are now enlisting *sangomas* in the fight, not only against the spread of HIV/AIDS, but also diarrhea and pneumonia, which are major causes of death in rural areas, especially among children.<sup>21</sup> In the past decade, the role of traditional healers has become important in fighting the impact of HIV and treating people infected with the virus before they advance to a point where they require (or can obtain) anti-retroviral drugs.<sup>22</sup>

Traditional healers do not always leave a positive effect, because referral of patients to clinics might be late, none-sterile surgical tools are used and sometimes healers recommend having sexual intercourse with young girls to get rid of the disease. For example, coughing is believed to arise from being cheated. In addition to herbal medicines, adulterers are told to pay indemnities to the cheated wife by traditional healers.<sup>23</sup> Therefore, both types of medical systems, modern and traditional, have to be applied in tandem.

People are still terrified of catching the disease themselves or of a family member being infected. It is the same for the entire continent. In Africa, AIDS is the indicator of God's punishment, a result of sinning and acting against God's will. For this reason, people do not talk about being diagnosed, try to deny the diagnosis and resist the use of medication. AIDS is still a taboo in Africa and is mentioned *sotto voce*. The stigma of AIDS is the most important obstacle in fighting the disease. People not willing to be stigmatized avoid going to clinics and thus do not take advantage of the treatment. Diagnosed patients are scared and ashamed of being sick and say that they cannot come to the hospital in daylight. People also hide their disease from their sexual partners.

### The Effects of Beliefs, Traditions, Society and Superstitious Beliefs on Fighting AIDS in Africa

There are 300 million Muslims in modern-day Africa. In Muslim communities practicing Sharia law, women's rights are virtually non-existent. Cheating wives are stoned to death. The number of Christians, mostly living in sub-Saharan region, constitutes 19% of the world's Christian population. Traditional religions are generally associated with worshipping celestial bodies or the are also wide-

<sup>21</sup> S. Schuster Campbell, *Called to Heal: African Shamanic Healers*, Lotus Press, Twin Lakes 1998, pp. 151–153.

<sup>22</sup> UNAIDS, *Collaboration with Traditional Healers in HIV/AIDS Prevention and Care in Sub-Saharan Africa: A Literature Review*, UNAIDS, Geneva 2000.

<sup>23</sup> J. E. Mabe (ed.), *Das Afrika Lexikon. Ein Kontinent in 1000 Stichwörtern*, J. B. Metzler Verlag, Stuttgart 2001, p. 317.

spread.<sup>24</sup> The souls of the dead and animal totems are respected among believers. There are votive offerings consisting of such things as animal sacrifices and fruit.

Social historians know that people react to crises with responses similar to those of previous distressing periods. This is the case for superstitious beliefs as well. The desire is to get rid of fear, to stop emotions from taking over and finally to resolve the situation by means of acceptance and by preparing defenses against unknown, undefined and fearsome things. The history of superstitious belief and magical practices is ancient and practically universal. If an individual has been exposed to these practices as a child, it is hard to get rid of them. Superstitious beliefs in healing treats disease symptoms by relying on supernatural powers without considering the underlying natural causes. Religions have an important place in the history of superstitious beliefs. In other words, none of the cultural factors are as significant as religions.<sup>25</sup> Religions, culture and social life are concentric in Africa.<sup>26</sup> The claim of the Catholic Church that people who follow God's orders will not be infected with HIV and therefore HIV infected people are sinners, has been criticized by other ecclesiastics.<sup>27</sup>

### Mystical Approach in Defining Diseases – Witch Belief

Every culture has superstitions and traditions, some more so than others. In many developing countries, there are case of brutality and inhumanity that result from superstition. The ideas of magic and witchcraft are present in various countries around the world and are always used to define the unknown and sudden natural disasters. They are explanations to help recover from the shock caused by severe conditions threatening human existence. Weak and unprotected children are the first victims of these projections and are readily accepted as scapegoats. There are case of children accused of being witches to be hit, chained, burned, exposed to acid, and sometimes even killed. Belief in the witch (*esprit sorcier*), which is the one of the most significant obstacles in the development of the African continent, is also encountered in all social segments in Latin America and the Caribbean. In Africa, many people hold witches and wizards responsible for their bad luck. As the number of patients dying from AIDS increases, the number of witch hunts also increases.<sup>28</sup> Believing in witches is a fantasy arising from AIDS

<sup>24</sup> *Naturreligionen in Afrika*, [www.tlg.musin.de](http://www.tlg.musin.de) [access: 22.11.2016].

<sup>25</sup> H. Magnus, *Der Aberglauben in der Medizin*, Severus Verlag, Hamburg 2013, pp. 3, 13.

<sup>26</sup> J. E. Mabe (Hg.), *op. cit.*, p. 519.

<sup>27</sup> B. Grill, S. Hippler, *Gott, AIDS, Afrika. Eine Streitschrift*, preface by H. Mankell, Kiepenheuer & Witsch, Köln 2007.

<sup>28</sup> B. Grill, *Die Macht der Hexen*, "Zeit Online", 15.09.2005, No. 38, <http://www.zeit.de/2005/38/Afrika> [access: 21.12.2016].

and tuberculosis, wars, economic crises and dictatorship. Also, upheavals during the post-colonial period and failures in the national law system to provide basic freedoms drive people to tribal chiefs. When everything is upside down, witches reappear, especially since the 1960s.

Sociologists tell us that witch hunts ease tension in the community that is in trouble. The organs of murdered witches, mainly children, are removed. *Sangomas* want to use these organs for their magical therapy and pay large amounts of money for them. For example, a woman's breast is used to ensure the happiness of future mothers, sexual organs are for resolving impotency problems, and the throat is for dispatching an enemy.

In African culture, magic has a strong influence on defining diseases in addition to objectivity. The reasons behind the disease might be natural such as bad food, temperature changes, drought or being injured in a fight, but it is also believed that the souls of dead men can harm the living, witches and wizards might cause disasters for human beings, the soul might escape and never return, and misbehavior causes disease. It is believed that AIDS occurs as a result of misbehavior as well. The idea that black magic causes disasters and therefore there exists the possibility of finding a magical solution is reassuring to people.<sup>29</sup>

Nurse Mugobi, a clinical nurse from a private clinic in northern Botswana, explained Botswana's extensive efforts in battling superstition. "Africans are very superstitious people," says Mugobi. "When someone gets sick they do not think it is a virus or bug, they think someone has put a hex on them. People think their neighbor or someone they upset wished bad things upon them." This thinking deters people from going to see doctors.<sup>30</sup>

Although the traditions and rituals of the communities of many African countries differ from each other, they all believe that healers have supernatural powers. It has been known for experienced and famous healers to have ancient and comprehensive medical resources. The therapies applied by these persons are described as black magic and they are killed if accused of being a witch or wizard. On the other hand, there are people who are known to cope with black magic.

In Africa, it is believed that the soul of a dead man does not leave the living alone but watches over them. African people believe intimacy with the dead relative is a protector and they can benefit from their wisdom. Like some in other cultures, old age and wisdom are honored in Africa. Old men should lead younger ones with their wisdom and protect them against evil. People believe that they can call upon their ancestors in bad times and that ancestors can help

<sup>29</sup> S. Weinreich, C. Benn, *AIDS. Eine Krankheit verändert die Welt. Daten – Fakten – Hintergründe*, Lembeck, Frankfurt am Main 2003, p. 130.

<sup>30</sup> J. Carr, *Project: The African AIDS Pandemic: Superstitions Abound, Traditional Healers Often Sought*, <http://www.mssu.edu/academics/international-studies/mccaleb/2008-botswana/healers.php> [access: 09.09.2016].

their passage to other side when they are about to die. The ones who can contact the dead are healers or physicians. The belief is that contact with the souls of dead men supports the living in Africa. There is a thin line between healer and witch. This is determined by the perspective of the viewer. Therefore, healers might suddenly be accused of being a witch or wizard, especially if their therapy has no result.

In sub-Saharan Africa, it is believed that the souls of dead men live on as long as they are remembered. As a result, the dead take action to be remembered if they begin to be forgotten. Therefore, a sick person in Africa thinks "Who is doing this?" "Who did I forget?" African people are under pressure from two sides: dead relatives and their big families. The idea of the witch begins here. The fear of being sick or suffering a disaster as a result of evil magic created by their dead or living family members disturbs individuals. Thus, the belief in witches is a controlling factor in big families. The witch hunt causes defamation and creates victims in daily politics. So, the idea of witches spreads into all fields of life in Africa.

According to the data of the Ministry of Family in Tanzania, a total of 5,000 people accused of being witches were killed between 1994 and 1998.<sup>31</sup> Witch children are called *bana bandoki* and 10,000 children are declared to be witches in Kinshasa, the capital city of the Democratic Republic of the Congo, alone. The old idea of witches in Africa was radicalized by orthodox understandings of Christianity in Africa. Children who are believed to bring bad luck are forced to leave their houses or villages. The streets are full of children claiming that their soul has been captured. Traditional healers determine the sickness of a person with a personal diagnostic method that lasts for 30 to 40 minutes, which is longer than the period typically spent with patients in Western medical clinics. The patient is free to ask questions to healers. Patients are not inhibited in terms of communication as in the relationship between physicians and patients in Western medicine.<sup>32</sup>

### The Abuse of Women and Repressive Traditions

In principle, women, especially in their menstruation period, tend to become infected more than men in terms of sexually transmitted diseases. Moreover, the mucosal layer in the vagina is more sensitive than penis skin. Girls and women are under the control of their fathers and then husbands because of the patriarchal traditions of Africa. If money is paid for marriage, a girl cannot be protected by

<sup>31</sup> Ibidem.

<sup>32</sup> E. Schmitt, *op. cit.*, p. 64.



her family anymore.<sup>33</sup> The level of education persists as a disadvantageous condition in poorer areas and even affects the nutrition patterns. As the determinants of educational inadequacy, economic weakness and sexuality are men, women are defenseless against HIV infection.

Women and girls often face discrimination in terms of access to education, employment and healthcare. In this region, men often dominate sexual relationships. As a result, women cannot always practice safe sex even when they know the risks involved. Gender-based violence has been identified as a key driver of HIV transmission in the region.<sup>34</sup> Cultural diversities make it difficult to struggle against AIDS.<sup>35</sup> Polygamy and promiscuity are common in Maasai culture. A man has a sexual life with multiple women and he then passes them to others. It is legal to marry four or five women.<sup>36</sup> In their traditions, young girls have to have sex with a man who is hired by their families to rid them of their virginity after their first menstruation. It is a ritual considered necessary for the preparation of young girls for sexual life and pregnancy. In South Malawi, families pay \$4–7 to men for this service. It is said that these men are chosen among gentlemen. When an HIV-positive Malawian man said that he had had sexual intercourse with hundreds of girls aged 12–13 years to dispose of their virginity, he was reported in the newspapers.<sup>37</sup> These cultural and traditional practices are among the most important reasons for disease transmission. These men are also hired to have sexual intercourse with women who have undergone abortions or who have lost their husbands before they are buried in the ground. Another example of a supposed cure for AIDS is committing violence against a woman who has lost her husband to AIDS thus expelling bad souls.<sup>38</sup> These traditions are important factors in successive transmission of HIV infection. Thus, 10% of the community is infected with HIV in Malawi, which is among the poorest countries in the world. In research conducted in Kenya and Zambia, it was found that the frequency of sexual intercourse was increasing among married women, they did not use safe sex and their husbands did not listen to advices about this issue.

<sup>33</sup> M. Kwalanda, B. T. Koch, *Die Farbe meines Gesichts. Lebensreise einer kenianischen Frau. Biographie*, Droemer Knaur, Frankfurt am Main 1999, p. 127.

<sup>34</sup> M. Ellsberg, M. Betron, *Preventing Gender-Based Violence and HIV: Lessons from the Field*, [http://pdf.usaid.gov/pdf\\_docs/pnaea603.pdf](http://pdf.usaid.gov/pdf_docs/pnaea603.pdf) [access: 21.12.2016].

<sup>35</sup> J. Comaroff, J. Comaroff (eds.), *Modernity and Its Malcontents: Ritual and Power in Post-colonial Africa*, The University of Chicago Press, Chicago 1993.

<sup>36</sup> U. Meissner, H. Metlitzky, *Todestanz. Sex und Aids in Afrika*, Eichborn, Frankfurt am Main 2003, p. 27.

<sup>37</sup> D. Signer, *Malawische Traditionen. Der Hyänen-Mann, die Entjungferung und Aids*, "Neue Zürcher Zeitung", 27.07.2016, <http://www.nzz.ch/international/aufgefallen/malawische-traditionen-der-hyaenen-mann-die-entjungferung-und-aids-ld.107819> [access: 21.12.2016].

<sup>38</sup> Anonymus, *Ein Kontinent stirbt – AIDS in Afrika*, <http://www.hinter-dem-horizont.net/themen/aids.htm> [access: 21.12.2016].

This condition is very common among young women with older husbands. The rate of HIV positivity among young married women in the city centers of Kenya and Zambia is higher than the unmarried and sexually active young women. The frequency of sexual intercourse is increasing, men do not use condoms and women cannot refuse to have sexual intercourse. Married men continue to have sexual intercourse with various other women.<sup>39</sup>

Although becoming an AIDS patient is scary, women who are terrified of infecting their children show efforts to obtain medical help. When help is provided late to an HIV-positive pregnant woman the fetus might be infected. 700 thousand HIV infected babies are born each year in South Africa alone, but the government did not agree to give Nevirapine to HIV-positive pregnant women until quite recently. In fact, the number of viruses in the blood is reduced by using the right medication during pregnancy and the fetus is protected. It is known that the Court of Chancery in Pretoria prevented the use of this medication by HIV-infected women by delaying the relevant legal regulation. However, studies show that prevention of mother-to-child transmission (PMTCT) of HIV has been successful thanks to medical practices. In 2013, over 900 thousand pregnant women living with HIV accessed antiretroviral treatment, equating to a coverage of 68%. In four countries (Botswana, Namibia, South Africa, and Swaziland) more than 90% of pregnant women were accessing ART.<sup>40</sup> When a mother breastfeeds her baby she can pass on the virus. Therefore, breast-feeding is not recommended to HIV-positive mothers. However, a woman not breastfeeding her baby is being looked down in society. So, it is important to explain the reasons behind not breastfeeding to avoid criticism. On the other hand, there are also babies who will starve if they are not breastfed. Prostitution is common in Africa and many women and girls earn money in this way. However, prostitution is a taboo and it is not mentioned among women.<sup>41</sup>

### Healer Sexual Intercourse with Virgins and Albinos – Sexual Abuse of Children

A grandmother was surprised when she caressed a tiny baby as the infant was drenched in blood. The baby's internal organs and spine were damaged. Doctors provided medical attention for hours to save the baby. Police arrested six men who had raped her. This incident happened in late October, 2001 and was

<sup>39</sup> S. Clark, *Early Marriage and HIV Risks in Sub-Saharan Africa*, "Studies in Family Planning" 2004, Vol. 35, No. 3, pp. 149–160.

<sup>40</sup> UNAIDS, *Fact Sheet...*

<sup>41</sup> M. Kwalanda, B. T. Koch, *op. cit.*, p. 127.

reported in the press, which attracted notice to the issue. It is known that five children are subjected to sexual abuse every hour in South Africa. These were the data from the Juvenile Welfare National Council for 1998. The number of children under the age of 11 who were subject to sexual abuse reached five figures within a year. The number of unsolved cases is higher than these numbers. Research showed that baby-child abuse increased incrementally after 1994. According to the organization for avoiding child abuse "ChildLine", one in every two victims is under the age of seven. The minimum age of a raped child was five and an artificial anus was required for this individual. The ones abusing children are mostly their relatives and only 8% of criminal cases result in punishment.

Even today, sangomas in particular spread the rumor that sexual intercourse with a virgin girl cures HIV (the virgin cleansing myth). The lower the age of the virgin the higher her potential to cure is an accepted part of the fallacy. As a result, female babies and children are sexually abused. Sometimes these babies are only a couple of months of age. Specialists mention five digit figures for sexual abuse each year in the Republic of South Africa. Many African mothers are scared of the possibility of abuse of their babies and children. The myth was first reported in 16<sup>th</sup> century Europe and gained prominence in 19<sup>th</sup> century Victorian England as a cure for syphilis and gonorrhea, among other sexually transmitted diseases. The origin is unknown, but historian Hanne Blank writes that the idea may have evolved from Christian legends of virgin martyrs, whose purity served as a form of protection in battling demons.<sup>42</sup> A survey by the University of South Africa (UNISA) found that 18% of laborers in that country thought that having sex with a virgin cured HIV/AIDS. An earlier study in 1999 by sexual health educators in Gauteng reported that 32% of the survey participants believed the myth.<sup>43</sup>

As girls in Africa are sexually active from the age of 12-13, perpetrators tend to favor those of younger ages. According to the statement of the Custody of Young Girls Organization in Kenya, one in four girls experienced her first sexual intercourse when aged seven on average as result of being raped. In crime statistics in South Africa, sexual assaults are in first place. It is a serious problem to choose children while considering that they are not infected with HIV.<sup>44</sup> The numbers in Africa are scary; the Government of the Republic of South Africa stated that 12% of school-age girls were HIV-positive. The rate of HIV positivity is 4% among boys of the same age. This difference results from the pre-

<sup>42</sup> H. Blank, *Virgin: The Untouched History*, Bloomsbury, New York 2007.

<sup>43</sup> Anonymus, *Focus on the Virgin Myth and HIV/AIDS*, <http://www.irinnews.org/feature/2002/04/25/-focus-virgin-myth-and-hiv-aids-0> [access: 10.08.2016].

<sup>44</sup> S. Weinreich, C. Benn, *op. cit.*, pp. 38-39.

ponderance of sexual intercourse between girls and the old men called "sugar daddies".<sup>45</sup> Likewise, the belief in the curative effect of sexual intercourse with albino girls and women or even grandmothers<sup>46</sup> has spread.<sup>47</sup>

### Female Genital Mutilation (FGM)

It is known that genital mutilation is performed on 140 million women, girls and babies across the world. In general, it is performed on girls aged between six and 13. It is also true that it is performed on an extensive range from babies to women of advanced age. The application of FGM shows variations including the excision of the labia minora and labia majora with a small intervention where the vaginal opening is stitched. In this case, a further surgical intervention must be done prior to the first act of sexual intercourse and giving birth (de-infibulation). Therefore, there are numerous early and late physical and emotional effects of FGM. It is common in 28 countries of Africa but rare among the people of Asia and the Near East who have migrated to the West. It is not an Islamic intervention.

In the Quran surah [95,4] it is stated that "We have certainly created man in the best of stature". The populations of Ethiopia and Serra Leone are mainly Christian and FGM has been performed on 70% of the women. However, there is no expression to correlate with FGM in Christianity. FGM is considered a non-religious intervention. Women who have not undergone FGM are not accepted in that culture; they are alienated and have difficulties finding a man to marry. It is believed that they will not have a baby. Only women who have undergone FGM are accepted as ready to get married. It aims to prepare a girl for womanhood and to prevent her seeking sexual intercourse. Blood transfusions are frequently required during FGM as a result of using non-sterile tools and the possibility of severe bleeding during the intervention, when giving birth or later and it often results in HIV infection. The incidence of Herpes virus is high among women with FGM, thus it eases the transmission of HIV. If FGM is performed by narrowing or closing the vaginal opening, injuries often happen during sexual intercourse and the couple tends toward anal sex. These injurious sexual practices enable the

<sup>45</sup> SOS Kinderdörfer der Welt, *Aids in Afrika. Fakten, Zahlen und Hintergrundinformationen zur Epidemie*, <http://www.sos-kinderdoerfer.de/unsere-arbeit/wo-wir-helfen/afrika/aids-in-afrika> [access: 21.12.2016].

<sup>46</sup> D. Mikkelsen, *Rape of Innocents: Are Babies Being Raped in South Africa by AIDS Sufferers Who Believe Their Having Sex with Virgins Will Cure Their Disease?*, <http://www.snopes.com/inboxer/petition/babyra-pe.asp> [access: 10.09.2016].

<sup>47</sup> F. Martel, *Africa: Myth of Magical AIDS Cure Fuels Sexual Assault of Albino Women*, <http://www.breitbart.com/faith/2016/06/08/witchcraft-fueled-albino-killings-reaching-record-levels-africa/> [access: 08.06.2016].

transmission of HIV. As FGM damages body parts secreting moisture, injuries might occur in genital regions during sexual intercourse triggering HIV transmission.<sup>48</sup> It has been forbidden in 20 African countries since 1997.

### Cultural Rejection of Condom Usage

In certain countries that accept Islamic belief, for example Somalia, the Ministry of Health has stated that condom usage is 'inconvenient' according to religion and culture. Also, the attitudes of the Catholic Church about the ineffectiveness of the condom as protection from AIDS pose serious obstacles in the fight against HIV.<sup>49</sup> There are many weird ideas promoting unprotected sexual intercourse. For example, the presence of various gold mines in Burkina Faso, one of the countries in West Africa most affected by AIDS, attracts many prostitutes. Miners believe that those not using condoms during sexual intercourse will find gold more easily.<sup>50</sup> On the other hand, they do not talk about sexuality with their wives or other for cultural and religious reasons. Men in Africa do not lean toward using condoms.<sup>51</sup> The necessities of fighting AIDS and traditions are in conflict.<sup>52</sup> It is not possible for women to buy condoms from the markets. Prostitutes do not care to use condoms since they earn less money when they use them. Efficient methods have been sought to break down cultural resistance and to generalize the use of condoms for protection. An example of this, a propaganda-piece called *Condom Nation Tour*, was performed as street theatre in Swaziland reaching thousands of people every week.<sup>53</sup>

The hope is the mobilization of medication against AIDS. Because these medications can reduce virus numbers to one in ten thousand transmission rates are also decreased. An important study was performed at North Carolina University. A total of 1,763 couples with an HIV-positive partner in South America, Asia and Africa have been investigated since 2005. Couples were informed about safe

<sup>48</sup> World Health Organization, *Eliminating Female Genital Mutilation: An interagency statement: OHCHR, UNAIDS, UNDP, UNECA, UNESCO, UNFPA, UNHCR, UNICEF, UNIFEM, WHO*, World Health Organization, Geneva 2008.

<sup>49</sup> Vatikan: *Kondome schützen nicht vor AIDS*, 09.10.2003, [www.netzeitung.de](http://www.netzeitung.de) [access: 22.11.2016].

<sup>50</sup> *Kampf gegen Tabus – Aids in Burkina Faso*, 08.10.2016, <http://www.dw.com/de/kampf-gegen-tabus-aids-in-burkina-faso/a-35996445> [access: 10.10.2016].

<sup>51</sup> U. Meissner, H. Metlitzky, *op. cit.*, p. 136.

<sup>52</sup> E. Y. Tenkorang, S. O. Gyimah, E. Matlicka-Tyndale, J. Adjei, *Superstition, Witchcraft and HIV Prevention in Sub-Saharan Africa: The Case of Ghana*, "Culture, Health & Sexuality: An International Journal for Research, Intervention and Care" 2011, Vol. 13, No. 9, pp. 1001–1014.

<sup>53</sup> I. Roze, *Wanderlust: South Africa is Condom Nation*, GlobalPost, 18.11.2010, <http://www.pri.org/stories/2010-11-18/wanderlust-south-africa-condom-nation> [access: 21.12.2016].

sex and were given free condoms. However, only two groups received AIDS medication. Of the HIV-negative couples, 28 were infected with HIV during the experiment. The partners of twenty-seven of them belonged to the group not using AIDS medication.<sup>54</sup> The findings of the study showed that unprotected sexual intercourse is responsible for 80% of new infections. 50 million condoms are imported by Uganda annually, which is the effective result of campaigns promoting protection.<sup>55</sup> Uganda is the first to show interest in women's condoms among African countries.<sup>56</sup>

### Male Circumcision and AIDS

Male circumcision is the excision of the foreskin from the human penis and thus the permeable inner surface of the skin is removed and the incidence of virus transmission during sexual intercourse is reduced by 60%. Therefore, physicians think that circumcision is a necessity (medical male circumcision).<sup>57</sup> In 2007, the World Health Organization (WHO) and UNAIDS recommended voluntary medical male circumcision (VMMC) for the prevention of HIV.<sup>58</sup> However, circumcised men must also use condoms or the threat will not disappear.

Men are also under sexual threat in Africa. There are men and boys whose penises are cut off by healers to make medication.<sup>59</sup>

<sup>54</sup> M. S. Cohen, Y. Q. Chen, M. McCauley, T. Gamble, M. C. Hosseinipour, N. Kumarasamy, J. G. Hakim, J. Kumwenda, B. Grinsztejn, J. H. S. Pilotto, S. V. Godbole, S. Mehendale, S. Chariyalertsak, B. R. Santos, K. H. Mayer, I. F. Hoffman, S. H. Eshleman, E. Piwowar-Manning, L. Wang, J. Makhema, L. A. Mills, G. de Bruyn, I. Sanne, J. Eron, J. Gallant, D. Havlir, S. Swindells, H. Ribaudo, V. Elharrar, D. Burns, T. E. Taha, K. Nielsen-Saines, D. Celentano, M. Essex, T. R. Fleming, *Prevention of HIV-1 Infection with Early Antiretroviral Therapy*, "The New England Journal of Medicine" 2011, Vol. 365, No. 6, pp. 493–505.

<sup>55</sup> U. Meissner, H. Metlitzky, *op. cit.*, p. 117.

<sup>56</sup> F. Deniaud, *Current Status of the Female Condom in Africa*, "Santé: Cahiers d'études et de recherches francophones" 1997, Vol. 7, No. 6, pp. 405–415.

<sup>57</sup> M. J. Wawer, F. Makumbi, G. Kigozi, D. Serwadda, S. Watya, F. Nalugoda, D. Buwembo, V. Ssempijja, N. Kiwanuka, L. H. Moulton, N. K. Sewankambo, S. J. Reynolds, T. C. Quinn, P. Opendi, B. Iga, R. Ridzon, O. Laeyendecker, R. H. Gray, *Circumcision in HIV-Infected Men and Its Effect on HIV Transmission to Female Partners in Rakai, Uganda: A Randomised Controlled Trial*, "Lancet" 2009, Vol. 374, No. 9685, pp. 229–237.

<sup>58</sup> World Health Organization, *Voluntary Medical Male Circumcision for HIV Prevention*, 2012, [http://www.who.int/hiv/topics/malecircumcision/fact\\_sheet/en/](http://www.who.int/hiv/topics/malecircumcision/fact_sheet/en/) [access: 21.12.2016].

<sup>59</sup> *Als "Hexenkind" verstoßen: Das grausame Schicksal eines Zweijährigen geht um die Welt*, Salzburg24, 17.02.2016, <http://www.salzburg24.at/als-hexenkind-verstossen-grausames-schicksal-eines-zweijaehrigen-/4626557> [access: 10.11.2016].

### Traditional Sympathy Towards Wonder Drugs

In Europe we live in comfortable and safe conditions thanks to scientific developments and enlightenment in recent years. It is easy to be interested in superstitious beliefs and to dignify them in such an atmosphere because we are doing so in a developed civilization and safe environment. We live in conditions that rescue us when we stumble against any problem.

However, the conditions of various countries in the world are not the same as in Europe. It is not dangerous for adolescents who are feeling blue to light black candles and to experience love potions from teen magazines because they sympathize with witches, it is simply foolish. But being a witch in Africa is still dangerous as they can be traced and killed. We buy herbal medicines arbitrarily for common colds or headaches from a pharmacy but we can easily consult a physician when we encounter a serious problem. The situation is not same in most regions of Africa. The problem is not just the catastrophically bad healthcare conditions in most of Africa. It is also because the frequency of severe diseases, such as AIDS, is very high. Therefore, when someone publicizes a pseudo drug, the negative results will be far beyond expectations. When a President says that AIDS is cured by an ointment, a drink or a prayer, the seriousness of superstitious belief will have effects far beyond those in Europe.

Rumors might prevent the regular use of medication by HIV infected people. When a priest claimed that he had found a medicine for AIDS in Tanzania, he was besieged by patients many of whom discontinued their proper treatments and started to use his medicine instead. Although AIDS drugs are relatively cheap in Africa, the price remains expensive for the patients and they stop taking medicine after a couple of months. The habit of using herbal medicines instead of consulting a doctor when symptoms appear is common.

The President of Gambia, Yahya Jammeh, applied a green ointment to patients' skin and said that it would cure AIDS.<sup>60</sup> The President claimed that this ointment and a drink consisting of bananas and herbs would eliminate HIV, which infects more than 30 million people, within a couple of weeks. Since the words of the President gave false hope to patients, this condition caused annoyance among physicians because patients thought that this new medicine was superior to the therapy recommended by the doctors. In traditional communities, there is always doubt and a distancing from modern medicine. However, a stand against modern medicines from a President based on superstitious beliefs costs lives. Although there is no effective treatment for AIDS, the invasion of viruses

<sup>60</sup> B. Dürr, *Gambias Präsident schwört auf eine Paste gegen Aids*, "Zeit Online", 30.01.2013, <http://www.zeit.de/wissen/gesundheit/2013-01/afrika-aids-klinik-naturheilmittel> [access: 21.10.2016].

can be prevented using the proper combination of antiretrovirals and a person can continue his daily life normally. Therefore, patients must follow their therapy plans rigorously. The other advantage is the reduction of the infectious potential of patients in whom the virus load is decreased by these drugs. Of course, not all African people drink chicken blood, cripple or sacrifice albino children, lean towards female circumcision or go on witch hunts. However, as seen in the example of the President of Gambia, the effects of subliminal suggestions of the elite are indicators of the high prevalence of superstitious beliefs in Africa.

Antiviral therapy against AIDS is always expensive due to patented medications. The generic manufacture of the medication is possible thanks to patent permission so that they can be sold at lower prices. For example, while medical insurers pay €1,200/month for AIDS medicines in Germany, similar treatment costs €80 in an undeveloped country.<sup>61</sup> In order to use these drugs in Africa, government supported programs have recently been undertaken for ART and great efforts made to persuade patients to use their medicines regularly.<sup>62</sup> However, the lack of education causes irregular use of medications and thus resistance to antiretrovirals, which creates the need for new drug combinations. An example of a country applying the policy of "carrot and stick" to the regular use of medicines is Lesotho in Southern Africa. An HIV positive patient states that "I understood the given information" and "I'll practice safer sex" in front of a commission comprising four people (a physician, an advisor, a social service specialist and a priest) and makes a promise to use the medication regularly. The money required for medication and transportation is then given to him/her.<sup>63</sup>

### Superstitious Beliefs about Animals

New superstitious beliefs are added to old ones. As a result of one, a large number of giraffes were killed because of the belief that their brains and spinal cords prevent HIV infection and cure AIDS.<sup>64</sup> It is well-known that animal drugs are added to medications prepared by community doctors.

<sup>61</sup> M. Ermert, *Afrika braucht neue Medikamente*, "Zeit Online", 01.12.2009, <http://www.zeit.de/wissen/-gesundheit/2009-11/patente-aids> [access: 21.12.2016].

<sup>62</sup> Ibidem.

<sup>63</sup> T. Willke, *Afrikanische Lösungen*, "Bild der Wissenschaft" 2006, No. 3, p. 23, [http://www.bild-der-wissenschaft.de/bdw/bdwlive/heftarchiv/index2.php?object\\_id=30601106](http://www.bild-der-wissenschaft.de/bdw/bdwlive/heftarchiv/index2.php?object_id=30601106) [access: 21.12.2016].

<sup>64</sup> M. Odenwald, *Gorillas werden Köpfe und Hände abgehackt – als Trophäen*, "Focus-Online", 02.05.2015, [http://www.focus.de/wissen/natur/tiere-und-pflanzen/artenschutz/gorillas-werden-koepfe-und-haende-abge-hackt-als-trophaeen-das-sterben-der-grossen\\_id\\_4644913.html](http://www.focus.de/wissen/natur/tiere-und-pflanzen/artenschutz/gorillas-werden-koepfe-und-haende-abge-hackt-als-trophaeen-das-sterben-der-grossen_id_4644913.html) [access: 09.10.2016].

## Conclusion

Various religious and cultural beliefs create significant obstacles to fighting AIDS in Africa. However, some of these beliefs also create hope in the desperate struggle against AIDS. Africa received the greatest blow from the HIV epidemic but struggling for the prevention of dread diseases has gained ground anyhow with the slogan "Getting to Zero".<sup>65</sup> The number of new infections has been reduced by 90% in Ethiopia.<sup>66</sup> HIV and tuberculosis tests were performed on as many people as possible. Thus, these people received therapy more quickly and their infectiousness was widely prevented as a result of the reduction in the viral load in their blood. Since the success of the fight against AIDS in Africa carries special difficulties, the continent still needs global projects and financial support.

## Abstract

Various religious and cultural beliefs create significant obstacles to fighting AIDS in Africa. However, some of these beliefs also create hope in the desperate struggle against AIDS. Africa received the greatest blow from the HIV epidemic but struggling for the prevention of dread diseases has gained ground anyhow with the slogan "Getting to Zero". The paper analyzes the situation and various medical and socio-cultural factors according to the HIV epidemic in Africa with conclusions for further activities and what should be done to overcome this situation.

**Key words:** HIV, AIDS, epidemy, Africa, socio-cultural background

<sup>65</sup> B. Dürr, *Kampf gegen Aids in Afrika. Epidemie am Wendepunkt*, "Spiegel Online", 30.11.2013, <http://www.spiegel.de/gesundheit/diagnose/kampf-gegen-aids-in-afrika-epidemie-am-wendepunkt-a-929873.html> [access: 21.12.2016].

<sup>66</sup> Ibidem.

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## Development of Research on Ebola Virus: Search for the Causes of the Outbreak and the Sources of Infection, Methods of Prevention and Diagnostics

### Introduction

The aim of the study is to determine the image of Ebola virus, the causes of the pathogen spread and the outbreak of epidemics, as well as the development of research on the virus, methods of diagnostics and prevention. The reviewed material included both contemporary and historical sources: scientific publications of the last 10 years, Pubmed database, public opinion surveys, news articles from daily papers, WHO reports. Methods of comparative qualitative analysis of the source literature were used.

The Ebola virus (EboV), former nomenclature – Zaire Ebolavirus – belongs to the Zaire Ebolavirus viral species, genus and family Ebolavirus Filoviridae (filoviruses), Mononegavirales order.<sup>1</sup> Its genetic material is single-stranded RNA of negative polarity. Its shape resembles a twisted baton. It consists of 7 proteins – minimum one of them responsible for suppression of the immune system. Among these, matrix protein VP40 plays a decisive role in binding of the virus on the surface of human cells.

There are currently five known species of the genus Ebolavirus:

- Zaire ebolavirus,
- Bundibugyo ebolavirus,
- Sudan ebolavirus,
- Taï Forest ebolavirus
- Reston ebolavirus – causing hemorrhagic fever only in monkeys and not dangerous to humans.<sup>2</sup>

<sup>1</sup> World Health Organization, *Ebola Virus Disease: Fact Sheet*, 2014, <http://www.who.int/mediacentre/factsheets/fs103/en/> [access: 27.07.2014].

<sup>2</sup> K. Pancer, W. Gut, B. Litwińska, *Filowirusy – wirusy obecne od milionów lat – dlaczego teraz wybuchła tak wielka epidemia?*, "Postępy Mikrobiologii" 2016, Vol. 55, No. 2, pp. 205–214