International Baccalaureate

Extended essay cover

SAMPLE A

Diploma Programme subject in which this extended essay is registered: Biology

(For an extended essay in the area of languages, state the language and whether it is group 1 or group 2.)

Title of the extended essay: Is There an Ethnic Bias to the Diagnosis of HIV/AIDS?

Candidate's declaration

If this declaration is not signed by the candidate the extended essay will not be assessed.

The extended essay I am submitting is my own work (apart from guidance allowed by the International Baccalaureate).

I have acknowledged each use of the words, graphics or ideas of another person, whether written, oral or visual.

I am aware that the word limit for all extended essays is 4000 words and that examiners are not required to read beyond this limit.

This is the final version of my extended essay.

Candidate's signature: _____ Date: Jan 16/09

IB Cardiff use only: A: [illegible] B: _____

Supervisor's report

The supervisor must complete the report below and then give the final version of the extended essay, with this cover attached, to the Diploma Programme coordinator. The supervisor must sign this report; otherwise the extended essay will not be assessed and may be returned to the school.

Name of supervisor (CAPITAL letters) _____

Comments

Please comment, as appropriate, on the candidate's performance, the context in which the candidate undertook the research for the extended essay, any difficulties encountered and how these were overcome (see page 13 of the extended essay guide). The concluding interview (viva voce) may provide useful information. These comments can help the examiner award a level for criterion K (holistic judgment). Do not comment on any adverse personal circumstances that may have affected the candidate. If the amount of time spent with the candidate was zero, you must explain this, in particular how it was then possible to authenticate the essay as the candidate's own work. You may attach an additional sheet if there is insufficient space here.

7

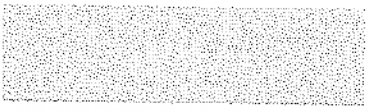
no comment

I have read the final version of the extended essay that will be submitted to the examiner.

To the best of my knowledge, the extended essay is the authentic work of the candidate.

I spent [4] hours with the candidate discussing the progress of the extended essay.

Supervisor's signature: _____ Date: Feb 27/09



Is There an Ethnic Bias to the Diagnosis of HIV/AIDS?

RQ - does not lend itself to systematic investigation.

the essay contains many unsupported connections and is not an "investigation" as such.

the essay does not address the RQ.

Word Count: 3202
Subject: Biology
IB Session Number:

Abstract:

There seems that particular racial groups are disproportionately affected by HIV, which may suggest that the HIV diagnosis may be ethnically biased. My research question for this extended essay is: Is there an underlying ethnic biased to the diagnosis of HIV/AIDS? I will explore in this essay the validity of saying whether HIV/ AIDS is ethnically biased. From my research, I have found, that the diagnosis of HIV/AIDS is, in fact, not ethnically biased but due to an individual's behaviour. People living in different regions of the world experience and live in different social, economic environments that ultimately have great influence over their behaviours. I have analysed global statistics, from which I will focus on factors, which contribute to the risk of HIV infections. For each nation or region, these factors will be different, suggesting why some ethnicities are more affected by the HIV epidemic than others. I will address the following factors, each with a different focus: economic situation in developed and developing countries, the African American crisis in the US, times of political instability, sexual behaviour, women, inequality and high-risk groups in the US including homosexuals and injection drug users. All in all, HIV/AIDS is a sexually transmitted disease, and it depends on the individual's own approach to sexual intercourse, or other means of infection, that will determine his/her risk of contracting the HIV/AIDS.

You do not say enough about how you conducted the research

Table of Content

largely correct.

Introduction:

The Acquired immunodeficiency syndrome, more commonly know as AIDS is caused by the human immunodeficiency virus or HIV. The HIV virus is found in the body fluids of an infected person and the ways of transmitting the virus include through sex, sharing of needles, and via certain exposure to body fluids or blood.

Since its first public acknowledgement in June of 1981, HIV/AIDS has taken the lives of over 20 million people globally.[1] According UNAIDS census report of 2008, close to 40 million people are living with HIV. This global epidemic is not only merely seen in the virus itself, but the extent of its bearings on the human population is seen through the faces of men, women, children, fathers, mothers, sons, daughters, family and friends.

HIV/ AIDS, an unprecedented crisis, is the tragedy of our century, testing the essence of human strength, determination and courage. It is evident that there are many more people in Sub-Saharan Africa (22.0 million) are living with HIV/Aids, than other

[1] Whiteside, Alan, "HIV/AIDS a very short introduction" P.4.

countries or regions of the globe.[2] In North America and Western and Central Europe 2 million people are living with HIV/ AIDS and in Asia, 5 million.[3] [4]

From the statistics showing the varying number of people diagnosed with HIV/AIDS from across different regions of the global and ethnic backgrounds, it has been often wondered whether there is an underlying ethnic biased to the diagnosis of HIV/AIDS.

are you saying that aids is more often/more diagnosed in certain ethnic groups than in o

Are African people more greatly affect with HIV/ Aids and people of other races less affected because of racial factors or ethnicity? Or are there some other reasons of explaining this lapse in the behaviour of this virus?

biological?

argument is unclear here.

Context:

It is crucial in the understanding the transmission of HIV that there is a biological influence involved. That it depends on the sub-type of the HIV virus and the genetic makeup of the individual, which influences one's susceptibility to the virus when it exposed.[5] Although this may be the case, it must be understood that HIV/AIDS is a sexually transmitted disease. For the biological factors to come into play, it is ultimately up to the individual's behaviour that is the prime determinant of his/her initial risk and susceptibility to contracting the virus in the first place.

?

When it is asserted that HIV/AIDS is of ethnic origins, it simply puts the human population in groups, based on racial stereotypes.

very unclear

where is this asserted.

?!?

but know what you mean

[2] 2008 Report on the global AIDS epidemic P.214
[3] 2008 Report on the global AIDS epidemic P.229
[4] 2008 Report on the global AIDS epidemic P.219
[5] Whiteside P.41.

Saying that HIV/AIDS is ethnically biased, in other words, is stating that for example, the whole entire African population will eventually contract HIV/AIDS, seeing from today Africa has such high rates of HIV/AIDS. On the other hand, seeing that Oceania has a low rate of HIV/AIDS, we are basically stating that most of the population is immune to the virus. This is defiantly not true and is similar to the common myth that HIV/AIDS is a homosexual disease and that heterosexual intercourse will not result in the diagnosis of the virus.[6]

The HIV virus, a blood born infection, does not discriminate based on racial background or ethnicity. We must look away from such data, which when seen at face value may seem that way. Instead we should look deeper and into the underlying reasons which increase the risk of an individual's exposure and contracting the HIV virus.

It is important that each person ought to be looked at individually. From my research, I have discovered that it is one's own behaviour that affects their risk and vulnerability of contracting HIV/AIDS.

According to the 2008 Report on the global AIDS epidemic, risk is defined as the 'probability or likelihood that a person may become infected with HIV' and vulnerability is defined as the 'result from a range of factors outside the control of the individual that reduce the ability of individuals and communities to avoid HIV risks.'[7] I acknowledge that in certain regions and countries more vulnerability prevails, and thus to an extent, one's risk to HIV increases. As a result, the HIV/AIDS global statistics show this distortion.

[6] Engel, Jonathan, "The epidemic a global history of aids." P.6.
[7] 2008 Report on the global AIDS epidemic P.65.

What then are the factors, if not ethnic, that increases one's risk to the HIV virus? The primary factors are social and economical, including poverty, lack of education, lack of access to health care, social stigma and myths and inequality and sexual behaviours. And in many ways, these factors are intertwined.

academic content is unclear at best.

Factors that influence people's behaviours

Economic

Developing Nations:

When looking at the economic trend and its correlation to the diagnosis of HIV/AIDS, over 90% of infections have occurred in developing countries.[8] Regions of immense poverty are more greatly affected by HIV/AIDS such as Sub-Saharan Africa. In most cases disease thrives in these poorer nations.

Although it is behaviour that determines one's risk of HIV/Aids infection, behaviour results much from the economic environment which people live. As a result people are forced into making choices for survival. Abject poverty such as lack of access to clean water, safe daily practices in living, and those who are ill nourished, living in crowed and inadequate housing are more susceptible. Not only is Sub-Saharan Africa dealing with a more vicious subtype of the HIV, but also they lack accessibility to prevention, treatment and care effort. Consequently, the HIV/AIDS epidemic is magnified.

In South Africa, for example, where 5.7 million people are living with HIV/AIDS, there is the presence of a large workforce in the mining industry. Due capitalism and the

[8] Leone, Daniel, "The Spread of AIDS." P.19.

history of colonialism within South Africa, black people were highly exploited and were classified as migrants within their own country. Black people dislocated by the economic condition, living apart from their family, lack power and control over their lives. As a result, these people who cannot maintain healthy relationship in life, where living is cheap and a struggle.[9] There remains a lack of pleasure and has been a strong correlation of the rapid transmission of the STD, particularly HIV/AIDS.

Developed Nations

When accessing an individual's risk of contracting HIV/AIDS, in countries such as the United States and Canada, different economic and social factors must be taken into account.

Although in the general population of middle class, heterosexual individuals, the spread of HIV infection is low, there is a high risk factor for potential exponential growth in such nations. It has been reported that the general population in the US claim to have an average of 9.8 to 11.5 sexual partners annually. In such cases, as there is greater contact with a wide range of individuals within the population, risk of HIV infection greatly increases. It has to be clarified that people living in developing nations, that it is not the case. In Africa, HIV tends to spread into population least affected in the US, such as those who are educated, middle class and heterosexuals.[10] But living conditions of the middle class are extremely devastating compared to that of the US. Similarly, in India,

[9] Whiteside P.50.
[10] Engel P.212.

where heterosexual sex is prominent, risky behaviours within the population may induce a rapid spread of HIV/AIDS. [11]

Developed Nations-African Americans

In high-income countries and regions such as North America the risks of contracting HIV/AIDS are different than those risks putting people in developing countries at risk. Similarly, in North America there has still been a strong connection of HIV/AIDS diagnosis with people living in the lower bracket of society.

In such countries, social behaviour and stigma usually result in increased risk of contracting HIV/AIDS. When looking back at the US population, it seems that two ethnicities are disproportionately affected by HIV/ AIDS: African Americans and Hispanics. African American account for 49% of AIDS diagnosis in 2006, yet they only account for only 12% of the American population. While Hispanic account for 19% of AIDS diagnosis, yet account for only 15 percent of the population. Altogether since 1990, African American and Hispanic represent only 19% of the American population, yet account for 80% of all AIDS patients. [12]

Although tempting to make the correlation of the high proportion of African Americans who are HIV infected to the major epidemic in Africa, supporting that the virus is ethnically biased. This is not really the case when assessing the social, economic and different risk factors that put African Americans at greater risk.

By no means by what has been listed below should apply to every individual but should used to answer the disproportion within the US population. The main reason,

[11] Stine, Gerald, "2004 AIDS update." P. 362.
[12] Engel P.160.

similar to the African epidemic of HIV/AIDS is that the African Americans are disproportionately poor.

According to the US census data on average, blacks are eight times poorer than their white counterpart. As a result of this poverty, consequences can be severe. Poverty within the African American community is greatly linked to lack of education and drug use, which put them at higher risk of engaging in risky behaviour. [13]

Furthermore, poverty is related to the lack of health care, as it is not affordable. Such consequences include that they do not go to the hospital not knowing that they are infected until they are terribly ill.[14] Due to this late diagnosis, it is obvious that not only did these people infection many others, but also they themselves lead shorter lives.

In addition to this fact there are other social stagnations in the black community, which contribute to the rapid spread of the HIV virus. For example, there is a high stigma against homosexual blacks, resulting in reluctance to come out as openly gay. Such case, result in black homosexuals having both a female partner yet still secretly having sex with another man. As a result, both the male individuals and their the female partners, not knowing the truth, are put at greater risk of infection. [15]

With a long history of slavery, racism, and poverty in the African American Community, some of the current generations of African American, are unfortunately influence by their past. Such factors may lead to the loss of priority for protection during instant sexual gratification. Recent CDC study has shown that 68% blacks students have

[13] AIDS and HIV information from the AIDS charity AVERT: http://www.avert.org/hiv-african-americans.htm

[14] AIDS and HIV information from the AIDS charity AVERT: http://www.avert.org/hiv-african-americans.htm

[15] Engel P. 160

engaged in sexual intercourse before the age of 18 while this is true for only 43% of white students. [16]

As for the Hispanic population living in the US, similar factors including poverty, lack of access to education, health care and stigma for homosexuality have led to high HIV infection rates. Defiantly it is not of racial or ethnic reasons such disproportions may result, but in most developed nations, it is people who are disadvantaged or live in poverty are at higher risks for HIV infections.

Political Instability

Similar to economic reasons, which lead to great risk of HIV infection, during times of political upheaval and chaos, findings conclude similar results. For example, after the collapse of the communism in the Soviet Union, many people were affected with their disappearing benefits for health care, assured employment, housing, education and so on. In Ukraine, for example, the GPD per capital fell 6,372 US to 3,194 per capital. [17] What corresponded was a societal chaos, such as alcohol abuse, drug use, high crime rates and high-risk sexual activity. HIV, of course, increased drastically during these times. During these times, the young, homosexuals and drug users were the most affected.

[16] 'Youth Risk Behavior Surveillance - United States, 2005' CDC MMWR Weekly, 9 June 2006, 55(SS05).

[17] Whiteside P.94.

Sexual Behaviour

By far the major reason for the rise of the HIV reaching a pandemic, are result of people's sexual behaviour, which may be influence by personal experience, culture and other social or economic factors. If individuals abstained from sex or practiced polygamy, which is sticking to one infected partner and remaining mutually faithful[18], then HIV/AIDS will have not reached to such a point of a global epidemic. When the number of sexual partners increase, rates of infection increases correspondently.

For example, Men in Thailand and Rio de Janeiro, where infection rates are 1.4% and 0.5% respectively, it has been reported that they are much more likely to have five or more sexual partners than men regions where HIV/AIDS greatly prevail such as Tanzania, Kenya and Lesotho where infection rates are 6.5%, 6.1% and 23.2% respectively.[19] Thus, Thailand and Rio de Janeiro, although infections rates are low now have a high risk of HIV/AIDS boom in the future.

Regardless of social and economical conditions, each individual has a certain amount of choice, which may decrease or increase his/her risk to HIV infection. On a worldwide basis, a proportion of HIV positive people have been infected due to engaging in high-risk sexual practices, particularly engaging in unprotected sex. Practicing safe sex by using condoms can greatly reduce the risk of contracting HIV/AIDS.

Women

When considering sexual behaviours of men and women, women are more likely to contract HIV during sexual intercourse than men. This is due to biological reasons and

[18] Kalichman, Seth, "Positive Prevention," P.65
[19] Whiteside P.53

that the woman is the recessive partner. The younger the woman beings to engage penetrative sex, the greater her risk of HIV infection because her virginal lining is subject to greater tearing[20], thus allowing an opening for the virus to enter.

Recent surveying has also shown that the age of sexual debut in Africa is age 15.5 for women while in the USA it is 17.3. Not only is Africa experience such a huge epidemic, but also such young ages of women to engage in sexual increases their risk of HIV infection. But many times, particularly, in these African countries and many others including Middle East countries, there present high gender inequality.

Inequality

Usually this inequality issue boils down to human rights. The lack of respect for human rights, or in many cases treating women as inferiors is a major risk factor in HIV/AIDS infection.

As mentioned above, a woman's biology puts her at greater risk of HIV infection when engaging in sex. The lack of respect for human rights is very often seen through rape and sexual abuse or sexual pressure. It has been reported that in South Africa that 28% of females and 16% males confessed that they 'did not want' to have their first sexual intercourse.[21] Furthermore, in many countries, for example in Zambia 15% of females were forced into having their first sex.

Not only are women powerless in these situations, but also these acts are usually done with much older men, who have had many different sexual partners. For example in many parts of Africa and the Middle East, young girls ages 4-8, when vaginal intercourse

[20] Whiteside P.42.
[21] Whiteside P.52.

is impossible are subject to anal intercourse[22]. This is clearly an outrageous violation of human rights, exemplifying the many horrific atrocities commit and sadly many young women have to live with it for the rest of their lives not only emotionally from the trauma, but physically from possible contraction of STDs such as HIV/AIDS.

Furthermore, the anus lining is much susceptible to tearing than that of the virginal intercourse, therefore, compounding the risk of HIV among these unfortunate girls.

Education

It is also very important to note that education plays a major factor in reducing HIV/AIDS by influencing people's behaviours and daily choices and helping people take precautions when engaging in sexual intercourse.

In Africa there is a lack of risk reduction counselling, usually similar cases in developing countries where less money can be geared into the fight against HIV/AIDS.

From recent surveying, it is found that the majority of the population in China does not know what causes HIV/AIDS or how to prevent it.[23] Often enough there is a much stigma and myths involved. When is the government is not addressing the HIV/AIDS epidemic face on, this posses great problems.

Thus, in countries such as China, without proper education and prevent methods to reduce infection, there is a great chance that China, with the world's largest population can be the next Africa in the HIV/AIDS epidemic.

[22] Leone P.20.
[23] Stine P.365.

Identified High Risk Groups (US)

When looking at wealthy nations, such as the US, the government has identified high risk groups, usually where the disease is confined to: homosexual men, infection drug users, heterosexual partners of injection drug users, haemophiliacs, and child with HIV infected mothers.[24]

Homosexuals

When looking at HIV/AIDS statistics in the US, a particular trend arises. Men who have sex with men (MSM) have a higher risk of HIV/AIDS infection due to sexual behaviours.

Statistics show that in 2006 48% of HIV infections in the US were the result of homosexual sex. Yet only 5-7% of the population identify themselves as gay.[25]Homosexuals, like many others at risk groups, are disproportionately due to not race or ethnicity, but a gamut of factors including higher prevalence of unprotected sex, casual partners than their heterosexual counterparts, and social stigma. Since in 1981, when HIV/AIDS was first identifying, where almost 100% of infections were among the gay community that HIV/AIDS has been identified as a gay disease. This is a big myth.

But like a risk factors, an individual's behaviour is the main contributor. HIV/AIDS is not contagious and since it is spread sexually, the more sexual partners that one has the greater the risk. This is primarily the case among homosexuals. It has reported that MSM are more likely to meet on the Internet for causal sex, and engage in unprotected anal sex, which greatly increase the risk of HIV infection.[26]

[24] Kalichman P.234
[25] AIDS and HIV information from the AIDS charity AVERT: http://www.avert.org/aidsyounggaymen.htm
[26] CDC (2007, June) *HIV/AIDS among men who have sex with men*

Similarly, anal sex, in general, prose a high risk to HIV infection due to the delicate lining of the anal tissues. Furthermore, social stigmas surrounding homosexuality have induced homosexuals to feel a low level of self worth, thus, they are more likely to engage in drug use, alcohol and unprotected sex. Survey has shown that in large cities in the US 48% of MSM were unaware of their infection[27], therefore, facilitating a rapid spread of the virus.

Injection Drug Users

Since 1981, 25% of all HIV infections were transmitted through injection drug use. This transmission is due to the sharing syringes and needles, in which the virus can be easily transmitted from drug user to drug user via blood. Furthermore, when the virus is transmitted via IDU, non-infected sexual partners are at a high risk of contracting HIV.

As to the other two high-risk groups identified by the US government, haemophiliacs, and child with HIV infected mothers; it is more about prevention than behavioural causes. Since the 1990s with the advancements in screaming blood products and drugs to prevent mother to child transmissions, HIV infections via this route has reduced immensely.

[27] MMWR (2008, 27th June) *Trends in HIV/AIDS diagnoses among men who have sex with men – 33 states, 2001-2006*

Conclusion:

From the evidence above, it is clear that the diagnosis of HIV/AIDS is not of ethnic biased, but as a result of behaviours that affect an individual's risk of contracting HIV/AIDS.

Africa, where HIV/AIDS has originated the virus has already spread to the general population. The HIV epidemic, in Sub-Saharan Africa, has already become part of life. If social condition or economic conditions do not change, there may be continue rise in HIV cases.

Similarly in developed nations, poverty, not ethnicity is linked to HIV infection, for example, the black community in the US. The spread of HIV can be seen as an exponential graph, where the more people that are infected the greater the potential growth. Overall, behaviour leads to the risk of HIV infection. But in many countries still, gender inequality and the lack of human right have forced many to engage in sexual behaviours that put them at greater risk. Correspondently, if people either remained abstinent, or only practice polygamy, with an uninfected partner, then HIV/AIDS would have rose to such an epidemic. But currently, our global society is quiet always from reaching this goal, as there is still a strong presence of promiscuity and gender inequality, which sadly, corresponds high HIV/AIDS cases.

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Assessment form (for examiner use only)

Candidate session number	0	0							

Assessment criteria		Achievement level: First examiner	maximum	Second examiner
	A research question (answered at beginning)	0	2	0
	B introduction	1	2	1
	C investigation	2	4	1
	D knowledge and understanding	2	4	1
	E reasoned argument	1	4	1
	F analysis and evaluation	1	4	0
	G use of subject language	1	4	1
	H conclusion	1	2	1
	I formal presentation	1	4	2
	J abstract	1	2	1
	K holistic judgment	0	4	1
	Total out of 36	11 ✓		10 ✓

Name of first examiner: _____ Examiner number: _____
(CAPITAL letters)

Name of second examiner: _____ Examiner number: _____
(CAPITAL letters)