

# To assess AIDS awareness among the educated community of Lahore and Gujranwala, Pakistan

**Objective:** To assess AIDS awareness among the educated community of Lahore and Gujranwala, Pakistan.

**Design:** Cross-sectional qualitative study.

**Methods:** A questionnaire was designed with the study objectives and distributed to the educated community of Lahore and Gujranwala, gathering the information including, demographic details (name, age, sex, and level of education), HIV-related knowledge (modes of transmission, prevention, and treatment), attitudes and risk perception. The reason for selecting the educated community was that they are the pioneer to educate and council illiterate communities. The results were recorded and data were analyzed.

**Results:** 68.78% respondents have knowledge about the basics of AIDS, including, causative agent, and origin, behavior of society towards AIDS patients and incubation period of HIV/AIDS. 69.2% respondents have correct knowledge about modes of transmission of HIV/AIDS. 78.75% respondents are aware of prevention and treatment. 81% respondents think that media is playing some role in awareness about AIDS.

**Conclusion:** Although respondents demonstrated a high level of knowledge concerning AIDS and HIV, considerable misconceptions were also noted. A need was felt to enhance awareness programs among educated community members of two different cities. There is an intense need for a mass media campaign against AIDS.

**Keywords:** HIV • AIDS • Prevention • Transmission • pathogenesis

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## Introduction

Acquired Immune Deficiency Syndrome (AIDS) is a collection of symptoms and infections resulting from the specific damage to the immune system caused by the Human Immunodeficiency Virus (HIV). The pandemic of Human Immunodeficiency Virus (HIV) infection continues to involve different parts of the world. On a worldwide basis, over 40 million men, women, and children are infected at present with HIV [1]. Pakistan has been identified as one of the few countries in Asia having extremely low HIV prevalence but it is considered a high-risk country [2]. The fear of an expanded HIV epidemic is primarily due to segments of the Pakistani population engaging in high-risk practices, a low level of public knowledge about HIV/AIDS, and dangerous blood transfusion and inoculation practices. An additional concern is Pakistan's geographic proximity to India, a country that has experienced a rapid rise of HIV/AIDS (by the end of 1994 the World Health Organization (WHO) estimated that there were 1750000 cases of HIV in

India [3]. There were an estimated 74,000 people living with HIV/AIDS at the end of 2003 in Pakistan [4].

The main routes of transmission of HIV into the body are through sexual contact, contaminated blood transfusion, or from mother to babies (via birth &/or breast milk). AIDS, however, primarily remains a sexually transmitted disease as about 90% of total worldwide reported cases contracted the virus through sexual contacts. Female commercial sex workers are an identified high-risk group for the spread of HIV/AIDS [5].

In the absence of preventive and curative medicines for HIV/AIDS, education remains the most important method for the preservation of public health. The most important is to educate health care providers about different aspects of this syndrome giving particular attention towards modes of transmission, preventive measures against AIDS, and to counsel patients about avoiding risks that might lead to infections. Various studies have been performed regarding awareness of AIDS in medical respondents [6,7]. Perhaps

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they are a key tool to educate the public. This study was designed to assess the extent of awareness amongst the educated community of Lahore and Gujranwala, so that appropriate steps could be taken to provide essential education and training to prepare them for dealing with HIV infected individuals.

### Materials and Methods

The study was carried out in August-September 2020. A qualitative type, the intervention-cross sectional study design was adopted. A simple probability random sampling procedure was selected. The study population was the educated community of Lahore and Gujranwala. A total of 500 respondents were included in the study.

After an extensive literature review was conducted, a questionnaire was designed to assess various aspects of HIV/AIDS awareness. The questionnaire contained questions regarding transmission, prevention, and treatment. The respondents were also asked about the role of the media contributing to HIV/AIDS awareness.

The questionnaire was distributed to respondents under close supervision.

### Results

A total of 500 respondents were surveyed. Among those, 98.80% have heard about the word AIDS. When asked about status only 38% gave the correct response. 58.4% of the respondents believed that AIDS is a disease. The awareness about the causative agent was 77.40%. A majority

86.4% of respondents agreed that the behavior of society is not accepted towards AIDS patients. You can get HIV from getting a tattoo or through body piercing according to 62.8% respondents, while 35.6% were unaware of this fact. AIDS is more common in adults according to 89.2% respondents. When asked about origin only 36.8% answered correctly. 88.20% of the respondents were aware of the last stage of AIDS. The knowledge regarding the incubation period of HIV was low, only 28.6% were well informed. A detailed evaluation of the general knowledge status about AIDS is given in Table 1 (Figure 1).

Community awareness about HIV/AIDS prevalence was low (35.2%). Only 40.4% were aware of the infected population in Pakistan (Table 2) (Figure 2).

About 71.8% of the total population knew that apart from sexual contact it can be transmitted by blood, and 80.6%

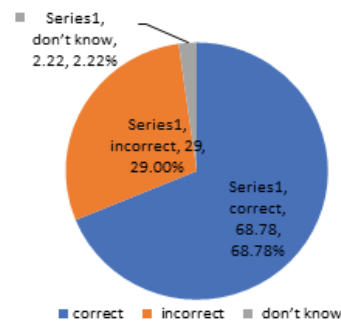


Figure 1: General Knowledge.

Table 1			General Knowledge		
Questions asked			Correct	Incorrect	Do not know
1. Have you heard about AIDS?			494(98.80)	6(1.20)	0(0)
a. Yes					
b. No					
2. What is AIDS?			190(38)	292(58.40)	18(3.60)
a. Disease					
b. Syndrome*					
c. Do not know					
3. What is the causative agent?			387(77.40)	107(21.40)	6(1.20)
a. Bacterium					
b. Virus*					
c. Fungus					
4. What is the behavior of society towards AIDS patient?			432(86.40)	64(12.80)	4(0.80)
a. Accepted					
b. Not accepted*					
5. Can you get HIV from getting tattoo or through body piercing?			314(62.80)	178(35.60)	8(1.60)
a. Yes*					
b. No					
6. In which age group AIDS is more common?			446(89.20)	47(9.40)	7(1.40)
a. Neonates					
b. Adults*					
7. What is the origin of AIDS?			184(36.80)	311(62.20)	5(1)
a. Animal*					
b. Human beings					
8. Does AIDS affect immune system?			408(81.60)	80(16)	12(2.40)
a. Yes*					
b. No					
9. What is the last stage of AIDS?			441(88.20)	51(10.20)	8(1.60)
a. Permanent physiological loss					
b. Permanent anatomical loss					
c. Death*					
10. Time period of HIV to develop			143(28.60)	314(62.80)	43(8.60)
a. Immediately					
b. 10 days					
c. 10 years*					
<b>Total</b>			<b>3439(68.78)</b>	<b>1450(29)</b>	<b>111(2.22)</b>

believed that it can be transmitted by mothers to fetus also. Only 46% were aware about the transmission of HIV from mother to child by breast milk. Awareness that the disease does not spread by saliva and sweat was 63.8%. 84.20% respondents were well informed that HIV is not spread by touching the patient or by sharing the utensils unless there were open sores in the mouth etc. (Table 3) (Figure 3).

When asked about treatment and vaccination of HIV/AIDS, 68.8% to 77% answered correctly. Health care

professionals should be consulted in case of HIV positivity according to 74.8% respondents. The majority of the respondents (94.40%) believed blood should be examined before transfusion (Table 4) (Figure 4).

According to 91.6% of respondents, the media plays a significant role in promoting HIV/AIDS awareness. According to 83.60% of respondents, information about HIV/AIDS in Pakistan is not sufficient. 67.8% were unaware of any HIV/AIDS control program in Pakistan (Table 5)

**Table 2.** Prevalence of AIDS among community

Table II			Prevalence among community		
Questions asked			Correct	Incorrect	Do not know
11. Which sub-continent has the largest no. of cases?			176 (35.20)	310 (62)	14 (2.80)
a. Asia	b. America	c. Africa*			
12. How many individuals are infected in Pakistan?			202 (40.40)	268 (53.60)	30 (6)
a. 10,000	b. 80,000*				
Total			378 (37.8)	578 (57.8)	44 (4.4)

**Table 3.** Transmission and spread of AIDS

Table III			Transmission and spread		
Questions asked			Correct	Incorrect	Do not know
13. Which body fluid transmits HIV?			359 (71.80)	138 (27.60)	3 (0.60)
a. Blood	b. Sexual secretion	c. Both*			
14. Can HIV be transmitted from mother to child at birth?			319(63.80)	167(33.40)	14(2.80)
a. Yes*	b. No				
15. Dose HIV spread from causal contact such as shaking hands, drinking from same glass?			421 (84.20)	78 (15.60)	1(0.20)
a. Yes	b. No*				
16. In whom AIDS is more common?			359 (71.80)	138 (27.60)	3(0.60)
a. Girls	b. Boys	c. Both*			
17. Do you think AIDS is only spread by sex?			330 (66)	164 (32.80)	6 (1.20)
a. Yes	b. No*				
18. HIV is not spread by:			403(80.60)	94 (18.80)	3(0.60)
a. Saliva	b. Sweat	c. Both*			
19. Can HIV be transmitted from mother to child via breast milk?			230 (46)	264 (52.80)	6 (1.20)
a. Yes*	b. No				
Total			2421 (69.2)	1043 (29.8)	36 (1.0)

**Table 4.** Prevention and Its treatment options

Table IV			Prevention and Treatment		
Questions asked			Correct	Incorrect	Do not know
20. Is there any vaccine for HIV/AIDS?			385(77.00)	113(22.60)	2(0.40)
a. Yes	b. No*				
21. Have you heard about any treatment of HIV/AIDS?			344(68.80)	152(30.40)	4(0.80)
a. Yes*	b. No				
22. If HIV +ve then to whom should consult?			374(74.80)	101(20.20)	25(5)
a. Health care professional*	b. Spiritualist				
23. Do you think there should be complete blood examination before blood transfusion?			472(94.40)	26(5.20)	2(0.40)
a. Yes*	b. No				
Total			1575(78.75)	392(19.6)	33(1.65)

Table 5. Role of media in AIDS				
Table V		Role of media		
Questions asked		Correct	Incorrect	Do not know
24. Is media playing any role in awareness about AIDS?		458(91.60)	40(8)	2(0.40)
a. Yes*	b. No			
25. Is there any AIDS control program running in our country?		339(67.80)	156(31.20)	5(1)
a. Yes*	b. No			
26. Information about AIDS in your country is sufficient or not?		418(83.60)	80(16)	2(0.40)
a. Sufficient	b. Not sufficient*			
<b>Total</b>		1215(81)	276(18.4)	9(0.6)

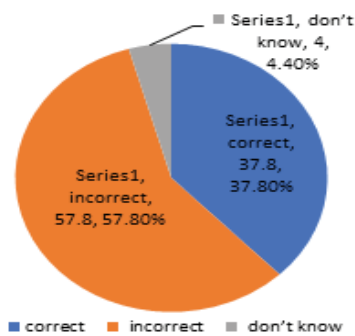


Figure 2: Prevalence for community.

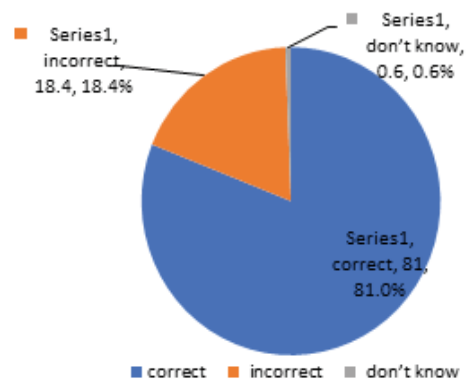


Figure 5: Role of media.

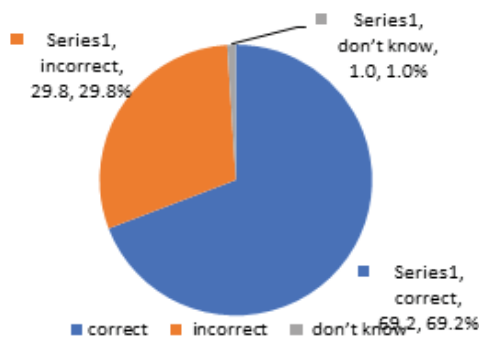


Figure 3: Transmission and spread.

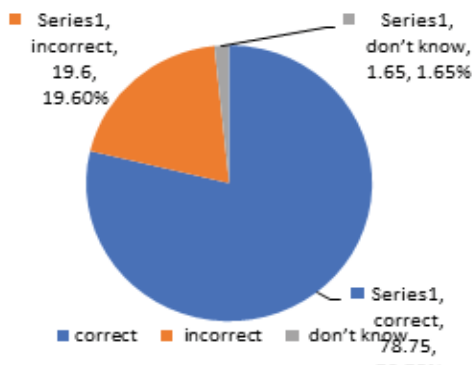


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When asked about treatment and vaccination of HIV/AIDS, 68.8% to 77% answered correctly. Health care professionals should be consulted in case of HIV positivity according to 74.8% respondents. The majority of the respondents (94.40%) believed blood should be examined before transfusion (Table 4) (Figure 4).

According to 91.6% of respondents, the media plays a significant role in promoting HIV/AIDS awareness. According to 83.60% of respondents, information about HIV/AIDS in Pakistan is not sufficient. 67.8% were unaware of any HIV/AIDS control program in Pakistan (Table 5) (Figure 5).

### Discussion

The results of the survey offer insight into the knowledge, attitude, and behavior of the community with regards to transmission, prevention, and treatment of HIV/AIDS. The information can be utilized to conduct large community-based surveys in order to improve knowledge about HIV and, the behavior of the community towards AIDS patients.

HIV/AIDS is a preventable disease. The awareness, attitudes, and behaviors of the younger population are one of the major targets to prevent further HIV infection. The results of this survey showed that the knowledge about AIDS in the study population was satisfactory on many issues relating to public health. Foremost of these is the realization that AIDS is a threat in Pakistan.

The results of this survey showed that the general knowledge about HIV/AIDS in the study population was satisfactory i.e. 68.78% respondents have awareness in the area of general knowledge. In 14 countries with high awareness, 90% or more of those with no education have heard of "AIDS" [8]. Only 29% respondents answered incorrectly about general knowledge. The respondents who were confused or don't know were only 2.2%. From the above results, we can conclude that there is a great need to educate the general community about the origin and the incubation period of the HIV to AIDS virus.

It was disappointing that a substantial number of respondents didn't know about the sub-continent having the largest number of cases. An estimated 4.7 million South Africans are HIV positive, and there are an estimated 1700 new cases daily [9]. In general, only 37.8% respondents were aware of the prevalence of HIV/AIDS among the community. Pakistan is a Muslim country and Muslim countries are free from HIV infection because of observance of religious codes more strictly in their societies. Pakistan's response to HIV & AIDS began in 1987 with the establishment of a Federal Committee on AIDS (FCA) by the Ministry of Health, soon after the first case of AIDS was reported [10].

Most of the respondents (69.2%) were aware of modes of transmission of AIDS, 29.8% respondents have incorrect information, 1% of respondents didn't know about the transmission and spread of HIV. A survey was conducted in the medical college of Rawalpindi [11] and it was concluded that 96.4% respondents were knowledgeable about the modes of HIV transmission. In another study conducted at the Medical University of Karachi regarding knowledge about Hepatitis and HIV/AIDS, it was concluded that 95% of respondents knew blood transfusion was an important source of transmitting these infections [12]. The survey also revealed important areas where students lack awareness about modes of transmission, such as the fact that breastfeeding can cause infection. Women can transmit HIV to their fetuses during pregnancy or birth. In a study involving female college respondents, it was determined

that this population shows a relative lack of awareness about modes of HIV transmission, the preventive role of condoms, and the role of drugs in limiting viral transmission [13].

A need is felt to educate the local community about transmission of AIDS, 78.75 % respondents were aware of prevention and treatment of disease but 19.60% were unaware of it.

There is neither a cure for AIDS nor a vaccine for HIV [14]. Different efforts have been made for the development of a vaccine for HIV/AIDS but clinical trials have not yet established satisfactory results. An experimental AIDS vaccine failed to protect most high-risk people [15].

For AIDS there is no treatment. The primary goal of treatment is to strengthen the immune system and reduce the viral load for as long as possible by inhibiting viral replication [14]. 68% respondents were well aware of this fact, but others need to be educated.

Overall 81% of respondents from the educated community of two cities were aware of the role of media and 18.4% were not. Different AIDS control programs are running in Pakistan, but according to our study, only 67% of respondents were aware of these programs. A reason for this low percentage may be due to the fact that most individuals in Pakistan aren't exposed to the media. A study about the awareness of HIV/AIDS in Bangladesh revealed that individuals who regularly watch TV were 8.6 times more likely to be aware of AIDS compared to those who never watch TV [16]. This area needs further improvement. Electronic media is the major source of information for most of the population.

Moral, social, cultural, religious, political, and economic factors need to be taken into consideration when dealing with the HIV/AIDS epidemic.

## Conclusion

Respondents demonstrated a high level of knowledge concerning AIDS and HIV. However, considerable misconceptions regarding all methods of transmission were present. The results of this study suggest a need for further HIV/AIDS education and awareness programs for the entire community of Lahore and Gujranwala. Universities, colleges, schools, offices, and banks would be some of the proposed places to conduct education programs with the aim of reaching the greatest numbers of people.

### Executive summary

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**Methods:** A questionnaire was designed with the study objectives and distributed to the educated community of Lahore and Gujranwala, gathering the information including, demographic details (name, age, sex, and level of education), HIV-related knowledge (modes of transmission, prevention, and treatment), attitudes and risk perception. The reason for selecting the educated community was that they are the pioneer to educate and council illiterate communities. The results were recorded and data were analyzed.

**Results:** 68.78% respondents have the knowledge about the basics of AIDS, including, causative agent, and origin, the behavior of society towards AIDS patients, and incubation period of HIV/AIDS. 69.2% respondents have correct knowledge about modes of transmission of HIV/AIDS. 78.75% respondents are aware of prevention and treatment. 81% respondents think that media is playing some role in awareness about AIDS.

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