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ज्ञानेन शीलम

ARIBAS

COHORT special

Quest

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Editorial

In this 21st century, on one hand Google is prepping arsenal for digital war and on the other hand there are people who neglect HIV AIDS patients. Sure the world has reached MARS, but people's mind set can still be considered vintage. Red Ribbon Club (RRC) is working towards spreading awareness in the society for developing a positive approach towards AIDS patient. And we are honored to say that ARIBAS is a part of it. We have been regularly organizing COHORT event for spreading the message and encouraging budding scientists in and around Anand. Every year we host a healthy crowd of participants spanning from poster presentation to rangoli, essay writing to slogan making.

“A small step for man. Giant leap for mankind.”

-Neil Armstrong

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Index

A journey of Red Ribbon Club	5
A personal experience of being a member of RRC	9
Plant species found which can inactivate HIV	10
Researchers Demonstrate ‘Guided Missile’ Strategy to Kill Hidden HIV	11
Myths about AIDS	12
Prevalence of HIV in the world	14
HIV in pregnancy	15
Essays on ‘HIV and society’ & ‘Autobiography of HIV sufferer ‘	18

Notice to Authors

Manuscripts submitted to Quest should adhere to below mentioned criteria.

Research News: About 400 words (1 page)

Research Article: About 2000 words (4 pages)

Common for all: -

Font: Calibri

Font Size: 14

Columns: 2

Line Spacing: 1

Margin: Narrow

References: 1) In text citing, S No, Superscript.

2) Author’s name (s), *Journal name*, **Volume No**, Page No, (year).

Article title Name of the author* Affiliation	
Abstract	
Article	
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A journey of Red Ribbon Club

“Because we are young, live with dreams, so much to lose and so much to gain, So much to fight for and so much to CHANGE !!”

Red Ribbon Club (RRC)

Red Ribbon Club-ARIBAS is a youth driven club which is envisaged to instill among all the students in the educational institutions values of service, develop healthy life styles, and increase availability of safe and adequate quantities of blood to all the needy by promoting volunteer blood donation. We also aim at harnessing the potential of the youth by equipping them with correct information on mental health, substance abuse, nutrition and reproductive health and building their capacities as peer educators in spreading message on positive health behavior in an enabling environment.

The club is run by student volunteers and aims to serve various purposes like awareness against drug abuse, substance abuse, anti-AIDS campaign, blood donation etc. We believe that if our youth arise and acts, they have the strength and dynamics to generate huge transformation in the society.

We also believe today’s youth are seeds of tomorrow’s empowerment and change and hence we believe they are the potential unused resource which can be trained and utilized for societal change.

Another chief purpose is the empowerment and overall development of youth. ‘Getting to zero’, in terms of HIV prevalence is our ultimate goal. Removing social and religious stigma and Getting to Zero is our primary objective by giving a helping hand in the WHO and UNAIDS 5 year mission of “getting

to Zero” in terms of Zero new infection, Zero undiagnosed and Zero death from HIV infection.

Objective of the club

- Tutelage to youth for the development of life skills that will render them a better healthier life.
- Increasing the capacity of the education system in teaching, training of various basic health aspects and helping the adolescents and youths for achieving positive health.
- To ensure that every college going youth in the state is equipped with conceptual knowledge about various basic health aspects which he may possibly encounter during his life.
- To motivate youth and build their capacity as peer educators and change agents by developing their skills on leadership, negotiation, and team building.
- Promote Regular voluntary blood donation by young people and increase access to safe and adequate quantities of blood.
- To develop essential skills to cope up with the adverse conditions pertaining to health specifically, supporting young people...
- To dispel myths and clarify misconceptions regarding various health issues and events specifically HIV and STD.
- And to find out a way where they can identify various health problems and can fight them out.

Training of the peer educators and volunteer

Red Ribbon Club came into existence in the year 2008 where two ARIBAS faculty, **Dr. Rajiv Vaidya** and **Dr. Devjani Chakraborty** have been acting as pioneer leaders. The two

faculties along with two student volunteers namely Rachna Patel and Yash Pandya underwent 3 days training offered by Gujarat State Aids Control Society (GSACS) that was held at Shree Krishna Medical Hospital, Karamsad. The same training continued in the year 2009 and 2010 where 5 students in both years took peer educator training under the same banner. Thereafter a number of students were trained within the college by peer educators.

At present the club has more than 85 volunteers and the number is still increasing. Volunteers are trained and are working for the noble cause of awareness among the rural and urban population about AIDS and other such diseases that the society is facing and among them the major target population is again the youth.

COHORT-A PRULUDE

Cohort means a group of people like a cohort philanthropist who share a common characteristics and experience. We named the event COHORT because the main idea behind this event was to target a group of people suffering from HIV/AIDS, thalassemia or any blood related disorder by disseminating the knowledge about the disease along with other humanitarian events which is needed to inculcate the values of social welfare among Youth.

It started in the year **2011** with 152 student's participants of ARIBAS College, 250 + students and faculties from different colleges and cities participated in **Cohort-2012**. This included following activities:

Poster presentation, Cartooning, Rangoli, T-shirt painting, Body painting, Floromenia, Ad-

enactment, Essay and poetry writing, Elocution, Photography contest, Treasure hunt.

We were constantly helped by Shree Krishna Medical hospital for conducting the different events. Dr. Sunil Trivedi has given valuable piece of advice and support whenever needed. With their support we conduct free HIV testing where 40 volunteers underwent free test.

As an activity of **Cohort-2013**, we visited different schools of nearby localities namely Bhramjyot(Mogri), R.P.T.P. School of secondary education (motabazar, Vallabh Vidyanagar), V and C Patel english medium School (Bhaikaka,Vallabh Vidyanagar), Kendriya Vidhyalaya(A.V.Road, Vallabh Vidhyanagar) where e address more than 300 students from Gujarati as well as English medium were the target. Following activity we conducted with them.

- A scientific and lucid presentation/talk about all the details of the transmission, spread and the prevention of the disease.
- HIV test kit demonstration (for removing the fear of the test and for providing the students the precise knowledge of the subject).
- An open discussion and question-answer session for eliminating the myths welling up in the youth.
- Questionnaire (filled in by the students, a test of the knowledge they have gained in the complete campaign.)

Cohort-2014 was again conducted targeting school students from 9th to 12th standard to increase their knowledge about HIV/AIDS and Thalessemia and make them aware about

List of events conducted year wise.

Sr. no	Year	Events conducted.
1.	2009	5 students +2 faculties got peer educator training Poster presentation on HIV/AIDS, its prevalence, its transmission and myths among students. Skit on HIV/AIDS transmission and social acceptance. Blood donation camp
2.	2010	5 students +2 faculties got peer educator training. Poster exhibition on drug and substance abuse and HIV/AIDS in new vidyanagar. Skit on drug abuse Drama and play on HIV /AIDS story in front of 800 students and their family. Radio program for AIDS awareness in university community radio 90.4 FM, Anand District. Blood donation camp
3.	2011	COHORT -2011 (details enclosed) which targeted 150 students with different competition to promote AIDS awareness. Essay competition, story writing, poem writing, slogan writing and cartooning competition sponsored by Gujarat State AIDS Control Society (GSACS) Radio program on tobacco chewing habits and its lethal effect. A guest lecture on Blood donation and Thalesamia by Dr.Monika Gupte.
4.	2012	COHORT- 2012 (details enclosed) which targeted 275 students of more than 20 colleges of different courses like science, commerce and arts and of different language like English, Hind, Gujarati. 12 different competitions were conducted promoting HIV/AIDS , thalesamia, STD's, drugs and substance abuse and healthy food habits Free HIV diagnosis and testing in collaboration with Shree Krishna Medical Hospital, Karamsad. Blood donation camp.
5.	2013	Anti-AIDS awareness campaign in 5 different schools of English and Gujarati medium both to spread awareness among school kids of class 10+2 Radio intervention program on AIDS and its lethal effects on university community radio 90.4 FM, Anand District. Blood donation camp

their responsibility towards society by making them participate in different activities and competitions. To our surprise, students turned out to be quite interactive and enthusiastic who probably will take this task ahead.

Events conducted.

Under the guidance of Dr.Rajiv Vaidya and Dr. Devjani Chakroborty number of events were conducted all aiming to promote healthy social environment and inculcate the values of healthy lifestyle among youth. The events

conducted were financially supported by GSACS and ARIBAS jointly.

RRC- A practical teacher

They say “**experience is the best teacher**” and this has proved equally correct in my case. I am Student Coordinator of RRC from last five years and have conducted many events under the guidance of Dr. Devjani Chakroborty and Dr. Rajiv Vaidya. Working for this club I discovered my real potential.

I am sincerely thankful to the club coordinators, college Director Dr.Nilanjan Roy and fellow volunteers for always supporting me, guiding me and helping me whenever I come up with new idea. Any idea is lame until executed in a proper way. My ideas were always welcomed and worked upon for the betterment of society. I have acquired the skills of planning, execution, management like time management, manpower management, resource management, finance management and many others.

Leadership quality and confidence level was very well enhanced while working for the club. The club has also given me a wide area of networking. Interacting with different

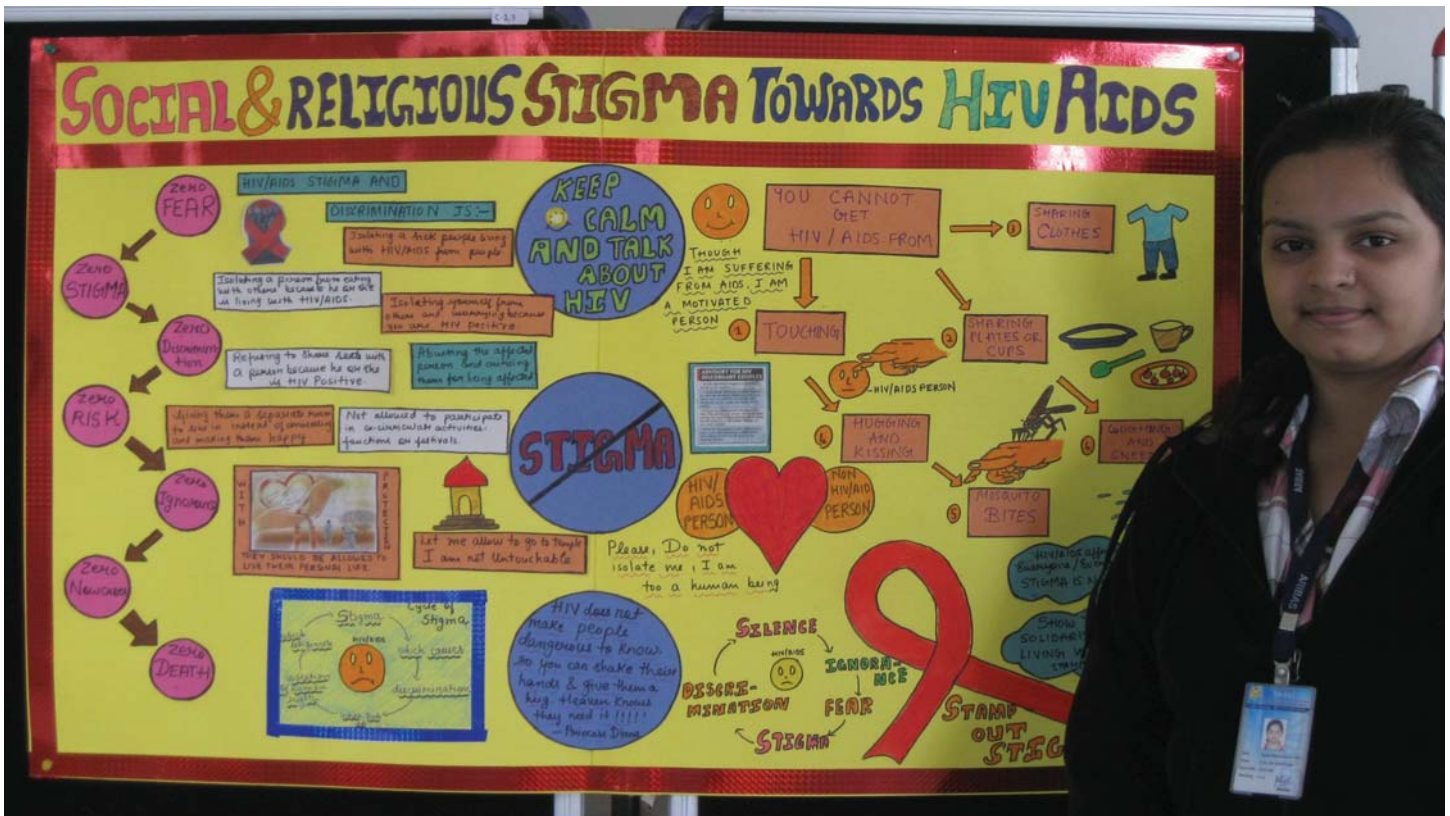
doctors, academicians, students, volunteers and social workers from different NGOs has always ameliorated my existing knowledge and has polished me intellectually.

Word thank you is not enough to show my gratitude towards the club but I will be always glad to work for the same no matter how distance apart I m. It's the club that has made me who I m today.

Just a last message for all the budding youth, we have an immense potential to bring change in our society, use it for the betterment of the society and be a cause behind change.

Let's unite for better tomorrow.

Contributed By Pooja Makwana IG-MBT 10th sem



A personal experience of being a member of RRC:

I, Prachi Doshi, is an active member of ARIBAS-RRC past 4 years. My journey began in 2010 when I was selected to be a part of a workshop held on “HIV-AIDS” awareness organized by Red Ribbon Club (RRC) under Gujarat State AIDS Control Society (GSACS).

The aim of the workshop was to educate potential students to make them the best “Peer-Educators”- a person who belongs to an equal basis as other group members but who is trained to bring about change in knowledge, attitude, beliefs and behavior, experience at individual level amongst his or her group members.

During this I underwent training for 3 days where I was given knowledge on HIV-AIDS, sexually transmitted diseases, thalassemia, alcohol and other drug abuse, sexual health, sexual assault prevention, stress management and more. Fortunately I was able to meet sufferer of AIDS and it opened my eyes, the way they were living, social stigma facing by them, gender based discrimination and the rejection of sufferer among our own community. Here, I learnt that “There is a huge gap between Society and individual learners”, an individual must learn in order to serve the society. I built confidence in public speaking, to raise voice against violence, against injustice and to look in to different small issues which need to be taken in consideration in order to educate our own community.

I came to know the social values and duties, duty towards the community, to take personal responsibility, developed ability to act in professional and ethical fashion. I started seeing everyone around me as my brothers and sisters no matter what race,

age, sexual orientation, gender identity or culture. I realized that everyone has feelings, and should be treated with respect. I cultivated both compassion and do good karma through volunteer service. I could see that every day, provides opportunities to help people with little things, to cheer people up who are sad and struggling, to talk with someone who is lonely and much more. This takes no special talent, only a desire to do service, and it contributes to the society in a meaningful way.

The moment I got trained as “Peer Educator” I talked to my classmates, we made a group of 15 people and decided to educate our friends, family, society by doing several activities. We organized our first event at ARIBAS named COHORT- which means a group of people suffering from same disease. While educating co-mates I built leadership quality which has made me now an “intentional learner”.

When we were working with each other I learnt to focus on each and every small thing to make a successful event, to have a effective problem-solving approach, to appreciate one’s own quality, to seek for mutual support/understanding, to adjust myself with everybody in every situation, to be a punctual, to do something new or think out of the box and to create a happy environment to live in, in order to accomplish goal with the support of all members. I have started to celebrate other’s victories and good qualities, even when I do not feel as blessed as they do.

The biggest lesson I can ever have is that “You will start to be a better person when you can put smile on someone’s face and make his or her day, and it will make yours as well. It has been said that,” We receive what we get” and

this club taught me the true meaning of sharing, caring and loving selflessly.

A note to my fellow mates pursuing to be a “peer-educator”:

- Share your own moral values to your fellow mates to be a good person. Sometimes you will feel as if your effort is in vain, but soon you will realize that you have planted a good seed in their minds, and they’ll take some time to respond to it.
- Every day, try to do an act of charity for someone else, even if it's something small.
- When you are dealing with complex issues of the society try to look at the bright side of things. A very famous saying of Christopher goes as: "It is better to light a single candle than it is to curse the darkness." Be that light. When you see controversy or something bad that is happening in society, try to be the one to

solve the problem. Ask everyone to get involved for the welfare of our community.

- Don't try to be like somebody else; just be yourself and help as many people as u can.
- Immerse yourself in the service of other people; this is one of the key of happiness for me.
- Remember that being a good person is harder than being a bad person, so never take the easy way out.

Lastly I would like to say thanks to Dr. Rajiv Vaidya and Dr. Devjani Chakraborty for making me what I am today. I express my gratitude to them for giving me opportunity to become a “peer-educator” in order to serve the society.

I would like to conclude by saying that “ Real life is found in using our own gifts and talents rather than over focusing on the gifts

Plant species found which can inactivate HIV

Helmholtz Zentrum Muenchen- German research centre for environmental health has shown that, PELARGONIUM SIDOIDES- a GERANIUM PLANT, the extracts of which can inactivate human HIV type I. And also can prevent the virus from invading human cell. The scientists reported that these extracts contain anti- HIV I agents.

The root extracts of this medicinal plant PELARGONIUM SIDOIDES (PS) contain

compounds that attack HIV I particles and prevent their virus replication. The scientists at German research centre also demonstrated that, the extracts of this PS, protect blood and immune cells from infection by HIV I and also blocks the attachment of virus particles to host cell.

When the chemical analysis of PS was done it revealed that their antiviral effect is due to polyphenols. In Germany PS extracts are licensed as a herbal medicine and also used to reduce symptoms of acute bronchitis.

Contributed By Nikita Bhat IGBT 4th sem

Researchers Demonstrate 'Guided Missile' Strategy to Kill Hidden HIV-10th Jan- 2014

Researchers at the UNC School of Medicine have deployed a potential new weapon against HIV – a combination therapy that targets HIV-infected cells that standard therapies cannot kill.

Using humanized bone marrow/liver/thymus in mice – or BLT mice – i.e. entire immune systems composed of human cells. Researchers led by J. Victor Garcia, PhD, found that an antibody combined with a

infected cells is a major impediment to curing patients of HIV.

For people with HIV, ART is life-saving treatment that can reduce the amount of virus in the body to undetectable levels. But as soon as treatment is stopped, the virus begins to replicate again. This means that people with HIV must be on medications for life. For some people, therapies are not without serious side effects.

In patients on ART, the virus either remains dormant or it multiplies very slowly – it persists, hidden, even though a cocktail of drugs is aligned against it.

The researchers first treated the mice with an ART cocktail of three different drugs. Despite using strong concentrations of all three drugs, the researchers found that the virus managed to survive in immune cells in all tissues they analyzed, including the bone marrow, spleen, liver, lung, and gut.

Then they used a compound developed by co-authors Edward Berger, PhD, and Ira Pastan, PhD, from the National Institute of Allergy and Infectious Diseases (part of the National Institutes of Health). The compound is an antibody called 3B3 combined with a bacterial toxin called PE38. The researchers hypothesized that the antibody would first recognize cells expressing a specific HIV protein on the surface of infected cells. The antibody would attach to the protein and allow the toxin to enter and kill the infected cells.



bacterial toxin can penetrate HIV-infected cells and kill them even though standard antiretroviral therapy, also known as ART, had no effect. Killing these persistent, HIV-

While this reduction fell short of complete eradication, the finding offers a new route of investigation as part of the multi-pronged "kick-and-kill" strategy.

Contributed By Shirley Dixit IGBT 4th sem

MYTHS ABOUT AIDS

On a general aspect we all know little about AIDS, but the actual and important aspects about AIDS are not known to the general public who are the main sufferers of the disease. Only the literate people, scientists and biologists know about the disease, whereas the illiterate or unaware one's have themselves have assumed some rumours about AIDS. Basically, AIDS (Acquired Immuno Deficiency Syndrome) whose causative agent is HIV (Human Immuno Deficiency Virus) that enters the human body, lives and multiplies primarily in WBC (immune cells) which normally protects us from the disease. The virus leaves the person vulnerable to infection, illness ranging from pneumonia to cancer.

When someone with HIV begins to experience one or more these conditions or loses a significant amount of immune cells, they are diagnosed with AIDS. We have to spread awareness and not the terror about the disease. For nearly 30 Years, HIV and AIDS have been shrouded in myths and misconceptions. In some cases, these mistaken ideas have been prompted the very behaviours that cause more people to become HIV positive.

The myth's like one can get HIV by being around people who are HIV positive, HIV does not spread through touch, tear, sweat or saliva or not even by breathing in the same

air. Depending upon new drug: To some extent antiretroviral drugs are improving, but many drugs are expensive and produce serious side effects and drug resistance strains make treatment an increasing challenge. Next comes the myth that HIV spreads through mosquito, Insects do not inject the blood of the person or animal they have last bitten, also, HIV lives for a short time inside an insect. Further the myth that One under treatment cannot spread the virus: Treatments reduce the amount of virus in blood to a level so low that it does not show in blood test, but the virus is still in other parts of body. Also, people think that if both partners are affected no need to practice safe sex: wearing condom and dental dams protect both from becoming exposed to other potentially drug resistance strains of HIV.

The last myth being that the pharmaceutical industry's drive for high profits, together with its political power, means that pricing policies will never change to benefit poor people with AIDS in the developing world. Whereas the fact is that ARVs are becoming cheaper in the developing world and can become cheaper still.

If somehow we can demolish the myths and superstitions regarding HIV-AIDS from the minds of people, we can at least cure the AIDS socially.

Contributed By Varsha Shukla IGBT 4th sem

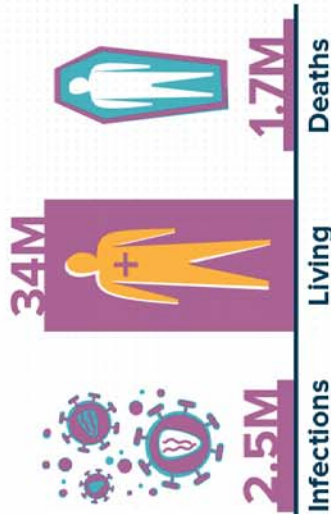
THE TOP 5 MYTHS ABOUT HIV/AIDS

Human Immunodeficiency Virus, or HIV, is a virus that targets the immune system and can lead to Acquired Immune Deficiency Syndrome, or AIDS. The global HIV/AIDS epidemic is our era's most deadly. The Centers for Disease Control and Prevention first documented AIDS cases in June of 1981. Since that time, AIDS has killed approximately 35 million. Today, nearly 1% of the world's population aged 15–49 years is HIV-positive.

1 That disease is so last century.

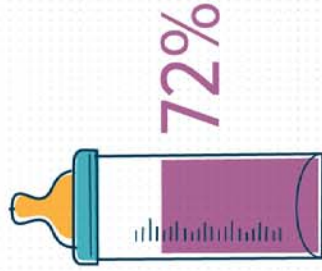
Our era's worst epidemic continues to expand.

For 2011, the global numbers of new HIV infections, HIV-positive individuals and AIDS-related deaths are:



2 No problem—they've got drugs for it.

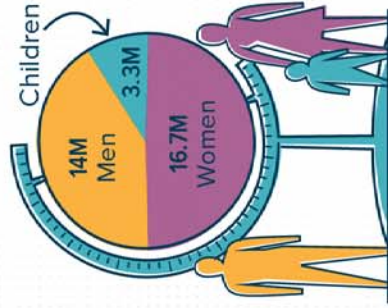
Anti-retroviral drugs (ARVs) have greatly reduced the suffering caused by HIV/AIDS, but those who can get ARVs are prematurely developing diseases associated with aging. And not everyone can get ARVs—especially those in the developing world, who are most affected by the disease.



Global percentage of HIV-infected children who are eligible for ARVs, but lack access to them.

3 Hey, but it's not my problem.

Look a little closer. HIV/AIDS cuts across nearly all demographics. Most new infections are transmitted heterosexually, about half of HIV-infected people are women, and children represent 13% of new infections.

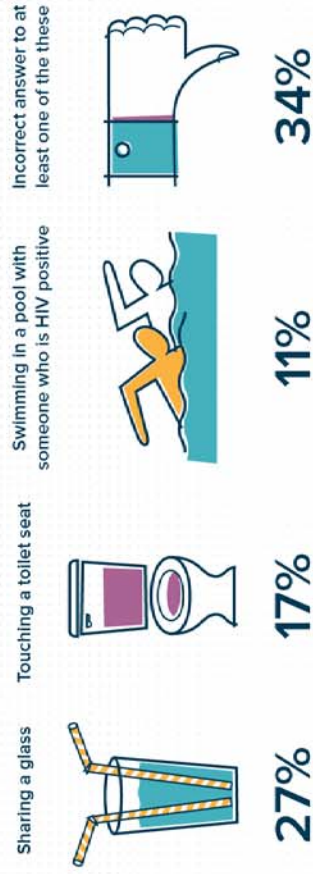


Those Living with HIV in 2011

4 Everyone who needs to know about HIV/AIDS already does.

Misunderstanding about and ignorance of HIV/AIDS are rampant. And what you don't know could kill you.

One-third of Americans harbor at least one misconception about HIV transmission. Percent who do not know that HIV CANNOT be transmitted by:

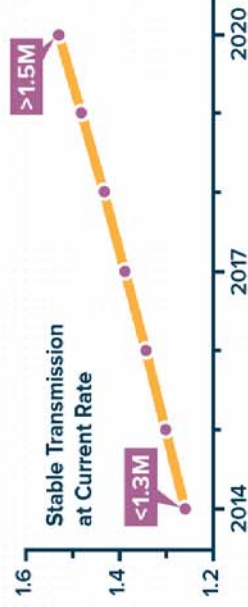


Percentage of young Americans (aged 13–24) living with HIV, but who are unaware of that fact.

5 We'll have an AIDS-free generation soon.

Great aspiration. But it won't work without new research, disease solutions and attitudes. Otherwise, the consequences could be devastating.

2020 Projected HIV Prevalence Number of People Living in the U.S. with HIV (Millions)



PREVALENCE OF HIV IN THE WORLD

About HIV

The **Human Immunodeficiency Virus (HIV)** targets the immune system and weakens people's surveillance and defense systems against infections and some types of cancer. As the virus destroys and impairs the function of immune cells, infected individuals gradually become immunodeficient. Immune function is typically measured by CD4 cell count. Immunodeficiency results in increased

	2001	2012
Adults and children living with HIV	30.0 million [27.2 million – 33.1 million]	35.3 million [32.2 million – 38.8 million]
Adults and children newly infected with HIV	3.4 million [3.1 million – 3.7 million]	2.3 million [1.9 million – 2.7 million]
% Adult prevalence	0.8 [0.7 – 0.9]	0.8 [0.7 – 0.9]
Adult and child deaths due to AIDS	1.9 million [1.7 million – 2.2 million]	1.6 million [1.4 million – 1.9 million]
Young people (15-24) prevalence (%)	Male 0.4 [0.3 – 0.5]	0.3 [0.2 – 0.4]
	Female 0.7 [0.7 – 0.9]	0.5 [0.4 – 0.6]

susceptibility to a wide range of infections and diseases that people with healthy immune systems can fight off.

The most advanced stage of HIV infection is **Acquired Immunodeficiency Syndrome (AIDS)**, which can take from 2 to 15 years to develop depending on the individual. AIDS is defined by the development of certain cancers, infections, or other severe clinical manifestations.

Key facts

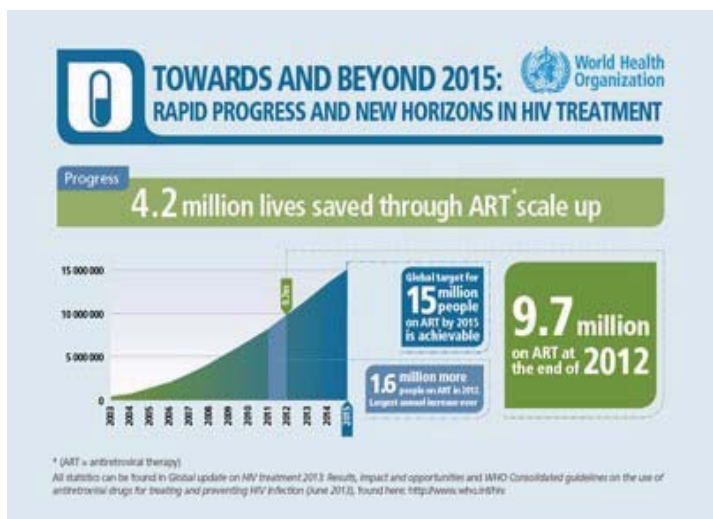
HIV continues to be a major global public health issue, having claimed more than 36 million lives so far.

- There were approximately 35.3 [32.2–

38.8] million people living with HIV in 2012.

- Sub-Saharan Africa is the most affected region, with nearly 1 in every 20 adults living with HIV. Sixty nine per cent of all people living with HIV are living in this region.
- HIV infection is usually diagnosed through blood tests detecting the presence or absence of HIV antibodies.
- There is no cure for HIV infection. However, effective treatment with antiretroviral drugs can control the virus so that people with HIV can enjoy healthy and productive lives.
- In 2012, more than 9.7 million people living with HIV were receiving antiretroviral therapy (ART) in low- and middle-income countries.

About 6300 new HIV infections a day in 2012 / About 95 % are in low and middle income countries / About 700 are in children under 15 years of age and about 5500 are in adults aged 15 years and older, of whom (almost 47 % are among women and 39 % are among young people 15 -24)



Contributed By Paloma Shah, Pratiti Amin & Jashkaran Gadhvi IG-MBT 10th sem

HIV in Pregnancy

The reduction in mother-to-child transmission of human immunodeficiency virus (HIV) is regarded as one of the most effective public health issues. In the absence of treatment, the risk of vertical transmission of HIV is as high as 25-30%. With the implementation of HIV testing, counseling, antiretroviral medication, delivery by cesarean section prior to onset of labor, and discouraging breastfeeding, the mother-to-infant transmission has decreased to less than 2%. Before the current treatment era, 100 babies were infected with HIV each year. Despite increasing HIV prevalence, that figure now stands at approximately 15 infants per year.

The rapid clinical implementation of research findings directed toward decreasing perinatal transmission is credited as the key to this accomplishment. In 1994, the Pediatric AIDS Clinical Trials Group (PACTG) protocol 076 demonstrated that the administration of zidovudine during pregnancy and labor and then to the newborn decreased the risk of perinatal transmission of HIV by 68%, from 25.5% to 8.3%. In the late 1990s, the combined use of 3 or more antiretroviral medications was found to be highly successful at suppressing viral replication.

The exact mechanism of mother-to-child transmission of HIV remains unknown. Transmission may occur during intrauterine life, delivery, or breastfeeding. The greatest risk factor for vertical transmission is thought to be advanced maternal disease, likely due to a high maternal HIV viral load. Unfortunately, about 30% of pregnant women are not tested for HIV during pregnancy, and another 15-20% receive no or minimal perinatal care, thereby allowing for

potential newborn transmission. More than 500,000 babies worldwide contract HIV from their mothers; 90% of these cases occur in developing countries. In 2005, AIDS claimed an estimated 2.4-3.3 million lives; more than 500,000 of which were children. One third of these deaths were in sub-Saharan Africa.

The Antiretroviral Pregnancy Registry, where clinicians should report cases of exposure to antiviral therapy in pregnancy, contains approximately 5,000 reported exposures and notes no increase in the congenital malformation rate with exposure to antiretroviral medications, even in the first trimester, with the exception of efavirenz. Early exposure to efavirenz has been associated with neural tube defects.

Concern was raised that antiretroviral therapy may increase the incidence of adverse pregnancy outcomes. Several studies have shown that zidovudine mono-therapy had no negative effect on pregnancy. Although data from cohorts in the United States have not shown an increased risk of preterm birth with combination therapy, a European collaborative study showed an increased risk of preterm labor in women infected with HIV who were taking combination antiretroviral therapy, with an odds ratio for preterm birth of 1.8 for combination therapy without a protease inhibitor and 2.6 for combination therapy that included a protease inhibitor.

In a US study of pregnant women infected with HIV, the overall rate of adverse pregnancy outcome, including prematurity, low birth weight, stillbirth, and abnormal. The risk of low and very low birth weight was greater in the group receiving a protease inhibitor. Furthermore, this may be a

reflection of higher viral load or advanced stage of disease rather than exposure to protease inhibitors. A large meta-analysis that included articles from several countries between 1998 and 2006 showed that overall, highly active antiretroviral therapy (HAART) did not increase the risk of prematurity; however, the use of regimens with protease inhibitors seemed to increase prematurity slightly.

A possible association exists between HAART and preeclampsia. The development of glucose intolerance may be more common in pregnant women with HIV. Originally thought to be associated with protease inhibitors, gestational diabetes appears to be somewhat increased regardless of the medication regimen. As such, during pregnancy, women should be screened and monitored for glucose intolerance.

Preliminary data suggest that women with HIV may suffer from sub fertility. Conception in couples who have never conceived may occur in a median of 6 months with 2 acts of intercourse during the ovulatory period of the cycle. With each act, the risk of sexual transmission must be considered even in the presence of an undetectable viral load. Conducting testing and considering reproductive techniques in women infected with HIV may be worthwhile in an effort to reduce the risk of infection to a healthy partner.

In couples planning a pregnancy where only the male partner is infected, natural conception carries a risk of sexual transmission to the uninfected female. Counseling provided to such couples should include strategies to minimize HIV

transmission. Options include adoption, sperm donation, and assisted reproduction techniques. While antiretroviral therapy can reduce viral load in the blood to undetectable levels, some reports have shown that men can still have a substantial viral concentration in semen in the presence of an undetectable plasma viral load.

All pregnant women should have their HIV sero status evaluated when they first present for prenatal care. The most common screening test is an enzyme-linked immunosorbent assay (ELISA), which looks for the presence of antibodies. A positive test is sent for Western blot. For the Western blot, specific viral proteins are separated by electrophoresis, and reaction of antibody to 3 proteins must occur for the test to be considered positive. For pregnant women infected with HIV, in addition to the standard prenatal assessment, continued assessment of HIV status is important. CD4⁺ counts, which help determine the degree of immunodeficiency. Viral load, determined by plasma HIV RNA copy number (copies/mL) assesses the risk of disease progression. Which is important in decisions regarding maternal treatment and delivery management. Other laboratory study should include lipid profile, ultrasound is important for determining treatment and planning delivery, hepatitis testing, opportunistic infection assessment, other sexually transmitted disease testing, and tuberculosis testing.

Vaccinations should be kept updated. During pregnancy, live attenuated vaccines (eg, measles-mumps-rubella [MMR], varicella vaccines) should be avoided. Annual influenza vaccine and pneumococcal vaccine

should be administered to all pregnant women who are HIV positive. The H1N1 influenza vaccine should be administered to all pregnant women and is safe in women with HIV.

For women who present in labor and have not had prenatal testing, rapid testing should be offered. The rapid HIV test is a blood or saliva antibody test and results are usually available within an hour. Patients who test positive in labor by ELISA should be treated as HIV positive until confirmatory results are available.

Mother-to-child transmission is linked to viral load. As such, antiretroviral therapy should be offered to all pregnant women infected with HIV to reduce the risk of perinatal transmission to below 2%. Combination antiretroviral therapy should be offered in all cases. As zidovudine (ZDV) is the only agent specifically shown to reduce perinatal transmission, it should be used whenever possible as part of the highly active antiretroviral therapy (HAART) regimen.

If a pregnant woman has received antiretroviral medication in the past but is not currently on any medication, the choice of regimen may vary according to the history of prior use, the indication for stopping treatment in the past, gestational age, and resistance testing. In this setting, if there is no resistance to the drugs and the regimen suppressed viral load, antiretroviral

medication can be used again, but avoid drugs with teratogenic potential or adverse maternal effects. If a patient who is on a HAART regimen presents for prenatal care, continuing her treatment during the first trimester is reasonable, provided that care is taken to avoid medications that are contraindicated in early pregnancy. HIV antiretroviral drug resistance testing is recommended if a viral load is detectable. Considerations of drugs not usually used early in pregnancy may be necessary if drug resistance is confirmed and the patient receives extensive counseling regarding risk and benefits.

In an HIV-infected pregnant woman who has never been exposed to antiretroviral medication, HAART should be started as soon as possible, including during the first trimester. Again, recommendations are for drug-resistance testing and care to avoid medications that may potentially cause adverse maternal and fetal effects.

If prenatal HIV testing was not performed and a rapid HIV test returns preliminarily positive, the patient should be treated like any other woman infected with HIV. Certainly, the gestational age and obstetrical scenario may dictate the treatment options available, but as the exposure risk to antiretroviral medication is minimal to both, mother and fetus, antiretroviral therapy should be initiated. The patient with a positive rapid test must be counseled

Contributed By Kena Patel IG-MBT 10th Sem

WINNER OF ESSAY WRITING COMPETITION

HIV AND SOCIETY

“HIV-Virus”, listening to this word only one thing / scene strikes / blossoms in my mind i.e. discrimination, hate, inferiority faced or we can say suffered by the sufferers of HIV. HIV is a virus which leads to AIDS. It is generally calculated to be a life taking disease which is encountered an incurable.

Oh.....come on , this is 21st century, here when cancer can be cured , girls can be engineers, boys can keep homes and human can live on mars’ , then why can’t this disease be cured. Need is just to be a bit more particular and practical. It is said that we get the life as a human after several birth’s, being a science student I believe in all this but yes, there is some supernatural power, yes it is true that there is some one who has the right to give birth and take away the soul. So, culminating if we know that this is a human life actually literate human life why don’t we live our life the fullest.

“Life is a bed of roses”, but yes friends / readers as there are thron’s on rose plants there are some ups and downs in our life.

Having AIDS is one of the low points of our life but yes we can fight against it and live a new life.

There are several programmes being conducted for the upliftment of the sufferers and give them a hope & survival. But the great Indian society is very-very well cultured and needs everything to be the best. All the HIV sufferers are discriminated by this high – classed people.

AIDS is counted or summed up as an spreading / infections disease, this leads to the sufferers to an high inferiority and insult. The sufferers are discriminated from the society with deterioratuion of humanism. People (sufferers) are treated badly. They are disrespected.

Though, some of the sufferers who are well known to the preventions & curance of the disease fight against the disease bravely inspite of this narrow mentality high classed people. And one day they reach great heights.

It prows the saying, “Rolling stone gather no mess”.

The programmes / initiated by the government like NAGO, etc, and even the NGOs & clubs, help the sufferers to survives in this world full of hate to them.

At last I mould like to sign out by begging bit to this society that please

“LIVE AND LET LIVE”

Name:- Shivani Solanki

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WINNER OF ESSAY WRITING COMPETITION

HIV and Society

HIV or AIDS is a dreaded and fatal disease for which special treatment is not yet invented. AIDS- stands for ***Acquired Immuno Deficiency Syndrome***.

The disease steps back to Africa when a hunter was in forest and chimpanzee bite him that was having Retro virus whose genetic material is RNA. This RNA when enters human body, first of all attacks to helper T-cells and develops into macrophage. The single stranded RNA comes in contact with single stranded DNA. Now this chain moves inside the Nucleus, gets attached to helper T cells and produces HIV virus. Reverse transcriptase enzyme inhibits the growth of HIV virus.

As the name itself suggest the first symptom is immune system is affected. The patient becomes home of disease & becomes helpless. He develops fever, blood in stool, pneumonia etc. Yet the fully curing vaccine is not developed, a vaccine named RV-144 helps the patient to survive.

Two tests are normally carried out for AIDS. Patient namely (ELISA) Enzyme linked immunosorbant Assay and (WBT). Western blot test.

The society is still unaware about its causes and have wrong sight to see the sufferer. The AIDS is not the infectious disease, so the patient must not be boycotted from the society but should be given proper strength to fight against it.

Many societies work to help the HIV infected people, such as NACO, WHO, RRC etc.

AIDS is transmitted when AIDS affected people donates blood, or it is sexually transmitted. Special care should be taken such as not to reuse the syringe, blade etc. used by HIV inflected patient.

The AIDS patient as well as people around him should make patient feel comfortable. "Strength is life weakness is death," so have strength to fight against HIV.

"Give a drop of help, patient will get a long life span."

The strength of humanity is much more than a strength of virus and we stand unite because, "Service to man is service to god"

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WINNER OF ESSAY WRITING COMPETITION

Autobiography of HIV Sufferer

As like all other persons I was also a happy-go-lucky type person until a day came in my life which turned my life upside down. As all normal days, I went to my office at 8 in morning but after sometime my condition, my health started deteriorating and I started losing my consciousness and finally when my eyes opened I found myself in a hospital room. I saw my family members crying besides me & I was not able to understand what was all going around me. Finally doctor cleared all my doubts by bombarding that I am “HIV positive”. I was too shocked to hear this & my mind immediately started thinking that what all things I need to do for my family in next few days of my life. Anyhow I managed myself & took the situation calmly. But after few days when I rejoined my office the next bombardment took place & it was that I have been fired from my office. All my dreams & hopes shattered into pieces that very moment. I came home with a very sad & hopeless face & my family members came to know what might have happened to me. I was very happy to see that all my family members were very supportive to me but the society people – my neighbors, friends, colleges – all stopped talking with me & my family. Every day I used to sit in one corner of my room & think that I am the one who is sufferer & why my family members are getting the punishment for it. Day in and day out, these thoughts kept circulating in my mind like HIV virus & made me mentally weak day by day. As the days passed the situation got worsen, people stopped coming at my place & I felt as if I am the only person living in this isolated place & the world is on other side of globe. The best way to remove all my frustration was to cry but when I took bath everyday but neglection from relatives, job, etc made me very weak & one day I thought of ending up my life but suddenly the picture of my family came like a flash in front of my eyes. Suddenly all my frustration & hopelessness vanished & from that moment I decided to live just for my family who are supporting me at every moment of my life. I gathered all my hopes, stood up from that filthy corner & went in front of mirror. I saw my face in mirror all covered with tears and all but that second I washed my face, came to mirror again & said “From this very moment, I dedicate my whole life to my family. I will live for them who supports me.” From the very next day I started searching for a good job basically a job where people will understand my feelings & not neglect me. This was all to keep myself busy so that thoughts & neglection will not overtake my mind. One day finally I got a call letter from a reputed company & I went for an interview. And I was so happy to know that I got selected there. In the evening when I was returning & walking down the streets, I saw many kinds of faces staring at me. Some faces were with hopes, some with shame, some with help, etc. the happiness of getting help from people. Now, at present day, I am a person who holds the uppermost position in any multinational company & this could have never been possible without the support of my family. And I also opened an NGO who take cares of the people who are suffering from HIV & lost their family support. And I like spending time with those people, sharing them my feeling & bringing up their courage to do something in their life.

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HIV & Society

The world as of today is on the brink of a revolution in medicine. With the dawn of the 21st century and the arrival of Biotechnology and Genetics on the scene, we are about to witness miraculous phenomena that cure the humans from illness present in their DNA. While the society celebrates this bright future and showers accolades on the scientific community, the world population is simultaneously being decimated by deadly disease; their cure still elusive to the researchers. HIV has, today, managed to achieve the foremost position in the army of the duellous viruses that have made it their motto to create havoc among the human society

The human Immunodeficiency virus (HIV) has achieved the infamous reputation of killing 25 million people each year. While this humungous pile of dead bodies has ratted people from within, the society still hasn't been alive to come to terms with the HIV suffering patients living amongst them. The conditions that HIV patients face and the derisive rebukes they receive from fellow humans, paints a very sorry and grim picture. Society has made the lives of the sufferers so difficult that the suicide rate amongst HIV patients has seen a drastic rise lately. Entranes of in human treatment have also resulted in cases where the patients have sought to spread HIV to uninjected individuals in an attempt to take revenge upon the society. The stigma of being injected by a potentially deadly disease, is exacerbated by the manner in which the patients own near and dear treat him. Being made of feel like an outcast is the epitome of his misfortune.

Lack of awareness about HIV, and how it different from AIDS, is touted to be the major cause behind the behavior of society. Wildly crazy misunderstandings and myths alcout HIV and its spread have worsened the situation. It is a grave folly on the part f the society to believe that spending time with HIV patients, eating with them and touching their belongings will inject them with the virus well.

While efforts are being made in several parts of the world to educate the people about HIV, they fall short of the security and aggressiveness required to win the race against HIV.

What the society requires at this point of time, is an eye-opener. Public awareness programmes, care centers for HIV suffers, free medical treatment and better living conditions are evidently just hot enough. The world is moving too slow, in their fight against HIV, to battle the plight of its suffering inhabitants.

We have taken up a fight; not against HIV, but against the 25 million deaths that it causes energy year. In this predicament of what to do and what not to do, the only hope of ameliorating the situation is the society itself; the owns is on the society to act as the eleventh hour Samaritan and be the change that its HIV suffering people require.

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Do send us your comments and suggestion at e-mail:

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