HIV/AIDS in Our Spanish-Speaking Community and the World

Curriculum Unit 07.05.10
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Introduction

I teach 9th and 10th grade Spanish at a satellite campus of a larger high school in the urban New Haven Public School District. As a world language teacher, my curriculum is focused around the five Cs: Communication, Cultural understanding, Connections, Comparisons, and Communities. Communication and Cultural understanding are the first and second goals of any world language classroom. In following the national standards for language learning, students aim to not only be able to communicate in the language, obtain an understanding and awareness of other peoples and their cultural customs, but also to relate them to their own languages and cultural practices. Each of the 5 Cs relate to each other and one must almost always refer to one or more of the other Cs when talking about one of them (1).

There are a total of 49 schools in the New Haven Public School District, with a total of 7 high schools. There are over 20,000 students enrolled in the district, with a total of about 1.24% Asian American students, 54.82% African American students, 30.95% Hispanic students, 0.05% Indian American students, and 11.08% white students. The remaining students are from other backgrounds (7).

The ethnic makeup of my school, Cross CT Scholars, is slightly different than that of the overall city makeup, as previously stated. It is about 50% African American and 50% Hispanic. Students come from surrounding neighborhoods from all over New Haven. Every student in the school receives a free lunch.

Teaching a world language allows many opportunities to teach cross curriculum content. The new world language curriculum is currently lacking in science subject matter. In the current science oriented world, I believe that it is important to incorporate science content whenever possible, in all content areas. The future success of our students relies in large part of their mastery of science material. The purpose of this unit, HIV/AIDS in Our Spanish-Speaking Communities and the World, is to educate students about one of the most pressing current global health problems.

Today, about 40 million people in the world live with HIV and AIDS (15). The number of people affected by HIV and AIDS, including the family members and friends of those living with these diseases, is even larger. The global HIV/AIDS pandemic is growing, and the effects of HIV and AIDS on those people living in higher needs communities and impoverished countries are even larger than on those that have access to treatment in
wealthier communities. This topic is pertinent to my students, considering the demographic makeup of my school. As previously stated, my students fall into two main groups, Black and Hispanic. Research from the Centers for Disease Control and Prevention (CDC) shows that these two groups share a large percentage of the new recent diagnoses of HIV and AIDS in the United States.

My students are interested in HIV and AIDS, but unfortunately many do not know relevant and indispensable facts about this disease, such as for example how it is even transmitted. This unit will expand upon my students’ studies in their science classes. At CT Scholars, students take Biology and Physical Chemistry in their freshman year, and Physics in their sophomore year. A unit about HIV and AIDS in our Spanish-speaking community and the world will complement the already strong science program at Scholars. Although I will be teaching this unit to 9th grade Spanish 1 and a 10th grade Native Speaker course, this unit is appropriate for any secondary level Spanish course. I will be teaching this unit at the same time the freshman Biology teacher will be presenting her unit on HIV and AIDS. The purpose of presenting our two units together is to develop an interdisciplinary and cross-curricular unit, in hopes of adding more importance to the topic. The freshman Biology teacher will be presenting the biology of HIV and AIDS. While I will present the basic biology of the disease, this unit focuses more on the social aspects surrounding HIV and AIDS, in the Spanish-speaking community of New Haven, the United States, and the world.

This unit will take place over a three-week course period, or 15 school days. I see my students four times a week, three meetings occur during a 45-minute period, and one during a 90-minute block. Over the three-week duration of this unit, students will learn about a variety of issues relating to HIV and AIDS. We will begin by discussing what HIV and AIDS are, and how they are transmitted. This material will be complemented by the information presented in the freshman Biology class. Other topics will include:

- What is the global AIDS pandemic and how does it affect people in the United States, and in New Haven, Connecticut?

- How does the epidemic manifest itself in Puerto Rico, a commonwealth of the United States? Discussions on Puerto Rico will include the issues of a major lack of funding for AIDS clinics, where 26 in 100,000 people are infected with HIV/AIDS (6).

- What are the issues of medical care and equal access to medical treatment both in the United States, specifically Puerto Rico, and other Spanish-speaking countries of the world? - What are the specific issues surrounding HIV and AIDS in Equatorial Guinea, as a Spanish-speaking country in Africa?

- What are some cultural misconceptions about HIV/AIDS in other countries?

This unit will also include a host of Spanish vocabulary, including body parts, hospital, pharmacy and doctor related vocabulary.

- Students will be able to interpret and produce these vocabulary terms by the end of the three week unit.
- Students will also be able to interpret and produce pertinent grammar structures, including:
  - _ir_ + infinitive
  - _necesitar_ + noun or infinitive
  - and other phrases relating to medicine and buying different products.
When beginning the unit, students will take a pre-test covering all unit objectives. We will use this pre-test to track our progress of mastery of each unit objective. Students will also begin the unit by brainstorming and answering the following questions:

- What is HIV/AIDS?
- How does it affect me?
- Does it affect different populations differently? If so, how?
- Does it affect people in other countries, specifically Spanish-speaking countries, differently? If so, how?

These are questions that students will be able to answer by the end of the unit, and provide specific examples for the last four questions. Over the course of the unit, activities will include class discussions and a variety of cooperative learning opportunities. Students will work in the same group for the full three weeks of the unit.

It is my hope that my students will develop critical thinking skills related to these issues. In a world language class, I have the opportunity to teach my students to think globally, not just locally. My goal is to not only think globally, but to also compare these global thoughts locally to New Haven, Connecticut, as a baseline for their understanding of all unit objectives. In the midst of globalization, this is a necessary skill for our students to obtain in order to be successful in such an international climate.

**Rationale**

It can sometimes be difficult to motivate students to learn about culture in a world language classroom. It is especially difficult to motivate 9th graders to learn about other cultures and societies. I have found students asking, why are we learning this? This is a Spanish class! My hope is that this unit will provide a variety of cultural lessons, and pique interest in those students specifically interested in science, since Scholars is such a science focused school.

My students are already interested in HIV and AIDS, because it is especially pertinent to them due to the demographic makeup of my school. Relating the science vocabulary to the scientific cultural lessons will reinforce the vocabulary and structures that my students will be working on mastering. This will also motivate them more to master the vocabulary and structures, as it will make it more pertinent to them. This unit will be most relevant in urban classrooms with a similar makeup to my school. It is so pertinent because my students, all of them, fall into high-risk categories when it comes to HIV and AIDS. Our studies, although dealing with HIV and AIDS in the Spanish-speaking community and world, will always relate to other groups and locations in the world, including of course New Haven and Africa. This unit is relevant to each and every single one of my students in at least one way or another.
Aside from the already tricky charge of motivating students to learn a world language is the difficulty of changing and molding students’ strongly US-focused mindset. Students frequently try to compare and evaluate Spanish, as well as other languages, based on a language they already know, English. The same goes for other cultures. Comparing cultures to their own can be beneficial, but at the same time it can create the negative result of establishing a mindset of how we are and what we do is right, and how they are and what they do is wrong. It is important in a world language classroom to teach students that it is not what is right and what is wrong, but rather that all people and cultures are different. A major task of the world language teacher is to teach students to value these differences. A goal of this unit is to teach students not only cultural differences, but also systemic differences, including healthcare and access to medications. Cultural differences really focus on differences among the traditions of other people, while systemic differences include differences in governments and systems in other countries. Most of my students have never been outside of New Haven, Connecticut, let alone to another country, aside from Puerto Rico.

I am passionate about the complex issues related to the HIV/AIDS pandemic. Thus, I chose to create a unit to share such material with my students. It is my hope that by sharing the complexities of the global pandemic will help to get my students to start thinking globally. I want them to know and think about the problems that affect other nations and other people, specifically the idea that the same problems manifest differently in different parts of the world. I hope that they will start to think about such topics as systemic segregation, as well as socioeconomic segregation. I try to teach a variety of culture in my classroom, so as not to teach a (R) heroes and holidays(R) curriculum. By venturing outside of the typical cultural lessons of the world language classroom, I am seeking to teach a more multicultural curriculum in my classroom. I am hoping to stress to my students the importance of learning about HIV and AIDS by sort of hitting them from two angles, from the science classroom and the world language classroom. With this unit I am also hoping to teach social development, specifically empathy towards those living with HIV and AIDS and those that do not have access to the proper medical treatment.

**Background**

**What is HIV/AIDS?**

HIV, or Human Immunodeficiency Virus, is the virus that leads to AIDS, or Acquired Immunodeficiency Syndrome. HIV is a virus, or a tiny, microscopic particle that can infect biological organisms, such as humans. Viruses spread by first infecting a host cell of a biological organism and then making copies of themselves in other cells. Viruses are incapable of reproducing on their own. Viruses are known to cause serious diseases in humans, including of course HIV, as well as rabies and influenza. It is difficult to cure viruses, because antibiotics, such as penicillin, are ineffective at stopping viruses. Vaccines prevent viruses by creating immunity in the human body. However, there is currently no known vaccine for the HIV virus. There are many obstacles to creating an HIV vaccine, including the fact that there are so many strains of HIV. Creating a vaccine would prevent the transmission of HIV and hence for AIDS. Since there is no known cure, HIV/AIDS education targets the prevention of the spread or transmission of the virus.

Since HIV is a virus, it is important to discuss the life cycle of a virus in order to be able to better understand the HIV/AIDS pandemic. Viruses cannot reproduce by themselves. Conversely, they reproduce by getting into cells, which do in fact have the ability to reproduce. The challenge for the virus then is to take advantage of a
cell by entering it. Fortunately for the virus, and unfortunately for us, the body is made up of many cells. Each cell in the body has what are known as receptors that line along the outside of its surface. Receptors are proteins that are used to detect what is going on outside of the cell. Receptors are very important because there is a special kind of molecule that can bind to them, known as ligands. Viruses take advantage of the fact that cells have receptors. They do so by binding their ligands to the appropriate receptors on various cells, which then allow them into the cells. In order for a virus to enter a cell, this ligand-receptor action is requisite. Once the ligands on a virus bind to the receptors on a cell, the viral life cycle has begun. The virus thus enters the cell, and disassembles. The genetic material and proteins that make up the virus can now be duplicated. The RNA or DNA that make up the virus is replicated. The proteins that make up the virus are then produced. New viruses are then assembled from these replicated materials. Finally, the new viruses are released, a step in the viral life cycle that is often deadly to the host cell.

HIV is spread from human to human through several methods. It can be transmitted through blood-to-blood contact, as well as sexual contact. In addition, mothers can pass it to their children during birth. It is passed through bodily fluids, including of course blood, vaginal fluid, semen and pre-ejaculate fluid, as well as breast milk. HIV is a latent virus, meaning that when it is transmitted, it can take some time before it starts to replicate. Therefore, it can take up to several years for the virus to show signs.

HIV causes major damage to the immune system, the system which protects our body by fighting off infections. HIV hurts our immune system by attacking certain cells which help the immune system to protect our body, including special cells of the immune system called CD4 T cells or CD4 cells. As HIV replicates itself in the human body over time, it destroys a large amount of these cells, so many that the body becomes unable to defend itself against simple diseases, including other viruses, parasites, bacteria, and certain cancers (5). The fact that HIV infects T cells is extremely detrimental to those infected, because T cells are the cells that recognize cells in our body infected with viruses, and kill them. Leaving HIV untreated can produce AIDS and even death.

Since there is no known vaccine for HIV, the only way to prevent contraction of the virus is through preventing contact with the virus. There are many methods to preventing the transmission of HIV. As previously stated, there are three main ways of transmission: sexual transmission, transmission through blood, and mother-to-child transmission. There are prevention methods for each of these types of transmission. First and foremost, education on the virus is a must for prevention of all three kinds of HIV transmission. In terms of sexual transmission, three ways to prevent contraction of the virus include abstinence, using a condom, and being faithful to one's sexual partner or having few sexual partners. There are many ways of preventing transmission of HIV through blood. Using sterile medical equipment is essential, as well as screening blood for diseases. Using sterile needles and not sharing needles is another preventative measure. Finally, refraining from direct contact with blood and other bodily fluids can prevent the transmission of HIV. In terms of mother-to-child transmission, there are certain antiretroviral treatments that can reduce the risk of the mother's passing HIV on to the infant. A caesarean section also reduces the risk of transmitting HIV because it reduces the infant's contact with the mother's bodily fluids. Finally, the World Health Organization recommends against breast-feeding when the mother is infected with HIV and when replacements are available, feasible, and safe (3).

Since HIV is a virus and antibiotics are not effective against viruses, today's treatment for HIV infection is comprised of highly active retroviral therapy (HAART). This treatment was introduced in 1996. HAART has achieved far better results than previous treatments. On the other hand, HAART does not always achieve the most favorable results. Research has shown that it is only effective in only about 50% of patients. There are
many causes to this low number, including side effects to the medication, as well as intolerance to the medication. Other causes include infection with a strain of HIV that is drug-resistant, as well as a prior antiretroviral treatment that was ineffective. However, the largest reason for the failure of HAART is both a lack of adherence and persistence to the antiretroviral therapy (2). There are many causes to these two reasons, and many of these causes are related and overlap. For example, a major cause which we will look at in depth in the course of this unit is a lack of access to medical care, in addition to inadequate medical care. Other causes include a lack of adequate social supports, drug abuse, and mental illness.

As previously stated, about 40 million people in the world today are currently living with HIV/AIDS. Sadly, a large majority of these 40 million people do not know they are HIV positive (15). Ninety five percent of those infected with HIV/AIDS live in poor, developing countries (15). This adds to the cause of non-adherence and non-persistence in HAART treatment. HAART treatment, involving anti-retroviral drugs, is also very expensive. Since 95% of those infected with HIV live in developing countries, many of these people do not have proper access to the necessary treatments and medications.

### HIV/AIDS and Its Effects on Different Communities

Access to medication and proper medical care depends on where you live and how much money you make. Since 95% of those infected with HIV and AIDS live in developing countries, many of these people do not have access to proper treatment. This is one of the major problems that is currently preventing progress in bringing an end to the global pandemic.

The spread of HIV/AIDS is not only contributing to a major health problem. It is also adding to the long list of problems in the economic development of developing countries.

HIV/AIDS is not just a health problem, but also a development problem. How? By spreading fast mostly to young people and working-age adults, HIV/AIDS affects the economy, society, family and schooling in a country, weakening the country as a whole.

When 8% or more of a population becomes infected with HIV, the growth of the economy slows down, according to a World Bank study. This is because the labor force gets reduced and demands on the already overwhelmed government, economic and health care systems increase (15).

Poor countries are most vulnerable to HIV/AIDS for a multitude of reasons. First and foremost, they are often lacking the medical facilities and resources to give proper treatment. It is likely that health care systems in developing countries are not sufficiently developed. These problems create even more obstacles to properly treating an already large and growing population infected with HIV. In addition, HIV treatment is very expensive and, as a result, is not available everywhere in the world. Specifically, there are countries too poor...
to be able to afford it. In addition, (R) basic care and treatment for an HIV/AIDS patient can cost as much as 2-3 times per capita gross domestic product (GDP) in the poorest countries (R) (8). Finally, HIV/AIDS and sexual education is often few and far between, not only because of limited resources, but also because many people are not willing to talk about the dangerous behavior associated with HIV/AIDS (8).

**HIV/AIDS in The U.S.**

AIDS was first identified in the United States in 1981, and was first known as Gay Related Immunodeficiency Disease. Since its discovery, it has spread to all races, sexual orientations, and socioeconomic divisions of our society. 476,749 people were reported to be living with HIV/AIDS in the United States at the end of 2005 (4). However, the total number of those living with HIV/AIDS in the United States is thought to be much higher: between 1,039,000 and 1,185,000 (3). The CDC and Prevention¥s figures only come from those states which implement confidential name-based reporting of HIV diagnoses. During 2005, there were about 38,133 new diagnoses of HIV reported by those areas participating in the confidential name-based reporting. Of these new reported diagnoses, about 74% were adolescent or adult males, and about 26% were adolescent or adult females. Less than 1% of the new reported diagnoses were children under the age of 13 (3).

The discovery of AIDS in the United States in June of 1981 was followed by a large increase in the case number and number of deaths in the 1980s. This level of increase was followed by large decreases in the number of new cases and deaths later in the 1990s. As the number of deaths caused annually by AIDS has decreased, the number of people currently living with AIDS has increased (4). During the 1980s, most cases of AIDS transpired among whites. However, as the disease manifested itself in the U.S. population, the number of cases among blacks in the U.S. gradually increased. By 1996, (R) more cases occurred among blacks than any other racial/ethnic population (4). (R) Cases among all other ethnic groups have also increased, including Hispanics, Asians and Pacific Islanders, as well as Indians and Alaska Natives. Over time, HIV/AIDS cases have greatly increased among minorities. Although AIDS began as a disease prevalently affecting MSM (men who have sex with men), the number of those infected through heterosexual contact has also greatly risen.

Currently, the United States has no comprehensive national strategy to address HIV and AIDS. Such a strategy would need to incorporate the issues of prevention, treatment of the disease, and finally, support services for those affected. Such a strategy would need to incorporate the issue of distributing resources in an effort to deal with the racial disparities. Such a strategy would also need to address a lack of attention to quality prevention efforts and treatment delivery. Although the U.S. funds AIDS-related programs, funds have not increased much over the past few years. The lack of financing for such services inhibits (R) access to quality HIV care (R) (9).

According to a report by Public Health Watch, the number of new HIV cases has stayed stagnant for about a decade at 40,000 cases per year. One of the major problems with HIV and AIDS prevention programming and services is that there is incomplete information about where these new infections are taking place and who the services that are provided are assisting. As in many other countries in the world, those people in higher risk groups do not have proper access to the variety of prevention methods that have been proven effective. What is even more striking is that in the United States, (R) only about half of people living with HIV/AIDS are receiving regular HIV care, and only about half of people who meet government criteria for use of anti-retroviral treatment for HIV are receiving these drugs (R) (9). There are many reasons for such frightful statistics, but it is predominantly caused by the misdistribution of resources.

HIV/AIDS in the United States continues to hurt those that are most in need: those in higher needs communities and of a lower socioeconomic status, as well as minorities, homosexual men and men who have...
sex with men, and finally, injection drug users. The statistics in the United States are astounding. According to the same report put out by Public Health Watch, previously mentioned, (R) éfrican Americans accounted for an estimated 50 percent of new HIV infections and nearly half of all AIDS diagnoses in 2004. African Americans have more limited access to health care and poorer outcomes for AIDS-related treatment than other groups(R) (9).

It is important to question why it is that minorities and those with lower incomes continue to share such a large proportion of new HIV/AIDS cases. In 2004, African Americans, Latinos, Asian/Pacific Islanders, and American Indians made up 71 percent of new AIDS diagnoses. Unfortunately, these groups only account for 31 percent of the total United States population (9). HIV/AIDS rates among Hispanic and African Americans are quickly rising. There are many reasons for these statistics. Those living in higher needs communities tend to have a lower education, and there are less resources available in terms of prevention programs. There continues to be an uneven distribution of prevention tactics in the United States, across income levels and races.

_HIV/AIDS in the U.S.-Hispanic Community_

It is important to distinguish who exactly we are talking about when we use the word Hispanic. The word ¥Hispanic¥ is defined by the United States Census Bureau as those people that originate from Spanish-speaking regions or countries. Also noted by the Census Bureau is that Hispanics may be of any race, and defines these people as ¥Latinos.¥ Hispanic and Latino are two separate terms with two separate but similar definitions, although they are often used interchangeably. In this unit, I am going to use the word Hispanic. On the 2000 U.S. Census, more than 35 million people identified themselves as either Hispanic or Latino, and this number does not even include those 3.9 million United States residents of Puerto Rico. The U.S. Census puts the most current estimates over 44 million. Today, more than half of those Hispanics living in the U.S. declare Mexican heritage. The second largest group of Hispanics living in the United States is made up of Puerto Ricans. Finally, the rest of those 44 million are from more than twenty countries. Thus, when the term Hispanic is used, it is identifying a large and broad category of people.

The United States Hispanic population has been gravely affected by HIV/AIDS. In 2004, Hispanics accounted for 20% of new AIDS diagnoses and 19% of total AIDS cases, while Hispanics only make up 14% of the total United States population (4). In 2001, only 6 years ago, the sixth leading cause of death for Hispanics aged 25-34 was HIV (9). In 2004, 79% of those adolescent and adult Hispanics reported with AIDS were male. The AIDS case rate in the Hispanic adolescent and adult population is the second highest of any other ethnic or racial group in the United States, second only to African Americans (4). The 2004 rate is 25 cases per 100,000, and this rate is a striking 3.5 times more than the rate of whites (4).

Research shows that it is commonplace for a late detection of HIV for Latino immigrants to occur. This late detection causes further problems, including a delay in access to antiretroviral treatments. Certain factors add to this late detection, including (R) a general lack of knowledge regarding HIV risk, poor understanding of condom use and social stigma(R) (10). One cause to these factors is that Spanish-speaking Hispanics do not have the same access and therefore do not benefit from mainstream prevention and treatment efforts, as there is a language barrier. In addition to the language barrier, there is a major cultural barrier. Traditionally in Hispanic and Latino cultures, it is unacceptable and even offensive to discuss sex and sexuality (14).

It is interesting that the four states reporting the highest number of AIDS cases in 2005, New York, Florida, California, and Texas, also have the highest number of Spanish speakers (4). In addition, these same four states have the highest number of cumulative AIDS cases through 2005.
AIDS cases amongst the Hispanic population in the United States in 2000 were spread out among many nationalities, although the bulk of them occurred in those Hispanics born in the continental United States (35%) and Puerto Rico (25%). 13% of them occurred among those Hispanics born in Mexico, 8% among those born in Central and South America, and 2% were among those born in Cuba. In addition, 18% of the cases reported were from Hispanics with an unknown birthplace, and 2% were among those born elsewhere (14).

Hispanics, as well as other minority groups in the United States, are at a greater risk to HIV due to certain shared factors. These include (R) discrimination, poverty, lack of information, substance use and negative attitudes toward condoms(R) (14). In addition to this greater risk, there are many barriers to HIV prevention in Hispanic communities, including (R) racial and ethnic discrimination, anti-immigrant attitudes, policies on mandatory testing for immigrants, and fear of deportation for undocumented immigrants(R) (14). Another barrier to HIV prevention in Hispanic communities is culture, specifically *familismo* and *machismo*. The former is the Hispanic dedication to the family. On the one hand, it can aid in getting Hispanic men to decrease amounts of unprotected sex outside of their committed relationships. On the other hand, *familismo*, along with homophobia, can avert prevention because homosexuality is recognized as incorrect by many families. *Machismo* can further hinder prevention because in some cases, it may cause Hispanic men to use sex as a tool to establish their masculinity. It may also be employed as a justification for unprotected sex (14).

There are a number of organizations around the United States that are working to prevent the spread of HIV in the Hispanic community. Such organizations include Prevention Point Philadelphia, which offers a variety of services, including a needle exchange, HIV testing, drug treatment referrals, as well as medical care. Hermanos de Luna y Sol is an intervention program for gay and bisexual men in San Francisco, California. Mujeres Unidas y Activas is another program established in San Francisco, for Latina women (14).

Much still needs to be done to bring an end to the HIV epidemic, specifically in the Hispanic community. There needs to be more of an effort to provide bilingual HIV education and services. Such efforts could include the addition of HIV prevention messages in Spanish media, health services, and religious centers. However, greater societal issues are at play in the HIV epidemic, which continue to hamper prevention efforts. Racism, homophobia, and poverty must all be addressed in our endeavor to prevent the spread of HIV in the United States as a whole (14).

**HIV/AIDS in Puerto Rico**

Although Puerto Rico is not a state of the United States, it is a commonwealth as of 1952. What this means is that Puerto Rico governs itself, although it is associated with the United States. The chief of state is the President of the United States, and the head of government is an elected Governor. All Puerto Ricans are U.S. citizens. However, they cannot vote for the U.S. president and have no voting representation in Congress. They do not pay income taxes, and receive very limited benefits. They may join the U.S. military, and if a draft were to go into effect, Puerto Ricans would be subject to that draft. The fact of the matter is, however, that Puerto Rico remains a part of the United States.

Yet the HIV/AIDS statistics in Puerto Rico are frightening. Today, 26 people out of 100,000 in Puerto Rico has HIV/AIDS. This is a shocking number, which is almost twice the rate of the mainland United States. What is even more shocking is the lack of funding for HIV/AIDS clinics in Puerto Rico (6).

As of March of 2007, the United States stopped payments to AIDS clinics in Puerto Rico, causing hundreds of poor people desperately in need to go subsist without their free medication. The Puerto Rican health care system is riddled with corruption and administrative ineffectiveness, causing further troubles to an already
distressed system. Thousands of patients in the San Juan area have had to deal with rationing their medication, receiving enough to last not even one week per month. In other areas of Puerto Rico, operations have remained normal. However, because the health care system itself faces so many problems, as previously stated, there are many other obstacles to come in the future. One of these major hindrances is equal access to medications based on class and income, as demonstrated in the case of San Juan.

The most troubling matter relating to the HIV/AIDS epidemic in Puerto Rico is the fact that Puerto Rico is indeed a part of the United States, but as Guillermo Chacon, the vice president of the Latino Commission on AIDS stated, "One of the most difficult things is getting the mainland to recognize Puerto Rico as being part of the country" (6).

**HIV/AIDS in the Spanish-Speaking World and Beyond**

About 67% of the world’s AIDS cases are located in Sub-Saharan Africa. This is over two-thirds of the world’s AIDS cases. While this is an extreme and tragic number, there is currently a disturbing spread of HIV/AIDS in Latin America and the Caribbean (13). According to UNAIDS, the number of those living with HIV in Latin America has grown to 1.8 million. About 300,000 people currently live with HIV in the Caribbean (11). It is evident that all over the world, the more poverty that exists, the larger the HIV/AIDS epidemic.

*Caribbean*

An estimated 24,000 people died from AIDS in the Caribbean in 2005. AIDS is the leading cause of death among those between the ages of 15 and 44 in the Caribbean. Today, the Caribbean ranks as the second-most affected region in the world. HIV prevalence is greater than 1% in the Dominican Republic. However, it has not even reached 0.2% in Cuba. While Cuba is achieving universal access to treatment, only 10% of those in need of antiretroviral treatment in the Dominican Republic are actually receiving it (11).

*Latin America (South and Central America)*

As previously stated, there are now approximately 1.8 million people living with HIV in Latin America. An estimated 66,000 people died of AIDS in 2005. That same year, there were approximately 200,000 new infections. The largest epidemics in Latin America are in the three countries with the largest populations: Argentina, Colombia, and Brazil. Although Brazil is not a Spanish-speaking country, it is important to discuss the HIV/AIDS epidemic in Brazil in part because it is so large. Of the 1.8 million people living with HIV, Brazil accounts for more than one third of this number. The highest HIV incidence, however, or the highest percentage of population infected with HIV, occurs in the smaller countries of Guatemala, Honduras, and Belize (also a non Spanish-speaking country). As of the end of 2003, an estimated 1% or more of adults were infected with HIV in these three countries (11).

There have been continuous improvements to access to antiretroviral treatments, specifically in Brazil. Brazil has by far achieved above and beyond many other countries in the world, because the government has enacted a policy of providing antiretroviral drugs to all those in need of them. Under Brazil’s national healthcare system, those living with advanced HIV qualify for antiretroviral drugs. As of September of 2005, an estimated 170,000 people in Brazil were on antiretroviral therapy. The conditions under which antiretroviral therapy is provided in Brazil are by far the best out of all of Latin America. Treatment levels are also high in Argentina, Uruguay, Chile, Venezuela, Mexico, and Cuba. Access to antiretroviral treatment has greatly increased in Panama and Costa Rica, and with this increase has come a decrease in the number of AIDS related deaths (11).
Despite these successes, conditions are far worse in other countries which are much poorer, including several in Central America, as well as the Andean region of South America. Improvements in these poorer countries has been much slower. As of 2004, less than 1,000 people in Ecuador living with HIV/AIDS were receiving retroviral treatment. Attempts to increase and improve treatments have been slow to limited in Paraguay, Nicaragua, El Salvador, Honduras, and Guatemala (11).

**Equatorial Guinea (Africa)**

Equatorial Guinea is located in Sub-Saharan Africa, the part of Africa located to the south of the Sahara Desert. A little over 10% of the world’s population resides in this region of the world, and yet over 60% of all people living with HIV can be found in Sub-Saharan Africa. 25.8 million people are currently living with HIV in the region that is thought to be the origin of the human race. In 2005, just 2 years ago, it is estimated that 3.2 million people in the region were infected with HIV, and 2.4 million people died of AIDS (11). Equatorial Guinea is no exception to the massive epidemic affecting this large region. Approximately 8,900 people are currently living with HIV in Equatorial Guinea, where the population is estimated to be around 504,000 people. About 2% of the entire population is currently living with HIV (11).

To put this number in perspective, about 26 out of 100,000 people are currently living with HIV in Puerto Rico, as previously stated. That is about .026%, a number that is almost twice as high as the HIV/AIDS rate of the United States. The percentage of the population of Equatorial Guinea that is infected with HIV is much greater than that of Puerto Rico, and the United States. This is quite a frightening statistic. An even more frightening statistic is that of HIV prevalence among adults: 3.2% of adults in Equatorial Guinea (those aged 15 and above) are infected with HIV (11).

Equatorial Guinea ranks 109 out of 177 countries on the United Nation Development Programme’s Human Development Index, an index used to measure and compare the development levels of countries in the world. This ranking places the country in the (R) medium development category (R) (12). Although the government has generated new oil revenue, and the country is clearly not as poor off as others, based on its ranking in the Human Development Profile, the health profile of the country is similar to that of a least developed country (12). This poor health system has clear ramifications for the HIV/AIDS epidemic in Equatorial Guinea.

**Objectives**

I will integrate culture, Spanish language, vocabulary, and grammar into this unit.

By the end of the unit, students will be able to:

- Define HIV and AIDS and how HIV is transmitted
- Define and describe the global HIV/AIDS pandemic
- Describe how exactly this pandemic affects the Spanish-speaking community in the United States, including Puerto Rico, and other Spanish-speaking countries
- Describe the differences in health care systems in the United States, including Puerto Rico, and other Spanish-speaking countries
- Describe some cultural misconceptions about HIV/AIDS in other countries
- Describe issues of access to proper treatment in higher needs communities and impoverished countries
- Interpret and produce the following HIV/AIDS vocabulary: body parts, hospital, pharmacy, and doctor related vocabulary; other HIV/AIDS related vocabulary
- Interpret and produce the following structures in Spanish: *ir* + infinitive, *necesitar* + noun or infinitive, and other phrases relating to medicine and buying things

The final assessment will include a short group presentation about the health care system and the HIV/AIDS epidemic in a Spanish-speaking country, or a Spanish-speaking community in the United States, as well as a written test.

**Strategies**

I will use oral and listening drills, communication activities, as well as reading and writing assignments so that students will be able to understand and successfully communicate in the Spanish language. I will also use a research project so that students will learn about the HIV/AIDS epidemic and health care system in depth in a specific Spanish-speaking country.

Strategies used will include:

- Practice pertinent unit vocabulary
- Practice regular -ar verbs, including the verb *necesitar*
- Practice the regular verb *ir* + infinitive
- Discuss HIV and AIDS and how HIV is transmitted
- Discuss the global HIV/AIDS pandemic
- Discuss and describe how exactly this epidemic affects the Spanish-speaking community in the United States, including Puerto Rico, and other Spanish-speaking countries
- Discuss and describe the differences in health care systems in the United States, including Puerto Rico, and other Spanish-speaking countries
- Discuss and describe some cultural misconceptions about HIV/AIDS in other countries
- Discuss and describe issues of access to proper treatment in higher needs communities and impoverished countries
- Make connections between the global HIV/AIDS pandemic and the complex issues of the epidemic in the United States
- Cooperative research of the HIV/AIDS epidemic in another Spanish-speaking country

I will provide students with much of the historical background of the HIV/AIDS epidemic, in the United States and abroad. The freshman biology teacher will provide much of the scientific background of the disease, but I will review this information in class to ensure that students have mastered this knowledge and are ready to have conversations about medical treatment.

A possibility is having a guest speaker come in to talk about the HIV/AIDS problem in New Haven, and how it affects the Latino population right here in our community. Students will not only benefit from learning about the issues of health care in different communities, but will also benefit from learning about how HIV/AIDS is spread. To make the unit more personal, I would like to incorporate personal stories about how HIV and AIDS have affected different people. My idea is to have a Spanish-speaking person that is HIV-positive come in and speak about what it is like to have HIV, and what it looks like to get medical treatment. I want students to be able to put a face and a name to HIV/AIDS, and really know what it means to have HIV/AIDS.

I will also give students a sort of personal passport throughout the unit, detailing such personal details as a name, country/location, amount of income, cost of medication, and availability of medications and health care. This is inspired by the personal passport given at the Holocaust Museum in Washington, DC. This will bring into perspective the differences in socioeconomic and its level of effects on healthcare. Students will have the opportunity to discuss their passports and their thoughts on the disparities in help available at the end of the unit. Throughout the unit, students will be given additional information to add to their passport. Time will be set aside once a week to add this information, and then students will discuss their passports in small groups. After small group discussions, there will be a class discussion on the newly added information. Students will reflect on passport information together as a group, and later on their final assessment.
This unit will be taught near the beginning of the school year, after our global awareness unit. By this point in the year, students will have a solid background in how many Spanish-speaking countries there are, as well as how many Spanish speakers there are in the world. This unit will give students the opportunity to view problems in these countries and compare them to our community in the United States. It will also allow students to learn new vocabulary and grammatical structures.

The classroom activities can be modified to be used in other classrooms. My goal is for the unit to slowly expand in a global fashion, by first starting out with the basics of HIV and AIDS, and the complexities of the epidemic in the United States. We will discuss health care and medication in the United States in this first week. We will learn basic body part vocabulary in Spanish in this first week. In the second week, we will open the lesson on HIV/AIDS in the Spanish-speaking world by introducing students to the epidemic in Puerto Rico. In this week, we will begin to discuss health care and treatment in other countries. We will also review body part vocabulary and introduce vocabulary of different medical related vocabulary. In this week, we will learn necesitar + infinitive or noun and use it to communicate needs. For instance, you would use this in a pharmacy to say ¡I need medicine.¥ In the third week, we will finish the unit by doing a group research project on HIV/AIDS in a specific Spanish-speaking country and giving a short group presentation. We will also start to use the structure of ir + infinitive, to say for example ¡I am going to the hospital. Finally, we will finish the unit with a written test.

**Sample Lesson #1: Body Parts and Basic HIV/AIDS Knowledge**

**Duration:** 4-5 Days

**Objectives:** By the end of this lesson, students will be able to:

- Interpret and produce body part vocabulary
- Describe body parts
- Define HIV and AIDS and how HIV is transmitted
- Define and describe the global HIV/AIDS pandemic

**Materials:**

Bingo Boards, Index cards, Individual marker boards, Markers, Erasers, Dictionaries, Handouts (fact sheets), Chart paper or chalkboard.

**Activities:**

Day 1- Students will play bingo to learn body parts. Students will do an index card activity to practice listening and speaking skills. Students will sing head, and shoulders, knees and toes in Spanish to reinforce body part
vocabulary. Finally, students will practice reading and writing body part vocabulary, and then take an exit slip to demonstrate mastery of the vocabulary.

Day 2- Students will use group marker boards to reinforce body part vocabulary, and describe body parts. Students will speak in pairs to describe body parts. Students will take an exit slip on describing body parts to demonstrate mastery of descriptive words.

Day 3- Students will brainstorm in groups of 4-5 what exactly HIV/AIDS is and how it is transmitted, building off of knowledge gained in their biology class. A representative from each group will present to the class, and one student will record on the board what the class has come up with. In their same groups, students will discuss the definition of the words pandemic and epidemic and what exactly they mean, and a representative from each group will present what their group came up with. Students will take an exit slip to demonstrate mastery of the definitions of HIV/AIDS, pandemic, epidemic, and how HIV/AIDS is transmitted.

Day 4- Students will be given a fact sheet with statistics on HIV/AIDS relating to different risk groups in the United States, and the prevalence of HIV/AIDS in the US and the world. In their groups, students will read through the statistics and brainstorm the importance of these statistics and note the two highest risk groups in the US, and the location of the highest prevalence of HIV/AIDS in the world. Students will then discuss their findings as a class. Finally, students will take a quiz on the material from the entire week.

**Closure:**

Each day, students will take an exit slip, or a mini quiz, on the objectives from that day to demonstrate mastery of the objective. On the final day of the lesson, students will take a quiz on all material from the entire week.

**Sample Lesson #2: HIV/AIDS in Our Spanish-Speaking Community and Puerto Rico**

**Duration:** 4-5 Days

**Objectives:** By the end of this lesson, students will be able to:

- Describe how exactly this pandemic affects the Spanish-speaking community in the United States, including Puerto Rico, and other Spanish-speaking countries

- Describe the differences in health care systems in the United States, including Puerto Rico, and other Spanish-speaking countries

- Describe issues of access to proper treatment in higher needs communities and impoverished countries

- Interpret and produce hospital, pharmacy, and doctor related vocabulary, as well as other locations in the community

- Interpret and produce the *ir* + infinitive structure and express where they are going
Materials:

Bingo Boards, Index cards, Individual marker boards, Markers, Erasers, Dictionaries, Handouts (fact sheets), Chart paper or chalkboard.

Activities:

Day 1- Students will play bingo to learn hospital, pharmacy, and doctor related vocabulary, as well as other locations in the community. Students will do an index card activity to practice listening and speaking skills. Finally, students will practice reading and writing the pertinent vocabulary, and then take an exit slip to demonstrate mastery of it.

Day 2- Students will use group marker boards to reinforce vocabulary from day 1 of the lesson, and use it to express where they are going using the *ir* + infinitive. Students will speak in pairs to describe where they are going, and where others are going. Students will then take an exit slip on the *ir* + infinitive structure.

Day 3- In pairs, students will read an article about HIV/AIDS in Puerto Rico and the problems with a lack of funding for AIDS clinics. Students will take turns reading and looking for main ideas. While the first student reads out loud, the other student will read along on the page, underlining main points, and circling any words he or she does not understand. After the first student reads a paragraph, the second student will read that same paragraph out loud, and the first student will read along on the page just as the second student previously did. Students will answer guided questions together, and brainstorm why it is they think there is a lack of funding. Students will then come back together as a class to review the article and issues related to funding of medical treatments. Finally, students will take an exit slip to demonstrate mastery of the HIV/AIDS epidemic in Puerto Rico and the funding issues associated with it.

Day 4- Students will first brainstorm whether or not they think everyone in the US has equal access to medication, and why or why not. Students will take guided notes on different health care systems and the differences between different countries and how that affects us here in New Haven. Students will discuss what it looks like to have HIV/AIDS in New Haven, specifically who is most affected. Students will discuss what they think it looks like to be treated for HIV/AIDS, in preparation for the speaker involved with the next lesson.

Closure:

Each day, students will take an exit slip, or a mini quiz, on the objectives from that day to demonstrate mastery of the objective. On the final day of the lesson, students will take a quiz on all material from the entire week.

**Sample Lesson #3 HIV/AIDS in the Spanish-Speaking World**

**Duration:** 5-6 Days

**Objectives:** By the end of this lesson, students will be able to:

- Describe how exactly this pandemic affects the Spanish-speaking community in the United States, including Puerto Rico, and other Spanish-speaking countries
- Describe the differences in health care systems in the United States, including Puerto Rico, and other Spanish-speaking countries
- Describe some cultural misconceptions about HIV/AIDS in other countries
- Describe issues of access to proper treatment in higher needs communities and impoverished countries
- Interpret and produce the following HIV/AIDS vocabulary: body parts, hospital, pharmacy, and doctor related vocabulary; other HIV/AIDS related vocabulary
- Interpret and produce the following structures in Spanish: \textit{necesitar} + noun or infinitive, and other phrases relating to medicine and buying things

Materials:

Bingo Boards, Index cards, Individual marker boards, Markers, Erasers, Dictionaries, Handouts (Research on different countries if you do not have access to computers), Chart paper or chalkboard.

Activities:

Day 1- Students will play bingo to review all unit vocabulary and structures, and incorporate other HIV/AIDS related vocabulary. Students will do an index card activity to practice listening and speaking skills. Finally, students will practice reading and writing the pertinent vocabulary, and then take an exit slip to demonstrate mastery of it.

Day 2- Students will use group marker boards to reinforce vocabulary from day 1 of the lesson, and use it to express what they need or want to buy using the \textit{necesitar} + noun or infinitive and the verb \textit{comprar}. Students will speak in pairs to practice the two new structures. Students will then take an exit slip to demonstrate mastery of the \textit{necesitar} + noun or infinitive and the verb \textit{comprar}.

Day 3- Students will work in groups of 3-4 to research the HIV/AIDS epidemic in a specific country. Students will prepare a presentation to be done in front of the class. In their groups, students will focus on answering questions central to the unit in their chosen country.

Day 4- Students will present on their countries in groups of 3-4.

Day 5- A member of the community will come and speak about what it is like to be Spanish-speaking and have HIV/AIDS in New Haven, as well as what it is like to get treated. Students will prepare beforehand by writing down any questions they may have.
Day 6- Students will take an exam on the entire unit.

Closure:

Each day, students will take an exit slip, or a mini quiz, on the objectives from that day to demonstrate mastery of the objective. On the final day of this lesson, students will take an exam on the entire unit. Another day may be added to review.

Works Cited


Annotated Resources for Teachers


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Abstract to an interesting article on the issues associated with the virological failure in patients undergoing antiretroviral therapy.

3. (R) AVERT: AVERTing HIV and AIDS.(R) http://www.avert.org.

Website with great statistics on HIV and AIDS in the United States.


The U.S. Census Bureau's official website. Gives interesting facts on many aspects of the United States population.


Great website with global data on HIV/AIDS, malaria, tuberculosis, and more.


A short history of Latin America, as well as Latinos in the United States.

7. The Henry Kaiser Family Foundation. 2007. 6 Apr. 2007


Links to various HIV/AIDS websites.


Website with insightful information on various diseases and current statistics.


Great website on the international HIV/AIDS pandemic with a variety of interesting articles about different facets of the struggle to bring an end to HIV/AIDS.


A website of encyclopedic information. Good for general history, common knowledge, and information.

Great website which gives reader friendly facts, specifically student friendly, about HIV and AIDS.


Great website on the AIDS epidemic in the Latino community. Includes great links to other Latino grassroots HIV/AIDS organizations.


Agency founded by a coalition of Latino leaders. Insightful information about HIV prevention and care in the Latino community.


Abstract to a really interesting article on HIV prevention in the Spanish-speaking world.


Great article about the HIV/AIDS situation in Puerto Rico. Gives great statistics and makes the situation very real for students.


Article about the status of HIV/AIDS among Latinos in New York City.


Excellent website with a great link to a report about the HIV/AIDS crisis in Puerto Rico.


Official website of the New Haven Public Schools. Includes vision, mission statement, demographics of district, and many other aspects pertaining to the New Haven Public School District.


Website of the Pan American Health Organization, a regional office of the World Health Organization.


A project of USAID, which works in Guatemala, Peru, and Mexico.


Excellent report on the status of HIV/AIDS in the United States. Also gives information on the status of HIV/AIDS in several other countries, including Nicaragua.

Research study on HIV among Latino immigrants in California.


Article about high risk groups with HIV/AIDS. May have to register with Medscape.com to access article.


Great website with different country rankings and economic indicators.


Great article about HIV/AIDS among Latinos in NYC.


Great article on HIV/AIDS prevention in the US Latino community. Interesting information on cultural differences as an obstacle to HIV/AIDS prevention.


Great resource of many kinds of information. Can be updated by the public, and is updated very often.


Excellent website about the World Health Organization. Includes very important world statistics and data.


Great resource on HIV/AIDS with current statistics.
Annotated Student Resources


Great article about the HIV/AIDS situation in Puerto Rico. Gives great statistics and makes the situation very real for students.


An excellent resource for people of all ages. Answers questions on many different topics about Latinos. Easy to navigate.


Great resource on HIV/AIDS with current statistics.

Suggested Classroom Materials

- A world map
- Copies of related resources for students
- Personal stories of people living with HIV/AIDS
- Research on health care systems and resources available for people living with HIV/AIDS in other countries (for research project)
- Personal passports for each individual student, detailing income, cost of medications, health care available, etc. in specific Spanish-speaking countries
- Index cards for speaking activities
- Individual marker boards, markers, and erasers
- Chart paper for class discussions
Appendix: Implementing District Standards

Performance Standard V: Apply knowledge in different subjects to learn more about the new language and culture, and vice versa

5.1/5.2 Make interdisciplinary connections among cultures

5.3 Use interdisciplinary topics related to cultural study to expand general knowledge