



The pH Level

A Barnard-Columbia Undergraduate Public Health Society Publication

It is my honor to introduce the very first issue of **The pH Level**. This is the first newsletter of its kind within Columbia University's undergraduate community. Our goal is two fold: first, to bring to your attention the varied fields of public health, and second, to increase health literacy of some of the important changes going on and how these affect you. In this issue we discuss new initiatives in women's health- the most far reaching of them being the approval of a preventive vaccine for the Human Papilloma Virus, in effect protecting women from certain cancers. In a different side of public health we see gender biases in nutrition in patriarchal societies, and in another article, polio (a once forgotten disease to the west) is on the rise in developing nations, attacking their youth. This is just a taste of what is to come. We hope you learn something new and take with you a new perspective on public health and feel inspired enough to share some of your thoughts with your friends and even us. We're just starting and would appreciate any feedback you have to offer us. If after viewing our first issue, you'd like to get involved, please don't hesitate to drop us an e-mail- we're always on the look out for new writers and editors.

With best wishes,
-Sonia Sethi

By: Crystal Kim

Gardasil, marketed by Merck & Co., is the world's first prophylactic human papillomavirus (HPV) vaccine, protecting women against HPV, one of the world's most common sexually transmitted diseases and a leading cause of cervical cancer. Gardasil will prevent infections from four strains of the human papillomavirus, thereby protecting against genital warts and cervical cancer. Women who have already been affected by one or more of these four strains of HPV can still be protected from clinical disease caused by any of the remaining HPV types with this vaccination.

HPV is a disease with more than 100 types, ranging from those that give common warts to those that lead to cervical cancer. However, the HPV types associated with cervical cancer are found in approximately a dozen of the HPV types. The use of Gardasil can now prevent infection from the four main HPV types that lead to cervical cancer. HPV types 6 and 11 cause about 90% of genital warts

cases and types 16 and 18 cause around 70% of the HPV induced cases of cervical cancer.

On June 8, 2006, Gardasil was created and approved by the United States Food and Drug Administration. By June 29, 2006, the board experts of the Advisory Committee on Immunization Practices unanimously voted to recommend this vaccination for females as young as 9 years old. The panel advised that vaccination be administered to 11-12 year olds during their regular physical examinations visits. Gardasil is recommended to be given at an early age because it has the maximum potential of effectiveness if received before the recipients become sexually active. The Advisory Committee on Immunization Practices board has also recommended that Gardasil be included in the federal Vaccines for Children program, which would cover the bill for this vaccination for females under the age of 18 without insurance.

The utilization of the Gardasil vaccination has faced minor opposition from some religious groups because it is used

to protect against sexually transmitted diseases. Oppositions have been considered mild and many conservative organizations have, in fact shown support for the advance of Gardasil in the healthcare system.

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HPV Vaccination on Campus

Columbia University Health Services defers stocking newly released vaccines for at least six months after widespread use in the general population. Students who already have the HPV vaccine as prescribed by another clinical and would like it to be administered at Primary Care Medical Services can do so by scheduling an appointment (212-854-2284).

Barnard College Health Services is now offering the HPV vaccine. There is a fee for this vaccine and an appointment is required. Please call the Health Service (212-854-2091) for more information.

"A greater setback, however, is the \$360 for the price of the vaccine."

What's Inside: Look into a new Polio Epidemic, Nutrition and Gender Gap, Plan B Initiatives, World Aids Week Calendar and More!



Polio's Need for a Cross-Cultural Cure

By: Tara McAlexander

The poliomyelitis virus, to an American, may seem as foreign and dated as the Black Plague. We have heard distant stories of the polio epidemic in the United States from our grandparents, and Jonas A. Salk has been revered as a hero in our American history textbooks but in countries such as Somalia, Bangladesh, Niger, Sudan, Chad, Yemen and Indonesia Polio is not so distant. As of October 12, 2006, Afghanistan, India, Nigeria, and Pakistan are the only four remaining countries that still struggle with polio as a major public health issue, according to the Advisory Committee on Polio Eradication. The poliovirus has been eradicated only recently in Egypt; in March of 2006, Egypt celebrated the one-year mark of its polio-free status. In comparison, The United States has been polio-free since 1986.

In viewing the disparity between polio prevalence in the United States and the rest of the world, it is difficult to understand why certain countries lag twenty years behind in the process of polio eradication. The United States, United Kingdom, Japan, Canada and many other countries have donated millions of dollars to the Global Polio Eradication Initiative, a collective polio eradication effort by the World Health Organization, the US Centers for Disease

Control and Prevention, UNICEF, and national governments. The Global Polio Eradication Initiative has been active since its launch in 1988 and seeks to interrupt the spread of polio worldwide. Its mission is to make vaccinations available through national and international efforts. This initiative is responsible for starting National Immunization Days (NIDs) in affected countries as well as providing care, communication, and financing for treatment to affected individuals.

Despite the monetary efforts of the world's wealthiest countries, the Global Polio Eradication Initiative faces resis-

"...government officials mirror public suspicions with statements such as Nigerian Governor Shekarau's claim that the polio vaccine is America's revenge for Sept. 11."

tance from the countries it seeks to aid. Families in India and other afflicted countries are suspicious of the NIDs, as their only knowledge of the polio vaccine is based upon rumor that the vaccine is dangerous, possibly containing the AIDS virus. In India, a belief is circulating through Muslim clerics that the polio vaccine is part of a plot to sterilize Muslim women, thus decreasing the birth rate in Muslim populations. As a result of this belief, about 15% of families in India's Uttar Pradesh have skipped recent NIDs. The skepticism is also present in

Nigeria, where Nigerian scientists have claimed to discover quantities of estrogen in the polio vaccine augmenting suspicions in Africa and Southeast Asia and slowly leaking their way into politics, as government officials mirror the public suspicions with statements such as the Nigerian Governor Shekarau's claim that the polio vaccine is "America's Revenge for Sept. 11." The social suspicion and resistance that surrounds the polio vaccine has hindered the eradication of polio in these countries, and, as a result, Nigeria and India face the highest risk of polio. These skepticisms are not specific to Nigeria and India, however. Most recently, on September 17, 2006, Kenya had its first case of polio in two years. The World Health Organization has stated that the virus was spread from Nigeria.

The persistence of polio in spite of the comprehensive efforts highlights the complexity of the public health initiative. Although it is easy for an American to view polio as an ancient disease, the virus persists because, despite the development of the vaccine, many afflicted countries cling to suspicion on personal and political levels. This is especially important to global health, as the poliovirus is spreading. To successfully eradicate polio from the globe, initiatives for cross-cultural understanding need to mirror the biomedical efforts that have been a success in the Western world. It is easy to take for granted the health benefits that, as Americans, we receive. We need to see the global implications of the poliovirus in other parts of the world and take measures to preserve health in the global community.

In Households that are Food Secure, Some Individuals Go Hungry

By: Tara Fiechter-Russo

We have all heard at some time or another parents sarcastically commenting on how their over-achieving child is going to "solve World Hunger" ("World Peace" is for beauty pageant contestants). It must be a simple issue if a zealous child could solve it. But what does "solving World Hunger" actually entail? What has been done in terms of public interventions and what still needs to be addressed? Most public health interventions on nutri-

tional intake focus on increasing household entitlements and access to food and healthcare. However, anthropological research has suggested that there are cultural factors that influence individual malnourishment despite the presence of sufficient health and nutritional resources at the national, community, and household levels.

The aspect of public health that needs a more in-depth understanding is the socio-cultural issues that surround the intra-household dynamics of food distri-

bution. Even with improving economies, poverty alleviation, the increased availability of primary healthcare, and nutrition programs that target the poor, mortality, morbidity and malnutrition are biased based on gender.

There are a variety of dimensions that make up nutrition. It is not just about the quantity of food one consumes, but rather the dietary quality and amount of healthcare that an individual receives.

Continued on page 4.



Plan B Accessibility Elicits Mixed Response

By: Crystal Kim

The Food and Drug Administration approved the over-the-counter sale of Plan B (Levonorgestrel), an emergency contraception. Prior to August 26th, 2006, this emergency contraception was only available with a prescription from a doctor. With the advent of this progressive act of approval, Plan B will be available to women eighteen and over at pharmacies and health clinics nationwide. If taken within 72 hours of unprotected intercourse, Plan B can prevent pregnancy. Plan B is more effective the sooner it is taken and thus the over-the-counter status will increase the accessibility of this drug to women in a time of need.

Plan B, commonly known as the morning-after pill, contains progestin, a synthetic hormone found in regular oral contraceptives, at a higher dosage. Plan B is a drug that acts before implantation, and thus is medically and legally considered to be a form of contraception. In rare circumstances, emergency contraception can be used to prevent a fertilized egg from becoming implanted and this fact has stirred controversy from conservative groups. Plan B, distributed

by Barr Pharmaceuticals, is a two-dose package, the first pill taken within 72 hours of unprotected sex and the second should be taken 12 hours after the first pill.

Consequently, two key issues have arisen from this approval by the FDA. Plan B can only be sold to women eighteen and older with appropriate identification, but it appears that the women who would need this convenience most are underage and reluctant to seek the help of adults. In addition, as a result of Plan B's over-the-counter status, it will no longer be covered under health insurance, bringing to the fore the question of accessibility for women of strained financial backgrounds.

Emergency contraception is, as the name indicates, for emergency situations, and will not be effective as a regular contraceptive. The regular use of Plan B will increase the risk for tubal pregnancy, because it contains progestin. Many conservative groups opposing FDA approval see this as a promotion of promiscuity and irresponsible behavior. The FDA approval, however, is generally distinguished as a significant step forward in broadening the accessibility of health care for women.

"Plan B can only be sold to women eighteen and older...the women who would need this convenience most appear to be those that are not of age."

Barnard-Columbia Undergraduate Public Health Society

Presents:

Discrimination in Blood Donation on the basis of NOTHING:

Why Americans Can't get the blood they need to live because the FDA refuses to acknowledge scientific fact.

Dec. 6th, 2006 @ 6:30 PM

517 Hamilton Hall

HPV Vaccine Cont'd.

Although the creation of Gardasil is a breakthrough for women, the principal question is the affordability and accessibility of this vaccine for those who most need it. Because Gardasil must be given in a three shot system over a six-month period, there is a time and commitment complication to the administration of this vaccination, which is most evident amongst the poorer families and nations. A greater setback, is the \$360 fee for the three shots, a hefty price tag making Gardasil one of the most expensive vaccines implemented.

The introduction of Gardasil provides much needed preventive healthcare. Although Gardasil may reach limitations from financial constraints it is a positive progression for women worldwide. Cervical cancer, currently the second-leading cause of death in women, is now a disease with a cure.

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Special Thanks to the BCUPHS Board
for all their support!

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www.columbia.edu/cu/publichealth



World Aids Week Calendar of Upcoming Events!



Thursday, November 30th, 1:00-5:00

2nd floor Lerner Ramps

AMSA T-shirt Sale; Customize your own T-shirt to go with this year's theme of "Keep The Promise".

Friday, December 1st

WORLD AIDS DAY

March on the White House; Columbia Global Justice, along with fellow Student Global AIDS Campaign chapters will march on the White House in one of the largest marches for the end of AIDS.

Mailman School of Public Health Hosts:

STOP AIDS, KEEP THE PROMISE

Student Action Fair: 2-3pm, Hammer

Health Sciences, Riverview Lounge,

Towards an AIDS Free Generation: Focusing on the Family: 3-5 pm,

Hammer Health Sciences, Room 401

Monday, December 4th, 7:30

517 Hamilton

Women and AIDS; Join Rebecca Young, Professor of Women's Studies, as she provides a gender analysis of abstinence only education on women.

Tuesday, December 5th, 7:30

Satow Room

Religion and AIDS; Join religious leaders and a human ethicist for an interesting and important conversation about the role of religion in the AIDS pandemic.

Wednesday, December 6th, 6:30, 517

Hamilton

"Blood Discrimination: Why is the FDA Ignoring Scientific Fact?"

Friday, December 8th, 8 pm

Cowin Center, Horace Mann Hall

"Fighting Words," HIV/AIDS benefit featuring HBO DEF POETRY JAM POETS
A suggested donation of \$5

Get your free and confidential HIV test today.

The Gay Health Advocacy Project (GHAP) provides confidential HIV testing and counseling to the entire community on a walk-in basis. The service allows as much time as necessary with a professionally trained peer counselor.

Walk-in Hours: Mon - Thurs, 4-7pm

Location: 3rd & 4th floor, John Jay Hall

Buy A T-Shirt, Save a Life

Ending Povertees:

t-shirts with awesome/witty/mildly educational slogans, as a fundraiser for Millennium Promise, a non-profit organization that supplements the Millennium Development Goals (created by the U.N. and Columbia's very own Earth Institute Chair Jeffrey Sachs). All proceeds go towards mosquito nets, preventing the spread of malaria.



To order your Povertee, e-mail bcuphs@gmail.com.

Order forms are available at

www.columbia.edu/cu/publichealth/povertees.

Some Individuals Go Hungry Cont'd.

Case studies in India, Nepal, Madagascar, Mexico, and Peru have offered an analysis on the gender gap in the distribution of nutrition. In many of the communities studied, girls are less active, eat less, and grow smaller in an attempt to live up to the cultural expectations of female frugality, self-sacrifice, slim body image, or beauty. Higher quality food, such as meats and fruits, are distributed based on contributions to the household. In patrilineal societies, where inheritance is passed down from father to son, nutritious foods are invested in the males of the family because they are seen to hold a higher social and economic "value" in terms of preserving a family's lineage. Madagascar was the only site whose findings do not point to an anti-female bias due to the higher status of girls across the country and because of their close proximity to the preparation of food.

While the programs implemented thus far have made positive impacts, public health interventions need more cultural information to address the issue of malnutrition on an intra-household level. Anthropological research should lead to better socio-cultural understandings that can more effectively facilitate the distribution of food, health, and care.