

Approaches to HIV Prevention: An Interdisciplinary Overview
PubH 209.35
Department of Prevention & Community Health
Topics Course Fall II 2006
Thursday 6:10-8:00 PM
Location: Himmelfarb Library 202

Instructors:

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Introduction

Despite substantial funding invested in efforts to prevent HIV/AIDS infection, the number of individuals living with HIV worldwide continues to rise. In the USA, incidence fell dramatically in the late 1980's, but the incidence of new infections has stabilized since then. Prevention approaches have incorporated the "exceptional" nature of HIV/AIDS, "prevention for positives", harm reduction, as well as specifically targeting populations at risk. Currently, discussion is focusing on the need to consider more basic Public Health strategies, including case finding, routine testing and partner notification. However, little concrete data exist to support the implementation of anyone particular approach.

In contrast, substantial and clear progress has been made in two situations implementing biomedical strategies: prevention of mother-to-child transmission, and post-exposure prophylaxis, both of these depending on the use antiretroviral drugs.

Given the absence of an effective HIV vaccine and the increasing numbers of new HIV infections world-wide, HIV prevention research attention has focused on other biomedical interventions to complement behavior-based prevention approaches. Prominent in these discussions is the concept of oral antiretroviral prophylaxis prior to HIV exposure – or pre-exposure prophylaxis (PREP) and microbicides which may or may not include antiretrovirals. Other approaches include the treatment of sexually transmitted diseases and male circumcision.

This course will provide an interdisciplinary overview of HIV prevention research from the behavioral, biological and biomedical perspective. Students are encouraged to

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approach the assignments and discussions from their own particular expertise and career interests/goals.

Course Objectives

At the end of the course, students will be able to:

- Discuss HIV/AIDS prevention efforts in the domestic and global HIV/AIDS setting
- Discuss and compare the various programmatic approaches
- Discuss the key policy issues associated with each of the approaches
- Discuss the research gaps and new research endeavors in HIV/AIDS prevention
- Critically evaluate the HIV/AIDS prevention literature

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Student hours by appointment

Course Grading

The course will be conducted in seminar style, with frequent guest lecturers. All students will be expected to read the assigned papers for each class. In addition, students will choose one or more assigned readings to summarize and present to the class as a focal point of class discussion.

In addition, students will write one paper (approximately 5 pages) on an HIV prevention topic of their choice. Topics may include those covered in class, but the paper should extend beyond the material discussed in class. The paper will be due at the beginning of Week 6 lecture.

Class attendance and participation: 20%
Written review and class discussion of assigned articles: 40%
Paper: 40%

Required reading:

The course reading requirements will be based on recent literature (original research papers and published reviews), protocols and research agendas. No textbook will be assigned.

Reading assignments will be posted on Blackboard. Students are asked to complete the reading assignments prior to each class and be prepared to discuss the contents.

Code of Academic Integrity:

All graded work products and assignments are to be completed in conformance with the University's Code of Academic Integrity. Students are strongly encouraged to read the code (<http://gwired.gwu.edu/policies>; click on Guide to Student Rights and Responsibilities, click on Code of Academic Integrity). Papers and quizzes must be completed independently.

Blackboard:

Blackboard will be used for overall communications with the class. Please note that the syllabus will be updated periodically. Students should check updates periodically.

Schedule

October 26, 2006

Week 1: Biology of transmission; Overview of HIV epidemiology

Guests: Ms. Louise Martin-Carpenter BS MS; Director of Scientific Communications, GSK

- Review of sexual, parenteral, perinatal and postnatal transmission pathways
- Factors enhancing transmission: host factors (index and recipient; physiologic, clinical, behavioral), virologic factors
- Co-infection and superinfection

- Global HIV/AIDS – an epidemiological overview
- Overview of prevention research – evidence vs. assumptions (Guest Lecturer)

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November 2, 2006

Week 2: Overview of current HIV/AIDS prevention approaches; Behavior based interventions: what has worked, what hasn't; community involvement and community leadership

Guests: Cornelius Baker (confirmed)

- Review of current approaches to HIV/AIDS prevention – the public health approach vs “exceptional” nature of HIV/AIDS
- Gender issues
- Community level intervention (e.g. microfinancing and gender equity training)
- Structural interventions
- Prevention for positives
- Community perspectives

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November 9, 2006

Week 3: Success stories: Prevention of mother-to-child transmission and Post-Exposure Prophylaxis; Impact of antiviral treatment on prevention

Guest:

- Review of MTCT prevention research & public health implications
- Domestic and global perspectives
- Current practices, guidelines and policy issues

- Review of post-exposure prophylaxis, including occupational and non-occupational exposure
- Current guidelines and policy issues
- How does HIV treatment impact prevention?

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November 16, 2006

Week 4: Male circumcision, STD treatment

Guest:

- Review of current research on male circumcision
- Review of current research on STD treatment

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November 30, 2006

Week 5: Pre-Exposure Prophylaxis ; Vaccines

Guest : Alan Greenberg MD MPH (Confirmed)

- Rationale for pre-exposure chemoprophylaxis
- Clinical trial design and implementation issues
- Current issues in HIV vaccine research

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December 7, 2006

Week 6: Microbicides

Guest: Polly Harrison, PhD (confirmed)

- Review of current microbicide research
- Microbicide initiatives

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- Framework for microbicide efficacy/effectiveness

December 14, 2006 (or make-up day)

Week 7: Prevention research landscape; recap where are we and what are the next steps?

- Recap of weeks 1-6: the landscape in context