Oral, Symposium and Workshop Abstracts

A1

Preventing Sexual-Risk Behavior in Adolescents

K Ethier[2], L Armistead[1], J Greenberg[2], L Clark[3]

1. Georgia State University, 2. CDC, Division of STD Prevention, Behavioral Interventions and Research Branch, 3. University of Alabama, Birmingham

Background and Rationale: STDs among adolescents continue to represent a substantial health concern in the US. Rates of STDs among African-American adolescents are particularly high and traumatic childhood sexual experiences can place youth at even higher risk. Current prevention intervention studies designed for these populations can provide important insights toward changing risk behaviors and lowering rates of STDs among vulnerable youth.

Objectives: To discuss current adolescent research with implications for STD prevention. Specific topics will include: 1) the type of messages that African American teens hear best: loss framed or gained framed, focused on HIV, STDs, or early pregnancy, and focused on condom use, abstinence, or a harm-reduction, mixed message; 2) the relationship of childhood sexual abuse to risky sexual behavior in adolescence and adulthood and a new prevention project for addressing young, abused teens; and 3) the impact of a school-based curriculum for 7th grade African-American youth based on the Theory of Possible Selves, which has been shown to have a positive impact on delay of sexual initiation and attitudes relating to sexual risk.

Content: A panel of behavioral scientists will discuss three innovative research projects related to STD prevention in adolescents. Following individual presentations, the moderator will facilitate a dialogue with the audience on how findings might be used in various settings.

Learning Objectives:
1. Understand how health promotion messages for teens have varying effects on specific behavioral outcomes.
2. Understand the relationship between childhood sexual abuse and risky sexual behavior in adulthood and possibilities for intervention.
3. Understand the effects of a theory-based curriculum on delay of sexual initiation and attitudes relating to sexual risk.

A2

CDC Update on Trends in Nationally Notifiable Sexually Transmitted Diseases in the United States

W Levine, O Devine, L Finelli, S Wang, D Mosure, R Kakkar

Centers for Disease Control and Prevention, Atlanta, GA

Background and Rationale: Although national surveillance data for syphilis, gonorrhea, and chlamydia show that these sexually transmitted diseases (STDs) have generally declined during the 1990s, increases continue to occur in some parts of the country and among specific subpopulations.

Objectives: To describe the latest trends in each of the three major notifiable STDs using nationally reported surveillance data, and to describe CDC's plans for increasing access to and utilization of these surveillance data by health departments and the general public.

Content: This symposium will include presentations on each of the major notifiable STDs. Our progress towards syphilis elimination in the U.S. will be described, highlighting areas where recent outbreaks have occurred, and identifying those parts of the country where congenital syphilis remains an important problem. The presentation on gonorrhea will describe those parts of the U.S. where gonorrhea is increasing, provide an update on the increase in gonorrhea among men who have sex with men in several U.S. cities, and on emerging resistance of *Neisseria gonorrhoeae* to ciprofloxacin and azithromycin. Major trends in chlamydia case reports and prevalence-monitoring data will be discussed, including presentation of data from the Regional Infertility Prevention Projects. The final talk will be a demonstration of a new CDC software application designed for the rapid analysis of recently reported STD surveillance data.

Learning Objectives:
1. Describe the latest trends in syphilis, gonorrhea, and chlamydia in the United States.
2. Describe newly emerging STD problems that have been identified through the use of national surveillance data.
3. Better understand how to interpret national and state-level STD surveillance data.
4. Become familiar with a new CDC software application for rapid analysis of STD surveillance data.

A3

Integrating HIV & Reproductive Tract Infections Among Women of Color

D Diallo[1], H Morales[2], M Akina[3], B Moore[4]

1. SisterLove Inc, Atlanta, GA, 2. Casa Atabex Ache, Bronx, NY, 3. National Asian Women's Health Organization, Oakland, CA, 4. Moonlodge Native American Women's Outreach Project, Riverside, CA

Background and Rationale: Reproductive Tract Infections are a new concept to the traditional approach of STD and HIV intervention. These infections are the sum of all infections that have adverse affect on the reproductive health outcomes of women and men. Including HIV and STDs, RTIs also address the many disease factors associated with endogenous and iatrogenic infections of the reproductive tract. The already pervasive disparity of health and healthcare distribution indicate strongly that women of color are disproportionately affected in all areas of RTI surveillance. The SisterSong Women of Color Reproductive Health Project is a collective of 16 women of color organizations representing each of the four primary racial/ethnic populations in the United States. This project is a three-year pilot program, funded by the Ford Foundation, to examine the capacity of women of color run organizations to respond to and integrate the concepts of RTIs into the reproductive and sexual health programs and services that they currently provide.

Objectives: To discuss the many advances in community-based education, prevention, care and treatment of RTIs among women of color, to report the results of qualitative and descriptive measures to collect data regarding women's risk and access to services regarding RTIs. Specific topics will include: 1) integrating HIV and STD into broad reproductive health concepts; 2) innovative and culturally appropriate/competent strategies for outreach and prevention of RTIs; 3) use of current surveillance and relevant data to develop community strategies for improved access to care; and 4) building an advocacy base among women of color organizations.

Content: A panel of representatives from each ethnic community of the SisterSong collective will present a paper discussing the planning, implementation and process for the development of a reproductive health advocacy agenda relevant to their ethnic population. A dialogue following the papers will be moderated.

Learning Objectives:

1. To develop community strategies for working on similar issues across cultures, classes and race paradigms.
2. Learn more about Reproductive Tract Infections and the approaches to research, surveillance, community education and treatment among women of color in the U.S.
3. Implement the integration of RTI education and treatment into current HIV, STD, family planning and other reproductive health services.

A4

Early Congenital Syphilis in the Russian Federation: Trends and Risk Factors

E Salakhov[1], S Hillis[2], L Tichonova[1], K Southwick[2], A Shakarishvili[2], and the Russian Congenital Syphilis Investigation Team

1. Ministry of Health of the Russian Federation, 2. Centers for Disease Control and Prevention

Background: Rates of syphilis and congenital syphilis have reached unprecendented epidemic proportions in the Russian Federation in recent years. From 1991 to 1998, the number of reported cases on congenital syphilis, which has irreversible and often fatal consequences, increased 29-fold. With timely diagnosis and treatment of syphilis in pregnant women, most cases of congenital syphilis should be preventable.

Objectives: Evaluate trends in and risk factors for congenital syphilis.

Methods: We evaluated trends in case reports of symptomatic early congenital syphilis between 1991 and 1998. These data helped provide justification for a retrospective cohort study of women who had $\geq$ 1 positive tests for syphilis during pregnancy and whose pregnancies occurred between 1995 and 1999. This study, which is underway in 5 study sites, addresses risk factors for inadequate treatment of syphilis in pregnant women and for delivery of an infant with congenital syphilis. Findings from this study will be presented.

Results: Although there were no procedural changes in the Russian surveillance system between 1991 and 1998, significant changes in the proportion of reported cases of symptomatic early congenital syphilis

occurred. During this time, the percent of symptomatic early congenital syphilis increased more than two-fold, from 21% (5/24) to 47% (395/847) (Prevalence Ratio = 2.24; 95% confidence Interval 1.02-4.90), while the proportion that was asymptomatic decreased from 79% (19/24) to 53% (452/847). In 1997 the national rate of congenital syphilis was 5.6/10,000 live births; great variation in observed rates occurred with many regions reporting congenital syphilis rates ranging from 10-40/10,000 live births.

Conclusions: Reported symptomatic congenital syphilis significantly increased between 1991 and 1998. The current study will identify modifiable risk factors for congenital syphilis.

Learning Objectives: Describe trends in and risk factors for congenital syphilis in the Russian Federation.

A4

Risk Factors for Pelvic Inflammatory Disease Among Ajerbaijani Refugees are Preventable

J Schmidt[1], S Hillis[1], J Kerimova[2], S Posner[1]

1. Centers for Disease Control and Prevention, 2. Relief International

Background: High rates of both lower and upper genital tract infections have been reported among the large population of refugee and internally displaced women living in Ajerbaijan. Increases in pelvic inflammatory disease (PID) may be associated with abortions, which are often performed for delayed menses in the absence of pregnancy testing.

Objectives: To identify risk factors for PID.

Methods: A retrospective cohort study was conducted among 460 Ajerbaijani women ages 18 to 44 who reported having been diagnosed with PID during the previous year. Potential risk factors included demographic factors, smoking, use of barrier and hormonal contraception, abortion history, antibiotic history, and husband or partner having an STD.

Results: We found that 19.8% of our study population reported having $\geq$ 1 episodes of PID diagnosed by a physician during the previous year. The highest risk of PID occurred among women who reported that their husband/partner had a history of STD. Independent risk factors for PID included husband/partner with STD (Odds Ratio (OR) = 4.1; 95% Confidence Interval (CI) 1.6-10.5), no antibiotic use at time of abortion (OR = 3.4; 95% CI 1.1-10.6), and having a previous abortion performed without having had a pregnancy test (OR = 2.3; 95% CI 1.2 – 4.8). 80% of women reported they would be interested in using a pregnancy test at home, if one were available. In subgroup analysis, cervical infection with chlamydia and/or gonorrhea was not associated with current PID.

Conclusions: Independent risk factors for PID among Ajerbaijani women receiving care in refugee health clinics are preventable; These include lack of antibiotic use at the time of abortion, having an abortion without a pregnancy test, and husband/partner with an STD.

Learning Objective: Describe risk factors for PID among refugee and internally displaced Ajerbaijani women.

A4

Testing for Trichomonas vaginalis in Male STD Clinic Attenders: an Elusive Infection

CA Metcalf[1], J Douglas[2], N DeAugustine[3], L Raveneau[4]

1. Centers for Disease Control and Prevention, Atlanta, GA, 2. Denver Public Health, Denver, CO, 3. Long Beach Department of Health and Human Services, Long Beach, CA, 4. North Jersey Community Research Initiative, Newark, NJ

Background and Rationale: *Trichomonas vaginalis* (Trich) is frequently detected in female STD clinic attendees, but is rarely diagnosed in male attendees because there is no effective method for detecting Trich in males.

Objectives: To describe the detection of Trich in a group of male STD clinic attendees, and to contrast this with Trich in female attendees.

Methods: Participants were recruited from 3 STD clinics for an HIV testing and counseling trial (RESPECT-2). Participants were screened for STDs at the baseline STD visit, and 3 months later. Trich culture was done using vaginal swabs (females) or urine sediment (males), with the InPouch TV kit or modified Diamond's medium as culture media.

Results: At baseline, the prevalence of Trich was 14/960 (1.5%) in males, and 80/740 (10.8%) in females. Of the 14 males with Trich, 4 reported contact with a female partner with Trich, and 11 were diagnosed with another STD (6 NGU, 4 gonorrhea, 1 chlamydia). Of the 8 males with Trich detected at baseline who were re-screened, all had a negative culture at 3 months. Of 368 males with a negative culture at baseline who were re-screened, 1 had an incident Trich infection detected at 3 months.

Conclusions: The low detection rate of Trich in males relative to females, suggests that urine culture is not an effective method of detecting Trich in males. This may be due to infection being more transient in males than in females, resulting in a lower prevalence, limited sensitivity of the test, or both. Trich control would benefit from the availability of better methods for detecting Trich in males, as standard treatment for NGU is not effective against Trich.

Learning Objectives:
1. Describe Trich detection in male STD clinic attendees.
2. Understand the limitations of current methods for detecting Trich in males.
3. Understand the public health importance of developing better methods for detecting Trich in males for improved Trich control.

A4

Emergence of a Possible Endemic Focus of Ciprofloxacin-Resistant *Neisseria gonorrhoeae* in Hawaii

C Iverson[1], S Wang[1], K Wolff[1], R Ohye[2], V Lee[2], H Domen[3], S Neal[1], D Trees[1], P Whiticar[2], P Effler[2], W Levine[1], and Investigative Team

1. Centers for Disease Control and Prevention, Atlanta, GA, 2. Hawaii Department of Health, Honolulu, HI, 3. Hawaii Department of Health State Laboratory, Pearl City, HI

Background: Gonorrhea, the second most commonly reported communicable disease in the United States, causes pelvic inflammatory disease, infertility, and ectopic pregnancy. Ciprofloxacin, a fluoroquinolone antibiotic, is widely used to treat this infection. In contrast to Asian countries, where 10%-63% of *N. gonorrhoeae* isolates are ciprofloxacin-resistant (CipR), only 0.1% of U.S. isolates in 1998 were CipR.

Objectives: To identify CipR/CipI (ciprofloxacin-intermediate-resistant) gonococcal isolates and determine their prevalence in Hawaii and ascertain risk factors for acquisition of CipR/CipI gonorrhea.

Methods: In September 1999, we examined Hawaii State Laboratory records to identify all known CipR or gonococcal isolates since 1991. We then conducted a case-control chart review study of all patients with gonorrhea between January 1, 1998 and September 30, 1999 at the Honolulu Sexually Transmitted Disease (STD) Clinic. Patients with CipR or CipI (case-patients) were compared to patients with ciprofloxacin-susceptible gonorrhea (control-patients).

Results: Of 256 positive gonorrhea cultures in 1998, 27 (10.5%) were CipR/CipI, compared to 14 (4.8%) of 290 in 1997 (p=0.01). Ten case-patients and 131 control-patients were identified at the STD Clinic. Case-patients were more likely than control-patients to have had foreign exposure, defined as recent travel to Asia or a sex partner with such history (5/10 versus 12/119; OR 8.9, 95% CI=1.9-43.2). Four case-patients (40%) were Filipino and had no foreign exposure, compared with 14 control-patients (11%) (OR 6.6, 95% CI=1.3-33.6).

Conclusions: This investigation confirmed a large increase in CipR/CipI gonorrhea in Hawaii. The increase appears due to importation from Asia and possibly to a local endemic focus. These findings resulted in the recommendation that fluoroquinolones, such as ciprofloxacin, no longer be used to treat gonorrhea in Hawaii.

Learning Objectives: To describe the prevalence of fluoroquinolone-resistant gonorrhea in Hawaii and discuss implications for treatment of gonorrhea.

A4

Emergence of *Neisseria gonorrhoeae* with Decreased Susceptibility to Azithromycin Associated with Commercial Sex in Kansas City, Missouri, 1999

C McLean[1], S Wang[1], G Hoff[2], L Dennis[2], S Neal[1], J Knapp[1], L Markowitz[1], W Levine[1]

1. Centers for Disease Control and Prevention, Atlanta, GA, 2. Kansas City Health Department, Kansas City, MO

Background: Sexually transmitted infections due to *Neisserria gonorrhoeae* are a leading cause of pelvic inflammatory disease, ectopic pregnancy and infertility in the United States and can facilitate the transmission of HIV infection. From March through December 1999, 12 men in Kansas City were found to have *N. gonorrhoeae* infections with markedly decreased susceptibility to azithromycin (AziDS-GC). Azithromycin is FDA-approved, although not CDC recommended, for gonorrhea treatment and it is widely used to treat *Chlamydia trachomatis* and other infections.

Objectives: To identify risk factors for acquiring AziDS-GC in Kansas City, Missouri.

Methods: AziDS-GC infections were identified in Kansas City through the Gonococcal Isolate Surveillance Project (GISP). GISP is a sentinel surveillance system that monitors antibiotic resistance of *N. gonorrhoeae* among men attending STD clinics in 27 cities. We compared data abstracted from medical records of the 12 AziDS-GC case-patients with data from 48 Kansas City GISP patients with azithromycin-susceptible gonorrhea (control-patients) treated during the same time period. We also interviewed all case-patients about sexual behaviors and travel history.

Results: The 12 case-patients had a median age of 33 years compared with 23 years for control-patients ($p<0.005$). Of the case-patients, six (50%) reported having sex with female sex workers compared with six (12%) of 48 control-patients (OR=7.0, 95% CI=1.4-37.3). Two case-patients were HIV-infected. All case-patients failed to report sexual contact with men or foreign travel.

Conclusions: This is the first cluster of persons with AziDS-GC reported to date. To prevent further dissemination of AziDS-GC in Kansas City, azithromycin should not be used to treat gonococcal infections, and local efforts to control gonorrhea should include improving STD prevention activities for men and women participating in commercial sex.

A4

Lack of Symptoms is the Primary Reason Non-ulcerative STDs are Untreated in the U.S.: Implications for Prevention of HIV Infection

T Farley[1], W Elkin[2], L Sanders[2], D Cohen[2]

1. Tulane University School of Public Health and Tropical Medicine, 2. Louisiana State University Medical Center, New Orleans, LA

Background: Bacterial STDs promote HIV transmission, but optimal ways to use STD control to prevent HIV infection in the U.S are unknown.

Objective: To determine why untreated non-ulcerative bacterial STDs are not treated.

Methods: Persons age 18-29 who were not seeking care for genitourinary symptoms (GUS) at eight medical and non-medical community sites in New Orleans were screened for gonorrhea, chlamydia and HIV and surveyed on GUS in the previous year. For persons who received previous care for GUS, we abstracted medical records on STD testing and treatment. We estimated the total number of persons who had gonorrhea or chlamydia in the previous year, the proportion treated, and the primary reasons for non-treatment.

Results: The prevalence of chlamydia was 10.9% (170/1,566), gonorrhea 2.2% (34/1,566), and HIV 1.0% (15/1,538). Gonorrhea was more prevalent in HIV-infected than HIV-uninfected persons (13% vs. 2.1%, p=.04), but chlamydia was not. Of all persons (infected or uninfected) with GUS in the previous year, 65% had received medical care; of these 22% were treated for gonorrhea and 37% for chlamydia, but <15% of untreated persons were later found to have either infection. We estimate that 51% of all cases of gonorrhea and 77% of all cases of chlamydia were never symptomatic; 73% of untreated cases of gonorrhea and 88% of untreated cases of chlamydia were never symptomatic, and 15% and 10% of cases respectively caused symptoms but persons did not receive medical care.

Conclusions: The primary reason why bacterial STDs are untreated is that most infected persons never have symptoms. The most effective way to use STD control for HIV prevention in the U.S. is screening for gonorrhea at high-prevalence sites.

Learning Objective: Understand the primary reasons why untreated non-ulcerative STDs in the U.S. are not treated.

A5

Community Health Outreach and Educational Services Program: A Collaboration for Public Health

S DeLisle[1], H Avent[2], J Valentine[1]

1. Centers for Disease Control and Prevention, Atlanta, GA,
2. Health Resources and Services Administration

Background and Rationale: Communities affected by syphilis are often also severely affected by infant mortality, chronic disease, inadequate access to health care, unemployment, and poverty. Community health centers, community action agencies, and local STD programs serve many of these communities. A fragmented health and social service system is less than optimal for protecting the public's health, and syphilis elimination calls for a comprehensive approach.

Objective: To improve the coordination of resources at multiple levels in order to develop a health promotion program, the Division of STD Prevention (DSTDP) entered into an agreement with the Bureau of Primary Health Care, the lead agency, to conduct the Community Health Outreach and Educational Services Program (CHORES). CHORES is a health and social service program targeting low-income communities. The goals are to reduce service duplication among participating agencies and improve service delivery.

Methods: Indigenous workers from the community action agencies are trained to integrate health promotion with health and social service referral. Local community health centers provide the primary health care. Using multiple strategies, CHORES provides information about community health center services, HIV/AIDS, STDs, and chronic disease, in addition to information and referral for the Child Health Insurance Program, Medicaid, Medicare, Women, Infants and Children services, and federally-funded food assistance.

Results: Local CHORES community advisory boards have been organized. Workers have received training in areas such as diabetic foot care and STD health education, and outreach is ongoing.

Conclusions: By facilitating the development of new partnerships to provide services, CHORES supports syphilis elimination by enhancing affected community involvement and expanding the accessibility of clinical services.

Learning Objective: To describe the CHORES Collaboration and its benefits for disadvantaged communities.

A5

Are You STD Free? Are You Sure?

WS Lester, CP Seigenthaler, WB Rogers, RD Burke

Metropolitan Health Department of Nashville and Davidson County, Nashville, TN; Centers for Disease Control and Prevention, Atlanta, GA

Background and Rationale: Nashville has been experiencing an epidemic of syphilis since 1996. In November 1998, using information from an investigative report produced by the Division of Epidemiology, Metropolitan Health Department, a community-led initiative called STD Free! was created to assist the health department in addressing the syphilis epidemic.

Objectives: To inform the Nashville community about the epidemic and to educate those most at risk about screening, treatment, and prevention.

Methods: Five workgroups were formed in STD Free! to bring the message to specific segments of the community (Faith Communities, Law Enforcement/Courts, Schools and Universities, Health Care Providers and Community and Social Service Agencies).

Results: Syphilis education and awareness is presented in middle and high schools, colleges, churches, community-based organizations, and at health provider and faith community symposiums. Syphilis and HIV testing is offered in high morbidity communities monthly in their community rooms, libraries and health clinics. Since 1998, STD Free! members have conducted over 150 presentations, more than 10,000 condoms have been distributed and

approximately 13,000 pamphlets, brochures and fact sheets have been distributed.

Conclusion: There are at least 50 active members of STD Free! who have committed time and resources to implementing an awareness campaign in Nashville. This is just the first step in beginning to eliminate syphilis and significantly reduce other STDs in Nashville.

Learning Objective: Describe the effectiveness of building and utilizing community partnerships to establish an environment receptive to syphilis prevention messages and facilitate dissemination and communication of those messages.

A5

Intensifying DIS Efforts Through Outside Reinforcements

D Wilmot[1], J Arno[2], C Langley[3], N Thomas[4], J Beall

1. Centers for Disease Control and Prevention, Atlanta, GA, 2. Marion County Health Department, Indianapolis, IN, 3. Indiana University, Indianapolis, IN, 4. Indiana State Department of Health, Indianapolis, IN

Background and Rationale: In 1998 Marion County, Indiana began to experience an increasing number of early syphilis cases. This increased morbidity continued through 1999 into 2000. The local DIS staff, typically made up of two first-line supervisors and 7 DIS, spent most of 1999 with only one first-line supervisor and four fully trained DIS.

Objective: To impact Marion County's high rate of syphilis by enhancing local DIS staff with federal and local DIS from Atlanta and other areas.

Methods: With assistance from CDC and NCSP, three teams were recruited and given 30-day temporary assignments to Marion County. Each team was made up of three to five DIS and one first-line supervisor. Teams began arriving, one each month, in April and continuing through June.

Results: Individual DIS caseloads decreased giving DIS the opportunity for more rapid follow-up of partners, suspects, associates, and reactors. The result was that better than 90% of cases were interviewed in three days or less and 99% of interviewed cases being interviewed in seven days or less. The percent of partners and clusters located and examined increased from 47% (one year ago) to 56% with 76% examined in seven days or less. The more rapid examination of partners led to less partners found with infection and more partners given prophylactic treatment. After two months of enhanced DIS staff, local officials began to observe decreasing syphilis morbidity.

Conclusion: Though enhanced DIS staffing was not the only augmentation to the Marion County STD Program during this time, it is believed that it did make a considerable contribution to the outbreak control efforts.

Learning Objectives:
1. Understand the importance of adequate DIS staffing during times of high incidence.
2. Recognize the need for standard procedures and guidelines with regards to supplementing personnel to outbreak areas.

A5

Rapid Interventions in Response to a Syphilis Outbreak Among MSM in Los Angeles

PR Kerndt, AM Lawrence, H Rotblatt, D Carr, IE Dyer

Los Angeles County Sexually Transmitted Disease Program, Los Angeles, CA

Background and Rationale: Reports of infectious syphilis in Los Angeles (L.A.) have declined continuously since 1987, with only 414 cases of early syphilis confirmed in 1999. These cases were primarily among African Americans and Hispanics living in south-central L.A. Beginning in mid-March 2000, however, an increase in syphilis cases was observed among HIV-positive men who have sex with men (MSM). Most were Hispanic or White, residing in the Hollywood area. Many reported anonymous sex partners met at bathhouses and sex clubs. An aggressive and multi-faceted outbreak response was initiated; the community was alerted and collaborations were formed to react swiftly to control the outbreak. Meetings with representatives of the MSM community were arranged. Jail screening was intensified in MSM units and prophylactic screening was initiated. Syphilis and HIV screening were offered from a mobile van and in several bathhouses. A comprehensive media

campaign highlighting the outbreak was initiated. The outbreak was brought under control three months later, after approximately 90 cases had been identified.

Objectives: To identify effective rapid intervention strategies and discuss barriers encountered and lessons learned. Specific topics will include: 1) community collaborations; 2) jail screening and prophylaxis; 3) media campaign; 4) expanded sero-surveillance; and 5) findings from surveys and a case-control study.

Content: A panel of key participants in the outbreak response will present descriptive epidemiology of the outbreak and details of the control efforts. Focus will be on lessons learned, including which activities were most and least effective, and proposed strategies for future control measures.

Learning Objective: Identify effective rapid intervention strategies in response to a syphilis outbreak in the MSM community.

A6

Serological Herpes Testing: "What Do We Tell Patients?"

K Turner, C Kent, J Klausner

STD Prevention and Control Services, San Francisco Department of Public Health, San Francisco, CA

Background: The 1999 CDC *Prevention Agenda for Genital Herpes* highlights the need to assess the "real world" performance and practicality of new type-specific herpes simplex virus (HSV) serologic tests in various of settings and populations. In January 1999 and in February 2000 two type-specific serologic tests for HSV type 2 (HSV-2) became available at the municipal STD clinic in San Francisco, City Clinic (SFCC).

Objective: To describe clinicians' perspective of serologic HSV testing and attitudes towards on-site testing.

Methods: Semi-structured qualitative interviews with SFCC clinicians focused on their perceptions of HSV serologic testing and their experiences with on-site testing.

Results: Eight of the ten fulltime SFCC clinicians were interviewed. Clinicians were not comfortable with the herpes information they provide to patients: there are no clear messages regarding asymptomatic infection, transmission, or how a diagnosis will affect intimate relationships. Clinicians agree serologic HSV testing can be valuable in specific situations, but there was no consensus regarding the value of routine HSV screening of asymptomatic persons. They were not comfortable with the accuracy of on-site testing and some found it difficult to interpret. Serologic HSV testing was often patient initiated and clinicians rarely offered the test without prompting for herpes testing from patients.

Conclusions: Interviews elicited information that will contribute to the development of a genital herpes prevention and control program for this STD clinic. Clinicians were generally supportive of serologic HSV testing, but any prevention program that includes testing must clarify guidelines for testing/screening, identify a reliable test, and provide succinct counseling messages and clear answers regarding asymptomatic infection and transmission.

Learning Objectives:

1. Participants will learn appropriate herpes counseling and education messages for patients who are serologically tested for herpes simplex virus type 2.
2. Participants will learn the challenges of implementing serologic herpes testing at a STD clinic.
3. Participants will learn the potential value of serologic herpes testing among the STD clinic population.

A6

Sexual Transmission of Genital Herpes Simplex Virus (HSV): A Time-to-Event Analysis of Risk Factors Associated with Rapid Acquisition

A Wald, J Baseman, S Selke, S Lowens, E Lairson, J Zeh, R Ashley and L Corey

Departments of Medicine, Epidemiology, Laboratory Medicine, and Statistics, University of Washington, Seattle, WA USA

Background: Previous studies of risk factors for acquisition of genital herpes have relied on prospectively followed couples discordant for HSV-2 infection. These studies are biased by inclusion of couples counseled regarding safer sex practices.

Objectives: To determine risk factors associated with acquisition of genital HSV infection in unobserved sexual partnerships.

Methods: Patients with virologically and serologically confirmed initial genital herpes infection were asked to complete a questionnaire eliciting demographic and sexual behavior history. Duration and characteristics of partnerships that resulted in HSV transmission were identified.

Results: 139 patients with confirmed initial HSV infection were recruited into the study. Subjects were mostly white (70%) and female (57%), with a mean age of 27.8 years. Most (85%) reported only one sex partner in the month prior to infection. Median duration of the sexual partnership until transmission was 150 days (Interquartile range (IR), 60-285) or 40 sexual encounters (IR, 11-88). Median time and number of sex acts to transmission did not differ in men versus women or persons acquiring HSV-1 versus HSV-2. Risk factors for acquisition of genital HSV-2 included having never been told by the partner that s/he had genital herpes (p=0.04, logrank test), having never talked about genital herpes with the partner (p=0.04), and being in a "casual" sexual relationship (p=0.0001). Condom use was not associated with prolonged time to infection.

Conclusions: Genital herpes is transmitted rapidly in new relationships. Knowledge of genital herpes infection is associated with delayed transmission of genital herpes. Serologic testing for HSV may decrease transmission of genital herpes.

Learning Objective: Identify and understand risk factors for acquisition of genital HSV infection.

A6

Seroprevalence and Correlates of Herpes Simplex Virus Type 2 (HSV-2) Infection in Five Sexually Transmitted Disease Clinics

S Gottlieb[1,2], DS Schmid[3], JM Douglas Jr[1,2], M Foster[2], A Barón[1], J Zenilman[4], G Bolan[5], F Rhodes[6], J Rogers[7], ML Kamb[3], TA Peterman[3], Project RESPECT Study Group

1. University of Colorado Health Sciences Center, Denver, CO, 2. Denver Public Health, 3. Centers for Disease Control and Prevention, Atlanta, GA, 4. Baltimore City Health Department, 5. San Francisco Health Department, 6. Long Beach Health Department, 7. New Jersey Health Department, Newark

Background: Large national surveys have described seroprevalence and correlates of HSV-2 infection in the general U.S. population. However, in the STD clinic setting, most large HSV-2 seroprevalence studies have been outside the U.S. or primarily in U.S. women.

Objectives: To determine seroprevalence and correlates of HSV-2 infection among male and female STD clinic patients in five U.S. cities.

Methods: Sera and questionnaire data were collected at enrollment into Project RESPECT, a randomized clinical trial evaluating HIV/STD counseling efficacy in five urban STD clinics. Sera from 4128 participants were tested for HSV-2 antibody using a type-specific strip immunoblot assay (Chiron.)

Results: Overall, HSV-2 seroprevalence was 40.7% and increased with age as shown below:

		Age, years					
		14-19	20-24	25-29	30-39	>40	Total
Males (n=2348)	Black	15%	33%	42%	43%	65%	39%
	Non-black	6%	8%	17%	29%	49%	20%
Females (n=1780)	Black	37%	60%	76%	77%	87%	63%
	Non-black	26%	30%	39%	58%	61%	39%

Independent predictors of HSV-2 infection by multivariate analysis were: female sex (OR 3.9, 95%CI 3.3-4.7), black race (OR 2.3, 2.0-2.8), age >25 (OR 1.6, 1.3-2.0), >20 lifetime sexual partners (OR 1.5, 1.3-1.8), >10 years of sexual activity (OR 1.7, 1.3-2.1), a prior diagnosis of syphilis (OR 2.0, 1.5-2.8) or gonorrhea (OR 1.9, 1.6-2.2), less than a high school education (OR 1.4, 1.2-1.7), and HSV-1 antibody (OR 0.8, 0.7-1.0). Only 11.7% of seropositive persons had ever been diagnosed with genital herpes.

Conclusions: HSV-2 infection is common in U.S. STD clinic attendees, even among very young age groups and especially in young women. Efforts to prevent genital herpes should begin early in this high-risk population.

Learning Objective: Describe demographic differences in HSV-2 seroprevalence among STD clinic attendees.

A6

National Seroprevalence of Human Papillomavirus Type 16 (HPV-16)

KM Stone[1], *KL Karem*[2], *MR Sternberg*[1], *GM McQuillan*[3], *AD Cordell*[2], *ER Unger*[2], *WC Reeves*[2]

1. Division of STD Prevention, National Center for HIV, STD, and TB Prevention, Centers for Disease Control and Prevention, Atlanta, GA, 2. Division of Viral and Rickettsial Diseases, National Center for Infectious Diseases, Centers for Disease Control and Prevention, Atlanta, GA, 3. Division of Health Examination and Statistics, National Center for Health Statistics, Centers for Disease Control and Prevention, Hyattsville, MD,

Background: HPV-16 infection is very common in sexually active women and men, and persistent cervical infection is causally associated with cervical cancer. No population-based HPV prevalence data are available for the United States, and little is known about the epidemiology of HPV-16 infection in men.

Objectives: To compare HPV-16 seroprevalence among demographic groups.

Methods: From1991-1994, serum samples and questionnaire data were collected for the second phase of the National Health and Nutrition Examination Survey (NHANES) III, a representative sample of the non-institutionalized civilian population of the United States. We tested all available sera from sample persons age 12-59 years for IgG antibodies to HPV-16 using an ELISA assay based on virus-like particles. Sera were tested using a 1:20 dilution. An absorbance cut off value was determined by analysis of control sera and statistical analysis utilizing receiver-operating characteristics to optimize the level of specificity and sensitivity. Seroprevalence estimates were weighted to represent the total US population and to account for oversampling and nonresponse to the household interview and physical examination.

Results: HPV results were available for 7218 (97%) of the 7476 sera collected. Preliminary analyses show the HPV-16 seroprevalence in the total population in 1991-1994 was 13% (95% confidence interval [C.I.], 11.5-14.7%); 17.9% (C.I.,15.8-20.3%) in women, 8% (C.I., 6.4-9.8%) in men, 12.5% (C.I., 10.7-14.5%) in whites, 19.1% (C.I., 17-21.5%) in blacks, and 8.9% (C.I., 7.9-10.1%) in Mexican-Americans. In all racial/ethnic groups, HPV-16 seroprevalence was at least two-fold higher in women than in men. HPV-16 seroprevalence tended to increase with age, peaking at age 20-29, then decreasing after age 49. Black women age 20-29 had the highest seroprevalence, 36% (95% C.I., 31.8-41.6%).

Conclusions: These demographic trends in seroprevalence of HPV-16 emphasize the need to better understand acquisition and persistence of genital HPV infections associated with cervical cancer.

Learning Objective: Describe demographic differences in HPV-16 seropositivity among the US population.

A6

ASHA's Answers to FAQs about HPV

LK Gilbert, L Jolley, AL Austell, JF Grosshans

American Social Health Association, Research Triangle Park, NC

Background: HPV and the possible sequelae (genital warts or certain cancers) remain unknown, confusing and/or misunderstood. While information is available, the general public, patients, providers, policy-makers and the media continue to seek answers, clarification and clinical consensus.

Objective: ASHA has established multiple channels of interactive health communication to answer questions and evaluation strategies to assess the frequency and type of questions asked.

Methods: Thousands of people contact ASHA's hotlines, Web sites, e-mail and traditional mail systems every day. From these, the most often questions and answers about HPV and cervical cancer have been compiled, content analyzed, and frequencies tabulated by theme. Further, a list of frequently asked questions (FAQs) and responses has been compiled for distribution.

Results: The analyses indicate that questions differ by media and intended audience. ASHA has crafted answers to the difficult and complicated questions that people ask.

Conclusions: The general public, patients, providers, policy-makers and the media continue to have a myriad of questions that require public health education responses.

Learning Objectives: Following this workshop, participants will be able to 1) describe FAQ's by

specific audiences, 2) define and explain the topics that continue to defy public understanding.

A6

Integration of Hepatitis C Counseling, Testing, and Educational Activities into an Existing Sexual Health Program

GA Whitby, MB Krempasky, D Coleman, KJ Dorian

Columbus Health Department, Columbus, OH

Background and Rationale: HCV is the most common chronic blood borne viral infection in the United States. Most infected persons are unaware of their infection and are capable of transmitting the disease through high-risk injection drug use.

Objective: To prevent new and to address chronic HCV infection and its sequelae by integrating HCV counseling, testing and educational activities into our existing Sexual Health Program.

Methods: STD clinic and HIV counseling and testing site (CTS) clients complete a short questionnaire relating to their HCV risk. Those at highest risk are offered testing for HCV antibody. Positives have an ALT performed. RIBA is performed only on those positives that did not self-report IDU. HCV positives are given their results over the phone or in person by viral nurse specialist. Positives are given an "HCV positive" packet and the opportunity to have an educational appointment with the viral nurse along with HAV/HBV screening & vaccination. The viral specialist also assesses clients' need for drug and/or alcohol services, HIV testing, and hepatitis A and/or B immunizations. Follow-up on HCV positive individuals determines if behavioral changes have been made.

Results: From January 2000 through mid-May 2000, 471 clients have been tested for HCV infection with 55 (11.7%) positive. Of the positives, 70% were IDUs, and 29% had high ALTs. Of those tested, average age was 33; 50% were Black, 44% White; 61% were male, 39% female.

Conclusions: Clients that attend STD Clinics and HIV-CTS are at risk for HCV, especially those that are IDUs. We have found that it is easy to integrate counseling, education, and testing into our Sexual Health Program.

Learning Objective: Understand how to integrate HCV screening and counseling into an STD clinic operation.

A7

STD Prevention and Care: Lessons Learned from Managed Care, Purchasers, and Federally-Funded STD Programs

LA Anderson[1], D Scholes[2], S Mercure[3], D Rein[1,4], Gail Bolan[5], C Carlson[6]

1. Centers for Disease Control and Prevention, Atlanta, GA, 2. Group Health Cooperative and University of Washington, Seattle, WA, 3. National Business Coalition on Health, Washington, DC, 4. Andrew Young School of Policy Studies, Georgia State University/Ivan Allen College, Georgia Institute of Technology, Atlanta, GA, 5. Department of Health Services, State of California, Berkeley, CA, 6. American Association of Health Plans, Washington DC

Background and Rationale: Any attempt to recommend strategies to enhance STD prevention in managed care must begin with an assessment of the efforts already being undertaken in the field and the gaps that remain. In 1996, the STD Prevention Partnership emphasized the need for collaboration between public and private sector providers. As part of this effort, a series of reports were commissioned to identify the challenges and recommend solutions with respect to managed care plans, the employer purchasers, and public health.

Objectives: To discuss the findings and lessons learned from managed care, business, and public sectors concerning STD prevention and care. The following topics will be presented: 1) the findings and recommendations from a recent report *The Role of Managed Care in STD Prevention and Control*; 2) lessons learned from assessments of business coalitions (purchasers of health care) concerning their priorities related to roles and responsibilities affecting health care benefits and programs related to STD prevention and care; 3) the findings from a study describing the current and planned activities of the federally-funded STD programs and MCOs; and 4) an illustrative example of an STD program that incorporates all of these sectors, the California Chlamydia Action Coalition.

Content: The first portion will include three panelists describing their findings, the critical lessons learned, and next steps relative to STD prevention and care. The moderator will then facilitate a brief question-and-answer session. The fourth panelist will provide a case example describing the California Chlamydia Action Coalition. To conclude the final panelist will provide summary remarks and the moderator will facilitate a dialogue with the audience concerning the identified gaps and lessons learned.

Learning Objectives:
1. Describe the importance of these different sectors in influencing STD prevention and control.
2. Identify important areas for collaboration and the gaps that remain.

A8

An Introduction to Program Evaluation for STD Programs

K Childers, B Apt

Centers for Disease Control and Prevention, Atlanta, GA

Background and Rationale: Program evaluation is a tool that STD program managers can use to assess whether program activities are effective in achieving desired outcomes. Data collected during an evaluation can help managers monitor progress toward achieving program goals, and highlight needed program modifications. To assist public health agencies design and conduct evaluations, CDC developed and published a Framework for Program Evaluation in Public Health (MMWR, September 17, 1999). This publication describes the essential elements involved in the evaluation of public health programs. Also, this year, the Division of STD Prevention added a program evaluation chapter to its STD Program Operation Guidelines to provide evaluation guidance that utilizes examples of STD program activities. This workshop will draw upon these publications to assist program managers in designing evaluations that will produce findings useful for improving STD prevention activities.

Methods: This workshop will use a combination of presentations, group participation, and exercises to (1) demonstrate the uses and benefits of program evaluations, (2) familiarize participants with different types of evaluations, and (3) outline the steps in designing and conducting evaluations. Presenters will use a mock intervention to explain the types and steps of evaluations, and participants will be guided through a small group exercise in which they will design an for an STD prevention activity.

Learning Objectives:
Participants will be able to:
1. Identify the ways that program evaluations can be used to improve STD prevention activities.
2. Describe the steps of an evaluation of an STD program.

A9

Media Advocacy and Outreach Approaches for STD Prevention

D Wohlfeiler

University of California, San Francisco

Background and Rationale: Media outreach and advocacy is a relatively inexpensive way to increase awareness and to influence policy makers and community leaders on STD prevention. Media outreach and media advocacy pose multiple challenges for STD program staff, particularly within health department settings: complicated protocols for working with the media; the difficulty in finding compelling stories; complexity of our work; confidentiality; lack of trust in reporters. Despite all these, working with the media is often much more effective than putting out a new brochure, poster or billboard in both raising awareness and affecting policy.

Methods: This interactive workshop is aimed at helping STD program staff go from reactive to proactive; understand reporters' and editors needs; clarify policy goals before using media; frame and create news; and identify resources for further learning. Simple systems to support media work will be identified. We will also spend time discussing how to address difficult issues in the press, and the role of large media outlets as well as smaller community-focused media. Successes and failures will be frankly described; please bring own!

Learning Objectives:
1. Participants will understand key concepts of media outreach and media advocacy.
2. Participants will identify further resources for ongoing learning how to work with media.

B1

Should We Call the Police for Lolita? Developing a Consistent Approach to Statutory Rape Situations in Clinical Practice

SC Matson[1], MM Flood[2]

1. Milwaukee Adolescent Health Program, Medical College of Wisconsin, Milwaukee, WI, 2. Child Protection Center, Children's Hospital of Wisconsin, Milwaukee, WI

Background and Rationale: Delivering reproductive health services to minors requires that providers understand the legal and ethical aspects of adolescent sexual relationships. Most states allow for the confidential evaluation and treatment of sexually transmitted infections (STIs) for minors of all ages. However, if we care about the health and safety of our young patients we must be vigilant regarding unsafe or dangerous sexual relationships. An adult having sex with a minor almost always results in an unequal, manipulative relationship. Providing services to a youth in an unsafe relationship may put the provider at risk for litigation. Practitioners serving sexually active teens must obtain a pertinent sexual history that will allow them to asses the safety and legality of the youth's relationship. This workshop will give providers the background information necessary to understand the negative effects of statutory rape on youth. A clinical tool will be presented allowing for the identification and referral of unsafe/illegal relationships.

Methods: The first half of the workshop will be a didactic lecture reviewing the literature regarding the negative outcome of statutory rape, such as STIs, depression, and pregnancy. The basic legal principles will be covered and a consistent approach to the evaluation of adolescent sexual relationships will be presented. The workshop will end with a discussion of several patient vignettes allowing the attendees to use their new gained skills in evaluating adolescent sexual relationships.

Learning Objectives:
1. Learn the basic legal and clinical aspects of sexual relationships between adults and minors.
2. Develop a consistent, knowledge-based approach to the evaluation and referral of adolescent sexual relationships.
3. Utilize newly developed skills to evaluate numerous adolescent sexual relationships.

B2

Feasibility of Conducting Integrated Biological and Behavioral Surveillance

E MacLachlan[1], E Baganizi[1], Z Mint-Youbba[2], Y Maiga[2], F Bougoudogo[2], S Castle[3], K Parker[1], CA Ryan[1], P Gorbach[4]

1. Centers for Disease Control and Prevention, Atlanta, GA, 2. Ministry of Health, Bamako, Mali, 3. London School of Hygiene and Tropical Medicine, London, England, 4. San Diego State University, San Diego, CA

Background and Rationale: Combined behavioral and biomarker surveys hold great promise for poor or developing countries where resources are scarce. To determine the feasibility of conducting an integrated survey many financial, logistical, epidemiologic and ethical considerations must be taken into account.

Objectives: Examine feasibility, acceptability and cost-effectiveness of the 'Integrated STD and Behavior Surveillance' (ISBS) study conducted in Mali from March-June 2000.

Methods: Cost data, manpower and other resource data from the ISBS in Mali will be analyzed to help determine the cost-effectiveness of replicating the ISBS study design in other countries. Feasibility will also be assessed through consideration of the stage of the HIV epidemic and availability of STD/HIV data. Ethical requirements and participation rates in the ISBS will also help determine feasibility.

Results: Cost-effectiveness of integrated biological and behavioral surveillance and the epidemiologic, ethical and logistical conditions that must be in place for a successful survey. Specific results will include the total cost of the study and study elements such as laboratory technicians. Ethical considerations of unlinked, anonymous HIV testing and how the current state of STD/HIV surveillance in a country affects feasibility will be reported. The impact of providing clinical and VCT services will be evaluated.

Conclusions: Integrated surveys may be an efficient and cost-effective means to gather important information about HIV epidemic in a country with little to no current data.

Learning Objective: This examines the feasibility of conducting integrated behavior and biomarker

surveys and surveillance and indicates the conditions necessary for use of such a survey in poor or developing countries, or as a rapid assessment tool in multiple settings.

B2

Integrated STD Prevalence and Behavior Surveillance (ISBS) Among Medium and High Risk Population Groups in Mali

E Baganizi[1], E MacLachlan[1], Z Mint-Youbba[2], Y Maiga[2], F Bougoudogo[2], S Castle[3], K Parker[1], P Gorbach[4], CA Ryan[1]

1. Centers for Disease Control and Prevention, Atlanta, GA, 2. Ministry of Health, Bamako, Mali, 3. London School of Hygiene and Tropical Medicine, London, England, 4. San Diego State University, San Diego, CA

Background and Rationale: Mali has little recent STD/HIV behavior and prevalence information. Both these data needs are addressed in a combined behavioral and biomarker survey among high and medium risk groups.

Objectives: To determine what behavior in Mali may be contributing to the HIV epidemic and to determine the prevalence of trichomoniasis, gonorrhea, chlamydial infection, syphilis and HIV.

Methods: Formative research identified occupational groups at high and medium risk of HIV transmission. From March to June 2000, a cluster sampling of 2250 persons in five risk groups in four urban sites was conducted. Individuals provided urine and a finger-stick blood spot. A behavioral questionnaire was administered. Counseling, test results and free treatment was provided.

Results: Expected results include: STD/HIV prevalence data in the different target groups and sites. This data will be linked with sexual partner data, health-seeking behavior and STD/HIV risk behavior information collected from the same groups. These data will be analyzed according to target group and geographic location. Recommendations for STD/HIV program planning among these groups will be presented.

Conclusions: Integrating biomarkers into behavioral surveillance and using formative research to define groups expands the information gained from behavioral surveys and allows for more targeted program planning.

Learning Objective: Define specific sexual behavior that may be contributing to the HIV epidemic in Mali and links this information to disease prevalence. Examine 'bridging' groups that may play a role in transmission to the general population and possible interventions.

B2

Standards for HIV/STD Behavioral Surveillance and Other Questionnaire-Based Measurement

D Lentine[1], R Fichtner[2], J Anderson[2], A Lansky[2], A Shah[2], C Rietmeijer[2]

1. Research Triangle Institute, Atlanta, GA, 2. Centers for Disease Control and Prevention, Atlanta, GA

Background and Rationale: Measuring attitudes and behaviors related to HIV and other STDs is essential for planning and evaluating prevention programs. This information is collected through numerous sources; however, the lack of standardized measures has limited the ability to compare and synthesize data. To address the need for standard measures, the National Center for HIV, STD, and TB Prevention (NCHSTP) Behavioral Surveillance Working Group (BSWG) was formed in 1997 to develop and promote the use of standard measures.

Objective: The objective of this presentation is to present data that demonstrate the utility of using the standard measures developed by NCHSTP BSWG.

Methods: The standard measures were developed through an iterative process, which includes review of the literature, review of existing instruments, and expert review of draft questions. Subsequently they have been tested in cognitive laboratories and pilot tested on a number of surveys among the general population, at-risk populations, and infected populations.

Results: Results of cognitive testing and analyses of pilot data using the standard measures indicate that the measures developed thus far are methodologically sound and are of considerable benefit to improving the data needed for prevention. Core measures for Sexual Behavior, Drug-Related Risk, HIV Testing,

and documentation on the background and methods used are available on the web at: http://www.cdc.gov/nchstp/od/core_workgroup/default.htm.

Conclusion: The quality and usefulness of behavioral and other data required for planning and evaluating prevention programs could be improved through the broad use of standard measures.

Learning Objectives:
1. Present data that (1) justify the need for standard measures and (2) demonstrate the benefits of standard measures when they are utilized.
2. Encourage researchers to use the standard measures on their data collection instruments and to participate in the development and improvement of standard measures.

B2

Filling the Epidemiologic Gaps with Qualitative Data

Panelists: J Ellen[1], J Jennings[1], T Meyers[1], S Johnson[2], B Stoner[3], N Bir[1], R Reid[1], J Peterson[1], J Zenilman[1]

1. Johns Hopkins School of Medicine, Baltimore, MD, 2. The Baltimore City Health Department, 3. Washington University School of Medicine, St. Louis, MO

Background and Rationale: Public health programs use STD surveillance data to guide and monitor STD prevention and control efforts. These data, even when linked with census data, are unable to fully explain the social context which foster STD transmission in high prevalence communities. Qualitative methods are well suited for describing social context. However, qualitative methods are not without limits. Qualitative data collection is time intensive and slow to yield results. Furthermore, because these studies often use convenience sampling, the representativeness of the data is often in question.

Objectives: (1) To review evidence that routine STD surveillance data do not fully explain social context; (2) to provide examples of how qualitative data can expand our understanding of STD transmission and acquisition; (3) to provide an example of how STD surveillance data can be used to guide the sampling scheme used for qualitative data collection; and (4) to discuss how the findings of qualitative data collection and analyses can be integrated into a public health programs such as the syphilis elimination project.

Content: First, the moderator will make a presentation about the importance of social context in STD transmission and acquisition. Next, an investigator will describe the limits of STD surveillance data to explain social context. Then, two qualitative researchers working collaboratively with public health programs will present their methods and findings. Following these presentations, an investigator will present a novel approach to using surveillance data to guide sampling for qualitative assessments. Finally, the moderator will facilitate a dialogue with audience about integrating qualitative data collection into programmatic activities.

Learning Objectives:
1. Understand the importance of social context on STD transmission and acquisition.
2. Understand the value of intermittent qualitative data collection to augment routine surveillance.

B3

Trends in Gonorrhea (GC) Rates Among Men Who Have Sex With Men (MSM), Denver 1990–1999

C Rietmeijer, J Douglas Jr, F Judson

Denver Public Health, Denver, CO

Background and Rationale: Falling GC rates among MSM constituted the first proof that risk behaviors among MSM were decreasing early in the AIDS epidemic. Recently, reports of syphilis and GC outbreaks among MSM suggest a reversal of this trend. We studied GC rates among MSM visiting the Denver Metro Health (STD) Clinic (DMHC) from 1990 through 1999.

Methods: Analysis of the computerized DMHC patient database.

Results: The number of visits and proportion of all male visits by MSM fell from 1342 (15.8%) in 1990 to 654 (8.4%) in 1995 and then rose to 860 (12.3%) in 1999. The proportion of MSM engaging in anal intercourse was stable at approximately 55% through 1996 and then increased to 79.1% in 1999. The number (rate) of GC among MSM (all anatomical sites) dropped from 86 (6.4%) in 1990 to 35 (5.4%) in 1995, and then increased to 55 (7.9%) in 1996, 78 (11.1%) in 1997, 88 (10.8%) in 1998, and to

110 (12.8%) in 1999. GC rates among heterosexual men dropped from 8.2% in 1995 to 5.7% in 1999. The proportion of HIV-infected MSM who were co-infected with GC increased from 8/86 (9.3%) in 1995 to 14/71 (19.7%) in 1999.

Conclusions: Since 1995, high-risk behaviors and GC rates are increasing among MSM visiting the DMHC. The time-related association between this increase and the availability of highly active antiretroviral therapy for HIV infection suggests a relaxation of safe sex behaviors among MSM possibly related to the perception that HIV may now be less of a threat. Efforts should be increased to prevent the potential emergence of a second wave of HIV infections in MSM.

Learning Objective: To understand recent trends of GC among MSM in Denver and its potential relationship to HIV epidemiology.

B3

An Outbreak of Primary and Secondary Syphilis Among Men Who Have Sex with Men (MSM) in Southern California

KT Bernstein[1], C Iverson[2], IE Dyer[3], R Tulloch[1], C McLean[2], M Lawrence[3], J Montes[1], A Kaur[3], D Kodagoda[3], L Finelli[2], P Kerndt[3], G Bolan[1]

1. Sexually Transmitted Disease Prevention and Control Branch, California Department of Health Services, Berkeley, CA,
2. Division of Sexually Transmitted Disease Prevention, NCHSTP, Centers for Disease Control and Prevention, Atlanta, GA,
3. Los Angeles County Sexually Transmitted Disease Program, Los Angeles, CA

Background and Rationale: Although syphilis morbidity in California is declining, the state continues to see outbreaks in selected populations.

Objective: To describe a recent outbreak of primary and secondary (P&S) syphilis among a population of men who have sex with men (MSM) in eight southern California health jurisdictions.

Methods: Interviews and case-patient reviews were conducted of persons with P&S syphilis reported to the California Department of Health Services from January 1, 1999 through April 30, 2000. Data collection included sexual orientation, drug use, self-reported HIV serostatus and locations of sex partner recruitment.

Results: The epidemiologically relevant period was January 1, 2000 through April 30, 2000. During this time 74 P&S syphilis case-patients were identified, 45 (61%) of which were MSM, including one male to female transgender. The proportion of MSM cases identified during this period in 2000 (61%) was 2.7 times larger than the proportion identified in the same period in 1999 (22%) [p=0.0014]. The 19 Whites made up the largest proportion of MSM case-patients (42%) followed by the 16 Latinos (36%). Twenty-six (58%) of the MSM case-patients reported being HIV seropositive, with an additional 10 unknown (22%) and 9 (20%) seronegative. Bathhouses were named by 16 (36%) of the MSM case-patients as locations for meeting sex partners, and 4 (9%) reported sex with partners found through the Internet. Seven (16%) of the MSM P&S case-patients reported methamphetamine use.

Conclusions: This outbreak underscores the numerous challenges that local and state health departments face in syphilis elimination. The frequent reporting of bathhouse and Internet sex contacts, coupled with the high HIV seroprevalence warrants innovative and sensitive surveillance in order to target prevention and intervention.

Learning Objectives: Describe an outbreak of P&S syphilis among an MSM population in southern California.

B3

Re-emergent STDs Among Men Who Have Sex with Men: A Public Health Crisis

HH Handsfield, S Desmon, B Krekeler, WLH Whittington

Public Health—Seattle & King County and University of Washington, Seattle, WA

Background: By 1996, syphilis had been eliminated in King County, Washington (population 1.7 million) and gonorrhea in men who have sex with men (MSM) was tenfold less frequent than in 1982. Infectious syphilis reappeared in 1997 and became epidemic in MSM, and gonorrhea and chlamydia rates increased.

Objective: To describe the continuing epidemic of bacterial STD in MSM.

Methods: Analysis of reported cases of infectious syphilis (primary, secondary, early latent), gonorrhea, chlamydia, and selected behavioral correlates.

Results: Infectious syphilis cases in MSM/total reported cases (%) were 5/18 (28%) in 1997, 35/42 (83%) in 1998, 68/80 (85%) in 1999, and 32/38 (84%) 1/00-6/15/00. The proportions of primary (16%), secondary (68%), and early latent infections (16%) have not changed. Among MSM with syphilis, median age (range) was 35 (19-56) yr, 73% were known HIV-positive, and 63% acknowledged anonymous sex partners (median 3, range 1 to >100), usually in bathhouses or sex clubs. The annual rate of infectious syphilis per 100,000 King County MSM is ~160 overall and ~1000 among HIV-positives. The minimum reported gonorrhea rates per 100,000 MSM were 225 in 1994-97, 420 in 1998, and 475 in 1999, vs. 44-49 in the remainder of the population; the chlamydia trend is similar. Traditional control methods (partner services, screening) have had little discernible effect on the epidemic.

Conclusions: Bacterial STDs are resurgent among King County MSM, probably due to adverse behavioral changes related to improved HIV/AIDS therapy. HIV transmission likely is increasing concomitantly and the national syphilis elimination initiative is threatened, creating dual public health crises. Major behavioral and attitudinal changes among MSM probably are prerequisites for successful control; innovative strategies are required to bring this about.

Learning Objective: To describe an epidemic of bacterial STD in men who have sex with men and implications for HIV transmission and the national syphilis elimination initiative.

B3

Sleepless in Seattle: Risk Behaviors and Bacterial STDs Among HIV-positive and HIV-negative Men Who Have Sex with Men (MSM)

WLH Whittington, D Dithmer-Schreck, T Collis, T Tyree, R Wood, HH Handsfield, C Celum

University of Washington and Public Health—Seattle & King County, Seattle, WA

Background: In Seattle, reported cases of gonorrhea, chlamydia, and early syphilis have increased dramatically among MSM since 1997.

Objectives: To describe sexual and drug use behaviors during the preceding 2 mo and the prevalence of bacterial STD among HIV-negative and HIV-positive MSM.

Methods: At five clinical facilities (public STD and HIV-testing clinics, an AIDS clinic, a private practice, and HPV anal dysphasia study), 904 MSM completed an anonymous questionnaire and if they consented, were tested for gonorrhea, chlamydia, and syphilis.

Results: The mean age of 904 participants was 36.5 yr and they reported a mean of 5.3 male sex partners during the preceding 2 mo. HIV-infected men (n=319) were more likely to have had receptive anal sex (72%) then were HIV-negative men (64%, $p<0.05$). Of men acknowledging any anal sex, 43% reported inconsistent condom use ("never" or "sometimes"). Over 25% of both HIV-positive and HIV-negative men recruited ≥1 sex partners at bathhouses or sex clubs. Crystal methamphetamine and amyl nitrate ("poppers") use was acknowledged by 20%/53% of HIV-positive men and 12%/37% of HIV-negative men ($p<0.05$, each comparison). Among men attending the STD Clinic, anorectal gonorrhea or chlamydia was detected in 10.8% and 14.7% of HIV-negative and HIV-positive men, respectively. Among men seen at other clinical venues, 3.5% of HIV-negative and 5.9% of HIV-positive men had anorectal gonorrhea or chlamydia. At these facilities, early syphilis was diagnosed in 0 of 79 HIV-negative men and in 3 (2.4%) of 127 HIV-positive men.

Conclusions: High rates of bacterial STD suggest failure of significant proportions of HIV-negative and HIV-positive MSM to adhere to sexual safety

measures. Community norms on sexual safety need to be reassessed and new prevention strategies tested.

Learning Objectives: To describe sexual and drug use behaviors among MSM receiving care at five different clinical venues. To compare the behaviors of HIV-positive and HIV-negative men.

B3

Knowledge and Awareness of Syphilis Among Attendees of the International Mr. Leather Competition

C Ciesielski[1,2], M Zajackowski[1], J Flynn[3], F Swanson[3]

1. Chicago Department of Public Health, 2. Centers for Disease Control and Prevention, Atlanta, GA, and 3. Howard Brown Health Center, Chicago IL

Background: Reports of syphilis among men who have sex with men (MSM) have suddenly emerged in multiple locations of the United States after more than a decade of quiescence.

Objectives: To measure the knowledge and awareness of syphilis among MSMs gathering in Chicago for the International Mr. Leather competition, an annual event drawing approximately 3,000 MSMs from four continents.

Methods During May 25-28, 2000, attendees who visited the vendor area were asked if they were willing to complete a self-administered survey.

Results: 683 surveys were completed; 576 (84.8%) respondents were white, 40 (5.9%) Black, 38 (5.6%) Hispanic, and 16 (2.4%) Asian. Respondents were from 14 countries, and 33 States; 256 (37.5%) were from metropolitan Chicago. The median age was 38 years (range 20 to 65 years). Oral and anal sex were correctly identified as a mode of syphilis transmission among 573 (83.9%) and 638 (93.4%) of respondents, respectively; 393 (57.5%) knew syphilis facilitated HIV transmission, and 641 (93.8%) believed syphilis to be a serious infection, although only 46 (6.7%) correctly answered all the questions on syphilis transmission and its health impact. Although 517 (75.7%) correctly identified a penile ulcer as a sign of syphilis, and 441 (64.4%) and 423 (61.9%) identified anal and oral ulcers, respectively, only 179 (26.2%) identified rash as a sign, and 420 (61.5%) incorrectly identified urethral discharge as a sign of syphilis. Overall, 326 (47.7%) of men were aware of the syphilis reports among MSMs.

Conclusions: These data suggest that lack of awareness and knowledge of syphilis' signs and symptoms is prevalent among MSMs. Educational campaigns will be necessary to reverse the increasing number of reports of syphilis in this population.

Learning Objectives: Describe knowledge and attitudes of syphilis among attendees of the International Mr. Leather event in Chicago, May 2000.

B3

Collaborative Effort to Quell an Outbreak of Hepatitis A, Among Men Who Have Sex With Men

M Headlee, M Krempasky, D Coleman, J Heeg-Harmon, G Whitby, J Whetsal, K Dorian, P Dietsh

The Columbus Health Department, Columbus, OH

Background: In the spring of 1999 an increasing number of cases of Hepatitis A (HAV) were reported to the Columbus Health Department (CHD). More cases were reported in males than in females and upon further investigation, it was found that many of those infected were men who have sex with men (MSM). This outbreak was addressed through a collaborative effort of the CHD Communicable Disease, Immunization, and Sexual Health Teams. The CDC also sent staff to Columbus to aid in the response and investigation.

Objective: To demonstrate how multiple health department teams can work together to address a Hepatitis A outbreak, which crossed the usual line between sexually and non-sexually transmitted diseases.

Methods: For more then a decade, the CHD Sexual Health Team has been forming partnerships in the MSM community in effort to provide education and testing opportunities for HIV. Through the use of these existing relationships and working with our own Immunization and Communicable Disease Teams, we were able to offer HAV prevention education and vaccination at sites which target the MSM community,

including a gay bathhouse, fitness center, bars, bookstore, novelty store and Gay Pride Festival.

Results: We have been successful in educating and vaccinating over 200 MSM for HAV in the past year. We continue to provide vaccination services including Hepatitis A and B at the bathhouse twice per month. The rate of HAV in MSM has fallen to pre-outbreak levels.

Conclusions: Collaboration among different teams proved to be successful in providing HAV prevention/immunization services to an at-risk population of MSM.

Learning Objective: Participants will learn to form collaborations with other units in their own health department when it is necessary to better serve the needs of their clients and to protect the public health of their community.

B4

A Randomized Trial of Patient-Delivered Therapy to Prevent Recurrent Chlamydial Infection Among Adolescent and Young Women

JA Schillinger[1], P Kissinger[2], S Berman[1], DH Martin[3], HM Calvet[4], G Bolan[5], R Ransom[1], M Sternberg[1], MK Oh[6], W Whittington[7], L Markowitz[1], JD Fortenberry[8]

1. Centers for Disease Control and Prevention, Atlanta, GA, 2. Tulane University-School of Public Health and Tropical Medicine, New Orleans, LA, 3. Louisiana State University, New Orleans, LA, 4. Long Beach Department of Health and Human Services, 5. California State Health Department, 6. University of Alabama, Birmingham, AL, 7. University of Washington, Seattle, WA, 8. Indiana University School of Medicine, Indianapolis, IN

Background: Adolescent and young women diagnosed with *Chlamydia trachomatis* (Ct) infection have high reinfection rates (>10%) in the months following treatment for infection. Reinfection increases risk for serious sequelae of Ct infection and fosters continued disease transmission. Because reinfections largely result from re-exposure to infected, untreated male sex partners, a strategy facilitating treatment of male partners could be highly effective in decreasing Ct reinfection and its sequelae among women.

Objectives: To determine if risk of early recurrent Ct infection can be reduced by providing young women anti-chlamydial medication to deliver to their male sex partners.

Methods: A randomized trial was conducted among women aged 14-34 years with Ct infection in seven US cities. Women were treated for Ct infection (directly observed therapy, azithromycin 1.0 gram), and randomized to receive azithromycin 1.0 gram to deliver to their male sex partners or to receive standard advice and assistance to refer their partners for evaluation and treatment. Women in both groups were tested for recurrent Ct infection one month and four months after treatment using the urine ligase chain reaction on urine. The main outcome of interest was Ct reinfection after treatment for the initial infection.

Results: To date (May 2000) approximately 900 women have completed a four-month follow up visit. Enrollment will be completed in June 2000 and trial outcome will be analyzed after follow up is completed in October 2000.

Conclusions: Data will be analyzed using an "intention to treat" approach comparing reinfection in women in the partner-delivered therapy group with those given standard instructions for partner referral.

Learning Objective: Understand whether the risk of early recurrent Ct infection can be reduced by providing young women anti-chlamydial medication to deliver to their male sex partners.

B4

Does Patient-Delivered Partner Therapy Decrease Sexually Transmitted Disease Re-infection?

G Hammer[1], C Kent[1], J Courtney[2], R Kohn[1], J Klausner[1]

1. San Francisco Department of Public Health, San Francisco, CA, 2. California Department of Health Services, Berkeley, CA

Background: Many persons diagnosed with chlamydia or gonorrhea are at risk for repeat infection due to reinfection from untreated partners. In December 1998, San Francisco's municipal STD clinic implemented patient-delivered partner therapy (PDPT) to reduce STD reinfections.

Objective: To retrospectively evaluate if PDPT reduced STD reinfection rates.

Methods: Between December 1998 – October 1999, a non-randomized, sub-population of patients diagnosed with chlamydia or gonorrhea at the STD clinic was given PDPT, based on whether there was a recent partner who could be given therapy and clinician discretion. Persons diagnosed and treated for chlamydia or gonorrhea who did not get PDPT received standard counseling regarding patient referral of partners for treatment. Repeat infections were identified through the county STD surveillance system. The rate of reinfection in the PDPT sub-population was compared with the rate in non-PDPT patients using survival analyses.

Results: Among 504 persons diagnosed with chlamydia 63 (12.5%) received PDPT, and 86 (15.7%) of 548 persons diagnosed with gonorrhea received PDPT. Among chlamydia patients, the PDPT and non-PDPT groups did not differ by age, race, sex, sexual orientation or proportion re-infected (5% vs. 6%; p=.5). Among gonorrhea patients, the PDPT group was more likely to be black (46% vs. 31%; p=.04) and heterosexual (53% vs. 30%; p=.001). Reinfection was lower among the gonorrhea PDPT group (5% vs. 10%, p=.11). In separate Cox proportional hazards analyses for chlamydia and gonorrhea, reinfection rates were not significantly lower for persons receiving PDPT (rate ratio [RR] = 0.98, p=.97 and RR=0.75, p=.59, respectively).

Conclusions: Utilization of PDPT was low, and no statistical difference in reinfection rates between partner treatment groups was found in this preliminary analysis.

Learning Objective: Describe role patient delivered partner therapy may have in reducing risk for STD reinfections.

B4

Legislative Approaches for STD Control: Two States' Experiences in Attempts to Legalize Partner-Delivered Therapy

J Klausner[1], S Wasserman[2], D Wohlfeiler [3]

1. San Francisco STD Control Program, 2. State Representative, Milwaukee, Wisconsin, 3. STD Control Branch, Calif. Dept of Health Services

Background and Rationale: Partner-delivered therapy for sexually transmitted diseases has great potential for STD control, but also has some perceived risks. Further, it conflicts with medical providers' current legal obligation to see patients for whom they prescribe drugs.

Objectives: To discuss legislative approaches to legalize partner-delivered therapy and protect providers. To discuss strategies for successful efforts with legislators while respecting governmental procedures.

Content: Despite the potential impact that legislation may have for improving STD control efforts, many public health professionals may have reservations about using the legislative process to enhance public health. This session will focus on two experiences in California and Wisconsin, two states which have attempted to pass legislation to allow partner-delivered therapy. In 1999, the Health Officers Association of California drafted a bill (SB-648) which would allow providers to prescribe partner-delivered therapy to male partners of patients diagnosed with chlamydia, and Wisconsin Assemblyman Wasserman drafted AB 98, which would provide immunity from civil liability for physicians who prescribed antibiotics for partners of patients infected with STDs including syphilis, gonorrhea, chlamydia and other diseases. This symposium will cover the challenges each of these bills faced, strategies for overcoming them, and lessons learned. Following individual presentations, the moderator will facilitate a dialogue with the audience regarding pros and cons of different strategies.

Learning Objectives:

1. Participants will understand pros and cons of using legislation to advance public health.
2. Participants will learn useful strategies for working with legislators to further STD prevention.

B5

Conducting the Rapid Ethnographic Community Assessment: North, South, East and West: Pick the Style That You Like Best

K Seechuk[1], B Cummings[2], P Jackson[3], A Quintana[4], J Bossett[5], R Fugate[6]

1. Centers for Disease Control, Atlanta, GA, 2. North Carolina Department of Health, 3. Washington, D.C. Department of Health, 4. Maricopa Department of Health, 5. Baltimore City Department of Health, 6. Oklahoma Department of Health

Background and Rationale: The national plan to eliminate syphilis in the United States calls for local STD control programs to enter into collaborative partnerships with affected communities and relevant health social service providers to expand and enhance STD health care. The Rapid Ethnographic Community Assessment Process (RECAP) provides one effective method for building and improving these relationships. Through the use of qualitative interviews and ethnographic observations local programs have solicited the insight and assistance of community members and providers to understand the social and behavioral context of endemic syphilis and to develop tailored interventions to control and prevent disease.

Objectives: To discuss the implementation of RECAP methods and the application of RECAP findings in five local project areas throughout the U.S. Specific topics will include: 1) local adaptations of RECAP; 2) local training methods; 3) implications for local capacity development; and 4) intervention development and delivery.

Content: A panel of experienced state, county, and city health department staff, who participated in the RECAP, will describe how the process was conducted in their respective communities, discuss RECAP findings, and report on the progress of interventions. Following the presentations, the moderator will facilitate dialogue with the audience regarding this assessment process.

Learning Objectives:
1. Understand the RECAP and its utility for syphilis elimination.
2. Recognize the adaptability of the RECAP to meet local STD program needs.

B6

Sex Worker Health Needs: A Descriptive Study

CH Cloniger III[1], J Breyer[2], D Cohan[3], J Klausner[1], D Passar[2]

1. San Francisco Department of Public Health (SFDPH), San Francisco, CA, 2. St. James Infirmary (SJI), San Francisco, CA, 3. University of California San Francisco, San Francisco, CA

Background: Although sexually transmitted infections (STIs) are commonly considered an "occupational hazard" of sex workers, few studies have sought to evaluate their other health needs. Moreover, little research has been done to characterize their working conditions. Responding to a lack of culturally based comprehensive services for sex workers in San Francisco local sex worker advocacy groups, in collaboration with the SFDPH, opened the St. James Infirmary in June of 1999. The multi-service center located within the SFDPH's municipal STI clinic, offers general health care and a variety of other services and referrals. Clients are recruited through venue and street based outreach efforts.

Objectives: This study describes the conditions in both the working and personal lives of a cohort of sex workers in San Francisco.

Methods: Data were collected prospectively on demographics, sexual/reproductive history, physical findings, and STIs among 146 male and female sex workers. Seventy clients also participated in an interview-based survey documenting work history and health, legal, and social service needs.

Results: Despite the perception that sex workers harbor a high prevalence of STIs only 2 cases of chlamydia (1.68%), 2 cases of gonorrhea (1.5%), and no syphilis (0%) were found among the cohort who sought STI services (n=133). On the other hand high rates of other occupational hazards such as workplace violence (55.7%) have been found.

Conclusions: Data on sex workers who are capable of accessing health care may not be generalizable to the entire community of sex workers in San Francisco. Our findings do, however, call into question the traditional perceptions of sex workers and their health needs and lay the groundwork for reevaluating the public health priorities for this group.

Learning Objectives:
1. Understand how community based health initiatives in collaboration with public health agencies may help bridge the gaps in health care service to communities outside the mainstream of service delivery.
2. Understand the conditions of work and personal lives, and health needs of a group of sex workers in San Francisco to aid in understanding the health needs of sex workers in general.

B6

Making the Connection in Risky Behaviors: Sexual Health and Alcohol Related Driver Intervention Programs

J Scolieri Finley, K Koechlin, R La Salle, A Smith Peoples, S Harmon, M Krempasky

Columbus Department of Public Health, Columbus, OH

Background and Rationale: Heavy use of alcohol is associated with high-risk sexual behavior, it's been suggested that drinking driver intervention program would be appropriate and valuable for STD/HIV/HBV/HCV education and screening.

Objective: Provide comprehensive STD/HIV/HBV/HCV education and screening during weekend drinking driver intervention course. Determine risk factors, symptoms, rates of infection of participants. Evaluate the program's acceptance.

Methods: A community outreach component of the Columbus Health Department's Sexual Health Team has been providing mandatory STD/HIV education to weekend drinking driver intervention group since November 1997. Voluntary HIV, syphilis, gonorrhea, chlamydia testing was offered in June 1998, followed by Hepatitis B, C July 1999. Those clients electing to take any/all of tests receive confidential one-on-one, client-centered counseling. Urine specimen was collected for gonorrhea/chlamydia screening by ligase chain reaction [LCR]. A serum specimen was collected for syphilis serology by RPR, HBV/HCV and rapid SUDS HIV testing. Alternatively, HIV EIA could also be done on oral fluid specimens. RPR and SUDS HIV results are provided to clients during the weekend program. Other results are provided within a week.

Results: From June 1,1998 - April 30, 2000, over 2200 individuals received comprehensive education and 675 participants tested for HIV, syphilis, chlamydia, gonorrhea, and/or HBV/HCV. Rates of infection were: HIV [0.3%], syphilis [0.2%], chlamydia [1.8%], gonorrhea [0.7%], HCV [12.1%] and HBV [0.0]. The most frequently cited risk factor was sex while using alcohol, marijuana or crack [87.4%]. Nearly 5% admitted to paying with drugs or money for sex. While 96% of the participants felt the information received on HIV/STD/hepatitis was useful to them, only 57% said they would change their sexual behavior.

Conclusions: Although the rate of infection is low, the vast majority stated that the education was useful, and many self-disclosed that they had sex while using alcohol, marijuana or crack.

Learning Objective: Ability to implement a STD/HIV education and screening program in a community drinking driver intervention program and understand its value.

B6

Shoot Up At the OK Corral: HIV and IDUs in Rural Kansas

JE Scott, P Barnum, D Coppedge, A Merriweather

Kansas Department of Health and Environment, Topeka, KS

Background and Rationale: HIV became named reportable in Kansas on July 1, 1999. A routine investigation of an HIV positive in rural Kansas led to an extensive investigation which uncovered a wide network of IV drug users engaging in high risk behaviors.

Objective: To determine the prevalence of HIV in the IV drug population in a multi county area in rural Kansas.

Methods: Disease Intervention Specialists (DIS), using partner counseling and referral services (PCRS), clustering, reinterviews, and field testing, investigated 41 persons exposed to HIV through sexual contact, IV needle sharing and/or perinatal exposure. Collaborators included private physicians, jails, and treatment centers.

Results: Between May 1 and June 21, 2000, five cases of HIV were identified. Additionally, one presumptive perinatal transmission was discovered, pending DNA confirmation. Gender distribution was 42% (17) females and 58% (24) males. Racial distribution was 51% (21) White, 43% (18) Hispanic, 3% (1) African American and 3% (1) Asian/Pacific Islanders. Age distribution ranged from 2 months to 48 years. Recent or past histories of IV drug use/needle sharing were identified in 65% (27). A history of recent incarceration was identified in 39% (16).

Conclusions: Preliminary results have identified 5 HIV positive persons, and one presumptive perinatal positive. Two persons had previously tested positive before July 1, 1999, but were engaging in high-risk behaviors. Two cases were uncovered as a direct result of DIS activities. The investigation remains open as over 34 new individuals have been identified for PCRS by DIS. This investigation exemplifies the usefulness of confidential disease reporting. It also demonstrates the changing epidemiology of HIV in Kansas and the role of PCRS in surveillance and care delivery.

Learning Objectives:
1. Describe demographic differences and similarities in HIV prevalence among those residing in rural Kansas.
2. Describe the network of drug use and other high-risk behaviors of those in rural Kansas previously not identified by rural public health departments.

B6

Illicit Drug Use and Sexual Risk Behaviors Among School Youth in Moscow, Russia, 2000 - Results of the Youth Risk Behavior Survey

VN Kasatkin[1], AV Kovaleva[1], AA Mikheeva[1], AD Shakarishvili[2], LJ Kolbe[2]

1. Moscow Committee of Education Center for Social Assistance to Children and Adolescents, Moscow, Russia, 2. Centers for Disease Control and Prevention (CDC), Atlanta, GA, USA

Background and rationale: Russia has the fastest growing epidemic of HIV infection in the world. STDs, HIV and drug use are mostly affecting youth. From 1988 to 1997 syphilis rates among adolescents increased 120-fold. In 1998 over 600 and 1,500 syphilis cases per 100,000 were reported among 15-17 and 18-19 year old females, respectively; in males the rates were over 350 and 500 per 100,000, respectively.

Objectives: To determine prevalence of sexual and drug use behavior among high school students in Moscow.

Methods: Youth Risk Behavioral Survey was conducted among a representative sample of 9-11th grade students. Over 5000 14-17 year olds were surveyed in Spring 2000 using a self-administered questionnaire developed by CDC.

Results: One third of all students had had sexual intercourse during their lifetime; 13% of students had initiated sexual intercourse before age 14 and 9% of students had had sexual intercourse during their lifetime with ≥3 sex partners; 6% of students reported that they had been pregnant or had gotten someone else pregnant. Among currently sexually active students (18%): 23% and 12% reported condom and alcohol or drug use, respectively, at the last sexual intercourse; only 1% reported birth control pill use before last sexual intercourse. During their lifetime 3% and 6% of students had used cocaine and other illicit drugs (LSD, phencyclidine, "ecstasy", mushrooms, amphetamine, heroin), respectively; 4% had injected drugs. Comparative analyses of data from Moscow and US large cities will be presented.

Conclusions: High rates of drug use and sexual risk behavior among adolescents in Moscow underscore the urgent need for comprehensive youth programs that integrate STDs, HIV, pregnancy and drug use prevention.

Learning Objectives: Understand behavioral factors contributing to unintended pregnancy and the epidemics of STDs and HIV infection among youth in Moscow, Russia.

B6

Assessment of Cost Benefit and Prevention Effectiveness of HCV Screening & Treatment Program for Injection Drug Users

D DiOrio-Rekas[1], *B Ginley*[2]

1. Indiana University School of Public & Environmental Affairs, Bloomington, IN, 2. Portland, Maine Public Health Division, STD/HIV Program

Background: STD Programs wishing to expand their services to include hepatitis C screening for injection drug users (IDU's) may lack information about the costs of such a program relative to its benefits. This may be especially true in lower prevalence, smaller urban, or rural areas. While similar studies have assessed cost effectiveness of HCV screening on the general U.S. population, this analysis is specific to the unique issues of adherence and contraindications for therapy of IDU's to be served by a public health clinic in a medium-sized city.

Objective: To determine whether conducting a screening and treatment program for hepatitis C for IDU's yields greater benefits than its cost.

Methods: Using conventional economic principles for cost benefit analysis incorporating CDC's prevention effectiveness model, local program costs for implementation of a screening and treatment program were compared to benefits. Benefits included cost of liver cancer, cirrhosis, transplants, and deaths averted as well as new infections prevented through behavioral counseling of positive persons. Valuation of benefits was varied among six scenarios for a low, medium, and high range, by two positivity rates, and by 10-year and 20-year time periods for benefits accrual.

Results: In all twelve cost benefit scenarios, benefits of the program were greater than costs of the program, resulting in benefit cost ratios between 3.60 and 5.16. (For every $1 spent in HCV screening and treatment costs, between $3.60 and $5.16 in future health care and societal costs were averted).

Conclusions: HCV screening and treatment programs for IDU's, even in low prevalence or rural areas, may provide greater benefit in preventing adverse outcomes than the cost of their implementation.

Learning Objective: Describe benefits and costs associated with a screening and treatment program for hepatitis C virus targeted at injection drug users.

B6

Broken Windows and Gonorrhea: National Evidence

DA Cohen[1], *TA Farley*[2], *K Mason*[1]

1. Louisiana State University HSC, 2. Tulane School of Public Health

Background: In a study of environmental factors and gonorrhea in New Orleans, neighborhood deterioration was associated with gonorrhea at the census block group level after controlling for poverty, education and employment.

Objectives: To determine whether deteriorated neighborhood conditions are associated with gonorrhea at the city level across the US.

Methods: We conducted an ecological study of 63 US cities with >180,000 population, analyzing the relationship between gonorrhea rates in 1997 and the proportion of housing units categorized as "boarded up" in the 1990 census, while controlling for socio-demographic variables. We also requested pictures of neighborhoods with the highest rates of gonorrhea from STD programs around the US.

Results: At the national level, the proportion of houses "boarded up" was strong correlate (r=.63) of gonorrhea, stronger than the proportion of persons in poverty (r=.36) or unemployment (r=.24). In a linear regression model which included percent African-American, poverty, unemployment, the proportion of housing units built <1939, and population growth/decline, "boarded up" housing was significantly associated with gonorrhea rates (p=.01, model r^2 =.66) and poverty and unemployment were not (p>.12). This model suggests that an increase in the "boarded-up" proportion from 0.5% to 1% is associated with a 20% increase in gonorrhea rates. Photographs will be shown to demonstrate the physical appearance of neighborhoods with low and high rates of gonorrhea around the US.

Conclusions: Deteriorated neighborhood conditions are associated with STDs nationally. Research is needed to understand the mechanism of this relationship and to assess whether improvements in neighborhood physical conditions can reduce STD rates.

Learning Objectives:
1. To understand the theory behind the relationship of gonorrhea and "broken windows".
2. To explore national data linking the gonorrhea and broken windows.
3. To stimulate discussion about how to address this issue.

B7

Guidelines: What's New, and What's Upcoming - A Sneak Preview

K Irwin[2], D Scholes[1], J Newhall[2], B Johnson[2], M Kamb[2], D Byrum[2], H Keimowitz[3]

1. Group Health Cooperative, Seattle, WA, 2. Centers for Disease Control and Prevention, Atlanta, GA, 3. Agency for Healthcare Research and Quality, Rockville, MD

Background and Rationale: Guidelines are intended to improve the quality of health care delivery, reduce its cost, and assure that essential health care services are accessible to populations at risk. A wide range of clinical and practice guidelines relevant to STD prevention exist for audiences ranging from program staff to practitioners. The intent of this session is: 1) to present an overview of the content and plans for key guidelines relevant to STD prevention staff, including guidelines focused on *Chlamydia trachomatis* and *Neisseria gonorrhea*, Chlamydia screening, HIV Counseling and Testing, Program Operations Guidelines, and Putting Prevention into Practice; 2) to describe accessible mechanisms for obtaining objective, detailed information on practice guidelines and to further their dissemination, implementation and use; and 3) to provide a summary of the evaluation of CDC's STD Treatment Guidelines and their impact on actual practice in managed care organizations.

Content: Expert panel. Each representative will present a brief (10-15 minute) summary of the content and current status of a guideline critical to STD Prevention, and how this guideline can best be used to improve practice. Presenters will explain how the revised guidelines may be accessed, both in paper and electronic format. Ample time will be allotted for questions and answers from the audience.

Learning Objectives:
1. Attendees will be able to list the major revisions in three of the five guidelines presented.
2. Attendees will become aware of the range of guidelines available electronically, and have a better understanding of available electronic resources.

B8

The CDC Integration Project: An Update On How this Will Affect Local and State STD Programs

C Broome, S Danos, G Pierce

Centers for Disease Control and Prevention, Atlanta, GA

Background and Rationale: CDC, in collaboration with local and State partners, is now undertaking a major shift in how surveillance systems work. This project, the CDC Integration Project (also called the National Electronic Disease Surveillance System (NEDSS)) will profoundly affect the way that CDC and local and State public health agencies capture, store, and share data. Information from this symposium is needed at the local and State STD program level so that appropriate steps are taken to best prepare for these new changes.

Methods: In this symposium, we will discuss NEDSS from both the STD program and CDC-wide perspectives. Topics will include CIPHER (Common Information for Public Health Electronic Reporting), the CDC User Interface Style Guide, the CDC Secure Data Network standards, Electronic Reporting, and the Public Health Conceptual Data Model. Discussion will focus on how NEDSS can facilitate acquisition of data by local and State health departments from partners in health care settings, as well as permit appropriate, authorized sharing of data across disease programs. Finally, the discussions will include an update on the available funding that CDC has obtained to assist local and State health departments in the adoption of these standards and guidelines.

Learning Objectives:
1. Understand the various components of NEDSS and how STD*MIS will incorporate these components.
2. Understand goals of NEDSS to permit data exchange with the health care sector and the security and confidentiality requirements needed for integrated systems.
3. Understand how funds are to be provided to State health departments and how STD programs can benefit from these funding mechanisms.

B9

Results of a Pilot STD Prevention Media Campaign in East Texas

A Robbins, G Beets, J Lee

Texas Department of Health, Austin, TX

Background and Rationale: High rates of gonorrhea and chlamydia have been reported in East Texas, particularly among African American adolescent females.

Objectives: To increase awareness of STDs, particularly the asymptomatic nature of many STDs, and the need for testing among sexually active African American females in the 15-19 age range.

Methods: A pilot STD media campaign was launched in October 1999 in the Tyler/Longview market. Paid television, radio and billboard ads were utilized. Campaign materials were field tested with adolescents before being finalized. Pre- and post-campaign phone interviews were conducted with African American females aged 15-19 residing in 125 households in the Tyler/Longview area to evaluate the campaign's impact. Samples for pre-campaign and post-campaign interviews were independently drawn.

Results: 72% of post-campaign survey respondents reported seeing the campaign. The proportion of respondents who spontaneously mentioned chlamydia when asked to name an STD rose from 28% pre-campaign to 62% post-campaign, with mentions of gonorrhea rising from 43% to 76%. Unprompted mentions of STDs not specifically mentioned in the ads stayed stable. Of those who had seen the ads, 69% said that the ads made them think about STDs more than they had before, 28% said they had talked to someone about STD because of the campaign, and 73% indicated they would be more likely to talk to someone in the future. 19% said they got tested for an STD other than HIV because of the ads, with 76% saying they were more likely to get tested in the future.

Conclusions: A targeted media campaign has the potential to increase awareness of STDs and the need for testing among sexually active African American adolescent females.

Learning Objectives:
1. Describe the process of designing and implementing a targeted media campaign to raise awareness of STDs.
2. Describe methods of evaluating the effectiveness of a media campaign among the campaign's target audience.

B9

Role of Mass Media in Population-Level Intervention for Chlamydia Screening within Managed Care Organizations (MCO). Preliminary Findings from the Birmingham OPTIONS Study

MK Oh, D Grimley, P Brown, H Cecil, J Merchant

University of Alabama at Birmingham, Birmingham, AL

Background: The growth of MCO presents opportunities and challenges for STD-related services. Mass media campaigns can become allies in efforts to control chlamydia.

Objectives: To determine the feasibility and efficacy of mass media as an adjunct to a population-level intervention for chlamydia (Ct) screening within MCO.

Methods: A hotline was established, offering recorded Ct facts, and access to a staffed-line. Brochures including Ct facts, hotline number and coupons for urine-based chlamydia LCR test (for 15-25 year old) were mailed to MCO subscribers. A 30-sec TV ad with images, facts and hotline number featured on the Ct brochure was aired for six weeks. This abstract is based on the contents and disposition of calls to our hotline.

Results: The hotline was called 570 times; 133 of those called the staffed-line. Mean age of the 133 callers was 23.9±7.7 yrs (range 14-49, 77% <26 yrs, 14% >35 yrs,

67% F). 16% of F and 35% of M callers were >25 years of age (p=.03). 5% were parents of teenagers. 85% obtained the hotline number through the mass media. Primary reasons for calling were: to get tested (59%), for more information (29%). Of 79 who called for testing, 81% met the age criteria for screening (44% agreed to report for screening, 15% chose to postpone testing, 22% required referral); 19% were >25 y.r. 25% of those who called for other reasons also met the screening criteria and agreed to report for screening. No negative responses were encountered from the public, but many media companies declined to air the ad due to its "sensitive content."

Conclusion: This study demonstrates the effectiveness of mass media in a chlamydia screening campaign.

Learning Objectives:
1. Understand the potential roles of mass media (radio, newspaper, and TV) in a chlamydia screening campaign targeting adolescents and young adults in a socially conservative environment.
2. Describe the characteristics of the Ct information hotline users and FAQs by the callers.

B9

Using Electronic and Print Media Advertisements to Reach Young Persons of Color with an STD Awareness Campaign

L Shapiro[1], M Stalker[1], A Israel[1], J Koenig[2]

1. American Social Health Association, Research Triangle Park, NC, 2. The Henry J Kaiser Family Foundation, Menlo Park, CA

Background: This pilot program, "Know the Facts. Know for Sure." utilized electronic and print media in combination with community involvement to bring STD awareness messages to 15 to 19 year-old African American and Hispanic youth in Jackson, MS and the Rio Grande Valley, TX.

Objectives: The program's goal was to raise awareness about STDs among teens, using media messages tailored to the specific age group and ethnicity in each pilot site.

Methods: Media varied by site and included 60-second paid radio spots, outdoor advertising, mini-magazines featuring local youth, in-theater advertisements, and posters distributed through local youth- and health-focused community based organizations. Advertisements were adapted for each population with input from teens and key community leaders from each site. To assess outcomes as well as exposure to and attitudes towards the campaign, multiple methodologies were used, including: school-based surveys, focus groups, mall- and street-intercept interviews, random-dialed telephone surveys, and tracking of calls to information hotlines.

Results: Results indicate that the campaign successfully reached over half of the target audience in both sites. In the Valley, TX, 60% of teens interviewed were aware of the campaign, and over 70% of those teens reported it "made them think" about the risks of getting an STD. In Jackson, MS, over 70% of surveyed teens correctly identified the main message of the radio spots, and over 65% correctly identified the main message of the posters. Following the campaign's launch, calls to the hotline increased significantly from ` 11both Jackson (by 80%), and the Valley (by 390%–100% on the Spanish line and 472% on the English line).

Conclusions: When the priority population is involved in message development, culturally appropriate electronic and print media can be an effective means of reaching teens of color with sexual health information.

Learning Objectives: At the conclusion of the session, the participant will be able to:
1. Discuss how to involve the target population in the creative development process.
2. List several key indicators that should be incorporated in the evaluation of a public health media campaign.
3. Identify rapid evaluation methodologies, which can be used to effectively reach young people.

B9

Getting the Word Out: Communicating Sexual Health Messages to the Public

N Singleton, T Adams, A Austell, S Chapman, L Jolley, M Stalker

American Social Health Association, Research Triangle Park, NC

Background and Rationale: The American Social Health Association (ASHA) has an 86-year history of communicating STD information to the public. Over the years, ASHA has become a highly effective and

respected multi-media health educator, using many communication tools to reach target audiences. Through brochures, newsletters, hotlines, e-mail and Web-based communication, support groups, educational programs and promotional campaigns, ASHA is effectively reaching the public and enabling people, providers and communities to make informed decisions about their sexual health.

Methods: In this interactive workshop, we will discuss multiple communications vehicles, identify how they are effective, examine how they are similar and different, and suggest how they can be a model for others trying to talk to the public about sexual health. We will also discuss the challenges of new communications tools, such as the Internet, and how they can effectively complement more traditional tools. Participants in the workshop will respond to and propose additional strategies for communicating health messages to the general public.

Learning Objectives:
1. Describe the benefits and limitations of various communications vehicles, and how these vehicles can best be used to reach the public with important health information.
2. Identify the challenges health communicators face when crafting messages, and how best to overcome these challenges.
3. Implement new communication strategies, particularly in the area of Web-based communication.
4. Present best practices and models of excellence that can be adapted by other health communicators.

C1
Sexually Transmitted Disease (STD) and Pregnancy Prevention Services Received by Sexually Experienced U.S. High School Students

GR Burstein, R Lowry, J Santelli

Centers for Disease Control and Prevention, Atlanta, GA

Background and Rationale: Adolescents have the highest reported STD and unintended pregnancy rates in the U.S. A primary health care visit offers an opportunity to discuss STD and pregnancy prevention.

Objective: To describe STD and pregnancy prevention counseling received by sexually experienced (SE) youth in the primary care setting and to test associations of recent sexual risk behaviors with preventive counseling.

Methods: We analyzed data from the 1999 national Youth Risk Behavior Survey, a nationally representative survey (N=15,349) of high school students. Responses to questions about sexual experience, time since last physical exam (PE), and discussion of STD or pregnancy prevention with a doctor or nurse during last PE were analyzed. Logistic regression was used to test associations controlling for students' demographic characteristics.

Results: Half (49.9%) of students were SE and 36.3% were currently sexually active. Among SE students, 66.3% had a PE within the past year; having a PE was associated with female gender (OR=1.5; $p<0.0001$) and Northeast locale (OR=1.6; $p<0.01$). Among SE students who had a PE in the past year, 48.1% discussed STD or pregnancy prevention; having a discussion was associated with increasing age (OR=1.7; $p<0.001$ for age 18 years vs 15 years), female gender (OR=3.2; $p<0.0001$), and black race/ethnicity (OR=1.6 $p<0.003$). Currently sexually active students who had a PE in the past year were more likely to use oral contraceptive pills or Depo-provera (OR=2.3; $p<0.001$) and less likely to use condoms (OR=0.6; $p<0.001$) at last sexual intercourse if STD or pregnancy prevention was discussed.

Conclusion: Primary care providers miss opportunities to provide STD and pregnancy prevention counseling to high-risk youth.

Learning Objectives:
1. Describe the extent to which STD and pregnancy prevention services are provided to youth at routine physical exams.
2. Describe STD and pregnancy prevention behaviors (i.e., condom and hormonal contraceptive use) among youth.

C1

Power and Resistance: Partner Influences, Negotiation Practices, and Condom Use Among African American Female Adolescents

C Sionean[1], RJ DiClemente[1], GM Wingood[1], RA Crosby[1], BK Cobb[1], K Harrington[2], SL Davies[2], EW Hook, III[2], MK Oh[2]

1. Emory University, Atlanta, GA, 2. University of Alabama, Birmingham, AL

Background: For adolescent females, condom negotiation practices may be complicated by power dynamics within relationships. Yet, little research has investigated associations between these dynamics and females' condom use behavior.

Objective: This study examined associations between relationship factors, socioeconomic circumstances, and consistent condom use among high-risk African American female adolescents.

Methods: Data were collected by survey and structured interview from 522 sexually active African American adolescent females. Adjusted odds ratios for consistent condom use were calculated by using multivariate logistic regression.

Results: Adolescents who consistently refused to have sexual intercourse without a condom were over five times more likely to use condoms consistently in the previous six months (AOR = 5.2). Adolescents who had low fear of negative partner reprisals as a consequence of attempting to negotiate condom use and those who perceived supportive peer norms were more than twice as likely to use condoms consistently.

Conclusions: Sexual risk-reduction programs designed for female adolescents should seek to build their skills in negotiating condom use, particularly refusing to have sex unless a condom is used. Additionally, programs should include components to increase adolescents' perceptions that condom use is normative, and address adolescents' concerns regarding potential negative consequences for condom negotiation.

Learning Objective: Describe implications of the observed findings to the design of STD/HIV prevention programs targeting African American adolescent females.

C1

European Approaches to STD Prevention for Youth

K Klindera

Advocates for Youth, Washington, DC

Background and Rational: Among 15- to 19- year-olds in the US, the syphilis case rate is over five times higher than that of young people the same age in Germany; and over six times that of the Netherlands. Similarly, the gonorrhea rate is 74 times higher than that of the Netherlands and France; and is nearly 67 times higher than that of Germany. Teen birth, abortion, pregnancy and HIV rates are also significantly lower in these three countries. Finally, the average age of first intercourse is one to two years later in these countries as compared to the US. Noting these disparities, Advocates for Youth developed a strategic initiative to garner lessons learned from these countries.

Objective: To investigate why adolescent sexual health indicators are more positive in the Netherlands, France, and Germany, as compared to the United States.

Methods: In the summers of 1998, 1999, and 2000, Advocates for Youth and the University of North Carolina at Charlotte sponsored a study tour of France, Germany and the Netherlands to examine differences in programmatic and public policy approaches to sexual health promotion. Program professionals and policy makers spent two weeks examining various aspects of the programming, ranging from media influences, family/culture/religious influence, public policy, sexual health services (including sexuality education), and contraceptive/condom access.

Results: Societal openness and comfort dealing with sexuality, including teen sexuality, and pragmatic governmental policies create greater, easier access to sexual health information and services for all people, including teens in these nations. Easy access to sexual health information and services leads to better sexual health outcomes form French, German and Dutch teens when compared to US teens.

Conclusions: Advocates for Youth has launched a national campaign to promote the "three Rs" for the future of sexual health promotion programs for adolescents: rights, respect and responsibility. In the three European countries, adolescents have rights,

including the right to accurate information regarding sexual health and the right of access to contraception/condoms. In addition, adolescents also are respected as individuals, much more than in the US. In turn, adolescents are expected to act responsibly as members of society, as well as sexual beings. The study tour affirmed that the combination three Rs has attributed to the relatively low rates of STDs/HIV and unwanted teen pregnancies.

C1

The Gonorrhea Community Action Project: Increasing Health Care-Seeking via Interventions at Multiple Levels

SE Middlestadt[1], CK Malotte[2], N VanDevanter[3]

1. Center for Applied Behavioral & Evaluation Research, Washington, D.C., 2. California State University, Long Beach, CA, 3. Columbia University School of Public Health, New York City, NY

Background and Rationale: The Gonorrhea Community Action Project (GCAP) revealed gaps in health care-seeking behavior by adolescents/young adults (ages 15-24) and provision of services to them. Thus, three sites (GCAP-2) were funded to test the feasibility and effectiveness of interventions directed at increasing health care-seeking behavior and expanded STD screening by providers.

Objectives: To increase regular health care-seeking by adolescents and young adults, and to make sexual history and screening part of adolescent and young adult health care.

Content: Within GCAP-2, there are four distinct interventions. First, a provider-level intervention primes providers to take sexual histories from adolescents and young adults and to screen for gonorrhea and chlamydia as part of a regular check-up. This intervention provides information, including local epidemiology and CDC treatment guidelines, but also physical cues to action and skills-building role plays. Second, a community-based organization intervention encourages adolescents and young adults to seek regular health check-ups, including requesting a sexual history and screening. During three sessions, peer educators and facilitators establish communication techniques, intentions to act through role-plays, and exposure to a visiting provider. Third, a community awareness campaign evaluates exposure to materials promoting heath care and attitudes toward health care through street interviews. Information and role model stories are distributed through print media and a web site (www.checkoutthatbody.com). Fourth, an STD clinic intervention prompts gonorrhea-positive patients to return for screening. Participants receive one of three messages to return: (1) brief encouragement and instructions, (2) brief encouragement, instructions, and a monetary incentive, (3) a 20-minute motivational session. Return rates are measured, as are behavioral risk variables, the latter immediately after the intervention and at a 19-week follow-up.

Learning Objectives: Attendees will learn about the construction and conduct of a multi-site, multi-level, coordinated intervention effort aimed at creating synergistic changes in different levels of the healthcare system, clientele, and their interaction.

C2

Making Integrated Use of Surveillance Data for STD and HIV prevention: The OASIS Project

W Levine[1], D Thomas[1], J Zenilman[2], J Lifshay[3], L Mattocks[4], J Li[5], Y Tang[6]

1. Centers for Disease Control and Prevention, Atlanta, GA, 2. Johns Hopkins University, Baltimore, MD, 3. California Dept of Health, Berkeley, CA, 4. Ohio Dept. of Health, Columbus, OH, 5. New York City Dept of Health, New York City, NY, 6. Massachusetts Dept. of Health, Boston, MA

Background and Rationale: In 1998, CDC funded the OASIS Project (Outcome Assessment through Systems of Integrated Surveillance). Through this project, seven STD project areas are making integrated use of surveillance data on STDs, HIV infection, tuberculosis (TB), adverse reproductive health outcomes, and risk behaviors.

Objectives: To describe OASIS Project activities in several sites, and the involvement of local communities in OASIS activities.

Content: This symposium will include presentations from five OASIS sites demonstrating their progress in technologic, epidemiologic, and community aspects of making integrated use of surveillance data. Baltimore will report on their collaboration with two local software companies in evaluating the utility of a

surveillance data matching program that integrates multiple program databases from legacy systems and facilitates data indexing and sharing across categorical programs such as STD and TB. California will describe their centralized database of survey questions that has been used to standardize questions for several new state-wide survey instruments. New York City has geocoded STD surveillance data in relation to other indicators of sexual health. Ohio has made combined use of data from the Youth Risk Behavior Surveillance System and chlamydia prevalence monitoring system to better characterize risk and disease among in-school and out-of-school youth. Massachusetts has performed detailed geocoding and registry matching to identify communities with high rates of comorbidity, while improving the quality of their data. The final talk will discuss the involvement of communities in these projects through local community planning groups, highlighting the communities' perspectives regarding the utility of making integrated use of surveillance data for developing prevention programs.

Learning Objective: Describe the technologic, epidemiologic, and community aspects of making integrated use of surveillance data at state and local levels.

C3

Sex, the Internet, and STDs

SS Bull[2], JD Klausner[3], M McFarlane[1], MW Ross[4], Wendy Wolf[3]

1. CDC, Atlanta, GA, 2. Denver Public Health, 3. San Francisco Department of Public Health, San Francisco, CA, 4. University of Texas Health Science Center, Houston, TX

Background and Rationale: The Internet has had significant impact on the business, social, and educational lives of the American public. Recent studies have shown that the Internet also impacts the sexual behaviors of various populations, most notably men who have sex with men (MSM). The Internet may facilitate risky sex, increased size of sexual networks, and increased anonymity of sexual encounters. Persons who seek sex on the Internet may be putting themselves at increased risk of STD, HIV, or violence. Because of these risk factors, we assert that the Internet may facilitate the transmission of sexually transmitted diseases (STDs) including HIV.

Objectives:
1. To describe the characteristics of Swedish male users of gay chat rooms. (Ross)
2. To describe the responses to an Internet-based survey of Internet-initiated sex and how it differs from sex initiated offline. (Bull)
3. To discuss the risk for STD/HIV of Internet sex-seekers in a Denver HIV clinic. (McFarlane)
4. To describe the process of Internet-based partner notification for syphilis cases. (Wolf)
5. To discuss the implications of Internet-initiated sex for disease outbreaks and epidemics. (Klausner)

Content: The content of the symposium is discussed in each of the following abstracts. Speakers will present in the order in which the abstracts appear.

Learning Objectives:
1. Describe characteristics of users of gay chat rooms.
2. Discuss Internet-initiated sex, the characteristics of persons who initiate sex on the Internet, and perceived differences between Internet-initiated contacts and contacts initiated via other venues.
3. Identify risk factors for transmission of STD/HIV which are associated with use of the Internet to seek sex partners.
4. Identify the necessary steps in the process of Internet-based partner notification.
5. Describe the potential impact of the Internet on disease transmission and disease control.

Presentation 1

Technological Tearoom Trade: Characteristics of Swedish Men Visiting Gay Internet Chatrooms

R Tikkanen[1] and MW Ross[2]

1. Department of Social Work, Göteborg University, Göteborg, Sweden, 2. WHO Center for Health Promotion and Prevention Research, School of Public Health, University of Texas, Houston, TX, USA

Background: The Internet is becoming a common site for virtual, and for arranging real, sexual encounters.

Objectives: This study investigated users of Internet sexual chatroom sites in comparison with the characteristics of public restrooms ("Tearoom") users previously described by Humphreys (1970) as places for quick, anonymous sexual encounters between men.

Methods: We compared differences between men who never, occasionally, and frequently (on average daily) used Internet sexual chat rooms in the past year. The samples of homosexually active men obtained on identical questionnaires from a conventional written

questionnaire, distributed through the mailing and contact lists of a large national gay organization in Sweden, and through the same organization's website and chat room. A total of 716 written questionnaires and 678 Internet questionnaires were obtained.

Results: The data indicated that frequent Internet sexual chat room users were younger, more likely to live at home or with a female partner, be bisexual, less open about their homosexuality, less likely to be members of gay organizations, and likely to engage significantly more frequently in unprotected anal intercourse with casual partners. Gay men in open relationships or who had only casual partners were also more likely to be frequent users, and a quarter of the younger users had met their current steady sexual partner on line. Frequent users were most likely to meet sexual partners on the Internet than occasional users, who used the Internet as one of several sexual partner sources.

Conclusions: These data suggest that the Internet serves a similar purpose to "tearooms" in being anonymous and easily accessible, but in addition, serves as a way of *approximating* homosexual contact – a middle stage in coming out between having homosexual fantasies and actual homosexual contact. These data suggest that the Internet may be a useful place to reach younger and bisexual men, and those who make sexual assignations, with HIV/STD preventive messages, often before they have publicly "come out".

Presentation 2

Risk Behaviors Related to Internet Sex Partner Solicitation: Results from an Online Survey

SS Bull[1], *M McFarlane*[2], *J Fitch*[3]

1. AMC Cancer Research Center, Denver, CO, 2. Centers for Disease Control and Prevention, Atlanta, GA, 3. Denver Department of Public Health, Denver, CO

Background and Rationale: Outbreaks of sexually transmitted diseases (STD) and continued transmission of HIV are associated with unprotected sex among multiple, anonymous sex partners. Emerging information reveals that people are now using the Internet to solicit sex partners, and that such activity may result in increased risk for STD. The extent of STD risk behaviors among persons who seek partners using the Internet is currently unknown.

Objectives: Assess the extent of STD risk behaviors among persons seeking partners using the Internet.

Methods: An Internet-based self-administered 10 minute survey of 686 persons regarding sexual risk behavior with Internet and/or non-Internet partners. Persons self-selected to complete the survey after completing a search, seeing ads posted in multiple web-sites or after receiving an instant or e-mail message about the survey.

Results: The respondents are overwhelmingly male (87.5%) very well educated (55% have a college degree or more); and white (84.2%). Respondents have a history of testing for HIV (71.9%) and STD (59.6%). Respondents indicate that they have had Internet sex partners (70.8%), and 37.3% indicate they or their partner traveled more than 100 miles to connect. The mean number of Internet partners is 8.7 (median 2) and non-Internet partners is 9.8 (median 1). Of persons with Internet partners, 67.2% indicate their non-Internet partners are all male, compared to 82.8% of their Internet partners (p=0.001). Condom use during last vaginal/anal sex varies among non-Internet partners (58.1%) compared to Internet partners (70.8%) (p=0.001).

Conclusions: Persons who seek partners over the Internet do not appear to engage in greater risk behaviors than persons seeking partners offline. However, while substantial information on the likelihood of STD infection from Internet partners is still unknown, and while limited condom use, multiple partners and partner anonymity remain common online, we need effective strategies for conveying STD prevention information to persons online.

Presentation 3

The Internet as a Newly Emerging Risk Environment for STD/HIV

M Farlane[1], *S Bull*[2], *CA Rietmeijer*[3]

1. Centers for Disease Control and Prevention, Atlanta, GA,
2. AMC Cancer Research Center, Denver, CO,
3. Denver Department of Public Health, Denver, CO

Context: Outbreaks of sexually transmitted diseases (STD) and continued transmission of HIV are associated with unprotected sex among multiple, anonymous sex partners.

Objective: To compare the risk for STD and HIV for persons seeking sex partners on the Internet with persons who do not seek sex partners on the Internet.

Methods:
***Design*:** Cross-sectional survey of clients seeking HIV counseling and testing.
***Setting and Participants*:** Clients (N=856) of the Denver Public Health HIV Counseling and Testing Site were surveyed regarding the use of the Internet to find sex partners. Survey data were linked to HIV risk assessment and test records.
***Main Outcome Measure*:** Self-reports of: logging on to the Internet with the intention of finding sex partners; having sex with partners who were originally contacted via the Internet; number of, and condom use with, these partners; time since last sexual contact with Internet partners.

Results: Of the 856 clients, most were White (78%), male (69%), heterosexuals (65%) between the ages of 20 and 50 (84%). Sixteen percent had sought sex partners on the Internet, and 65% of these reported having sex with a partner initially met over the Internet. Almost 40% of those with Internet partners had more than 3 such partners, with 71% of the contacts occurring within 6 months prior to the client's HIV test. Internet sex-seekers were more likely to be male and homosexual than non-Internet sex-seekers. Internet sex-seekers reported more previous STDs, more partners, more anal sex, and more exposure to males, to men who have sex with men, and to partners known to be HIV-positive than non-Internet sex-seekers.

Conclusions: Seeking sex partners over the Internet is a common practice in the study sample. Clients who seek sex on the Internet are at greater risk for STDs and HIV than clients who do not seek sex on the Internet.

Presentation 4
Partner Notification in Cyberspace

W Wolf, J Klausner, V Davila, L Fischer-Ponce, I Zolt

San Francisco Department of Health, San Francisco, CA

Background: In the summer of 1999, an outbreak of syphilis occurred among gay men who met partners within a internet chatroom. Traditional partner notification (PN) and health education methods had to be tailored to cyberspace.

Objectives: To perform PN for contacts to syphilis whose only locating information was an Internet handle. To develop and initiate a syphilis awareness campaign for chat room users.

Methods: Original patients (OP) were interviewed to elicit partners. Electronic (e-mail) messages were sent to partners via their "handle", by health department (DPH) staff and/or the OP. Internet profiles were reviewed for demographic information. DPH staff "cruised" the chat room to locate identifiable partners. A partner was considered evaluated when their visit to their provider was confirmed. The syphilis awareness campaign included posting information about syphilis on a popular gay internet service provider (ISP) home page; linking the ISP with the DPH STD clinic website and "hanging out" in the chat room to educate participants about syphilis and to encourage persons who had met partners in the chat room to seek medical evaluation.

Results: Among 97 named partners; 41(42%) were evaluated for syphilis. E-mails sent by the OP and from within the ISP were more likely to be responded to than those sent by DPH staff. More partners were located when the OP initially contacted them (15/35 vs.10/47). There was an 18% increase in the number of gay men evaluated at the STD Clinic in the month following the awareness campaign.

Conclusions: The Internet can be used to perform effective PN, especially if PN is done in collaboration with the OP. It can also be used to provide targeted STD education and awareness. Use of the Internet should be further developed as an important strategy for community-level STD prevention.

Presentation 5
Implications of Internet Use for Changes in STD/HIV Epidemiology

JD Klausner

SFDPH STD Services and University of California, San Francisco

Background: The internet has changed daily social interactions in many cultures around the world. Just as previous technological advances such stone tools, agriculture, iron, electricity, telephone, air travel and television had profound impact on society and risk for diseases, the internet has and will continue to alter ways in which society functions.

Objective: Discuss implications of internet-based social changes for STD/HIV outbreaks.

Results: One of the recently identified ways that the internet has changed society is the way persons meet sexual partners for sexual relationships. Persons who

may have been previously socially themselves to meet others; persons either geographically, structurally, or socially isolated can connect in cyberspace where these barriers have fallen; and lastly persons with specific sexual preferences can now connect in the cyber market place. The increased connectiveness between persons has resulted in an increase number of sexual partnerships and increased rate of partner turnover both key determinants of sexual disease transmission. In addition, the internet has become an important source of information on health and disease for individuals and a new opportunity for health promotion and disease prevention activities.

Conclusions: Ultimately, the balance between increased social connectivedness and disease transmission versus health promotion and prevention activities will dictate the effect the internet has on society.

C4
Screening of Males for *Chlamydia trachomatis* (CT) and *Neisseria gonorrhoeae* (NG) Infections at STD Clinics in Three U.S. Cities

KS Kohl[1], LE Markowitz[1], MJ Blythe[2], P Kissinger[3], WE Lafferty[4], SL Groseclose[1], MR Sternberg[1], WC Levine[1]

1. Centers for Disease Control and Prevention, Atlanta, GA, 2. Indiana University School of Medicine, Indianapolis, IN, 3. Tulane University School of Public Health and Tropical Medicine, New Orleans, LA, 4. University of Washington, Seattle, WA

Background: Most CT and NG infections in males are asymptomatic and do not result in sequelae. However, men may be a reservoir of infections resulting in transmission to women. Prevalence data among men are scarce because there are few routine male screening programs.

Objectives: To assess CT and NG prevalence among universally-screened males in STD clinics and to identify factors associated with infection.

Methods: From 5/95 – 3/99, CT and NG test results were obtained from universally-screened males in STD clinics in Seattle, New Orleans and Indianapolis. Test positivity was analyzed separately for visits initiated because of self-reported symptoms, clinical signs or having had sexual contact with an STD patient ("test-visit") and those initiated as an STD screen ("screen-visit").

Results: A total of 46,200 visits among 33,393 men aged 15-60 years (median: 27 years) were analyzed. Of 9,643, 14,351, and 8,630 "test-visits" in Seattle, New Orleans and Indianapolis, 9.1%, 10.3% and 15.2% were positive for CT and 10.3%, 24.9% and 31.5% were positive for NG, respectively. Of 4,502, 5,183, and 1,815 "screen-visits", 2.2%, 5.6% and 7.2% were positive for CT and 1.7%, 5.2% and 1.7% were positive for NG, respectively. Positivity was particularly high for "screen-visits" among young men (15-24 years); 8.2% were positive for CT and 5.4% for NG. Reporting a new or >1 sex partner and prior CT/NG infection were associated with infection for "screen- and test-visits".

Conclusions: CT and NG positivity among universally-screened men attending STD clinics without symptoms, clinical signs or STD contact was high, particularly among younger men. Positivity varied widely among sites, emphasizing the need to determine prevalence and risk factors of infection locally to inform screening strategies among men.

Learning Objectives: To describe the CT and NG prevalence of universally-screened males in STD clinics at geographically distinct sites in the United States. To describe risk factors associated with CT and NG infections in men.

C4
Enhanced Chlamydia and Gonorrhea Surveillance Through a Health Maintenance Organization Partnership With the State STD Control Program

JM Chow[1], W Ho[1], T Dunn[2], ST Platt[2], GA Bolan[1], S Black[2]

1. California Department of Health Services, 2. Northern California Kaiser Permanente Health Plan

Background and Rationale: A 1997 pilot transmission of data on chlamydia and gonorrhea cases as well as clinical syndromes associated with these infections, between a large health maintenance organization and the state STD control program demonstrated that this

type of transmission was feasible and could enhance surveillance for these conditions.

Methods: Data was transmitted to the state STD Control program from June to December 1999 for all patients tested for CT and GC, and patients diagnosed with cervicitis, urethritis, pelvic inflammatory disease (PID) and non-specified STDs. Cross-sectional analysis of CT and GC prevalence was done by age, gender, co-morbidity, antibiotic coverage, facility and the proportion of clinical diagnoses with CT/GC screening, This data was also merged with a database consisting of those patients who had tested positive on a pregnancy test and the age-specific CT and GC prevalence among pregnant females was determined.

Results: CT/GC prevalence among females was highest among females < 20 years (CT: 6.3%, GC: 1.8%) and varied significantly by facility location. CT prevalence among pregnant females was highest among those <20 years (6.8%). The CT prevalence by clinical syndrome ranged from 6.0% (PID) to 16.7% (STD/cervicitis). Screening coverage by syndrome ranged from 51.5% for cervicitis to 85.7% for STD/cervicitis.

Conclusions: These data have been used to help develop guidelines for CT/GC screening in the Northern California Kaiser population. Ultimately, this innovative partnership may be an effective way to monitor STDs in the community and to reinforce effective medical management of STDs.

Learning Objectives:
1. Use facility and age-specific CT/GC positivity data to guide the development of screening guidelines that target appropriate age groups.
2. Use clinical encounter data to identify testing patterns by diagnosis.

C4

Screening Criteria for Chlamydia and Gonorrhea in an Urban Primary Care Clinic

KA vom Eigen, BE Gould

Division of General Medicine, University of Connecticut School of Medicine, Farmington, CT, St. Francis/UConn Primary Care Center, Hartford CT

Background: Chlamydia and gonorrhea are major health problems for young adults. Screening criteria are less well defined for males than for females.

Objective: To examine prevalence of chlamydia and gonorrhea and screening criteria performance in an urban primary care clinic in Hartford CT.

Methods: Patients aged 13 to 30 completed a questionnaire (symptoms, risk behaviors, demographics) and were tested for chlamydia and gonorrhea using Ligase Chain Reaction urine tests.

Results: 686 patients were enrolled in 1998-99 (64% participation), including 550 females and 136 males. 234 were adolescents (184 females, 50 males) and 166 were pregnant. Overall prevalence of chlamydia or gonorrhea was 10.8% (female 10.9%, male 10.3%, adolescent 12.0%, adult 10.2%, pregnant females 9.6%). 57.1% of male cases and 56.6% of female cases were asymptomatic. Prevalence was higher among sexually experienced adolescents (female 16.9%, male 11.5%), and among adults with a risk factor (female 13.5%; male 15%). Testing of symptomatic patients and those meeting CDC screening criteria (sexually experienced adolescents, females 20-24 with one risk factor, older females with two risk factors, pregnant females at risk), would have identified 54/60 (93.3%) female infections (427/550 tested), but only 7/14 (50%) male infections (51/136 tested). If adult males with a risk factor were also tested, 11/14 (78.6%) cases would have been detected (103/136 tested).

Conclusions: Extension of screening to adult males with a risk factor improved case detection, but required testing 77% of patients, with 9.5% of cases still missed. In this high prevalence population, universal screening may be appropriate. The under-representation of males in the sample, despite 66% participation, reflects lower utilization of health care. Screening in non-clinical venues may be necessary to provide better access for males.

Learning Objective: Describe prevalence patterns and performance of screening criteria in male and female groups in this urban population.

C4

High Prevalence of Asymptomatic Chlamydial Infection among Men in County Jails in San Francisco, a City with Moderate Chlamydia Prevalence

C Kent, A Snell, R Kohn, J Goldenson, J Klausner

Department of Public Health, San Francisco, CA

Background: High syphilis rates have been observed in incarcerated men. However, little data is available about chlamydia screening of adult males in jails.

Objective: To evaluate chlamydia screening among incarcerated men in San Francisco, a city with moderate prevalence of chlamydia.

Method: Since September 1996, urine-based chlamydia screening of men, 18-30 years, has been performed post-intake in the county jails. Beginning April 1999, this program was expanded to include intake screening. Demographic data was collected at time of specimen collection. Risk behavior and booking charge data was available only from intake screening. Specimens were tested using LCx (Abbott).

Results: Between January 1997 and May 2000 chlamydia prevalence among men screened in the jails was 6.3% (903/14,293), and did not vary by year. A similar prevalence of 6.4% (408/6,337) was observed among women during the same time period. 94% of infected men were asymptomatic. Prevalence declined with age (18-20 years 8.3%, 21-25 years 6.9%, and 26-30 years 4.3%, (P<.001)), and varied by race/ethnicity (African-American 9.1%, Asian 6.8%, Latino 4.9% and White 3.6%, (P<.001)). Men with 2 or more partners in the last six months were significantly more likely to be infected [OR=1.6 (1.2-2.2)]. Since screening began, only the municipal STD clinic surpassed the jails for number of chlamydia cases detected among males.

Conclusions: Given the overall moderate chlamydia prevalence in San Francisco, the high prevalence of asymptomatic chlamydial infection in men screened at the jails is striking, as is the similarity of prevalence between men and women. The male screening program in the jails has become a critical component of chlamydia control in San Francisco. Other programs should evaluate the feasibility of screening men in jails.

Learning Objectives:
1. Understand than incarcerated men are at high risk for chlamydial infection.
2. Understand that most chlamydial infections in males are asymptomatic.

C4

Missed Opportunities for Early Detection of Chlamydia Among Adolescent Females in a School-Based Health Center (SBHC)

L Sanders, M Nsuami, S Taylor, B Brooks, T Farley, D Martin, D Cohen*

LSU Health Sciences Center, and *Louisiana Office of Public Health, New Orleans, LA

Background: Rates of genital chlamydia are the highest among adolescents, who are also known to have poor access to health care services. In 1993, CDC recommended that chlamydia screening for sexually active adolescents be routine during annual examinations, even in the absence of STD symptoms.

Objective: To determine opportunities for early detection of chlamydia in a SBHC.

Methods: In a school with an on-site SBHC, data on routine utilization of the SBHC were available for 1995-96, 1996-97 and 1998-99. A parallel school-based chlamydia screening (SBSTD) using urine LCR was offered each of the three years to all eligible students in the same school. Proportions of female students in grades 9-12 who routinely visited the SBHC were compared with those tested for chlamydia through the SBSTD screening.

Results: Respectively 65.5% (1995-95), 74.4% (96-97) and 64.5% (98-99) of all female students enrolled in school were serviced at the SBHC while a corresponding 46.7% (p=0.000), 55.6% (p=0.000) and 70.3% (p=0.08) were tested for chlamydia through the SBSTD screening. Rates of infection were 13.6% (95-96), 11.2% (96-97) and 9.1% (98-99)

(p=0.29). Participation in the SBSTD screening significantly increased over time (p<0.001 for trend).

Conclusions: Overall, the SBHC would have screened significantly more females if a urine specimen was purposefully collected from each student who routinely visited the center between 1995 and 1999. With such higher infection rates, more cases would probably have been detected through such integrated SBHC STD screening than actually were through the SBSTD screening. This demonstrates that opportunities for early detection of chlamydia among adolescents are still being missed in spite of the current availability of noninvasive, highly sensitive diagnostic tools for disease detection.

Learning Objective: Participants will learn how early detection of chlamydia can be successfully implemented in a school-based health center.

C4

Deriving a Surface of Chlamydial Infection Rates Using Geostatistics

DG Law[1], WC Miller[1], G Christakos[1], K Blue[2], M Smurzynski[1], KK Fox[3], PA Leone[2]

1. University of North Carolina, 2. Wake County Human Services, 3. Centers for Disease Control and Prevention

Background: Chlamydial infections may have serious health consequences, necessitating various strategies to reduce rates of infection. Knowledge of the spatial distribution of chlamydial infection could facilitate targeting these strategies. Kriging, a geostatistical method that can estimate a surface from point data, can provide a useful spatial representation of infection rates.

Objective: To better understand the spatial distribution of chlamydial infection in Wake County, North Carolina.

Methods: Chlamydial infection rates, based on reported cases, were mapped by census tract centroid using geographic information systems. The spatial distribution of chlamydial infections was represented in terms of a random field model. The spatial characteristics of the data were assessed (locally and globally) by constructing variograms in the north/south and east/west directions. Kriging was conducted using these variograms and the observed data to provide optimal estimate rates of chlamydial infection for a geographical grid covering Wake County.

Results: Kriging modeled a surface of infection rates across Wake County, identifying areas of high rates of reported chlamydial infection. Generally, rates of infection increase from the northwest to the southeast. The highest rates are observed in southeast Raleigh (central Wake County) and extend southward. As expected, the estimation (kriging) variance was greatest in areas with sparse observed data and was lowest in areas with abundant observed data.

Conclusions: The surface constructed using kriging provides a useful description of the distribution of reported chlamydial infection for Wake County. Although there are limitations to the method, the final map of estimated infection rates is easier to interpret and is more informative than traditional geographic analyses based on census tract rates. These results may help tailor and target public health interventions, optimizing health care resource allocation.

Learning Objective: Introduce techniques to investigate and analyze the spatial distribution of sexually transmitted diseases.

C5

Behavioral Science: Practical Interpretation, Utilization, and Dissemination of Behavioral Data or "What do we do with these surveys anyway?"

SP Williams, FR Bloom, JS Leichliter, KA Ethier

Centers for Disease Control and Prevention, Atlanta, GA

Background & Rationale: Given the increased effort to integrate behavioral science into public health programming, there is a need for public health professionals to effectively utilize behavioral information. This workshop will cover the collection, interpretation, use and dissemination of behavioral data. The goal of this workshop is to convey a practical understanding of data interpretation, and to provide hands-on experience to assist public health professionals in the effective application and dissemination of behavioral data.

Methods: The first half of this participatory workshop will consist of background information on how to collect, interpret, use and share quantitative and qualitative behavioral data. The group activities that follow will provide an opportunity for participants to apply the background information and work with practice data supplied by the presenters. Presentation and discussion will include the following key issues: 1) how to obtain behavioral information, 2) how to translate the information, 3) the diverse uses of behavioral information, and 4) the effective dissemination of behavioral information to diverse audiences.

Learning Objectives: At the end of this workshop, participants will have:
1. A practical understanding of how to collect and interpret quantitative and qualitative behavioral data.
2. An understanding of how behavioral data can and cannot be used.
3. Hands-on experience in interpreting behavioral data and developing a dissemination plan.

C6
Integrating Viral Hepatitis Prevention into STD/HIV Prevention Programs–Part I

J Buffington[1],G Schmid[1], B Finkelstein[1], R Gunn[1], I Weisfuse[2], R Bair[2]

1. Centers for Disease Control and Prevention, Atlanta, GA, 2. NYC Dept. of Health, New York, NY, 3. University of Texas, San Antonio, TX.

Background and Rationale: Viral hepatitis is a major public health problem in the United States. An estimated 200,000 new hepatitis B virus (HBV) infections occur each year, and 1.2 million Americans are chronically infected with HBV, which is primarily a sexually transmitted disease in this country. One Healthy People 2010 objective is to increase the percent of STD clinics offering hepatitis B vaccination to 90 percent. An estimated three million Americans are chronically infected with hepatitis C virus (HCV), which, although primarily a blood borne pathogen, may also be transmitted by sexual activity. Persons at increased risk for hepatitis A include men who have sex with men (MSM) and injection drug users (IDU), groups who may seek services in STD clinics. New cases of hepatitis A and hepatitis B virus infection can be greatly reduced by implementing vaccine programs in STD clinics, which have been recommended as prime locations for delivery of vaccine to high-risk adults. Integrating viral hepatitis A, B, and C prevention services into existing STD programs is an essential step towards prevention and control of these diseases.

Objectives: To understand the epidemiology and recommendations for prevention and control of viral hepatitis A, B, and C, including risk factors for infection; to understand the impact of missed opportunities for vaccination (hepatitis A and B); to introduce programs which have begun offering viral hepatitis prevention services as part of existing programs (e.g., STD services); to provide a framework for further discussion of barriers and ways to overcome such barriers in planning integration programs.

Content: Epidemiologic data on viral hepatitis A, B, and C will be introduced. Data supporting recommendations for integrating viral hepatitis prevention activities into existing service delivery sites will be presented. Results of a needs assessment, conducted by the HIV/STD Prevention Training Centers, for the integration of viral hepatitis counseling, testing, and referral services with existing HIV/STD programs will be presented. Programs in California, New York City, and Texas which have begun offering integrated viral hepatitis prevention services with pre-existing STD programs serving high risk populations will be introduced. Discussion will center on strategies to integrate viral hepatitis counseling, testing, vaccination, and medical management (or referral) into existing programs that serve populations at high risk for viral hepatitis (e.g., HIV, STD, drug treatment, needle exchange, corrections).

Learning Objectives:
1. To understand the epidemiology and recommendations for prevention and control of viral hepatitis A, B, and C, including risk factors for infection.
2. To understand reasons for and recognize opportunities to implement integrated hepatitis prevention activities into existing STD prevention and control settings.
3. To begin to explore program experience and barriers to implementing integrated prevention services.
4. To begin to explore mechanisms to overcome barriers to providing comprehensive viral hepatitis prevention services in the STD clinic setting.

C7

National Survey of US Physicians' STD Screening, Testing, Case Reporting, Clinical and Partner Notification Practices

JS St Lawrence[1], DE Montaño[2], D Kasprzyk[2], WR Phillips[2,3], Keira Armstrong[2], J Leichliter[1]

1. Centers for Disease Control and Prevention, Atlanta, GA
2. Battelle Centers for Public Health Research and Evaluation, Seattle, WA, 3. Department of Family Medicine, University of Washington, Seattle, WA

Background and Rationale: The health care climate has changed markedly since the last national survey of STD practices among private physicians in 1968

Objective: Assess US physicians' practices with respect to STD screening, testing, case reporting, partner notification, and clinical behaviors for syphilis, gonorrhea, chlamydia, and HIV.

Methods: Surveys were mailed between May 1999 - January 2000 to a random sample of physicians (N=7,300) from the AMA Physician Master File. Mean age of respondents was 46.2 years and 72% were male. Most respondents were white (81%), had been in practice for 18 years, spent 47 hours/week in direct patient care, and saw an average of 98 patients/week.

Results: 78% diagnosed at least one case of syphilis, gonorrhea, chlamydia, or HIV in the past year. Less than 1/3 routinely screens men, non-pregnant, or pregnant women for STDs. Screening of pregnant women is higher for obstetricians (78%-85%) than for generalist physicians. Physicians who test for gonorrhea or chlamydia rely on DNA probe (gonorrhea, 36.0%; chlamydia, 41.7%) and rarely use PCR/LCR urine tests (gonorrhea; 1.3%; chlamydia, 1.8%). Case reporting is lowest for chlamydia (36.7%), intermediate for gonorrhea (44.4%) and higher for syphilis, HIV, and AIDS (53.4% to 56.7%). Community based physicians expect their patients to do partner notification, instructing them to notify their partners (82% to 89%) or by telling patients to self-notify the health department (25% to 34%). Physicians less often report patient information (44% - 50%) or partner information (11%-16%).

Conclusions: Results from this physician survey provide updated information about current STD care and prevention in the US.

Learning Objective: Describe physicians' current practices regarding STD screening, testing, case reporting, clinical and partner notification practices.

C7

Use of and Adherence to CDC-Recommended Treatment Guidelines for Chlamydia and Genital Warts: Preliminary Data from a Survey of Managed Care Providers

M Stiffman[1], D Magid[2], K Irwin[3], L Anderson[3], L Cherney[1], T Defor[1], C Westrum[1], E Lyons[2], N Strub[1]

1. HealthPartners Research Foundation, Minneapolis, MN,
2. Kaiser Colorado, Denver, CO, 3. Division of STD Prevention, Centers for Disease Control and Prevention, Atlanta, GA

Background: Little is known about clinician use of CDC's 1998 Guidelines for Treatment of Sexually Transmitted Diseases.

Objectives: To assess use of and adherence to the STD guidelines, and perceived barriers and facilitators of guideline use among generalist clinicians.

Methods: Mailed survey of 1000 clinicians in two group-model managed care plans (Kaiser, Colorado (n=250), and HealthPartners, Minnesota (n=250)) and one network of fee-for-service clinicians associated with HealthPartners (n=500).

Results: Survey response rates were 82%. Rates of self-reported adherence to treatment recommendations were high (94% for chlamydia, 98% for genital warts). Most clinicians (88%) reported knowing of the CDC treatment guidelines. Eighty percent of those used the guidelines. Clinicians also reported getting STD treatment information from printed summaries of treatment guidelines (66%), CME teaching (62%), or textbooks (56%). Only 11% used computerized resources (e.g., Internet). The most commonly cited factors that might increase use of the STD guidelines were "having ready access to a copy" (95%) and "endorsement by my specialty organization" (58%). The most commonly cited barriers to providing quality STD care were limited staff to manage sex partners (39%), lack of policies for treating sex partners (31%), and finding time to deal with STDs (28%).

Conclusions: Clinicians in both managed care and fee for service settings report high rates of adherence to treatment guidelines for chlamydia and genital warts. Helping clinicians with partner notification and treatment issues may improve the quality of STD treatment by managed care clinicians.

Learning Objective: Understand how managed care clinicians use guidelines and other resources in STD treatment.

C7
STD Testing and Risk Assessment Are Rarely Provided to Teenagers Enrolled in Medicaid Managed Care: Measuring the Performance of Three Health Plans

WE Lafferty[1], L Downey[1], C Holan[2], A Lind[3], G Tao[4], K Irwin[4], W Kassler[5]

1. University of Washington, Seattle, WA, USA, 2. Oregon Medical Professional Review Organization, Portland, OR, USA, 3. Washington State Medical Assistance Administration, Olympia, WA, USA, 4. Centers for Disease Control and Prevention, Atlanta, GA, USA, 5. New Hampshire Department of Health and Human Services, Concord, NH, USA

Background: Teenaged Medicaid enrollees are at high risk for STD. Provision of STD risk assessment and screening would increase case detection and treatment and reduce transmission to partners.

Objectives: To measure the extent of STD testing and sexual history taking for three Medicaid managed care health plans and compare service provision by enrollee demographics and by plan organizational structure and profit status.

Methods: Medical record review, analysis of Medicaid administrative data and supplemental data sources for 1,112 teenagers enrolled throughout 1998 in three health plans that serve Medicaid enrollees.

Results: Teenagers were more likely to get outpatient care from the staff model HMO than from plans with other structures (61%, 51%, 49%, $p<0.001$). The for-profit plan was less likely than the two non-profit plans to test for chlamydia in girls who received some outpatient care (4%, 12%, 21%, $p<0.001$). Chlamydia testing was rarely provided to girls who did not speak English or to boys. Most STD testing was initiated because of client concerns rather than routine screening or elicitation of a risky sexual history. Among enrollees with at least one outpatient visit, only 15% of boys and 44% of girls had charted sexual histories. Only 1% of boys and 19% of girls were tested for any STD. Even so, 6% of girls were diagnosed with STD during the 12-month period. Six percent of girls were pregnant during the year.

Conclusions: In these 3 Medicaid managed care plans, less than half of the girls and few boys were tested for STD or assessed for STD risk. Improving plan performance, including adherence to Medicaid requirements for sexual risk assessment, could reduce STD morbidity and teenage pregnancy.

Learning Objectives:
1. To report on STD-related performance measurement in Medicaid managed care.
2. To compare service provided by plans of different types.
3. To identify major gaps in care.
4. To recommend corrective action.

C7
A Randomized Trial of a Tailored Self-Help STD Prevention Intervention in Two Managed Care Settings

D Scholes[1], C McBride[2], D Civic[1], L Grothaus[1], K Yarnall[2], L Ichikawa[1], L Fish[2], V Rebolledo[1], P Yarbro[1], J Albright[2], R Talenti[1]

1. Group Health Cooperative of Puget Sound, Seattle, WA,
2. Duke University Medical Center, Durham, NC

Background: Interventions to prevent STD/HIV are often resource-intensive and focused on high-risk groups. Minimal written self-help interventions, found to be effective in other areas of behavior change, have yet to be evaluated in STD prevention but have the advantages of being self-directed and amenable to broad-based dissemination. Advances in computer tailoring allow these materials to be individually customized to increase personal relevance and minimize text.

Objective: To evaluate in a randomized trial whether a tailored self-help intervention can increase condom use among young women at increased risk for STD/HIV.

Methods: Women ages 18-24 were identified from automated databases at two managed care sites in Seattle, WA and Durham, NC. Women were recruited, interviewed by telephone and, if eligible (sexually active, non-monogamous), randomized to intervention or usual care. Intervention participants received a mailed packet containing condom samples, a carrying case, and a computer-generated self-help magazine, individually tailored on selected interview items (stage of readiness to use condoms, STD risk perception, condom use barriers and self-efficacy). A tailored booster newsletter was mailed at 3 months. Follow-up surveys (ongoing) are at 3 and 6 months.

Results: 1210 women were recruited and randomized (801, Seattle; 409, Durham). Follow-up rates were 89% (3 months) and 85% (6 months). At 3 months, 90% of intervention women report receiving materials, 87% reported reading some/all of the magazine and, of these, 71% felt the material was personally relevant. 3-month data on outcomes (condom use, frequency of use, purchasing/carrying condoms, and discussions with partners) will be complete 9/2000.

Conclusions: Proactively provided self-help materials promoting condom use are well-accepted by young sexually active women and may favorably impact condom use and other study outcomes.

Learning Objectives:
1. Understand the application of a conceptually driven, tailored self-help behavioral intervention to the area of STD prevention.
2. Describe acceptability and use of the intervention materials and differences between intervention and usual care participants in condom use and other study outcomes.

C7

Adolescent Woman Abuse, Sexually Transmitted Diseases and Partner Notification: A Framework for Ethical Analysis of Clinical Dilemmas

JD Champion, K Artnak

The University of Texas Health Science Center at San Antonio, San Antonio, TX

Background: A high prevalence of sexual and physical abuse has been identified among adolescent women who have sexually transmitted diseases. The need for health care practitioners to incorporate ethical analysis into the case management of sexually transmitted diseases in situations in which sexual or physical abuse exists is becoming more apparent - particularly when dealing with adolescents within independent practice settings. The literature contains many articles dealing with the more abstract treatment of clinical ethics, but for the practitioner there is unfortunately little information available that utilizes ethical principles in a useable framework addressing the concrete reality of daily, difficult, clinical decision making.

Objective: To apply a model of reasoned analysis to actual case studies concerning adolescent woman abuse, sexually transmitted diseases and partner notification utilizing the concepts of casuistry or case-based reasoning, and offer this method as a framework for ethical analysis.

Methods: Clinical cases involving adolescent woman abuse, sexually transmitted diseases and partner notification were identified within medical practices in metropolitan and rural communities.

Results: These cases, complicated by the co-existence of adolescent woman abuse, sexually transmitted disease and partner notification form a taxonomy of cases from which to examine the unique ethical issues of patient privacy and legitimate breaches of confidentiality within these communities.

Conclusions: The concepts of casuistry or case-based reasoning, offer a legitimate method of ethical analysis for practitioners working with adolescent woman abuse, sexually transmitted diseases and partner notification within diverse communities.

Learning Objective: Describe the utilization of an ethical framework for decision-making in analysis of cases involving adolescent woman abuse, STD and partner notification.

C7

A Comparison of Patient Characteristics and Provider Follow-up Methods of Untreated and Treated Chlamydia Patients at an Indian Health Service Hospital

L Shelby, R Pacheco, J Cheek, D Thoroughman, C North

Indian Health Service, Albuquerque, NM

Background: Reasons why some STD patients never receive treatment is unknown in a primary care setting. Patients may not come back for follow-up care suggesting that hard-to-locate patients or ineffective provider follow-up methods may be significant barriers to patients receiving treatment.

Objective: To compare patient characteristics and provider follow-up methods of untreated and treated chlamydia patients at an Indian Health Service hospital.

Methods: A case control study was conducted on 68 untreated and 68 treated chlamydia patients. Patient and provider variables evaluated included gender, age, pregnancy status, patient locating information, reason for visit, specialty clinic, appointment type, provider workload, and provider follow-up attempts. Data collected were analyzed using the EPI INFO statistical program to determine relative odds of receiving treatment.

Results: Of 11,415 patients screened, 500 tested positive and 74 were never treated. Sixty-eight records were available for review. Sixty-eight treated patients were randomly selected as the control group. Providers not contacting patients by phone was a significant risk for not receiving treatment. Of the untreated group, 7 (10.3%) were phoned versus 24 (35.2%) of the treated group (OR=.21, 95% CI: .07, .57). None of the other factors achieved statistical significance. Of the untreated group, 34 (50%) had no documentation of provider follow-up. Twenty-one (30.9%) of the treated group also had no documentation but were treated at their next visit. Of the untreated group, 17 (25%) had subsequent visits but never received treatment.

Conclusions: Providers not contacting patients by phone was a significant risk for not receiving treatment. None of the other factors achieved statistical significance. Lack of documentation on medical records may have led to missed opportunities for treatment.

Learning Objective: To highlight the importance of provider intervention to notify patients of their test results.

C8

Community Engagement: Building Bridges to Local STD Programs, Faith Based, and Community Based Organizations for the Purpose of Eliminating Syphilis

WC Marshall, K Middleton

Wisconsin Division of Public Health, Bureau of Communicable Diseases, STD Control Section, Milwaukee, WI

Background and Rationale: Barriers between local STD Programs and community based organizations are identified in the elimination of syphilis. In order to maximize the effectiveness of interventions and reduce infection at the community level, collaboration with community and faith-based organizations is essential. This workshop will discuss a unique and successful partnership between the Milwaukee STD Program, community and faith-based organizations and community leaders and businesses.

Methods: In this workshop we will discuss the strategy for organizing community partnerships and some of the barriers encountered in the establishment of Syphilis Elimination Community Partnership Team (CPT) which is comprised of the Milwaukee STD Program and 26 community based organizations from high morbidity areas (HMA). In this participatory workshop presenters will discuss the use of the expertise and location of each CPT member in focusing education, outreach screening, and education for preventive STD behaviors within the targeted communities. Panelists will identify techniques to engage ongoing outreach collaborations with community faith-based and social service organizations. Discussion will also include techniques for creating awareness amongst constituents of local politicians in HMAs.

Learning Objectives:
1. Identify and resolve factors contributing to barriers of collaboration between STD Programs and faith and community based organizations.
2. Describe ways to empower the community through faith-based, community, and political organizations.
3. Discuss legitimate ways to motivate continued CBO involvement.

C9
Engaging Communities to Eliminate Syphilis: Lesson from North Carolina

J Scott[1], C McCoy[2], A Mureira[3], W Cardenas[4], M Richardson[5], M Brown[6], C Moseley[7], K Locklear[8]

1. Centers for Disease Control and Prevention, Atlanta, 2. Mecklenburg County Health Department, Charlotte, 3. Wake County Health Department, Raleigh, 4. Wake County Health Department, Raleigh, 5. Wake County Jail, Raleigh, 6. Forsyth County Health Department, Winston-Salem, 7. Guilford County Health Department, Greensboro, 8. Robeson County Health Department, Lumberton, NC

Background and Rationale: North Carolina led the nation in the number of high morbidity counties reporting syphilis in 1998. Traditional efforts to intervene in the spread of syphilis resulted in a steady decline of cases since the epidemic peaked in 1992. Eliminating the last few hundred cases by the year 2005 requires new approaches in reaching individuals at-risk for acquiring syphilis. This workshop will address how to reach these populations by engaging various community members on a local level to work toward syphilis elimination.

Methods: In this participatory workshop, we will discuss how to identify high-risk populations and innovative avenues for reaching these populations. We will also discuss how to engage members of the community to assist in neighborhood outreaches, screenings, education, and social marketing to those at risk for getting syphilis. Break-out sessions will include how to: 1) Involve inmates in social marketing; 2) Bring together community task force members and disease intervention specialists for cluster screenings; 3) Establish community resource centers; 4) Educate prostitutes and truckers through truck stop outreaches; and 5) Bring the syphilis message to the public through barbers and beauticians. Presenters will describe how they implemented strategies in their county. Participants in the workshop will discuss these methods for community involvement and exchange ideas for other unique ways to engage communities in syphilis elimination.

Learning Objectives:
1. Identify means to determine which communities are most affected by syphilis.
2. Implement strategies to increase awareness of and screening for syphilis in affected communities.

D1
Temporal Ordering of Sex Partnerships: Concurrency and the "GAP" as Factors Fueling or Limiting the Spread of STIs

S Aral[1], A Adimora[2], L Manhart[3], P Gorbach[4], E Koumans[1], Julie Kraut[5]

1. Centers for Disease Control and Prevention, Atlanta, GA, 2. The University of North Carolina at Chapel Hill, Chapel Hill, NC, 3. University of Washington Center for AIDS and STD, Seattle, WA, 4. San Diego State University, San Diego, CA, 5. Northern Illinois University, DeKalb, IL

Background and Rationale: Accumulating evidence and recent work in mathematical modeling point to the importance of temporal ordering of sex partnerships as a determinant of the rate of spread of sexually transmitted infections in populations. Concurrent partnerships, bridge populations, and the gap between serially monogamous partnerships emerge as important parameters associated with rates of sexually transmitted infections. In addition, particular placements in time-ordered partnerships influence individuals' risk of acquiring and transmitting sexually transmitted infections.

Objectives: To present results of recently completed analyses on various aspects of time-ordered sex partnerships including: socio-demographic correlates of distinct types of temporal ordering in sex partnerships; implications of distinct aspects of time-ordered partnerships for risk of specific sexually transmitted infections; and a framework for the incorporation of temporal ordering of sex partnerships into conceptualizations of individual level risk for acquisition and transmission of sexually transmitted infections and rate of spread of sexually transmitted infections in populations.

Content: Specific parameters to be discussed include:
1. Socio demographic correlates of concurrent partnerships observed among reproductive age American women.
2. Socio demographic correlates of the "GAP" observed among reproductive age American women and implications for proportions of American women who are at risk for transmission of sexually transmitted infections as a result of unsafe "GAPs".
3. Age and gender differentials in partnership concurrency and "GAP" observed among members of a local general population.
4. Qualitative typology of concurrent partnerships observed among high risk populations.
5. Concurrent partnerships observed among persons infected with syphilis.
6. Above mentioned presentations will be followed by discussion among presenters and with the audience.

Learning Objectives:
1. Describe the socio-demographic correlates of concurrent partnerships observed among American women of reproductive age.
2. Describe the qualitative typology of concurrent partnerships observed among high risk populations.

D2

Creating Political Will Around STDs: National and State Advocacy

D Arrindell[1], E Foust[2], C Resnick[3]

1. American Social Health Association, Washington, DC, 2. HIV/STD Prevention and Care, North Carolina Division of Public Health, 3. Former Member Arizona State Legislature

Background and Rationale: Advocacy for effective STD prevention and treatment programs is essential because, as stated in the 1997 IOM report, "unlike many other health issues, there are virtually no patient-based constituent groups for STDs other than HIV infection." Strengthening the public investment and improving resources available for STD prevention, treatment, and research will require strong advocacy efforts by a broad array of public and private organizations. Creating political will around STDs is difficult and there are currently very few advocates for these programs. Issues related to STDs are still a taboo subject on Capitol Hill and in state legislatures. While the sequelae of STDs — infertility, cervical cancer, infant mortality, and AIDS — are major concerns, policy makers have been unwilling to acknowledge the link between these hot political topics and STDs. This workshop will demystify the legislative process and provide tools for effective advocacy.

Methods: In this participatory workshop, we will discuss the importance of advocacy and the difficulties of garnering support for STDs. Effective strategies for presenting information, and building coalitions to maximize impact will be discussed. Presenters will discuss these issues from the perspective of a successful state advocate, a former State Senator, and a Congressional lobbyist. Workshop participants will share strategies and experiences and describe efforts to work in collaboration with other organizations to achieve improved investment in STD programs. Materials that can be used to implement the strategies will be provided.

Learning Objectives:
1. Identify barriers to effective advocacy.
2. Describe methods of working with policy makers.
3. Implement advocacy strategies to secure improved funding for STD programs.

D3

Establishing Collaboration between Public Health and Corrections

J Miles[4], K Middleton[1], M Schuknecht[2], J Brylow[3]

1. State of Wisconsin Division of Public Health, Milwaukee, WI, 2. Milwaukee County Sheriff's Department, Detention Service Bureau - Jail Health Services, Milwaukee, WI, 3. Milwaukee County Sheriff's Department, Detention Service Bureau - Inmate Programs, Milwaukee, WI, 4. CDC, Atlanta, GA

Background and Rationale: The groundwork for collaboration between the State of Wisconsin Division of Public Health and the Milwaukee County Sheriff's Department–Milwaukee County Jail was laid in years past. Expanding this relationship into a full service relationship was accomplished through a continuous exchange of ideas, development of policies and procedures, and structuring of services and follow-up. Since citizens of the community are inmates within the jail system for short periods (housed an average of nine days), objectives in public health may reach the greatest number of persons and provide continuity of care without duplication through collaboration with correctional institutions. Current services shared by these institutions include: testing/treatment of infected/exposed inmates; screening for syphilis and

HIV infections; sexually transmitted disease (STD) awareness education for inmates; in-service training for professional staff; and development of information systems for monitoring of STD and Tuberculosis (TB).

Objectives: To discuss strategies for development of collaborative services between the public health sector and correctional institutions. Specific topics will include: 1) development of an access plan; 2) health care services of interest to both parties; 3) use of information systems to facilitate reliable monitoring and reporting; and 4) utilization of information in justifying programs and related staffing, documenting care, and enabling information exchange.

Content: A panel of public health and corrections health care providers, selected for their knowledge and experience in project-specific collaborations for STD and TB testing will discuss projects currently underway at the Milwaukee County Jail. The panel will address strengthened information systems, increased turn-around of laboratory reporting times, increased reporting, increased testing and follow-up at the jail and through the health department, and increased resources for staff training.

Learning Objectives:
1. Understand strengths and limitations of the public health and corrections sectors.
2. Implement strategies for screening and follow-up of diseases within the public health and institutions of correction.

D4

Screening Asymptomatic Males for *Chlamydia trachomatis* Infection; Feasibility, Acceptability, and Cost Effectiveness

JA Schillinger[1], T Gift[1], JM Marrazzo[2], C Gaydos[3], C Rietmeijer[4], CK Kent[5], J Klausner[5], L Markowitz[1]

1. Centers for Disease Control and Prevention, Atlanta, GA, 2. University of Washington, Seattle, WA, 3. Johns Hopkins University School of Medicine, Baltimore, MD, 4. Denver Public Health, Denver, CO, 5. San Francisco Department of Public Health, San Francisco, CA

Background: The Centers for Disease Control and Prevention (CDC) National Infertility Prevention Program focuses on screening and treating women infected with *Chlamydia trachomatis* (Ct) because women bear the burden of reproductive sequelae due to Ct. Nevertheless, there has been interest in expanding screening to men in order to reduce the reservoir of infection. Young adult men are less likely than women to encounter the health care system; because of a lack of screening, most men found to be infected with Ct have sought care for symptoms or for exposure to a woman with Ct. The availability of noninvasive urine tests has greatly expanded the potential for screening men; the cost effectiveness of such screening will depend on the prevalence of infection, the transmission potential associated with asymptomatic male infection, the likelihood males will return for results and treatment, the numbers of female partners located and treated, the costs associated with partner services for females, and reinfection rates among men.

Objectives: To describe the implementation of urine-based male Ct screening projects in different venues in four US cities (Baltimore, MD, Denver, CO, San Francisco, CA, and Seattle, WA) and to present Ct prevalence measured by the screening activities.

Content: After an opening presentation describing the CDC Male Screening Research Program, investigators from each city will describe: the rationale for venues selected for male screening activities, obstacles and challenges in implementing screening, the prevalence of Ct infection in different venue types, rates of return for test results, and success in locating female partners. A model for estimating the cost effectiveness of screening asymptomatic males will also be presented.

Learning Objectives:
1. Understand the rationale for selecting different venues for male screening activities.
2. Describe some of the obstacles and challenges in implementing screening for asymptomatic men.
3. Describe differences in the prevalence of Ct infection in different venue types, variations in rates of return for test results, and variations in success in locating female partners of infected males.
4. Describe factors which could influence the cost effectiveness of screening asymptomatic males.

D5

Part I–Innovations in Syphilis Prevention: Research for Syphilis Elimination

J Valentine[1], T Farley[2], J Gibson[3], M Ross[4]

1. Centers for Disease Control and Prevention, Atlanta, GA,
2. Louisiana Department of Health and Hospitals, Baton Rouge, LA, 3. South Carolina Department of Health, Columbia, SC,
4. University of Texas School of Public Health, Houston, TX

Background and Rationale: The Innovations in Syphilis Prevention (ISP) projects in Louisiana, South Carolina, and Texas are completing a 5-year project. The objectives were to identify specific local determinants of syphilis persistence in affected communities; to develop, implement and evaluate prevention strategies; to identify effective methods to increase access to and utilization of STD care services; and to assess the affected community's response to these prevention strategies.

Objectives: Review the contents and results of community-based syphilis prevention research programs in these three southeastern communities and to discuss implications for syphilis elimination.

Content: Investigators from the three sites will describe changes in the prevalence of syphilis, the methods used to evaluate the role of their implemented intervention strategies in these changes, and the results of their evaluations. Interventions that were implemented at the sites include: 1) syphilis screening and treatment programs in emergency medicine departments and jails; 2) outreach services to provide community-based screening, treatment, and partner services; 3) antibiotic prophylaxis for persons with self-identified risk factors for syphilis and other STDs; 4) use of large and small media campaigns to change the community's knowledge, attitudes and behaviors regarding syphilis; 5) use of community-based workshops to reduce highrisk sexual behaviors; 6) establishment of community-based condom distribution sites; 7) identifying and training community-based health educators to provide outreach services; and 8) methods to increase physician reporting of syphilis to improve the use of partner notification services.

Learning Objective: Identify and describe strategies for the control and prevention of syphilis that may be effective to locally eliminate syphilis.

Part II–Recommendations for Public Health Surveillance of Syphilis in the United States

R Kahn[1], L Finelli[1], W Levine[1], C Rietmeijer[3]

1. Centers for Disease Control and Prevention, Atlanta, GA,
2. Massachusetts Department of Health, Boston, MA,
3. Denver Department of Public Health, Denver, CO

Background and Rationale: The National Plan to Eliminate Syphilis from the United States suggests that "enhanced surveillance" for syphilis is necessary for elimination to occur. In March of 2000, the Centers for Disease Control and Prevention, the National Coalition of STD Directors and the Council of State and Territorial Epidemiologists convened a meeting to develop recommendations for public health surveillance of syphilis in the United States as part of the national effort to eliminate syphilis. The resulting recommendations cover five areas: 1) Case-reporting; 2) Prevalence monitoring; 3) Active surveillance; 4) Congenital syphilis and 5) Behavioral surveillance.

Objectives: To present and discuss the Recommendations for Public Health Surveillance of Syphilis in the United States.

Content: A panel of surveillance experts, who served as moderators at the Syphilis Surveillance Meeting, will review the recommendations and the rationale for the recommendations. Following four individual presentations by the panel members, the moderator(s) will facilitate a dialogue with the audience regarding the recommendations and barriers to their implementation.

Learning Objectives:
1. Understand the importance of enhanced surveillance for syphilis control and elimination.
2. Review and understand the Recommendations for Public Health Surveillance of Syphilis in the United States.

D6

Successes and Struggles of Creating an Integrated HIV and STD Program

W Petz, E Foust

North Carolina HIV/STD Prevention and Care Branch, Asheville, NC, North Carolina HIV/STD Prevention and Care Branch, Raleigh, NC

Background: Many states with separate HIV and STD programs have considered merging the programs into a single entity. The prospect and process of the integration of two programs with separate staff, funding, policies, histories, CDC project officers and often different "corporate cultures" are problematic.

Objectives: To create an effective integrated program that builds upon the common ground of HIV and STD services and objectives and also honors the differences.

Methods: After working with protocol agreements and memos of understanding between separate programs a merger was agreed upon resulting in structural, fiscal, training, staffing, and program changes. Each change had internal and external implications to be considered.

Results: North Carolina integrated most of its programs in 1990 and later integrated Ryan White Program activities into the HIV/STD Prevention and Care Branch.

Conclusions: An integrated program creates many advantages to state health departments, program staff and clients, but some tensions and problems continue.

Learning Objectives: To discuss the tensions and resolutions of North Carolina's merger and its current status to assist programs either in or anticipating their own merger process.

D6

HIV Testing and STD History Among Persons at Risk for HIV

LM Lee, JS Lehman

Centers for Disease Control and Prevention, Atlanta, GA

Background and Rationale: Persons with STD are at increased risk of HIV infection. Knowing one's HIV status is essential for accessing early medical and prevention services.

Objectives: To determine the association between self-reported history of HIV test and history STD of among persons at risk for HIV.

Methods: We analyzed data from the HIV Testing Survey. This cross-sectional study was conducted in 7 states from July 1998 to February 1999. MSM were recruited from gay bars, injecting-drug users (IDU) from street outreach, and heterosexuals from STD clinics. STD clients were interviewed before seeing a clinician. We excluded persons reporting a prior positive HIV test.

Results: Among 177 (9.6%) persons with an STD in the past year, 89.3% had been tested for HIV compared with 80.2% among 1,675 persons not reporting STD ($p<0.003$). STD clients had lower rates of HIV testing (69%) compared with MSM (85%) and IDU (90%) ($p<0.001$). Factors independently associated with increased odds of HIV testing included IDU compared with MSM (OR 1.08, [95% CI 1.04-1.12]), age 25-34 and 35-44 compared with under 25 (OR 1.23, [1.12-1.29]; OR 1.26 [1.15-1.31]), and STD in past year (OR 1.17 [1.13-1.20]). Factors associated with decreased odds for testing included study venue (STD clients compared with MSM, OR 0.84, [0.76-0.91]) and race/ethnicity (Latino compared with black, OR 0.85 [0.75-0.94]).

Conclusions: HIV testing rates were high among these high risk groups; persons reporting history of STD in past year were more likely than others to ever have had an HIV test. Heterosexuals at STD clinics are at high risk for HIV, yet this group was least likely to report having had an HIV test.

Learning Objective: Describe association between STD history and HIV testing among persons at risk for HIV infection.

D6

Use of CDC-funded Human Immunodeficiency Virus (HIV) Counseling and Testing Services in Designated HIV Counseling and Testing (CT) Sites and Sexually Transmitted Disease (STD) Clinics, US, 1998

SM Greby, R Horsley, M Iatesta

Centers for Disease Control and Prevention, Atlanta, GA

Background: CDC-funded HIV counseling and testing services are an integral part of national HIV prevention efforts. Services are provided in a variety of settings, including CT sites and STD clinics. Complete counseling sessions among high-risk persons can enhance counseling efficacy and reduce new STD infections.

Objective: To describe the use of CDC-funded HIV counseling and testing services in CT sites and STD clinics.

Methods: Data from the 1998 HIV Counseling and Testing System were analyzed to determine use of HIV testing services and completion of counseling sessions in CT sites and STD clinics. Service use was calculated from test episodes at CDC-funded sites reporting individual client-level information using the standard CDC data collection instrument.

Results: A total of 1,035,486 HIV tests were reported in 1998, 30.5% of tests (35.5% of HIV-positive tests) were completed in CT sites and 30.2% (28.1% of all HIV-positive tests) in STD clinics. In CT sites, complete follow-up counseling sessions were reported for 82.7% of HIV-positive tests episodes and 80.1% of HIV-negative tests episodes. In STD clinics, follow up sessions were less frequent, 71.7% for HIV-positive tests episodes and 53.9% for HIV-negative tests episodes. Among test episodes with an acknowledged or specified behavioral risk characteristic identified, test episodes associated with an STD diagnosis or history were less likely to receive follow-up counseling (CT sites: 73.0% for HIV-positive tests episodes and 69.3% for HIV-negative tests episodes, STD clinics: 63.9% and 53.9%, respectively).

Conclusions: CT sites and STD clinics, together, provide the majority of CDC-funded HIV counseling and testing services, identifying the majority of HIV-positive tests. Counseling sessions were not always complete, especially in STD clinics, limiting opportunities to provide prevention services.

Learning Objective: Describe the use of HIV prevention services in CT sites and STD clinics.

D6

HIV Post-Test Counseling in the STD Clinic Setting: Who Comes Back and Who Doesn't?

JM Zenilman[1,2], M Chung[2], W Brathwaite[1], J Ellen[1,2]

1. Baltimore City Health Department,
2. Johns Hopkins University, Baltimore, MD

Background: HIV Counseling and Testing (C&T) is widely implemented in STD clinics. Little data are available to prospectively characterize those patients who miss their post-test counseling (PTC) appointments compared to those who receive PTC.

Objectives: Determine characteristics of patients who keep or miss PTC. If a risk profile is identified, these patients may be candidates for HIV rapid tests or more intensive counseling.

Methods: Analysis of C&T data from Baltimore STD clinics in 1997-98. PTC was defined as returning for results within 30 days of testing. We then assessed PTC rates by reason for visit (symptomatic, check-up, HIV testing, contact to STD) and a diagnosis of gonorrhea (GC), primary syphilis, secondary syphilis, or other. Results were stratified by gender and HIV status.

Results: For HIV negatives, PTC rates were 46% for females (n=3706); 42% for males (n=7106). The lowest PTC rates were seen in patients who came to clinic because symptomatic STDs (44% in females, 37% in males) or who were STD contacts (43% in females, 41% in males). 54% of those who came to clinic for check-up and 75% of those who came for HIV testing returned for PTC. A diagnosis of GC at the initial clinic visit was the strongest predictor for missing the PTC visit. Only 39% of females and 23% of males with GC diagnosed at the clinic visit returned for PTC. During this time, 105 females and 232 males had HIV+ tests; yet only 54% and 56% respectively returned for results, despite DIS outreach efforts. HIV-positive Patients with symptomatic STDs had lower rates of returning for PTC.

Conclusions: Persons coming specifically for HIV testing had high return rates (>70%), typically 3 times higher than patients with symptomatic STDs Patients with symptomatic STDs, especially GC, were the least likely to return for PTC. These patients may benefit from a rapid testing algorithm in which results could be provided on-site at time of the clinic visit.

Learning Objectives:
1. Understand how to apply operationally collected C&T data for epidemiological analyses.
2. Evaluate low return rates in the context of behavioral models for HIV prevention.
3. Utilize C&T data as a model for behavioral surveillance.

D6

Sexually Transmitted Disease (STD) Screening in an Anonymous HIV Testing Site

L Fischer[1], B Adler[2], C Kent[1], J Rinaldi[2], J Dilley[2], J Klausner[1]

1. San Francisco Department of Public Health (SFDPH), San Francisco, CA, 2. University of California San Francisco (UCSF), AIDS Health Project (AHP), San Francisco, CA

Background: Persons seeking anonymous HIV testing may be at increased risk for STDs due to behaviors putting them at risk for HIV, unprotected sex. However, since most STDs are asymptomatic these persons may not be accessing STD services.

Objectives: To implement STD screening and treatment at an anonymous HIV testing site (ATS) in San Francisco.

Methods: STD counseling and treatment training was provided by SFDPH STD Services for staff at one ATS. Clients seeking drop-in evening ATS services were offered anonymous urine chlamydia and gonorrhea screening using Probetec (Becton Dickinson) and pharyngeal gonorrhea testing using LCx (Abbott). Treatment and partner delivered therapy was provided to STD positive clients when they returned for results. Since no names were linked with test results, morbidity was not included in the county registry.

Results: Between April and May 2000, 257 clients were offered HIV and STD screening, and 76% (196/257) consented to urine chlamydia and gonorrhea screening, while 67% (172/257) agreed to pharyngeal gonorrhea screening. No gonococcal infections were identified in urine, however, chlamydia was identified in 3% (6/195); 4% (7/172) of clients had pharyngeal gonorrhea. 77% (10/13) of clients with STDs returned for results and received treatment. Partner delivered therapy was accepted by 3 (30%) of clients who returned for test results.

Conclusions: A moderate prevalence of STDs was found in this population, and high proportions of infected persons were treated. Traditional HIV ATS can successfully implement and deliver STD screening services and overcome such barriers as maintaining client anonymity. STD screening and appropriate treatment of persons seeking HIV testing may be useful in reducing STDs and preventing future HIV transmission in this at-risk population.

Learning Objective: Understand the implementation of STD screening at HIV ATS programs.

D6

Trends in Safer Sex Behavior Following HIV Testing

W DiFranceisco[1], SD Pinkerton[1], RV Dyatlov[2], GR Swain[1,3]

1. Medical College of Wisconsin, Milwaukee, WI, 2. St. Petersburg State University, St. Petersburg, Russia, 3. City of Milwaukee Health Department, Milwaukee, WI

Background and Rationale: Although considerable resources have been devoted to HIV counseling and testing (CT) services, research has not ascertained whether standard CT approaches effectively reduce risk behaviors among clients.

Objective: To examine the association between recent HIV testing and condom use among a sample of at-risk men and women.

Methods: Clients of an inner city STD clinic were recruited to complete an anonymous assessment of their sexual risk behavior. Also included in the survey were items on sociodemographic background, HIV/STD testing history, motivations for behavior change, and previous exposure to HIV prevention information and activities. Selected for analysis were 149 men and 145 women who had previously been tested for HIV and were sexually active in the 3 months prior to assessment.

Results: The sample consisted mostly of African-American (79%), heterosexual (93%) men and women, almost half (44%) of whom were less than 26 years old. Preliminary analysis showed relatively high rates of frequent ("most of the time" or "every time") condom use during the initial months following HIV testing, tapering off to levels at or below the sample average (33%) among respondents who were assessed 6 or more months after HIV testing. Hierarchical logistic regression indicated that the association between recent testing and safer sex remained significant (OR=2.4; 95% CI=1.1, 5.7) after controlling for all bivariate predictors of condom use.

Conclusions: Findings for this sample suggest the occurrence of short-term increases in safer sex practices among individuals who have recently been tested for HIV. Designing programs to take advantage of this brief behavioral trend by following up testing with additional HIV prevention education could be an effective strategy for achieving longer term risk reduction.

Learning Objective: Modeling trends in safer sex behaviors among inner-city STD clients after receiving HIV CT services.

D7

In Roads for Collaboration with Managed Care

R Neiman[1], J Sell-Gutowski[2], R Lopez[2], J Milligan[2], M Finch[2], R Watson[3], S Black[3], B Handon[4], D Wohlfeiler[1], S Herbert[1], G Bolan[1]

1. California Department of Health Services, Sexually Transmitted Disease Prevention and Control Branch, 2. Health Net, California's Health Plan, 3. Northern California Kaiser Permanente, Department of Quality and Utilization, 4. California Department of Health Services, Medi-Cal Managed Care Division (MMCD)

Background and Rationale: Approximately 70% of STD morbidity is reported from the private sector in California; many other states are experiencing similar trends toward privatization of health care. Collaboration with managed care organizations (MCO) present both opportunities and challenges for STD Prevention and Control Programs. This workshop will examine relationships between managed care organizations and STD Prevention and Control Programs and offer strategies for navigating this new terrain.

Methods: In this workshop, we will describe the organizational landscape of MCOs and STD Prevention and Control Programs, discussing varying perspectives and identifying areas of mutual focus. Presenters will describe collaboration in MCO provider and member education and strategic planning for STD Prevention and Control. Respondents will highlight instruments to facilitate collaboration and note barriers. Participants in the workshop will have an opportunity to respond to and propose additional strategies or lessons learned.

Learning Objective:
1. Acknowledge similarities and differences between managed care organizations and public health programs.
2. Identify tools to facilitate collaboration between managed care and public health.

D8

2001 CDC STD Treatment Guidelines-Implications for Clinical Management

KA Workowski

Centers for Disease Control and Prevention

Background and Rationale: Health care providers who evaluate persons with sexually transmitted diseases or whom are at risk for STD acquisition should be aware of current national guidelines for STD treatment and provide appropriate assessment and treatment according to these recommendations. The CDC STD Treatment Guidelines are currently being revised, after a comprehensive evaluation was performed during a meeting of invited consultants in September 2000.

Methods: Recommendations from the consultant meeting concerning important changes to the treatment guidelines will be discussed. Presentations will summarize the key findings of STD clinical research that have relevance for the revision of the treatment guidelines including clinical research trials, novel antimicrobials, and emerging antimicrobial resistance. The treatment guidelines were developed using an evidence-based approach incorporating available scientific evidence, specialist knowledge, and consultation with professional organizations. On the basis of this review process, recent research findings and proposed changes in the guidelines will be discussed that have implications for the clinical management of sexually transmitted diseases.

Learning Objectives:

1. Describe the proposed new recommendations for the clinical management of STDs from the 2001 CDC STD treatment guidelines.
2. Identify areas of persistent controversy concerning treatment recommendations that require further clinical research.
3. Discuss strategies for promotion of the treatment guidelines into clinical practice.