Colorado Coalition for STD Prevention (CCSP)

Sexually Transmitted Diseases Prevention Plan

The staff of the Colorado Coalition for STD Prevention (CCSP) wishes to acknowledge the work of the CCSP membership. This plan for STD prevention in Colorado would not have been possible without their expertise, insight and dedication.

Colorado Coalition for STD Prevention Members

Alda Adcox, Pueblo City and County Health Department
Joe Belak, STD/HIV Section, Colorado Department of Public Health and Environment
Jay Blackwell, Out For Life
Sandy Bowers, STD/HIV Section, Colorado Department of Public Health and Environment
Bob Bongiovanni, STD/HIV Section, Colorado Department of Public Health and Environment
Pam Buckingham, Colorado Division of Youth Corrections
Joy Becker, Rocky Mountain Planned Parenthood
Sheana Bull, PhD, MPH , Denver Public Health
Corina Cde Baca, Latino HIV/STD Advocacy Coalition
Regina Charter, STD/HIV Section, Colorado Department of Public Health and Environment
Tom Chenault, San Luis Valley Area Health Education Center/Thom Tom Club
Maria Corral, Girl's Incorporated of Metro Denver
John Douglas, MD, Denver Public Health
Jenae Ernst, Colorado Access
Jean Finn, STD/HIV Section, Colorado Department of Public Health and Environment
Kenneth Gershman, MD, MPH, STD/HIV Section, Colorado Department of Public Health and Environment
Yvonne Hamby, JSI Research & Training
Jill Hunsaker, Turning Point, Colorado Department of Public Health and Environment
Gene Jacquez, Denver Public Schools
Carol Lease, Empowerment
Danny Lopez, Mi Casa Resource Center for Women
Christine Mandl, Women's Health, Colorado Department of Public Health and Environment
Joe Mauro, Colorado AIDS Project
Mary Kay Myers, STD/HIV Section, Colorado Department of Public Health and Environment
Leslie Mathews, STD/HIV Section, Colorado Department of Public Health and Environment
Linda Mendez, Salud Family Health Center
Alice Nofziger, Girl Scouts of America
Krista Novak, Department of Youth Corrections, Montview
Charlene Ortiz, Latino HIV/STD Advocacy Coalition
Peter Raich, AMC Cancer Research Center
Lisa Ramirez, East Side YMCA
Kees Rietmeijer, MD, MSPH, Denver Public Health
Lynn Sander, Denver Sheriff's Department
Mary Sanderford, El Paso County Health Dept
Kathy Shannon, Jefferson County Department of Health and Environment
Eric Sigel, The Children's Hospital
Nancy Spencer, MSPH, STD/HIV Section, Colorado Department Public Health and Environment
Linda Tamayo, Colorado Department of Education
Vicki Tennant, Northeast Colorado Health Department
Jamie Van Leeuwen, Urban Peak
Amy Warner, Hepatitis Program, Colorado Department of Public Health and Environment

Colorado Coalition for STD Prevention Staff

George Ware, CCSP Coordinator, Colorado Department of Public Health and Environment
Sandy Bowers, STD/HIV Section, Colorado Department of Public Health and Environment
Angela Garcia, STD/HIV Section, Colorado Department of Public Health and Environment
Susan Luerssen, PhD, STD/HIV Section, Colorado Department of Public Health and Environment

Introduction

In 1997, the Institute of Medicine (IOM) published a report on sexually transmitted diseases (STD) in the United States entitled *The Hidden Epidemic: Confronting Sexually Transmitted Diseases*. That report presented a comprehensive overview of the extent, context, and consequences of the STD epidemic in this country as well as a summary of the types of prevention efforts that have been launched to address the widespread occurrence of STD. It also included a plan for creating an integrated national system to confront the epidemic, which involved the adoption of a series of general strategies recommended for public and private sector policymakers at the local, state, and national levels. Those strategies included:

1. Overcome barriers to adoption of healthy sexual behaviors.
2. Develop strong leadership, strengthen investment, and improve information systems for STD prevention.
3. Design and implement essential STD-related services in innovative ways for adolescents and underserved populations.
4. Ensure access to and quality of essential clinical services for STDs.

In response to the IOM report, the Centers for Disease Control and Prevention (CDC) issued a nationwide call the following year to address STD prevention more forcefully and in a more comprehensive manner, challenging states to adopt new efforts towards this end. During the summer of 1998, the STD/HIV Section at the Colorado Department of Public Health and Environment (CDPHE) conducted an assessment to evaluate the readiness of the numerous potential stakeholders across the state to address the guidelines contained in *The Hidden Epidemic,* along with their willingness to participate in a statewide STD prevention planning process. It was out of this effort that the Colorado Coalition for STD Prevention (CCSP) was officially formed in 1999.

The CCSP membership meets quarterly and consists of stakeholders from local health departments, CDPHE STD/HIV Section, Women's Health, and Hepatitis Programs, youth serving agencies, managed care organizations, correctional facilities, and the HIV prevention community planning group Coloradans Working Together: Preventing HIV. The primary goal of the CCSP is to develop a coordinated network of STD prevention activities in Colorado through leadership, advocacy and collaboration.

Early in its formation, the CCSP proposed the development of a statewide plan for STD prevention as a major outcome and focus of its work. Subcommittees were formed to coordinate the planning process and encourage stakeholder membership; to develop and conduct a needs assessment; and to review and assess the relevance and applicability of the IOM report to STD prevention efforts in Colorado. The work produced by these subcommittees was reviewed and approved by the entire CCSP membership. The Needs Assessment identified existing and future prevention services/activities, identified resources such as funding and staffing levels, identified

gaps in services and barriers, and described populations at risk identified through the "Sexually Transmitted Diseases in Colorado - Surveillance Report: 1999" developed by the CDPHE. The IOM Response Report assessed how well the IOM recommendations fit for Colorado in terms of their applicability and how they could be adapted. Drawing upon information from the Needs Assessment, the IOM Response Report, and the 1999 STD surveillance report, the CCSP began to identify key prevention issues in the Fall of 2000. A formal plan was approved through consensus by the Coalition in the Spring of 2001. The goals, objectives, and strategies outlined in the Plan are aimed at addressing the key prevention issues. The Plan, along with the Needs Assessment, the IOM Response Report, and the 1999 STD surveillance report are contained in this document.

CCSP STD PREVENTION PLAN RECOMMENDATIONS

Goals Related to Eliminating STD Related Health Disparities

In recent years, Colorado has experienced sharp declines in morbidity from gonorrhea and syphilis. During the period 1985–2000, morbidity from gonorrhea reached its lowest point in 1996 when 2,028 cases were reported statewide compared to 8,805 cases in 1985. Approximately 3,100 cases of gonorrhea were reported to the state health department in 2000. The number of reported syphilis cases fell from 126 in 1994 to a low of eight cases in 1999. Twelve cases of primary and secondary syphilis were reported in 2000.

Despite the overall decline in the numbers of reported cases, gonorrhea and syphilis continue to have a greater impact on communities of color. In 2000, the reported rate of gonorrhea infections among African Americans (629.2 per 100,000) exceeded that among Latinos (100.3 per 100,000), American Indians (62.1 per 100,000) and whites (15.5 per 100,000). Rates of syphilis among African Americans (3.8 per 100,000) exceeded that of Latinos (0.3 per 100,000) and whites (<0.1 per 100,000). Additional data suggest that communities of color are also disproportionately impacted by other STD including chlamydia, HIV, herpes and genital warts.

The CCSP recognizes that a key strategy in developing a comprehensive plan for STD prevention requires that it address the disproportionate impact of STD on specific communities. The CCSP therefore proposes that the elimination of STD related health disparities be a major focus of the CCSP STD prevention plan. Disparities exist in various populations based on differences in age, gender, sexual orientation and other characteristics. The CCSP has chosen to focus on disparities as these are related to race and ethnicity. To that end, the goals and action steps described within this plan related to addressing leadership, systems, sociocultural and biological issues pertinent to STD prevention are proposed in support of achieving the primary goal of eliminating STD related health disparities with a particular focus on lowering rates among African Americans and Latinos.

Goal One: Eliminate STD-related health disparities among Latinos and African Americans.

To achieve this goal, Action Steps should be developed related to the following strategies:

1. Develop specific action plans for reducing the prevalence of gonorrhea and chlamydia infections among African Americans and Latinos to levels found among whites.
2. Identify demonstration projects that are shown to be effective and successful working in African American and Latino communities. Support their transition to becoming ongoing programs with necessary financial and other resources.
3. Support the development of new demonstration projects using innovative behavioral, outreach, screening, diagnosis, treatment and referral interventions in specific (i.e., geographically defined) areas within Colorado's African American and Latino communities. [Note: Programs and activities targeting African American and Latinos should be developed observing the action steps described in the Systems Issues, Goal 2 below].
4. Support the development of programs that integrate STD prevention and other related health and social issues. This should involve collaborations among agencies and providers delivering services to African American and Latino communities.

<u>Goals Related to Leadership to Promote STD Prevention</u>

Goal One: To increase the capacity of the Colorado Coalition for STD Prevention to provide effective, collaborative statewide leadership in STD prevention.

To achieve this goal, Action Steps should be developed related to the following recommended strategies (*Suggested action steps appear as bullets beneath the numbered strategies*):

1. Ensure the sustained involvement of a committed, knowledgeable, representative, and diverse group of stakeholders

    - Identify organizations and individuals that should be involved in the CCSP given the STD Prevention Plan priorities and activities. Develop and implement strategies to recruit new members among stakeholders not currently members of the CCSP.
    - Provide orientation training to new members.
    - Develop descriptions of expected member activities and responsibilities and secure written individual member commitments to participation in the CCSP.
    - Identify and provide incentives to support participation in the CCSP especially among persons for whom participation may result in financial hardship.

2. Clearly define the purpose and focus of the CCSP

- Identify priority areas outlined in the STD prevention plan and finalize the timeline for the completion of activities related to those priority areas.

3. Develop processes and structures to assure successful collaboration

- Create a steering committee within the CCSP responsible for inspiring a shared vision for STD prevention across the state. As part of its charge, the steering committee will develop timeframes in which plan goals are to be met, design processes for plan implementation and CCSP governance, oversee and evaluate progress toward implementing the STD prevention plan including evaluation of the performance of the CCSP in reaching plan milestones. The steering committee should consider creating a chair position(s) for the CCSP to act as an official spokesperson of the CCSP.
- Identify examples of collaborative leadership and coalition building in which citizens and public/private concerns have taken an active role in addressing and advocating for issues beyond that which can be done by governmental agencies. Examples may include the Colorado Trust, the Colorado Children's Immunization Coalition and Coloradans Working Together. Contact these groups to explore how they moved toward this type of collaborative leadership.

    - Review and revise the current CCSP structure of operation to enhance its usefulness in addressing and implementing the priorities and activities set forth in the STD Prevention Plan.
    - Provide training in collaborative decision-making for the CCSP membership.

4. Ensure communications

- Expand the current modes of communicating information about the CCSP activities through the use of Internet technology.
- Design and implement methods for ensuring that information about the CCSP, its priorities and activities is disseminated to stakeholders who are not members of the CCSP.
- Design and implement methods for ensuring that information relevant to STD prevention is obtained from stakeholders who are not members of the CCSP. Priority should be given to obtaining information from stakeholders outside the CCSP who are from affected communities.

5. Identify resources

- Identify the resources necessary to achieve the goals and objectives described in the STD prevention plan. Such resources include those that support STD interventions targeting persons at risk as well as resources necessary to ensure the ongoing management of the

CCSP. Develop and implement strategies for obtaining these resources from CCSP member organizations and private/public funders.

Goals Related to Systems Issues

Goal One: To encourage and support the increased use of behavioral interventions that reduce an individual's risk for STD. Behavior change is valued as the most important strategy for STD prevention to prevent people from initially becoming infected. Behavioral interventions are especially critical given that diseases such as HIV, herpes, genital wart and hepatitis infections cannot be cured.

To achieve this goal, Action Steps should be developed related to the following strategies:

1. Support activities that increase the capacity of clinicians including those in managed care to obtain accurate sexual histories and to provide non-judgmental behavior change counseling.
2. Develop social marketing campaigns targeting persons at highest risk for STD as a mechanism to promote a more comprehensive behavior change model.
3. Support the use of quality STD-related curricula and other effective school-based interventions in Colorado's schools.
4. Identify and support the use of individual-focused, community-based, mass media and other interventions that promote the adoption of healthy sexual behaviors (including encouraging the delay in onset of intercourse).

Goal Two: To ensure access to prevention and care services for specific groups that experience high rates of STD. This population-based focus contrasts with strategies that focus narrowly on certain STD rather than groups that are disproportionately affected by STD. Additionally, efforts are recommended to ensure the delivery of culturally competent services to "at risk" populations.

To achieve this goal, Action Steps should be developed related to the following strategies:

1. Determine which ***subpopulations within the African American, Latino and other communities*** are considered "at-risk" populations. The CCSP has designated teens and young adults (aged 16-24) an "at risk" subpopulation.
2. Assess the needs of the affected populations. Assessment activities may include performing ethnographic studies, reviewing published scientific literature, information and reports, and collaborating with social organizations to assess community needs.
3. Direct resources to specific populations that are "at risk" and provide culturally competent services to these populations. Based on the health assessment findings within specific populations, certain areas of service may need improvements and should be ranked according to priority. The following is a list of proposed areas that should be evaluated during the health assessment: a) flexibility with hours of operation (meeting the needs of the community); (b) non-judgmental staff; (c) changes in service delivery to include more innovative approaches (e.g., providing STD screening in non-traditional

settings including mobile outreach programs to both screen for and treat STD; use of the internet for educational counseling; providing at home testing when available; and implementation of more school based health centers); (d) assured confidentiality; (e) affordability of services/condoms; (f) access to affordable non-traditional STD prevention supplies (i.e. dental dams, non-latex condoms, female condoms); (g) disability access; (h) appropriate access to confidential language translators; (i) availability of STD treatment facilities in rural areas; (j) improved access to partner treatment; (k) access to affordable one-dose treatment to ensure better patient treatment compliance; and (l) access to vaccines that help prevent STD.

4. Involve affected community leaders and other stakeholders in all levels of decision-making related to the planning and implementation of STD prevention activities.
5. Improve linkages between various social organizations especially those that interact with the "at risk" populations.

Goal Three: To improve collaboration and communication regarding STD prevention among STD service providers and providers in related fields.

To achieve this goal, Action Steps should be developed related to the following strategies:

1. Identify additional partners to participate in the CCSP prevention planning.
2. Design and implement a communication network or Clearinghouse to disseminate information to various providers especially those in rural areas. (This will allow for all parties involved to get up-to-date information and to keep informed of any changes in the prevention plan).
3. Create and improve existing linkages and collaborations between social service organizations (e.g., domestic violence facilities, mental health organizations) and health care providers.

Goal Four: To better define the role of managed care as it relates to STD prevention.

To achieve this goal, Action Steps should be developed related to the following strategies:

1. Ensure that managed care facilities are involved in the STD prevention planning process and implementation.
2. Ensure that linkages and collaborations are established with managed care facilities to ensure that their patient populations are well educated about STD prevention.
3. Support the use of STD-related behavioral interventions in managed care settings.
4. Ensure that managed care facilities are provided training/information updates related to STD prevention and care.

Goal Five: To assess and evaluate the reporting/surveillance system so that accurate and necessary information is obtained to better target the populations at risk. To increase surveillance and assessment capacity at the state and local levels.

To achieve this goal, Action Steps should be developed related to the following strategies:

1. Evaluate the current system to see where inadequacies exist. This would include: (a) evaluating what additional information, if any, is needed to make needs assessment and therefore prevention more effective; (b) studying the system to see which providers are currently required to report; (c) assessing what is currently being reported; (d) including chlamydia as a physician reportable STD. Once this information is obtained, CCSP can better determine what changes are needed in the system.
2. Establish sentinel sites whereby designated providers voluntarily report information on STD that are not required to be reported under current State Board of Health Rules and Regulations. This system has been shown to provide valuable information on non-reportable STD. If the data shows a significant increase of an STD in a specific population, this data could be used to decide whether or not another at risk population should be included into the targeted populations.
3. Support the development of a system to share STD related data and/or surveillance information with a wide variety of end users (e.g., managed care, local health departments, purchasers of health care, and community-based organizations).

Much of the emphasis of this prevention plan has focussed on sexually transmitted diseases other than HIV. The CCSP recognizes the important links between STD and HIV (e.g., the presence of certain STD can increase the risk of acquiring and transmitting HIV). However, many of the issues related to preventing HIV are addressed through the state's HIV community planning group, Coloradans Working Together. The following goals and action steps are therefore proposed to ensure that the two planning groups work collaboratively to maximize their prevention and planning efforts and to avoid nonproductive duplication whenever possible.

Goal Six: To ensure collaboration among STD and HIV service providers and policymakers.

To achieve this goal, Action Steps should be developed related to the following strategies:

1. Identify mechanisms for collaboration and the regular sharing of information between the CCSP and Coloradans Working Together. This may include collaboration on projects that support at risk and infected individuals in adopting and sustaining HIV and STD risk reduction behaviors.
2. Support HIV counseling, testing and referral among patients diagnosed with STD.
3. Support the delivery of quality STD counseling, detection and treatment services among persons with HIV infection.

Goals Related to Sociocultural Issues

Note: A subgroup of STDs should be designated as the focus of the following goals and action steps. This subgroup should be selected based on factors such as disease prevalence, disease

complications, data availability, disproportionate morbidity in certain populations, the availability of reliable/affordable diagnostic screening and known (medical/other) intervention options.

Goal One: To increase awareness of personal vulnerability to sexually transmitted diseases within selected communities disproportionately affected by STDs. Group diseases that can be effectively addressed in a single social marketing campaign.

To achieve this goal, Action Steps should be developed related to the following recommended strategies (*Suggested action steps appear as bullets beneath the numbered strategies*):

1. Design and implement an awareness campaign in disproportionately impacted communities.
   - Identify disproportionately affected communities through the use of epidemiological and other behavioral information.
   - Clarify information individuals in affected communities have about STDs, where they obtain their information on STDs, what they think about STDs and what are the impacts of STDs on their communities.
   - Based on the information above, develop messages specifically for those communities.
   - Design and implement strategies and activities that support the dissemination of STD prevention messages.
2. Toward the development of more intensive strategies, such as community level interventions, identify potential funding sources and conduct additional formative research as needed.

Goal Two: To increase STD prevention provider effectiveness by developing their cultural competence.

To achieve this goal, Action Steps should be developed related to the following recommended strategies (*Suggested action steps appear as bullets beneath the numbered strategies*):

1. Increase provider knowledge and understanding of cultural competence and its implications for STD-related programs and service delivery.
   - Providers will attend a seminar, which will explain the importance of cultural competence/diversity, and how this impacts their service delivery.
2. Support agency assessments of their programs and services in terms of their cultural competence.
   - Providers will complete an agency assessment in conjunction with CDPHE staff/consultant.
   - Providers will develop an agency plan that addresses:

a) activities to ensure staff development related to cultural /diversity competence (activities that promote and support the attitudes, behaviors, knowledge and skills necessary to work respectively and effectively with clients in a cross-cultural setting)
b) methods for ensuring that services are accessible to people who are deaf, hard of hearing, visually impaired, developmentally disabled and physically impaired
c) how affected individuals and communities will be involved in the design, modification, implementation, delivery and evaluation of STD related programs and services
d) methods to evaluate the agency's efforts to deliver competent services including the types of data collected and analyzed.

Goal Three: To translate a heightened awareness of personal vulnerability to STDs into a heightened awareness of community vulnerability to STDs, and the means by which this can be effectively addressed. Include affected community members with access, credibility and influence in affected communities.

To achieve this goal, Action Steps should be developed related to the following recommended strategies (*Suggested action steps appear as bullets beneath the numbered strategies*):

1. Recruit members form disproportionately affected communities to join CCSP.
2. Identify and/or develop mechanisms whereby CCSP can advocate for change in those factors which adversely impact STD prevention efforts.
3. Employ community mobilization models (such as the NAGPIE model used by CDPHE in HIV prevention) to rally community members in support of STD prevention goals. The NAGPIE model involves Networking, Assessment, Goal Formation, Pilot Testing, Implementation and Evaluation, which result in community buy-in and advocacy for improved services.
4. In the case of religious partners, develop a strategic recruitment campaign uniquely tailored to their concerns and constraints.

Goal Four: To reduce the effects of sexism, racism, classism, homophobia, power imbalances and other social inequalities as these impact STD prevention and individual and community vulnerabilities.

To achieve this goal, Action Steps should be developed related to the following recommended strategies (*Suggested action steps appear as bullets beneath the numbered strategies*):

1. Collect and/or conduct research to clarify how sexism, racism, classism, homophobia, power imbalances and other social inequalities impact STD prevention and vulnerability.

2. Increase provider awareness of how various social and economic factors result in STD infection.
    - Identify representatives of state and local agencies whose primary mission involves housing and economic development.
    - Identify possible areas of collaboration between agencies involved in housing and economic development and agencies whose focus is on STD prevention.
    - Develop memoranda of understanding with providers of social services, mental health, substance abuse, and corrections to ensure the implementation of effective STD prevention in their settings and collaboration with the STD prevention system.

<u>Goals Related to Biological Issues</u>

Goal One: To decrease the risk of acquiring or transmitting STD and lessen the severity of STD infections through addressing STD-related biological factors.

To achieve this goal, Action Steps should be developed related to the following recommended strategies (*Suggested action steps appear as bullets beneath the numbered strategies*):

1. Increase awareness among medical, HIV/ STD prevention, and other providers about key (and possibly less well known) biological issues related to STD. These issues should include: 1) the asymptomatic nature of many STD; 2) the special biological vulnerability of women, especially, adolescent females; 3) the incidence and complications of STD in MSM; 4) the emerging drug resistance of gonorrhea; 5) the biological associations between STD and HIV; and 6) the availability of vaccines and the state of vaccine research..

- Distribute fact sheets to medical providers.
    - Develop recommendations for continuing education for medical providers.
    - Offer training and other forms of capacity building/technical assistance for HIV/STD prevention providers and providers of other related services.
    - Incorporate requirements for continuing education into contracts with HIV prevention providers
    - Monitor research and disseminate information on developments accordingly.

2. Raise the capacity of medical, HIV/STD prevention, and other providers to educate their clients about these issues as they relate to the clients' specific situations.
    - Develop a decision tree to help determine what information may be needed in particular situations and with particular clients.
    - Develop curricula/modules containing information CCSP determines to be most relevant. Include intervention strategies as part of the curricula/modules

3. Ensure that relevant biological information is included in social marketing campaigns and as content in prevention interventions.

CCSP Needs Assessment Report

Methods

In its 1997 report *The Hidden Epidemic – Confronting Sexually Transmitted Diseases,* the Institute of Medicine Committee focussing on the prevention and control of STD recommended that "an effective system for STD prevention be created in the United States." The IOM Committee outlined four strategies involved in creating such a system:

1. Overcome barriers to the adoption of healthy sexual behaviors.
2. Develop strong leadership, strengthen investment, and improve information systems for STD prevention.
3. Design and implement essential STD-related services in innovative ways for adolescents and underserved populations.
4. Ensure access to and quality of essential clinical services for STDs.

The IOM Committee also recommended tactics related to achieving the strategies above.

The Colorado Coalition for STD Prevention (CCSP) agreed that the strategies and tactics described in The Hidden Epidemic should serve as a framework for creating a plan for STD prevention within Colorado but proposed an additional strategy to those put forth by the IOM Committee:

> Develop and sustain two-way linkages between STD prevention services and other related services (e.g., social services, migrant health, corrections, mental health, substance abuse treatment, HIV, TB and hepatitis prevention).

A needs assessment subcommittee within the CCSP was charged with exploring current STD-related activities as these were related to the five strategies above. The subcommittee developed its research questions based on the tactics described in the IOM report. The following sections describe the subcommittee's findings. Much of the information was obtained through reviews of organizational and program activities available on the Internet or through source documents within the Colorado Department of Public Health and Environment (CDPHE). Additionally, a limited number of key individuals were contacted if they were thought to have a broad base of knowledge of STD issues as these relate to specific populations (e.g., adolescents, migrant workers) or providers (e.g., STD clinics, managed care organizations, etc.). Finally, findings from research projects conducted by Denver Public Health and the CDPHE are included below to further describe needs related to STD prevention and control among adolescents and care providers.

Findings

IOM Strategy 1: Overcome barriers to adoption of healthy sexual behaviors

IOM Tactic: Catalyzing Change Through Open Discussion and Promoting Awareness and Balanced Mass Media Messages

Needs Assessment Question: The IOM Report specifically recommends creation of a long-term national campaign to serve as a catalyst promoting social change toward a healthy sexual behavior norm; to increase knowledge/awareness of STD and promote STD prevention; and to create an expert resource committee to develop guidelines for promoting STD messages into the mass media. Are there activities in Colorado which are consistent with such a campaign at the state or local level?

During February 1999, the American Social Health Association (ASHA) sponsored "National Condom Day" with a message that encouraged people to "love responsibly by protecting your health and the health of the one on the receiving end…use condoms." [1] In April 1999, ASHA initiated a media-centered National STD Awareness Month as part of its campaign to stop the spread of herpes, disseminating the message: "Herpes . Spread the Word . Not the Virus." The campaign included radio public service announcements of varying lengths, a media kit, the Genital Herpes Quiz and results of a telephone survey of 1000 individuals in the U.S. related to their knowledge, attitudes and beliefs about herpes. Denver was one of 12 metropolitan areas selected to participate in the 1999 media campaign. [2]

ASHA sponsored National STD Awareness Month during April 2000 with a specific focus on preventing chlamydia. Many people in Colorado, both STD care providers and those outside the health care field, were unaware that April had been designated STD Awareness Month. Information about the Year 2000 campaign could be found using the Internet. However, the Needs Assessment Committee was unable to identify how activities associated with 2000 campaign were publicized using other media. The Committee was also unable to determine if ASHA had a long-term plan for involving the television, radio, print, music and other media in developing and incorporating healthy sexual behavior messages into their programming or products. Colorado could reasonably be expected to benefit from collaboration with ASHA on a national STD prevention campaign. Through contact with ASHA coordinators prior to STD Awareness Month 2000, the CCSP might have identified the appropriateness of planned activities for preventing STD among Colorado's at risk populations.

[1] News release, "ASHA and Valentine's Day Link Below the Belt," Dec. 16, 1998, ASHA website.
[2] News release, "campaign: Stop the Spread of Herpes," Dec. 9, 1998, ASHA website.

CDPHE conducted STD media campaigns in 1998 and 1999. These campaigns targeted Latino and African American youth between the ages of 13 and 24 years by placing STD related ads on Regional Transportation District buses, running public service announcements on radio stations popular among adolescents, and placing a quarter page ad in Westword, a weekly newspaper. These activities targeted youth in the metro Denver area. The 1999 STD media campaign was completed on August 31, 1999. In June, the month before the campaign began, 67 calls were made to the CDPHE STD hotline. During the media campaign, the hotline received 106 calls in July, 107 calls in August. After the campaign ended, the number of calls decreased to 80 calls in September. The campaign was viewed favorably by youth of color in Denver during focus groups conducted in December 1999. Focus group participants agreed that bus and radio ads were the best format for the campaign, although several suggested adding television commercials. Youth also liked the radio station used and the colorful animated bus ads.

Radio announcements have also been used to advertise specific events related to HIV prevention within various communities. However, there appears to be no concerted effort to involve radio, print, television and other media on an ongoing basis in the dissemination of consistent STD prevention messages.

Denver Public Health is currently in the process of developing a condom promotion campaign with funding from the Centers for Disease Control and Prevention and in collaboration with the Denver Community Health Centers, Denver School Based Clinics and Planned Parenthood of the Rocky Mountains (PPRM). The campaign is being developed with assistance from Educational Message Services, a California-based organization with experience in a "Narrowcasting" approach considered ideal for the promotion of potentially sensitive material. The Narrowcasting approach is one that focuses a media campaign in public private spaces, i.e. public bathroom stalls, elevators and clinician exam rooms, places in public where people may find themselves alone long enough to take away information from a placard or poster. The campaign, scheduled for implementation in December of 2000, will target women aged 15-25 with messages about the need to consider "mixing" male and female condom use to prevent pregnancy and STD--using female condoms when and if male condom use is not possible.

There appears to be little clear direction at the national level related to implementing the IOM Report recommendations for fostering open discussions and promoting awareness of STD. Efforts to use the mass media to deliver STD prevention messages appear largely uncoordinated and sporadic across the nation and within Colorado. At this time, the Needs Assessment Committee is unable to identify the component parts of a long-term national campaign which fosters change through use of the mass media.

IOM Tactic: Improving Professional Skills in Sexual Health Issues

Needs Assessment Question: How are health professional schools and associations increasing the comfort of health care professionals, educators and researchers in addressing sexual health issues?

Representatives from the Colorado Medical Association, Colorado Nurse's Association, Denver Prevention Training Center, Colorado Medical Society and University Health Sciences Center (UCHSC) Continuing Education Department were contacted to identify how professional schools and associations increased the comfort of health care professionals, educators and researchers in addressing sexual health issues. Based on their responses, there would appear to be few mechanisms to assist Colorado's health care professionals in increasing their comfort level around addressing and discussing sexual issues with patients. Respondents agreed that this was a subject that should be more readily discussed, however, reluctance on the part of providers plays a large part in the decision to avoid the topic.

In Colorado continuing medical education (CME) is not a requirement for physicians in order to maintain a license to practice medicine. Continuing education units (CEU's) are encouraged for some professions (nursing, physician assistant); however, there are no specific content requirements. Respondents from the professional associations and UCHSC were not aware of the existence of any classes or programs dealing specifically with sexual health issues for practicing providers, medical students or residents. As one respondent stated, "If the [issue of] sexuality is brought up, it is probably buried [or] combined with other topics and …discussed because of class interest … not because it is part of the curriculum."

The Denver STD/HIV Prevention Training Center (PTC), a collaborative effort between Denver Public Health and the CDPHE, provides HIV and STD related education and training to health professionals in the six state Region VIII (i.e., Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming). Funded by the CDC, the Denver PTC is one of ten such national centers that form the National Network of STD/HIV Prevention Training Centers (NNPTC) that work toward increasing the comfort of health professionals and educators in addressing sexual health issues. Through a wide array of course offerings, the Denver PTC provides experiential and classroom training for health care and prevention services providers in areas of clinical care, STD/HIV behavioral interventions, program evaluation and partner (notification) services. During 1999 the Denver STD/HIV Prevention Training Center conducted a needs assessment related to identifying its target base of health professionals and their training needs related to STD. Reponses from surveyed health care providers in the Rocky Mountain region indicated that respondents believed that skills and knowledge related to taking a sexual history were important in the diagnosis, treatment and prevention of STD.

IOM Strategy 2: Develop strong leadership, strengthen investment, and improve information systems for STD prevention.

IOM Tactic: Developing Leadership and Catalyzing Partnerships

Needs Assessment Question: How are agencies and individuals in the public and private sectors taking a leadership role in the area of STD prevention in Colorado?

In response to the IOM Report, the Centers for Disease Control provided funding to public health agencies (i.e., the 65 state, territory and municipal project areas designated as official recipients of Preventive Health Services STD Control grants) to support the design and implementation of state and local STD prevention plans. These plans were viewed by the CDC as the foundation for the national STD prevention system called for in the IOM Report. Specifically, public health agencies receiving these funds were required "…to profile the range of existing and planned STD prevention activities in their program areas (i.e., across public and private, as well as health and non-health sectors), and … describe how their own current and future STD prevention objectives, strategies, and activities will interface with those of other individuals and groups to establish…an effective, information-driven, community-focused, comprehensive STD prevention system that can and does deliver essential STD services to persons who need them." As envisioned by the CDC, federally funded STD prevention plans would reflect an increased involvement of affected communities in planning and decision-making, involvement of the private health sector especially managed care in STD prevention, and an examination of the role of health departments in delivering direct services and fulfilling other public health functions. State and local plans would additionally ensure collaboration among various STD prevention stakeholders and incorporate new technologies based on the results of clinical, epidemiologic, behavioral and health services research. [3]

The CDC's vision represents movement toward a much broader approach to STD prevention. However, the amount of funding available to support new activities has increased little over that available before 1999. As a result, state and local program efforts to involve affected communities and other stakeholders must occur at the expense of previously funded activities. The CDC have also failed to provide states and local programs with guidance about ways to involve managed care in STD prevention.

In addition to national leadership from the federal government, the American Social Health Association (ASHA), a national nonprofit organization dedicated to addressing STDs, formed the National STD Action Plan in response to the IOM Report. Described as a strategic alliance of nontraditional partners dedicated to addressing STDs in the U.S., the goal of the Action Plan is to address the STD epidemic though key initiatives in public policy, patient education, public awareness and provider training. Action Plan partners include pharmaceutical companies, the Kaiser Family Foundation, and the Ford Foundation. Overall Plan leadership is provided by ASHA with guidance from an expert committee of scientists, medical providers, educators, consumers, religious leaders and advocates. [4] The exact nature of the National STD Action Plan and its impact on STD prevention activities in Colorado needs to be explored further by the CCSP.

Within Colorado, collaborative leadership related to STD is provided through a number of bodies. The AIDS Coalition for Education, which consists of over 50 organizations statewide

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[3] Announcement 99000, "Project Grants for Preventive Health Services – Comprehensive Sexually Transmitted Diseases Prevention Systems," Centers for Disease Control.

[4] News release, "Founding Partners of National STD Action Plan Announced," Dec. 9, 1998, ASHA website.

was formed in 1986 to share resources, decrease duplication among providers and to conduct collaborative educational activities. The Youth HIV Advocacy Coalition, which consists of over 30 organizations, was developed in the late 1980's to plan collaborative projects directed at youth. Coloradans Working Together (CWT) is the state's official HIV prevention planning group as required by the CDC. In its mission "to improve the availability, accessibility, cultural appropriateness, and effectiveness of HIV prevention interventions through an open, candid, and participatory process," CWT brings together AIDS activists, staff of the Colorado Department of Public Health and Environment, local health department representatives, staff and volunteers from community based organizations, and other concerned and committed citizens.

Since 1993, the Region VIII Chlamydia Project, a collaborative effort designed to reduce the prevalence of chlamydia infections in populations at risk for STD, has facilitated chlamydia screening and treatment in family planning, STD, community health and adolescent clinic settings. Colorado is one of six states that participates in this federally funded project,. Other participating states include Montana, North Dakota, South Dakota, Utah and Wyoming. The Project is guided by a Regional Advisory Committee whose members include representatives from Title X family planning programs, state STD programs, state laboratories, Denver Public Health, John Snow, Inc., the CDC and the Region VIII Office of Regional Health Administrator. The Advisory group has utilized workgroups to address issues of partner treatment and follow-up; history and risk assessment; selective screening; and data report assessment.[5]

During the fall of 1998, CDPHE convened an STD advisory group that became the Colorado Coalition for STD Prevention. The CCSP's purpose is to develop a coordinated network of STD prevention activities in Colorado though leadership, advocacy and collaboration. There are approximately sixty-three members representing thirty-nine different agencies/organizations including state and local heath departments, clinics serving high-risk populations, youth and women's service organizations, community-based organizations, managed care, public schools, AIDS service organizations and other private agencies. Five working sub-committees were formed to: coordinate the planning process and identify gaps in membership, assist in the design of a statewide needs assessment, assist in the design of a best practices report (an intervention effectiveness report), and identify and prioritize applicable components of the Institute of Medicine=s (IOM) Report, *The Hidden Epidemic*, to the CCSP's STD prevention plan for Colorado.

Several managed care organizations are working independent of the CCSP to develop policy and procedures for effectively implementing the Health Plan Data and Information Source (HEDIS) measure related to chlamydia screening and the CDC's 1999 STD treatment guidelines including addressing partner management issues. The CDPHE is exploring how best to collaborate with this managed care work group on this and other STD related projects.

[5] "Regional Plan – Region VIII Chlamydia Project, Project Year July 1, 2000 to June 30, 2001," JSI Research and Training Institute.

IOM Tactic: Strengthening Investment

Needs Assessment Question: What is currently spent on STD prevention and care in Colorado at the local, state, and federal levels?

An accurate description of the financial resources (both public and private) spent on STD prevention and care is beyond the scope of this assessment. However, the information below gives a limited picture of the levels of *public* funding for STD related activities in Colorado at the state and local county health department level. The information below does not include all public funds designated for STD-related activities across the state nor does it include funds from private sources.

Much of STD prevention and care provided by clinics, community-based organizations, health departments, including the CDPHE and its contractors, are integrated into other activities using resources from more general pools of funds. Such services form a substantial part of the work related to sexual health that is performed at family planning and other clinics. Many providers offering migrant health services, school-based health services, substance abuse treatment, educational services within correctional facilities, mental health and other services include information about STD in their work. The extent to which STD prevention occurs in these settings varies widely according to the agency and individual provider.

The STD HIV Section at the CDPHE receives $1.1 million from the CDC for STD prevention and care. These funds are used to support partner counseling and referral services, public information activities (including media campaigns, health fair outreach, and educational presentations), prevention materials, travel, laboratory supplies and tests, administrative costs, and planning activities. Approximately $217, 910 of these funds are used to support STD prevention and care activities delivered through local health departments and community-based organizations. In addition to funds from the CDC, the STD HIV Section receives $89,401 as part of a federal prevention block grant. These funds support the delivery of clinical services at publicly funded STD clinics and the provision and distribution of STD treatment medications. The amount of General Funds allocated by the state legislature for STD related services is approximately $228,419.

As part of this assessment, four local health departments which provide STD related services were contacted by CDPHE in order to identify funds allocated by county governments to support STD prevention and care. In total, these agencies reported receiving approximately $2.9 million in county funds to support clinical services (Denver, El Paso, Jefferson, Weld), behavioral interventions (Denver), partner notification (El Paso), STD screening of sex offenders (Jefferson), public information (Jefferson), educational services (Jefferson, Weld), outreach (El Paso), and technical assistance to agencies serving youth and independent groups (Jefferson).

IOM Tactic: Improving surveillance and Other Information Systems

Needs Assessment Question: What are the interrelationships between the local, state, and national STD surveillance systems?

Laboratory and physician reporting of selected STD is required by Colorado state statutes and Board of Health regulations. Laboratories must report all positive laboratory findings for chlamydia, gonorrhea, granuloma inguinale (GI), HIV and AIDS infection, lymphogranuloma venereum (LGV), chancroid, and syphilis to the CDPHE. Health care providers are required to report newly diagnosed cases of these STD excluding chlamydia. Since LGV, GI and chancroid are rare, only the surveillance systems for CT, GC and syphilis will be described here.

Laboratory findings and case reports are sent to the CDPHE by U.S. mail, telephone, special courier and electronically through the Colorado Electronic Disease Reporting System (CEDRS). When laboratory reports are received, they are date stamped (to capture information of reporting delays), entered into a computor database (the STD management information system or STD*MIS), credited to the reporting laboratory (for evaluation of reporting compliance) and record searched against the appropriate STD*MIS registry. Gonorrhea lab reports are held for six working days pending receipt of the provider case report. If no case report is received from a health care provider, or if the case report is incomplete, the provider is contacted by phone to complete the case report form. Physician reports of chlamydia morbidity are also entered into STD*MIS. If a physician report indicates that a patient received inadequate or no treatment for chlamydia, a field investigation report is initiated through STD*MIS. When further investigation by specially trained disease investigation specialists is necessary, field reports are generated through the STD*MIS and given to the appropriate jurisdiction (e.g., STD field units within CDPHE, local health departments or out-of-state STD programs) for follow-up. Cases requiring further investigation include: (1) untreated or inadequately treated cases of gonorrhea, chlamydia and syphilis, (2) positive syphilis tests when the patient may have acquired syphilis in the previous 12 month period and (3) STD cases with a previous history of HIV infection or those at increased risk of HIV.

The CDPHE electronically transfers STD morbidity data without identifiers to the Centers for Disease Control (CDC) on a weekly basis. The CDC produces quarterly reports using these data; however, the dissemination of these reports is usually delayed by approximately six months. Each year the CDPHE compiles and distributes an annual surveillance report describing the state's STD morbidity. With the exception of the El Paso County Department of Health and Environment, most local health departments do not have a surveillance system for STD but, instead, utilize the annual STD surveillance report and other reports generated by the CDPHE for special projects and grant writing efforts. Additionally, health care providers, planners, policymakers, community-based organizations and private citizens are able to draw on these sources of STD morbidity data.

IOM Strategy Three: Design and implement essential STD-related services in innovative ways for adolescents and underserved populations

IOM Tactic - Focusing on prevention

Needs Assessment Question: What research activities are occurring in Colorado related to sexual behaviors and their relationship to STD?

In order to be effective, STD prevention programming must be grounded in a comprehensive understanding of target populations, the risk behaviors these populations engage in, and appropriate strategies to help people lower their risks. Such an understanding grows from a combination of epidemiological and behavioral research and evaluation efforts conducted with target population members. Epidemiological research can reveal trends and concentrations of disease prevalence and incidence, while behavioral studies can elucidate the determinants of the risk behaviors leading to disease, thus informing appropriate behavioral interventions. Evaluation research can then reveal the effectiveness of such interventions, guiding their modification and the formulation of new programming.

A cursory look at the STD-related research conducted at the national level and here in Colorado reveals certain trends. First, much of the research has been driven by the HIV epidemic. Knowledge about sexual behaviors has increased dramatically with HIV research initiating a new level of discourse. Much less emphasis has been placed on other STDs and the particular populations that are most affected by them, though in many cases these populations are overlapping. A second trend is the lack of an overall research agenda. Although extensive information has been generated about many aspects related to the epidemiology of STDs, behavioral risks, and programming, the many pieces of the puzzle remain disconnected. The lack of connection between research and its application is illustrated by the observation that much of the information published in professional journals is often not disseminated in ways that inform programming at the local level. A third trend involves researcher and service provider recognition of the importance of understanding the experiential, psychological, social, and cultural contexts of risk behaviors and the lack of focus on sorting out the particular mechanisms through which context shapes behavior. As disease increasingly concentrates among communities of color, the poor, and otherwise disenfranchised populations, an in-depth understanding of these mechanisms becomes most urgent. Finally, the influence of conservative politics on funding and procedural restrictions of STD and sexual behavior research has resulted in gaps in information, especially information concerning adolescents.

Colorado has been the site of various types of research efforts around sexual behaviors since the 1980's. As at the national level, much of this research has centered around HIV, rather than other STDs. The goals, investment of resources, and levels of rigor associated with these efforts have varied widely. Among the formal research projects conducted locally is the Youth Risk Behavior Survey (YRBS). This is an on-going, national level research project funded by the CDC. Its goal is to identify the prevalence of a number of risk behaviors seen among youth,

including those related to sex and substance use. Beginning in 1989, the survey was designed to be conducted every other spring. In Colorado, it was implemented statewide through the Colorado Department of Education until 1999. At that time, responsibility for its implementation was turned over to the CDPHE due to the opposition of the new commissioner of education. Currently, individual schools make decisions regarding implementation of the survey. Within participating schools, certain classrooms are selected to complete the survey. In 1993, 1997, and 1999, sufficient data were not collected to produce viable results which could represent the whole state. Results from the 1995 survey showed high levels of sexual and substance use behavior among the students surveyed.

The AIDS Community Demonstration Projects began in 1989 to test the effectiveness of community-level interventions on various populations considered typically hard to reach. The study protocol was based on behavior-change theories and models, and specific interventions based on formative research. Denver served as one of five sites for the projects, with researchers from Denver Public Health comprising part of the research team. Denver's efforts focused on injection drug users (Project Reach), youth in high-risk situations (Youth in Action), and men who have sex with men who do not gay identify (The MASSKE Project). Each project involved the use of peers as outreach workers, the distribution of risk-reduction materials, and public information focusing on role-model stories. Data were collected through June of 1994. Findings indicate that many high-risk persons can be influenced toward consistent risk-reducing behaviors through community-level interventions.

Project Respect was conducted by researchers at the CDPHE and Denver Public Health in conjunction with those at four other sites around the country. Based on a "stages of change" model, the study was designed to evaluate the effectiveness of alternative counseling strategies for the reduction of high-risk sexual behaviors and the transmission of sexually transmitted diseases. Results showed enhanced client-centered counseling (4-sessions) and brief counseling (two 20-minute sessions) resulted in significant levels of lowered risk and fewer STDs after 3, 6, 9, and 12 month intervals among study participants when compared to 5 minute sessions in which didactic messages on risk reduction were relayed. Later analysis compared the effectiveness of using cognitive approaches only (those meant to change attitudes) with that resulting from using an integrated approach (targeting both attitudes and self-efficacy) in moving people from a pre-contemplative to a contemplative stage of change. Data were gathered from 5,748 HIV-negative heterosexual participants recruited from the client base at inner-city clinics. Results showed that a combination of cognitive and action strategies may be the most effective way to target individuals who have no intention to change their behavior.

A study of partner counseling and referral services (PCRS) and their impact on risk behaviors and relationships is in its final stages at the CDPHE. Information was collected during 1998 and 1999 from 87 index cases (those testing positive for HIV who were subsequently interviewed by CDPHE staff), 36 negative partners who had been contacted as a result of those interviews, and 169 controls from the HIV Counseling and Testing Site at Denver Public Health. Results showed no greater number of dissolved relationships among those receiving PCRS, a lower number of new sex partners, and a higher percentage of those using condoms during their last

sexual encounter. Future analysis will examine characteristics of continuing and dissolved partnerships, as well as the kinds of partnerships which tend to be associated with safer and unsafe sexual behaviors.

A study was conducted in 1999 and early 2000 by researchers from Denver Public Health in conjunction with the CDC on the Internet as a venue for sexual partner solicitation, primarily among MSM. Bulletin boards and chat room sites were observed and the frequency of partner solicitation was documented. A clinic survey was administered with 856 respondents, 16% of whom had sought partners on the Internet. An online survey was also administered to 5509 respondents, which showed a significant level of risk behavior among those meeting partners through the Internet. The researchers also assessed the potential of using various intervention strategies on-line.

Several research efforts concerning STD and HIV risk behaviors have been conducted by researchers at the El Paso County Health Department in Colorado Springs. One study conducted in the early 1990's looked at the sequence, timing, and prevalence of sexual and drug use milestones in the lives of women who have exchanged sex for money or drugs. Drug use and childhood sexual assault were reported to be significantly more common among sex workers than among other women who were patients at an STD clinic. In this group, the onset of substance use preceded the onset of consensual sexual activity and injecting drug use tended to precede prostitution. Another study examined the degree of structural cohesiveness of social networks and their role in facilitating disease transmission. Research is currently being done using disease mapping, i.e., examining sexual networks geographically. This information is then used to target interventions.

The ReHYA Project (Reproductive Health for Young Adults) is currently being conducted by researchers at Denver Public Health. As part of this study, young people are screened for gonorrhea and chlamydia via urinalysis at school-based health clinics, juvenile detention centers, community-based organizations (e.g., Urban Peak, DAYS, Clinica Tepayec, etc.), and on the street. The project includes the availability of information on STDs, the distribution of condoms, partner management for the male participants, and follow-up exams to assess reinfection rates. The study began in December 1999 and to date has screened approximately 700 women and 800 men. Prevalence rates so far are at 18% in women and 10% in men. Behavioral data is collected through this project, but does not form a principal part of the research.

The HIV Testing Survey is a CDC-funded survey conducted among three high-risk groups: STD clinic patients, gay men in bars, and injection drug users. The survey was conducted in Denver by researchers at Denver Public Health in 1996 and 1998 and by researchers in six additional locations around the country. In 2000, it is being conducted in nine locations. The study focuses mostly on HIV testing behaviors, including information on why some people do not test or delay testing.

Denver Public Health also participated in the formative phase of the Gonorrhea Community Action Project (G-CAP), which was conducted in Denver in 1996 and 1997. Also a CDC-

funded, multi-site project, its purpose was to identify barriers to accessing clinical and prevention services among persons at risk for gonorrhea and other STDs. In Denver, the focus was on risk assessment by providers as well as on the development of innovative approaches to increase access to services, such as offering non-invasive testing in non-traditional venues.

Among the less formal research projects implemented in Colorado are the Knowledge Attitudes, Behaviors, and Beliefs (KABB) studies, which were conducted by the CDPHE and its collaborators between 1988 and 1995. The populations surveyed in these studies included MSM, sex workers, IDU, people of color, and the general population. These surveys were meant to capture the prevalence of HIV risk behaviors as well as other information such as knowledge and beliefs about HIV and risk among various target populations.

Eleven Community Identification Projects (CIP) were conducted between 1995 and 1999 by seven different organizations. These projects were funded with HIV prevention dollars through the CDPHE and were intended to capture a more in-depth knowledge of particular target populations, their risks, the context of their risk, and ideas for risk-reduction interventions. The target populations included MSM (rural, urban, IDU, and African American), IDU, women (including substance using and particularly women who use cocaine), and youth. Several of these studies were conducted in a fairly rigorous fashion with appropriately targeted sampling and produced highly reliable data regarding their target populations. Other studies were much more informally conducted and produced limited amounts of reliable data.

Research in Colorado related to sexual behaviors and their relationship to STDs must address three major challenges. First, increased support must be given to sexual behavior research, especially among populations at highest risk for STDs. An emphasis should be placed on hearing most directly from members of these populations to gain the clearest understanding of their risks, the contexts of their risks, and the most effective ways to meet their risk-reduction needs. Second, the information gained from research must be widely disseminated, adapted and applied wherever appropriate at the local level. Evaluation must be incorporated as part of these applications to ensure effectiveness. Third, a research agenda must be designed and implemented to insure that a comprehensive body of knowledge is available to inform a diverse, yet integrated, set of intervention strategies.

IOM Tactic - Focusing on adolescents

Needs Assessment Questions: What services and interventions target adolescents? Which of these services/interventions are STD-related interventions? Who is delivering these services and how are they delivered? What barriers exist to the delivery of these services? What are the target populations?

STD-related initiatives in school settings: Many adolescents receive sexual health education, including STD prevention education, in school. In the 1995 Colorado Youth Risk Behavior Survey (YRBS), ninety percent of all students surveyed said they had received some HIV/AIDS

and STD education in school. However, the content and manner in which sex education is presented varies greatly in school districts across the state. There is no state mandate requiring that sex education be taught in schools. Such decisions are made at the local school district level and reflect local school board and community attitudes toward sexual health education. Some schools offer sex education as part of the health education curriculum. In other areas, schools are pressured to discontinue involvement in sex education and to leave this responsibility to parents. Legislation passed and signed into law during the first half of 2000 requires that school officials now obtain parental consent prior to a child's participation in sex education classes. This may have the effect of decreasing the number of adolescents who receive sex education through the public school system.

Students may also receive STD-related services through **school-based health programs**. In Colorado, 33 school-based health centers provide health services to children and adolescents in 14 school districts across the state. These services include medical care, preventive dental care, mental health services, substance abuse counseling, tobacco use education, and diet and exercise education. [6] During 1998-99, approximately 45,000 students, most of which were described as lacking health insurance or a regular source of primary care services, were enrolled in and eligible to receive care through a school-based health center. Of those, 18,574 students accounted for 50,118 center visits.[7] Funding for these health centers comes from local, state and federal sources including hospitals, community health centers, mental health and substance abuse treatment agencies and the CDPHE. Some school-based health centers have developed reimbursement agreements with several managed care organizations including Kaiser Permanente, PacificCare, Medicaid managed care organizations and the Colorado Child Health Plan (CHIP). In 1999, three new rural health centers opened in Colorado, thus increasing access to health care for adolescents in underserved areas of the state. A listing of Colorado's school-based health centers may be found in Appendix A.

Denver Public Health coordinates the Denver School-Based Health Centers (DSBHC) program. DSBHC provides primary care and health education for students at 13 Denver public schools. The centers have an average enrollment of 80% of the student body. Services are free. There are no co-payments, fees, or deductible requirements, but parents must sign a consent form before their children can use a DSBHC. Denver Health has run the DSBHC program since 1988 in collaboration with Denver Public Schools, Arapahoe House, and the Mental Health Corporation of Denver. Additional support is provided by UCHSC Schools of Medicine and Nursing, the Children's Hospital and Centura Health/St. Anthony Hospitals.

Reproductive health care offered through the school-based health centers may include information on human sexuality with an emphasis on abstinence; pelvic examinations; diagnosis and treatment of STD; testing and counseling for HIV/AIDS; and prescribing, dispensing or referring for contraception, including condoms. As is the case with sexual health education, the

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[6] Colorado's School-Based Health Centers, Colorado Department of Public Health and Environment website, http://www.cdphe.state.co.us/fc/school.asp

[7] Colorado's School-Based Health Centers: A Measure of Quality, Making the Grade website, http://www.gwu.edu/

types of STD and reproductive health care services offered through the state's school-based health centers vary. The programs are developed through local planning efforts and reflect local values and circumstances. The school-based health centers in Adams County School District and many Denver public high schools provide reproductive health care services including condom distribution, STD testing and treatment, and promotion of healthy behaviors. In more conservative communities, school-based centers provide provide pregnancy testing but few additional reproductive health services.

STD-related services for adolescents outside the school: Not all adolescents are enrolled in school which necessitates that STD prevention messages and care services reach other areas that are frequented by young people. These areas include, but should not be limited to, community recreation centers, youth detention facilities, homeless shelters for youth and community and private health care facilities. The following information describes programs for youth in settings outside the school.

The **Women's Health** Section of the CDPHE manages funding for statewide programs for family planning which also provide STD-related services throughout Colorado. Across the state, there are approximately 65 clinics that provide family planning services and some of these are funded in part by Title X federal funds. These funds support access to services for low-income women and men and also include access for adolescents. More than 56,400 female adolescents in Colorado need subsidized family planning services. Of those, half are currently being served in family planning clinics throughout Colorado. STD and AIDS prevention services are available within the family planning clinics in the form of specific programs, educational materials (such as videos or written media), classroom resource assistance for teachers and the provision of clinical health care services for diagnosis and treatment of STD. These clinics are located throughout the state in local health departments, public health nursing services, hospitals and other nonprofit agencies. Unmet need exists across the state especially in underserved rural areas with little or far-away access to these family planning clinics and STD prevention activities. Many people, including adolescents, have to travel great distances to receive needed medical care or live in a community with little to offer in STD prevention. Adolescents can also gain access to STD-related services through private physicians. However, constraints on parental knowledge, confidentiality and health insurance issues create barriers for adolescents seeking these services.

The **CDPHE STD HIV Section** targets adolescents in a number of areas. Its **Client Based Services Program** provides partner notification and prevention case management services to persons at risk for STD including HIV. Specially trained disease intervention specialists (DIS) interview persons diagnosed with STD in order to identify exposed partners and ensure that these partners receive appropriate medical examination and treatment. Program social workers are also available to assist persons who are experiencing difficulties initiating or maintaining behaviors to avoid transmitting or acquiring an STD especially HIV. Many of the Program's clients are adolescents. In 1999, 44% of patients interviewed by DIS following a gonorrhea diagnosis were females ages 15-19 or males ages 15-24. Among person interviewed following a chlamydia diagnosis, 57% were females ages 15-19 or males ages 15-24. Section staff have

coordinated STD media campaigns using bus, radio and newspaper ads to deliver STD prevention messages to youth living in metro Denver. The Section collaborated with the Youth HIV Advocacy Coalition and the Colorado Department of education in sponsoring a statewide STD/HIV Youth Conference in November 1999. The Section also participates in Women of Color Conferences addressing HIV prevention among women. The 1999 Women of Color Conference held in Denver on September 18, 1999 included a track addressing youth issues. Section staff have also delivered HIV and STD prevention talks to youth in detention facilities.

Planned Parenthood of the Rocky Mountains (PPRM) is currently the third largest Planned Parenthood affiliate in the country. Statewide, PPRM provides family planning and reproductive health care including contraceptives or vasectomies, prenatal care, pregnancy testing, gynecological or mid-life care, pre-cancer screening and diagnosis and treatment for HIV and STD.

PPRM operates 30 health centers in Colorado including 23 family planning health centers, 3 satellite centers and 4 prenatal health centers. Thirteen health centers in Colorado receive federal (Title X) and state money to provide free or low-cost health care on a sliding fee scale. Greater than half of all PPRM clients are at or below the poverty level. PPRM increases access to reproductive and STD-related services for adolescents living in more remote areas of the state and for those who cannot otherwise afford such services

PPRM's education department seeks "…to educate and empower individuals and communities to make responsible life choices regarding their sexuality and sexual health." Many of the educational programs provided by PPRM are geared toward adolescents and promoting healthy behaviors and STD prevention including:

1) *Speakers Bureau:* PPRM-trained volunteers are available to speak to diverse audiences and community organizations including schools, drug rehabilitation center, juvenile detention facilities, prisons and churches. Speaker topics can include STD prevention.
2) *Three Step Program:* This program offers a series of three educational sessions to organizational groups, including youth homes and detention centers, focusing on providing information on sexual health, pregnancy, STD prevention and responsible choices.
3) *Project Prevention*: This program targets adolescents who have no health insurance and are considered at-risk due to homelessness, early pregnancy, HIV-positive, or survivor of sexual, physical or emotional abuse. The educators conduct street outreach and refer adolescents to appropriate social agencies and PPRM services. This program also targets runaway youth shelters.
4) *Growing Up Smart (GUS):* This program is designed to enable adolescents to make healthy life choices related to developing healthy relationships and preventing high-risk behaviors. This includes promoting abstinence and preventing early pregnancy and STD including HIV. This program also includes gender specific classes taught weekly for 12 weeks.

MiCasa, a Denver-based organization promoting educational opportunities for women and youth, conducts the FENIX program that is designed to prevent adolescent pregnancy and

STD/HIV infection among Denver adolescents. The program uses "peer educators" to spread the word about STD in targeted neighborhoods providing Denver adolescents with prevention, education and outreach messages. Peer educators deliver educational presentations in area schools, recreation centers, churches, detention facilities and community agencies. In addition, peer educators staff the FENIX Helpline, providing STD-related information over the telephone. This program was started in 1987 and has grown to include 30 peer educators.

Jefferson County Department of Health and Environment (JCDHE) sponsors two STD-prevention programs, the Teen Outreach Project and Peers in Community Leadership (PICL). Funded by a grant from CDPHE, the mission of the Teen Outreach Project is "to help teens obtain and maintain emotional, physical, and reproductive health through education, support and resource referral." A project objective includes the identification and removal of barriers for teens in accessing family planning and STD services. In addition, the project staff hope to collaborate with community, schools and other agencies in Jefferson County on prevention and intervention efforts and to increase teen awareness of services provided by JCDHE. The project provides services such as access to family planning services, STD/HIV testing and counseling, peer education projects, an annual Teen Sexuality Workshop, and group presentations on teen health issues including pregnancy, HIV/AIDS and STD. The project runs three teen clinics with walk-in hours in Arvada, Lakewood and Conifer. The project will also refer teens to a wide variety of other JCDHE services.

The Peers In Community Leadership is a peer education and leadership project in which teens from the community are trained to provide health related information (e.g., information about contraception, teen pregnancy and parenting, HIV/AIDs prevention, and STD prevention) to their peers and assist in skills development. The project is made up of six teams trained in specific content areas. Each participant is asked to make a one-year commitment to the project. Presentations are approximately one hour in length, geared towards middle and high school students, and allow time for open discussions.

Youth Homeless Shelters

These following shelters have developed arrangements with medical care providers and refer adolescents to services including STD-related services.

- Urban Peak (303-777-9198) is a licensed homeless and runaway youth shelter located at 1630 South Acoma in Denver. Urban Peak services include emergency shelter, intensive case management, on-site medical services, a GED program and a jobs program. Urban Peak also has an outreach team that conducts street outreach seven days a week. Outreach provides basic hygiene products, condoms, bleach kits and extensive referrals to youth living on the streets of Denver, Colorado. The team is also trained to test for chlamydia, gonorrhea, HIV, and pregnancy on the streets under the supervision of Denver Public Health and Children's Hospital. Youth can engage in case management on the streets via an outreach counselor.

- Gemini, Lakewood (303-235-0630) provides crisis intervention and shelter for 11- to 17-year old runaway, homeless, abused and neglected adolescents. The staff assists adolescents in problem solving and in learning new coping skills. Medical services, including STD services, are done by referral.
- Bannock Boys Shelter, Denver (303-825-6025)
- Triad Girls Shelter, Denver (303-831-8502)
- Shannons Hope Girls Shelter, Denver (303-477-8839)
- Comitis, Denver (303-343-9890)
- Broadway Youth Shelter, Boulder (303-444-1607)

Detention Centers

These detention centers are part of the Colorado Division of Youth Corrections State Operated Facilities. Primary care services are available and include STD-related services. There are other privately operated youth detention facilities that are not included in the list below.

- Adams Youth Services Center – Brighton
- Gilliam Youth Services Center – Denver
- Grand Mesa Youth Services Center – Grand Junction
- Lookout Mountain Youth Services Center – Golden
- Martin W. Foote Youth Services Center – Englewood
- Mount View Youth Services Center – Denver
- Platte Valley Youth Services Center – Greeley
- Pueblo Youth Services Center – Pueblo
- Spring Creek Youth Services Center – Colorado Springs
- Zebulon Pike Youth Services Center – Colorado Springs

Community Health Centers and Clinics

These centers provide primary care services including STD-related services for families, including adolescents. There are approximately 65 community health centers located across Colorado. The health centers below are mainly located in the Denver Metro Area.

- Eastside Health Center – Denver
- Stout Street Clinic for the Homeless – Denver
- Quigg Newton Family Health Center – Denver
- Westside Teen Clinic – Denver
- Globeville Family Health Center – North Denver
- Higher Grounds Teen Clinic (Salud Family Health Center) – Commerce City
- Hyde Park Family Health Center – Central Denver
- La Casa de Salud Family Health Center – NW Denver
- Inner City Health Center – Denver
- Clinica Tepayac – NW Denver
- Gates Exemla Community Health Center – Denver

- Clinica Campesina Family Health Services – Westminster and Lafayette
- Denver Teen Clinic – Denver

The **Rocky Mountain Center for Health Promotion and Education (RMC*)*** is a national organization based in Denver that provides health education and training to school districts and other organizations serving adolescents. RMC training includes areas of adolescent smoking, violence, drugs, alcohol, life skills and sexual health. Three RMC training curricula target adolescents in high-risk situations with a STD/HIV prevention message:

1) *Be Proud! Be Responsible! Strategies to Empower Youth to Reduce their Risk for AIDS.* This program is designed to teach adolescents to take responsibility for choosing responsible sexual behaviors. The curriculum targets African-American, Hispanic and white adolescents who attend inner-city schools and community-based programs.
2) *Becoming a Responsible Teen (BART).* This program utilizes interactive group discussion and frequent role-playing that have been created by teens to prevent HIV infection. The curriculum targets African-American adolescents.
3) *POWER Movers: A Situational Approach to HIV Prevention for High Risk Youth.* This program has the primary goal to decrease the percentage of adolescents currently engaging in sexual and drug use behaviors putting them at risk for HIV or STDs. The curriculum targets high risk adolescents in out-of-home placement.

In 2000, the RMC was awarded funds from the state's Alcohol and Drug Abuse Division (ADAD) to coordinate the **Regional Prevention Center Services Project (RPC)**. Previous RPC projects have focussed on promoting substance abuse prevention by reaching underserved target populations and have provided prevention activities for adolescents in areas of smoking, substance abuse (drugs and alcohol) and HIV/STD.
Two Denver Public Health research projects, the **Denver Gonorrhea Community Action Project (GCAP)** and the **Reproductive Health for Young Adults (ReHYA)**, [8] provide further

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[8] Data Sources: The data presented here comprise a secondary data analysis of multiple data sets gathered for primary research projects directly and indirectly related to STD prevention and control. A brief description of each data source follows:

- GCAP: The Denver Gonorrhea Community Action Project. A two-year assessment of barriers youth face to accessing STD. Data include:
  a. Qualitative data from formative interviews with providers in 21 clinic sites documenting professional practices related to sexual history taking, examination, STD treatment, laboratory testing, counseling and education for STD prevention. In addition these data include profiles of clients, e.g. proportion male, ages served, cases of STD seen per week.
  b. Qualitative data from formative interviews with 16 community based organizations that serve youth in Denver. Interviews focus on the services these organizations provide, descriptions of their clientele, and compatibility for provision of STD related services, including primary prevention.
  c. Qualitative data from interviews with 41 youth up to age 25 focusing on perceptions of problems youth face, relative importance of STD as a problem, and knowledge and attitudes towards STD. The data also contain information regarding client access to care and barriers to accessing care.

insight into STD prevention activities for adolescents in metro Denver. According to the GCAP study, youth believe that medical professionals and, to a lesser degree, health departments should take the lead in increasing access to care. Forty per cent of youth involved in the GCAP study suggested looking in schools to find youth who would benefit from programs to increase access to care. Other suggested locations included streets, neighborhoods, park and recreation centers, athletic organizations, malls, housing projects, "known" gang hangouts, drug and alcohol rehabilitation facilities, movies and fast food restaurants. When asked about the community centers and organizations they were involved with, GCAP youth respondents reported frequenting recreation centers (33%), church (29%) and swimming pools (29%).

GCAP youth (60% of respondents) agreed that a STD examination every six months could help them stay healthy and learn to take care of themselves. Despite viewing STD examinations favorably, few respondents were aware of where they could be examined for STD. Among youth respondents who reported seeking medical care in the past 12 months, only 54% had received a STD exam. Ninety-five per cent of those reporting a medical visit in the past year stated that they had had sex during that same period which suggests missed opportunities by providers to screen sexually active adolescents.

The ReHYA project demonstrates the provision of STD-related services targeting adolescents at nontraditional sites (e.g., juvenile detention centers, school-based clinics, drug and alcohol treatment facilities and community organizations).

Other organizations in Colorado that target and provide services for adolescents (not necessarily STD-related services) include:

- Big Brothers, Big Sisters of Colorado, Inc (303-433-6002)
- Boy Scouts of America, Denver Area Council (303-455-5522)
- Boys and Girls Clubs of Metro Denver, Inc. (303-892-9200)
- Camp Fire Council of Colorado, Inc. (303-455-2056)
- Girl Scouts – Mile Hi Council (303-778-8774)

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d. Quantitative survey data from interviews with 254 youth up to age 25. These data were solicited from street settings and community based organizations in Denver communities with the highest documented rates of gonorrhea. Data focus on knowledge and attitudes toward gonorrhea in particular, and include data for measuring stigma associated with gonorrhea infection. Data also include attitudes towards care seeking and access to care, sexual risk behavior, and demographic information.

❖ ReHYA (Reproductive Health for Young Adults) Three programs funded by the CDC and CDPHE to develop STD screening and secondary prevention programs for young men and women (up to age 25) in non-traditional settings, including juvenile detention centers, drug and alcohol treatment facilities, school based clinics and community based organizations. Data are currently available on behaviors and STD incidence for 336 women up to age 25. Data for men in the same age range will be available within 6 months.

The GCAP study included assessment of youth opinions regarding barriers to STD-related care. As part of the survey, 364 youth in Denver were asked (1) who should be involved in efforts to increase access to care for youth; (2) where can we find youth that could benefit from such a program; and (3) what are the community services and organizations they have been involved with?

- Girls Incorporated (303-893-4363)
- YMCA (303-861-2256)

IOM Tactic - Establishing New Venues for Interventions

Needs Assessment Questions: What services and interventions target disenfranchised groups (e.g., homeless, migrant, incarcerated populations)? Which of these services/interventions are STD-related interventions? Who is delivering these services and how are they delivered? What barriers exist to the delivery of these services? What are the target populations?

Populations in Correctional Facilities

As part of a needs assessment conducted to identify ways to market programs designed to improve STD clinical skills among health professionals, the Denver STD Prevention Training Center conducted telephone interviews, focus groups and surveys of various health care providers in Colorado and surrounding states. Among those contacted were medical personnel working in correctional facilities in Colorado.[9] Their responses provide a picture of STD-related services available to inmates in Colorado's correctional system.

In Colorado there are 20 state run correctional facilities, two federal prisons and a county jail in each county. All such facilities have clinics that provide a variable array of medical services. All state inmates receive screening tests for syphilis and HIV as part of their inprocessing into the state system. Federal inmates are routinely screened for syphilis, hepatitis and HIV. Inmates in county detention facilities may or may not be screened for STD. All facilities offer or will arrange for STD examination on an "as needed" basis (e.g., an inmate is symptomatic or requests STD testing). CDPHE staff interview and counsel inmates diagnosed with select STD (i.e., syphilis and HIV) to ensure their partners are notified of an STD exposure and referred for appropriate examination and treatment.

HIV education and counseling is required by the state's Alcohol and Drug Abuse Division for all inmates incarcerated for drug-related offenses. The frequency and content of this intervention varies across the state. A few community-based organizations, local health departments and the CDPHE have developed outreach initiatives targeting incarcerated populations. However, in general, there appear to be few other STD-related services for inmates beyond STD testing and treatment (i.e., STD prevention education, risk reduction counseling).[10]

Migrant Populations

The CDPHE's Farmworker Health Services of Colorado (FWHS) program seeks to ensure access to health services for migrant and seasonal farmworkers and their dependents. According to the FWHS, Colorado's migrant population is particularly vulnerable to poor health outcomes.

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[9] 1999/2000 Regional Needs Assessment, Denver STD/HIV Prevention Training Center, March 22, 2000.
[10] Personal communication with CDPHE STD/AIDS Section staff who have provided group level interventions in correctional settings.

Poverty, poor housing conditions, lack of field sanitation and lack of access to health care make this population susceptible to a number of medical problems including TB, strep, hepatitis and STD. Most of Colorado's health care resources for the indigent are located in larger urban areas. Access to health care is extremely difficult for low-income rural residents. Resources are needed to assure access to health care in rural regions of the state.

The FWHS does not provide direct medical care. Through the maintenance of referral relationships with local care providers, local migrant and community health centers, county nursing services, the Women's Health program and other local resources, the FWHS assures health care for migrant workers. Medical visits and outpatient care are available to eligible clients. A five dollar co-payment is requested of clients utilizing such services.

Local FWHS offices are located on the Front Range in Fort Collins and on the western Slope in Palisade and Olathe. In addition to the FHWS, five independent migrant health grantees serve migrant populations in other parts of the state: Plan de Salud del Valle (Fort Lupton and additional north central Colorado sites), Sunrise Community Health Center (Greeley and Loveland), Valley Wide Health Services (Alamosa and other sites in the San Luis Valley, and Rocky Ford), Pueblo Community Health Center, and High Plains Community Health Center.[11]

IOM Strategy Four: Ensure Access to and Quality of Essential Clinical Services for STD

IOM Tactic - Ensuring Access to Services in the Community

Needs Assessment Question: What is the availability of STD-related clinical services in community settings (i.e., settings other than dedicated public STD clinics)?

Access to STD clinical services in Colorado is assured through the delivery of STD related care by a wide variety of both public and private providers across the state. In addition to publicly funded STD clinics, STD diagnosis and care occurs in neighborhood health, school-based health, family planning, adolescent health, correctional, managed care and other clinical settings. Within these settings, STD service delivery is often not the primary focus. Many sites do not have specific STD prevention programs or protocols to ensure that persons at risk for STD receive appropriate counseling, education, testing, diagnosis and treatment. Instead, the provision of STD-related services is often driven by the presentation of a symptomatic patient seeking medical care rather than by a more thorough assessment of risk obtained through examining a patient's history of sexual behaviors.

[11] Family and Community Health Services Division, Farmworker Health Services of Colorado website.

Findings from the GCAP study suggest that youth favor the expansion of STD–related services to other locations outside the traditional clinic including streets, neighborhoods, park and recreational centers, malls, and housing projects. The advent of new testing technologies (e.g., urine tests to detect gonorrhea and chlamydia) has facilitated the expansion of STD treatment in locations outside the traditional clinic setting. In 1994 Denver Public Health initiated the Youth in Action program, a STD prevention project targeting high-risk urban youth. As one component of the of the Youth in Action protocol, youth were offered chlamydia screening tests in their homes, on the streets, at neighborhood recreational centers and in other locations away from traditional clinics. Results of the Youth in Action project demonstrated the feasibility of this strategy in testing and treating asymptomatic patients. [12] Such programs may further increase access to STD-related services for hard-to-reach populations.

The wide geographic distribution of providers who report delivering STD-related services suggests that few persons at risk for STD should be unable to access care. However, the availability of such providers may not result in increased access. Among a sample of Denver youth, the GCAP study found that few youth respondents could identify where they could be checked for STD despite viewing regular STD examinations favorably. Results of the GCAP study also suggest that patient beliefs and circumstances may further impact the likelihood of their seeking care. High proportions of youth participating in the GCAP study agreed with a number of reasons why they might delay or avoid seeking care including: fear of pain during a gonorrhea exam (74%); not wanting to know they had gonorrhea (87%); lack of time (87%); lack of money (82%); symptoms might go away (88%); lack of child care (92%); the doctor or staff might tell someone (95%); the doctor might not be nice (93%); not wanting to talk to a doctor or nurse about sex (94%). Addressing these concerns may result in increased access to STD-related services for youth at risk.

IOM Tactic - Improving dedicated Public STD clinics

Needs Assessment Question: What is the availability of STD-related clinical services provided at dedicated public STD clinics?

The state's seven public STD clinics are located within local health departments and serve approximately 35,000 patients per year. These clinics vary in the demographic characteristics of the patient populations they serve but in general the patient census for these clinics reflect a higher concentration of ethnic minorities than the general population within their respective service areas. Target populations include persons who have symptoms of STD and persons who may or may not have symptoms of STD who have been exposed to persons known to be infected with an STD. All STD clinics offer confidential HIV testing and/or provide referrals to confidential/anonymous HIV testing sites.

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[12] Rietmeijer C, Yamaguchi K, Ortiz C, et al. Feasibility and yield of screening urine for Chlamydia trschomatis by polymerase chain reaction among high-risk male youth in field-based and other nonclinc settings. A new strategy for STD control. *Sexually Transmitted Diseases*. 1997;24:429-435.

STD clinics are widely distributed throughout the state. Their hours of operation vary. Three clinics (Denver, Mesa, Pueblo) are open five days a week. Only the Denver Public Health STD clinic is open approximately eight hours each workday. All clinics provide services free of charge or on a sliding scale fee system. A few local health departments accept Medicaid or other insurance for many of their STD services. In past years, the CDPHE conducted annual site visits at STD clinics to evaluate issues of quality and access. These visits included discussions concerning hours of operation, physical location of the clinic, proximity to bus routes, and whether staff was culturally congruent with the target population. Due to funding constraints and lack of personnel, these site visits were eliminated.

Involving health plans and purchasers of health care

During June 2000 the CDPHE STD/AIDS Section initiated a survey designed to identify current levels of STD prevention activities occurring within Colorado's managed care organizations (MCO). Key respondents at various MCO were identified by the CDPHE Health Facilities Division (HFD), the Colorado Department of Health Care Policy and Finance and the Colorado HMO Association and by email or telephone to complete the survey. To date, responses to the survey questions have been received from five MCO (Rocky Mountain HMO, Community Health Plan of the Rockies, Colorado Access, Kaiser Permanente, Community Health Plan of the Rockies), the CDPHE HFD and the Colorado HMO Association.

Based on initial survey responses, there appears to be no state requirement that MCO specifically address STD. None of the MCO respondents reported plan-wide programs and policies concerning STD. Counseling, screening and treatment appear to be left to the discretion of the individual health professional examining a patient. No respondent reported that continuing education related to STD is a requirement for health care professionals working within their organization.

Two respondents cited specific STD screening efforts within their MCO. Colorado Access has initiated efforts to increase cervical cancer screening related to papillomavirus infection and begun screening for STD among pregnant women in order to avert premature rupture of the cervical` membranes. Kaiser provides chlamydia screening for pregnant women and women who receive a pelvic examination. An estimated 70% - 80% of adult female members are receiving pap smears.

Several managed care organizations are working independently of the Colorado Coalition for STD Prevention (CCSP) to develop policy and procedures for effectively implementing the Health Plan Data and Information Source (HEDIS) measure related to chlamydia screening and the 1999 STD treatment guidelines including addressing partner management issues. The CDPHE is exploring how best to collaborate with this managed care work group on this and other STD related projects.

Improving training and education of health care professionals

The Denver STD Prevention Training Center and CDPHE's STD AIDS Section conduct comprehensive trainings for STD providers throughout the Rocky Mountain Region. These trainings include clinical and didactic curriculum aimed at enhancing clinician ability to identify, test, diagnose and treat a variety of STD. In 1999, the Prevention Training Center conducted a needs assessment to improve marketing and awareness of its programs. Through telephone interviews, focus groups and surveys, the needs assessment identified the following needs and preferences among providers in Colorado:

- Skills and tools for counseling patients and dealing with behavioral issues
- Dealing with STD in areas of care where STD are not the primary focus.
- Dealing with specialized populations or new risk behaviors.
- Practical, useful, available training and education.
- Training tailored to the experience level of the audience and unique needs within a local area. [13]

IOM Tactic -Improving clinical management of STD

Needs Assessment Questions: What guidelines are being followed by primary care providers regarding clinical screening and management of STD? To what extent are health care professionals counseling their patients during routine and other appropriate clinical encounters regarding the risk of STD and methods for preventing high-risk behaviors? What are the barriers to such counseling?

The 1998 Guidelines for Treatment of Sexually Transmitted Diseases developed by the CDC provide physicians and other health care providers with recommendations regarding screening, treatment, patient counseling and the management of sexual partners. The 1998 Guidelines contain information related to the management of patients presenting with signs and symptoms of STD caused by bacterial, viral or parasitic agents including diagnostic considerations, recommended treatment regimens, patient follow-up, and the management of sexual partners. The Guidelines also address the STD-related needs of designated special populations (i.e., pregnant women, adolescents and children) and the detection, initial management and referral for HIV infection.

Various activities exist within the state to encourage the use of the 1998 Guidelines by Colorado health care providers. For example, the Colorado Department of Public Health and Environment makes the guidelines available to health care providers through the Internet or through hard copy upon request. Through its review of provider reports of syphilis, gonorrhea and chlamydia morbidity, the CDPHE identifies patients who have received inadequate treatment regimens. The

[13] 1999/2000 Regional Needs Assessment, Denver STD/HIV Prevention Training Center, March 22, 2000.

Department offers the 1998 Guidelines to providers reporting treatment with inadequate regimens and provides patient follow-up and referral to ensure patients receive adequate treatment. Additional resources within the state that encourage observance of the 1998 Guidelines include the Prevention Training Center which provides courses related to the treatment and counseling of persons infected with or at risk for STD. In 1999, several managed care organizations began work to develop policies and procedures for ensuring compliance with the 1998 STD treatment guidelines by MCO providers and to implement a Health Plan Data and Information Source (HEDIS) measure related to chlamydia screening.

Despite the activities above, the degree to which the 1998 Guidelines are followed by health care providers working in various settings across Colorado is unknown. A 1998 study of Colorado health care provider practices suggests that compliance with national recommendations related to STD prevention may be low. The study which involved surveying physicians, nurse practitioners and physician assistants statewide found that despite CDC recommendations to test sexually active female adolescents for chlamydia, only 54% of 576 survey respondents reported regularly testing sexually active females. Seventy-two percent of the respondents reported regularly taking a sexual history from female adolescents. Additional efforts should be initiated to assess provider observance of other STD related guidelines recommended by the CDC and to identify methods to increase provider compliance with STD prevention recommendations. [14]

Needs Assessment Questions: What activities exist to reach partners at risk for STD? (Such activities include partner notification and other methods for ensuring that partners are notified of and examined/treated following an exposure to an STD).

Partners exposed to STD are notified of their exposure in various ways. Following diagnosis, infected patients may elect to notify their partners without assistance from a health care provider. This is known as patient referral. Alternatively, health workers may interview persons diagnosed with an STD in order to identify exposed partners. The health worker then notifies partners for whom there is sufficient locating information of their exposure, provides prevention counseling and refers partners for medical evaluation and appropriate treatment. This type of referral is known as provider referral. A third referral option, contract referral, involves an agreement between an infected patient and a health worker for health worker follow-up when a patient referral is unsuccessful in ensuring adequate examination and treatment of an exposed partner.

In Colorado, provider referral is conducted by the state health department and a limited number of local health departments. In addition to local health departments, private providers may also assist infected patients in notifying partners of an exposure. The Denver Prevention Training Center and CDPHE conduct a course, Partner Services for Health Care Professionals, which is designed to provide health care professionals with the fundamental knowledge and skills necessary to conduct partner elicitation. After completing the course, some health providers

[14] Kathleen C. Torko, et. al., "Testing for chlamydia and sexual history taking in adolescent females: results from a statewide survey of Colorado primary care providers," *Pediatrics* electronic pages (In press).

have asked the CDPHE to notify partners elicited in a partner interview. How often this is occurring and the success of such efforts needs to be explored further.

During 2000 the CDPHE initiated a project to determine the services, interventions and activities needed within the state to ensure that partners are notified of an exposure to STD. Specifically, through interviews, focus groups and surveys of consumers and providers of STD prevention services, the CDPHE STD/HIV programs plan to (1) identify and prioritize patient needs related to notifying partners; (2) assess the current availability of and protocols for delivering partner management services across the state; (3) identify alternative, efficient and cost-effective activities for partner management; (4) assess the willingness of STD providers to deliver partner management services; and (5) identify and prioritize provider needs and barriers related to the delivery of current and desired partner management services.

Strategy 5: Develop and sustain two-way linkages between STD prevention services and other related services (e.g., social services, migrant health, corrections, mental health, substance abuse treatment, HIV, TB and hepatitis prevention).

The development of two-way linkages between STD prevention services and other related services is occurring at different degrees in various regions of the state. The CCSP IOM Response Committee's Report has characterized these regions according to the development of STD prevention and treatment resources:

> Undeveloped – No ongoing STD-specific services are available within a radius of many miles. STD prevention services are conducted in isolation with often inadequate resources.
>
> Moderately developed – Ongoing, onsite STD prevention resources are available by agencies that operate independently. A minimal referral system is in place.
>
> More highly developed – Two or more agencies collaborate to fulfill the STD services needs of a community, often through formalized memoranda of understanding that clearly outline expectations and responsibilities of the collaborators.

(See the section of the IOM Response Report that addresses Strategy 5 for a more complete description of these areas). As the CCSP designates priorities, goals and objectives related to its STD prevention plan, a careful examination of which linkages should be developed or strengthened will be warranted.

COLORADO'S RESPONSE TO THE INSTITUTE OF MEDICINE'S REPORT ON CONFRONTING SEXUALLY TRANSMITTED DISEASES

BACKGROUND AND METHODOLOGY:

The IOM Committee is comprised of ten people representing six different agencies ranging from state and local heath departments, corrections, cancer research and people from programs that overlap with STD services such as Family Planning, high-risk youth and HIV experts in Colorado. During 1999, The IOM committee was tasked with drafting a local response to the four strategies and subsequent recommendations outlined in the Institute of Medicine's report "The Hidden Epidemic – Confronting Sexually Transmitted Diseases". The fifth strategy (concerning linkages) was not discussed in the national IOM report, but was added at the request of the Colorado Coalition for STD Prevention (CCSP). It was the committee's understanding that it was being asked to assist in the development of a statewide prevention system, by providing local recommendations on those components that we felt were necessary to create a comprehensive statewide STD prevention system. It was never the committee's intention or desire to develop and/or write an actual implementation plan. Issues such as cost, resource availability, and/or political feasibility will need to be factored in during the development of the state plan.

First drafts were presented to both the IOM Committee and then to the Coalition membership during January 2000. Revisions were made based upon comments from the attending membership. Second drafts were then presented and reviewed by committee members and then were presented to the CCSP in Spring, 2000.

The information contained in the first four strategies was primarily derived by the personal and professional experience of each of the ten committee members and considerable key informant interviews from a variety of agencies and personnel. The text within Strategy five substantially reflects work, slightly modified to reflect STDs other than HIV, developed by community members within the HIV prevention planning process. The original text of Strategy Five was reviewed by representatives' from all geographic areas of the state as well as populations disproportionately affected by STDs and HIV (women at risk, men who have sex with men, African Americans, Latinos/Latinas, and many others). On a whole, formalized literary reviews and primary data collection were not conducted due to limitations in both time and resources.

As a footnote, the committee strongly recommends that the CCSP create a mechanism to prioritize which populations in our state should be classified as under-served or disenfranchised as it applies to STD prevention. We strongly believe that this list of prioritized populations needs to be compiled as soon as possible and is essential to the creation of a statewide STD prevention plan.

Strategy 1: Overcoming Barriers to Adoption of Healthy Sexual Behaviors

DEFINITIONS

HEALTHY SEXUAL BEHAVIORS: Can be broadly defined and inclusive of many activities and dimensions. For purposes of this report and its associated activities it is defined as: Behaviors which minimize the risk of sexually transmitted diseases/ infections (STD/STI) and unintended pregnancies and which are less likely to result in physical and/or emotional harm.

1. Catalyzing Change through Open Discussion and Promoting Awareness and Balanced Mass Media Messages

A new social norm of healthy sexual behaviors should be the basis for long-term prevention of STDs. Colorado has defined "healthy sexual behaviors" as "behaviors which minimize the risk of sexually transmitted diseases/infections (STD/STI) and unintended pregnancies, and which are less likely to result in physical and/or emotional harm."

There is a need in the State of Colorado for open discussion so that there is access to information regarding sexual behaviors, the health consequences, and methods for protecting against STD's. Public and private entities need to engage in discussions about mass media interventions, school-based interventions, and individual-based interventions.

IOM Recommendations appropriate for the State of Colorado also include:
- a local and state campaign, in conjunction with the national campaign
- educational resources that would allow people to obtain further information through local resources.
- linkages for ongoing collaboration, created by coordinating the campaign with other similar programs in the state which target similar audiences

2. Improving Professional Skills in Sexual Health Issues

There is a need in the State of Colorado for improving professional skills in sexual health issues. Many individuals in the community should become more involved in educating others regarding STDs. These individuals include parents, educators, health professionals, persons in the mass media, and religious leaders.

Research on sexuality is necessary in understanding what determines risky sexual behavior. Inadequate comprehensive research training and funding (for both basic and applied research) limit social and behavioral research in this area.

All providers need to be able to utilize clinical opportunities to effectively counsel patients regarding healthy sexual behaviors, therefore improving clinical care for STD's. Such skills as becoming comfortable discussing sexual health issues need to be taught both within the health

care systems (i.e. residency training programs) as well as in non-traditional service areas, e.g., hairdressers, restaurant workers, bar tenders, and school staff.

IOM Recommendations appropriate for the State of Colorado also include:
- Health Professional schools/institutions sponsor continuing education courses in sexuality for clinicians, i.e., residency training programs, schools of nursing
- Programs should focus on basic, effective intervention counseling and clinical skills

3. Supporting Sexual Health Behavior Research

There is a need in the State of Colorado for sexual health behavior surveillance and research. Both are critical for monitoring population trends and health behaviors, developing effective interventions, and evaluating program effectiveness. Some surveillance data is collected in Colorado (i.e. B.R.F.S.S. and Y.B.R.F.S) but this is becoming more difficult. Some school districts are committed to spending more time on standards and less on other activities such as surveillance.

IOM recommendations appropriate for the State of Colorado also include:
- Coordination of surveillance activities by different agencies to reduce the burden of requests
- Centralization of a system to analyze and disseminate data for improving the knowledge base for counseling or for identifying new behavior trends at which to target information and counseling
- Combination of data collected by agencies such as the Colorado Department of Health and Environment with data collected through research projects at institutions such as University of Colorado Health Sciences Center

Strategy 2: Develop strong leadership, strengthen investment, and improve information systems for STD prevention.

DEFINITIONS

STRONG [EFFECTIVE] LEADERSHIP: The ability to build consensus, express shared vision, identify and empower individuals, organizations and consumers to affect systems change.

< Convenes stakeholders, engenders public/private sector cooperation
< Represents the concerns of stakeholders (labor, education, media)
< Identifies and mobilizes internal and external resources

STRENGTHEN INVESTMENT: Identify and access increased resources including nontraditional and nonfinancial (public, private, philanthropic). Includes such resources as human capital, financial, systems, attitudes, information, influence, etc.

IMPROVE INFORMATION SYSTEMS: Move toward a system that collects, organizes, analyzes and disseminates data in user friendly formats useful for planning and decision-making and program implementation and evaluation. Systems include epi data, fiscal resources, status and outcome measurement.

PREVENTION**:** Activities that reduce new cases of STD's and their complications in Colorado.

1. Developing Leadership and Catalyzing Partnerships

Colorado has defined this function as the ability to hold consensus, express shared vision, identify and empower individuals, organizations and consumers in order to effect a systems change.

Overcoming barriers to achieve this goal is a challenge that requires the active participation of state and local health departments, the private health sector, businesses, labor leaders, the mass media, schools, communities and individuals at risk, and other community-based organizations. Since a formal mechanism for collaboration among agencies and organizations does not exist, a neutral forum with strong leadership is needed to direct and catalyze such a partnership.

Specific features for effective leadership include:

- Convening stakeholders to engender public/private cooperation
- Involving stakeholders in all steps of this process
- Identifying and mobilizing internal and external resources

IOM recommendations appropriate for the State of Colorado also include:

- Private sector organizations and clinicians should assume more leadership and responsibility for STD prevention.
- State and local health agencies, with support from government leadership, should ensure that all persons have access to comprehensive, high-quality STD-related services.
- The proposed neutral forum for collaborating public and private sector agencies and organizations will be successful only if financial support is made available to support this ongoing effort (see below).

2. Strengthening Investment

Colorado has defined this function as identifying and accessing increased resources, including traditional as well as non-traditional and non-financial resources (public, private, and philanthropic). Included among such resources are human capital, financial, systems, attitudes, information, and influence, among others.

In order to establish an effective system of STD prevention, a substantially greater investment from both the public and private sectors is needed. Investing in preventive services and research will avert substantial human suffering and save millions of dollars in treatment cost and lost

productivity in Colorado. Additional funding for STD prevention needs to come from local and state governments and from the private sector (HMOs, PPOs, managed care, and foundations). Private health plans, in particular, need to increase support for STD-related services that benefit their enrolled populations, which will ultimately benefit the health plan's financial status.

IOM recommendations appropriate for the State of Colorado include:

- State and local elected officials should provide additional funding for STD prevention.
- State and local officials must assure that general or block grant funds are directed, as appropriate, to STD programs since there is the danger that funds may be redirected to other more visible and/or "acceptable" health conditions.
- The Colorado Department of Public Health and Environment STD program should continue to seek increases in federal categorical STD funding through local representation on national organizations (e.g., National Coalition of STD Directors, American Public Health Association, National Alliance of State and Territorial AIDS Directors).

3. Improving Surveillance and Other Information Systems

Colorado has defined this function as moving towards a system that collects, organizes, analyzes and disseminates data in user-friendly formats, useful for planning, decision-making, and program implementation and evaluation. Such a system should include epidemiological data, fiscal resources, as well as disease status and outcome measures, with the ability to analyze and report such data.

Although national surveillance and information systems for STDs are important, a statewide system in Colorado would more specifically and completely address local and regional issues and responses. Such a STD surveillance system should include and link information from public sector, community-based, and private health care professionals.

Specifically, such a surveillance system should:

- Evaluate STD practices and guidelines
- Report compliance initiatives
- Monitor the State's STD prevention program effectiveness
- Integrate preventive services performance data with community health status indicators and STD program data

IOM recommendations appropriate for the State of Colorado also include:

- State and local STD programs should encourage and provide technical assistance to employers and other purchasers of health care (including Medicaid programs), managed care organizations and other health plans, and health care professionals to develop and utilize information systems that effectively integrate preventive services performance data with community health status indicators and STD program data.

- Linkage and coordination with present and future national STD surveillance systems should be planned and provided.
- Special emphasis should be placed on educating clinicians about reporting and on collaborating with and collecting data from private sector providers, including health plans.
- STD-related performance measures should be included in the Health Plan Employer Data Information Set (HEDIS) and other health services performance measures to improve quality

Strategy 3: Design and implement essential STD-related services in innovative ways for adolescents and under-served populations.

DEFINITIONS

ESSENTIAL STD-RELATED SERVICES: Services that are relevant, meaningful and acceptable to the target community. Such services include:

Information, education and skills building (pre-infection)
Screening
Diagnosis
Treatment
Development of information products
Immunization
Partner Management
Counseling
Risk-reduction (post-infection)

INNOVATIVE: Brand new services **or** the expansion of traditional services **or** the extension of services into locales or populations that have not previously been reached.

ADOLESCENTS: Onset of puberty to the age of nineteen.

UNDER-SERVED POPULATIONS: Locales and/or populations shall be deemed under-served when there is an inverse relationship between disease burden and their access to essential services.

1. Focusing on Prevention

To effectively target specific under-served populations for STD prevention, the committee recognizes a need to first understand these populations. The IOM argues that "effective prevention programs are usually the result of extensive research and evaluation and continuous quality improvement." While quantitative analysis provides an important piece of the equation to understanding those communities most affected by STDs, there is a qualitative gap that limits the scope of our understanding. The committee acknowledges this gap and subsequently endorses the following recommendations for Colorado:

- Continue to promote and engage in basic and applied research, including comprehensive ethnographic study, which examines the specific traits or needs of the under-served population that the Colorado Coalition for STD Prevention (CCSP) would like to specifically target.
- Channel this behavioral research into applied practices.

The committee acknowledges that both quantitative and qualitative research is imperative to ensure that effective, appropriate, and quality interventions are implemented.

The IOM asserts that "all school districts in the United States should ensure that schools provide essential, age-appropriate STD-related services." The committee endorses this premise and believes that there is a need to examine the effectiveness and cultural relevance of currently existing programs that are targeted for pre-adolescent males and females. Also, the committee strongly believes that since the average age of sexual initiation has been decreasing that additional focus on pre-adolescents is not only warranted, but also necessary. It is the committee's recommendation that pre-adolescents should be considered in the prioritization mechanism of under-served/disenfranchised populations. Additionally, IOM recommendations appropriate for the State of Colorado also include the following:

- Evaluate and review the efficacy of the programs designed to promote skill building around developing positive self-identity, self-awareness and self-efficacy.
- Other topics that need to be addressed include communication skills around problem solving, decision making skills, minimizing power disparities around sexual issues, factors that contribute to the establishment of high-risk sexual behaviors, and increasing male involvement in pregnancy prevention issues.

The outcome of such examination would support the need to continue, enhance and/or revise existing programs or develop new programs that would meet the above goals. As stated in the IOM, these programs should be regularly reviewed and modified accordingly based on STD epidemiology and on-going evaluation research.

According to the IOM, prevention-related research facilitates effective intervention and maximizes access to resources. The committee recognizes the importance of prevention research and identifies a need for further exploration, study and discussion by those directly involved with pre-adolescents and adolescents.

- Those directly involved with pre-adolescents and adolescents (care providers, parents, teachers, youth leaders, clergy, community-based groups, etc.) must determine how to recognize some of the contributing factors that are associated with the initiation of early sexual activity and the establishment of high-risk sexual behaviors.
- Factors that must be studied and discussed include, but are not limited to, the absence of healthy norm setting and role modeling around sexuality, increased drug and alcohol use and

the lack of understanding of how poverty and different cultural norms result in disproportional rates of disease.
- Those directly involved with pre-adolescents and adolescents (care providers, parents, teachers, youth leaders, clergy, community-based groups, etc.) need to develop a strategic action plan, including a statewide service provider referral system, for those individuals who are acting out behaviors associated with the initiation of early sexual activity and the establishment of high-risk sexual behaviors

2. Focusing on Adolescents

The issue of confidentiality is specifically mentioned in the IOM's report in relation to adolescents being able to consent to STD related services without parental consent. The actual recommendation is that all health plan and health care providers should implement policies in compliance with state laws to ensure confidentiality of STD and family planning related services, such as school based clinical services to prevent STD's. The committee strongly agrees and supports this recommendation for Colorado. However, given the recent debate in changes made in Colorado's HIV laws, the committee also felt that it would be appropriate to explore additional strategies to educate and restore the general publics' trust around confidentiality issues. This recommendation is based on the belief that there has not been sufficient nor consistent accurate information given as to what "confidential" means in regards to the keeping and sharing of medical information.

IOM Recommendations appropriate for the State of Colorado also include:

- The development of a public information campaign specifically on confidentiality issues.
- Presenting extensive education to care providers on confidentiality issues,
- Developing and maintaining a system that responds to breeches of confidentiality,
- Including discussions around confidentiality in relevant curriculums – in both primary health care and continuing education settings.
- Educating clients on the limitations of confidentiality (i.e.: reporting standards),

As stated in the IOM report, by twelfth grade nearly 70 percent of adolescents have had sexual intercourse. It is the committee's opinion that given the high rates of sexual activity and the identified barriers that hinder the ability of adolescents to purchase and use effective barrier methods, condoms and educational prevention messages must be made available not only in schools, but as part of other services targeting adolescents. The committee recognizes the existence of strong evidence that supports school based-SDT prevention programs; however, we feel that a corresponding system also needs to be developed to reach out-of-school youth. A recommended first step would be to identify those organizations and agencies that are currently engaging this population to determine if they could incorporate STD prevention messages into their outreach efforts. If desired, state and local heath departments may wish to collaborate with the community-based organizations to assist in the incorporation of culturally appropriate and effective STD prevention activities. Also, it may be useful to conduct a survey to identify and

locate the multiple venues where high-risk youth congregate (i.e. malls, parks, community centers, etc) as to identify where new venues for interventions may take place.

Since, as the IOM report states, there is no evidence that suggests that condom availability or school-based programs for sexuality or STD education promotes sexual activity the committees finds that the following IOM Recommendations are appropriate for the State of Colorado:

- Set aside resources to encourage public and private middle and high schools to do a system-wide needs-assessment around their ability to provide essential age-appropriate STD related services. These services should include, but are not limited to health education, access to condoms, and readily assessable and available clinical services such as school-based clinical services to prevent STD's.
- Once the needs-assessment has been completed, the school districts should develop strategic plans around either maintaining the provision of or the implementation of the provision of the above STD-related services.
- For those districts not able to provide direct services, linkages should be established between the individual schools and relevant private/public agencies in order to develop a comprehensive STD prevention referral system.

Our recommendation in regards to the availability of the Hepatitis B vaccination is that the State of Colorado should continue the current protocol for child/adolescent Hepatitis B immunization and increase the promotion of access for adults at higher risk.

3. Establishing New Venues for Interventions

As stated at the beginning of this report, it is the committee's belief that the first step in the development of Colorado's prevention plan must be to create a mechanism to prioritize which populations in our state should be classified as under-served or disenfranchised as it applies to STD prevention. As written in the IOM report, innovative methods and alternate venues for intervention are needed because disenfranchised groups represent reservoirs of infection and are very difficult to reach through traditional health care settings. These recommendations should work side by side with those stated within Strategy 5. The committee strongly believes in and supports the establishment of linkages between programs that serve populations at high risk for STD's. Since, at the time this report was being complied, the above mentioned mechanism has not been detailed, the committee only made recommendations pertaining to the correctional and alternative housing systems. These recommendations should be taken as a suggested process that could be applied to other existing systems and settings, not as a complete list.

IOM Recommendations appropriate for the State of Colorado also include:

- Set aside resources to encourage all prisons and other correctional facilities (including youth detention centers) and alternative housing systems (i.e.: residential treatment centers, halfway houses, shelters, etc.) to do a system-wide needs-assessment around their ability to provide comprehensive STD-related services. These services should include, but are not limited to

STD prevention counseling and education, screening, diagnosis and treatment, partner notification and treatment and methods for reducing unprotected sexual intercourse and drug use among prisoners and residents.
- Once a needs-assessment has been completed, the correctional facilities and alternative residential systems should develop strategic plans around either maintaining the provision of or the implementation of the provision of the above STD- related services.
- For those correctional facilities and alternative residential systems not able to provide direct services, linkages should be established between the individual facilities and relevant private/public agencies in order to develop a comprehensive STD prevention referral system.

Strategy 4: Ensuring access to and quality of essential clinical services for STDs.

DEFINTIONS

QUALITY: At a minimum, adhering to CDC established guidelines or the equivalent.

ESSENTIAL CLINICAL SERVICES: To screen, diagnosis, treat, immunize and/or educate clients and their partners for the seven CCSP identified STDs. An established referral network is also essential for those cases beyond the scope of practice for that particular setting.

1. Ensuring Access to Services in the Community

Communication between health care providers will be essential to determine the best approaches for providing quality clinical services to patients in need. Providers will need to implement targeted histories to determine which patients would benefit from STD-related testing and will need to determine how best to reach those patients. Communication between providers should be such that it also allows for the dissemination of new diagnostic and/or treatment information.

IOM Recommendations appropriate for the State of Colorado also include:

- Develop focused patient sexual histories that help determine the need for STD related services. Although STD related services would not be the primary focus of every medical visit, these targeted histories will help ensure that patients most at risk are identified and offered testing. Certain types of health care providers (i.e., reproductive health and family planning providers) should maintain a more heightened awareness of risk factors for STDs and test accordingly.
- Expand the availability of STD-related services not only through the number of providers who perform these services, but also in the times, locations and costs of these services. An assessment should be done to evaluate if the number of providers is sufficient to meet the needs of the community.

- Increase discussions with community partners on how to provide high-quality, comprehensive STD-related clinical services that meet federal and state quality standards most effectively in the communities.
- Improve on going dialogue between all providers of STD related services (including non-governmental agencies) about how to improve the quality of standards for STD-related clinical services. Evaluation should be done to determine if providers have access to trainings that are provided (especially providers in rural areas). In areas where training is provided, there is a need to increase the flexibility of training dates, times, number of participants who can attend and the number of locations where training is provided to ensure that a greater number of people can attend these trainings. In rural areas, alternatives to training courses should be considered (i.e. video conferencing or taped proceedings) so those providers in these areas can stay informed of recent changes in health care policies and procedures.

- Implement improved technological communication between public health agencies and non-traditional providers of STD-related services so that new information about screening, diagnosis and treatment can be disseminated more easily. There is also a need to establish an agency to act as a clearinghouse of information to outside providers of STD-related services. This agency would receive and disseminate information on new guidelines for treatment and diagnosis. They would also serve as a facilitator to answer questions and perform training updates for facilities that provide STD-related services. The clearinghouse would be especially helpful in non-mainstream health care facilities where such information is not readily available. The clearinghouse should utilize such technological resources as teleconferencing, email, Internet updates and list servers in order to distribute current information.

2. Improving Dedicated Public STD Clinics

Ensuring that there is adequate number of providers to provide STD-related services is vital to the success of the IOM recommendations. In addition, ensuring that a consistent and quality standard of care is followed across the state is also important.

IOM Recommendations appropriate for the State of Colorado also include:

- Develop tools to measure whether patients have adequate access to essential clinical services especially in rural areas. If patients do not have services that are easily accessible, the likelihood of ensuring diagnosis and treatment of STDs will decrease. In urban areas, it appears that dedicated public STD clinics currently function as a "safety net" provider of STD-related services for uninsured and disenfranchised persons and for those who prefer to obtain care from such clinics. However, in many rural areas, it is unclear whether the needs of the community are being met.

- Implement better quality assurance tools. The CDC provides outlines of how, why and when to provide STD-related services and outlines treatment regimens, but adequate quality assurance systems to ensure that these guidelines are being followed properly do not seem to be in place. Better follow up systems should be established to ensure that a high standard of care is being met and that the standard of care is consistent between providers.
- Increase partnering between local health departments and schools of nursing, medicine and physician assistants to provide staffing, management, and professional training to the STD clinics. The high volume dedicated public STD clinics have a role to play in not only the initial training but also in the continuing education and ongoing professional development of STD providers from lower volume clinics/practices.

3. Involving Health Plans and Purchasers of Health Care

With the increasing expansion of health plans in the world of health care, it is important to develop a good rapport between providers of health care services and health care coverage. Increasing the number of health plans that cover STD-related services is an essential part of ensuring that patients who need treatment will receive it. It is necessary to stress to providers of health care coverage the importance of covering STD related services and the importance of establishing a partnership between providers of health care and providers of health care coverage.

IOM Recommendations appropriate for the State of Colorado also include:

- Have health plans provide coverage for comprehensive STD-related services, including screening, diagnosis and treatment, and counseling regarding high-risk behavior for plan members and their sex partners, regardless of the partners' insurance status**.** Counseling that encourages prevention of high-risk behaviors should be offered and covered by health plans. An evaluation should be conducted to see the extent of coverage of these services by health care plans.
- Improve communication between those who purchase health care (for their employees' etc.) and those who provide the coverage, as to the importance of providing services for STDs. There needs to be increased discussion with purchasers of health care about the complications of STDs and the importance of preventative services. It is unclear whether purchasers of health care realize the importance of comprehensive STD health care services and take this into consideration when purchasing a health care plan.
- Develop collaborative agreements between health plans and providers of STD-related services to ensure that these services will be covered at the designated health care plan locations. In addition to this, health plans should also work in conjunction with local public health agencies to coordinate STD-related services, including payment for STD-related services provided to plan enrollees by public sector providers, including public STD clinics. Currently, there is a need for an increased awareness both on the part of the public health agencies and the health plans, to coordinate coverage for these services. Health plans should be encouraged to utilize the services of the health agencies for service needs that may not

currently being met. Services, especially preventative, provided by the public health agencies should be marketed as a means to keep treatment costs low for health plans. Health agencies that provide STD-related services including public agencies should also make more of an effort to recruit health plans to cover their services and to develop a system whereby public health agencies can be reimbursed for these services.

4. Improving Training and Education of Health Care Providers

There is a need in Colorado to improve core clinical trainings programs that pertain to STD related services. All appropriate aspects of STD diagnosis and treatment (in compliance with recommendations set forth by the CDC and the U.S. Preventive Services Task Force) should be included in the training of primary health care providers.

Improving Clinical Management of STDs

Appropriate quality assurance measures need to be in place to ensure proper implementation of the CDC guidelines. These measures would oversee such topics as how and when to treat patients, partner treatment, partner notification, types of treatments offered (including guidelines for usage of single-dose treatments) and whether or not premarital testing should be mandated.

IOM Recommendations appropriate for the State of Colorado also include:

- Have those who fund public clinics have a specific responsibility to ensure guidelines/recommendations are being followed (or that specific clinics have written protocols that are being followed). Some measure of culpability needs to be in place and enforced by the funding agent.
- Ensure that all health care providers implement the recommendations of the U.S. Preventative Services Task Force and the CDC regarding clinical screening and management of STDs. An organization should oversee that these standards are being followed and when they are not, there should be systems in place to ensure proper implementation of the policies. In addition, by implementing the clearinghouse discussed earlier, health care providers will have quick and easy access to updates and changes in standards of care to ensure that they receive the most recent guidelines for treatment and diagnosis.
- Evaluate whether state mandated premarital testing is warranted or not, and if warranted, whether this would be better determined on a countywide basis. It would also be beneficial to decide which STD testing (if any) would be most valuable in preventing the spread of STDs if required for marriage licenses.
- To offer single dose treatments for curable STDs in areas where patient compliance is a problem. This would require an evaluation of different areas to see where the patient compliance problems are arising. There should also be a greater push for increased funding to support single dose therapies since single dose treatments generally are more expensive than other treatments. Single dose therapies for treatable STDs would increase patient compliance and decrease the need for patient and partner retreatment. It would also reduce

the spread of curable STDs to additional partners. More should be done in Colorado as well to ensure that insurance companies will cover single dose treatments.

- Provide STD counseling to patients at all health care providers (including traditional and non-traditional health care settings). Counseling should include information on what STDs are, how they are spread, what the signs and symptoms of various STDs are and how they may be best prevented. Insurance companies and other health care plans should be enlisted so patients can be reimbursed or covered in full for services. It would also be advisable that health care plans such as Medicaid which might have patients at higher risk of STDs, make these services more readily available (i.e. offer classes to patients on STD prevention and/or provide incentives to patients who attend these classes).
- Redesign the partner notification program. State and local health departments should begin by implementing changes in the way that information is obtained from the patient - thus ensuring proper patient information so that notification of the partner is faster and more successful. There also needs to be additional communication between organizations that provide STD related services and the organizations carrying out the notification (if other than the provider) so that there is a consistent partner notification program across the state.
- Provide STD diagnosis and treatment to partners. A needs assessment should be done to determine how providers are currently handling partner treatment. It appears that most locations will not provide treatment for patient's partners without a physical examination of that partner. There is a need to examine which laws, regulations and/or policies hinder the treatment of partners without having an exam. A need exists to create a standard of care across the state for partner treatment. There is also a need to make third party payers including Medicaid responsible for coverage of these treatments for partners.
- To implement changes in the system so that insurance providers cover services offered at public sector facilities. Currently in Colorado the local and state health departments provide the majority of STD related services. These services are provided at very little or no cost to the patient, including those patients who have insurance coverage. Health departments would be able to reach a larger number of people if less of their funding was spent to provide health care to people who have health care coverage.

Strategy 5: Develop and sustain two-way linkages between STD prevention services and other related services (e.g. social services, migrant health, corrections, mental health, substance abuse treatment, pregnancy prevention, and communicable disease).

DEFINITIONS

***LINKAGES*:** The spectrum from communication to collaboration. Linkages would allow in the increase of effectiveness of STD prevention and the expansion of these services.

***OTHER RELATED SERVICES*:** Those services that may impact an individual's ability to access and/or have a successful outcome from essential STD related services.

1. The Need for Better Collaboration through Linkages

To deal effectively with the hidden epidemic of STDs in Colorado, our STD prevention system must address the fact that our STD cases are most highly concentrated in populations whose lives are challenged by multiple health issues. Treating STDs in isolation, as if these other health concerns are unrelated, will perpetuate this situation. In addition, where our general health care and prevention system is weakest, our STD prevention system will be most challenged. Therefore, all the systems meant to support health in disproportionately affected communities should be considered a part of our STD prevention system.

2. Linkages in Areas Where STD Prevention and Treatment is Undeveloped

In some regions of Colorado, particularly our rural areas, there are no ongoing, STD-specific services available within a radius of many miles. There are settings where STD prevention services (especially primary prevention) might occur C school health education courses, county nursing services, health care clinics, community health centers C but such efforts are often conducted in isolation, with woefully inadequate resources. Some clients might well seek out services because they have begun to exhibit symptoms, often traveling considerable distances and incurring substantial social, emotional and financial costs to do so. Some clients become aware of their susceptibility because they were named as a sexual partner and get a visit from a partner notification professional. However, there are few (if any) systematic efforts to motivate people to change behaviors that will likely lead to future STD infections. This is particularly problematic in primary prevention; people at the "precontemplative", "contemplative", and "ready for action" stages in behavior change are unlikely to travel long distances or overcome other barriers to access prevention services that facilitate movement toward healthier behavior. Clearly, in such regions of our state, the other strategies mentioned in the IOM report will be extremely difficult to implement.

3. Linkages in Areas Where STD Prevention and Treatment is Moderately Developed

In some regions of Colorado, there are ongoing, on-site STD prevention services delivered by agencies that operate independently of each other, with a minimal referral system in place. Some of these agencies invest in marketing and perform outreach to solicit clients for their own services. Occasionally, when a client presents a need that a neighboring agency is better able to serve, a referral is made. A list of community-wide resources may or may not be distributed to clients. Personality conflicts, turfing, and competition for resources constantly threaten this referral system. In such situations, while these individual agencies may be delivering exemplary STD services in their own right, their community does not have a true STD prevention system. No single agency can serve the full range of needs of every client, and when referrals are sporadic or inappropriate, client needs go unmet and scarce treatment and prevention resources are underutilized. Some of the broader strategies mentioned in the IOM report C overcoming barriers to healthy sexual behaviors, for instance C will only be effectively achieved with a broad, highly coordinated effort with consistent messages across providers, from primary

prevention through treatment. A loosely confederated group of mostly independently providers cannot accomplish this.

4. Linkages in Areas Where STD Prevention and Treatment is Developed the Most

In some regions of Colorado, two or more agencies collaborate to fulfill the STD service needs of a particular community. The collaborations are often formalized through memoranda of understanding, clearly outlining the expectations and responsibilities of the collaborators. When collaborations are fully operational, clients have access to "one stop shopping" for all the services of all the collaborating agencies. Within the limits of confidentiality protection, there is sharing of client information and coordination of services to meet the full range of client needs. Duplication of service is readily identified and eliminated. The collaboration may also include providers of services that are not narrowly defined as STD prevention but highly related, such as social services, migrant health, corrections, mental health, substance abuse treatment, pregnancy prevention, and communicable disease. Often, these nontraditional partners actually provide STD services, especially primary prevention. In other instances, these nontraditional providers "case manage" clients into STD services provided by others or provide a setting for outreach STD services provided outside clinics. Yet as with referral systems, personality conflicts, turfing, and competition for resources constantly threaten collaborations. Ongoing, healthy, broad-based collaborations come closest to fulfilling the ideal of an STD prevention system.

IOM Recommendations appropriate for the State of Colorado also include:

- Resources should be strategically invested to meet the basic needs of at-risk people who live or visit all three types of regions listed above. Not every community is suited for a broad-based, multi-agency collaboration, but such collaborations should be implemented in areas where justified disease burden and multiple agencies operating in a disconnected or loosely confederated manner.

- At a minimum, communities should have access to factual STD information, support for people who need on-the-spot encouragement to begin risk reduction, and the ability to connect people to services that are most likely to meet their needs without being unreasonably far away or otherwise inaccessible.
- Resources may not be available to create such services for every Colorado town or city, but this only makes a rational, strategic system of linkages all the more necessary. The scarce resources we have must be very strategically placed for the people who need them the most, with minimal waste through duplication or underutilization.

Sexually Transmitted Diseases in Colorado

Surveillance Report: 1999

Colorado Department
of Public Health
and Environment

Division of Disease Control
and
Environmental Epidemiology
4300 Cherry Creek Drive South
Denver, CO 80222-1530

August 2000

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Acknowledgements

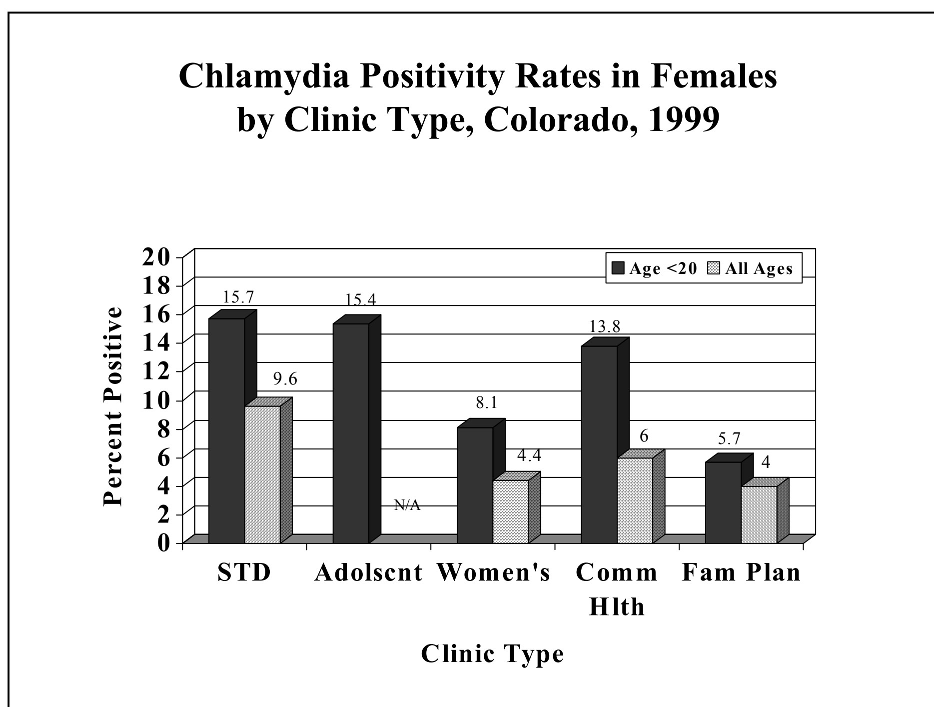
The cooperation of local health departments, physicians, health care providers, and laboratories is greatly appreciated. Without their cooperation, it would not be possible to adequately perform surveillance for STD. Special thanks to all of the family planning clinics, STD clinics, community health centers, and adolescent clinics participating in the Chlamydia Project.

For further information about this report, call Beverley Dahan at (303) 692-2692.

Chlamydia

Summary

Chlamydia is the most prevalent bacterial STD in the United States as well as the most frequent reportable STD in Colorado. Laboratories reported 10,708 positive chlamydia tests to the Colorado Department of Public Health and Environment in 1999. Of these, 75% were in women and 25% were in men. Among women, the 15-19 year age group comprised the largest proportion of positives (39%), whereas, among men, the 20-24 year age group accounted for the largest proportion (39%).



The majority of chlamydia infections in women are asymptomatic and are detected through screening tests. Since most persons tested for chlamydia are women, the number of positive tests reported by laboratories is directly related to the amount of screening conducted in settings where women routinely receive health care.

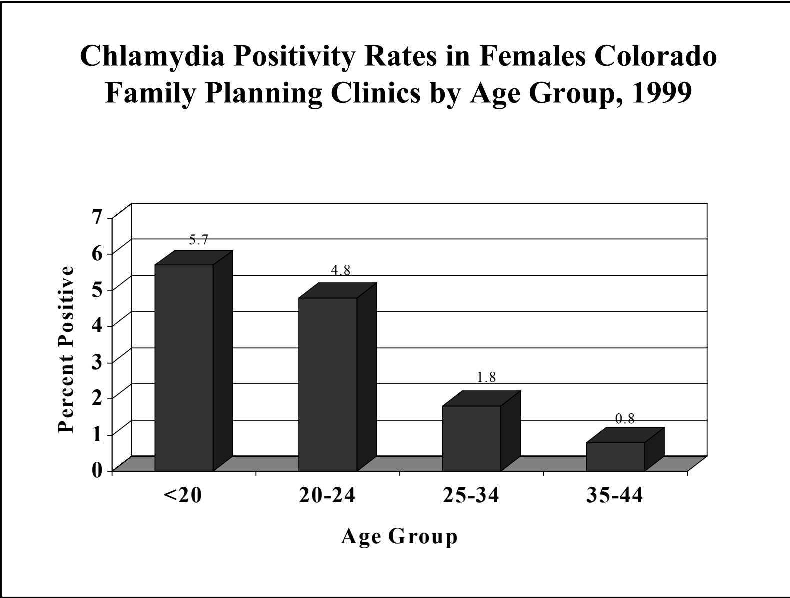
Positivity rates for chlamydia testing may be the most meaningful representation of chlamydia data however, their interpretation has limitations. Chlamydia positivity rates may be most meaningfully compared over time and among different groups when similar screening criteria and similar tests are used.

Data Sources

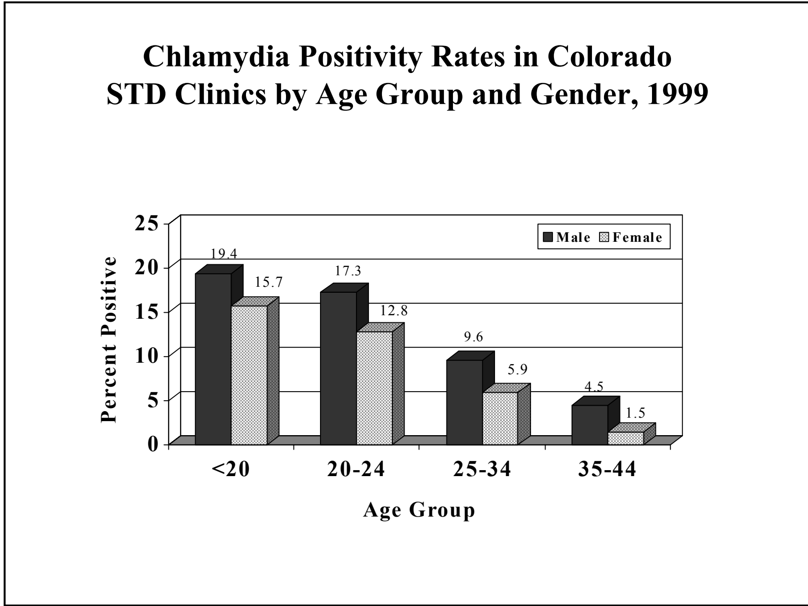
Colorado has been participating in a six state regional chlamydia control project funded by the Centers for Disease Control and Prevention since 1993. The goal of the Chlamydia Project is to reduce the prevalence of chlamydia infections in populations at risk, particularly women at risk who may experience complications from untreated chlamydia infections including pelvic inflammatory disease, ectopic pregnancy, chronic pelvic pain, and infertility. Family planning clinics (public and private) statewide and STD clinics statewide have been the main focus of the project. During 1995, the project expanded to include selected community health centers (including women's clinics) and adolescent clinics.

Characteristics of 1999 Chlamydia Project Data

Chlamydia positivity rates among women (see graph on previous page) were highest in STD clinics and adolescent clinics. Whereas overall rates were similar in women's clinics, community health centers, and family planning clinics, rates among women <20 years were distinctly different in these three clinic types.



In family planning clinics, the highest positivity rates were in women <20 years old with successively lower rates in older age groups. All adolescents are tested for chlamydia in these clinics (universal screening), whereas, women ≥ 20 years old are selectively tested for chlamydia based on the presence of signs, symptoms, or risk history.



In STD clinics, the highest positivity rates among both men and women were in those <20 years old, with successively lower rates in older age groups. Male rates were higher than female rates for all age groups.

Chlamydia positivity rates by race/ethnicity in family planning and STD clinics are shown below.

Rates vary substantially by race/ethnicity, with Whites having the lowest rates in both clinic types. Blacks and Hispanics have the highest rates in family planning clinics and STD Clinic. The numbers of Asians and Native Americans tested in these clinics was small.

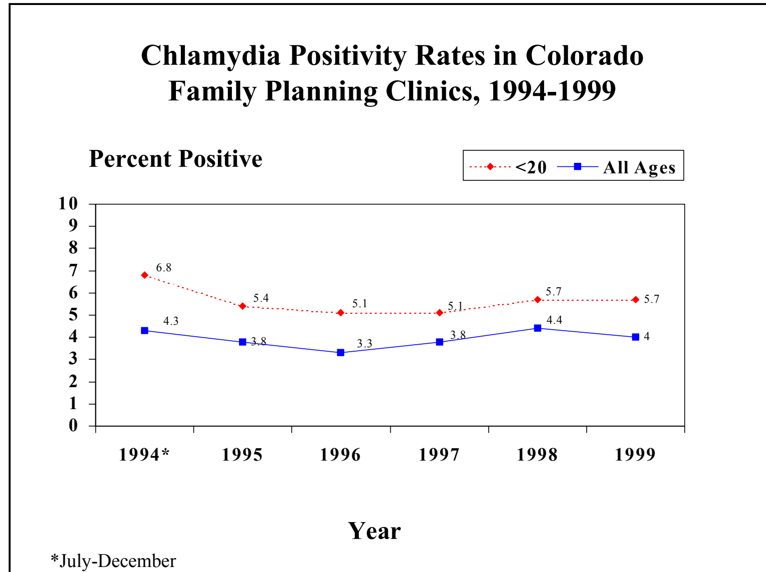
Chlamydia Positivity Rates by Clinic Type and Race/Ethnicity, Colorado, 1999

Clinic Type	White % Pos. (# tested)	Black % Pos. (# tested)	Hispanic % Pos. (# tested)	Asian % Pos. (# tested)	Native Am. % Pos. (# tested)
Family Planning (females)	3.3 (19,443)	8.9 (1,174)	5.7 (5,881)	2.5 (314)	*
STD (females)	7.4 (3,120)	11.1 (1,643)	11.7 (1,726)	*	*
STD (males)	7.0 (4,307)	16.2 (2,569)	15.0 (2,489)	*	*

* Less than 200 persons tested.

Trends

Trends in chlamydia positivity rates are difficult to interpret when there are changes in the test used and/or in screening criteria. Chlamydia rates for family planning patients <20 years old are shown in the figure to the right since screening criteria have remained constant for this age group (universal screening), whereas, screening criteria for family planning patients $\geq$20 years old have changed. In addition, the test type has remained constant (with the exception of one of the clinics).



From 1994 to 1997, the chlamydia positivity rate decreased 25% in family planning patients <20 years old; however, the rate increased 12% from 1997 to 1999. Of note, data available for Title X family planning clinics prior to the beginning of the Chlamydia Project indicate a positivity rate of 11.8% in 1988 among persons <20 years old (universal screening).

Gonorrhea

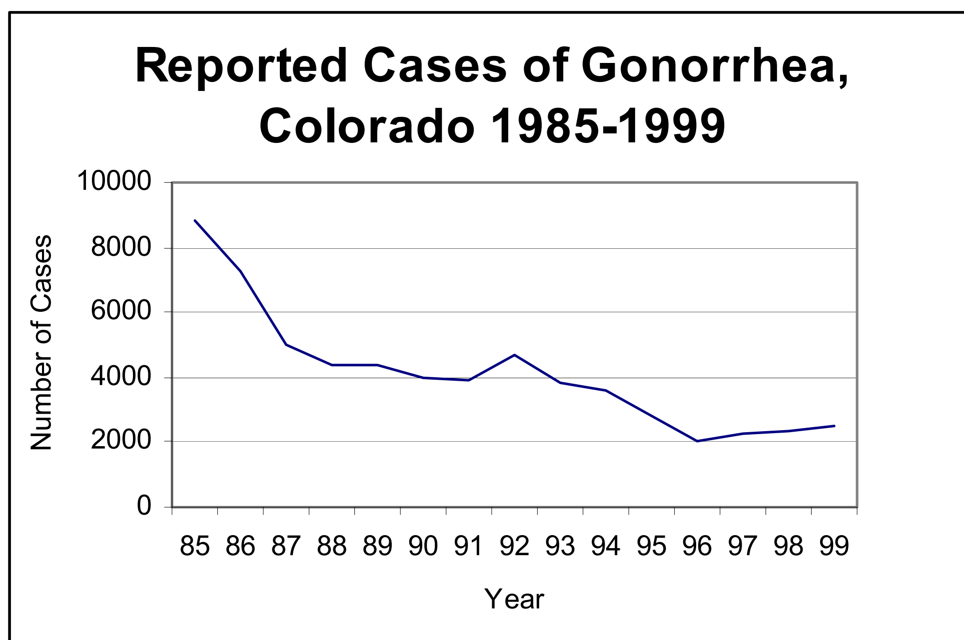
Summary

The numbers of reported cases of gonorrhea in Colorado increased 7% in 1999 (2501 cases) compared to 1998 (2347 cases), contributing to an overall two-year increase of 11% in reported cases. Gonorrhea rates, however, increased only 4% from 1998 to 1999 and 6% from 1997 to 1999.

The 20-24 and 15-19 year age groups continued to have the highest age group-specific gonorrhea rates in 1999. Colorado's 1999 gonorrhea rates overall, among Blacks and among adolescents, were all below the revised national Healthy People 2000 targets for these groups. If cases with race-not-reported are included in race-specific rates by interpolation, gonorrhea rate for Blacks (642 per 100,000) meet the revised year 2000 national target (650 per 100,000). The national target for Healthy People 2010 is set at 19 per 100,000 (currently our state is at 61.7 per 100,000).

Data Sources

Gonorrhea is a reportable condition in Colorado by both health care providers and laboratories. Gonorrhea surveillance data are compiled from case reports submitted by health care providers. Laboratory reports of positive diagnostic tests are used to obtain complete case reports (including treatment) from health care providers. Population data used to calculate rates are 1998-based final population estimates from the Demography Section, Colorado Division of Local Government.



Characteristics of 1999 Cases

The 2501 cases of gonorrhea reported to the Colorado Department of Public Health and Environment in 1999 represented a rate of 61.7 cases per 100,000 persons. The numbers of reported cases and rates among females were slightly higher than among males. By race/ethnicity, the largest number of reported cases and the highest rate were among Blacks. The gonorrhea rate for Blacks (524 per 100,000) was 35 times that for Whites (15 per 100,000), while that for Hispanics (98 per 100,000) was 6.5 times that for Whites.

Characteristics of Reported Gonorrhea Cases - Colorado, 1999

	1999 Reported Cases			% Change[H]
Category	**No.**[']	**(%)**	**Rate**[*]	**1998 – 1999**
Sex				
Male	1226	(49.0)	60.9	8
Female	1274	(50.9)	62.4	1
Age (years)				
0-9	2	(0.1)	0.3	-80
10-14	43	(1.7)	14.6	26
15-19	672	(26.9)	223.7	2
20-24	756	(30.2)	251.9	10
25-34	687	(27.5)	120.2	11
35-44	253	(10.1)	35.1	-2
≥45	88	(3.5)	6.9	28
Race/Ethnicity				
Black	900	(46.4)	523.9	-2
White	472	(24.3)	15.0	13
Hispanic	534	(27.5)	98.5	4
Asian	17	(0.9)	18.1	31
American Indian	15	(0.8)	41.1	36
Region				
Denver metro[I]	1783	(71.3)	90.0	6
Non-Denver metro	712	(28.5)	34.3	8
Total	**2501**	**(100)**	**61.7**	**7**

' Categories may not add up to total (2501) because of missing data. 22.5% of cases are missing race/ethnicity

* Per 100,000 population; 1998-based final population estimates; Demography Section, Colorado Division of Local Government.

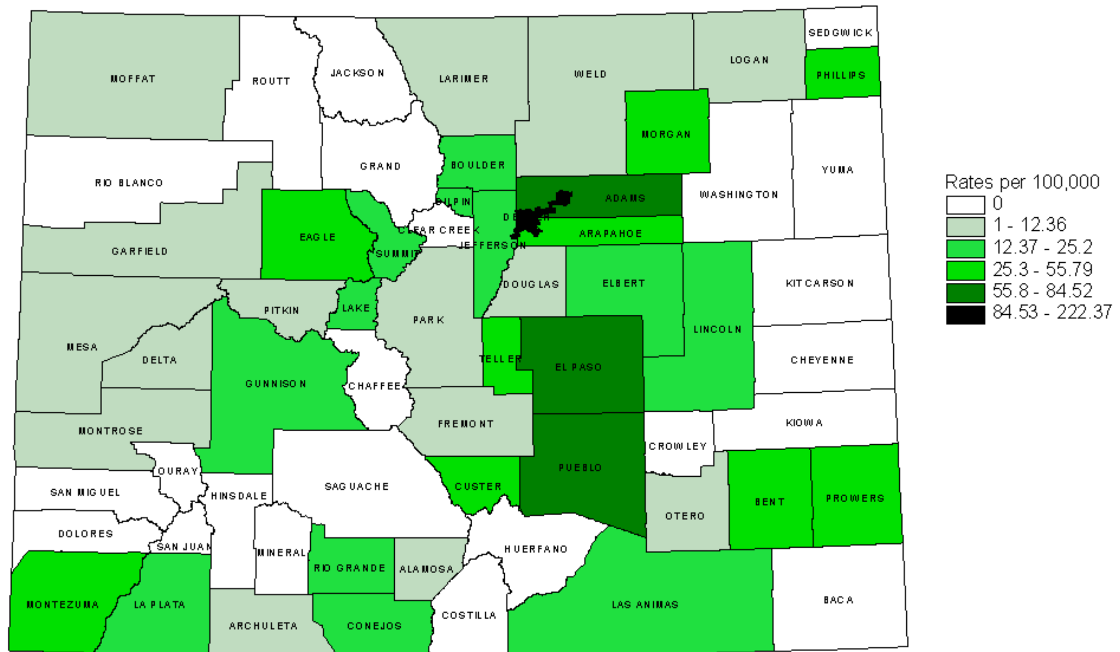
H Percent change in reported cases from 1998 to 1999.

I Denver metro region includes Adams, Arapahoe, Denver, Douglas, and Jefferson counties.

By age group, the largest number of reported cases and the highest rate were in the 20-24 year age group (252 per 100,000), closely followed by the 15-19 year age group (224 per 100,000). Females in the 15 – 19

year age group had the highest age group-specific rate (319 pre 100,000), whereas, females aged 21-24 had the second highest rate (285 per 100,000). The highest rates among males were in the 20 – 24 age group (221 per 100,000). Seventy-one percent of reported cases were from the five county Denver metro area, which also had a rate (90 per 100,000) 2.6 times greater than the remainder of the state (34 per 100,000).

By county, the largest number and percent of reported cases were from Denver (46%), followed by El Paso (17%) and Arapahoe (11%). The Front Range counties of Adams, Arapahoe, Denver, El Paso, Jefferson, Pueblo, and Weld accounted for 92% of reported gonorrhea cases in 1999.



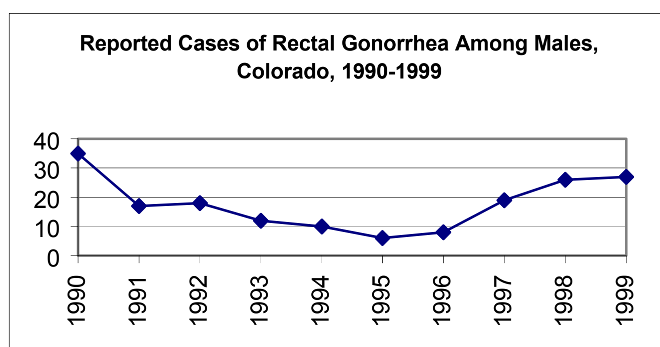
Reported Gonorrhea Cases by County* - Colorado, 1999

County	Cases	Rate/ 100,000	County	Cases	Rate/ 100,000
Adams	244	75.7	La Plata	9	21.5
Alamosa	1	6.2	Larimer	28	12.1
Arapahoe	267	55.8	Las Animas	3	18.9
Archuleta	1	10.9	Lincoln	1	15.1
Bent	2	32.2	Logan	2	10.7
Boulder	45	16.5	Mesa	11	9.7
Conejos	2	25.2	Moffat	1	7.9
Custer	1	29.7	Montezuma	9	39.5
Delta	2	7.5	Montrose	1	3.2
Denver	1160	222.4	Morgan	9	33.7
Douglas	9	6.2	Otero	2	9.4
Eagle	9	26.6	Park	1	7.5
Elbert	3	16.1	Phillips	2	42.9
El Paso	416	84.5	Pitkin	1	7.0
Fremont	5	11.6	Prowers	5	35.7
Garfield	5	12.4	Pueblo	97	71.2
Gilpin	1	23.4	Rio Grande	2	16.4
Gunnison	2	15.0	Summit	3	15.4
Jefferson	103	20.1	Teller	8	38.8
Lake	2	24.0	Weld	20	11.9

Trends

Assessing trends in gonorrhea rates by race/ethnicity is somewhat limited by the substantial proportion of cases reported with no race/ethnicity information (22.5% in 1999). One approach is to use all reported cases to calculate race-specific rates by apportioning cases reported without race/ethnicity according to the race/ethnicity distribution of cases reported with this information. Using this method, the gonorrhea rate for Hispanics increased 23% from 1996 to 1998, while the gonorrhea rates for Whites and Blacks decreased approximately 9 %. These data should be interpreted with some caution.

By age group, gonorrhea rates increased among all groups between 1997 and 1999. Increases were largest for the 44 year and older age group (36%), followed by the 10-14 age group (26%).

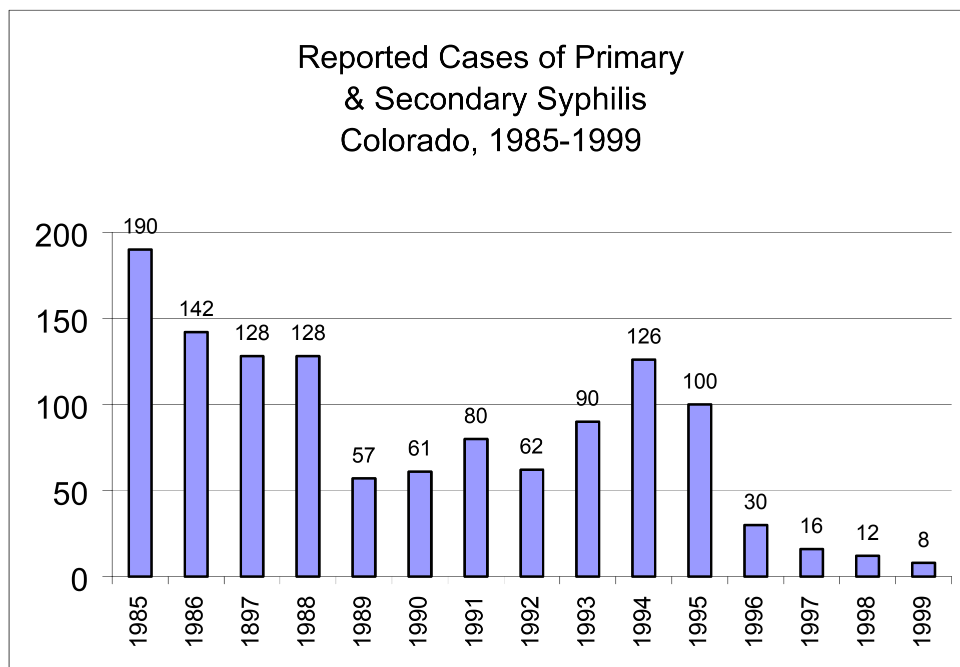


The number of reported cases of rectal gonorrhea among males has increased by over 350% since 1995 when six cases were reported, compared to 27 cases in 1999. In the first six months of 2000 alone, 17 new cases have been reported.

Syphilis

Summary

The numbers of reported cases of primary and secondary (P/S) syphilis in Colorado decreased 33 percent in 1999 (8 cases) compared to 1998 (12 cases). This represents a new low in incident syphilis and suggests the potential for eradication of this STD in Colorado.



Data Sources

Primary and secondary (and early latent) syphilis are reportable in Colorado by health care providers; positive serologic tests for syphilis (STS) are reportable by laboratories. Syphilis surveillance data are compiled from case reports submitted by health care providers and health department disease intervention specialists (DIS). When positive STS are reported, physicians and patients are contacted by a DIS who confirms the diagnosis, determines the stage of syphilis, ensures adequate treatment, and performs partner notification. Population data used to calculate rates are 1998-based final population estimates from the Demography Section, Colorado Division of Local Government.

Characteristics of 1999 Cases

The 8 cases of P/S syphilis reported to the Colorado Department of Public Health and Environment in 1999 represented a rate of 0.2 per 100,000 persons. Females accounted for 75 percent of reported cases.

Characteristics of Reported Primary/Secondary Syphilis Cases - Colorado, 1999

1999 Reported Cases

Category	No.	(%)
Sex		
Male	2	(25.0)
Female	6	(75.0)
Age (years)		
10-14	0	(0)
15-19	0	(0)
20-24	5	(62.5)
25-34	0	(0)
35-44	1	(12.5)
≥45	2	(25.0)
Race/Ethnicity		
Black	1	(12.5)
White	4	(50.0)
Hispanic	1	(12.5)
Asian	0	(0)
American Indian	0	(0)
Unknown	2	(25.0)
Region		
Denver metro[I]	7	(87.5)
Non-Denver metro	1	(12.5)
Total	8	**(100)**

[I] Denver metro region includes Adams, Arapahoe, Denver, Douglas, and Jefferson counties.

Not shown in the table, an additional 6 cases of early latent syphilis were reported in 1999. Therefore, a total of 14 cases of early syphilis (primary, secondary, and early latent) were reported in Colorado.

Reported Primary & Secondary Syphilis Cases by County - Colorado, 1999

Denver Metro		Non-Denver Metro	
County	Cases	County	Cases
Arapahoe	3	Las Animas	1
Denver	4		

Congenital Syphilis

Two cases meeting the congenital syphilis surveillance case definition were reported in 1999. (For the purposes of this report, these surveillance cases are defined as any infant whose mother had untreated or inadequately treated syphilis at the time of delivery, or if mother was treated but had an inadequate serologic response, if there was no specific negative syphilis testing done on the infant.)