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Epidemiology



Bulletin

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Reports

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An Assessment of Expedited Partner Therapy for Enhanced Gonorrhea and Chlamydia Control in Alaska

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Executive Summary

During 2009, a dramatic increase in gonorrhea infections in Alaska prompted the Alaska Section of Epidemiology (SOE) to request assistance from the US Centers for Disease Control and Prevention (CDC) to help identify methods to control the outbreak. Given the substantial challenges of identifying and treating sex partners, particularly those living in remote areas, SOE and CDC staff examined expedited partner therapy (EPT) as a potential tool to help reduce Alaska's high sexually transmitted disease rates. EPT is the clinical practice of treating the sex partners of patients diagnosed with chlamydia or gonorrhea without examination of the sex partners by the health care provider. While prior state law did not explicitly prohibit nor condone EPT in Alaska, in September 2010, the State Medical Board modified regulation 12AAC40.967 to sanction its use.

In June 2010, CDC and SOE staff began an investigation to: 1) determine the knowledge, attitudes, and practices of EPT among policy makers, health care providers, patients, and other stakeholders; and 2) develop a plan for implementing and evaluating EPT as a chlamydia and gonorrhea control measure. The investigative team administered surveys and conducted interviews with providers, patients, and other stakeholders.

The findings from this assessment indicated that EPT is an acceptable partner management tool for the prevention and control of chlamydia and gonorrhea in Alaska. Moreover, the findings suggested that EPT may be a particularly effective partner management tool for specific Alaska populations (e.g., patients unwilling or unable to participate in timely partner services), for specific geographic areas where partners services are not available, and when program resources may need to be redirected (e.g., during outbreak response or due to budget changes). The findings also noted several important limitations of the current evaluation and provided recommendations for EPT implementation in Alaska. A companion Epidemiology *Bulletin* published with this *Recommendations and Reports* provides EPT recommendations for Alaska health care providers; it is available at: http://www.epi.alaska.gov/bulletins/docs/b2011_01.pdf

Introduction

In August 2009, the Section of Epidemiology (SOE) reported an increase in the gonorrhea infection rate in Southwestern Alaska.¹ By March 2010, the increase was occurring statewide.² The 2009 case rate (145 cases per 100,000 persons) demonstrated a 71% increase from the 2008 rate (85/100,000), representing the largest single-year increase in Alaska since the 1970s. From January 2008 to June 2009, the number of gonorrhea tests performed at the Alaska State Public Health Laboratory did not increase; however, the proportion of specimens testing positive increased by 1.3% per month.² Co-infection was also common; in 2009, 296 (30%) reported gonorrhea cases occurred in persons who were co-infected with chlamydia.³ Alaska has had the first or second highest chlamydia case rate in the United States each year since 2000, and infection rates have increased nearly every year since 1996.³

Chlamydia and gonorrhea prevention and control strategies include identification of asymptomatic infections through screening programs and timely treatment of the patient and the patient's sex partner(s).⁴ In most areas of the country, sex partners of patients with chlamydia or gonorrhea are notified of their exposure to a sexually transmitted disease (STD) by the patient (patient-referral). If available, the patient's health care provider or a public health worker helps facilitate sex partner treatment by interviewing the patient to elicit partner information and then contacting each partner (provider-assisted referral). Both patient-referral and provider-assisted referral require that the notified partner access medical care in order to be treated, which is a significant barrier for some partners. One strategy to eliminate this barrier and increase timely partner treatment is expedited partner therapy (EPT), the clinical practice of treating the sex partners of patients diagnosed with chlamydia or gonorrhea without examination of the sex partners by the health care provider.

There are numerous EPT models practiced in the US, including patient-delivered partner therapy (where patients deliver medication or a prescription to their sex partners) and field-delivered partner therapy (where a public health worker delivers medication to partners in a non-clinical setting). Based on scientific evidence gleaned from numerous studies, the US Centers for Disease Control and Prevention (CDC) has concluded that EPT is a useful option to facilitate partner treatment and should therefore be available to health care providers as an additional strategy for partner management.⁵

Little is known about the knowledge, attitudes, and practices regarding EPT in Alaska. While prior state law did not explicitly prohibit nor condone EPT in Alaska, in September 2010, the State Medical Board modified regulation 12AAC40.967 to state that prescribing EPT for sexually transmitted diseases is not considered unprofessional conduct, making it legal for physicians to dispense or prescribe medications for the purpose of expedited partner therapy. Specifically, the new regulation states that "Unprofessional conduct includes the following: (29) prescribing, dispensing, or furnishing a prescription medication to a person without first conducting a physical examination of that person, unless the licensee has a patient-physician or patient-physician assistant relationship with the person; *this paragraph does not apply to prescriptions written or medications issued (A) for use in emergency treatment; (B) for expedited partner therapy for sexually transmitted diseases [italics added].*"⁶

In May 2010, SOE requested assistance from CDC in identifying opportunities for enhanced partner services through EPT. In June 2010, two CDC Epidemic Intelligence Service (EIS) Officers (Drs. Elizabeth Torrone and James Keck) worked with SOE STD Program staff to conduct this investigation. The primary objective was to determine the knowledge, attitudes, and practices of expedited partner therapy for gonorrhea and chlamydia control among policy makers, health care providers, patients, and other key stakeholders. The secondary objective was to develop a plan for implementing and evaluating EPT as a gonorrhea and chlamydia control effort.

Methods

The investigation consisted of four primary data collection activities (Table 1). An *Epidemiology Bulletin* was published on June 11, 2010, to introduce the study and invite participation.⁷

Interviews and surveys targeted health care providers, patients at risk for STDs, and local, state, and tribal STD prevention stakeholders. Two high STD morbidity regions (Southwest and Anchorage/Mat-Su) were purposefully oversampled. Interviews were conducted June 4 through July 2, 2010 and surveys were available online and in clinics from June 11th through July 12th. Meetings were also held with key stakeholders to develop a plan for implementing and evaluating EPT as an STD control effort in Alaska.

Data analysis methods varied according to the activity. Hard copy and online surveys were entered

into surveymonkey.com. Descriptive statistics of responses were calculated using SAS v9.13. The EIS officers transcribed and identified themes of open-ended questions and interview notes using thematic content analysis.

Because this investigation was part of a public health response to the ongoing gonorrhea and chlamydia epidemics in Alaska, the project was determined to be public health practice by both the CDC and Alaska Area Institutional Review Boards.

Results

ONLINE STATEWIDE SURVEY OF PROVIDERS

Of the 146 respondents who completed the online survey, 137 (94%) self-identified as health care providers in Alaska (Table 2). The majority of respondents were nurses (49%) or nurse practitioners (28%). Respondents were primarily female (85%), white (81%) and had been providing medical care for a median of 19 years (range: 6 months–45 years). Although providers participated from across Alaska, 44% reported living in the Anchorage/Mat-Su region; 55% of the respondents reported living in communities larger than 20,000 people.

Characteristics of Respondents' Practice Setting

Respondents provided care in a variety of settings, including Alaska Native hospitals/clinics (36%), public hospitals/clinics (35%), and private hospitals/clinics (26%), which included non-profit clinics and universities (Table 2). The most commonly reported provider specialties were family practice (23%), public health (23%), and obstetrics and gynecology (14%). The majority (72%) of respondents reported diagnosing at least one STD in an average month; and 26% reported diagnosing more than 10 STDs in an average month.

Current Partner Notification and EPT Practices

Ninety percent of respondents stated that they “always” report confirmed or suspected cases to public health (Table 3), 78% reported that they “always” tell patients to have their partners seek care, and 57% “always” collect partner information. However, only 23% of respondents reported “always” following-up to see if partners were treated. Only 15% of respondents stated that “most” or “all” of their patients bring their partners in for treatment. About half (55%) of respondents said that at least some patients refuse or are unable to share their partners' names (Table 3). Only a few respondents reported “always” providing prescriptions (6%) or medication (1%) for partners; however, 39% had

given a prescription and 32% had given medication for their patients' partners at least once.

Attitudes and Beliefs about EPT

Most respondents (88%) agreed that EPT would prevent the spread of STDs in Alaska and most (85%) felt that EPT provides better care for patients by preventing re-infection (Table 4). Sixty percent thought that EPT should be considered the standard of care, while 28% agreed with the statement that EPT was too dangerous without knowing the partners' allergy/medical histories.

EPT use varied by clinical setting (Table 2). Respondents in privately-funded settings reported the highest (80%) prevalence of EPT use and respondents in publicly-funded facilities reported the lowest (11%) prevalence.

Half (52%) of respondents had a “positive attitude towards EPT” (Table 2). Physicians and physician's assistants had the highest prevalence of a positive attitude toward EPT (81% and 100%, respectively) and nurses and community health aides/practitioners had the lowest (37% and 33%, respectively).

EPT Intentions

If a state recommendation were issued, respondents said that they would be willing to give antibiotics for partners (85%), give prescriptions for partners (79%), or request field-delivered partner therapy (90%; Table 5). Nearly all (96%) respondents said they would ever use one of the forms of EPT and 84% said they would use one of the forms “usually” or “always”. Eighty-nine percent of respondents, said they would be willing to use one of the methods of patient-delivered EPT (medication or prescription) and 67% said they would use it “usually” or “always”. Although there were few differences among providers' intentions in using EPT, community health aides/practitioners reported the lowest intended use.

A large percentage of respondents (42%) reported that in order for them to provide EPT, they would require written guidance from the state or an employer, while an additional 44% of respondents reported that such guidance would make them more likely to provide EPT. Similarly, 38% of providers reported that the availability of written instructions to give to patients would be required for the provider to use EPT, while another 46% stated that this would make them more likely to use EPT. Other significant factors that respondents reported would be necessary or make them more likely to provide EPT included: the availability of free medications (27% reported as

necessary to provide EPT and 50% reported as making it more likely they would provide EPT), knowing the name of the partners (21% necessary and 41% more likely), access to the partners' medical records (14% necessary and 37% more likely), and thinking that EPT was the only way partners would be treated (25% necessary and 57% more likely) (Table 6).

In an open-ended question regarding facilitators for EPT use, respondents reiterated the need for clear guidelines from the state and their employers, as well as patient/partner education material for distribution with the medication or prescription. Additionally, respondents stated that legal protection would increase their willingness to provide EPT. In an open-ended question on barriers to using EPT, respondents listed concerns about liability, potential for partners' adverse/allergic reactions, and misuse of medication by patients.

IN-PERSON OR PHONE SEMI-STRUCTURED INTERVIEWS WITH KEY STAKEHOLDERS

We conducted 62 individual interviews and 4 group interviews. Ten interviews were conducted with policy makers at the state-level, including representatives from professional licensing boards, tribal health care facilities and the Alaska Division of Public Health. Fourteen interviews were conducted with community-level administrators, including clinic managers and non-profit directors. Forty-one interviews were conducted with health care providers, including physicians, community health aides/practitioners and nurses. As designed, the majority (75%) of the community-level interviews were conducted in two of the highest-morbidity areas (Anchorage/Mat-Su and Southwest).

EPT Practices

Some respondents indicated that they (or staff at their clinic/facility) were already using some form of EPT for partner treatment. This was particularly the case in tribal health care facilities where providers have the ability to check their medical record systems for partner allergies. Some clinics used a hierarchical approach to partner management, whereby providers encourage the patient to bring their partners in, but if they will not, EPT services are offered. Many providers who had used EPT stated that they usually only provide medication or prescription for one partner.

Attitudes towards EPT

Respondents often stated "it's a good idea" when asked what they thought of EPT. Some provided specific examples of how EPT might facilitate

partner treatment, such as providing additional confidentiality for the patient. Respondents described EPT as being a good "tool in the toolbox" and that EPT may work best with specific populations. Among respondents engaging in direct patient care, some stated that they would use EPT based on their judgment or as long as certain policies or guidelines were in place.

Some respondents expressed specific concerns about EPT. Respondents suggested that EPT might increase antimicrobial resistance and that some partners may have allergic or adverse reactions to the medications. Respondents also questioned patient compliance, suggesting that some patients may not give a medication/prescription to their partners or would keep the medication for future personal use. Others noted that EPT would result in missed opportunities for education and extended partner notification (i.e., reaching partners' partners).

Facilitators and Barriers to EPT

Respondents stated that in addition to state recommendations, having clear guidelines and policies would facilitate EPT use. For example, public health nursing staff would need a medical directive to be able to use EPT. Community health aides/practitioners would need EPT guidelines in the Community Health Aide Manual to use EPT routinely. Other providers may need guidelines from their practice groups. Additionally, providers stated that regulations to decrease liability, such as support from professional licensing boards and state legislation, would increase their willingness to use EPT.

Regarding implementation, some providers stated that they currently do not stock oral treatment for gonorrhea and that a formulary change would be required. Respondents also stated that they would need clear, easy-to-understand patient/partner materials, perhaps in multiple languages, to distribute. In addition, respondents recommended having "provider champions [of EPT]" and that direct contact with providers/health facilities would be needed to ensure implementation of the recommendations.

As previously stated, some respondents expressed concern over allergic or adverse reactions and noted the inability to check for partners' allergies as a primary barrier. Respondents also believed that patient compliance would be a barrier, as patients might hoard the medication or attempt to sell it, might refuse to give medication to all partners, or

might not be able to find all of their partners (sometimes due to alcohol use).

Respondents expressed concern over the logistics of EPT implementation, including how to document EPT in the patient (or partner) chart and how to document partner treatment for SOE.

EPT Method

Respondents noted that in many areas of Alaska there are not retail pharmacies and therefore a prescription-based model would not work. Additionally, respondents thought that many partners would not fill prescriptions due to the time required to go to the pharmacy, as well as cost of the medication. However, respondents noted that having a pharmacy-based model might alleviate provider concerns about allergic and adverse reactions and would provide more opportunities to document partner treatment.

Respondents suggested that having a patient directly provide antibiotics to their partners was the model that offered the least barriers to patients. However, respondents noted that this model may have the greatest perceived risk of adverse outcomes and does not easily allow for tracking of partner treatment.

Respondents suggested some alternative models of EPT, including mail-order from a state pharmacy and cooperative agreements with pharmacists.

Ways to Improve Partner Notification and Treatment

Respondents described a number of ways to improve partner notification and treatment in Alaska independent of EPT. Respondents suggested that collaboration and communication between stakeholders was necessary. For example, one respondent noted that sometimes partners are contacted by multiple providers/agencies due to lack of communication between providers. Respondents in the Southwest region noted that their regional HIV/STD task force, which includes providers from both public health nursing and tribal health care facilities, has been successful in improving service delivery, but that more work is needed. Some non-public health care providers stated that they wanted a better understanding of how partner notification worked.

Respondents noted a need for more personnel to conduct partner notification, such as a designated STD staff person at specific health facilities or increasing the use of public health nurses to conduct partner services, particularly in remote areas.

Respondents advocated for improved patient education regarding the need for a 7–10 day abstinence period following treatment. Respondents suggested that offering training to providers on STDs and partner notification techniques would be useful.

Respondents also suggested using alternate forms of partner notification, such as online notification (e.g., using inSPOT[®]),⁸ or using incentives for partner notification participation.

Other Issues in STD Prevention

Respondents discussed other issues related to STD prevention in Alaska, including increasing access to STD testing and condoms. Alcohol was described as the “root cause” of many STD infections as intoxication might lead to risky sexual behaviors. Providers stated that many patients do not take STDs seriously and that STDs are often considered the “norm”. Many respondents advocated for increasing sex education, particularly in schools and in villages, noting the need for school principal and tribal elder support.

SELF-ADMINISTERED SURVEY OF PATIENTS RECEIVING STD SERVICES OR AT-RISK FOR STDs

Seventeen clinics and venues collected self-administered surveys from their patients. Sites were concentrated in the Anchorage/Mat-Su and Southwest regions and were a convenience sample of public, private, tribal and non-profit venues. Sites in the four other regions were a convenience sample of infertility prevention project clinics and public health centers. Overall, six of the sites were public health centers, seven sites were non-profit or infertility prevention project clinics, three were private clinics, and two were corrections-based. All sites returned completed surveys, but the number of surveys varied greatly by site with the majority of the surveys coming from one public health center in the Anchorage/Mat-Su region.

Characteristics of Respondents

Of the 325 survey respondents, the majority were female (68%), white (61%), and from the Anchorage/Mat-Su region (61%; Table 7). Almost half (45%) were aged 20–29 years old. About a third (36%) lived in communities of over 20,000 people and less than 10% lived in communities of less than 1000 people.

Preferences for Partner Notification and Partner Treatment Strategies

Almost 80% of respondents stated that they would prefer to tell their sex partners themselves if they had an STD (Table 8). More than half said they would be

willing to bring their partners in with them to the clinic or tell them to get tested (54% and 51%, respectively).

Only 27% percent of respondents chose EPT from a list of methods they would be willing to use, but when asked later in the survey for which partners they would be willing to use EPT, 62% of patients were willing to use EPT for all of their partners and 94% were willing to use EPT for at least one of their partners.

Eighty-seven percent of patients said that they would fill a prescription or take medication if given to them by a partner.

Facilitators and Barriers for EPT Use

Not knowing how to find partners was the most commonly reported barrier to using EPT (27%; Table 10). Less than 10% of patients reported that they would keep medication for themselves. A third of respondents stated that there were not any barriers to doing EPT for all of their sex partners.

Perceived Outcome of Partner Treatment Strategies and Disclosure of Sex Partner Names

About half of respondents said that all of their partners would come with them to the clinic to be tested/treated and almost 70% of respondents reported that all of their partners would take medication if the respondent gave it to them (Table 9). The majority of respondents (86%) said they knew the names of all of their sex partners. About a quarter of patients stated that they would not be willing to give the names of all of their sex partners to their health care provider.

Differences by Age and/or Gender

When data were stratified by age and gender, there were some differences in participants' responses. Compared to respondents under 20 years of age, respondents over 30 years of age reported being: more likely to use EPT for all of their partners (70% of respondents over age 30 vs. 56% under age 20) and less likely to keep medication for themselves (6% vs. 12%).

Compared to females, males were less likely to know the names of all of their sex partners (77% of men vs. 93% of women); less likely to give the names of all of their sex partners to their provider (63% vs. 79%); and more likely to report that they didn't know how to find all of their partners (40% vs. 23%).

IN-PERSON OR PHONE SEMI-STRUCTURED INTERVIEWS WITH PATIENTS

Seventeen individual interviews and one group interview were conducted with patients in the

Anchorage/Mat-Su and Southwest regions. Eleven (42%) of the individual participants were female and 85% identified as non-white. The majority of participants were under 20 years or 20-29 years (46% and 42%, respectively).

Attitudes to EPT

Patients interviewed reported willingness to give a prescription or medication to their partners, but some stated that there were some partners they would prefer to have public health notify. Some participants said that they would be most willing to use EPT for their main partner or a partner with whom they were planning on having sex with again. A few patients said that they would not be willing to deliver medications to their partners, stating "I'm not a doctor" and that they would be concerned about their partner having an adverse reaction.

Barriers to EPT

Patients noted that some partners may not fill a prescription due to the challenges of getting to a pharmacy or the cost of the medication. Patients reported that it might be difficult to use EPT for "one-night stands" or "hook-ups".

Best Method for Partner Treatment

Some participants thought that EPT (giving medication) would be the best way to engage sex partners in treatment for potential STDs, while others stated that having their partners come into the clinic would be best.

Other issues in STD prevention

When asked what was needed to prevent the spread of STDs in Alaska, participants discussed more condom availability, more sex education in schools, and increased access to testing. Other participants described how alcohol use is common and often leads to risky behaviors. Finally, some patients interviewed stated that they had been diagnosed with STDs multiple times and expressed their belief that this is considered normal. Some participants residing in more remote areas of Alaska discussed the challenges of being treated in small communities, particularly when the health care provider is "your auntie" or "your girlfriend's auntie".

MEETING WITH KEY SOE HIV/STD PROGRAM PERSONNEL

Multiple strategies for evaluating an EPT program were identified and discussed, with the caveat that it is difficult to consider evaluation when the program details (e.g., EPT method) have not been finalized. One suggestion was to pilot EPT in a few facilities, targeting those that have standardized data collection

infrastructures in place. Process measures could include how many patients were offered and accepted EPT, and for how many partners EPT was issued. This measurement would require additional documentation in disease investigation records.

Another suggestion was to document community-level measures of EPT use through periodic surveys of health care providers, perhaps using the current findings as a baseline.

It was noted that more intensive evaluation efforts, such as contacting partners to document EPT delivery, would require resources outside of the state's capacity. Collaborative efforts, including partnerships with academic institutions, were also discussed.

Currently, there is no standardized method to monitor partner notification outcomes for chlamydia and gonorrhea in Alaska. SOE staff stated that they do not have IT resources to meet their morbidity burden. For example, there is no designated IT support for SOE. Staff expressed a need for personnel for data entry, management and analysis. They also noted that state restrictions are a barrier as they are currently unable to fill open, funded positions due to hiring constraints.

Discussion

Since 2005, CDC has recommended that EPT be made available to providers as an option for partner management of patients diagnosed with chlamydia or gonorrhea.^{5,9} This investigation provides important information about the knowledge, attitudes and practices of EPT among key stakeholders in Alaska, including health care providers and patients.

Similar to national and other state or city-based surveys,¹⁰⁻¹² about half of surveyed health care providers in Alaska reported using EPT. The majority of providers reported believing that EPT would prevent STDs in Alaska and that they would be willing to use EPT if there were state recommendations in place. Similarly, the majority of patients surveyed reported that they would use EPT to get their partners treated and would accept EPT if offered to them by a sexual partner.

The investigation identified differences in EPT use by both provider type and facility setting. Nurses, community health aides/practitioners and providers in publicly-funded sites reported the lowest prevalence of EPT use. Notably, the majority of respondents from public health settings were nurses (85%). Public

health nurses are not able to dispense medications without standing orders and currently there is no medical directive for nurses to use EPT in public health centers. Similarly EPT is not part of the Community Health Aide Manual; therefore, community health aides/practitioners are not currently able to routinely use EPT.

This investigation also identified perceived barriers and facilitators to EPT use. Many of the identified barriers likely could be overcome by policy and regulation changes, such as creating standing orders. For example, although only 35% of health care providers in publicly-funded sites reported a positive attitude toward EPT, 73% reported being willing to use EPT usually or always if there were a state recommendation in place. This suggests that for providers working under medical directives, having policies and guidelines in place will greatly facilitate use of EPT. Additionally, formulary changes to stock oral treatment for gonorrhea is necessary in some places to use EPT for gonorrhea. Having straightforward patient and partner education materials was often named as a facilitator to EPT use. Existing materials from other states could be modified and made culturally relevant to Alaska populations.

Although many patients reported that they would prefer to have their partner(s) come in to the clinic with them, only half said that all of their partners would follow through, in part because it requires effort and resources (e.g., time and money). Required partner effort is reduced by using an EPT pharmacy-model (i.e., no clinical exam is required) and is further reduced if the patient is able to give partners medication directly. Reducing barriers may increase the likelihood of partner treatment, or as one participant stated, "the more accessible, the more successful".

However, EPT does not come without some drawbacks. When partners come into a clinic for treatment, providers can check for allergies, screen for other STDs, provide other services (e.g., family planning services), and offer counseling. Without a clinical visit, these opportunities are lost and providers may feel that they are providing suboptimal care, perhaps at some legal risk. Reducing providers' perceived risk may increase the likelihood of EPT use, particularly for those providers not operating under medical directives. EPT models that are pharmacy-based may be perceived as being somewhat less risky than medication-based models because partners could be screened for allergies by the pharmacist; however, the likely consequence of

pharmacy-based over medication-based EPT is diminished compliance.

There is no clear “best” EPT delivery system and finding the most effective model is a balance between what patients/partners are willing to do and what providers are willing to do. Additionally, due to substantial differences in health care delivery and associated resources across Alaska, it is important to provide flexibility in order to tailor EPT models for different patient populations. For example, a pharmacy model may work well in urban but not rural settings in Alaska. Additionally, it may be beneficial for specific clinics or practices to develop internal EPT guidelines. Based on suggestions from key stakeholders, using “provider champions” and having follow-up meetings/trainings may help facilitate implementation. Educational materials for providers clearly describing scientific evidence for EPT and actual risks (e.g., likelihood of adverse reactions based on other states’ experiences) may facilitate widespread EPT implementation.

Evaluation of EPT outside of clinical trial settings is difficult. The primary challenges to evaluating an EPT program in Alaska will be the lack of an existing infrastructure to monitor partner notification outcomes. Collaboration with other institutions, such as the University of Alaska-Anchorage Department of Health Sciences, may provide opportunities for evaluation.

Survey respondents and interview participants provided some insight on challenges to STD control in Alaska. Both health care providers and patients identified alcohol as a “root cause” of many sexually transmitted infections. Sexual behaviors under the influence of alcohol increase opportunities for disease spread and can hinder partner treatment, even if EPT is available, because sex partners may remain anonymous. Providers’ perceptions that many patients are not concerned about STDs and patient reports of multiple infections suggest that social norms around STDs may influence patients’ sexual risk behaviors. Key stakeholders, including policy makers and patients, advocated for increasing sex education in both schools and villages to prevent STDs. Although this investigation did not systematically examine the impact of sexual behaviors, social norms, and availability of sex education on the chlamydia and gonorrhea epidemics in Alaska, these findings suggest a need to strengthen primary prevention strategies.

This investigation is subject to several limitations. Respondents to both the health care provider and

patient surveys were convenience samples and may not represent target populations. There was no denominator data available for either sample to calculate a response rate. No incentive was offered to health care providers to complete the survey and consequently providers with strong opinions about EPT (for or against) may have been more likely to respond. As the health care provider survey was distributed via preexisting electronic mailing lists, the sample may be biased toward public health workers and nurses. The patient survey was distributed in a sample of clinics, primarily in hub cities; therefore, patients living in more remote areas may be underrepresented. Additionally, the patient survey was completed by patients visiting a clinic and may be biased toward a population with greater actual and perceived health care access. Although we attempted to interview patients diagnosed with gonorrhea or chlamydia or at risk for STDs, we interviewed some patients that reported no sexual risk. Due to logistical challenges in contacting patients, the sample may not represent the target population. Lastly, analysis of the semi-structured interviews was based on notes taken by the interviewer and some themes may not have been captured.

Conclusions

Based on findings from this investigation, EPT is an acceptable partner management tool for the prevention and control of CT and GC in Alaska. EPT may be more effective for specific populations (e.g., patients unwilling or unable to participate in timely partner services), for specific geographic areas where partner services are not available, or for situations when program resources need to be redirected (e.g., during outbreak response or due to budget changes). Monitoring and evaluation of partner services activities can inform where and how EPT may be most useful. EPT represents an additional partner management tool to prevent and control STDs and should not replace other strategies such as partner services, when available.

Recommendations

1. Develop state guidance for EPT use in Alaska that is flexible enough to accommodate the multiple health care delivery systems across the state;
2. Promote EPT in areas where partner services are not available or not successful as indicated by monitoring and evaluation data;
3. Consider piloting EPT in settings where information technology infrastructure and personnel are currently in place to monitor partner

treatment outcomes and use evaluation data to inform EPT recommendations;

4. Collaborate with partners to provide technical assistance on EPT implementation and evaluation; and
5. Improve understanding of high-risk sexual behaviors and social norms to inform and target primary prevention strategies.

Note: This report summarizes the field component of a CDC EPI-AID investigation. Because of the preliminary nature of this investigation, future correspondence, conference presentations or peer-reviewed papers might present results, interpretations, and recommendations that are different from those contained in this document. The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

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Table 1. Activities to Assess Knowledge, Attitudes, and Practices of Expedited Partner Therapy in Alaska

Activity	Target population(s)	Methods	Strategies to reach target population(s)
Health care provider survey	Providers who care for patients with STDs statewide, including <ul style="list-style-type: none"> • Physicians • Nurse Practitioners • Nurses • Community Health Aides/ Practitioners 	Online survey Available Jun 11–Jul 12, 2010	Preexisting LISTSERVs of health care providers <ul style="list-style-type: none"> • Public health nurse email list • Alaska Nurses Association membership list • SOE <i>Epidemiology Bulletin</i> distribution list Email or phone contact with health care facilities with frequent STD reporting to SOE
Semi-structured interviews with key stakeholders	Stakeholders in STD prevention and control, including <ul style="list-style-type: none"> • Policy makers • Administrators • Professional licensing board members 	In-person and telephone interviews Conducted Jun 4–Jul 12, 2010	Purposeful sampling based on geographic distribution of gonorrhea and chlamydia morbidity Persons contacted directly by phone or through referral from a local contact Site visit to Southwest Alaska Jun 14–16, 2010
Self-administered patient survey	Patients who were receiving STD care or who were at-risk for STDs	Online and paper surveys Available Jun 11–Jul 12, 2010	Purposeful sampling based on geographic distribution of gonorrhea and chlamydia morbidity Paper surveys given to clinic patients meeting target population criteria Link to online survey in <i>Bulletin</i> with request for providers to distribute
Semi-structured interviews with patients	Patients diagnosed with an STD	In-person and telephone interview Conducted Jun 11–Jun 30, 2010	Purposeful sampling of patients based on geographic distribution of gonorrhea and chlamydia morbidity Patients contacted by phone or through referral from a local contact (e.g., health care provider) Site visit to Southwest Alaska Jun 14–16, 2010

TABLE 2. Expedited Partner Therapy Practices and Attitudes by Provider Characteristics—Alaska, 2010

	Total*		Used EPT [†]		Positive attitude toward EPT [§]		Willing to do EPT [†] "usually" or "always"	
	N	%	n	% [¶]	n	% [¶]	n	% [¶]
<i>Total</i>	137	100%	53	45%	62	52%	80	67%
<i>Provider type</i>								
Community Health Aide/Practitioner	10	7%	3	33%	3	33%	2	22%
Nurse	67	49%	9	18%	19	37%	36	71%
Nurse practitioner	38	28%	25	66%	22	58%	26	68%
Physician	16	12%	12	75%	13	81%	12	80%
Physician's assistant	5	4%	3	75%	4	100%	4	100%
<i>Sex</i>								
Female	116	85%	43	42%	49	48%	70	69%
Male	20	15%	10	59%	13	76%	10	63%
<i>Race</i>								
Non-white	22	16%	9	45%	12	57%	11	52%
White	111	81%	42	44%	49	51%	67	71%
<i>Number of years providing health care</i>								
<15	41	30%	17	45%	19	50%	27	69%
15–29	40	29%	14	41%	19	86%	22	69%
30+	31	23%	11	41%	12	43%	18	67%
<i>Region of Alaska</i>								
Anchorage/Mat-Su	60	44%	21	44%	27	55%	33	70%
Gulf Coast	5	4%	3	60%	3	60%	4	80%
Interior	19	14%	2	11%	5	28%	11	61%
Northern	14	10%	8	57%	8	57%	10	71%
Southeast	17	12%	9	60%	8	57%	11	73%
Southwest	19	14%	10	56%	11	58%	11	61%
<i>Size of community</i>								
Less than 1000	21	15%	7	37%	9	45%	11	55%
1000–5000	13	9%	7	54%	6	55%	8	67%
5001–20,000	26	19%	16	70%	15	65%	19	86%
More than 20,000	75	55%	22	35%	31	48%	42	67%
<i>Clinic or hospital setting</i>								
AK Native Health Care Facility	49	36%	27	57%	27	56%	29	62%
Publicly-funded	48	35%	5	11%	15	35%	32	73%
Privately-funded	36	26%	20	80%	17	65%	18	75%
<i>Number of STDs diagnosed in a month</i>								
None	21	15%	6	40%	7	44%	9	60%
1–10	63	46%	33	53%	36	59%	43	69%
More than 10	35	26%	13	37%	17	49%	26	77%
Don't know	15	11%	0	0%	1	14%	2	33%

STD: Sexually transmitted disease; EPT: Expedited partner therapy; AK: Alaska

*Some totals do not add up to 137 because some respondents did not answer all questions.

[†]Provide medication or prescription for patient to give to partner.

[§]A summary score of 16 or higher on four attitude questions (score range: 4–20).

[¶]Denominator excludes non-respondents.

TABLE 3. Self-Reported Partner Notification and Partner Treatment Practices for Patients with Chlamydia or Gonorrhea—Alaska, 2010

	Never (0%)		Rarely (1–10%)		Sometimes (11–49%)		Usually (50–90%)		Always (91–100%)	
	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)
<i>When a patient in your clinic is diagnosed with chlamydia or gonorrhea, how often do you or your office staff*...</i>										
Tell the patient to tell their partner(s) to seek care	3	(3%)	5	(4%)	2	(2%)	16	(13%)	93	(78%)
Collect partner information and notify partner(s)	15	(13%)	7	(6%)	10	(8%)	19	(16%)	68	(57%)
Give patient a prescription for their partner(s)	73	(61%)	16	(13%)	17	(14%)	6	(5%)	7	(6%)
Give patient medication for their partner(s)	81	(68%)	20	(17%)	10	(8%)	6	(5%)	1	(1%)
Follow-up with patient to inquire about partner(s) treatment	31	(26%)	20	(17%)	21	(18%)	19	(16%)	27	(23%)
Report confirmed/suspected case to public health	6	(5%)	0	(0%)	1	(1%)	4	(3%)	107	(90%)
<i>When a patient in your clinic is diagnosed with chlamydia or gonorrhea, what percentage of your patients† ...</i>										
Are unable or refuse to provide information to you about their partner(s)	7	(6%)	46	(40%)	42	(36%)	17	(15%)	3	(3%)
Bring their partner(s) in to your clinic for treatment	16	(14%)	41	(35%)	42	(36%)	16	(14%)	1	(1%)

*Percentages represent distribution among respondents who answered at least one question in this section (n=116); 21 respondents did not answer either question in this section. Of the 21, 17 did not diagnose any sexually transmitted diseases (STDs) in an average month or didn't know how many STDs they diagnosed.

†Percentages represent distribution among respondents who answered at least one question in this section (n=119); 18 respondents did not answer any questions in this section. Of the 18, 17 did not diagnose any STDs in an average month or did not know how many sexually transmitted diseases they diagnosed.

TABLE 4. Health Care Provider Attitudes and Beliefs about Expedited Partner Therapy—Alaska, 2010

	Strongly disagree		Disagree		Neither agree/disagree		Agree		Strongly agree	
	n	(%)*	n	(%)*	n	(%)*	n	(%)*	n	(%)*
<i>Expedited partner therapy for chlamydia or gonorrhea...</i>										
would help to prevent the spread of STDs in Alaska	3	(3%)	3	(3%)	9	(8%)	54	(45%)	51	(43%)
helps provide better care for patients by preventing re-infection	4	(3%)	3	(3%)	12	(10%)	51	(43%)	50	(42%)
should be considered the standard of care	8	(7%)	7	(6%)	32	(27%)	34	(28%)	38	(32%)
is too dangerous without knowing the medical/allergy history of the partner(s)	10	(8%)	39	(33%)	38	(32%)	28	(23%)	5	(4%)

**Percentages represent distribution among respondents who answered at least one question in this section (n=120). 17 respondents did not answer any of the questions in this section. Of the 17, 15 did not diagnose any sexually transmitted diseases (STDs) in an average month or didn't know how many STDs they diagnosed.*

TABLE 5. Health Care Providers Willingness to Use Expedited Partner Therapy—Alaska, 2010

	Never (0%)	Rarely (1–10%)	Sometimes (11–49%)	Usually (50–90%)	Always (91–100%)	Method that would be "most effective"
	n (%) [*]	n (%) [*]	n (%) [*]	n (%) [*]	n (%) [*]	n (%) [†]
<i>If there were a statewide recommendation to use expedited partner therapy for partners of patients with chlamydia or gonorrhea, how often would you do each of the following?</i>						
I would give a patient medication for their partner(s)	18 (15%)	10 (8%)	25 (21%)	32 (27%)	32 (27%)	64 (53%)
I would give a patient a prescription for their partner(s)	25 (21%)	14 (12%)	21 (18%)	28 (23%)	29 (24%)	12 (10%)
I would request that a public health worker provide medication to the partner(s)	12 (10%)	20 (17%)	21 (18%)	28 (23%)	34 (28%)	27 (23%)
Other [§]	-	-	-	-	-	17 (14%)

^{*}Percentages represent distribution among respondents who answered at least one question in this section (n=118); 19 respondents did not answer any of the questions in this section. Of the 19, 17 did not diagnose any sexually transmitted diseases (STDs) in an average month or didn't know how many STDs they diagnosed.

[†] Percentages represent distribution among respondents who answered at least one question in this section (n=120).

[§]Nine of the 17 write-in responses were generally opposed to the idea of expedited partner therapy (EPT); the remaining responses were generally in favor or indifferent to EPT and provided a number of situation-specific examples of when respondents might decide to use EPT.

TABLE 6. Health Care Providers' Reported Facilitators to Expedited Partner Therapy Use—Alaska, 2010

	<i>Less likely to provide prescription or antibiotics</i>	<i>Wouldn't affect my decision to provide prescription or antibiotics</i>	<i>More likely to provide prescription or antibiotics</i>	<i>Necessary to provide prescription or antibiotics</i>
	<u>n (%)*</u>	<u>n (%)*</u>	<u>n (%)*</u>	<u>n (%)*</u>
<i>How would each of the following affect your decision to give your patient with chlamydia or gonorrhea a prescription or antibiotics for their partner(s)?</i>				
If the state or my employer provided me written guidance on the practice in Alaska	0 (0%)	16 (14%)	52 (44%)	50 (42%)
If the medications are provided for free to my clinic	2 (2%)	24 (20%)	59 (50%)	32 (27%)
If my patient is able and willing tell me the name(s) of their partner(s)	4 (3%)	40 (34%)	48 (41%)	25 (21%)
If I could access the medical records of my patient's partner(s)	2 (2%)	54 (46%)	44 (37%)	17 (14%)
If I thought it was the only way my patient's partner(s) would be treated	2 (2%)	20 (17%)	67 (57%)	29 (25%)
If my patient's insurance would pay for the medications	1 (1%)	86 (73%)	24 (20%)	7 (6%)
If I had written instructions for patients to give to their partner(s) along with the prescription or medication	1 (1%)	18 (15%)	54 (46%)	45 (38%)

*Percentages represent distribution among respondents who answered at least one question in this section (n=118); 19 respondents did not answer any of the questions in this section. Of the 19, 18 did not diagnose any sexually transmitted diseases (STDs) in an average month or didn't know how many STDs they diagnosed.

TABLE 7. Self-Reported Demographics of Patients Evaluated for Sexually Transmitted Diseases or At-Risk for Sexually Transmitted Diseases (N=325)—Alaska, 2010

	n	%
<i>Gender</i>		
Female	222	68%
Male	86	26%
Missing	17	5%
<i>Race*</i>		
Alaskan Native/American Indian	53	16%
Asian/Pacific Islander	21	6%
Black/African American	25	8%
Hispanic	11	3%
White	218	67%
Missing	19	6%
<i>Age</i>		
Under 20	103	32%
20–29	147	45%
30–39	34	10%
40 or older	24	7%
Missing	17	5%
<i>Region of Alaska</i>		
Anchorage/Mat-Su	198	61%
Gulf Coast	10	3%
Interior	52	16%
Northern	8	2%
Southeast	20	6%
Southwest	16	5%
Missing	16	5%
Outside of Alaska	5	2%
<i>Size of patient's community of residence</i>		
<1000	23	7%
1000–5000	59	18%
5001–20,000	89	27%
>20,000	117	36%
Missing	37	11%

* More than one response could be selected.

TABLE 8. Preferences for Partner Notification and Partner Treatment Strategies (N=325)—Alaska, 2010

	n	%
<i>Best way for partners to be notified</i>		
Tell them myself	255	78%
Tell some myself and have a clinic or public health worker tell some	38	12%
Have clinic or public health worker tell them	25	8%
Other	2	1%
Missing	5	2%
<i>Would you be willing to...*</i>		
Bring partner(s) with you to clinic	175	54%
Tell partner(s) to get tested/treated	167	51%
Give name(s) to health care provider	87	27%
Give partner(s) antibiotics	71	22%
Give partner(s) prescription	53	16%
Other	5	2%
<i>Which partners would you do EPT for?</i>		
All of my partners	202	62%
Only my main partner	78	24%
Only my casual partners	7	2%
Only partners I thought had an STD	14	4%
None of my partners	18	6%
Missing	6	2%
<i>If a sex partner gave you a prescription, would you get it filled?</i>		
Yes	278	86%
No	32	10%
Missing	15	5%
<i>If a sex partner gave you medication, would you take it?</i>		
Yes	243	75%
No	63	19%
Missing	19	6%

EPT: Expedited Partner Therapy; STD: Sexually transmitted disease

** Participants could choose more than one response.*

TABLE 9. Patient's Perceived Outcomes of Partner Treatment Strategies and Disclosure of Sex Partner Names—Alaska, 2010

	All of them		Some of them		None of them		Missing	
	n	(%)	n	(%)	n	(%)	n	(%)
<i>Which of your partners would...</i>								
Go with you to the clinic to get tested/treated	170	(52%)	122	(38%)	27	(8%)	6	(2%)
Go to the clinic on their own to get tested/treated	207	(64%)	107	(33%)	6	(2%)	5	(2%)
Fill a prescription you gave them	205	(63%)	103	(32%)	12	(4%)	5	(2%)
Take medication you gave them	218	(67%)	88	(27%)	11	(3%)	8	(2%)
<i>Do you know the names of your sex partners in last 6 months?</i>	281	(86%)	35	(11%)	4	(1%)	5	(2%)
<i>Would you tell your health care provider the names of your sex partners?</i>	227	(70%)	35	(11%)	42	(13%)	21	(6%)

TABLE 10. Patient's Reported Barriers to Expedited Partner Therapy—Alaska, 2010*

	n	%
Don't know how to find partners	88	27%
Don't want to tell partners	61	19%
Don't want partners to think have STD	46	14%
Partners won't get prescription filled	35	11%
Partners won't take medicine	34	10%
Keep medicine for myself	26	8%
Other (write in)		
Not a doctor/not safe	8	2%
Have only one or no partners	13	4%
Other	15	5%
No reported barriers	102	33%

STD: Sexually transmitted disease

** Participants could choose more than one response.*