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Title: IMPLEMENTATION OF AN EXPEDITED PARTNER THERAPY PROGRAM IN A RURAL ALASKA HEALTH SYSTEM

Abstract: Sexually transmitted disease (STD) is a major problem in the Yukon Kuskokwim Valley of Southwest Alaska. The patients here suffer some of the highest rates of both chlamydia (CT) and gonorrhea (GC) in the United States. The region is experiencing an ongoing epidemic of gonorrhea that started in 2008[1]. In response to the outbreak, local providers formed a task force with representatives from the Yukon-Kuskokwim Health Corporation (YKHC), the Alaska Division of Public Health (ADPH), and the Alaska Native Tribal Health Consortium (ANTHC). The task force divided the problem into short-term (the epidemic) and long-term (high baseline rates) questions. Priority activities focused on the short-term problem in responding to the epidemic. The task force will then plan activities to address the high rates of chlamydia through a comprehensive patient education program on STD awareness and prevention.

The State of Alaska, Section of Epidemiology (SOE) HIV/STD Program, with help from the US Centers for Disease Control and Prevention (CDC) examined expedited partner therapy (EPT) as a potential tool to help reduce Alaska's high STD rates and control the gonorrhea outbreak. The YKHC area was included in this study. Findings from the assessment indicated that EPT may be particularly effective, especially in geographic distant areas like YKHC and to the patients and the medical providers in Alaska. A plan was then developed to implement EPT, first in our hub city of Bethel, followed by the surrounding 50 villages. This area is approximately the size of Oregon with a total population of approximately 25,000 people. This presentation describes the process of planning and the implementation of EPT in the Yukon Kuskokwim Valley of Southwest Alaska.

Introduction: The State of Alaska Epidemiology section began to notice an increase in the already high background rate of gonococcal infections throughout the state in 2008.[1],[2] YKHC became very interested in this problem, as our service area was the most affected in the state. YKHC services an area of 75,000 square miles (roughly the size of Oregon) in Southwestern Alaska and is accessible only by air and river. There are approximately 25,000 people living in more than 50 villages in this area with no roads connecting the villages. Eighty eight percent of the people living in our region are Alaska native. [3] The YKHC manages a comprehensive health care system on behalf of the 58 federally recognized Tribes for 50 rural communities in southwest Alaska. The system includes community clinics, subregional clinics, a regional hospital, dental and optical services, mental health services, substance abuse counseling and treatment, health promotion and disease prevention programs and environmental health services[4].

Within the YKHC system, health care is delivered by a team of providers including Community Health Aides (CHA) in the village health clinics. CHAs are unique providers who practice in the villages without physicians, physician assistants or nurse practitioners. CHAs are typically the first point of access to the YKHC health care system. The CHAs receive extensive training in acute, chronic and emergency care. They usually serve the villages that they grew up in. We could not deliver health care to these remote sites without their experience and ability. Nurses, nurse practitioners, physician assistants and physicians from YKHC support the village clinics. Also in the Bethel community is a State of Alaska, Public Health Nursing Center and a local private health clinic. The Nursing Center provides a wide range of public health nursing services across the YKHC service area.

This report describes how an extensive team of healthcare providers and support personnel addressed the problem of STD in our YK delta.

Methods: The SOE HIV/STD Program staff visited the Yukon Kuskokwim Delta on several occasions during 2009-2010 to characterize the outbreak and assistant local providers in disease control effort. 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. YKHC, CHAs, PHNC and the local private health clinic participated in the investigation.[5],[6] Preliminary results of the joint CDC/SOE investigation were presented at a statewide meeting, hosted by ANTHC in July of 2010. Participants (representatives from CDC, WHO, State of Alaska Division of Public Health and many other health care organizations from around the state) discussed the epidemic and developed strategies to control the still rising rates. YKHC participated in that meeting. Each organization was tasked to develop an “action plan” to address the problems in their region.

A task force was formed at YKHC after the meeting. Members were invited from throughout our organization including: pharmacy, nursing, laboratory, infection control, community health aide program and management. Other community organizations included: ANTHC, SOE HIV/STD Program and PHNC, Bethel office.

Data: Informal discussions began shortly after the statewide meeting. Potential members of the task force were contacted and the make up of the group was explored. After obtaining permission from the YKHC leadership, invitations were sent in January 2011 to personnel throughout YKHC, Bethel and State organizations.

Meetings began in March 2011. The group quickly identified short and long term goals. The primary short-term goal was to control the outbreak and implement expedited partner therapy throughout the YKHC system. The secondary short-term goal was to improve communication and coordination among all of the organizations serving the healthcare of patients in our region. Participants began to discuss long-term goals

including a systematic coordination of local participants in the management of sexually transmitted infections and a comprehensive education program for sexuality and relationships.

The first meetings of the task force achieved the secondary short-term goal by bringing representatives of YKHC and Bethel PHN Center together to discuss common goals. We were able to quickly improve communication, contact identification and standardize treatment protocols between our organizations.

We began to discuss EPT using the state's recommendations from the 2011 publication: “An Assessment of EPT for Enhanced “Gonorrhea and Chlamydia Control in Alaska.”[7] It took approximately 3 months to complete the planning phases with input from the medical staff, the nursing staff, the pharmacy and the health aide program.

The medical staff had very few reservations and adopted the proposal quickly. One email was sent to the entire medical staff that addressed issues of consent, drug allergies and the legal aspects of EPT. We allowed several weeks for comments and discussed the proposal at several regular medical staff meetings in April and May 2011. This was enough to convince the entire medical staff of the usefulness of our project. A guideline for treatment of STD that included EPT was approved by the hospital’s Medical Executive Committee (MSEC) in June 2011.

Pharmacy support took somewhat longer. There were significant concerns about allergies and legal issues involving pharmacists. The Alaska Code for medical providers specifically allows a physician to provide EPT, but it does not address pharmacists. The only pharmacy in Bethel is part of YKHC and is physically located in the hospital. Virtually all prescriptions that are filled in the pharmacy are written by YKHC providers. Those prescriptions are written on a medication reconciliation form that is taken to the pharmacy by clinic staff.

The issue was addressed in the Pharmacy department after a Pharmacy & Therapeutics committee (P&T) meeting on the subject. Not only was EPT endorsed, but significant improvements were suggested and approved. The new process decreased the barriers to both patient and partner therapy. Medications were prepackaged and placed in every clinic for immediate use by the clinic staff, thus eliminating patients long wait at the pharmacy and allowing the clinic staff to conduct directly observed therapy. Prior to this suggestion, many patients who were prescribed medication never picked it up secondary to long waiting times or other factors.

YKHC adapted patient education handouts from the New York City Department of Public Health for use in our program. The teamwork that occurred during the planning phase was exceptional.

We began using EPT at the hospital in Bethel in August 2011. Through February 1, 2012, 188 doses of cefixime and 211 doses of azithromycin have been dispensed for EPT. There were some initial questions from the medical staff about empiric therapy vs.

treatment of only positive test results. These issues were addressed and the program is now widely implemented.

We have already begun to see results. In the third quarter of 2011, we saw a decrease in new cases of gonorrhea for the first time since 2008.[8] Figure 1 We have seen a decrease in the time it took to treat a patient with a positive test from 6.1 to 2.7 days. Figure 2 We have also noticed a steady rise in the percent of partners who have been treated. This has increased from about 15% to 50% during 2011.[Figure 3]

The implementation of EPT in outlying villages was quite difficult. Community Health Aides (CHAs) are the primary providers in the remote communities of YKHC. In order for the CHAs to dispense medication, protocols and procedures must be in place and CHAs must be trained on the new protocol. These protocols and procedures are clearly written in directives found in the Community Health Aide Manual (CHAM). EPT is a new protocol; therefore adoption of the new procedures is required before implementing this change. In place in the CHAM were STD treatment guidelines for infected patients with treatment protocols for medications (cefixime and azithromycin). Treating exposed partners is not new, but the dispensing of medications for one patient to take to a partner is new and requires training for the CHAs.

Development of the training course required five-months of revisions and involved representatives of the medical staff, nursing staff and CHA trainers. The finished product was delivered via the internet using HealthStream® and a Microsoft PowerPoint® presentation. HealthStream® is a web based system that allows YKHC to design and deliver training materials to our widely dispersed personnel. Trainers validated CHAs learning by administering an eight-question test at the end of the presentation. A passing grade of 70% was required.

After the training was complete, we needed to supply the clinic with medications to implement EPT. The clinics have azithromycin but cefixime was not on the village clinic formulary prior to this program. Cefixime was added to the village formulary for ongoing use in STD treatment. The pharmacy supplied Cefixime to the villages in February 2012. As of 1 February 2012, we are still waiting for all of the CHAs to be trained before beginning EPT in the villages.

The task force concentrated on the short-term goal of EPT during most of 2011. In December 2011, we began discussing the long-term goals of education and case management to lower our STD infection rates.

EDUCATION: We expanded our membership to address a comprehensive STD education and develop STD prevention activities. New representatives joined from the Tundra Women's Coalition; Lower Kuskokwim School District (our school system in Bethel) and Planned Parenthood of the Great Northwest. Meetings frequently included teleconferences with Anchorage based ANTHC and Planned Parenthood of the Great Northwest.

CASE MANAGEMENT. YKHC's goal is to have nursing staff dedicated to STD case management, but this is not currently the case due to funding and personnel issues. We decided to seek funding outside of the organization to meet this goal. The YKHC grants department in coordination with the task force developed a letter of inquiry to M.J. Murdock Charitable Trust. The goal is to obtain $350,000 in grants to hire 2 nursing staff for 2 years to jump-start this program. As of 1 February 2012, we have not obtained a reply to our letter sent in December, 2011.

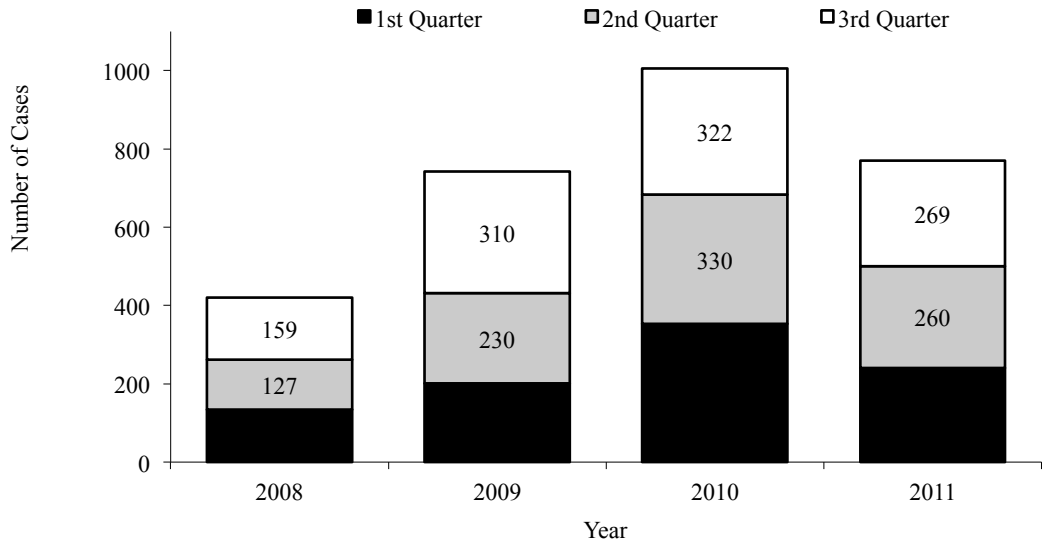
Conclusions: Controlling an STD epidemic is a difficult problem, especially in remote Alaska where communication and travel are complicated by large geographic distances, absence of roads, challenging weather and a complicated system of service delivery. Implementation is complicated when significant institutional change is needed to address the situation.

The community in the Yukon-Kuskokwim delta has demonstrated through the implementation of EPT in less than two years that most of these issues can be overcome with the concerted effort of a determined group of professionals, paraprofessionals, and community members. Our project involved multiple organizations involving state and federal government, a private provider, and a tribal health organization. These are groups that are not known to accept change quickly or easily making our success very rewarding.

Our experience may not translate to every other situation where STD rates need to be addressed. The system offered several advantages. We had almost total control over treatment protocols and screening methods. It is also easier to change provider behavior when all of the providers are employed by the system. The protocol based practice of the health aides was also helpful in standardizing care.

Our work is not complete. GC rates, while down, are not back to baseline. The baseline rates of both CT and GC are among the highest in the country. It is a goal of the task force to change that statistic. We look forward to reporting new developments at future meetings.

Figure 1. Gonorrhea Case Reports, by Quarter — Alaska, January–September 2008–2011



(Contributed by: Donna Cecere BA, Susan Jones, RN, MN, and Samuel Senft, JD, MPH, Section of Epidemiology.)

Figure 2

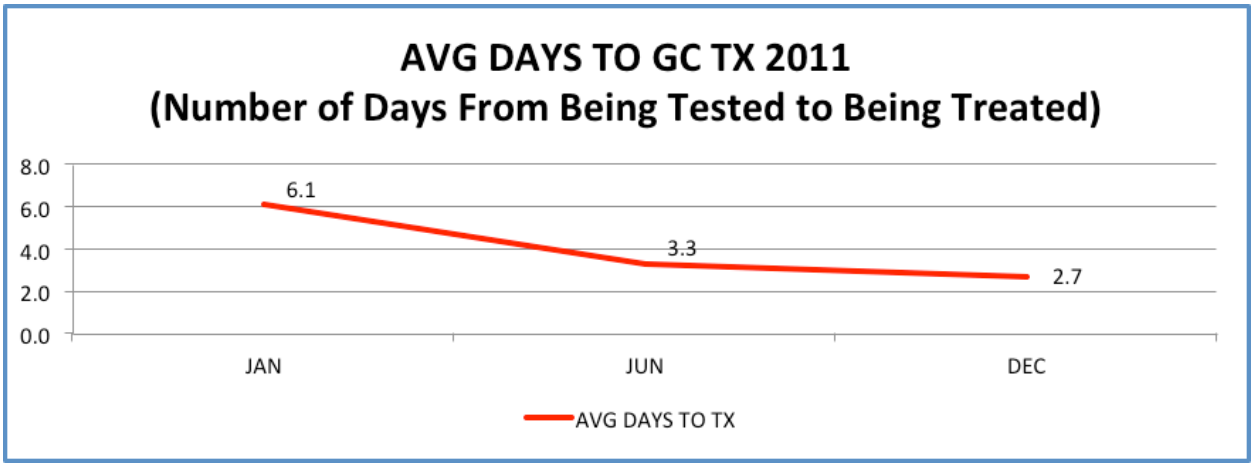
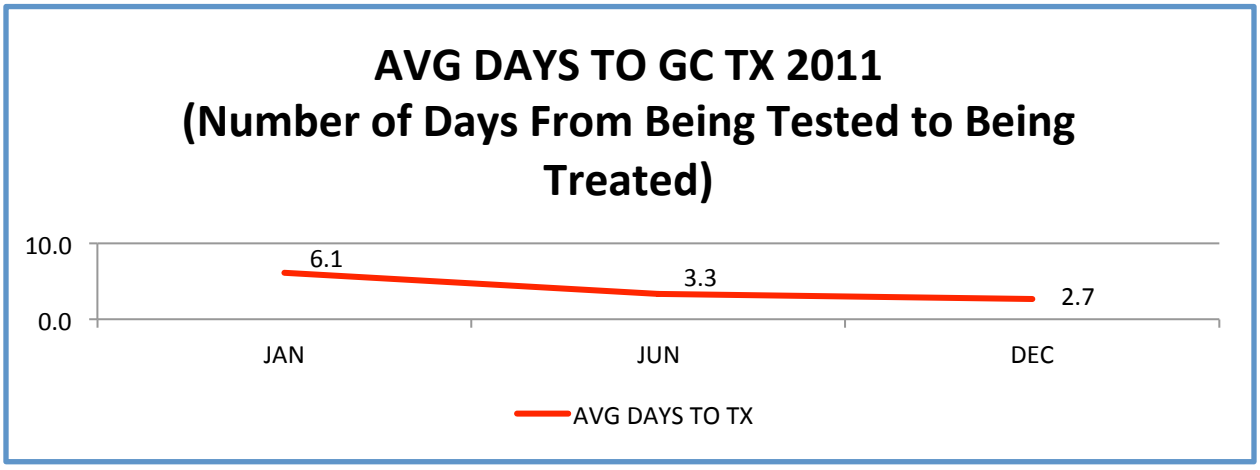


Figure 3



[1] Increased Incidence of *Neisseria gonorrhoeae* Infection in Southwest Alaska*, State of Alaska Epidemiology Bulletin* No. 18, August 7, 2009.
[2] Statewide Increase in Gonococcal Infection – Alaska, 2009. *State of Alaska Epidemiology Bulletin* No. 6, March 9, 2010.
[3] T Norris et al. The American Indian and Alaska Native Population: 2010. U.S Department of Commerce. January 2012
[4] Yukon-Kuskokwim Health Corporation; found at: http://www.ykhc.org/
[5] Could Expedited Partner Therapy Work in Alaska? A Call for Health Care Provider and Patient Input. *State of Alaska Epidemiology Bulletin* No. 15, June 11, 2010
[6] An Assessment of Expedited Partner Therapy for Enhanced Gonorrhea and Chlamydia Control in Alaska. *State of Alaska Epidemiology Bulletin* Number 1, January 12, 2011
[7] Expedited Partner Therapy Recommendations for Alaska Providers. *State of Alaska Epidemiology Bulletin* No. 1 January 12, 2011
[8] Gonoccocal Infection Update – Alaska, 2011 *State of Alaska Epidemiology Bulletin* No 30, November 17, 2011.