

**ANALYSIS OF FIELD DELIVERED THERAPY FOR CHLAMYDIA AND GONORRHEA
IN MARICOPA COUNTY**

A thesis submitted to the University of Arizona College of Medicine – Phoenix
in partial fulfillment of the requirements for the Degree of Doctor of Medicine

Brittany Ebbing

Class of 2017

Mentor: Melanie Taylor MD, MPH

ABSTRACT

Background and Significance

Chlamydia and gonorrhea are among the most frequently reported infectious diseases in the United States. These two diseases are easily treated with antibiotics; however, challenges exist in providing treatment to cases and their sexual partners. Maricopa County implemented a Field Delivered Therapy (FDT) protocol to treat chlamydia and gonorrhea cases and contacts in 2009. Ultimately, this project sought to inform other public health departments across the United States regarding the benefits of FDT program to treat gonorrhea and chlamydia and provide better insight on how to treat the two most commonly reported infectious diseases.

Methods

Existing data was analyzed from April 1, 2011 to October 31, 2014 (42 months) for all patients that received FDT in Maricopa County utilizing pharmacy records and electronic health records (PRISM and eClinicalWorks). The following pieces of information were collected from these data sources: gender, age, race/ethnicity, diagnosis, number of partners, and time to treatment. The data were then divided into four FDT groups (FDT, expedited partner therapy via FDT, FDT attempted and FDT planned).

Results

There were 172 patients in this analysis; 140 diagnosed or in contact with chlamydia and 16 diagnosed or in contact with gonorrhea. There were 79 patients (45.9%) in the FDT group, 28 (16.3%) in the FDT EPT group, 28 (16.3%) in the FDT attempted and 37 (21.5%) in the FDT planned group. The median age of these patients was 23.8 (range 16.6-31); 111 (64.5%) were female. The median time to treatment for these patients was 24.6 days (range 0-64.5 days). Most patients (79.6%) lived outside of central Phoenix. The median number of sexual partners reported by these patients was 6.6 (range 1-19.7 partners). A majority of the patients were <25 years old, except for in the FDT EPT group where 100% of patients were >25 years old. And the group with the largest <19-year-old population (32%) was in the FDT group. All the groups had a female majority, except in the FDT EPT group where 75% of the patients were male. Most patients in the FDT only group received testing at an outside hospital or outpatient clinic, while the FDT attempted and planned were more often tested at the STD clinic.

Future Direction/Conclusion

Many of the patients that received FDT are young women, some pregnant, that lived outside of Central Phoenix. However, a majority of the overall clients that received expedited partner therapy via FDT were male, a typically hard to reach population for treatment of potentially asymptomatic infections. This study demonstrates an effective method of delivering partner treatment to men. This study can be used to inform other public health departments about this novel practice and to help Maricopa County grow their FDT program to reach even more untreated patients.

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INTRODUCTION AND SIGNIFICANCE

Chlamydia is the most frequently reported infectious disease in the United States. In 2015, over 1.5 million cases of chlamydia were reported to the Centers for Disease Control (CDC), which corresponds to an incidence of 481.1 cases per 100,000.¹ However, the CDC estimates that there were an estimated 2.86 million cases of chlamydia that occurred in 2015 with over half undiagnosed or unreported. In Arizona, there were 32,387 reported cases of chlamydia in 2015.² From 2011 to 2015 the number of reported cases of chlamydia in Arizona increased 10% from 451.2 to 481.1 per 100,000. The number of reported cases of chlamydia in Maricopa County in 2012 was 21,795, 67% of the state total.³

Gonorrhea is the second most common reported infectious disease in the United States.⁴ In 2015, the US incidence of gonorrhea was 123.9 cases per 100,000 and 395,216 cases were reported. The CDC estimates that over half of the cases of gonorrhea go unreported and that there were actually 820,000 cases in 2015.⁴ In Arizona, the number of reported cases was 8,245.⁵ The rate of gonorrhea in Arizona increased 50% from 2011 to 2015. In Maricopa County, 6,495 cases were reported in 2015.⁶ The dramatic increase in gonorrheal infections has prompted the CDC and Arizona Department of Health Services to increase surveillance and evaluate gonococcal isolates for antibiotic resistance.

Chlamydia and gonorrhea are known as “silent” diseases as most patients are asymptomatic or have very mild symptoms.^{1,3} However, if they are left untreated they can lead to severe complications, such as Pelvic Inflammatory Disease (PID). PID can cause infertility, severe abdominal and pelvic pain, or deadly ectopic pregnancies. Both STDs can increase a person’s likelihood of acquiring HIV. Additionally, if chlamydia and gonorrhea are left untreated in pregnant women there is a chance for preterm labor or for the infection to be passed on to the baby.^{1,3} The US Preventive Service Task Force (USPSTF) recommends screening for chlamydia for sexually active women under the age of 24 years old and for older women that are at an increased risk.⁷ Chlamydia is easily treated with antibiotics.⁸ The screening guidelines for gonorrhea from the USPSTF are that all sexually active women if they are high risk (i.e. young or other risk factors).⁹ Gonorrhea is slightly more difficult to treat due to the increasing

drug resistant strains of the infection, but can also be easily treated with the right combination of antibiotic therapy.³

Field Delivered Therapy (FDT) has commonly been used to treat infectious disease, such as tuberculosis. In 1999, the San Francisco Health Department established a FDT program for the treatment of chlamydia and gonorrhea.¹⁰ The process of FDT is that antibiotics that are delivered by a Communicable Disease Investigator (CDI) to patients that either cannot or will not come to the STD clinic to be treated. The antibiotic pack is given to the infected patients and they are taken in the presence of the CDI. FDT has been shown to increase compliance and treatment of infectious diseases. The San Francisco Health Department evaluation of their FDT program showed that there was an increase in treatment of both gonorrhea and chlamydia after the implementation of FDT. In 2009, Maricopa County implemented a FDT program to increase compliance with treatment of these two STDs.

Per Arizona Administrative Code (sections R9-6-312, R9-6-330 and R9-6-368) the MCDPH-STD program is responsible for Case and Contact control measures for Sexually Transmitted Diseases (STD).¹¹ In Arizona, state statute (ARS 32-1401) allows for the delivery of medications by public health personnel for the treatment of communicable diseases in response to a communicable disease investigation. Statute support of this public health activity allows for expanded treatment options for patients that are unable to return to a clinical facility for treatment. These activities may incur a cost beyond that of routine treatment administered through the clinic. However, higher rates of treatment completion can result in decreases in community transmission. Patients diagnosed with chlamydia and gonorrhea in the Maricopa County STD clinic are contacted by communicable disease investigators for partner elicitation. This contact affords the opportunity for these public health staff to ask the patient to return for treatment or offer field delivered therapy. To date, no local evaluation of this process has been performed.

While there has been previous research about the use of FDT for the treatment of chlamydia and gonorrhea, the last published research was from 2002. Since then, there has been a significant increase in the incidence of both chlamydia and gonorrhea. Therefore, an updated research study to analyze the FDT program will provide new insight into the efficacy of

FDT. Additionally, very few counties report using FDT to treat chlamydia and gonorrhea, so this research could provide recommendations for public health departments to potentially increase the compliance and treatment of these STDs. Overall, the goal of this project is to provide important insight into additional options for treating and preventing these communicable infections

Research Questions

1. What is the profile (demographic information, time to treatment, number of partners) of the patients that received Field Delivered Therapy (FDT) for gonorrhea and chlamydia in Maricopa County?

We will use existing data from the Maricopa County Department of Public Health. We hypothesized that those who received Field Delivered Therapy would be younger patients, who have fewer resources to receive care, took longer to get treated, and have more partners than those patients that did not receive FDT.

2. Assuming that these patients or partners would not otherwise have presented for treatment, what is the contribution of this practice (FDT) in increasing the number of persons receiving treatment and averting additional infections in the community.

We hypothesize that the number of cases (patients and partners) of gonorrhea and chlamydia that were treated in Maricopa County increased after the FDT program was started.

Analysis of the patients and partners that were treated with Field Delivered Therapy (FDT) will help us identify the efficacy of the program in treating gonorrhea and chlamydia. The data we generate from this retrospective analysis will help determine if this relatively new method of treating gonorrhea and chlamydia is effective in helping treat these cases in Maricopa County. Finally, this data could help to better inform other public health departments and help them determine if their health department could benefit by implementing the FDT program to treat gonorrhea and chlamydia.

RESEARCH METHODS AND MATERIALS

Study Population and Design

We used available data on all eligible patients and partners that received Field Delivered Therapy between April 1, 2011 to October 31, 2014 and assembled a retrospective cohort of patients with chlamydia and gonorrhea. Data sources included pharmacy records of all patients that received the oral drugs used to treat these two STDs (azithromycin or doxycycline for chlamydia and cefixime and azithromycin for gonorrhea) as well as the electronic medical system ECW for patient records and demographic information and PRISM which is a statewide tracking system for reported sexually transmitted diseases. The following pieces of information were collected from these data sources: gender, age, race/ethnicity, diagnosis, number of partners, and time to treatment. The data were then divided into four FDT groups. These included: (1) FDT only, (2) FDT via expedited partner therapy, (3) FDT attempted, and (4) FDT planned. The FDT attempted and planned groups included patients that ultimately returned to the STD clinic instead of receiving FDT.

Pharmacy Data Collection

Prescriptions for field delivered therapy were written by a clinician and given to a communicable disease investigator (CDI). The CDI then takes the prescription(s) to the MCDPH pharmacy where the medication is filled and given to the CDI for field delivery. The CDI records delivery of the medication in the STD surveillance system PRISM. Pharmacy records were pulled to gather the number of medications prescribed, filled, and picked up by CDIs. Then the pharmacy data was cross-matched with patients in PRISM and eClinicalWorks (eCW). The records were reviewed for treatment completion as well as patient and partner sexual risk information.

Statistical Analysis

Descriptive statistics (means and medians) were used to describe the demographic information, time to treatment, and treatment rates for chlamydia and gonorrhea. We then used bivariate analysis to compare the difference between the four FDT groups (FDT only, FDT EPT, FDT attempted and FDT planned). All data analysis was completed using SPSS software. Data with p-values less than 0.05 will be considered statistically significant.

RESULTS

Demographic of FDT Population (Table 1)

The chart review revealed 172 total patients for which FDT was either received, attempted during the time frame that data was collected. The average age of the FDT population was 23.8 years and 61% of the population was female. Most of the people treated were patients (N = 137, 79.6%) versus partners (N = 35, 20.4%). The patients most commonly were infected with chlamydia (81.4%) versus gonorrhea (9.3%) versus dual infection with both gonorrhea and chlamydia (9.3%). Partners were most commonly in contact with patients with chlamydia (N=22, 79%) versus gonorrhea (N=2, 7%) versus gonorrhea and chlamydia (N=4, 14%). The mean time to treatment for these patients was 24.6 days. The mean number of partners was 6.6. Most the patients (79.6%) lived outside of Central Phoenix.

Table 1: Demographic and Clinical Characteristics of the Total FDT Population.

Variables	Total Population N=172
Age (years, SD)	23.8 ± 7.2
Gender (female, %)	111 (64.5)
Person Treated (n, %)	
Patient	137 (79.6)
Partner	35 (20.4)
Type of Infection (n, %)	
CT	140 (81.4)
GC	16 (9.3)
GC and CT	16 (9.3)
Time To Treatment (days, SD)	24.6 ± 39.9
Pregnancy	
Yes (%)	15 (8.2)
No (%)	152 (88.4)
Unknown (%)	5 (2.9)
Number of Partners (mean, SD)	6.6 ± 13.1
Location in Maricopa County (n, %)	
Central Phoenix	35 (20.4)
Not Central Phoenix	137 (79.6)

Demographics and Characteristics of Stratified FDT status (Table 2)

For this part of the results we categorized the demographic data into four distinct groups. The first is the FDT group, which comprises patients that successfully received treatment for chlamydia and/or gonorrhea in the field. The FDT/EPT group, are partners that received expedited partner therapy for empiric treatment of their exposure to chlamydia or gonorrhea in the field. The FDT attempted group, are patients that had field delivered therapy attempted but was not successful for a variety of reasons. The final group is the FDT planned, which are patients for whom field delivered therapy was planned, but was not done.

The majority of patients that received FDT were less than or equal to 25 years old (62%) and only 32% of patients were less than or equal to 19 years old. For those that received expedited partner therapy (EPT) as FDT were all (100%) over the age of 25 years old. In the FDT attempt group, a greater percentage were older than 19 years (%) as compared to other groups. In the FDT planned group, most patients were less than or equal to 25 years old (62%), The p-value for the 25-year-old and 19-year-old age categories was significantly different among FDT groups (<0.001 and 0.009, respectively) (Table 2).

The gender of the FDT group was predominantly female (78%), while the FDT/EPT group was primarily males (75%). For the FDT attempted group it was again predominately female (71%) and the same for the FDT planned group (60%). There was a significant difference among FDT groups by gender, ($p < 0.001$) (Table 2).

There was no statistical difference among race groups within the FDT groups. As far as location, significantly more patients lived outside of the Central Phoenix area: 88.3% of FDT patients, 71.4% of those receiving EPT via FDT, 40.7% of patients with attempted FDT, and 83.8% of patients that FDT was planned. The p-value is 0.01 (Table 2).

The mean time to treatment for most patients in the FDT group was greater than 14 days (56%). All patients (100%) that received EPT via FDT received treatment greater than 14 days. The p-value was <0.001 (Table 2).

The providers that diagnosed the cases of gonorrhea and chlamydia is extremely varied. For the FDT group, a hospital (29.1%) was the most common, followed by county outreach (18.9%), and outpatient clinics (18.9%). For the patients in the FDT/EPT group it was unknown

because most were not tested and were given treatment only because their partner tested positive. For the FDT attempted group, a majority of those patients received testing at the STD clinic (39.3%), followed by county outreach (14.3%) and outpatient clinics (14.3%). Finally, for the FDT planned group, a majority received testing at the STD clinic (43.2), then a hospital (24.3%), and county outreach (13.5%). (Table 2)

Table 2: Demographic and Clinical Characteristics of the Total Population Stratified by FDT Status

Variables	FDT n=79	FDT and EPT N=28	FDT Attempted N=28	FDT Planned N=37	P-Value ¹
Age Category (n, %)					<0.001
≤ 25	49 (62.0)	0 (0)	14 (50.0)	23 (62.2)	
>25	30 (38.0)	28 (100)	14 (50.0)	14 (37.8)	
Age Category (n, %)					0.009
≤ 19	25 (31.7)	0 (0)	7 (25.0)	11 (29.7)	
>19	54 (68.4)	28 (100)	21 (75.0)	26 (70.3)	
Gender (males, %)	17 (21.5)	21 (75.0)	8 (28.6)	15 (40.5)	<0.001
Race (White, %)	21 (26.6)	7 (25.0)	3 (10.1)	8 (22.2)	0.38
Location (Central Phoenix, %)	10 (12.7)	8 (28.6)	11 (39.3)	6 (16.2)	0.01
Time To Treatment (days)					<0.001
≤ 14	35 (44.3)	0 (0)	10 (35.7)	21 (56.8)	
>14	44 (55.7)	28 (100)	18 (64.3)	16 (43.2)	
Provider (n, %)					<0.001
STD Clinic	12 (15.2)	1 (3.6)	11 (39.3)	16 (43.2)	
Hospital	23 (29.1)	0 (0)	3 (10.7)	9 (24.3)	
Urgent Care	5 (6.3)	0 (0)	0 (0)	0 (0)	
County Outreach	15 (18.9)	0 (0)	4 (14.3)	5 (13.5)	
Out Patient Clinic	15 (18.9)	0 (0)	4 (14.3)	4 (10.8)	
IHS	4 (5.1)	0 (0)	1 (3.6)	0 (0)	
Jails	5 (6.3)	0 (0)	1 (3.6)	1 (2.7)	
Other	0 (0)	0 (0)	0 (0)	0 (0)	
Unknown	0 (0)	27 (96.4)	4 (14.3)	2 (5.4)	

¹P-Value calculated using χ^2 or Fisher's Exact Test

Qualitative Data of Reason for FDT (Table 3)

In the database, there was a space for the communicable disease investigators (CDI) to state the reason the patient could not come into the clinic to received treatment. The most common denotation (27.8%) was simply that the patient “could not make it into the clinic”. The next most common reason was work conflicts (19%) that prohibited them from making it into the clinic during normal business hours. Another common issue was lack of transportation (11.4%). Several patients that received FDT were high school students (8.9%) and they received their treatment at school.

The “other” category comprises many patients (19%). The reasons in this group ranged from cost, being on house arrest, living in a group home, diversion class attendee, or did not want family to find out. One patient said they had “a social image to maintain and could not be seen at the clinic.” A small group of patients (5.1%) did not have a reason listed in their chart. (Table 3)

Table 3: Qualitative Data of Reason for FDT

Variables	FDT group N=79
Could not make it into clinic	22 (27.8%)
Work conflicts	15 (19.0%)
Transportation issues	9 (11.4%)
School	7 (8.9%)
Easier for patient	4 (5.1%)
Primary caregiver	3 (3.8%)
Other	15 (19.0%)
Unknown	4 (5.1%)

DISCUSSION

Major findings of this study highlight some access to treatment challenges among the patients that receive care through FDT. The demographic data analysis demonstrated that the average age of FDT patients was 24 years, which is slightly older than what we hypothesized. The age group with the highest incidence of chlamydia and gonorrhea in Maricopa County is <24 years old so the age fits within that category. Although we hypothesized younger, adolescent patients would have more difficulty accessing care, this age group represented a smaller proportion of the FDT group. Additionally, most of the patients (64.5%) were female, which is consistent with the fact that more women are reported with chlamydia and gonorrhea.

The majority of the patients treated via the FDT program were patients (80%), but we also described the subset of people receiving care through the FDT program as sexual partners of cases (20%). To our knowledge, this is the first study to describe field delivery of partner therapy. EPT for chlamydia and gonorrhea was made legal via statute in 2008.¹¹ Since then, providers have been able to prescribe or dispense antibiotics to the case patient for delivery to their sexual partners. Maricopa County Health Department expanded this public health treatment option by having CDIs deliver the treatment to the exposed partners in the field. Although the number of partners treated via this program was small, these data can help guide future research and evaluation. In addition, this is an area in which Maricopa County and other state or county health departments could expand. Offering FDT for sexual partners exposed to chlamydia or gonorrhea likely improves access to adequate treatment and treatment coverage.

Most patients were infected with chlamydia (81.4%), which is what we hypothesized due to the increased prevalence of chlamydia compared to gonorrhea. The average time to treatment was between 4 and 6 weeks thus many of these FDT patients went for almost a month between testing and treatment. This period during which patients are infected but untreated represents a time when the infection can be spread to other partners. Despite the delay in treatment, these patients and partners may have otherwise gone untreated. This represents the primary reason for the development of the program. In this study, we assume that these 172 patients would have either remained untreated or would have experienced even longer delays in time to treatment were it not for FDT. The average number of partners was 6.6

partners per patient. Were our 172 patients to be left untreated, ongoing sexual activity over time would have exposed multiples (up to 6 times more) of additional sex partners to these STDs.

Among the patients and partners in this evaluation, 20% lived in Central Phoenix (closer to the STD clinic), whereas the other 80% lived outside of the Central Phoenix area. Longer distances to the clinic is a common challenge for patients to come into the clinic for treatment. Maricopa County is a large geographic area with only a small portion containing 95% of the county's population.¹² This is one of the reasons the FDT program was started to help reach those individuals that live further away from the Phoenix city center and have less access to local resources such as the STD clinic in central Phoenix. These data demonstrate that the program is primarily serving the patients in those areas.

Among the 4 FDT categories, the group with the highest percentage of patients ≤ 19 years was the FDT only group (31.7%). This may reflect disease morbidity, the untreated proportion of overall patients being more likely to be younger, or a CDI preference for delivering FDT to younger clients given the understanding of limited transport and other resources among this group. Treating younger populations with FDT is of great value as these patients are more likely to not have transportation and to be in school and less likely to have the ability to come to the STD clinic to be treated. The group with highest percentage within Central Phoenix was FDT attempted (39.3%). This is one of the challenges of the program. Over 16% of all FDT visits were in the FDT attempted group meaning that these individuals did not receive treatment via the CDI. From a cost-benefit perspective this can be seen as a "wasted" field trip for the CDI and the health department. To ensure that this is productive and cost effective a system of confirming the patient's participation may be needed. This may be difficult as these patients are already difficult to reach.

The gender of patients was usually female, except for in the FDT EPT group where 75% of patients were male. This is again a place where the FDT EPT group differs from the rest of the FDT groups and the FDT demographics on a whole. We hypothesized that FDT patients, in general, were more likely to have a female majority because women are more likely to be screened and tested. However, the fact that the FDT EPT group had a male majority is not

surprising as these are the partners of patients, usually female, that were not receiving testing. Young women with untreated chlamydia or gonorrhea can experience infertility, PID, etc. This program resulted in treatment of 111 women that would have otherwise gone untreated.

Time to treatment was delayed greater than 2 weeks in many of these patients. The FDT attempted group was the only group that had received treatment quicker with 56.8% of patients receiving treatment in less than 14 days. These patients seemed to get back into the STD clinic to be treated shortly after the CDI attempted to deliver FDT. We expected the FDT attempted group to be patients that are more difficult to reach and thus would delay treatment longer. All the patients that received EPT via FDT received treatment greater than 14 days after testing. This was most likely because these patients were not tested and the test date of their partner was used to calculate time to treatment. FDT generally is delayed given that some time is given for the patient to present to the clinic for treatment. However, 72% of these patients received treatment in less than one month reducing further time for transmission to other sexual partners.

The most common provider of diagnosis for patients diagnosed with CT or GC overall was the STD clinic. The CDIs are directly linked to the STD clinic and contact all untreated patients diagnosed with STDs at that facility. For patients in the FDT only group the most common location was a hospital (29.1%). These patients may not have been given clear follow-up instructions on treatment. It makes sense that the FDT group would be from more local hospitals and outpatient clinics as these are the patients that needed treatment delivered to them as they showed that they were not able to go back to their original provider to receive treatment. For the FDT attempted and planned most of these patients ended up coming back to the clinic instead of receiving FDT, so it makes sense that they would have originally come to the STD clinic.

The most common reason given in the medical record for needing field treatment was “could not make it into clinic” with 27.8% of patients with that reason. The next most common reasons were work conflicts (19%), lack of transportation (11.4%), and currently attending school (8.9%). There were also patients that were on house arrest or feared social stigma for coming into the clinic. These were reasons that we thought patients might need to receive FDT.

The most common reason, “could not make it to the clinic”, seemed like a generic catch all for the CDIs to put in the chart. All the answers were free-text written in by the CDIs when they were in the field. In the future, it might be helpful to either ask for the CDIs to be more descriptive or provide a drop-down menu for them to choose from.

Limitations

There are three potential complications and limitations that could have hindered this study. The first is that the sample size was limited by the data that we could collect. We had originally intended on collecting data from 2009, but due to switching over of electronic medical records from eClinicalWorks to PRISM the data from 2009-2011 was unable to be collected. We extended the data collection until October 31, 2014 to maximize sample size. Next, by using pharmacy records we identified the patients that had a prescription filled at the pharmacy. These records do not tell us though if a prescription was filled and not picked up or delivered by the Communicable Disease Investigators. However, we matched all these pharmacy records to the notes by the Communicable Disease to determine if a patient received FDT. Finally, because this is a retrospective study we relied on data that has already been collected and it would be very difficult to go back and ask patients information that is missing from the existing data sources.

The FDT program at Maricopa County resulted in treatment of 172 individuals that might not have otherwise received treatment. Although Maricopa County continues to offer this service, staff and resources limit the ability to expand this program and it is difficult to get providers to write the prescriptions so the CDIs can fill and deliver them. Other disease priorities such as HIV and syphilis which are increasing in the Phoenix area detract from CDI time spent on chlamydia and gonorrhea investigations. This program may be considered for more rural health programs where syphilis and HIV rates are low and staff time is more available for medication delivery.

FUTURE DIRECTIONS

There are many future directions that this research can take. FDT for the treatment of gonorrhea and chlamydia is a fairly novel idea and as more data is collected in Maricopa County there are many other research projects that can be done. Within FDT research, the FDT EPT sub-set would be an interesting group to study. There was not as much information in the EMR system to collect about the qualitative reason why they did not receive treatment at the clinic or why their partners did not receive EPT for them when they got treated. This sub-set group was a larger proportion of the FDT patients than we anticipated and it would be interesting to see how exactly they ended up receiving the EPT via FDT. This might also be an area that could be expanded in the future and after further studies it may be helpful to inform providers about this practice.

Another area that would be interesting to look at is the cost-benefit analysis of this program. There is a cost associated with delivering medication in the field and there is a benefit to having people treated. The cost of patients remaining untreated is difficult to measure, but very important for future research. As we found in this study there are patients that we attempt to deliver FDT to that never receive treatment. It would be interesting to see if despite this additional cost of these patients if the benefit outweighs the cost. We hypothesize that this will be true, but more targeted research in this area would be beneficial.

CONCLUSIONS

Chlamydia and gonorrhea are the two most reported infectious diseases in the United States. In Maricopa County, there has been a large increase in the number of cases. In fact, between 2008 and 2012 there was a 33% increase in the number of cases of chlamydia. In 2009, the field delivered therapy (FDT) program was started to help get treatment to those patients who could not or would not come into the clinic for treatment.

Using retrospective data collection, we discovered a significant amount about the patients that utilized this program. Most patients were young women with chlamydia that live outside the Central Phoenix area with greater than 6 sexual partners. The qualitative reasons that patients could not come into the clinic ranged from lack of transportation, work or school conflicts, to social stigma attached with coming into the clinic.

Additionally, we discovered a group that was utilizing FDT that we had not originally anticipate, partners. These partners were a little bit older (>25 years old) and were mostly males (75%). This is an area that more research needs to be done in. Also, this is a population that public health officials can target more and potentially offer more often now that we are aware of this population.

There are many implications for this study. First, this will help us better target the populations that may benefit from FDT. This can further be translated to other public health departments around the country. If they are having difficulty having patients come back into the clinic to receive treatment FDT could be the answer to help increase patient compliance, especially in areas that do not have as many health resources (i.e. rural or suburban areas). There are also many directions that research on FDT can be taken, including cost-benefit analysis and other efficacy measure. However, in Maricopa County the FDT program helped reach many patients that would not have come to clinic to receive treatment.

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