

**Increasing Gonorrhea and Chlamydia Testing in Family Practice: A Quality Improvement
Project**

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In partial fulfillment of the requirements for the Doctor of Nursing Practice

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June 14, 2024

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Abstract

The implementation of universal screenings in the outpatient setting has shown to improve screening rates for gonorrhea and chlamydia. Sexually transmitted infection (STI) rates have steadily increased over the last 10 years and strategies from the Centers for Disease Control (CDC) and the STI National Strategic Plan have worked toward improving STI screening rates (U.S. Department of Health & Human Services, 2022). Prior to the implementation of universal screenings, screening rates for gonorrhea and chlamydia were low in the family medicine clinic in central California with 1.7 % of patients screened in the 2 months prior to project implementation. At the start of the quality improvement project, staff were trained on universal screenings and each patient seen between the ages of 14-24 was to be given a urine cup in the office to complete the test prior to appointment discharge, despite their sexual history. During the 5-week implementation using universal screening methods, descriptive statistics showed that 34% of patients seen had gonorrhea and chlamydia screenings completed, reaching the goal to improve screenings by 25%. The study showed that universal screenings for gonorrhea and chlamydia can increase screening rates in a family medicine clinic. Increasing screening rates in turn will improve clinic metrics, county and state STI screening rates, and provide prompter treatment for asymptomatic infections found.

Keywords: universal screenings, gonorrhea and chlamydia, STI screenings

Increasing Gonorrhea and Chlamydia Testing in Family Practice: A Quality Improvement Project

Over the last 10 years, sexually transmitted infection (STI) rates have steadily increased leading to a public health crisis according to the U.S. Department of Health and Human Services (2022). Lack of sex education, government budget cuts, fewer staff in health department roles, and lack of clinic access related to the COVID-19 pandemic are some of the reasons behind the surge in STI rates (Pinto et al., 2021; Sukhija-Cohen et al., 2019). With the steady increase in STI rates, national focus is on prevention, screening, and treatment of STI related infections.

According to the Centers for Disease Control and Prevention (CDC), chlamydia was the highest reported STI in 2021 with approximately 1.6 million cases in the United States (2022). In the same year, gonorrhea cases were reported as just over 700,000 and was the second highest reported STI in the United States (CDC, 2022). The CDC (2022) also states that almost two-thirds of these reported cases were males and females ages 15-24 years old, making this age group the highest risk group for chlamydia and gonorrhea infections.

To address this national crisis, the U. S. Department of Health and Human Services (2022) published a STI National Strategic Plan with objectives to help prevent and control STIs in the United States. One goal of the strategic plan is to increase chlamydia screening rates in females 16-24 years old by 13 % by 2025 and 30% by 2030 as well as reduction of overall gonorrhea rates (U.S. Department of Health and Human Services, 2022). The strategic plan states that although the CDC and the U. S. Preventative Services Task Force (USPSTF) recommend annual screenings for gonorrhea and chlamydia in the high-risk age group of 15–24-year-olds, screening remains suboptimal at the national level (U.S. Department of Health and Human Services, 2022).

At the current project site, annual screening recommendations for gonorrhea and chlamydia are being missed due lack of standardized methods among providers to complete these annual screenings in this high-risk population. Some providers order the screening at annual visits, some order it at sick visits if they see it is due, and some providers miss the order all together due to lack of time or standardized process for the screening. The current screening rate at the project site for men and women ages 14-24 is 60%. Although the 60% screening rate is above the metric goal of 49%, annual screenings in this high-risk group are not being met with 40% screenings missed at the project site.

Significance

For decades, Kern County has had some of the highest STI rates in California with an average of 19 cases of chlamydia per day and 6 gonorrhea cases per day (Kern County Public Health Services Department, 2018). In the same data from the Kern County Public Health Services Department (2018), Kern County ranked 3rd in the state for chlamydia cases and 4th in the state for gonorrhea cases.

Both chlamydia and gonorrhea are often asymptomatic, leading to missed or late diagnoses making screening essential to ensure prompt treatment (CDC, 2023). Missed or late treatment of gonorrhea and chlamydia are associated with complications such as pelvic inflammatory disease (PID), infertility, increased risk for ectopic pregnancies, neonatal death, and acquirement of HIV (CDC, 2022).

According to the CDC (2022), patients aged 15-24 are more high risk for STIs as their bodies are more prone to STIs, they do not participate in screenings, they are resistant to talk honestly with their medical provider regarding their sexual history, they do not have access to healthcare or transportation, and often have multiple sexual partners. With complications of

untreated gonorrhea and chlamydia such as PID and infertility, protection of this age group in early childbearing years is essential.

Background

Within the project site located in Kern County, annual screenings are recommended for gonorrhea and chlamydia in compliance with CDC and USPSTF guidelines (CDC, 2022; USPSTF, 2021). These screenings are additionally part of the Medi-Cal metrics and monitored monthly within the organization to reach the Medi-Cal goal. The project site has worked to increase screening rates and has met the metric goal of chlamydia and gonorrhea screenings greater than 49%. However, to ensure full compliance with the CDC and USPSTF annual screening recommendations, all patients within the high-risk age group of 15-24 years old should be screened in the family medicine clinic. The goal of 100% compliance will reduce STI rates in the county and reduce complications within the high-risk population.

With high STI rates in the county and missed screenings in the family medicine clinic, implementing the universal screening method will increase screening rates and reduce STIs in the county.

Project Question

For providers in family practice, providing care to patients aged 14-24, does the implementation of universal screening for chlamydia and gonorrhea, compared to annual screening, improve detection and treatment of chlamydia and gonorrhea, in a 5-week timeframe?

Search Methods

The search terms ‘gonorrhea and chlamydia’ produced 2,181 articles when searching peer reviewed articles within the last 5 years. The search was then narrowed to 44 articles when adding the search term ‘universal screening’ and searching within databases including PubMed,

CINAHL, EBSCO, and Elsevier Science Direct. Research studies done within the United States were also selected as criteria within the databases.

Inclusion criteria included all males and females ages 14-24 years old despite acknowledgment of sexual activity as these are considered the high-risk groups for STIs. Inclusion criteria also included literature that acknowledged the use of CDC and USPSTF screening guidelines and all collection samples including urine, cervical, pharyngeal, and rectal swabs.

Exclusion criteria comprised of males and females older than 24 years old and those younger than 14. The CDC and USPSTF do recommend gonorrhea and chlamydia screenings of some high-risk groups older than 24 years old but were excluded in this literature review to focus on ages 14-24. Exclusion criteria also involved other STIs including human immunodeficiency virus (HIV), human papillomavirus (HPV), hepatitis, syphilis, herpes simplex virus (HSV) and trichomoniasis.

Following the search methods discussed including the inclusion and exclusion criteria, 10 articles were selected for discussion in the literature review.

Review of Study Methods

In the review of literature, quantitative, retrospective, quantitative quasi-experimental design, qualitative studies, and practice guidelines were reviewed and found applicable to this project. All methods were valid and reliable as they documented similar results pertaining to the STI epidemic, lack of sufficient gonorrhea and chlamydia screenings, and improvement in screening rates after implementation of universal screenings within the primary care clinic.

Review Synthesis

Research regarding STI prevalence, low gonorrhea and chlamydia screening rates in

high-risk groups, gonorrhea and chlamydia screening methods in primary care, and recommended guidelines for practice was sought to compile best practice methods for gonorrhea and chlamydia screenings. Within this literature review, recurrent themes included the STI epidemic, high-risk groups intended for screening, and the use of universal screening in primary care clinics to improve gonorrhea and chlamydia screening rates.

STI epidemic

In 2000, the CDC reported that STIs were declining and targeted national goals were close to being met with success attributed to STI education, increased STI testing and treatment (Sukhija-Cohen et al., 2019). By 2018, funding for STI programs had decreased by one third and STI cases had subsequently doubled in correlation with this budget cut (Sukhija-Cohen et al., 2019). Shortly after, the COVID-19 pandemic hit and clinics were closed, routine screenings were missed, and STI rates increased even more (Pinto et al., 2021). The CDC, USPSTF, and the U.S. Department of Health and Human Services all recognized this surge and have worked strategically to address this epidemic.

With the burden of the STI epidemic also comes increased costs in healthcare. In a study by Chesson et al. (2021) that estimated the lifetime medical costs of STIs in the United States in 2018, the total cost of gonorrhea and chlamydia in patients aged 15-24 was \$0.6 billion dollars. The study did not include the cost of STI screenings in the United States which would significantly increase the economic burden (Chesson et al., 2021).

Within the national guidelines and government organizational literature, the recurrent theme of universal screenings is found to aid in increasing gonorrhea and chlamydia screenings and is part of the strategic plan to address the STI epidemic (CDC, 2022; USPSTF, 2021; U. S. Department of Health and Human Services, 2022).

High Risk Population

The high-risk population for contracting gonorrhea and chlamydia identified by the CDC and USPSTF is patients ages 15-24 (CDC, 2022; USPSTF, 2021). Kreisel et al. (2021) completed a study documenting the prevalence of gonorrhea and chlamydia from 2015-2018 and found patients within the ages of 15-24 accounted for 67.3% of all chlamydial infections and 54.1% of all gonococcal infections in 2018. Targeting this high-risk group is the focus of literature and guidelines and screenings are aimed at capturing this particular group.

The study completed by Allison et al. (2022) showed that more than half of the positive gonorrhea and chlamydia cases identified with universal screening were patients that reported no sexual activity. In an additional study, Francisco-Natanauan et al. (2020) found that two thirds of adolescents offered voluntary STI testing in a juvenile detention facility opted out and of those that agreed to have STI testing, only half accepted treatment in positive cases. The literature shows not only are ages 15-24 associated with the most prevalent gonorrhea and chlamydia infections, but also would benefit the most from universal screening methods as they often deny sexual activity or reject voluntary screenings.

Universal Screenings

To comply with national guidelines for annual gonorrhea and chlamydia screenings in patients 15-24 years old, literature reveals that universal screening is best practice in family medicine settings. The U. S. Department of Health and Human Services (2022) reported in the STI National Strategic Plan that rates of chlamydia screenings of women ages 16-24 in 2017 were 48.9% in commercial health maintenance organizations (HMOs) and 57.6% in Medicaid organizations signifying the large gap in screenings among this age group. Targeting the high-risk group ages 15-24, Tomcho et al. (2022) implemented a quality improvement project

involving universal screening methods in several Denver clinics and health centers focused on improving screening rates for gonorrhea and chlamydia. The implementation of universal screenings within the clinic showed 14% increase in screening rates as well increased infection rates identified (Tomcho et al., 2022). Additionally, a retrospective study by Elattma et al. (2020) showed the implementation of universal screenings for gonorrhea and chlamydia in primary and urgent care settings increased screening rates from 29-71%.

The goal of increased screening rates is to increase detection of gonorrhea and chlamydia and to implement prompt treatment to high-risk groups. Allison et al. (2021) completed a quality improvement plan in a family medicine clinic aimed at increasing gonorrhea and chlamydia screenings among adolescents 13 and older. The quality project did increase screening rates from 29-65% but had similar positive cases during the baseline and implementation phase of the project (Allison et al., 2021). Although the positive cases did not increase, the universal method did increase screening rates among the high-risk age group.

The asymptomatic factor of gonorrhea and chlamydia and lack of provider and community awareness regarding annual guidelines calls for increased screening rates nationally (U. S. Department of Health and Human Services, 2022). With acknowledgement of the STI epidemic and high-risk groups involved, and to reach compliance with national guidelines for annual screenings, best practice for primary care clinics is the implementation of universal gonorrhea and chlamydia screenings to fill the gap of missed screenings within the high-risk population.

Project Aims

The aim of this quality improvement project is to improve gonorrhea and chlamydia screenings in the family medicine clinic.

Project Objectives

In the timeframe of this DNP Project, the host site will:

1. Implement universal screening methods for gonorrhea and chlamydia.
2. Improve knowledge of universal screening methods by hosting a lunch meeting with the family medicine clinic staff involved in direct patient care and metrics tracking.
3. Design a standardized method for implementing universal screening among the providers in the family medicine clinic.
4. Improve screening rates for gonorrhea and chlamydia by 25% within a 5-week implementation frame.

Implementation Framework

The Plan-Do-Study-Act (PDSA) Model will be selected as the framework for this quality improvement DNP project. Developed by Edward Deming in the 1950s and further developed by Walter Shewart in early 1990s, the PDSA model is a four-stage cyclic method that aims to test interventions while adapting to change following feedback (Taylor et al., 2014). As part of the cyclic method, the PDSA model involves flexibility and movement through the process multiple times adjusting interventions if needed to gain adequate outcomes (Taylor et al., 2014; see Appendix A).

Application to DNP Project

Applying the PDSA model to the quality improvement project involves identifying a plan and prediction, implementing the plan and collecting the data while observing clinic flow, studying the data and comparing to the prediction, and deciding the action after reflection of the project.

Plan

In the first phase of the PDSA model, the plan and objectives are identified. After the objectives are identified, the change is then proposed and predicted. During the 5-week implementation phase, universal gonorrhea and chlamydia screenings will be implemented in the family practice clinic with the goal to increase screenings by 25%. The universal screenings will be done in the high-risk group identified as males and females, ages 14-24 years old.

Prior to implementation, the family medicine staff involved in patient care will be educated on the literature regarding universal screenings and goals of the quality improvement project. Staff involved in patient care includes medical assistants, family medicine physicians and nurse practitioners, and staff involved in metrics data and quality improvement. Front office staff will be excluded from the education as they do not have involvement in direct patient care.

After educating the staff, the plan will be for the medical assistants to initiate screening during the intake process and collect urine samples of identified high-risk patients prior to the provider entering the room. Once the patient is ready to be seen, the medical assistant can initiate the order and send to the provider, which alerts the provider that urine sample has been collected. During the visit with the provider, the order will be signed after discussion with the patient and urine will be sent to the lab for processing. More screenings will be done by universally obtaining the urine samples in the high-risk groups through this standardized process.

Do

In the second phase of the PDSA model, change is implemented with data collection and observation of implementation. During implementation, flow of the clinic will be observed as well as compliance of the medical assistants assigned to each provider in collecting the urine samples and initiating the order. Each provider will also be tracked for screenings done during his/her shifts and assess modifications if needed.

Study

In the third phase of the PDSA model, the collected data is analyzed and compared to the predicted numbers. After implementation, screenings done during the 5-week implementation period can be tracked via monthly metrics data. Once the data is received, the data can be compared to the month prior to the implementation to assess for 25% improvement goal.

Act

The final phase of the PDSA model involves shared learning and assessment of the quality improvement project. Once the project is complete, reflection can be done of what worked and what didn't work for clinic flow and assess whether improvement is needed to better capture the screenings in the high-risk group. If the project is successful, the goal is to implement universal screening for gonorrhea and chlamydia in all clinics within the site.

Population of Interest

The direct population involved in the project includes three physicians, four nurse practitioners, ten medical assistants, one registered nurse clinical director, and one population health director. The indirect population includes male and female patients ages 14-24 seen within the family medicine setting during the five-week implementation phase. Inclusion criteria characteristics includes the family medicine clinic and staff involved in direct patient care such as medical assistants and providers. Exclusion criteria characteristics includes other STI screenings including syphilis, hepatitis C, and HIV. Exclusion criteria also includes other specialties within the clinic and staff not directly involved in patient care such as schedulers and billing personnel.

Setting

The project site is a family medicine clinic located in Central California that is associated

with a large, public hospital in the community. The family medicine clinic sees approximately 1,160 patients per month with 100 to 150 of those patients within the ages of 14-24 years old. The facility sees primarily underserved patients who are uninsured or insured with Medi-Cal. The practice site utilizes the electronic health record (EHR) Cerner. The 3 physicians work Monday through Friday, 40 hours per week. One nurse practitioner works per diem one 8-hour day per week and the remaining nurse practitioners work 40 hours per week including a few weekends per month. The ten medical assistants follow the provider's schedule and each work full time 40 hours per week. Appointments are required to be seen by the providers as part of the clinic protocol.

Stakeholders

The key stakeholders involved in the project include the nurse clinical director of family medicine, the medical director of family medicine who is a physician in the clinic, and the director of population health. Each stakeholder has a different role and contribution to the project. First, the nurse clinical director offers support of the project and will be critical for organizing the educational meeting with staff, and will ensure supplies are adequate for gonorrhea and chlamydia testing. She will also be helpful with clinical flow changes during implementation as she manages the medical assistants.

The medical director of family medicine is also a key stakeholder for the project. He offers support in the project as he upholds evidence-based care and expects compliance among providers in the use of national guidelines. He is also a physician and leader in the clinic who is focused on improving patient care and metric numbers as well.

The last key stakeholder is the director of population health. Although he is not a physician or registered nurse, his role in the project is essential as he obtains data for screenings

done and patients seen in the clinic. He is also responsible for tracking Medi-Cal metrics in the family medicine clinic.

Permission has been granted for the project. An affiliation agreement is in place between the university and site (see Appendix B).

Interventions

The first intervention of this quality improvement project includes an educational meeting to the family medicine staff. The first goal of the meeting is to provide education on the purpose and plan of the quality improvement project. During the first week of implementation, family medicine staff will attend an educational meeting with a PowerPoint presentation on the STI epidemic, review of literature on universal screenings, national guidelines and evidence-based practice, and discussion of clinic flow with the implementation of universal screenings (see Appendix C).

The second goal of the educational meeting is to assign project roles for family medicine staff involved in the quality improvement project. The providers, medical assistants, clinical director, and director of population health will all be in attendance and have knowledge of their role in the project following the educational meeting. The provider role involves ordering the screening and discussing the screenings with the patients during the visit. The medical assistants will assist with clinic flow, obtain the urine sample, and send the urine sample to the lab after the provider visit. The nurse clinical director will assist with clinic flow issues and supply issues if encountered. Lastly, the director of population health will ensure data collection is ongoing and be a resource for data collection. No additional resources are needed as the staff are already present during clinic operation and supplies are already in place.

Following the educational meeting, questions will be answered regarding clinic flow, role

concerns, and the proposed interventions. For the remaining of week one, the project lead will work closely with the lead medical assistants and providers to ensure clinical flow for universal screening implementation. At the end of week one, chart review will be done to assess how many patients were seen in family medicine between the ages of 14-24 and how many gonorrhea and chlamydia screenings were done within the same age category. These numbers will be logged into a table for analysis after completion of project (Appendix D).

The second week includes continued implementation of universal screenings, followed by chart review to obtain number of patients seen and patients screened. Also, during the second week, a reminder email will be sent to providers and medical assistants to remind them of the project implementation plan (Appendix E). The third week involves checking in with the clinical director and providers to assess clinic flow, continued implementation of universal screenings, the reminder email, and logging of numbers at the end of the week. The fourth week involves continued implementation of universal screenings, the reminder email, and logging of number at the end of the week. The last week will include continued implementation of universal screenings followed by data collection and project evaluation.

Tools

The first tool that will be utilized to achieve the objectives and carry out the interventions is the PowerPoint presentation used at the educational meeting (see Appendix C). The tool was developed by the project lead and was validated by the project team which includes the project mentor and project instructor. No permission is needed to use the tool as it is educational material with appropriate references.

The second tool to be utilized is the weekly chart tracking the number of patients seen and the screenings done in the family medicine clinic (see Appendix D). Following chart review

at the end of the week, this tool will be complete as part of data collection tracking. This tool was validated by the project mentor and project instructor and does not require permission as it involves tracking of screenings done for data collection.

The third tool to be utilized is the reminder email (see Appendix E). The goal of the reminder email is to help providers and medical assistants remember the clinic flow change related to the implementation of universal screenings. The PowerPoint and contact information of the project lead will be attached as well should the staff have any concerns or questions throughout implementation. This email is validated by the project mentor and project instructor and does not require permission to use.

Plan for Data Collection

The data is generated by the organization already as part of the metric goals. The population health director can view weekly how many patients ages 14-24 were seen in the family medicine clinic and how many of those patients' received gonorrhea and chlamydia screenings. Data can also be verified by the project tool (see Appendix D).

Process Evaluation

The project lead will be at the practicum site 2 days a week during the project implementation for process observation. On a scheduled work day, the project lead will be there for 8 hours and will come one other day during the week for 2 hours throughout the project implementation.

Outcome Evaluation

Although the number of gonorrhea and chlamydia screenings done can be tracked by the population health director, weekly chart reviews will also be done by the project lead. The project lead will look at each provider's schedule at the end of the week and access the EHR of

patients ages 14-24 to see if the screening was done. If the screening was not done, the project lead will write down the reason the screening was not complete if documented.

Participant Privacy

No identifying data of patients will be documented. The EHR will only be accessed through the secured EHR platform that is HIPPA compliant. The only data obtained from the EHR is age and screening done (yes/no).

Plan for Analysis

Descriptive statistics will be used with bar graphs for data analysis. The weekly graphs will show the number of patients seen ages 14-24 and the number of screenings done. This data will be compared to the number of patients seen and screenings done in the 2 months prior to implementation.

Ethics/Human Subjects Protection

Touro University Nevada does not require IRB for quality improvement projects. Paperwork has been completed for the university and approved by the Department of Research with the research registration number HC-CHHS-24-103. The project site also does not require IRB or quality improvement oversight. There are no risks to the patients. Benefits include screenings and treatment for gonorrhea and chlamydia if applicable.

There is no compensation for the patients or staff participants. The staff are encouraged by the project lead and the family medicine director to attend the educational training via email and in discussion during department meetings.

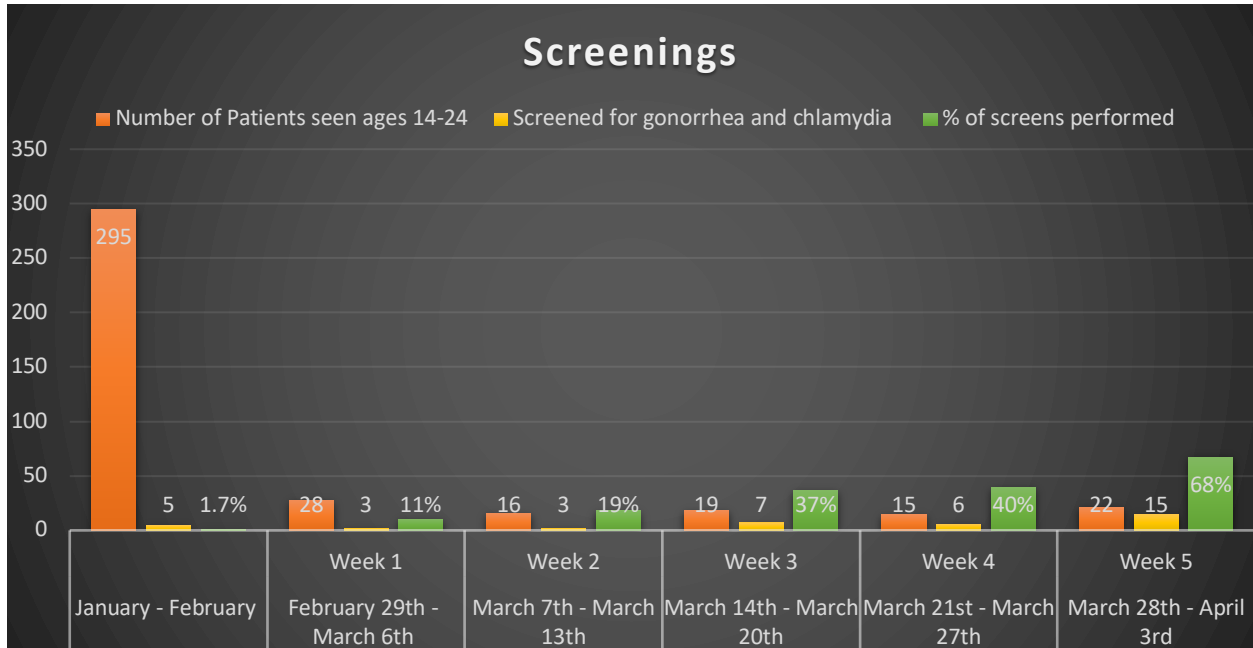
Analysis of Results

Following the project implementation, descriptive statistics were used for data analysis (see Appendix F). Using the weekly data graph from the weekly EHR review, percentages were

obtained using screenings done and number of patients seen that week ages 14-24. Data prior to implementation showed only 5 screenings were completed, which was 1.7% of the patients seen in January and February. The first week of implementation 11% of screenings were done with steady increase each week in number of screenings done (see Table 1). In week 2, 19% of screenings done followed by 37% of screenings done in week 3. Lastly in week 4, 40% of screenings were done followed by 68% in week 5. In the 5-week implementation, 34% of the screenings were obtained in all patients 14-24 seen in the family medicine clinic. This exceeded the goal of the project to increase gonorrhea and chlamydia screenings by 25% in the family medicine clinic. No modifications were made to timeline of project (see Appendix G).

Table 1

Screening numbers prior to implementation and throughout 5-week implementation



Note. Total number of patients seen are shown followed by number of screenings done during the identified timeframe with percentage of screenings performed.

Table 2

Weekly Data Collection

| | Patients seen ages 14-24 | Patients screened for gonorrhea and chlamydia ages 14-24 |
|--------|--------------------------|--|
| Week 1 | 28 | 3 |
| Week 2 | 16 | 3 |
| Week 3 | 19 | 7 |
| Week 4 | 15 | 6 |
| Week 5 | 22 | 15 |

Note. Weekly data collection of patients seen ages 14-24 and number of patients screened.

Summary and Interpretation of Results

The first two weeks of implementation the screening percentages were low with only 11 and 19% of screenings done in the first 2 weeks. The weekly reminder email, presence in the clinic, and reminders to the medical assistants helped increase the screening numbers in the following weeks as screening percentages increased to 68% in week 5. The strengths of the study included showing the benefits of universal screenings and the ability to increase screening numbers by implementation of universal screenings. A few positive chlamydia results were also found in the screenings resulting in prompt treatment and STI education. The weaknesses of the study were seen in reviewing the provider data individually as some providers/medical assistants did a lot more screenings each week compared to other providers/medical assistants in the clinic.

Results show the benefit of universal screenings and collecting the urine sample day of

visit. More screenings were obtained when universally screening all patients 14-24 vs screening based on request, sexual history, or complaint. The biggest benefit of universal screening and same day urine collection is seen when compared to January and February data prior to project implementation. The significant increase from 1.7-34% shows that universal screenings improve screening rates in the family medicine clinic and meets the anticipated outcome. More patients screened is more opportunity for STI education and prevention, meeting the organizational metrics, treating STIs found on screenings, and ultimately reducing STI rates in the community.

There were no unexpected findings or costs in this study. Possible opportunity costs include lost time spent obtaining the urine sample and discussing the screening which could be spent addressing other patient issues.

Limitations

Limitations in this project are related to potential bias as some providers and medical assistants consistently had more screenings done than other provider teams. Efforts to minimize limitations included providing the same education for universal screenings to all providers and medical assistants. The same weekly reminders sent via email were also sent to all family medicine staff to reduce bias.

Conclusion

The implementation of universal screenings in the family medicine clinic showed improved screening rates for the high-risk group ages 14-24. With high STI rates in the county and with screenings a requirement of Medi-Cal metrics, screening is essential to early treatment of gonorrhea and chlamydia. By obtaining urine samples on all patients ages 14-24 universally, more screenings are done and the risk of missing a potential STI due to inadequate time or invalid sexual history is avoided. Medical assistants agreed it did not interrupt flow of the clinic

and became a routine part of the clinic visit. By improving screening rates in the clinic, screening rates will improve in the county and nationally. With the potential to start treatment sooner on asymptomatic patients universally screened for gonorrhea and chlamydia, the STI rates overall in the county will reduce and improve the national rate as well. Suggested next steps will be implementation of policy regarding universal screenings for gonorrhea and chlamydia in the family medicine clinic. In addition, next steps will include implementation of universal screenings within other organizational specialties such as internal medicine, pediatrics, and obstetrics/gynecology.

References

- Allison, B. A., Walters, E. M., Butler, B. W., & Perry, M. F. (2021). A clinic-based quality improvement initiative to increase screening for gonorrhea and chlamydia in adolescents. *The Joint Commission Journal on Quality and Patient Safety*, 47, 510-518. DOI: 10.1016/j.jcjq.2021.04.006
- Allison, B. A., Park, R. V., Walters, E. M., & Perry, M. F. (2022). Increased detection of gonorrhea and chlamydia after implementation of a universal screening protocol in a pediatric primary care clinic. *Sexually Transmitted Diseases*, 49(2), 117-122. DOI: [10.1097/OLQ.0000000000001534](https://doi.org/10.1097/OLQ.0000000000001534)
- Centers for Disease Control and Prevention. (2022). *CDC fact sheet: Information for teens and young adults: Staying healthy and preventing STDs*. <https://www.cdc.gov/std/life-stages-populations/stdfact-teens.htm>
- Centers for Disease Control and Prevention. (2022). *Chlamydia: CDC detailed sheet*. <https://www.cdc.gov/std/chlamydia/stdfact-chlamydia-detailed.htm>
- Centers for Disease Control and Prevention. (2022). *Sexually transmitted infections treatment guidelines, 2021*. <https://www.cdc.gov/std/treatment-guidelines/gonorrhea-adults.htm>
- Chesson, H. W., Spicknall, I. H., Bingham, A., Brisson, M., Eppink, S. T., Farnham, P. G., Kreisel, K. M., Kumar, S., Laprise, J. F., Peterman, T. A., Roberts, H., & Gift, T. L. (2021). The estimated direct lifetime medical costs of sexually transmitted infections acquired in the United States in 2018. *Sexually Transmitted Diseases*, 48(4), 215-221. DOI: [10.1097/OLQ.0000000000001382](https://doi.org/10.1097/OLQ.0000000000001382)
- Elattna, A., Laves, E., Taber, B., Karvonen, K. L., Herrera, M. C., & Bakken, E. H. (2020). Using provider incentives and an opt-out strategy in a successful quality initiative to

increase chlamydia screening. *The Joint Commission Journal on Quality and Patient Safety*, 46, 326-334. <https://doi.org/10.1016/j.jcjq.2020.03.003>

Francisco-Natanauan, P., Leatherman-Arkus, N., & Pantell, R. H. (2020). Chlamydia and gonorrhea prevalence and treatment in detained youths: Strategies for improvement. *Journal of Adolescent Health*, 68(2021), 65-70.

<https://doi.org/10.1016/j.jadohealth.2020.09.041>

Kern County Public Health Services Department. (2018). *STDS in Kern County, 2018 data update*. <https://kernpublichealth.com/wp-content/uploads/2020/11/STDs-in-Kern-County-update-2018-PDF.pdf>

Kreisel, K. M., Weston, E. J., Cyr, S. B., & Spicknall, I. H. (2021). Estimates of the prevalence and incidence of chlamydia and gonorrhea among US men and women, 2018. *Sexually Transmitted Diseases*, 48(4), 222-231.

Pallant, J. (2020). *SPSS survival manual: A step by step guide to data analysis using IBM SPSS* (7th ed.). McGraw Hill.

Pinto, C. N., Niles, J. K., Kaufman, H. W., Marlowe, E. M., Alagia, D. P., Chi, G., & Van Der Pol, B. (2021). Impact of the covid-19 pandemic on chlamydia and gonorrhea screening in the U.S. *American Journal of Preventative Medicine*, 61(3), 386-393.

<https://doi.org/10.1016/j.amepre.2021.03.009>

Sukhija-Cohen, A. C., Beymer, M. R., Engeran-Cordova, W., & Bolan, R. K. (2019). From control to crisis: The resurgence of sexually transmitted diseases. *Sexually Transmitted Diseases*, 46(2), 8-10. DOI: 10.1097/OLQ.0000000000000960

Taylor, M. J., McNicholas, C., Nicolay, C., Darzi, A., Bell, D., & Reed, J. E. (2014). Systematic

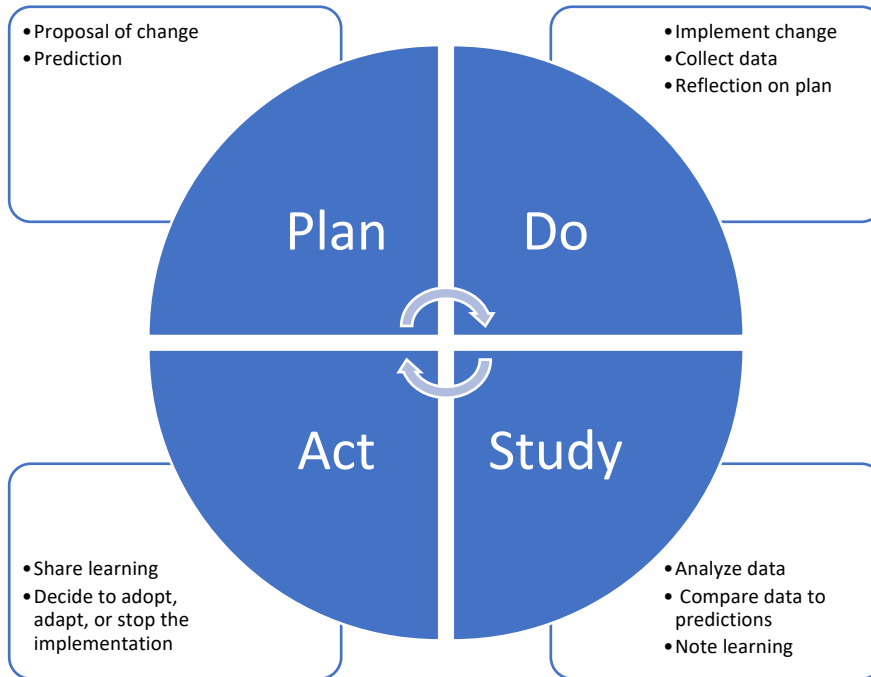
review of the application of the plan-do-study-act method to improve quality in healthcare. *BMJ Quality and Safety*, 23, 290-298. <http://dx.doi.org/10.1136/bmjqs-2013-002703>

Tomcho, M. M., Lou, Y., O'Leary, S. C., Rinehart, D. J., Thomas-Gale, T., Penny, L., & Frost, H. M. (2022). Closing the equity gap: An intervention to improve chlamydia and gonorrhea testing for adolescents and young adults in primary care. *Journal of Primary Care and Community Health*, 13, 1-10. [https://doi: 10.1177/21501319221131382](https://doi:10.1177/21501319221131382)

U.S. Department of Health and Human Services. (2022). *Sexually transmitted infections: National strategic plan for the United States*. <https://www.hhs.gov/programs/topic-sites/sexually-transmitted-infections/plan-overview/index.html>

U.S. Preventative Services Task Force. (2021). *Chlamydia and gonorrhea: Screening*. <https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/chlamydia-and-gonorrhea-screening#fullrecommendationstart>

Appendix A



Appendix B

62523'

AFFILIATION AGREEMENT for Clinical Training (Kern County Hospital Authority – Touro University Nevada)

This AFFILIATION AGREEMENT (hereinafter "Agreement") is made and entered into this 12th day of September, 2023, by and between the Kern County Hospital Authority, a local unit of government ("KCHA") which owns and operates Kern Medical Center ("KMC") and Touro University Nevada, Henderson Nevada ("University"), with its principal place of business located at 874 American Pacific Drive, Henderson, NV 89014.

RECITALS

- (a) KCHA owns and operates KMC, a general acute care hospital located at 1700 Mount Vernon Avenue, Bakersfield, California 93306; and
- (b) University offers a doctoral degree for Nurse Practitioner (DNP) (the "Program") which Program requires clinical facilities wherein students enrolled in the Program can obtain the clinical learning experience needed in the curricula for those studies; and
- (c) KMC has facilities that are available for training of Program students and is in agreement with the educational objectives of such training; and
- (d) KCHA and University wish to maintain an affiliation between KCHA and KMC for on-the-job training of Program students (hereinafter "Students") at KMC; and
- (e) It is to the mutual benefit of the parties hereto that KMC accept Students for on-the-job training in such numbers and at such times as may be mutually agreed between KMC and University;

NOW, THEREFORE, in consideration of the mutual covenants and conditions hereinafter set forth and incorporating by this reference the foregoing recitals, the parties hereto agree as follows:

1. **Term.** The term of this Agreement will commence on September 1, 2023 and shall terminate on August 31, 2026. Either party may sooner terminate this Agreement at any time upon giving written notice to the other party not less than thirty (30) days in advance of the termination, such notice to be given in the manner specified in section 9. In the event of such notice, the provisions of this Agreement will continue until the effective date of such termination.
2. **Obligations of University.**
 - 2.1 Appoint a staff member who will, in conjunction with KMC, supervise instruction, as well as learning and clinical experiences at KMC.
 - 2.2 Ensure compliance with accreditation standards established by the State of California.
 - 2.3 Establish and maintain on-going communication with KMC on items pertinent to the Program.
 - 2.4 Provide KMC with a schedule of student assignments, including the name of the student, level of academic preparation, and dates for each clinical experience that is mutually agreed upon.
 - 2.5 Refer to KMC only those students who have satisfactorily completed the prerequisite didactic portion of the curriculum.

2.6 Health, Drug and Criminal Background Check Requirements. University shall, at no cost to KCHA or KMC, ensure that each assigned student complies with the Kern Medical – Current OnBoarding Compliance requirements set forth in Exhibit “A,” attached hereto and incorporated herein by this reference and receives basic information regarding the Occupational Exposure to Bloodborne Pathogens regulations (“Regulations”) issued by the Department of Labor (29 C.F.R. 1910.1030) prior to a student being assigned to KMC. University agrees to maintain records evidencing compliance with the Regulations. KMC shall contact University to request current information in order to validate the presence of documentation, to meet regulatory requests, or anytime a student is not in compliance with the requirements.

2.7 Direct assigned Students to comply with the policies, rules, regulations, and procedures in effect at KCHA and KMC, as well as all reasonable directions given by authorized KMC personnel.

2.8 Ensure that all assigned Students are covered by appropriate professional liability insurance, acceptable to KCHA, during the entire period of their participation in the Program at KMC.

2.9 Require that each assigned student provide, prior to the commencement of each student assignment, such confidential information as may be required by KCHA or KMC, or deemed necessary for the education and guidance of the student.

2.10 Provide and be responsible for the care and control of educational supplies and equipment necessary for instruction, including audiovisual equipment and supplies that are not customarily available at KMC, if deemed necessary by University for completion of the Program.

2.11 Maintain attendance and academic records for each student assigned to the Program.

3. Obligations of KMC.

3.1 Designate a KMC staff member who will be responsible for facilitating the implementation of the clinical experience.

3.2 Provide a clinical experience that is compatible with the requirements of the curriculum established by University.

3.3 Provide the physical facilities and equipment reasonably necessary to conduct the clinical experience.

3.4 Permit Students access to the KMC medical library during hours of operation.

3.5 Maintain standards that are appropriate for the clinical experience.

3.6 Provide assigned Students with reasonable study and storage space.

3.7 Provide University and Students access to KCHA and KMC policies and procedures that are applicable to the clinical experience.

3.8 Make available emergency services for Students on an as needed basis, at no cost to KCHA or KMC.

3.9 Accept Students enrolled in the Program in a number not to exceed that which University and KMC agree upon.

3.10 Retain professional and administrative responsibility for services rendered under this Agreement.

4. **Confidentiality.** University shall not, without the written consent of KCHA, communicate confidential information, designated in writing or identified in this Agreement as such, to any third party and shall protect such information from inadvertent disclosure to any third party in the same manner that University would protect its own confidential information, unless such disclosure is required in response to a validly issued subpoena or other process of law. Upon completion of this Agreement, the provisions of this section shall continue to survive.

4.1 **HIPAA.** As trainees, Students shall be considered members of KMC's "workforce," as that term is defined by the HIPAA regulations at 45 C.F.R. § 160.103, and shall be subject to KMC's policies respecting confidentiality of medical information. In order to ensure that Students comply with such policies, KMC shall provide Students with substantially the same training that it provides to its regular employees.

4.2 **FERPA.** KCHA acknowledges that University is subject to the Family Educational Rights and Privacy Act ("FERPA") and that personally identifiable information of a Student disclosed by University to KCHA is (1) confidential and subject to FERPA; (2) not to be further disclosed without the prior written consent of the Student except as provided below; and (3) to be viewed only by individuals who have a legitimate need to view the information to verify or audit the qualifications of the Student to participate in the clinical, practicum or internship program. KCHA may only disclose student information provided by University if required by a State, Federal, or accreditation agency investigating the care provided by KCHA based upon the belief that the student information may be relevant to the investigation.

5. **Conflict of Interest.** The parties to this Agreement have read and are aware of the provisions of sections 1090 et seq. and sections 87100 et seq. of the Government Code relating to conflict of interest of public officers and employees. All parties hereto agree that they are unaware of any financial or economic interest of any public officer or employee of KCHA relating to this Agreement. It is further understood and agreed that if such a financial interest does exist at the inception of this Agreement, KCHA may immediately terminate this Agreement by giving written notice thereof. University shall comply with the requirements of Government Code sections 87100 et seq. during the term of this Agreement.

6. **Insurance.**

6.1 **University Insurance.** University shall procure and maintain in force during the term of this Agreement, at its sole cost and expense, insurance in amounts reasonably necessary to protect it against liability arising from any and all negligent acts or incidents caused by University's employees. Coverage under such professional and commercial general liability insurance shall be not less than one million dollars (\$1,000,000) for each occurrence and three million dollars (\$3,000,000) in the aggregate. Such coverage shall be obtained from a carrier rated "A" or better by AM Best or a qualified program of self-insurance. University shall maintain and provide evidence of workers' compensation and disability coverage as required by law. The commercial general liability and the workers' compensation policies shall be endorsed with a waiver of subrogation in favor of KCHA. University shall provide Hospital with evidence of the insurance required under this paragraph, which shall provide for not less than thirty (30) days' notice of cancellation to Hospital. University shall promptly notify Hospital of any cancellation, reduction, or other material change in the amount or scope of any coverage required hereunder. University is aware that Hospital uses a third party administrator to obtain and maintain evidence of insurance for the entire length of the Agreement.

6.2 **Student Insurance.** University shall ensure that each student in the Program procures and maintains in force during the term of this Agreement, at the University's sole cost and expense, professional liability insurance in amounts reasonably necessary to protect the student against liability arising from any and all negligent acts or incidents caused by the student. Coverage under such professional liability insurance shall be not less than one million dollars (\$1,000,000) for each occurrence and three million dollars (\$3,000,000) in the aggregate. Such coverage shall be obtained from a carrier rated "A" or better by AM Best or a qualified program of self-insurance. University shall require each student in the Program to present evidence of his or her professional liability coverage to Hospital. University shall provide students with accident insurance coverage

that will cover up to \$25,000 for injuries or accidents sustained by any of its students (subject to applicable limitations and exclusions contained in the statement of insurance) while participating in a supervised clinical education program in the United States.

6.3 **KCHA Insurance.** KCHA shall procure and maintain in force during the term of this Agreement, at its sole cost and expense, insurance in amounts that are reasonably necessary to protect it against liability arising from any and all negligent acts or incidents caused by its employees. Coverage under such professional and commercial general liability insurance shall be not less than one million dollars (\$1,000,000) for each occurrence and three million dollars (\$3,000,000) in the aggregate. Such coverage is to be obtained from a carrier rated "A" or better by AM Best or a qualified program of self-insurance. KCHA shall also maintain and provide evidence of workers' compensation and disability coverage for its employees as required by law. By written request, KCHA shall provide University with evidence of the insurance coverage required by this paragraph, which shall provide for not less than thirty (30) days notice of cancellation to University. KCHA shall promptly notify University of any cancellation, reduction, or other material change in the amount or scope of any coverage required hereunder.

7. **Indemnification.**

7.1 University agrees to indemnify, defend, and hold harmless KCHA, its officers, agents, and employees from and against any and all claims, demands, judgements, damages, costs, (including but not limited to reasonable attorney fees), liabilities, or losses arising from, or in any way relating to, the University's acts or omissions, and the acts or omissions of their officers, agents, students, and employees, under this Agreement.

7.2 KCHA agrees to indemnify, defend, and hold harmless University, its officers, agents and employees from and against any and all claims, demands, judgements, damages, costs, (including but not limited to reasonable attorney fees), liabilities, or losses arising from, or in any way relating to, KCHA's acts or omissions, and the acts or omissions of their officers, agents, and employees, under this Agreement.

8. **Liability of KCHA.** The liabilities or obligations of KCHA with respect to its activities pursuant to this Agreement shall be the liabilities or obligations solely of KCHA and shall not be or become the liabilities or obligations of the County of Kern or any other entity, including the state of California. California Health and Safety Code Section 101853(g).

9. **Notices.** Notices to be given by one party to the other under this Agreement shall be given in writing by personal delivery, by certified mail, return receipt requested, or express delivery service at the addresses specified below. Notices delivered personally shall be deemed received upon receipt; mailed or expressed notices shall be deemed received four (4) days after deposit. A party may change the address to which notice is to be given by giving notice as provided above.

If Notice to KCHA: Kern Medical Center
1700 Mount Vernon Avenue
Bakersfield, California 93306
Attn.: Chief Executive Officer

If Notice to University: Touro University Nevada
874 American Pacific Drive
Henderson, Nevada 89014
Attention: Provost

10. **Independent Contractor.** None of the provisions of this Agreement is intended to create, nor shall be deemed or construed to create any relationship between KCHA and University other than solely for the purpose of effecting the provisions of this Agreement. Neither of the parties hereto nor any of their respective officers, directors or employees, including, without limitation, Students of University shall be construed to be the agent,

employer or representative of the other except as specifically provided herein. Neither party is authorized to speak on behalf of the other for any purpose whatsoever without the prior consent in writing of the other.

11. **Nondiscrimination.** Both parties agree to abide by all applicable federal and state laws prohibiting discrimination against any employee, applicant for employment or patient because of race, color, religion, age, sex, handicap or national origin.

12. **Severability.** Should any part, term, portion or provision of this Agreement be finally decided to be in conflict with any law of the United States or the state of California, or otherwise be unenforceable or ineffectual, the validity of the remaining parts, terms, portions, or provisions shall be deemed severable and shall not be affected thereby, provided such remaining portions or provisions can be construed in substance to constitute the agreement which the parties intended to enter into in the first place.

13. **Termination of Student Assignment.** University shall immediately remove any student from participating in the clinical or work experience at KMC who (i) is convicted of a crime other than a minor traffic violation, (ii) is adjudicated an incompetent by a court of competent jurisdiction, (iii) becomes disabled so as to be unable to perform the duties required to participate in the clinical or work experience at KMC, (iv) fails to be indemnified or remain covered for malpractice by University, or (v) KMC reasonably believes poses an immediate threat to the safety or welfare of any patient, staff member or physician of KMC.

14. **Choice of Law/Venue.** The parties hereto agree that the provisions of this Agreement will be construed pursuant to laws of the state of California. It is expressly agreed that proper venue shall be in the County of Kern, state of California, it being understood that this Agreement is being entered into and will be performed within the County of Kern.

15. **Modifications of Agreement.** This Agreement may be modified in writing only, signed by the parties in interest at the time of the modification.

16. **Compliance with Law.** University and Students shall observe and comply with all applicable county, state and federal laws, ordinances, rules and regulations now in effect or hereafter enacted.

17. **Regulatory Requirements.** The parties expressly agree that nothing contained in this Agreement will require either the referral of any patients to, or order of any goods or services from University or KMC. Notwithstanding any unanticipated effect of any provision of this Agreement, neither party will knowingly or intentionally conduct itself in such a manner as to violate the prohibition against fraud and abuse in connection with the Medicare and Medicaid programs (42 U.S.C. section 1320a-7b).

18. **Compliance Program.** University acknowledges that KMC has implemented a compliance program for certain purposes, including, but not limited to, the purpose of ensuring that the provision of billing for care at KMC is in compliance with applicable federal and state laws (the "Compliance Program"). Faculty and Students will participate in any applicable training and education sessions relating to the Compliance Program, upon the request of KMC.

19. **Disqualified Persons.**

19.1 University represents and continuously warrants that no student participating in the clinical experience at KMC under the terms of this Agreement (i) has been convicted of a criminal offense related to healthcare (unless such individual has been officially reinstated into the federal healthcare programs by the Office of Inspector General and provided proof of such reinstatement to KCHA), (ii) is currently under sanction, exclusion or investigation (civil or criminal) by any federal or state enforcement, regulatory, administrative or licensing agency or is ineligible for federal or state program participation, or (iii) is currently listed on the General Services Administration List of Parties Excluded from the Federal Procurement and Non-Procurement Programs.

19.2 University agrees that if any student participating in the clinical experience at KMC under the terms of this Agreement becomes involved in a pending criminal action or proposed debarment, exclusion or other sanctioning action related to any federal or state healthcare program he or she will be immediately removed from providing services at KMC.

20. **Entire Agreement.** This Agreement, including all attachments hereto, contains the entire agreement between the parties relating to the services, rights, obligations and covenants contained herein and assumed by the parties respectively. No inducements, representations or promises have been made, other than those recited in this Agreement. No oral promise, modification, change or inducement shall be effective or given any force or effect.

[Intentionally left blank]

IN WITNESS WHEREOF, the parties have executed this Agreement as of the day and year first written above.

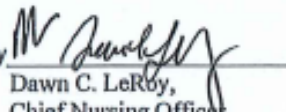
KERN COUNTY HOSPITAL AUTHORITY

TOURO UNIVERSITY NEVADA

By 
Scott Thygeson
Chief Executive Officer

By 
Robert Askey, Ed.D.
Dean, College of Health and Human Services

APPROVED AS TO CONTENT:
Kern Medical Center

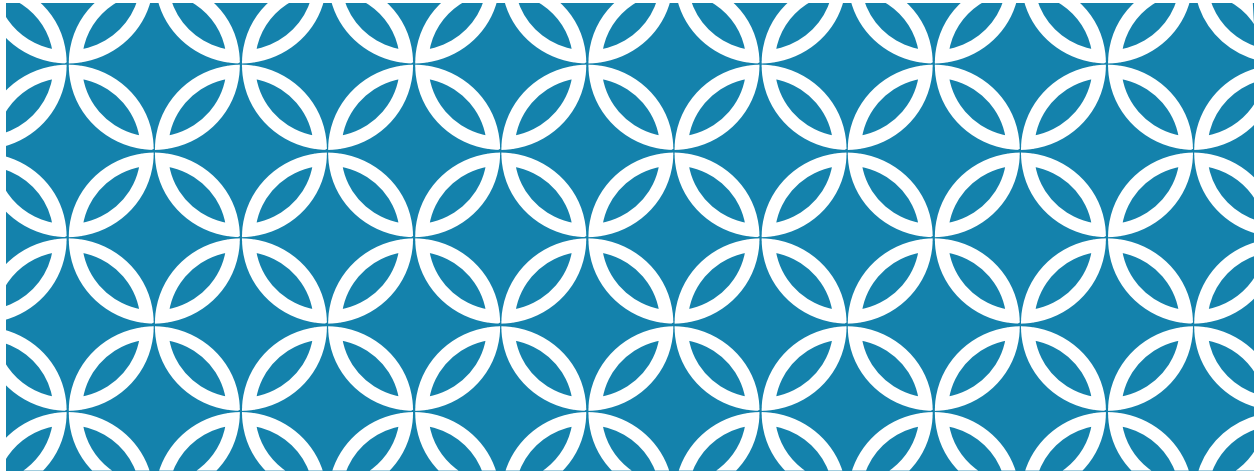
By 
Dawn C. LeRoy,
Chief Nursing Officer

APPROVED AS TO FORM:
Legal Services Department

By 
Hospital Counsel,
Kern County Hospital Authority

| Kern Medical - Current Onboarding Compliance | |
|--|--|
| Compliance Item | Detail |
| Background Check | All searches must be completed 30 days prior to start of assignment. |
| County Background Check | Felony & Misdemeanor background history for all counties where employee lived and worked for the previous 7 years. |
| National Criminal Search | |
| National Sex Offender (NSO) search | Can be obtained through Background check or free online search: https://www.rsofw.gov/ |
| OIG | Can be obtained through Background check or free online search: https://exclusions.oig.hhs.gov |
| SAM | Can be obtained through Background check or free online search: https://www.sam.gov |
| Social Security Trace | This search produces all address history for the last 7 years and all the names (including aliases and variations) associated with the social security number |
| Drug Screen | A standard panel (minimum) drug screen is required within thirty (30) days prior to start date of assignment with Client. Test results must be prepared by a licensed laboratory. Results must be negative for all of the following: Amphetamine, Barbiturates, Cocaine, Benzodiazepines, Cannabinoids, Cocaine metabolites, Phencyclidine (PCP), Methadone, Oxycodone, Propoxyphene, Methaqualone, Ethanol, MDMA |
| Employee Health Documents | |
| Physical/ Statement of Fitness Within 1 year | Must be completed within <u>one year</u> prior to start of assignment and annually thereafter. The physical must include a statement by the physician that the student is physically capable of completing the duties assigned and latex allergy assessment has been completed. |
| TB Compliance | If no history of Positive, follow "Negative TB". If history of Positive TB, follow "Positive TB" instructions: |
| Negative TB Within 30 days | Either of the following will meet the TB requirement: 1) 1st step negative TB Skin Test (TST) completed within 30 days prior to start and 2nd Negative TB skin test (TST) completed no sooner than 3 weeks after the 1st TB skin test and annually thereafter. *Results must include measurement of induration, date and time of placement and reading. Measurements of ≥10 mm will follow TB positive process. 2) Negative Interferon-gamma Release Assay (IGRA [Quantiferon or T spot]) completed within 30 days prior to start and annually thereafter. If IGRA is positive follow TB positive process. |
| Positive TB No time limit on proof X-Ray within 90 days | No new student (with proof of positive PPD or IGRA history) will be cleared for assignment until a chest x-ray is performed and verified as negative/normal (free of active TB disease). Documentation of negative/normal chest x-ray that has been done at another facility within 3 months will be accepted but must include employee's name, date of birth, name and address of provider performing the chest x-ray. Additionally, a TB symptom questionnaire is required to be completed within 30 days after start date and annually thereafter. |
| Mask Fit Within 1 year | Required prior to the start of assignment and annually thereafter. Must include medical clearance for fit testing, size & make/model of N95 mask tested. Must be completed within 1 year of assignment. |
| Hepatitis B Titer- Quantitative No time limit | Laboratory evidence of immunity required in the form of a Hepatitis B surface antibody, quantitative. Total anti-HBs are also acceptable. If non-immune (≤ 10) proof of vaccination series or declination is required. |
| MMR Titer - Quantitative - No time limit | Laboratory evidence of immunity required for Measles (Rubeola), Mumps and Rubella. If non-immune, proof of vaccination series or declination required |
| Varicella Titer - Quantitative - No time limit | Laboratory evidence of immunity required. If non-immune, proof of vaccination series or declination required. |
| Latex Allergy Questionnaire | * If student has a known latex sensitivity, physician who performs student's exam must include an assessment of the level of sensitivity and a recommended plan for accommodation. |
| Hepatitis C Antibody Test - Within 3 months of start | Hepatitis C (HCV) antibody test completed within the last 3 months of start date. |
| COVID-19 Vaccine | Proof of current fully vaccinated COVID-19 status, including any booster, or qualifying exemption. Vaccination proof must include name, DOB, Lot#, Manufacturer, Provider/agency administering, and date of vaccination (s). The state has provided two exemptions to the vaccine mandate: religious and medical. Please see link for exemption form- https://bit.ly/vaccine-declination . |
| Only Required when Onboarding November 1st-April 30th Flu Vaccination/Declination | During the flu season, proof of the current seasonal flu vaccination status is required prior to the start of the assignment. Any one of the following will meet the proof requirement: a) Written proof of vaccination with the current seasonal flu vaccine. Proof can be any immunization record that includes: vaccination name or abbreviation, date vaccine administered and name (written or stamped) of the clinic, office or doctor administering the vaccine; OR b) Signed declination (using OSHA mandated wording) for those who decline the offered vaccine. |

Appendix C



GONORRHEA AND CHLAMYDIA SCREENINGS

Helen Capehart, FNP-C
DNP Project
Touro University Nevada

THE PROBLEM

- Increase in STI rates in the last 10 years
- Chlamydia highest reported STI in U.S. in 2021
- Gonorrhea second highest reported STI in U.S. in 2021



CDC, 2023

KERN COUNTY

- Kern County chlamydia rates 19 cases/day which ranks 3rd in the state
- Kern County gonorrhea rates 6 cases/day which ranks 4th in the state



Kern County Department of Public Health, 2018

WHAT ARE HIGHEST RISK GROUPS?



ADDRESSING THE PROBLEM



- Development of STI National Strategic Plan
- One goal is to increase chlamydia screening rates by 13% by 2025
- Increase chlamydia screening rates by 30% by 2030
- Goal also to reduce gonorrhea rates
- CDC and USPSTF recommend annual screening for high risk groups
- Strategic plan acknowledges that CDC and USPSTF guidelines for annual screening is suboptimal at the national level

How is family
medicine doing?

■ **CURRENT SCREENING
RATE 60% FOR AGES 14-
24**

UNIVERSAL SCREENINGS

- Literature review shows why universal screenings are beneficial
 - Allison et al. (2022) more than half of positive GC/chlamydia cases identified were patients that reported no sexual activity
 - Francisco-Natanauan et al. (2020) conducted STI screenings in a juvenile detention facility and 2/3 adolescents opted out, only half of positive cases agreed to treatment
 - Tomcho et al. (2022) implemented universal screenings to improve GC/chlamydia screening rates, had 14% increase in screening rates and higher infection rates identified
 - Elattma et al. (2020) implemented universal screenings in primary and urgent care settings over an 18 month period and screening rates improve from 29-71%

AIM OF PROJECT

Increase gonorrhea and chlamydia screenings in family medicine



FOR PROVIDERS IN FAMILY PRACTICE,
PROVIDING CARE TO PATIENTS 14-24, DOES THE
IMPLEMENTATION OF UNIVERSAL SCREENING
FOR CHLAMYDIA AND GONORRHEA, COMPARED
TO ANNUAL SCREENING, IMPROVE DETECTION
AND TREATMENT OF CHLAMYDIA AND
GONORRHEA, IN A 5-WEEK TIMEFRAME?

Project Question

PLAN

- Urine sample obtained during intake process (excluding patients getting pap or pelvic exam) in patients 14-24
- Order proposal sent to provider
- Provider will inform patient of urine sample to be sent and sign order while in room with patient
- MA will take to lab
- During 5-week implementation clinic flow will be monitored and adjusted if needed, screenings tracked
- Goal to improve screenings by 25% and implement into organization

QUESTIONS?

Contact
helen.capehart@kernmedical.com
661-623-1317

REFERENCES

Allison, B. A., Park, R. V., Walters, E. M., & Perry, M. F. (2022). Increased detection of gonorrhea and chlamydia after implementation of a universal screening protocol in a pediatric primary care clinic. *Sexually Transmitted Diseases*, 49(2), 117-122. DOI: [10.1097/OLQ.0000000000001534](https://doi.org/10.1097/OLQ.0000000000001534)

Centers for Disease Control and Prevention. (2022). *CDC fact sheet: Information for teens and young adults: Staying healthy and preventing STDs*. <https://www.cdc.gov/std/life-stages-populations/stdfact-teens.htm>

Centers for Disease Control and Prevention. (2022). *Chlamydia: CDC detailed sheet*. <https://www.cdc.gov/std/chlamydia/stdfact-chlamydia-detailed.htm>

Centers for Disease Control and Prevention. (2022). *Sexually transmitted infections treatment guidelines, 2021*. <https://www.cdc.gov/std/treatment-guidelines/gonorrhea-adults.htm>

Francisco-Natanauan, P., Leatherman-Arkus, N., & Pantell, R. H. (2020). Chlamydia and gonorrhea prevalence and treatment in detained youths: Strategies for improvement. *Journal of Adolescent Health*, 68(2021), 65-70. <https://doi.org/10.1016/j.jadohealth.2020.09.041>

Kern County Public Health Services Department. (2018). *STDS in Kern County, 2018 data update*. <https://kernpublichealth.com/wp-content/uploads/2020/11/STDS-in-Kern-County-update-2018-PDF.pdf>

REFERENCES

- Tomcho, M. M., Lou, Y., O'Leary, S. C., Rinehart, D. J., Thomas-Gale, T., Penny, L., & Frost, H. M. (2022). Closing the equity gap: An intervention to improve chlamydia and gonorrhea testing for adolescents and young adults in primary care. *Journal of Primary Care and Community Health*, 13, 1-10.
[https://doi: 10.1177/21501319221131382](https://doi.org/10.1177/21501319221131382)
- U.S. Department of Health and Human Services. (2022). *Sexually transmitted infections: National strategic plan for the United States*. <https://www.hhs.gov/programs/topic-sites/sexually-transmitted-infections/plan-overview/index.html>
- U.S. Preventative Services Task Force. (2021). *Chlamydia and gonorrhea: Screening*. <https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/chlamydia-and-gonorrhea-screening#fullrecommendationstart>

Appendix D

| | Patients seen ages 14-24 | Patients screened for gonorrhea and chlamydia ages 14-24 |
|--------|--------------------------|--|
| Week 1 | | |
| Week 2 | | |
| Week 3 | | |
| Week 4 | | |
| Week 5 | | |

Appendix E

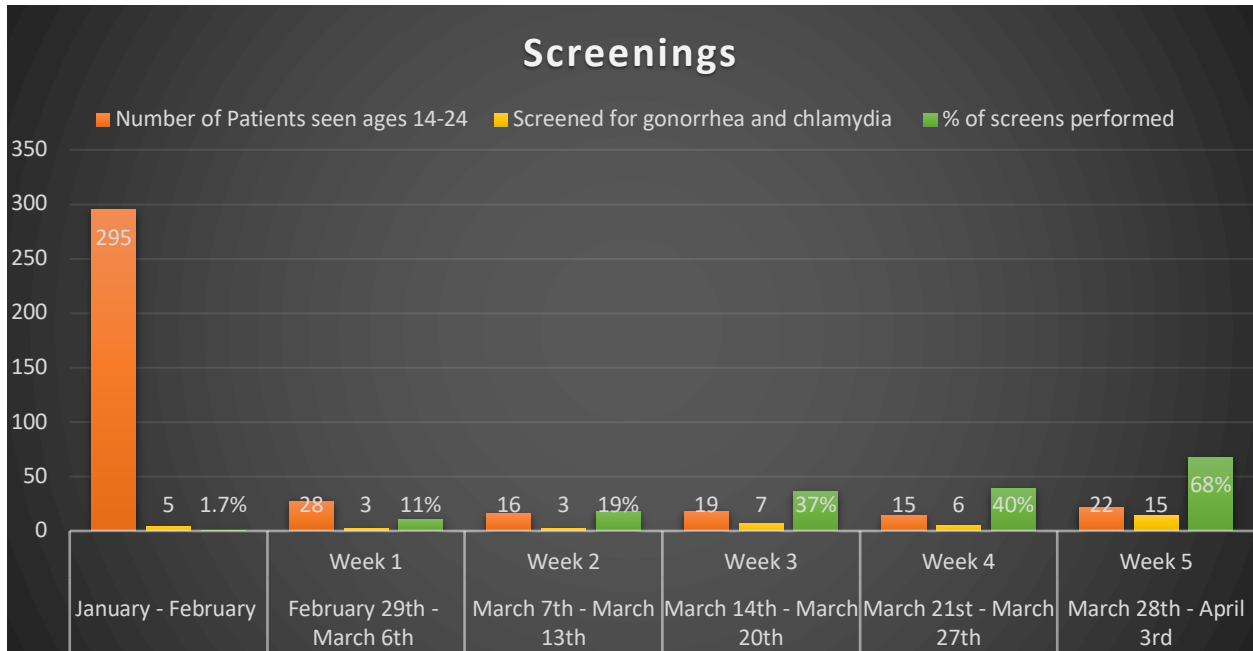
Family Medicine Staff:

This email is a reminder of the quality improvement project currently underway in the family medicine clinic. With the goal to improve gonorrhea and chlamydia screenings by 25% following the 5-week implementation, I recognize the importance of all of you in the success of this project. Please remember that all patients ages 14-24 will be universally screened for gonorrhea and chlamydia in the family medicine clinic. I have attached the PowerPoint presentation for your reference if needed. Please reach out with any questions. Thank you!

Helen Capehart, FNP-C
hcapehart@kernmedical.com
hcapehar@student.touro.edu
661-623-1317

Appendix F

| | Patients seen ages 14-24 | Patients screened for gonorrhea and chlamydia ages 14-24 |
|--------|--------------------------|--|
| Week 1 | 28 | 3 |
| Week 2 | 16 | 3 |
| Week 3 | 19 | 7 |
| Week 4 | 15 | 6 |
| Week 5 | 22 | 15 |



Appendix G

| | |
|---|--|
| Week 1 Dates: (February 29-March 6.) | <ul style="list-style-type: none"> • Educational meeting with family medicine staff with PowerPoint presentation on project, clinical flow reviewed with family medicine staff • Email sent out day after educational meeting with PowerPoint and reminder of clinic flow • Start project implementation and work with staff throughout the week to implement clinic flow • Chart review at the end of the week, logged in table |
| Week 2 (March 7-March 13) | <ul style="list-style-type: none"> • Continued implementation of universal screenings, check in with clinical flow • Weekly email reminder • Chart review at the end of week, logged in table |
| Week 3 (March 14-20) | <ul style="list-style-type: none"> • Continued implementation of universal screenings, check in with clinical flow • Weekly email reminder • Chart review at the end of week, logged in table • |
| Week 4 (March 21-27) | <ul style="list-style-type: none"> • Continued implementation of universal screenings, check in with clinical flow • Weekly email reminder • Chart review at the end of week, logged in table |
| Week 5 (March 28-April 3) | <ul style="list-style-type: none"> • Continued implementation of universal screenings, check in with clinical flow • Data collection • Project evaluation |
| | |
| Weekly Summary | |
| Clearly and succinctly summarizes project status and discussion includes any updates to the project timeline. | |
| DO NOT COMPLETE THIS NOW- SAVE THIS FOR DNP PROJECT III | |
| Week 1 (February 29- March 6) | I held my educational meeting on February 29 th at the family medicine clinic. The majority of the staff were in attendance and a PowerPoint presentation was given regarding the project and implementation details. |

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| | <p>For those that could not attend, a follow up email was sent the next day including the PowerPoint and clinical flow reminder. When I am in the clinic later in week, I will assess clinic flow and answer further questions from the staff if needed. At the end of the week, I will perform the first week chart review and log in the table for data collection.</p> |
| <p>Week 2 (March 7-March 13)</p> | <p>The reminder email was sent out 3/8/24. The data table was completed after the completion of week one. On 3/12/24 I will be in the clinic to assess clinical flow and meet with the medical assistants again to ensure they are screening patients 14-24. The table is suggesting that screenings are being missed, so I will follow up with the medical assistants and providers to assess any barriers/needs and ensure they are following universal screening methods.</p> |
| <p>Week 3 (March 14-20)</p> | <p>The reminder email was sent 3/16/24. The data table was completed after the completion of week two. Most screenings are still being missed, this was addressed in email and I will reminder clinic staff again when I am in clinic this week 3/19/24.</p> |
| <p>Week 4 (March 21-27)</p> | <p>Family medicine staff meeting was held 3/21/24 and the project was brought up, emphasized to family medicine staff. The reminder email was sent 3/23/24. The data table was completed after the completion of week three. Screening numbers improved in week three, but still a lot missed.</p> |
| <p>Week 5 (March 28-April 3)</p> | <p>The reminder email was sent 3/30/24, this is the final email. The data table was completed after the completion of week four and will be done after week 5 as well. Screening numbers improved in week four. Beginning to work on data collection and project evaluation.</p> |