

Amanda Borgstrom, DNP, FNP-C, Nurse Practitioner ¹,
Ann Schaeffer, DNP, CNM, FACNM, Assistant Professor²

¹Princeton University, University Health Services, Princeton, New Jersey

²Frontier Nursing University, Versailles, Kentucky

Component 1 - Purpose

Background:

National Problem

- In 2020, over 1.5 million chlamydia cases and over 650,000 gonorrhea cases nationwide.
- 60% of cases in US are among age 15-24.
- Costs US \$1 billion annually.

Local Problem

- Staff survey at Princeton University Health Services (UHS):
 - 75% (n=15) knowledge gap regarding chlamydia symptoms.
- Chart audit at UHS:
 - 85% (n=34) of patients had symptoms of chlamydia
 - Of those, only 13% (n=5) received testing
- Patient survey at UHS:
 - 75% (n=15) knowledge gap regarding testing recommendations

Purpose:

The purpose of this QI project was to increase effective chlamydia and gonorrhea screening and testing, leading to earlier detection and prevention of complications and disease transmission in a campus community.

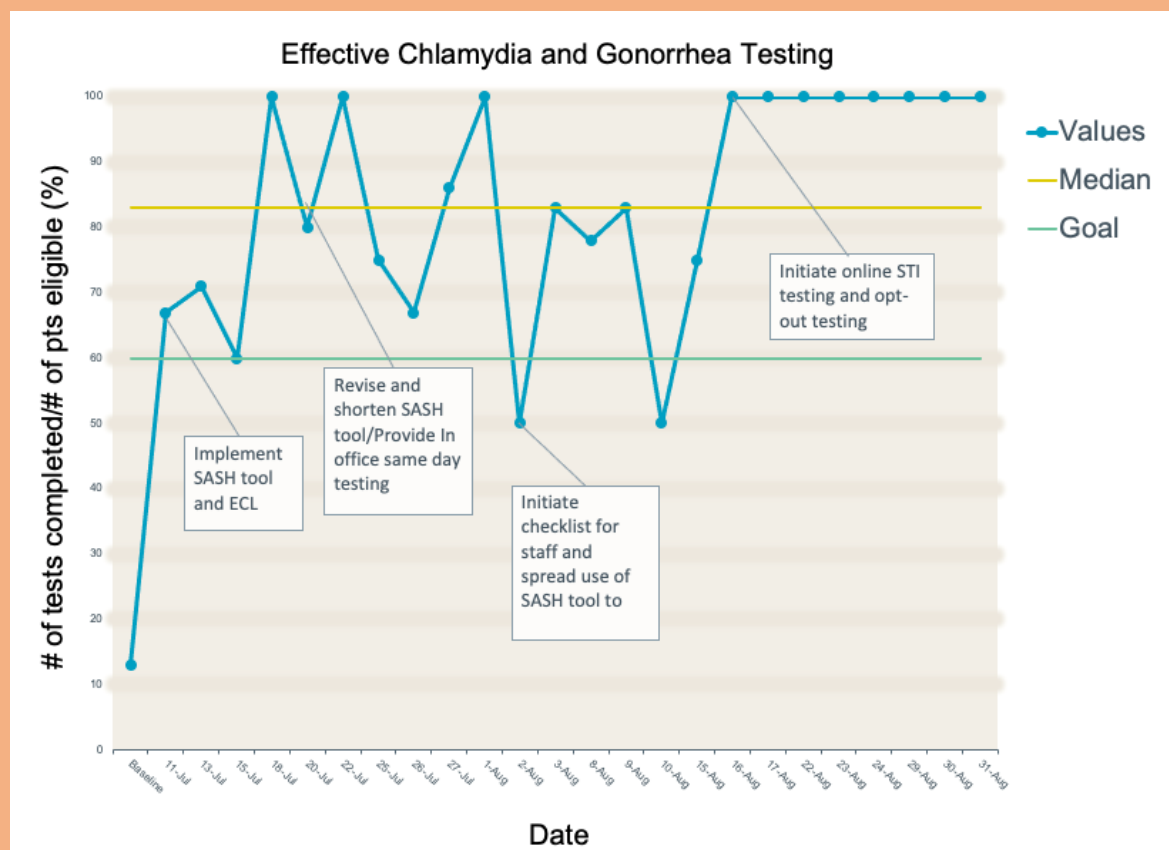
Component 2 – Benchmark and Goals

Benchmarking:

The rationale for this goal was based on the ACHA 2015 Sexual Health Services Survey Report that was issued and the ACHA 2021 Sexual Health Services Survey.

Performance Goal:

The goal was to increase effective chlamydia and gonorrhea screening and testing at UHS to 60% in 8 weeks.



Component 3 – Data Collection Plan

Core Interventions:

- An in-house Self-Administered Sexual History (SASH) tool, adapted from the CDC, was used for sexual health screening to identify whether a patient was eligible for testing.
- An effective care log (ECL), consisting of 8 indicators, was used to audit care and provide feedback for patients that screened positive for testing. A mean effective care score was calculated based on these results.
- Quantitative data were collected 3 days per week from SASH tools and the ECL. Qualitative data were collected from the healthcare team and patients every 2 weeks and were analyzed for salient themes.

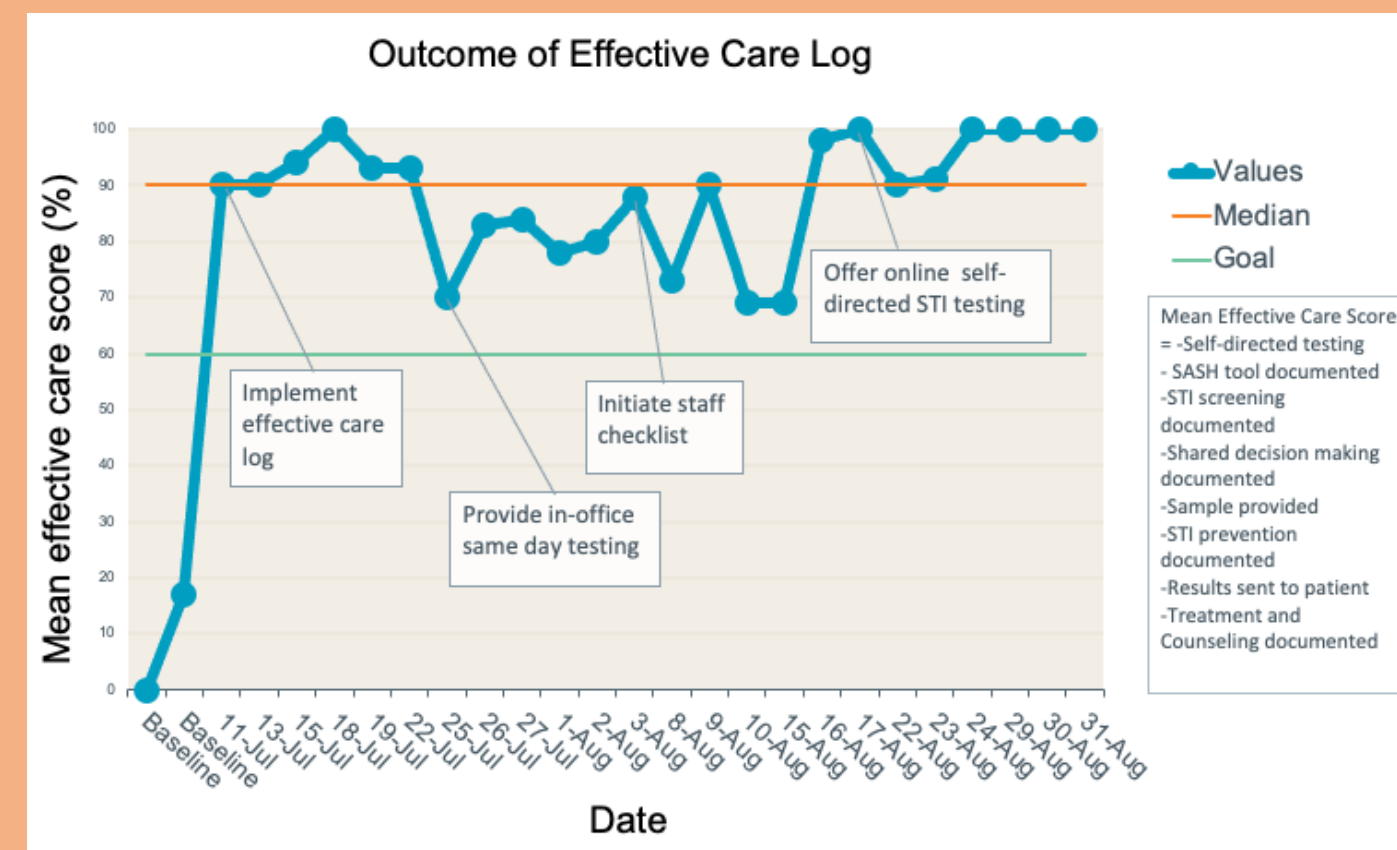
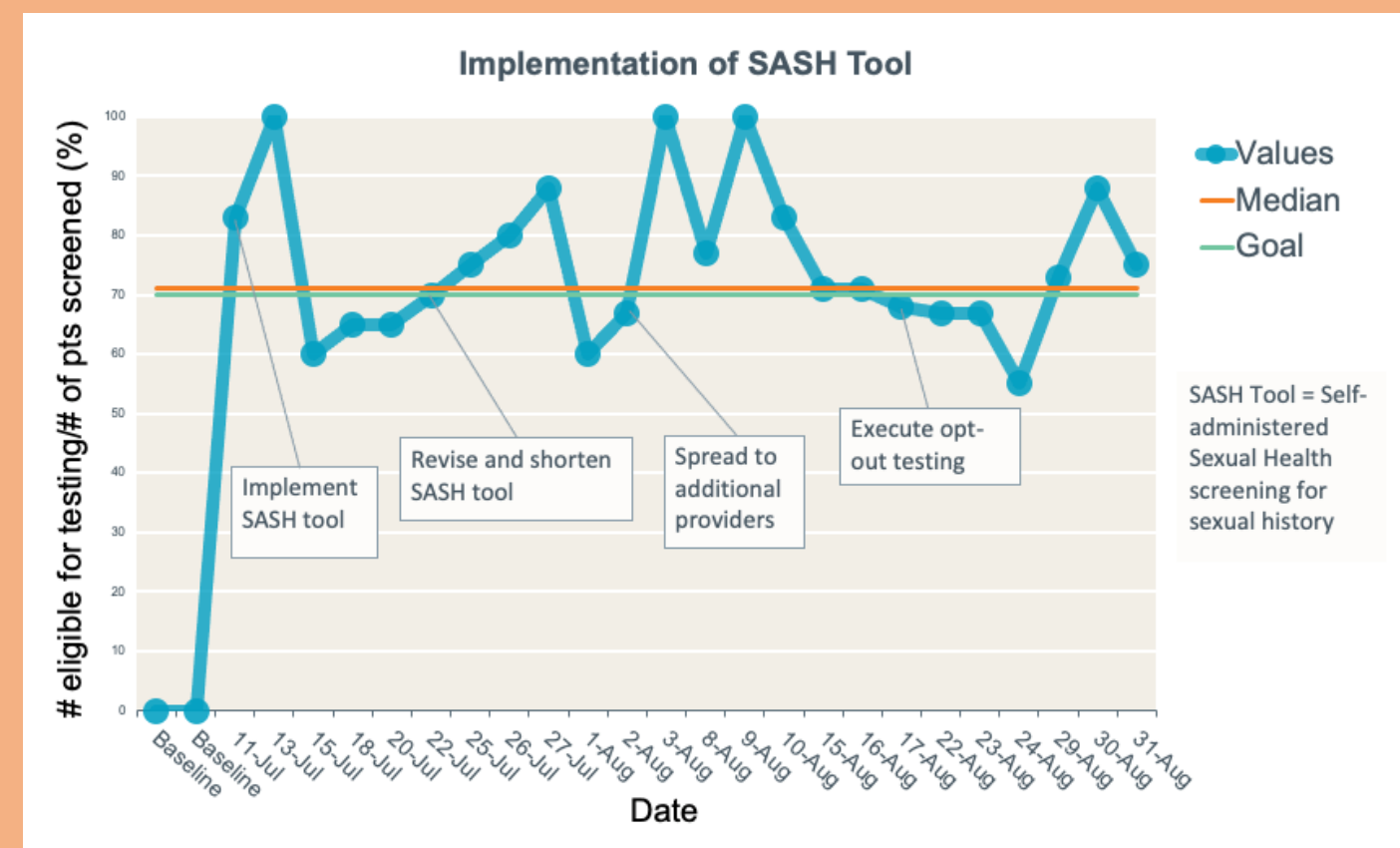
Component 4 – Evidence of Data Collection

Qualitative data were collected from field notes and patients' visits.

Quantitative data collected included:

- The SASH tool was used for sexual health screening for 207 annual, problem, and physical appointments to identify patients who are eligible for testing.
 - Testing eligibility included positive sexually active status, age younger than 24 years, not screened for chlamydia in the last year, request for STI screening, or individuals who engage in high-risk sexual behavior, including having multiple current partners, having a new partner, using condoms inconsistently, etc. Patients who screened positive for eligibility were given a brief shared decision-making session to determine if testing was desired.
- An ECL was used to audit care and provide feedback for 218 patients over the 8-week implementation phase.
 - The indicators included whether the SASH tool, SDM, and STI testing were offered, whether prevention, treatment, and counseling were documented, and if the sample was collected and results were sent (Table 2). A mean effective care score (ECS) was calculated based on these results.

Two process measures for tool utilization and two outcome measures for the impact of the tool were developed to measure the effect of the SASH tool and the ECL.



Component 5 – Data Analysis

Quantitative data were collected and plotted on run charts and analyzed for runs, shifts, trends, and astronomical points for each PDSA cycle.

Qualitative data were collected from field notes and patients' visits and were used to make annotations for outlying data that impacted the next test of change.

Component 6 – Comparison to Goal

Implementing the SASH tool increased the identification of at-risk patients from 0% to 67%, falling short of the 70% goal. Although 100% began the form, only 78% completed it.

The mean effective care scores increased from 17% to 90%, exceeding the goal of 60%, results lower for certain patients due to a lack of documentation by the providers on busy days.

Effective chlamydia and gonorrhea testing increased from 13% at baseline to 44% after cycle 1, falling short of the goal of 60.

Component 7 – Corrective Actions

SASH tool corrective action: shortening and revising the tool and spreading the use of the SASH tool to other providers.

Effective care log corrective action: reducing barriers to same day samples and a staff checklist was developed.

Remeasurement to occur every 2 weeks over a period of 8 weeks to allow adequate data collection and analysis of change needed.

Component 8 – Re-measurement

Shortening and revising the SASH tool and spreading use to additional providers increased the identification of at-risk patients from 67% to 73%, exceeding the goal of 70%.

The mean effective care scores decreased slightly from 90% to 86% with reduced barriers to providing samples and staff checklist, exceeding the goal of 60%.

Effective chlamydia and gonorrhea testing increased from 44% to 76%, exceeding the goal of 60%.

Component 9 – Additional Corrective Action

Opt-out testing was initiated to decrease stigma and normalize testing.

The final corrective action for the effective care log focused on adding an option for self-directed STI testing to decrease barriers and expand the accessibility and convenience of testing to students not seen at UHS.

Component 10 – Communication of Findings

- The findings were communicated throughout the QI project during daily huddles, email updates, team lunches, biweekly meetings with leadership, and monthly meetings with the QI team.

- Presentation of final results to Quality Improvement Committee 9/30/2022.

- The final results were communicated to UHS staff during a presentation on November 29, 2022.

- Storyboard was displayed in the waiting room for staff and students to review during the months of December 2022, January, and February 2023.

- Storyboard of the QI project was presented at the IHI Forum Conference in December, 2022.

- Publication in a journal is underway.