Increases in adherence to gonorrhea treatment recommendations in three California local health jurisdictions associated with a targeted provider intervention

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Background

- To counter emerging drug-resistant gonorrhea (GC) and reduce transmission, adherence to recommended treatment guidelines is essential
- Treatment monitoring in the California state surveillance system indicated that improved provider treatment adherence and reporting were needed
- The California Department of Public Health partnered with local health jurisdictions (LHJs) to increase GC treatment adherence and reporting

Objective

- To improve GC treatment data completeness and adherence in three LHJs by contacting high volume providers

Methods

- Three LHJs (intervention group) were prioritized based on GC morbidity (>1,000 cases in 2013), geographic representation, low GC data completeness, and treatment adherence
- Three similar (in morbidity and geography), non-intervention LHJs were identified for comparison
- In 2015, intervention LHJs contacted high volume providers who were not reporting GC treatment or were poorly adherent using visits, phone calls, and/or letters
  - A total of 93 providers were contacted, mostly due to missing GC treatment data or treating GC with non-recommended therapy
  - Intervention LHJs recorded the amount of staff time needed for each type of provider contact to assess intervention cost efficiency
- Chi-square tests were used to compare the percent adherent in 2013 (pre-intervention) to the first half of 2016 (post-intervention) for intervention and non-intervention LHJs

Figures

Figure 1. Percent with completed treatment data over time, 2013 to 2016

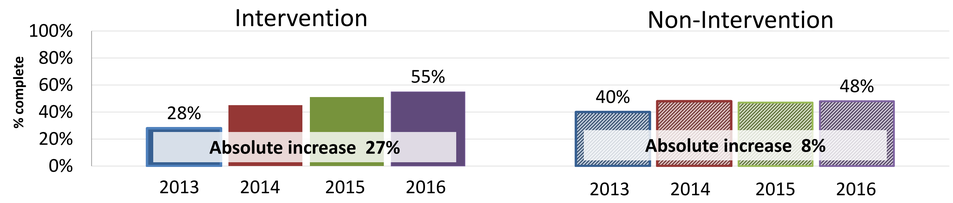
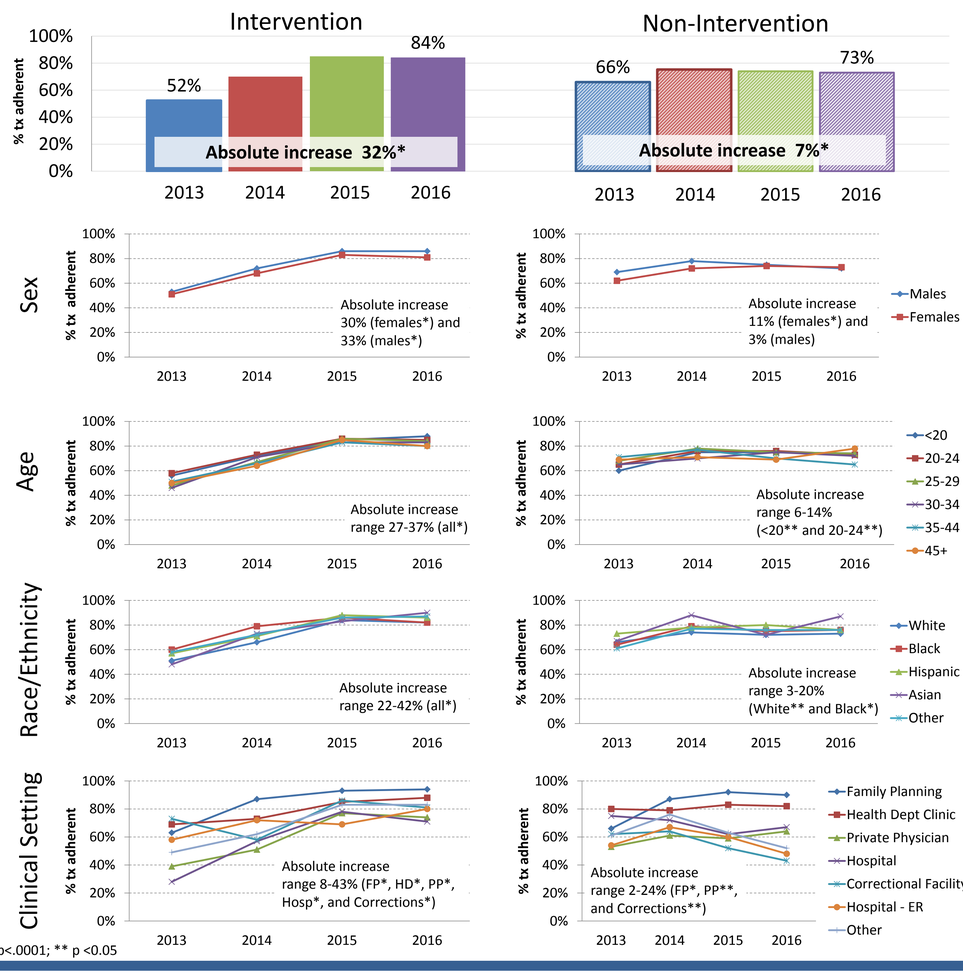


Figure 2. Percent treatment adherence over time, 2013 to 2016



* p<.0001; ** p <0.05

Results

- GC treatment completion increased 27% in intervention LHJs, compared to 8% in non-intervention LHJs (Figure 1)
- Treatment adherence increased significantly for intervention LHJs overall (32%) and within strata for almost every variable examined (both sexes; all age groups; all race/ethnicities; and family planning, health department clinic, private physician, hospital, and correctional clinical settings) (Figure 2)
- Treatment adherence increased significantly for non-intervention LHJs overall (7%) and within strata for a limited number of variables (females; <20 and 20-24 year old age groups; White and Black race/ethnicities; and family planning, private physician, and correctional clinical settings) (Figure 2)
- Intervention LHJs reported that calls and letters were more cost-efficient than visits

Limitations

- This analysis was observational and ecological
  - It is impossible to tease out the true impact of the intervention given all of the potential factors that could have impacted adherence that could not be controlled for
- Even after the intervention, there were still high levels of missing GC data which could bias our adherence results
- These findings are specific to these three intervention LHJs

Conclusions

- By prioritizing high volume, poorly adherent providers, all three LHJs made significant improvements in both GC treatment data completion and adherence
- Given that the intervention required local staff time to implement, phone calls and letters were found to be the most cost-efficient use of limited resources

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