# Sexual Health Honey-Do List

## Correlates of Patient Knowledge of Partner's Treatment Status

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*honey-do list*
- Pick up milk
- Fix leaking sink
- Fold laundry
- Get treated for gonorrhea
- Prevent re-infection

## Background

Effective intervention for sexually transmitted diseases involves not only treating diagnosed individuals, but also ensuring that all recent, potentially exposed sexual partners are also successfully treated. Failure to know whether recent sexual partners have been treated may represent barriers to effective communication between partners regarding sexual health, or may reflect the transient nature of some relationships. Identifying the correlates of such knowledge can help target prevention efforts and ensure that all patients and their partners receive the necessary services, treatment, and education to reduce additional disease transmission and avoid repeat infections.

While the surveillance data traditionally captured by the Virginia Department of Health (VDH) is often missing patient treatment status for cases diagnosed with gonorrhea, and generally contains no information at all about the partners of such cases, more detailed information on patient and partner treatment was available for analysis through enhanced surveillance initiatives conducted in select localities of Virginia.

## Methods

As part of the STD Surveillance Network (SSuN), four localities in Virginia conducted phone interviews on an ongoing basis with individuals diagnosed with gonorrhea. Patients were contacted by phone within 60 days of diagnosis, and computer-assisted interviews were conducted using standardized scripts.

Data collected from 2010-2013 included 1,722 completed patient interviews (partial interviews were excluded). Previous analyses have indicated that there were only slight differences in interview success rates by patient demographics (such as age, gender, and race). Thirty-eight percent of all gonorrhea cases selected for interview during this time period were successfully interviewed.

These interview data were used to assess gonorrhea patients' knowledge of their partners' treatment status. Correlations between knowledge of partner's treatment status and the patient's own demographic characteristics, risk behaviors, and subsequent repeat gonorrhea infections were examined. Preliminary bivariate analyses were followed by binary and ordinal logistic regression modeling to identify risk factors for patient knowledge and for re-infection.

*"Think back to the last person you had sex with before you were tested for gonorrhea. How sure are you that this partner got treated?"*
- ☐ Sure partner was treated
- ☐ Unsure whether partner was treated
- ☐ Sure partner was not treated

## Results

Of the 1,722 patients with completed interviews, 58% were female, and 87% were black (non-Hispanic). Twenty-four percent were between 15-19 years of age, while the majority were between 20-34 years (67%). Among males, 19% reported that their sexual orientation was homosexual, while an additional 9% indicated that they were bisexual.

Women were more likely than men to be unsure of their partner's treatment status (45% vs. 41%), and women were also more than twice as likely to report that their partners had not been treated for gonorrhea (9.2% vs. 4.3%). In regression analyses, patient race, age, and education were not notably associated with being unaware of partner's treatment status. Similarly, the type of provider where patients were diagnosed with gonorrhea and received care was not correlated with knowledge of partner's treatment status.

One quarter of men and 30% of women reported having sex with their partner since they had been treated. Patients who were unsure of their partner's treatment status were significantly less likely to report having sex with that partner since their own diagnosis (OR = 6.3, 95% CI: 4.8-8.4).

None of the risk behaviors surveyed were significant predictors of treatment knowledge among women. Among men, multiple recent sex partners, a previous gonorrhea diagnosis in the past year, and chlamydia co-infection were all associated with being unsure of their partner's treatment status. For example, men who reported having 3 or more recent sex partners (within the previous 3 months), were 2.1 times more likely to be unaware of their partners' treatment status compared to men who had only one recent sex partner (95% CI: 1.4-3.1).

Over one-fifth of interviewed patients had repeat gonorrhea infections during the time period, but re-infection was not associated with knowledge of partner's treatment.

### Partner Treatment Status by Gender of Interviewed Patient



### Partner Treatment Status by Patient Demographics & Risk Behaviors

| | Men | | | Women | | |
|---|---|---|---|---|---|---|
| | Treated | Unsure | Not Treated | Treated | Unsure | Not Treated |
| **Demographics** | % | % | % | % | % | % |
| **Race** | | | | | | |
| Black, non-Hispanic | 55.4% | 40.5% | 4.1% | 44.6% | 46.8% | 8.6% |
| White, non-Hispanic | 48.1% | 46.9% | 4.9% | 54.2% | 27.1% | 18.8% |
| Hispanic | 46.9% | 43.8% | 9.4% | 50.0% | 39.3% | 10.7% |
| Other, non-Hispanic | 50.0% | 50.0% | 0.0% | 54.5% | 45.5% | 0.0% |
| **Age group** | | | | | | |
| 15-19 years | 64.9% | 33.0% | 2.1% | 43.3% | 47.9% | 8.9% |
| 20-24 years | 55.0% | 40.9% | 4.1% | 44.6% | 46.3% | 9.1% |
| 25-34 years | 52.9% | 40.3% | 6.8% | 48.7% | 42.5% | 8.8% |
| 35-44 years | 41.3% | 58.7% | 0.0% | 46.2% | 34.6% | 19.2% |
| 45+ years | 47.8% | 47.8% | 4.3% | 66.7% | 33.3% | 0.0% |
| **Sexual orientation** | | | | | | |
| Heterosexual | 54.4% | 42.7% | 2.9% | 44.3% | 46.5% | 9.2% |
| Homosexual | 52.2% | 41.0% | 6.7% | 0.0% | 100.0% | 0.0% |
| Bisexual | 53.3% | 36.7% | 10.0% | 65.5% | 29.1% | 5.5% |
| **Sex with partner since treated** | | | | | | |
| No | 45.4% | 51.8% | 2.8% | 36.1% | 57.1% | 6.8% |
| Yes | 80.3% | 10.7% | 9.0% | 67.1% | 18.5% | 14.4% |
| **Anonymous sex\*** | | | | | | |
| No | 56.9% | 39.2% | 4.0% | 46.7% | 44.8% | 8.5% |
| Yes | 45.9% | 48.6% | 5.5% | 34.1% | 53.8% | 12.1% |
| **Number of recent sex partners\*\*** | | | | | | |
| 0 partners | 71.4% | 28.6% | 14.3% | 25.0% | 75.0% | 0.0% |
| 1 partner | 61.3% | 34.3% | 4.4% | 47.3% | 44.0% | 8.7% |
| 2 partners | 55.7% | 40.6% | 3.7% | 41.8% | 48.3% | 9.9% |
| 3+ partners | 43.2% | 51.3% | 5.5% | 41.8% | 50.6% | 7.6% |
| **History of gonorrhea\*** | | | | | | |
| No | 53.3% | 42.4% | 4.3% | 45.3% | 46.0% | 8.8% |
| Yes | 63.9% | 31.1% | 4.9% | 46.7% | 41.1% | 12.2% |

\* in the previous 12 months        \*\* in the previous 3 months

## Conclusions

Patient knowledge of their partner's treatment status varied only slightly by most demographic characteristics and risk factors, but it did influence subsequent sexual encounters. Other characteristics of gonorrhea repeaters, such as where they were diagnosed and received care, may be better suited to inform targeted prevention efforts to reduce re-infection rates. For example, ensuring proper patient education and partner services may be particularly important for patients diagnosed in emergency department or urgent care facilities where treatment and counseling for sexually transmitted disease may not be emphasized.

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