



Chlamydia testing and management at Australian family planning clinics

Never Stand Still

Medicine

The Kirby Institute

Summary Report

January 2014

Joanne Micallef

Rebecca Guy

Larissa Lewis

John Kaldor

The Kirby Institute, University of New South Wales, Sydney, Australia

Julie Mooney-Somers

Centre for Values, Ethics and the Law in Medicine, University of Sydney, Sydney, Australia

Deborah Bateson

Family Planning New South Wales, Ashfield, Sydney, Australia

Caroline Harvey

Family Planning Queensland, Brisbane, Australia

Caroline Van Gemert

The Burnet Institute, Melbourne, Australia



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SYDNEY



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Acknowledgements

We acknowledge the following individuals and organisations for contributing to this project:

The management and senior staff of Family Planning organisations

who supported the study and encouraged clinicians to complete the survey and participate in focus group discussions.

Muhammad Jamil and Handan Wand

for their statistical support.

Survey participants

The 168 clinicians who contributed their time to completing the online survey.

Focus group participants

The 70 clinicians and staff members who shared their experience, knowledge and views during focus group discussions.

This project was funded by a National Health and Medical Research Council (NHMRC) Program Grant.

The Kirby Institute is funded by the Australian Government Department of Health and is affiliated with the Faculty of Medicine, UNSW Australia.

List of Abbreviations

ACCESS	Australian Collaboration for Chlamydia Enhanced Sentinel Surveillance
AOR	adjusted odds ratio
ASHM	Australasian Society for HIV Medicine
CEO	Chief Executive Officer
CI	confidence interval
FP	Family Planning
FPC	Family Planning Clinic
FPWNT	Family Planning Welfare Association Northern Territory
GP	general practitioner
IUD	intrauterine device
LTK	Let Them Know
NHMRC	National Health and Medical Research Council
NSW	New South Wales
NT	Northern Territory
PID	pelvic inflammatory disease
PDPT	patient delivered partner therapy
SHine SA	Sexual Health information networking & education South Australia
SRH	Sexual and reproductive health
STI	sexually transmitted infection
WA	Western Australia

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Background

Infection with *Chlamydia trachomatis* is the most common reportable infection in Australia. Chlamydia infection is associated with adverse health outcomes including pelvic inflammatory disease (PID), ectopic pregnancy, and tubal infertility. In 2011, almost 80,000 cases of chlamydia were notified to Australian health authorities [1]. Due to the asymptomatic nature of chlamydia infection in a large number of people, these reported cases are only a subset of the true number of infections in the Australian population. Chlamydia screening is important to detect and treat chlamydial infections, consequently preventing the sequelae of untreated infection and onward transmission to sexual partners.

No single national recommendation for chlamydia testing exists. The 2008 National Management Guidelines for Sexually Transmissible Infections (STIs) recommends opportunistically screening asymptomatic people aged 16 to 29 years old for chlamydia [2] whilst annual chlamydia testing of young women is emphasised in general practitioner guidelines [3]. Quantitative data from selected Family Planning clinics collected through the Australian Collaboration for Chlamydia Enhanced Sentinel Surveillance (ACCESS) showed that 40% of 16-29 year olds were tested annually in 2008-2009 [4].

For those diagnosed with chlamydia, it is recommended that their sexual partners from the previous 6 months be tested for chlamydia and treated [5]. Contacting partners of clients infected with chlamydia is important to prevent reinfection of the index case and reduce the prevalence of chlamydia in the community. Although the ideal partner management strategy is to bring partners in for a clinical consultation, an alternative strategy is patient delivered partner therapy (PDPT) where a clinician provides a prescription or medication to a client to give to their sexual partner. Support for PDPT is increasing in Australia with international studies showing PDPT increases partner treatment and reduces reinfection rates [6-9]. Although the Australasian Chapter of Sexual Health Medicine of the Royal Australasian College of Physicians advocated for PDPT legalisation in 2011, to date the Northern Territory remains the only jurisdiction to have passed legislation on PDPT use.

Re-testing after treatment is important to detect and treat repeat infections which are common in women and occur most often in the few months following treatment of initial infection. A prospective cohort of young women in 2008-2009 demonstrated a chlamydia repeat infection rate of 22% at 12 months [10]. Repeat infections are associated with a two- to four-fold increased risk of reproductive health complications, compared to a single infection [11]. The 2008 National Management Guidelines for Sexually Transmissible Infections (STIs) encourages retesting at 3 months following a diagnosis of chlamydia [2] whilst general practice guidelines suggest retesting between 3 and 12 months [3]. Data from ACCESS showed a retesting rate of 12.7% at 0.5-4 months following treatment for chlamydia among individuals aged 16-29 years in the Family Planning Network [4].

Study setting and objectives

Family planning organisations in Australia are state-based non-government organisations and clinics offering a variety of sexual and reproductive health services. There are 29 family planning clinics located across all Australian states and territories. These clinics have high case loads of young, sexually active women (primarily) and men at risk of chlamydia infection.

The primary objective of this study was to assess chlamydia testing, contact management and re-testing practices of clinicians at family planning clinics across Australia. The secondary aim was to provide detailed information to family planning clinics on opportunities for training, support and future interventions to enhance chlamydia testing and management.

Methods

A cross sectional survey and focus groups were used in a mixed-methods sequential study design. The cross sectional survey was conducted online; all doctors and nurses at Australian family planning clinics were invited to complete the survey by email. The survey was open for clinicians to complete for 6 weeks, with a reminder emailed out after 4 weeks to encourage non-responders.

The survey determined clinician demographics, clinical experience, and knowledge, attitudes, and practices related to chlamydia testing and management (partner notification and retesting). Five-point likert scales (strongly agree to strongly disagree) or four-point scales (always, usually, sometimes or never) were mostly used. The online survey was pilot tested with clinicians to test the competency of the online survey instrument and validate survey length and content.

With the exception of South Australia and Western Australia, all jurisdictions participated in focus group discussions in which the survey results were used to identify a diverse sample of clinics for each State and Territory. Family planning organization CEOs were emailed an invitation for their clinic to participate in a focus group discussion. Participating clinics set aside time during a lunch time or directly after clinic hours for a focus group and invited all doctors and nurses (and in some clinics, health promotion officers) within the clinic to attend. Focus groups were facilitated by two researchers and digitally recorded. Discussions explored chlamydia testing, contact management, retesting practices and opportunities for improvement.

Role of Nurses in Family Planning Clinics

Nurses in Family Planning Clinics work in various roles within and between states. The majority have sexual and reproductive health (SRH) qualifications but the scope of practice includes specialised SRH Advanced Practice nurses which may include limited medication supply, various autonomous clinical consulting roles and phone advice or clinical practice support. State/territory legislation governs nurse medication supply which impacts on the degree of autonomy in treating chlamydia. For example, in Queensland most FP nurses are authorised under legislated Drug Therapy Protocols to autonomously supply treatment for people diagnosed with chlamydia and their contacts. Nurses in other jurisdictions may need to refer all chlamydia cases to FP doctors for management. The survey did not collect information on nursing

roles and as a result, collated medical and nursing findings on practice in testing and treatment need to be interpreted with this in mind.

Statistical Analysis

Descriptive statistics were used to examine the responses of clinicians to questions. Survey respondents were not required to answer every question. As a result, the number of responses for each question may not be equivalent to the total number of survey participants.

Logistic regression was used to assess factors associated with always/usually directing the clients to the Let Them Know website (www.letthemknow.org.au) and any use of PDPT by clinicians.

Analyses were carried out using Stata 12.0 (College Station, TX).

Qualitative Analysis

A thematic analysis [12] was conducted on 11 focus group transcripts to identify and explore three broad domains of interest – screening, retesting, and contact management – and what facilitates and hinders success in each. NVivo 10.0 was used to support analysis.

Results and Discussion

The following addresses the primary objective of this study, to assess chlamydia testing, contact management and re-testing practices of clinicians at family planning clinics across Australia.

Demographic characteristics

Summary

- *Survey*
 - *168/212 clinicians participated in the online survey (response rate, 79%)*
 - *98% female*
 - *56% nurses*
 - *70% of clinicians had more than 5 years' experience working in reproductive and sexual health*
 - *80% worked ≤20 hours per week.*

- *Focus groups*
 - *Held in metropolitan and regional centres across Australia*
 - *70 nurses, doctors, health promotion officers participated*
 - *Most participants worked part time in the family planning setting.*

Of the 212 clinicians invited to complete the online survey, 168 participated, giving an overall response rate of 79%. Clinicians from all Australian jurisdictions were represented (Table 1). The majority of clinicians were female (98%) and 56% were nurses. Almost half of the clinicians (47%) had worked for more than five years at their family planning organisation and 70% had worked as a clinician in the area of reproductive and sexual health for more than 5 years. The majority of clinicians worked part time providing clinical services in a family planning service with 80% working 20 hours a week or less (Table 1).

Eleven focus groups were held in metropolitan and regional centres across Australia. A total of 70 nurses, doctors and health promotion officers participated. The focus group sizes ranged between 4 and 11 participants. Reflecting the survey sample, 55% of the participating staff had worked for more than five years at a family planning organisation; a third had been working with family planning organisations for 10 years or more. As with the survey sample, most clinicians worked part time, with many also reporting they also worked in general practice.

Screening for chlamydia

Summary

- Screening for chlamydia was perceived by clinicians as routine and a priority. 
- A high percentage of clinicians 'always' offered screening to female clients presenting for a Pap test or IUD insertion or female clients with a new partner. 
- Chlamydia screening facilitators:
 - high community awareness of chlamydia; 
 - communicating to clients that chlamydia testing is normal; 
 - good relationship between FPC/clinicians and client; 
 - providing easy access to screening;  and
 - the ability to offer screening without a physical examination. 
- Evaluating the success of chlamydia screening:
 - clinicians felt confident that chlamydia screening was going well at both the individual and FPC level; 
 - clients widely accept the offer to be screened for chlamydia; 
 - informal review of clinic notes by clinicians reassured them that screening was occurring;  and
 - formal reviews through audits challenged the clinicians' perception of chlamydia screening rates. 
- Challenges of chlamydia screening:
 - clients being considered low or no risk;  
 - refusal by clients and dealing with decliners;  
 - clients being tested elsewhere;  and
 - clinicians worrying that clients may be offended by screening offer so not offering. 
- Clinicians raised concerns about over-testing for chlamydia. 

Icons denote where data came from.  = data came from survey.  = data came from focus group discussions.

When asked in focus groups to talk generally about the organisational ethos around chlamydia, all groups talked about chlamydia screening as **normal, routine and a priority**. Chlamydia was: "our core business", "second nature", "in the background of our DNA." One clinician said: "I feel guilt if they've left the clinic and I realise I forgot to do it." Offering chlamydia screening was presented by clinicians as a routine part of any visit to the FPC, and part of the daily work of reception and clinical staff: "you call someone in, you take a sexual history, and we start talking

about would they like a chlamydia test.” Chlamydia screening remained routine regardless of the reason for consult: *“no matter what they’ve come in for, you’re going to mention it somewhere.”*

The ethos was formally disseminated through the FPC chlamydia policy (*“the bible”*). While all participants appeared aware of this policy, few described accessing it; the attitude was that the basics were so entrenched that people don’t need to look it up. Protocols were revisited in FPC meetings: *“reiterated to make sure we check everyone all the time.”*

Clinicians repeatedly described the framework for screening as **risk assessment**: *“we check the risk factor and whether there is a need to do a chlamydia test”* and *“everyone that comes into us, we do a risk assessment on them anyway.”* Risks that triggered a screening offer included: a young person, positive pregnancy test, recent partner change, multiple partners, recent relationship break up and symptoms: *“it’s like this radar: we’re scanning for things like beep-beep under 25.”* Screening was also offered to investigate unexplained bleeding or pain. In some FPCs screening was (still) a routine part of insertion of an IUD. There was variation around how age was treated as a risk factor. For some clinicians, being in the target age range (which varied across FPCs) triggered the offer of a screening test. For others, age triggered a conversation about other risk factors such as recent partner change (age was not a risk factor in and of itself). A small number of clinicians perceived FPC policy as identifying age as the only risk factor, something they resisted in practice by offering screening to everyone: *“I think the guidelines say offer testing to under-24s...but yeah, we don’t really – it’s not age dependent. It’s part of the standard history taking.”*

Despite the risk assessment framework described, participants said that in practice they **offered screening to everyone**: *“everyone that comes in, I ask – I offer chlamydia testing, pretty much everyone”* and *“test practically everybody.”* Screening was commonly offered regardless of risk assessment: *“part of basic history to look at whether there’s been a risk. And even if there hasn’t been a risk, we’ll still offer it.”*

The survey revealed that in an average week, 49% of clinicians requested 1 to 5 chlamydia tests, 31% requested 6 to 10 tests and 15% requested 11 to 20 tests (Table 2).

During the survey, clinicians were presented with a list of hypothetical clients, asymptomatic for chlamydia and asked whether they would offer them a chlamydia screening test in their usual practice (Figure 1 Table 2). Most clinicians (over 90%) ‘always’ or ‘mostly’ offer a chlamydia screening test to clients who present with genital symptoms (post coital bleeding, genital warts) or for contraceptive/Pap test related visits.

Clinicians were asked in the survey to indicate which specimens they would use to test clients for chlamydia in a range of circumstances (Table 3). For an asymptomatic woman presenting for the contraceptive pill, the majority of clinicians (88.1%) would collect urine and a less percentage (39%) would use a self-collected low vaginal swab. There was consensus among clinicians about specimens taken to test an asymptomatic woman having a Pap test (endocervical swab, 97.5%) or asymptomatic heterosexual man (urine, 99.4%). Clinicians testing a woman reporting abnormal discharge for chlamydia would collect a range of specimens: endocervical swab (81.8%); high vaginal swab (23.3%); urine (16.4%); or self-

collected low vaginal swab (11.3%). A range of specimens would also be collected from an asymptomatic man who had sex with men to test for chlamydia: urine, 91.8%; anal swab, 64.8%; throat swab, 37.1%; and urethral swab, 17%.

The survey revealed that clinicians managed more female clients with a positive chlamydia test, than male clients (Table 4). Almost half (47%) of clinicians managed one to three female clients with a positive chlamydia test per month, with 23% clinicians managing one or two female clients per week and 10% managing more than three female clients per week. Only 1% of clinicians managed more than 3 male clients per week with a positive chlamydia test, with the majority of clinicians managing less than 1 male client per month (43%), one to three per month (27%), or no male clients (21%).

Chlamydia screening facilitators

In focus groups, clinicians identified the following as facilitating chlamydia screening:

Chlamydia awareness - Participants perceived high chlamydia awareness in the broader community, especially among younger people, as supporting screening efforts at FPCs. Clients knew about chlamydia, that it was often asymptomatic and easy to treat, so they were less likely to be surprised – or reticent – when a clinician offered it: *“But I do feel that there’s a shift now in the community that people are so much more aware that you don’t have to do that ground work, it’s just a natural and common thing to test for.”* High community awareness was attributed to a range of education and promotion efforts by and beyond FPCs including FP outreach to schools and universities. However, older women and people in long-term relationships were perceived to have low chlamydia awareness: *“But there’s other groups of people who may be in a stable relationship, maybe a bit older, who are not thinking chlamydia. But when you do talk about chlamydia and then you’d often have to explain a little bit more.”*

Normalising screening - Clinicians spoke a lot about normalising chlamydia screening by offering it to everyone: *“it’s normal; everybody is having that message of: everybody who is having sex should be having this chlamydia test”* and *“nobody feels particularly targeted...we just try and ask everyone.”* Clinicians consciously offered screening in a way that normalised it: *“just say, ‘we offer everyone here a test.’”* This was seen as especially important for older clients: *“some of the older clients, when you broach with some of them, kind of shock...sometimes I feel like you’ve got to say that second sentence of ‘we offer everybody a test.’”* This approach could avoid them seeing the screening offer as a judgement on them or their relationship. A few clinicians also mentioned telling clients screening was evidence-based and part of their duty of care.

Relationship between client and clinician/clinic - A good relationship between client and clinician/clinic ensured client longevity, thus providing future opportunities for screening. This was important as clinicians felt that if they missed an opportunity to screen or ran out of time in a consult, they could rely on a colleague to pick it up at the next visit. They strongly believed there would be a next visit. Things that facilitated relationships with clients were: assuring clients of confidentiality; informing them of the process; treating them with respect and a lack of judgement; investing time in the relationship: *“People do see it as a safe place to go [...] you’ll be*

treated respectfully, that your information is confidential, that it's somewhere that you can talk about your sexual health issues without any sort of judgment going on."

Licence to discuss chlamydia - Participants said that clients expected them to raise issues like chlamydia: *"they have a slightly different expectation [compared to general practice] we get permission to ask those type of questions."* The clinic environment created this licence through posters and pamphlets in the waiting room; posters about urine testing in clinic toilets; reception staff asking for urine sample; and posters in consult rooms.

Providing easy access to screening - Clinicians described various strategies to make screening easy, such as drop-in times or prioritised access for young people; a policy of seeing people regardless of their ability to pay; testing outside Medicare (for young people without their own card): *"a young person that walks into the clinic without an appointment, that needs to be seen, we have a down tools sort of policy and we see them."* Most clinicians described dealing with people however they presented – an example often cited was a group of high-schoolers: *"we had three girls who came in together with their school uniforms on and their school bags. One of them needed to have the consultation but the three of them ended up in the room."*

Screening without a physical examination - A few focus groups discussed the benefits of being able to screen without a physical examination and having the flexibility to offer a urine sample screen or a swab. Self-swabbing (behind a screen or in the clinic toilet) was perceived to have been very successful despite clinician expectations that it would be less acceptable. There was a perception that the option of a self-swab meant women were more likely to come in because it was less invasive: *"To a young 14 year old girl who comes in, to go you just have to go to the toilet [...] to be able to say that you don't have to look or touch them, they're going okay. It makes it more appealing, I think."*

It is notable how few focus group participants mentioned paper or computer-based systems that supported screening. Only one focus group talked about automatic reminders in patient management systems; another discussed clinicians developing their own templates. One FPC had a new paper-based system for documenting that screening had been initiated, which seemed to remind clinicians to offer it in the first place. It is not clear if patient management systems are not being used widely to prompt screening or if they are not perceived to be useful by clinicians.

Judging success in chlamydia screening:

Clinicians in focus groups had a **very high level of confidence** that screening was going well at the individual and FPC levels. It was taken for granted that because screening was **normal, routine and a priority** clinicians could feel confident that this was translating into high levels of screening: *"I think we just, we virtually test everybody that needs to be tested, I suspect, except if people really say no, so we would get, we would do everybody."* Participants talked about feedback that communicated things were working well:

Screening acceptance - People taking up the offer of screening or seeking screening was evidence that education and the FPC approach was working: *"the number of people who come and get tested is probably one of the better indicators that we're doing the right thing with chlamydia testing. Because willingness is present."* Along the same lines, positive tests were

seen as indicators of success. Unexpected positives were especially salient: *“someone in a 6 year relationship [...] who came in for a routine pap smear and the discussion, ‘well while we’re here, shall we do this?’ Not expecting a positive at all and then it was a positive. So I mean, you know the screening’s working then, don’t you, in that scenario?”*

Informal review - Clinicians were reassured their FPC was doing well when they saw evidence in client notes that a screen was offered at the last visit: *“anecdotally we’re seeing it in the files [...] I would feel quite pleased with how often I see that they are being done – really, really often.”* Another clinician suggested workload, such as follow-ups, indicated success.

Two activities produced more ambivalent feedback:

Audits – Formal review through audits – some as part of external research projects such as ACCESS – undermined the perceptions of success described above. Clinicians described being surprised at blind spots, at not doing better: *“ours had the lowest rate of chlamydia testing for the age groups that were appropriate, which I was very surprised about because I thought we were testing everybody.”*

Audit processes appeared to have produced changes in practice. However, some found it hard to shake their perception that they were doing well, better than the audit suggested. The confidence that screening was normal, routine and a priority seemed to make it hard to imagine screening had not been offered, even when an audit suggested this was the case: *“you go, ‘man, I can’t believe I didn’t.’ But you know yourself and you know your practice and I think that you would ask those questions but you haven’t had time to document it.”*

Pathology statistics - Several focus groups mentioned the availability of monthly statistics from pathology providers. However, reports did not seem to be routinely circulated to clinicians but were monitored by a clinic manager: *“from all the results I see coming through for everyone, everyone is testing for chlamydia.”* Clinicians wanted to receive this information and they wanted it to be more relevant, telling them the percentage of clients offered a screen, screened in the relevant age group, or declining screening: *“it’d be interesting to break that down to how many patients we had under 25”* and *“how many tests are we not doing. So how many missed opportunities.”*

Challenges to chlamydia screening:

The survey asked clinicians how frequently they encountered barriers to screening asymptomatic clients for chlamydia. The most common obstacles to chlamydia screening in asymptomatic clients were clinicians taking detailed sexual histories where clients appearing to be at low or no risk for chlamydia; clients were tested recently at another clinic/GP; and clients refusing the offer to be tested for chlamydia (Figure 2).

Two challenges to chlamydia screening emerged in the focus groups:

Discomfort offering screening - Clinicians reported that a client declining a proffered screen was rare. Older women and/or those in long-term relationships were the groups most often declining. The challenge for clinicians was to offer a screen without insinuating anything about the fidelity of the relationship. This seemed to be tricky ground and some clinicians backed off quickly:

I would offer it to [a client] but they would say, 'Look, you know, I'm in a stable relationship, no thanks,' and then, without sort of putting any doubts about that relationship, then to, sort of, be a bit more forceful about actually just having the test anyway....I think you have to respect that assessment of that relationship and say, 'okay, fine'

I think we can sense the vibes. If people are feeling a bit offended that you're questioning their...promiscuity, of course, we're not, we're questioning the partner's promiscuity, you can get that vibe pretty quickly and you can back off very well instead of really flogging it....But if you get that vibe, no, no, it's a very long-term, stable relationship, you can just instantly retract that offer without further ado

The challenge here is the previously identified lower chlamydia awareness - and remaining stigma - among older populations: *"they're often less educated and you're starting from a lower base."*

Concerns around over screening – While the approach to screening was risk assessment, clinicians reported that in practice they aimed to offer screening to everyone. This was generally presented as a good thing, a sign of success. However, concerns about whether this approach was clinically necessary or cost-effective were raised in a few focus groups. These discussions often went on to suggest implementing a risk assessment framework: *"Should we be putting much more energy into testing people who we know are at risk than testing everybody and is that a much more economic thing to be doing?"* Questions were also raised about the logic of screening an older population if the drive for chlamydia screening is to prevent PID: *"But if the consequences of chlamydia – I'm just thinking out loud here, you know, about how worthwhile it is. So what are we going to achieve in a 50 year-old woman by diagnosing chlamydia if she has a one in five chance of then going on to get PID."*

Management of sexual contacts of clients diagnosed with chlamydia (contact management)

Summary

- Three quarters of clinicians suggested contact tracing the sexual partner(s) of clients in the 6 months prior to the chlamydia diagnosis. 
- Family planning clinicians were proactive in managing contacts of their clients:
 - almost all clinicians would encourage clients to tell partner(s) 
 - three quarters would assist clients by providing a brochure containing information on chlamydia. 
- The Let Them Know website has become an important partner notification tool for family planning clinicians.
 - The Let Them Know website is a part of routine practice for many clinicians.  
 - Use of the website varied between jurisdictions. 
 - For clinicians not using the website, there is a desire to have access to this resource. 
- Contact management facilitators:
 - preparing clients for a positive test result; 
 - low level of stigma associated with chlamydia;  and 
 - easy access to chlamydia screening for partners of clients. 
- Evaluating the success of contact management:
 - it is difficult to determine if clients notified their partner(s) and if partner(s) are tested and treated;  and
 - there are few indicators for determining the success of contact management. 
- Challenges of contact management:
 - uncertainty around what is expected from clinicians;  and
 - clinicians' doubt around the importance of contact management for chlamydia. 
- The majority of clinicians acknowledged the benefits of patient delivered partner therapy although only 35% of clinicians ever used it. Most clinicians had concerns about using PDPT and its legal status was a major impediment to the uptake of the strategy. 

Icons denote where data came from.  = data came from survey.  = data came from focus group discussions.

The survey revealed that over three quarters of clinicians would suggest contact tracing the sexual partners of clients in the 6 months prior to being diagnosed with chlamydia (Figure 3). This is consistent with the recommendation that sexual partners from the 6 months prior to the client's diagnosis are tested for chlamydia [5]. Ten percent of surveyed clinicians would suggest 1 year and 11% would suggest 3 months or less.

Focus group participants suggested FPCs did not have specific protocols around the practice of contact tracing: *"We have a policy around contact tracing, that we do it, but how it's done depends on that individual client, really."* That is, contact management was tailored to client need: *"it's basically based on whether they can notify their partners. And if they can't or they don't want to, then we will do that but we don't actually have a whole protocol for notifying patients and partners and stuff, do we?"*

Strategies to support clients notifying contacts

In the survey, clinicians were asked how often they used a variety of partner notification methods (Figure 4). Almost all clinicians would encourage their clients to tell their partner to attend to a doctor and/or get treated.

The focus group discussions indicated that partner notification was likely to be raised with clients on multiple occasions: during the consultation where they received their screen; when they had a call from informing them of a positive test; and when clients returned to the FPC for treatment. By the time a client came in for treatment, many had already informed their partner(s): *"It's really helpful that they get that information on the phone because lots of times then you see someone in for their treatment and you ask about contact tracing and they go, 'yep, I've already phoned this person.'" At each point, clinicians tried to ascertain **client comfort** around informing sexual contact(s) about the need to be tested: *"Then we're always asking the question about, 'How would you feel about the idea of that? Is that something that could potentially be dangerous for you? Would you like us to do it?'" Clinicians reported clients were generally happy to do notification themselves: "They usually say that they'll go away and tell them."**

The survey found that about three quarters of clinicians would 'always' or 'usually' provide the client with a brochure on chlamydia to assist them in telling their partner(s) to get tested/treated and half would 'usually' or 'always' direct the client to a website (such as www.letthemknow.org.au). Less common partner notification methods included setting up a recall in the partner's file and giving clients the option to phone their partner immediately in the clinic in the presence of a clinician (75% and 49% of clinicians 'never' used these methods, respectively). The focus groups echoed these findings: *"I've even actually sat in the room with a client and phoned a contact myself to say anonymously that there's a potential that you could have chlamydia."* Three FPCs also mentioned offering clients the option of an external agency.

In the survey, the Let Them Know (LTK) website was the third most popular partner notification method among clinicians. The frequency of clinicians directing clients to the website varied across jurisdictions (range, 0% to 77%). Focus group data echoed this variation in knowledge and use of the LTK website within individual clinics. In one jurisdiction, clinicians refer clients to external agencies for support with partner notification so the website was not relevant to their

practice. For some clinicians it was a routine part of the process of notifying a client of a positive result or during the treatment consultation:

So I usually say there is a website, 'Do you want it now or do you want to talk when you come in for your treatment?'

I often get them to do the Let Them Know site right there at the time [in the consultation] because it's easy to just pull it up while they're screened.

Among the surveyed clinicians who never directed clients to the LTK website, 90% said they would like access to the resource. Multivariate analyses found that use of the LTK website was higher among clinicians who managed >3 female clients with chlamydia per month (compared with ≤3) (adjusted odds ratio (AOR)=2.5, 95% confidence interval (CI):1.1-5.3), clinicians who always encourages clients to notify their partners (AOR=10.2, 95%CI:2.2-48.1) and clinicians who always followed up clients to confirm they notified their partner (AOR=3.8, 95%CI: 1.3-11.0).

Survey results indicated clinicians used a variety of resources for contact management of sexual partners of clients (Figure 5); 75% already used a website (e.g. www.letthemknow.org.au) to refer clients to which helped them to inform their partners, and about half of clinicians already had or used a printed information pack for clients and a website for clinicians that helped them with the process of contact management. Resources that clinicians would have liked access to include a client information leaflet built into the practice software and a simulated conversation for clients to listen to, demonstrating how clients can encourage their partner to be tested for chlamydia.

Almost all surveyed clinicians agreed that it is the clinician's responsibility to support the client in informing their partner(s), contacting and managing the partner(s) of clients is important to prevent the client getting reinfected and is an important public health strategy to reduce community prevalence of chlamydia (Figure 6). There was a clear consensus in the focus groups about the role of FPC clinicians in contact management: *"we teach that you're responsible for making sure they're aware that their partners should be contacted and treated, and that the clinician is happy to help that process."*

Contact management facilitators

In focus groups, clinicians identified the following as facilitating contact management:

Preparing the client for a positive result– Many clinicians said that when they first discussed screening they also prepared clients for the possibility of having to inform a contact of a positive result: *"And making sure they're aware of that, that we have to contact trace, before they have the test. That can be useful if they're already prepared for that, if they get a positive test."* Clinicians described various strategies for explaining the importance of contact management, including telling clients it was their legal or moral responsibility. Explaining the logic of contact management was especially important where a client's relationship with the sexual contact may be acrimonious: *"And if you do not treat him, then he might give to other women, other women may give to other men and other men may end up give you - give back to you in the end."*

Low levels of stigma – Clinicians said that the low stigma associated with chlamydia among younger clients meant they were less embarrassed about having to inform a sexual contact and contacts were receptive to the information: *“this reflects on the education that’s out there for young people. When I did talk about contact tracing to one girl, she just gave me the mobile numbers of all the men she’d had sex with in the last six months [...] when I did phone each of these people, none of them were surprised or shocked or disbelieving about it. They said, ‘Yes, okay. Well, I’ll go to my doctor.’ I was very surprised at how accepting the contacts were about this communication from me.”* Again, older people were an exception: *“Older people are often absolutely aghast that they’ve got to even think about telling someone they’ve got chlamydia, whereas young people are like, they just say yeah, okay.”*

Providing easy access to screening for partners – Clinics reportedly prioritized couples who attended to seek treatment (positive client) and testing (partner of client): *“the partners will come along randomly with their partner and we make the time to see them, right there and then.”* They also let clients and partners know how easy and non-invasive specimen collection was: *“rather than thinking they’re going to have something stuck in their urethra or - I say to them, ‘Even the GP might not even need to actually even examine your partner if he doesn’t have symptoms. He might just have to really just wee in the jar and send it off for a test. It’s that easy.”* Participants suggested that the relationship between the client and the clinician/clinic meant clients felt comfortable bringing their partner to the FPC: *“They know we’re not going to run a shame game in front of the partner.”*

Judging success:

Clinicians in focus groups had a **low level of confidence** that contact management was going well:

Hard to ascertain success - Focus group discussions around contact notification were characterised by a lack of confidence: *“It’s difficult and often a very unsatisfactory area because it doesn’t work”* and *“it’s inherently challenging.”* Clinicians rarely knew if clients had notified partners, and if they had, they rarely knew if partners acted and sought treatment: *“Yes, because we don’t know whether those contacts are going to their GP and getting tested or treated. And unless we – unless everyone brings that contact in to us, we don’t really know the outcome.”* Some clinicians described formally following up with returning clients.

Lacking confidence in client action - Clinicians had to trust that clients were disclosing contacts to the clinician and trust that they would inform their contacts: *“it’s done on a trust basis really.”* Some did not feel confident that this trust was well placed: *“Although sometimes I, kind of, get a sense that, ‘Oh, yes, you know, I’ll tell everybody,’ and you just think, I don’t really know if you are going to do that.”* Clinicians could appreciate that notifying contacts, especially casual contacts, was not easy.

Indicators of success are limited - One indicator of the success of contact management – and the only high point mentioned in focus groups – was a partner or contact attending the FPC for testing and treatment: *“But the high point would be if you got – like you say, the few males that we do get in are often – they’ve been on the other end of the texts and they are actually coming in and say to you, ‘Well, I’ve been told that such and such has got chlamydia so I’m here for the*

test, ' and so they can feel like, yeah, it's they're doing it and the message is getting through." As an indicator of success, this relied on male clients identifying themselves as contacts and there was no way for this information to be recorded, meaning even this success was hard to track.

Challenges to contact management:

Two challenges to contact management emerged in the focus groups:

Uncertainty around what clinicians are expected to do - Across focus groups there was uncertainty around what was expected of clinicians in relation to in contact management. Although the FPC policy described was simply to tell clients of the importance of informing contacts, many reported feeling a responsibility to contact sexual contacts – and clearly in practice clinicians did do more. Yet they were unsure how much effort they were expected to make:

P1: However, I do find it quite difficult when you have this list of phone numbers and you don't get a hold of someone, you know? And, like, how long do you keep on trying?

P2: You don't even know if the number's still current.

P1: Yes.

P3: That's right.

P1: Yes. That's where we need a policy.

Or, what kind of contact was acceptable to a person who did not have an existing relationship with the FPC: *"this is a prank call. Yeah, fuck off'. Or their mother rings up, 'how dare you ring John and tell him he's got chlamydia? Who are you, that's a breach of his privacy."*

Doubt around the importance of contact management for chlamydia - Some clinicians suggested that it was hard to be enthusiastic about contact management for chlamydia because it was not as serious as disease as gonorrhoea, syphilis or HIV – *"they're kind of high-end STIs"* – where clinicians described extensive contact management: *"if you had something, you know, that was more serious, for want of a better word [...] we would then go all out to really make sure that person contacted their contacts [...] but I think with chlamydia, because it's a bit familiar and common [...] if the young person says yeah, she'll contact so-and-so, we just leave it at that a lot of the time."* This contrasts with the overwhelming support for chlamydia screening articulated across all focus groups. The difficulty judging success – and the lack of clarity about what is expected of them – may go some way to explain this. Another explanation may be that while screening involves primary care of an individual client, contact management is more generalised (and distanced) within a public health framework:

P1: there's the trying to look after your client but then the other part of that contact tracing is the community.

P2: yah the public health stuff and that's a really important part of chlamydia.

P1: that's the bit that I feel we don't always do well

Patient delivered partner therapy (PDPT)

PDPT occurs when a clinician provides a prescription or medication to a client to give to their sexual partner, without the partner being seen for a consultation. With the exception of Family Planning Welfare Association of the Northern Territory (FPWNT), PDPT is not supported by FPC policy; not all focus group participants were clear on this: *“I don’t think we’re supposed to anyway.”* Indeed, it quickly became clear in focus groups that regardless of the policy, many clinicians had used their discretion and done so: *“I’m sure we’ve all done it.”* Evidence was stronger in the survey: overall 35% (54/154) of clinicians reported using PDPT; 30% ‘sometimes’ or ‘half of the time’ and 5% ‘usually’ or ‘always’ (Figure 7).

More than 80% of survey respondents using PDPT would offer it (‘always’, ‘usually’ or ‘sometimes’) in the following circumstances: the partner was unlikely to attend for testing or treatment, the client had a laboratory confirmed chlamydia infection, the client had a repeat chlamydial infection, the client requested it for their partner, and the partner was a client of the practice (Figure 8). Many focus group participants gave examples of male partners having difficulties accessing treatment because they lacked the flexibility to get time off work or because they did not prioritise getting to a doctor; this was the most common reason for using PDPT reported by survey respondents: *“the partner is very very unlikely to go to any health service. There are couples where the woman will say, ‘he just will not go’. It’s all to do with her. It’s all her problem [...] and sometimes in a couple like that [...] they might just take that medication because they don’t have to front up anywhere or face anyone to talk about it.”* They also reported clients used a variety of strategies to seek partner treatment: *“come back and say they lost it”* or *“I’ve just vomited it, can I have it again”* or *“like the morning after, ‘can I buy one for now and one for next time’.”*

Most surveyed clinicians had favourable attitudes toward the practice of PDPT (Figure 9). More than 80% of the clinicians reported that PDPT results in sexual partners being more likely to be treated and a more timely treatment of the partner. This was echoed in the focus groups: *“it ensures treatment at the same time because it reduces that risk of reinfection with the delay in partner treatment”* and *“I’ve definitely done it, I can tell you. I have done it in this clinic because I can see there is no way their partner is going to receive treatment, so what is the point of me treating the index case?”* Just over 70% of clinicians believed that PDPT protects clients against reinfection with chlamydia and 60% agreed that PDPT is well received by clients and their partners.

Clinicians also held concerns about offering PDPT (Figure 10). Each of the following concerns about offering PDPT were held by between 60% and 80% of surveyed clinicians: potential allergic reaction to the antibiotics prescribed (73%), legal status of PDPT (73%), partner of client may not receive testing (60%) or the treatment (73%), partner may have another STI not treated by the antibiotic (75%), PDPT results in missed opportunities for both counselling the partner (78%) and contact management of the partner’s contacts (79%). The primary concern in the focus group discussion was losing the opportunity to offer proper care to the partner:

maybe they need other screening and they should actually see someone. That would be the best health care for them and for your client as well

I meant there are those disadvantages, obviously not following up with that patient and contact tracing and doing prevention strategies with them

Focus group participants expressed a desire for clinicians to be allowed to apply clinical discretion in this area: *“we should be allowed, as clinicians – because we’re clinicians not robots – be able to dictate the most appropriate course of action for our patients.”* However the current legal situation meant a clinician taking full responsibility: *“I guess it’s a risk that you take on your own shoulders as an individual risk but you assess it because you can see that no matter what you do, your patient is going to be at risk because they’re not going to be covered.”* There was a desire for formal guidelines: *“formalised, the idea that if the clinician and the client assess the client situation and find that the benefit of patient-delivered partner therapy outweighs the risk then it can be done; something as simple as that would be very helpful for us, officially written down somewhere.”*

In multivariate analyses, use of PDPT was independently associated with doctors compared to nurses (AOR=15.1, 95%CI:4.9-46.2), clinicians who had worked for ≤3 years in reproductive and sexual health (AOR=5.25, 95%CI:1.2–22.2); clinicians who did not always encourage clients to tell their partner to see a doctor (AOR=5.3, 95%:1.5-18.4) and clinicians who followed up with the client to see if they have told their partner to get tested (AOR=9.82, 95%CI:2.8–34.8).

Although most clinicians in the survey held many concerns about the use of PDPT, only one concern influenced PDPT use when statistical analyses were undertaken: PDPT use was six times lower among clinicians who had concerns about PDPT’s legal status (AOR=0.16, 95%CI:0.06-0.48).

Retesting for chlamydia

Summary

- Only 22% of clinicians recommend annual testing to all clients. 
- The majority (88%) of clinicians recommend clients return for retesting three months after a diagnosis of chlamydia. 
- The most common strategies for chlamydia retesting included recommending retesting at the time of initial treatment, explaining the importance of retesting after treatment and explaining the risk of repeat infection. 
- Most retesting was opportunistic; that is, a clinician noticed a recent positive chlamydia test recorded in a file and suggested a retest. 
- Evaluating the success of retesting:
 - it is difficult to determine the number of clients who return for retesting; 
 - clinicians were confident that new reminder systems were successful in getting clients to return for retesting. 
- Challenges to retesting:
 - clients often don't return for retesting; 
 - clinicians rely on opportunistic screening as retesting when clients return to the clinic; 
 - uncertainty around the value of retesting for chlamydia; 
 - and
 - clinicians' view that proactive retesting reminders undermine client responsibility. 
- 'Proactive' client reminder systems had mixed support from clinicians. 

Icons denote where data came from.  = data came from survey.  = data came from focus group discussions.

In line with their clinic policy, the majority of clinicians (88%) recommend clients return for retesting 3 months after a positive chlamydia test (Figure 11). Clinicians were asked to indicate how frequently they used various methods for chlamydia retesting after treatment of a diagnosed infection (Figure 12). The survey revealed the most common methods were those that raised client awareness of the need for retesting. Almost all clinicians (94%) 'always' or 'usually' discussed with their clients at the time of initial treatment the risk of repeat infection and the importance of retesting in 3 months and 74% of clinicians 'always' or 'usually' recommended retesting at the time of initial treatment.

Clinicians in focus groups described **explaining the importance of retesting** to clients: *“That’s why I said I always explain to them, ‘you - even you get proper treatment and get rid of this bacteria this time, but you still can have it next time. That’s why you need another test. It’s not like chickenpox: once you’ve been treated, you’ll be immune, you will not get it again. But with chlamydia, unfortunately, you can have it again, that’s why important have another test in three months.”* Clinicians also described **preparing people for retesting** by suggesting strategies to help them remember the date such as putting the month of the retest on an appointment card or encouraging them to put the date in their phone calendar.

Half of the focus groups described only using awareness raising methods to support retesting in their clinics. Most retesting described in these FPCs was **opportunistic**, a clinician noticing a recent positive recorded in a client file and suggesting a retest with the client: *“the times that I’ve done retesting where I’ve thought [...] ‘oh, look, you had chlamydia just five months ago. Let’s retest.”* Although this is not always straightforward as it could require a clinician go through pages of client notes to ascertain a testing date.

Surveys found that more proactive methods for initiating retesting for chlamydia were less commonly used: about half of clinicians would always/usually/sometimes put the client on the active recall system or place an alert in the clients file for then they next return. About 30% of clinicians would always/usually/sometimes make an appointment for the 3 month follow up at the time of initial treatment or give the client a pathology request form for a retest for chlamydia.

In about half of the focus groups a **proactive system to support retesting** was described: *“anyone that’s coming in that are chlamydia positive, is going on to the recall system.”* These ranged from a sticker system on client files to draw clinician attention to a previous positive so it could be addressed in a consult with a returning client to client reminders - text messages, emails, letters or phone calls to clients at three months: *“I’ve sent out an email, to say, look, ‘now it’s time for your retest.”* These proactive client reminder systems were limited to a one-off reminder, rather than following up a client until they returned (the more common ‘recall’ model): *“we did sort of decide that it’s a one-off sort of a chase up, didn’t we? [...] and then if their mobile number had changed, well, we tried.”* These were **locally developed systems** and usually promoted by local audits, family planning conferences or external research: *“we all did our own Chlamydia audit, within the clinic, to kind of look at practice and then we followed it up again. [...] we need a bit more structure about this retesting previous positives.”* Many were explicitly framed as trials to see if the effort produced effective outcomes: *“we’re doing our own little trial [...] So whether it’s worth our while doing that, and if 50% come in after a letter, it sounds great. If, you know, 5% come in after a letter then it’s just not worth the effort.”*

Judging success:

Clinicians in focus groups had **mixed levels of level of confidence** that retesting was going well:

Hard to ascertain success – The best indicator of success available to clinicians was a client returning: *“But it’s when they say, ‘because you’ve said that I should come back, this is why I’m here’, and you think, well, they might have actually listened to what I was saying.”* This appeared to be a rare experience for most clinicians so actually provided little useful feedback

on the success of their retesting efforts: “So, although they’re told when they’re treated that another test in three months is recommended, I’ve had very few people – I’ve had one or two who’ve come in saying, ‘I was told to come back for a test so I’m just doing that.’” None of the focus groups described formal feedback on the proportion of positives returning: “And then we don’t follow it up to see whether they go elsewhere or that they end up coming back in.” In several focus groups participants suggested it would not be difficult to generate this data: “I should probably go and look at say four months ago. And here it was, and get out the history and see who have returned. Because we’ll probably have about 10 to 15 cases a month. We could easily pull those, X. We could do that.”

High confidence in new proactive systems: It was too early for formal evaluation of the newly installed proactive systems. However, clinicians’ impressions were that a one-off reminder was prompting a retest:

But the retesting, again from my perspective, from the clients that I have treated and phoned for them to come back; they’ve come back and they’ve willingly come back and they’ve been retested. So I feel from my little number of clients, it’s working.

And couples - I’ve even had couples coming back together for it, so, it’s worked

Challenges to retesting:

Low uptake of retesting by clients - The most common barrier to retesting for chlamydia, perceived by 80% of survey respondents, was that clients don’t often return for retesting at 3 months after treatment for a chlamydia infection (Figure 13). The focus group data reinforced this finding; participants had little confidence that clients returned for the retest, despite clinicians advising this course of action and the FPC policy: “I’ll say, it’s singularly useless as a policy unfortunately. No-one comes back” and “we probably give one or two chlamydia notifications a day, and it’s certainly not one or two people that come in through drop in every day.”

Reliance on opportunistic screening as retesting - In many focus groups there was a strong belief that a large proportion of clients returned and opportunistic screening would ‘catch them’:

I think we’re really lucky here in our clinic because we get a lot of clients who do come back either yearly for Paps or two yearly for Paps so we’re kind of blessed in a way that often we are seeing our clients coming back regularly enough that there might be 12 months or 18 months between it but we do get another opportunity to say, how about a Chlamydia test? It’s been a while since we’ve seen you. So we’re retesting in that sense anyway, if you like.

Some participants struggled to understand why retesting was needed at all when opportunistic screening was in place (and so successful): “So the three-month thing goes out the window a little bit because we’re just doing it off – we’ve got such a strong opportunistic bent on screening.”

A few participants raised concerns with this confidence. Rates of returning clients may not be as high as clinicians perceive: “it feels like we’ve got lots of people that are [...] but in actual fact only half of our clients are return.” The profile of those who do return may be different to the

profile of those who don't. For example, there was a common perception that the clients who did return were the worried-well, the conscious, the least at-risk – *“think mainly it's with diligent people who are quite conscientious about their health really”* and *“Yeah. So people we're not seeing that are an issue, not the ones who we are seeing.”*

Mixed support for proactive client reminder systems - Just over 40% of survey respondents thought that not having an electronic system for reminding clinicians about retesting was an obstacle, and 30% of clinicians believed that it is time consuming to call and/or send letters to clients about being retesting. Focus groups in FPCs without a proactive client reminder system (about half) argued such a system would place a heavy and unreasonable burden on FPCs. The FPC 'recall' model for positive tests was often evoked as the model: *“It would be quite labour intensive. 'Cause we wouldn't be sending out letters. We'd be ringing. So that's quite a lot of staff time.”* They were concerned that the FPC may not be able to handle the subsequent increase in appointment demand, or provide appointments three months in advance. In one FPC these concerns around workload had driven the decision to not institute a reminder system. However some clinicians in these focus groups were keen to discuss the possibility of a proactive client reminder system. They were careful to differentiate this from a 'recall' model: *“You could have, say, a different system maybe, which is not quite so stringent. You don't want to be hounding people to come back for a test of re-infection. But you could have a different system where there is just an SMS reminder or something.”* Once participants started to consider the possibility they often came up with simple ideas that seemed workable, for example SMS reminders; they anticipated some organization resistance due to concerns around privacy.

In focus groups at FPCs who had developed a formal reminder system (about half), it was clear that the same concerns about workload had shaped the system they developed:

with the Pap smear recalls, it's a long, involved process. You have to keep going until you have an outcome. Well, with the chlamydia recall, it was decided that [...] you'd contact them once and then it was up to the person so that it wasn't, hopefully, going to be too much of a workload problem

And you guys as a group, whether you were physically able to do that, and that was a reasonable thing.

These FPCs reported that the proactive system was not placing unreasonable or unmanageable burden on their resources: *“Yes, it's not taking up any extra time other than printing off a wee letter or making a call.”* There was also a perception that the benefits of a proactive reminder system may outweigh the any workload concerns: *“And from the cost point of view, because we know that the re-infections are the ones more likely to have complications. So they're the ones that you do want to get.”*

Some uncertainty around the value of retesting - The survey found that clinicians had good knowledge around chlamydia reinfection with the majority agreeing that reinfection is associated with a higher risk of pelvic inflammatory disease, reinfection increases the risk of infertility and reinfection rates can be reduced by improving partner treatment (Figure 15). Clinicians were

divided in whether they believed reinfection occurs in a small proportion (<5%) of those infected; 31% agreed, 33% disagreed and 36% were unsure.

The majority of clinicians shared similar attitudes about retesting for chlamydia (Figure 14); 87% agreed that retesting clients at three months improves health outcomes, 73% agreed that retesting is difficult because clients often don't return, and 73% agreed that it is the client's responsibility to return for the three-month visit. Over 80% of clinicians disagreed that retesting is not important if the client's sexual partner(s) are treated, 76% disagreed that retesting is not necessary as long as annual screening programs are in place and 69% disagreed that retesting visits are costly and time consuming.

Focus group data suggested there is still a lot of uncertainty around the value of concentrating efforts and resources on repeat infections. One position was a preference for mass routine screening; this was driven by concerns around the burden of proactive clients reminders. The other position was that as reinfection rates are high there is more value in dedicating resources to this group (that is, risk assessment).

Because basically it's about the risks and what are the risks involved and what are the percentages and what are their chances of infertility and you need to kind of weigh it up within our resources because it is very labour intensive doing all of this. And if it's actually very, very small, maybe it is us better, really, trying to test every person that comes in, putting more energy into that than actually more energy into sending out reminders and getting them in.

I think that the positivity rates of somebody who's already been positive is 20% or something. So it's more worthwhile spending time on these people than it is doing a screening test on the general population, under 30s, because they've got a – what did we say – we've got less than 10% here turning up whereas we've got at least a 20% rate with these ones that have been chlamydia positive again.

Retesting undermining client responsibility - A persistent minority concern in some focus groups was that proactively reminding clients about retesting allowed them to avoid taking responsibility for their own health: *"I'm sitting here thinking are we babying these clients? Like, you've got to take some responsibility yourself, do you not? [...] I mean, we give them the education constantly. They've come in, you're doing the chlamydia screening, we're giving them the education about coming back. They've come back in for a positive, we've given them the treatment, we've given them education again."* One response to these objections was a reminder that many of us receive similar communications from our dentist.

Recommendations

The following recommendations address the study's secondary aim, to provide detailed information to family planning clinics on opportunities for training, support and future interventions to enhance chlamydia testing and management.

Screening for chlamydia

- The approach to screening for chlamydia needs to be clarified as either risk assessment (focussing on the recommended age group and those considered high risk) or offering testing to everyone. There seems to be a disparity between clinic policy and current clinical practice.
- Audits of who is being tested or offered testing for chlamydia and pathology statistics are useful tools for clinicians to identify gaps in their own and their FPC's screening practice.
- Develop strategies for offering chlamydia screening to older clients and those in long term relationships who are perceived to be at risk; there may be a need to educate these clients on why *they* are being offered screening.

Contact management

- Expectations of clinicians in relation to contact management should be clarified.
- The Let Them Know website has high acceptability among clinicians who are using it. Demonstrate its use to all clinicians to show what the site does, what notifications are received by contacts and how to download letters and information sheets.
- Increase access to, or inform clinicians about various contact management resources (e.g. printed information pack for clients).
- Audit contact management outcomes (% clients who follow through on intentions to notify contacts; % contacts that seek testing; % positive tests). Feedback to clinicians.
- Explore the concerns that clinicians have around use of PDPT and develop a policy around its use in FPCs.

Retesting

- Audit retesting outcomes (% of clients who are retested; % of clients who return of their own accord; % of clients who are retested opportunistically). Feedback to clinicians.
- Consider adopting low burden proactive client reminder systems (if none are currently used); examine systems already in use by other FPCs. Increase the capacity of current patient management systems to allow SMS reminders.
- Audit impact of proactive client reminder systems, including the resource burden. Feedback to clinicians.

Tables

Table 1. Demographics of clinicians who completed the online survey

	n ¹ (%)
Provider type	
Nurse	92 (56%)
Doctor	72 (44%)
Gender	
Female	158 (98%)
Male	3 (2%)
Age group	
<35 years old	26 (16%)
35-44 years old	45 (28%)
45-54 years old	58 (36%)
55-64 years old	27 (16%)
65+ years old	7 (4%)
Length of time working at family planning organization	
Less than 1 year	22 (14%)
1-3 years	32 (20%)
>3-5 years	31 (19%)
More than 5 years	77 (47%)
Number of years working as a clinician with a special interest in reproductive and sexual health	
Less than 3 years	25 (15%)
3-5 years	24 (15%)
More than 5 years	114 (70%)
Average hours a week spent providing clinical services in a general family planning service	
Less than 10	70 (43%)
10 to 20	61 (37%)
21 to 30	29 (18%)
31 hours or more	3 (2%)
Organisation	
Family Planning NSW	46 (28%)
Family Planning Queensland	35 (21%)
Family Planning Victoria	21 (13%)
Family Planning WA	21 (13%)
Family Planning Tasmania	15 (9%)
SHine SA	13 (8%)
Family Planning Welfare Association of NT	10 (6%)
Sexual Health and Family Planning Australian Capital Territory	3 (2%)

¹Survey respondents were not required to answer every question. Number of responses for questions may not add up to total number of clinicians who participated in the survey.

Table 2. Number of chlamydia tests requested by clinicians (n=162) in an average week.

Number of chlamydia tests	n (%)
1 to 5	80 (49%)
6 to 10	50 (31%)
11 to 20	25 (15%)
More than 20	5 (3%)
None	2 (1%)

Table 3. Specimens that clinicians (n=159) usually use to test various clients for chlamydia.

Client being tested for chlamydia	Specimens used to test for chlamydia								
	Endocervical swab	High vaginal swab	Self-collected low vaginal swab	Urethral swab	Anal swab	Throat swab	Urine	Blood	Don't know
Asymptomatic woman presenting for contraceptive pill	2.5%	1.3%	39.0%		0.6%	1.9%	88.1%		
Asymptomatic woman having a Pap test	97.5%	5.7%		0.6%	0.6%	1.3%	2.5%		
Woman reporting abnormal vaginal discharge	81.8%	23.3%	11.3%	1.3%	0.6%	1.3%	16.4%		0.6%
Woman with intermenstrual bleeding	79.2%	10.7%	9.4%	0.6%	0.6%	0.6%	20.8%		0.6%
Asymptomatic heterosexual man				1.9%	1.3%	1.9%	99.4%		0.6%
Heterosexual man with urethral discharge				68.6%	5.0%	3.8%	66.7%		0.6%
Asymptomatic man who has sex with men				17.0%	64.8%	37.1%	91.8%	0.6%	

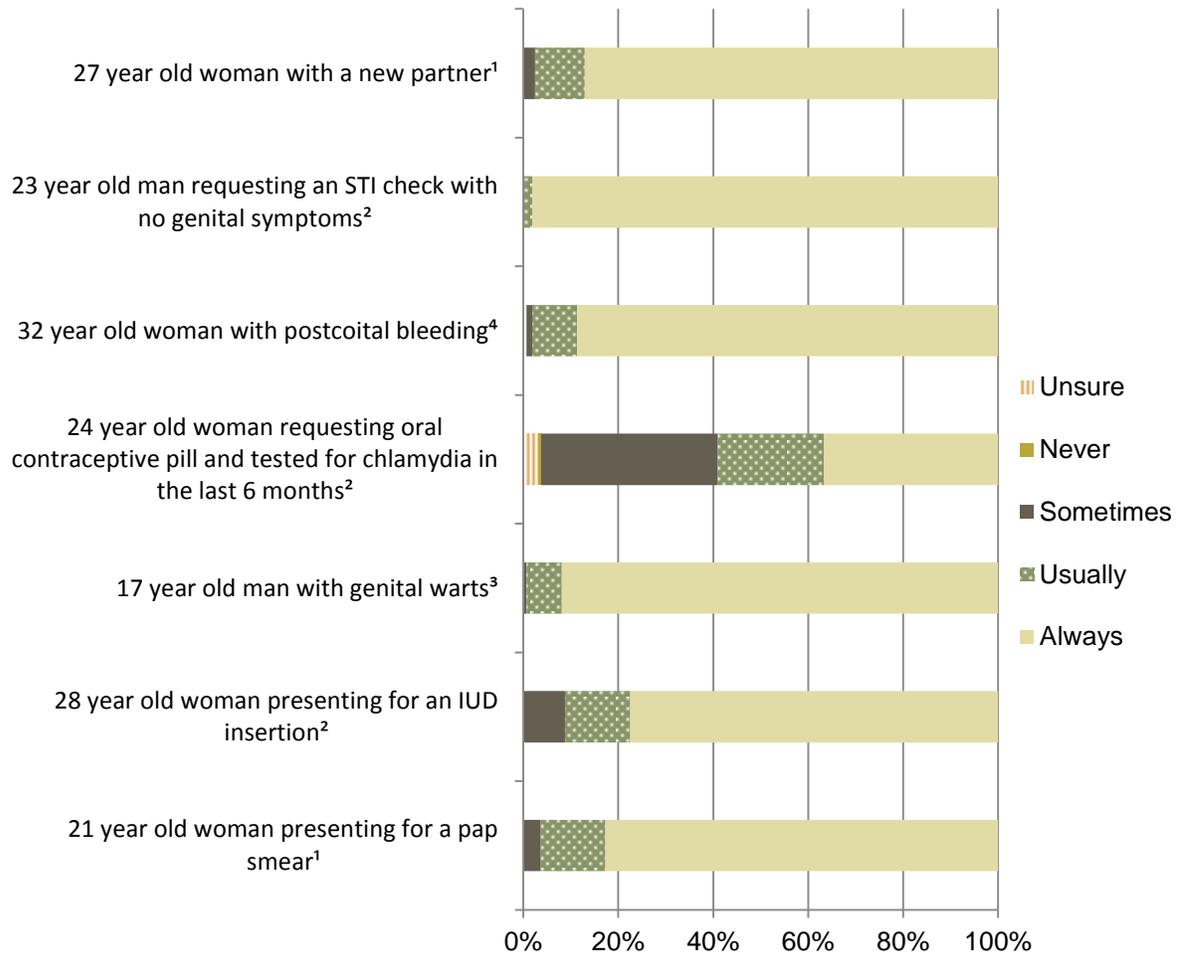
Table 4. Number of female and male clients with a positive chlamydia test managed by clinicians.

Number managed by clinicians	Female clients¹ n (%)	Male clients² n (%)
None	11 (7%)	34 (21%)
Less than 1 per month	22 (14%)	70 (43%)
1 to 3 per month	75 (47%)	43 (27%)
1 or 2 per week	36 (23%)	12 (7%)
3 to 5 per week	14 (9%)	2 (1%)
6 to 10 per week	2 (1%)	0 (0%)

Difference numbers of clinicians answered each question. ¹n=160 respondents. ²n=161 respondents.

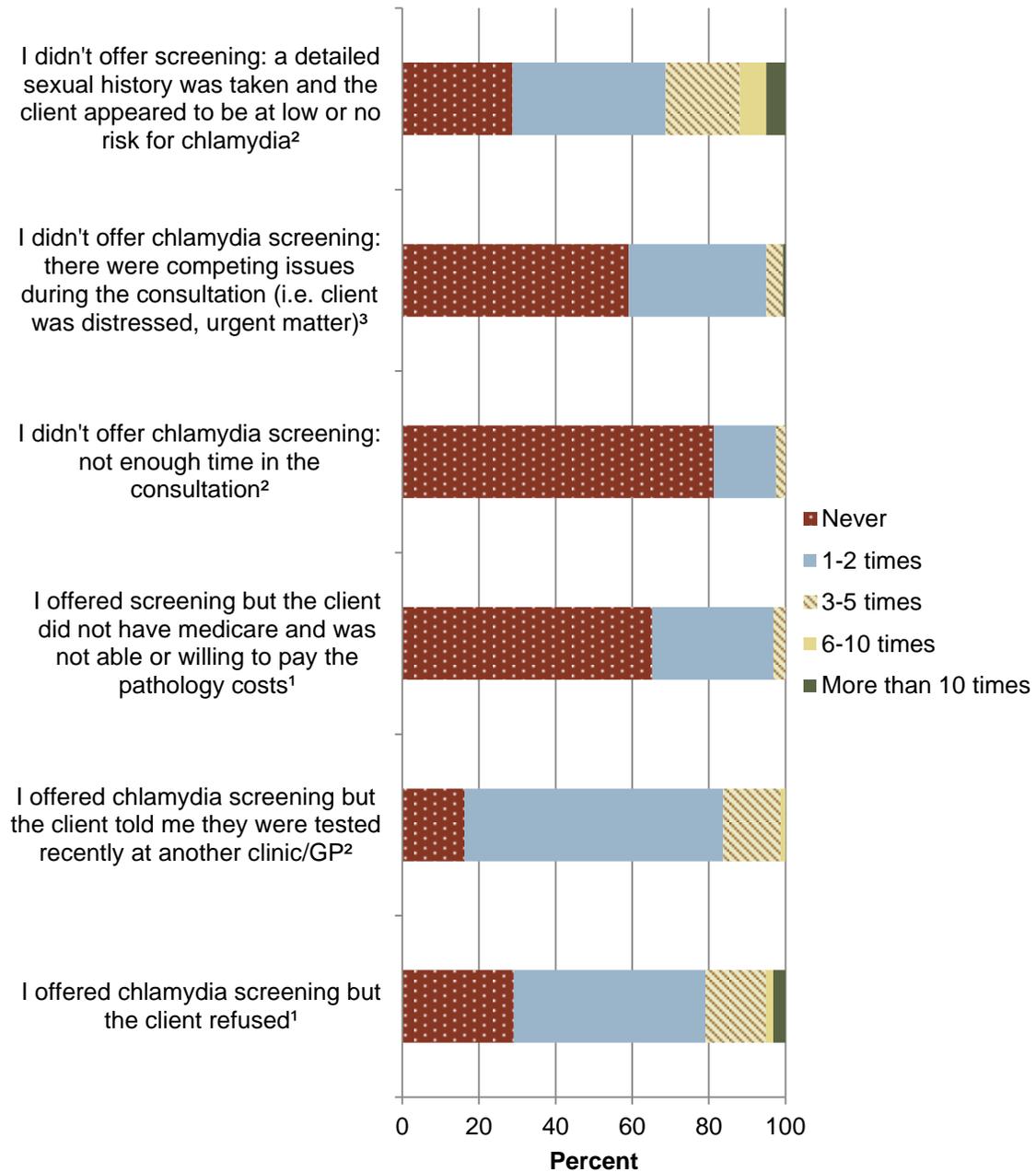
Figures

Figure 1. Frequency that clinicians offer a chlamydia screening test to clients who are asymptomatic for chlamydia.



Different numbers of clinicians answered each question. ¹n=162 respondents. ²n=161 respondents. ³n=160 respondents. ⁴n=159 respondents.

Figure 2. Number of times in the previous month that clinicians encountered the following barriers to chlamydia screening in clients without any symptoms of chlamydia.



Different numbers of clinicians answered each question. ¹n=158 respondents. ²n=160 respondents. ³n=159 respondents.

Figure 3. How far back in time clinicians (n=153) suggest contact tracing the sexual partners of clients diagnosed with chlamydia.

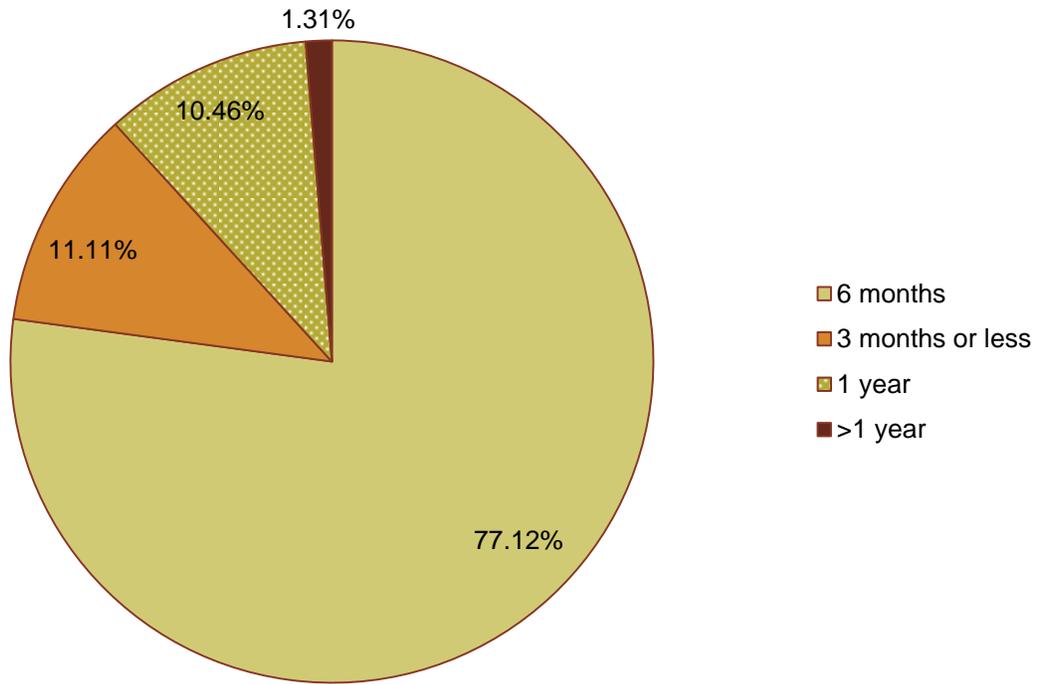
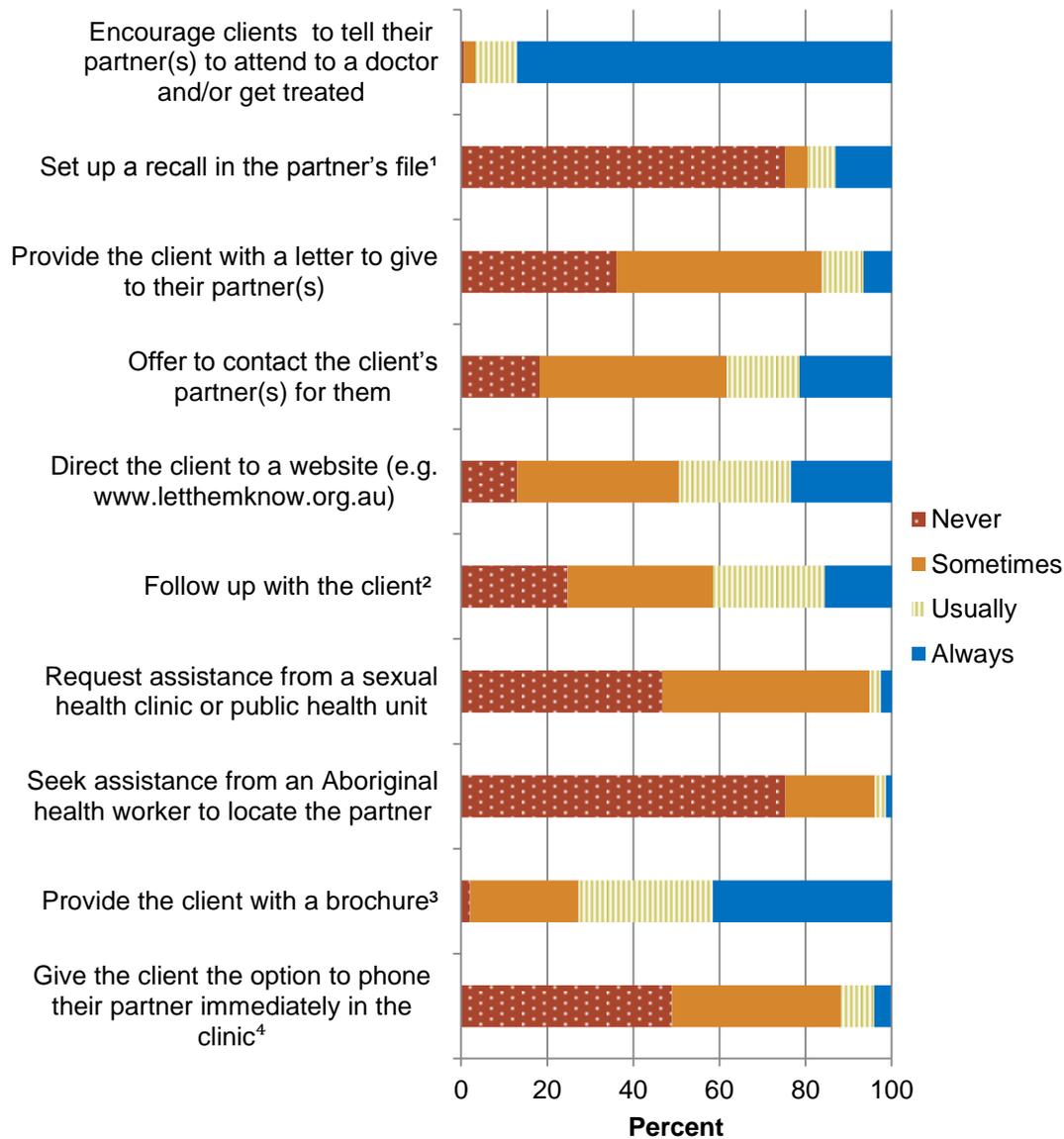
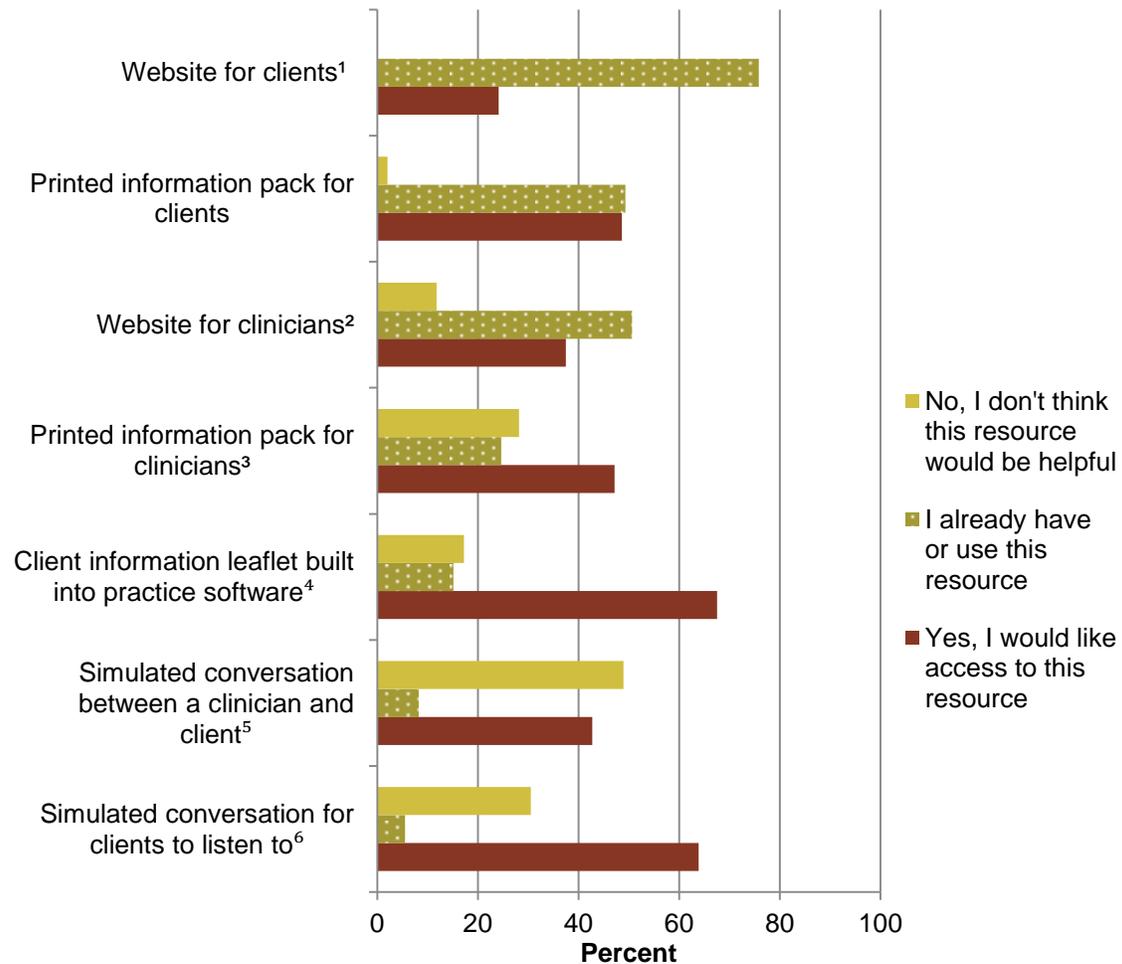


Figure 4. Frequency of using various contact management methods by clinicians.



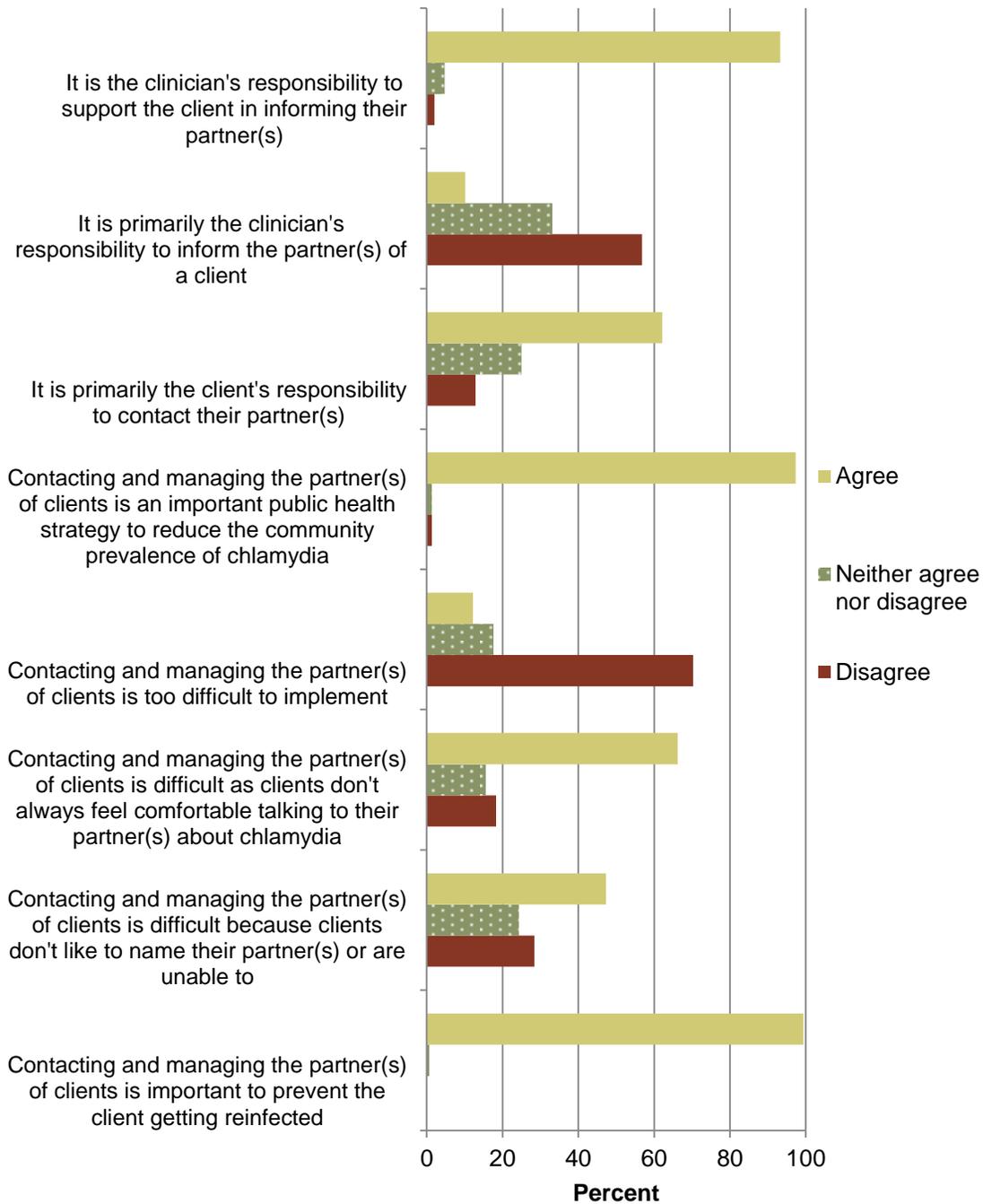
Full answer options: ¹If the partner is a client at the clinic, set up a recall in the partner's file ²Follow up with the client to see if she or he has told their partner(s) to get tested ³Provide the client with a brochure on chlamydia to assist them in telling their partner(s) to get tested and treated ⁴Give the client the option to phone their partner immediately in the clinic, in the presence of a clinician.

Figure 5. Use and access to resources to assist with contact management of sexual partners of clients diagnosed with chlamydia (n=148).



Full answer options: ¹A website I can refer clients to that helps them to inform their partners; ²A website for clinicians that helps them with the process of contacting sexual partners of clients, including guidelines on treatment and advice on how to contact the partners; ³A printed information pack for clinicians that helps them with the process of contacting sexual partners of clients, including guidelines on treatment and advice on how to contact the partners; ⁴Client information leaflet built into practice software that can be chosen and/or pop up when a client is diagnosed with chlamydia; ⁵A simulated conversation between a clinician and client to demonstrate how clinicians can encourage their client to talk to their partner about being tested for chlamydia (available on CD or downloadable from website); ⁶A simulated conversation for clients to listen to, demonstrating how clients can encourage their partner to be tested for chlamydia (available on CD or downloadable from website).

Figure 6. Attitudes of clinicians towards contact management of the sexual partners of clients diagnosed with chlamydia (n=148)



Agree= Combined "Strongly agree" and "agree" answer options
 Disagree= Combined "Strongly disagree" and "disagree" answer options

Figure 7. Frequency of clinicians (n=154) providing clients infected with chlamydia with medication or a prescription for medication for their sexual partner(s)

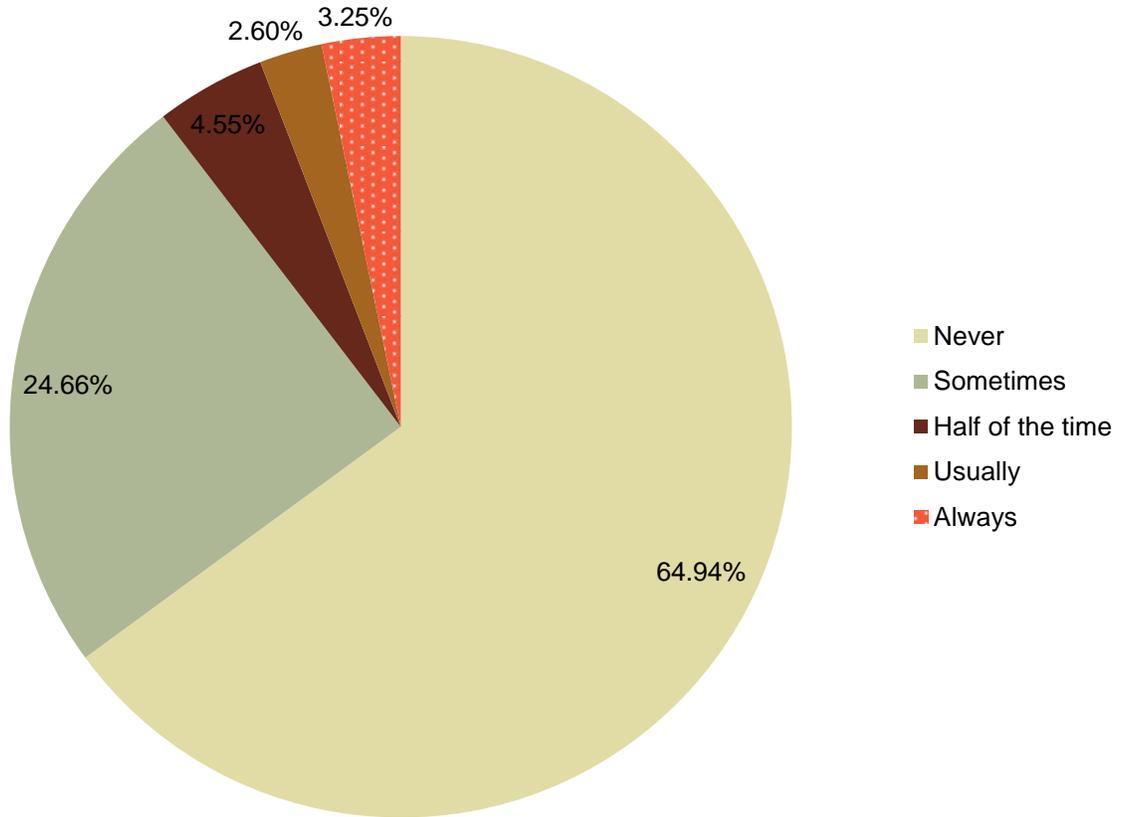


Figure 8. Frequency of offering PDPT for chlamydia in various circumstances by clinicians (n=51) who offered PDPT for chlamydia at any time

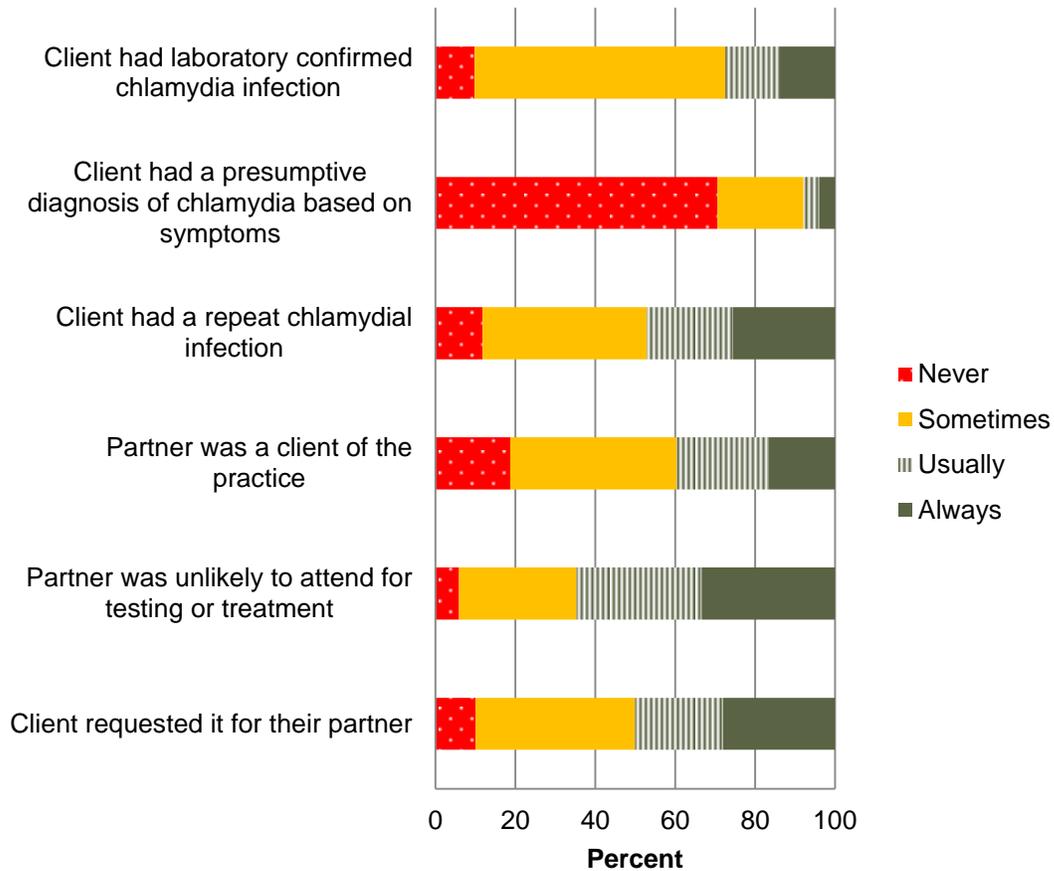
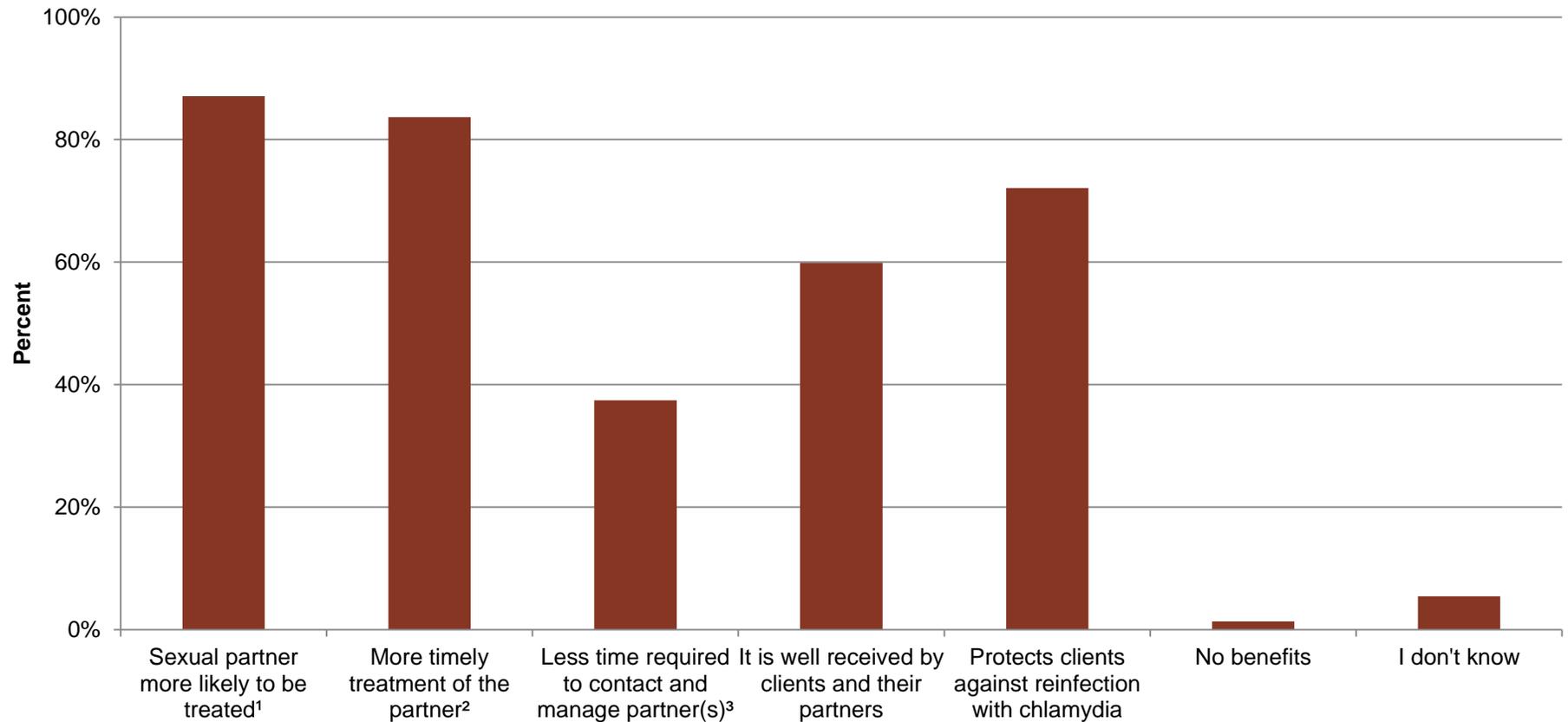
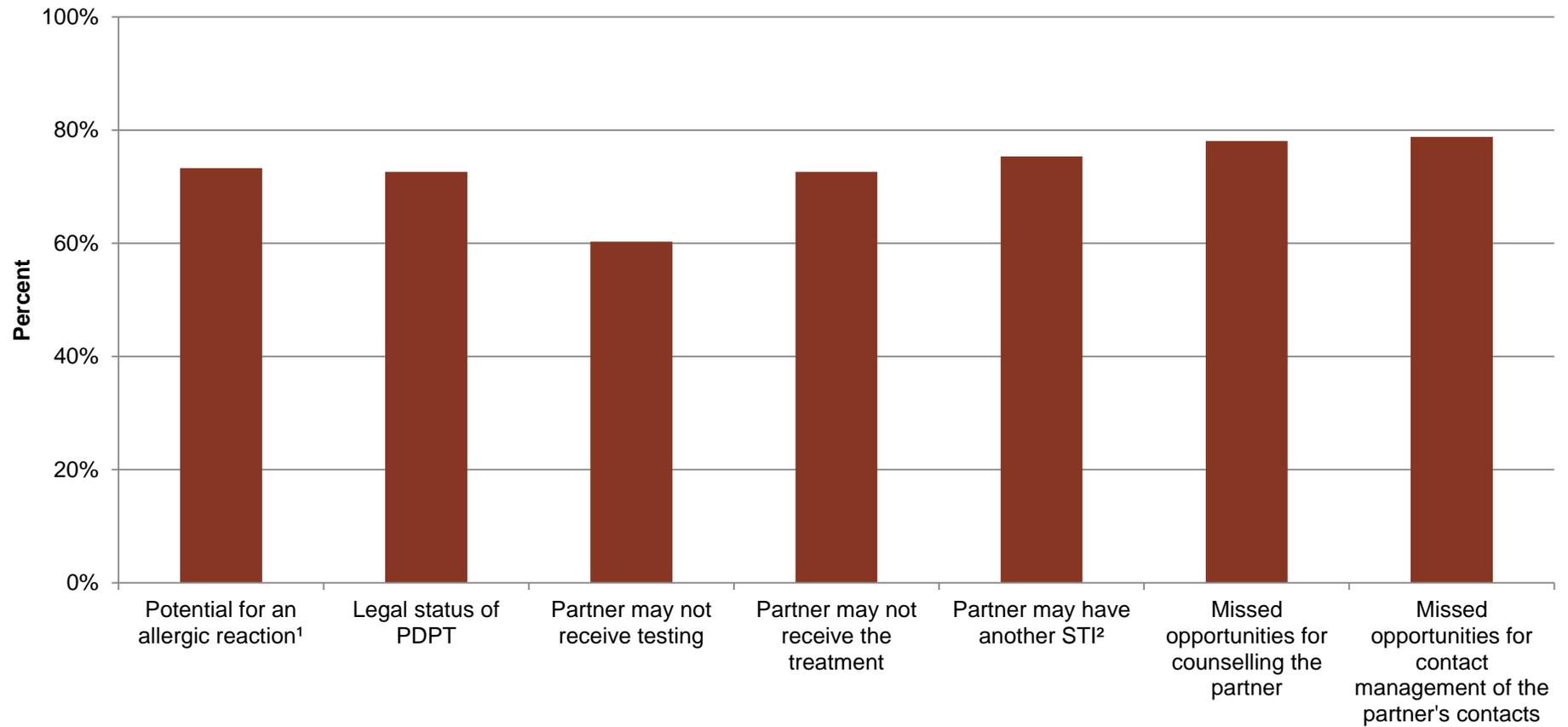


Figure 9. Benefits of PDPT perceived by clinicians (n=147)



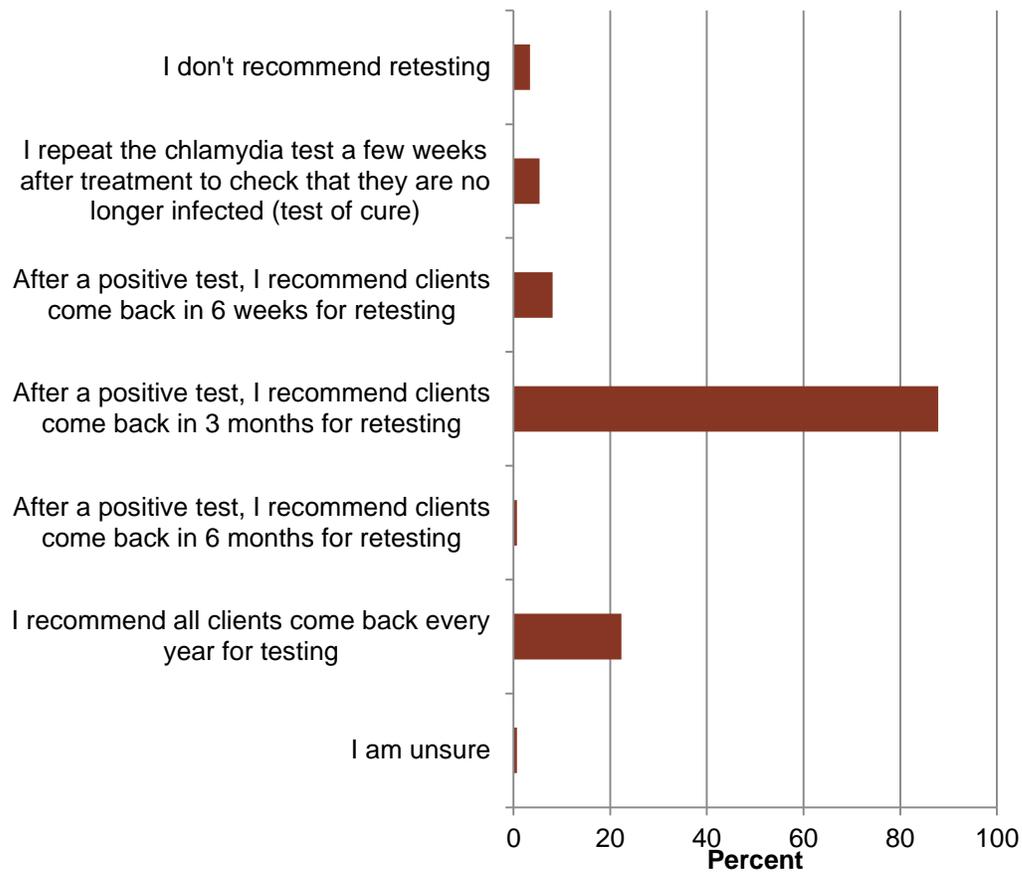
Full answer options: ¹More likely for the sexual partner to be treated than if they were expected to attend a clinic for a clinical evaluation ²Results in a more timely treatment of the partner than if they were expected to attend a clinic for a clinical evaluation ³Results in less time required by staff to contact and manage the partner(s) of clients e.g. phone calls to partners, letters, etc.

Figure 10. Percentage of clinicians (n=146) who had concerns about PDPT.



Full answer options: ¹Potential for an allergic reaction to the antibiotics prescribed ²Concerned that the partner may have another STI not treated by the antibiotic

Figure 11. Clinicians' usual practice around retesting for chlamydia after treatment of a diagnosed infection (n=148)¹



¹ Clinicians were allowed to choose more than one answer option.

Figure 12. Various methods of retesting for chlamydia after treatment of a diagnosed infection and their frequency of use by clinicians (n=141)

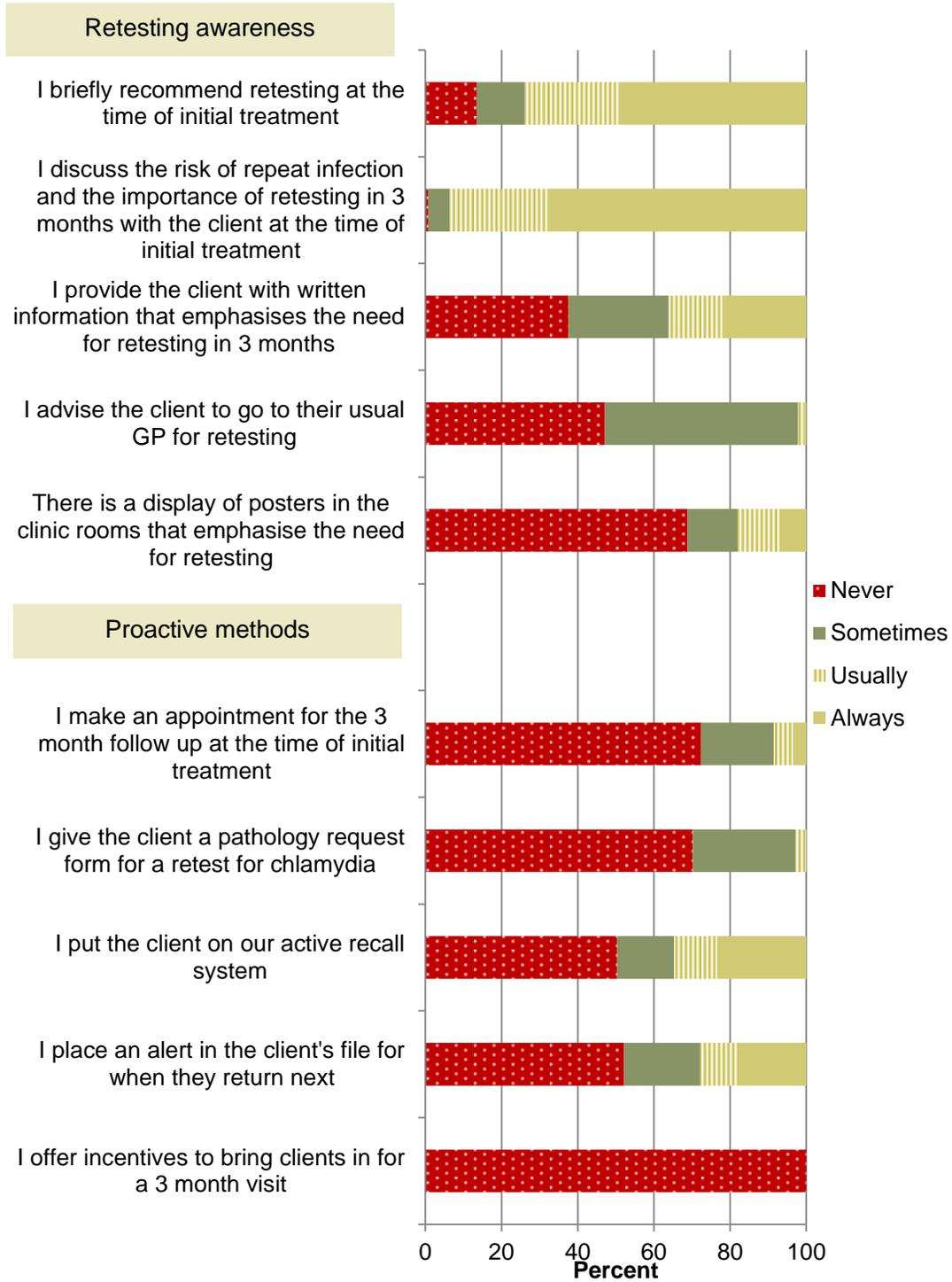
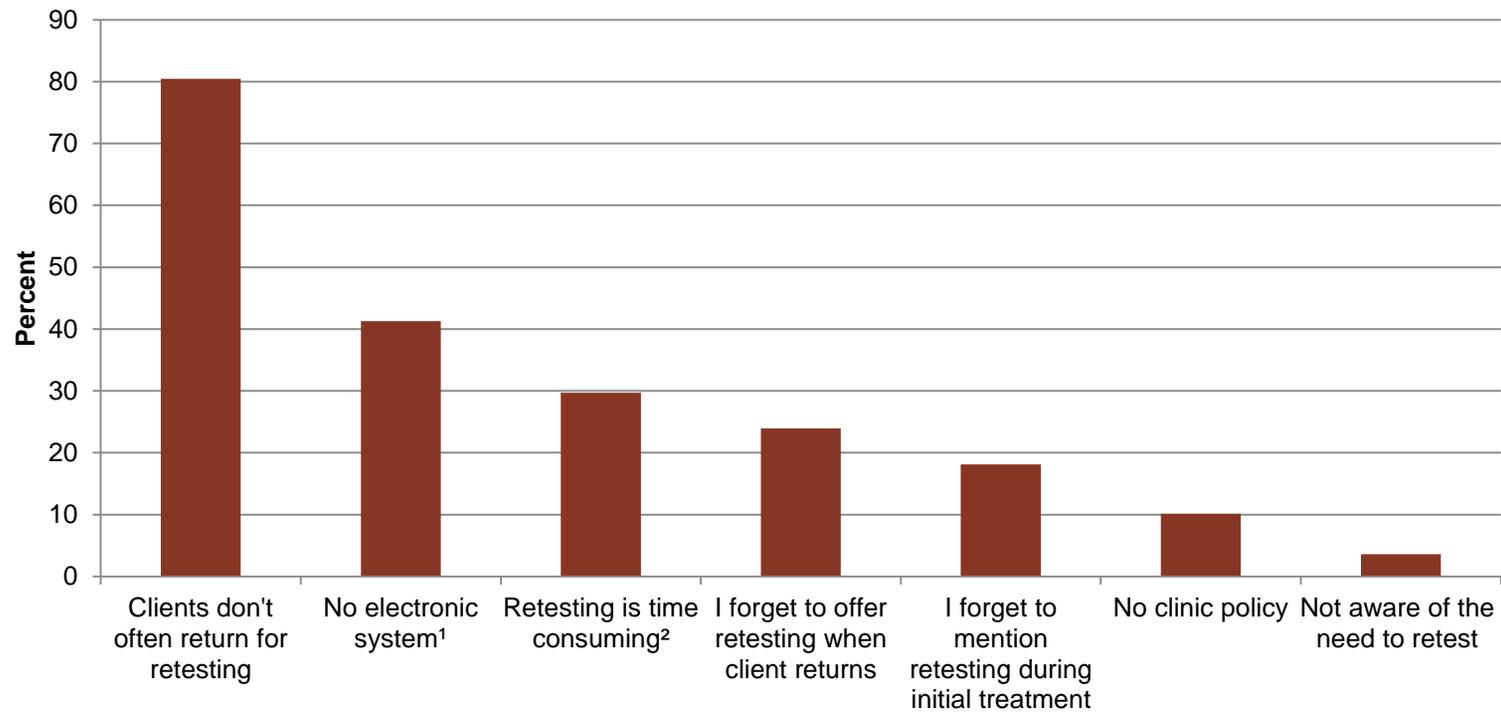
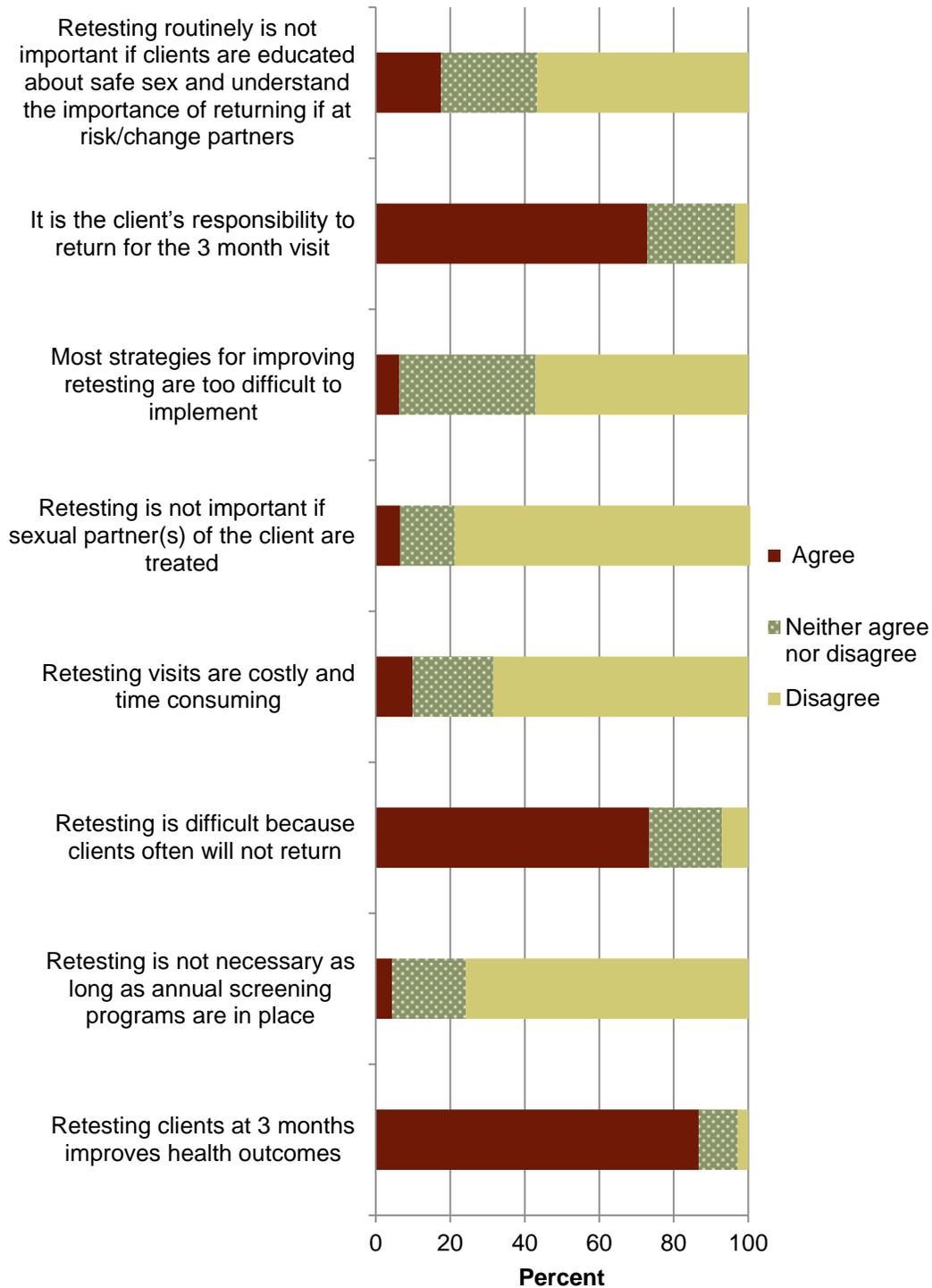


Figure 13. Barriers to retesting for chlamydia as perceived by clinicians (n=138)



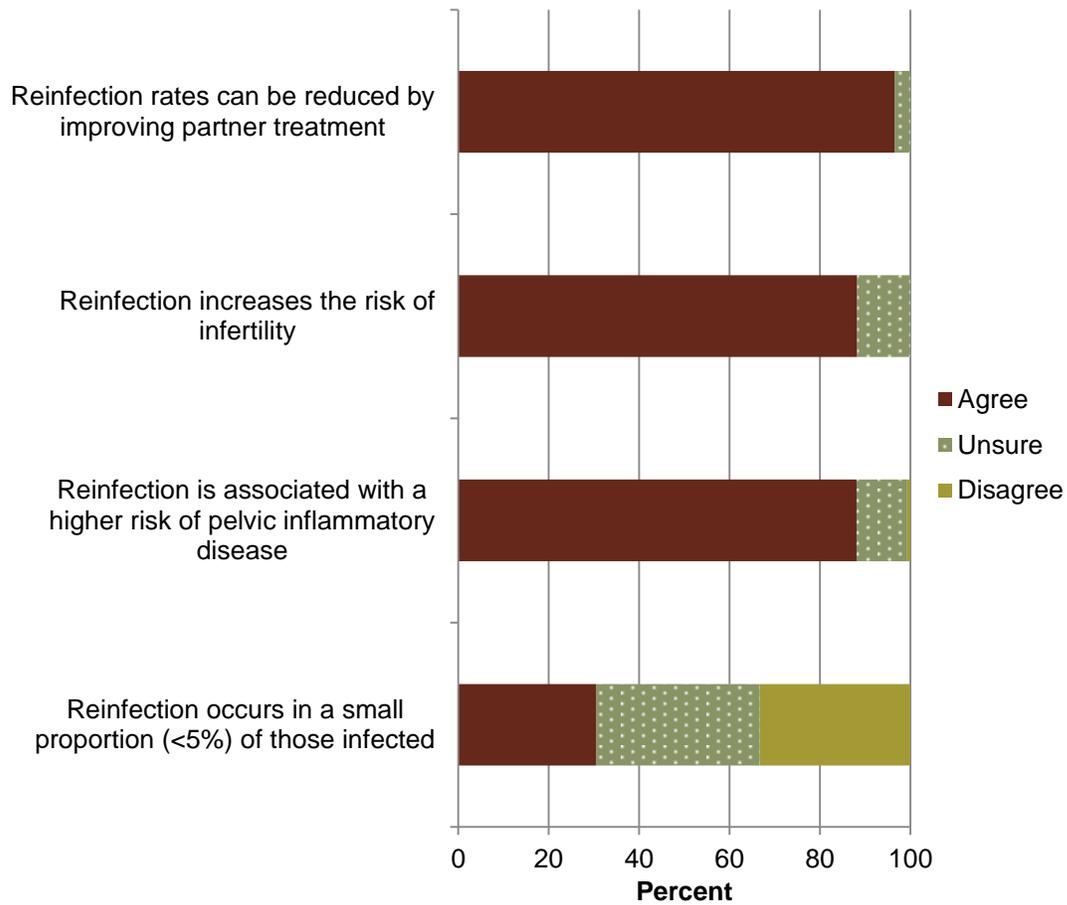
Full answer options: ¹We don't have an electronic system for reminding clinicians about retesting (prompts and/or recall messages); ²It is time consuming to call and/or send letters to clients.

Figure 14. Attitudes of clinicians towards retesting for chlamydia (n=144)



Agree= Combined "Strongly agree" and "agree" answer options
 Disagree= Combined "Strongly disagree" and "disagree" answer options

Figure 15. Knowledge of clinicians around chlamydia reinfection (n=145)



Appendix

What staff valued about working at FPC

During focus groups we asked staff what they valued about working at their FPC. In response they used words like vibrant, energetic, unique, proud, rewarding, lucky, passion, dedication, and worthwhile. Many spoke first of colleagues, of being part of a team and the **camaraderie** among clinical and support staff. Nurses repeatedly mentioned how much they valued their autonomy, the range of skills they employed and the collegial atmosphere with doctors: *“everyone is working basically the same way.”* Staff described a shared understanding and belief in the work Family Planning is doing. The sense of being part of something extended to a national and, for some, global movement.

There was a great pride in the **high quality of the care** provided at FP: *“not just doing the job but doing it well.”* They talked about a shared sense of professionalism that was enacted through the development of standards, protocols, and peer chart review. Participants described themselves as specialists in sexual and reproductive health: *“we know a lot about this.”* They had the opportunity to focus and specialise and as a result they felt they had highly attuned skills.

Dealing with *“mostly healthy people who had choices”* meant that clinicians felt they could **make a positive difference** in people’s lives. They enjoyed seeing a range of clients with several mentioning satisfaction from working with young people, people with mental and physical disabilities, and complex cases. Staff – especially nurses – highlighted providing education to clients as a highlight of their work. Of particular note was the opportunity to educate and empower young people to make choices: *“You can really make a difference. You feel like you can empower them with information and listening and they really appreciate it.”*

The possibility of longer **consultation times** at FPCs was highly valued. Where required, additional time allowed staff to listen, identify and discuss issues, and address them in a single consultation: *“we actually have time to sit.”* Time meant clients didn’t feel like they had to rush: *“list and get out.”* Clinicians suggested that time spent engendered trust because clients could see that clinicians were committed to addressing their specific health concerns in a timely fashion.

Clinicians described the importance of **tailored solutions and individualised care** that meant providing *“unbiased information”* to support and empower decision-making:

*I feel like we give people the freedom to live the way they want to live
whatever you want to do we will support you...and we'll show you how to do it*

FP was described as an organisation that was fundamentally **non-judgemental**, which allowed clients to be honest with their clinician: *“it’s totally non-judgemental so any patient with any issue feels comfortable...I just don’t know any other place where that could be.”* **Confidentiality** was key, something staff said they make explicit to clients: *“you see the body language and their face suddenly saying, its ok for me to tell this lady.”* Staff were very confident that clients experienced FPC as a **safe, non-threatening and welcoming space**: *“we make them feel that they are really looked after.”*

For many the proof of the success of the FPC was **client longevity**: *“people keep coming back”* and the perception that most new clients came via word of mouth. Staff told stories of **referrals** by friends, neighbours and relatives, and of groups of friends attending together. In most focus groups intergenerational referrals – mothers bringing daughters were mentioned and celebrated as a rite of passage.

young girls will say, ‘Yeah, you know, my friend was here,’ or ‘My cousin was here,’ or something like that. We do get a lot of word of mouth

often there’s recommendations to young people from older relatives and friends to come here. So, you know, like, ‘this is where I went for family planning needs’

Staff explained the **shared values and culture** of staff at FP in two ways. First, FP attracted people who want to work in social justice, are motivated by a drive for equality, empowerment and improvements in the health of the community. People coming to work at FP were perceived to be open-minded and progressive around sexual health. Second, FP communicated its culture to staff: *“fairly progressive forward thinking mentality at Family Planning...the staff follow the workplace.”* There was a lot of talk across focus groups about staff longevity. Indeed, a third of the participants had worked at one or more FPC for over 10 years.

References

1. The Kirby Institute, *HIV, viral hepatitis and sexually transmissible infections in Australia Annual Surveillance Report 2012*.
2. Sexual Health Society of Victoria, *National Management Guidelines for Sexually Transmissible Infections*, S. Bourke, Editor 2008: Melbourne.
3. The Royal Australian College of General Practitioners, *Guidelines for preventative activities in general practice (the 'red book')*, M.B.J. Harris, et al., Editors. 2009: Melbourne.
4. Bowring, A.L., et al., *Chlamydia testing and retesting patterns at family planning clinics in Australia*. *Sexual Health*, 2013. **10**(1): p. 74-81.
5. ASHM, *Australasian Contract Tracing Manual*, Australasian Society for HIV Medicine (ASHM), Editor 2010: Darlinghurst.
6. Golden, M.R., et al., *Effect of expedited treatment of sex partners on recurrent or persistent gonorrhoea or chlamydial infection*. *New England Journal of Medicine*, 2005. **352**(7): p. 676-85.
7. Kissinger, P., et al., *Patient-delivered partner treatment for male urethritis: a randomized, controlled trial*. *Clinical Infectious Diseases*, 2005. **41**(5): p. 623-9.
8. Schillinger, J.A., et al., *Patient-delivered partner treatment with azithromycin to prevent repeated Chlamydia trachomatis infection among women: a randomized, controlled trial*. *Sexually Transmitted Diseases*, 2003. **30**(1): p. 49-56.
9. Trelle, S., et al., *Improved effectiveness of partner notification for patients with sexually transmitted infections: systematic review*. *BMJ*, 2007. **334**(7589): p. 354.
10. Walker, J., et al., *Chlamydia trachomatis incidence and re-infection among young women--behavioural and microbiological characteristics*. *PLoS ONE [Electronic Resource]*, 2012. **7**(5): p. e37778.
11. Hillis, S.D., et al., *Recurrent chlamydial infections increase the risks of hospitalization for ectopic pregnancy and pelvic inflammatory disease*. *Am J Obstet Gynecol*, 1997. **176**(1 Pt 1): p. 103-7.
12. Braun, V. and V. Clarke, *Using thematic analysis in psychology*. *Qualitative Research in Psychology*, 2006. **3**(2): p. 77-101.