

Chlamydia Screening among Pregnancy-Test Only Visits Region I: 2005-2009



JSI Research & Training Institute, Inc.

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**This report was written by JSI Research & Training Institute, Inc (JSI).
Contributing JSI staff included:**

Jennifer Kawatu, RN, MPH

Andee Krasner, MPH

Julie Ray, BA

Fong Lui, BS

Marie Kaziunas, BA

Jaya Mathur, BA

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Executive Summary

Introduction

The CDC-funded Region I Infertility Prevention Project (IPP) aims to reduce preventable infertility through the collaborative efforts of sexually transmitted disease (STD), family planning (FP), and laboratory services providers throughout New England. Region I is comprised of six states: Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, and Connecticut. JSI Research & Training Institute, Inc. serves as the coordinating infrastructure grantee for the region. The project works to promote innovative, high quality, and cost-effective approaches for the prevention of chlamydia- and gonorrhea-related infertility, especially in sexually active adolescents and young adult women.

In 2008, the National Infertility Prevention Project made it a national objective of each of the ten regional IPP infrastructure projects to disseminate a regional epidemiologic profile of pregnancy-testing only (PTO) clients seen in prevalence monitoring clinics. There is a strong body of evidence to suggest that clients presenting for pregnancy testing have higher chlamydia prevalence than other clients at a given location, and that screening these clients is an opportunity to find a substantial number of infections.

The following Region I PTO profile was developed to inform readers about the regional and state-level chlamydia (CT) screening rates during pregnancy-test only (PTO) visits accessing care through family planning sites in Region I. The purpose of the PTO epidemiology profile is to describe CT screening rates among PTO visits in Region I and discuss potential areas for improved targeted screening practices in order to reach high-risk populations.

Objectives

There were two main objectives of this epidemiological profile. The first was to explore provider PTO screening practices among IPP supported clinics and partners in Region I. A provider assessment was conducted in 2009 in Region I and more than 300 clinical staff were asked questions about PTO screening practices and policies at four different types of sites (FP, community health centers (CHC), STD, and other).

The second objective of this epidemiological profile was to provide baseline CT screening rates among women presenting for “pregnancy-test only” visits from 2005-2009 by age and by race/ethnicity. The rate of CT screening among women who had a pelvic exam visit was presented as a reference point for CT screening rates in Region I. The data from 2005-2009 were presented for Region I and for each of the six states within Region I. Tables for each state are included in Appendix B.

In order to assess current PTO chlamydia screening rates and trends across time, we used the Region I Family Planning Data System. The data system was designed to collect consistent regional data on Title X clients in Region I and enable Title X grantees to complete the Family Planning Annual Report (FPAR). A detailed description of methods used is available in the body of the report.

Discussion

Data from the provider study suggested that providers were frequently unaware of and not following CD- recommended or state-specific CT screening guidelines. Further, fewer than half the providers were screening women for CT at PTO visits, although most providers stated that time was not a major barrier. Provider education focusing on state CT screening guidelines to emphasize the importance of screening women under 25 and educating clinicians about the higher CT positivity among women seeking PTO visits may help improve screening rates in general. Establishing standing orders and written policies and protocols that assume chlamydia screening during PTO visits may help to encourage clinicians to screen women at PTO visits. The screening of young women seeking PTO visits should be emphasized at the IPP project, state, and facility level.

Data from the Region I Family Planning Data System showed that CT screening among PTO visits in Region I has increased over the last five years, with the greatest increases seen among age groups younger than 15 and 15-19. However, screening rates among PTO visits never exceeded 22%. There was considerable variability of screening rates among PTO visits across states: screening rates among PTO visits increased significantly in Maine, New Hampshire, and Massachusetts, but there were only minor increases in CT screening rates among PTO visits in Connecticut, Vermont, and Rhode Island. Based on available data, there were not significant differences of CT screening among PTO visits by race.

Currently, there is no national guidance to screen women for chlamydia during PTO visits, and it was expected that CT screening rates would be higher in the more traditional pelvic exam visit. As expected, CT screening rates among PTO visits were substantially (three-to-nine times) lower than CT screening rates among pelvic exams, regardless of age or race. The combination of studies showing high positivity rates among PTO visits, and the low (in comparison to CT screening of women who have pelvic exam visits) CT screening rates among PTO visits in Region I, presents an untapped opportunity for targeted CT screening in Region I to find and treat chlamydia among those most likely to have it.

Conclusions

Young women coming in for pregnancy testing visits present an occasion for clinicians to intervene with a population who are by definition at-risk for an unplanned pregnancy, infections that can interfere with lifelong fertility, and other infections. This opportunity for counseling, education, and screening should not be missed. Young women should be screened for CT, HIV, counseled about safer sex, and provided a reliable method of birth control. Given the high positivity rates among PTO visits in studies, Region I could make more of an impact on the disease burden and identify more cases of disease by targeting its resources and increasing its screening rates during PTO visits. The region has the appropriate technology and capacity needed to do this screening and there is widespread support among clinicians and IPP Advisory Board members to increase screening CT rates during PTO visits.

Region I 2011 PTO Update

In June, 2010 each state added the PTO variable to its IPP lab slip, and in January, 2011 the IPP lab slip with the PTO variable was disseminated to all Region I IPP sites. In order to ensure that clinicians collect data correctly, a series of Webcasts were provided to clinicians in all Region I states (except Rhode Island, which made individual site visits instead) on how to collect PTO data. PTO data collection efforts will allow Region I to track PTO screening and positivity rates among PTO visits, which in turn will allow continued feedback to IPP sites to inform their screening practices.

Introduction

Background

The CDC-funded Region I Infertility Prevention Project (IPP) aims to reduce preventable infertility through the collaborative efforts of sexually transmitted disease (STD), family planning (FP), and laboratory services providers throughout New England. Region I is comprised of six states: Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, and Connecticut. JSI Research & Training Institute, Inc. serves as the coordinating infrastructure grantee for the region. The project works to promote innovative, high quality and cost-effective approaches in the prevention of STD-related infertility, especially in adolescent girls and young adult women. Prevention approaches link surveillance, clinical, laboratory, behavioral, and epidemiologic activities to prevent transmission of chlamydia and gonorrhea, which can result in pelvic inflammatory disease, infertility, and ectopic pregnancy.

In 2008, the National Infertility Prevention Project made it an objective of each of the ten regional IPP infrastructure projects to disseminate a regional epidemiologic profile of pregnancy-testing only (PTO) clients seen in prevalence monitoring clinics. There is a strong body of evidence (presented below) to suggest that clients presenting for pregnancy testing have a higher chlamydia prevalence than other clients at a given location, and that not screening these clients is a missed opportunity to find a substantial number of infections. This resulting PTO profile was developed to inform readers about the regional and state-level chlamydia (CT) screening rates during pregnancy-test only (PTO) visits among women accessing care through family planning sites in Region I. The purpose of the PTO epidemiology profile is to illuminate potential areas for improved targeted screening practices in order to reach a high risk population. Although the IPP project works to reduce the impact of both gonorrhea and chlamydia, this profile focuses only on chlamydia, for which there are standard screening criteria in each state. Whether gonorrhea (GC) screening is conducted during PTO visits should be determined according to the risk profile of a community.

This profile and the emphasis on PTO chlamydia screening was based on the evidence that positivity was higher in this population in published studies. Unfortunately, this profile did not include information on CT positivity rates in Region I, as the dataset that was used does not capture CT test outcomes. Previous studies, however, have reported that CT positivity rates were, at a minimum, higher among women seeking pregnancy tests than the commonly accepted cost effectiveness threshold of 3%¹ and IPP minimum positivity rate, and higher than the clinic population as a whole.² Several studies and presentations from 2001-2008 demonstrated that CT positivity rates were higher among PTO visits than the general population accessing care through family planning sites. Chlamydia positivity rates in women seeking pregnancy tests ranged from 4.7% to 13.7%.³ The age group of the women varied by study. In a randomly selected group of 212 teen positive pregnancy tests from an urban clinic, 13.7% were CT positive⁴; while another study of 1,465 females 16-45 years old (median age 22) seeking pregnancy testing at family planning clinics in South Carolina found that CT positivity rates were

12%⁵; a descriptive study of CT positivity rates among women aged 15-24 in Region X family planning clinics from 2003-2006, found 7.0% CT positivity⁶; and finally, a study of 299 Navy-enlisted women found a 4.7% CT positivity rate⁷. The most compelling evidence was a comparison of CT positivity rates in PTO visits to CT positivity rates in other types visits: among women seeking pregnancy tests at FP clinics in Pennsylvania in 2007, the positivity in PTO visits was found to be about 11%, while the positivity in the PA Project Area in Family Planning was usually around 3.5-4.0%⁸.

While the CT positivity rates had a broad range among women seeking pregnancy tests, this reflects the age of the population, whether they were employed, and geographical location. The variation in CT positivity rates may also be due in part to the wide variation in the definition of “pregnancy test only.” The definition of pregnancy test visit varies widely in the literature. Stevens-Simon looked only at those who had a positive pregnancy test. Geisler et al. (2008) defined pregnancy test visits as the “reason for the visit being to have a pregnancy test performed,” while Gulati et al. defined it as “pregnant women and those presenting for any pregnancy-related visit,” and Thomas, et al. defined it as “a population of healthy women screened for pregnancies.” The presentation by the Pennsylvania Health Department defined it as “providing urine chlamydia screening to women coming into family planning clinics for pregnancy testing who did not receive a speculum examination at the time of the visit.”⁹ In this epidemiological profile, we used a PTO definition most closely resembling the Pennsylvania Health Department’s definition.

Epidemiological Profile Objectives

In order to describe CT screening rates in PTO visits, we wanted to first describe the baseline environment in which screening occurred. To accomplish this, questions were asked as part of a larger provider survey conducted about CT screening in Region I. The second part this epidemiological profile focuses on CT screening rates among women with PTO visits between 2005-2009. Because there are currently no national CT screening recommendations for PTO visits, and no other national data on CT screening in PTO visits to which to compare Region I screening rates, we used CT screening rates in women with pelvic exam rates as a reference point. This reference point was chosen since it is the traditional visit during which CT screening is conducted. There was no expectation that screening rates in women with PTO visits would be as high as screening rates in women with pelvic exam visits because screening among PTO visits was a new screening practice that was being explored by CDC through the IPP Infrastructure’s National Objectives. The pelvic exam reference point was chosen to describe the potential for CT screening among women with PTO visits.

As mentioned, there were two main objectives of this epidemiological profile. The first was to explore provider PTO screening practices among IPP-supported clinics and partners in Region I. In order to do this, the 2009 Region I provider assessment asked providers at four different types of sites (FP, CHC, STD, and other) about CT screening policies for clients coming in for PTO visits. These survey findings are presented below.

The second objective of this epidemiological profile was to provide baseline CT screening rates among women presenting for “pregnancy test only” visits between 2005-2009 by age and by race/ethnicity. The rate of CT screening among women who had a pelvic exam visit was presented as a reference point for CT screening rates in Region I. The data from 2005-2009 were presented for Region I, as well as for each of the six states within Region I. Tables for each state are included in Appendix B.

Methods and Limitations

Provider Knowledge, Attitudes, and Behavior for CT Screening During PTO Visits

In 2009, a provider assessment on-line survey was conducted with providers in Region I. 295 clinical staff and providers at STD, family planning, and other publicly-funded clinics from all six New England states offering chlamydia screening as part of their clinical services were surveyed about chlamydia screening knowledge, attitudes, and behavior (see Attachment C: Provider Survey). In one section, they were asked several questions to describe their policies for CT screening for women whose primary reason for visiting the clinic was for a pregnancy test. There were 62 respondents from Connecticut, 52 from Maine, 79 from Massachusetts, 46 from New Hampshire, 20 from Rhode Island, and 36 from Vermont. There were 190 respondents from FP sites, 50 from CHC, 30 from STD clinics, and 35 from other site types. (The total sample size of clinic types (N=305) is greater than 295 because some clinics are designated as multiple clinic types.)

Twenty percent of providers did not respond to the PTO survey. We did not have any meaningful data to suggest how responders to PTO questions differed from non-responders because we did not ask any demographic information about the clinicians answering the survey. The data presented might be biased if responders and non-responders differed significantly, but there were no data to determine if there were in fact differences.

Chlamydia Screening Criteria

In Region I, screening criteria for chlamydia is determined on a state-by-state basis. Three states screen sexually active females age 25 and younger, and three states recommend screening for sexually active females age 24 and younger (see Table 1).

Table 1: 2009 Chlamydia screening criteria

	Screen sexually active females 24-years-old and younger annually	Screen sexually active females 25-years-old and younger annually	Screen women ≥25-years-old with new or multiple partners and/or who have had an STD in the previous 12 months	Screen sexually active women ≥26-years-old with new or multiple partners and/or who have had an STD in the previous 12 months	Screen pregnant women at first prenatal visit
CT		x		x	x
RI		x		x	x
MA		x		x	x
NH	x		x		x
VT	x		x		x
ME	x		x		x

Data Analysis

Data compilation and analysis was done in SAS and exported to Excel or calculated by Survey Monkey using the report function. No statistical measures for significance were performed.

Chlamydia Screening Rates among PTO Visits

Chlamydia screening rates among PTO visits were analyzed using data from the Region I Family Planning Data System. The data system was designed to collect consistent regional data on Title X clients in Region I and enable Title X grantees to complete the Family Planning Annual Report (FPAR). In Region I, Title X-funded sites submit data monthly via a secure Web site and audit reports provide feedback on missing or invalid data. Grantees must correct the errors before the data are submitted.

Data from Title X Family Planning sites are largely representative of IPP. Both Title X and IPP include family planning clinics, school-based clinics, and Department of Youth Services (DYS) sites. IPP sites also include state-funded STD clinics and adult correctional facilities, while Title X sites do not. Data from integrated clinics providing STD services that may have received Title X funding would have been excluded in our examination of PTO visits since our definition of PTO (see below) excluded exams where females were screened for all STDs during clinic visits, which is a common protocol in STD clinics. The Title X data, while representative of the IPP program overall, will not be representative of state-funded STD clinics and adult correctional facilities.

While we were unable to differentiate IPP sites from non-IPP Title X sites in our analysis due to limitations in the dataset, we don't expect that there were significant differences in CT screening practices among PTO visits in Title X sites receiving IPP funding and Title X sites not receiving IPP funding. Currently, there are no existing PTO-specific policies or recommendations from CDC or OPA that would indicate that the practices would be different.

See Table 2 for a description of the types of IPP facilities by state in Region I.

Table 2: Region I - IPP facility type by state in 2009

State/Region	STD	Family Planning	School-Based Clinic	Adult and Juvenile Correctional Facilities
CT	0 (0%)	14 (77.8%)	0 (0%)	4 (22%)
MA	6 (11.8%)	25 (49%)	16 (31.4%)	4 (7.8%)
ME	3 (8.3%)	26 (72.2%)	7 (19.4%)	0 (0%)
NH	0 (0%)	16 (94%)	0 (0%)	1 (6%)
RI	1 (12.5%)	7 (87.5%)	0 (0%)	0 (0%)
VT	0 (0%)	15 (93.8%)	0 (0%)	1 (6.2%)
Region I	10 (6.9%)	103 (70.6%)	23 (15.8%)	10 (6.8%)

Source: 2009 Region I Infertility Prevention Project Prevalence Monitoring Dataset

Limitations

A significant limitation of using the Region I Family Planning Data System to examine CT screening rates among PTO visits was that the PTO variable had to be constructed from visit information. The PTO variable used in the data analysis was designed from response options to “visit type.” One of the limitations to using a constructed variable was that the visit intention was unknown. For example, a woman may have come in for an HIV test and decided to have a pregnancy test as well. Since a woman’s intent for the visit could not be determined, this visit was indistinguishable from a woman who came in for a pregnancy test and was then offered an HIV test. In this example, the woman who intended to have an HIV test and also received a PT would be counted as a woman getting a PT but not getting screened for CT, even though the intent of her visit was not PTO but an HIV test. This may have given CT screening rates among PT visits a downward bias. Also, by limiting the PTO visit to a pregnancy test and a few other tests (CT, GC, and HIV) we may have eliminated visits that were initially PTO but received a variety of other services during the visit, and thus undercounted the number of women with PTO visits, biasing the screening rates upward. The extent and direction of these biases in the dataset are unknown and should be kept in mind when interpreting the CT screening rates among PTO visits.

There was concern that some school-based clinics may not provide CT screening even though they provide PT or they did not report CT screening through the Region I FP Data System even though they provided it, which would result in an undercount of CT screening. While it was not possible to identify site type within the data from the Region I Family Planning Data System, we analyzed data from all sites and found that sites not

reporting CT screening accounted for less than 1% of all visits in each of their states in each of the five years. Due to limitations in our dataset, we were unable to exclude these sites entirely. However, we don't think it will have a significant impact on the overall analysis since they make up a tiny proportion of the data analyzed.

It should be noted that there is no nationally agreed upon variable definition for PTO. The definition used in this report is based on the definition used by the IPP Infrastructure in Pennsylvania. After the variable definition was constructed, it was presented to the Region I IPP Advisory Board, who reviewed and approved it at the June, 2010 meeting. Below are the inclusion and exclusion criteria for a PTO visit in this epidemiological profile.

PTO Definition: A clinic visit by a woman coming into family planning clinics for pregnancy testing who did not receive a physical examination, injection, or STD screening (other than CT, GC, or HIV) at the time of the visit.

Visits that include procedures that could be done in an express PTO visit that were not a part of a physical exam or STD screen qualified as PTO visits. Visits that included procedures associated with a physical exam (table exam) or full STD screen did not qualify as PTO visits.

Includes: Visits with pregnancy test (PT) and zero or more of the following tests during the same visit: CT test, GC test, HIV test, emergency contraception, or blood pressure measurement.

Excludes: Visits with PT and physical exam or other STD testing (e.g. HPV, Hep B or C). The PT was excluded from the dominator if it was done with any of the following procedures: colposcopy, colposcopy with biopsy, colposcopy with leep, cryo cauterly, IUD insert/removal, implant insert/removal, female sterilization, pap smear, breast exam, urinalysis, hemoglobin, Hep B test, Hep B shot, Hep C test, cholesterol, RPR, HSV, wet prep, wart treatment, infertility work-up, diaphragm, injectable contraception, injection, venipuncture, or HPV.

The Region I Family Planning dataset does not have CT or PT outcome data nor does it collect risk-factor data. This prevented us from analyzing CT positivity rates among PTO visits and from analyzing risk factors associated with women coming in for PTO visits.

Age Categories for Screening Rates

In Region I, IPP screening criteria are to screen all sexually active women 24 and younger (regardless of risk factors) in three states - Maine, Vermont, and New Hampshire, and to screen all sexually active women 25-years-old and younger (regardless of risk factors) in Massachusetts, Connecticut, and Rhode Island. In this report, we analyzed and presented CT screening rate data in PTO and pelvic exam visits using 24 and younger as the age cutoff regardless of the state IPP screening criteria (see Table 1 above for screening criteria.) The age cutoff of 24-years-old and younger was used because 24 is inclusive of CDC and U.S. Preventative Services Task Force (USPFTF) recommendations and should reflect the highest screening rates. While three states have

IPP guidelines that specify 25 and younger, some Title X sites within these states follow the USPFTF guidelines.

Data Analysis

Data were analyzed at the client level. Women were included in the denominator if they had at least one visit (for PTO or Pelvic Exam) in a calendar year. Screening rates are likely biased downward since no other criteria were used for inclusion.

A descriptive analysis of CT screening rates among women who had a PTO and pelvic exam visit between 2005-2009 are presented. Data were compiled using SAS 9.1 and exported to Excel. Rates were calculated in Excel. No statistical measure of significance was done.

Results:

I. Region I IPP Chlamydia Staff and Provider Assessment: Provider Knowledge, Attitudes, and Behavior Around CT Screening During PTO Visits

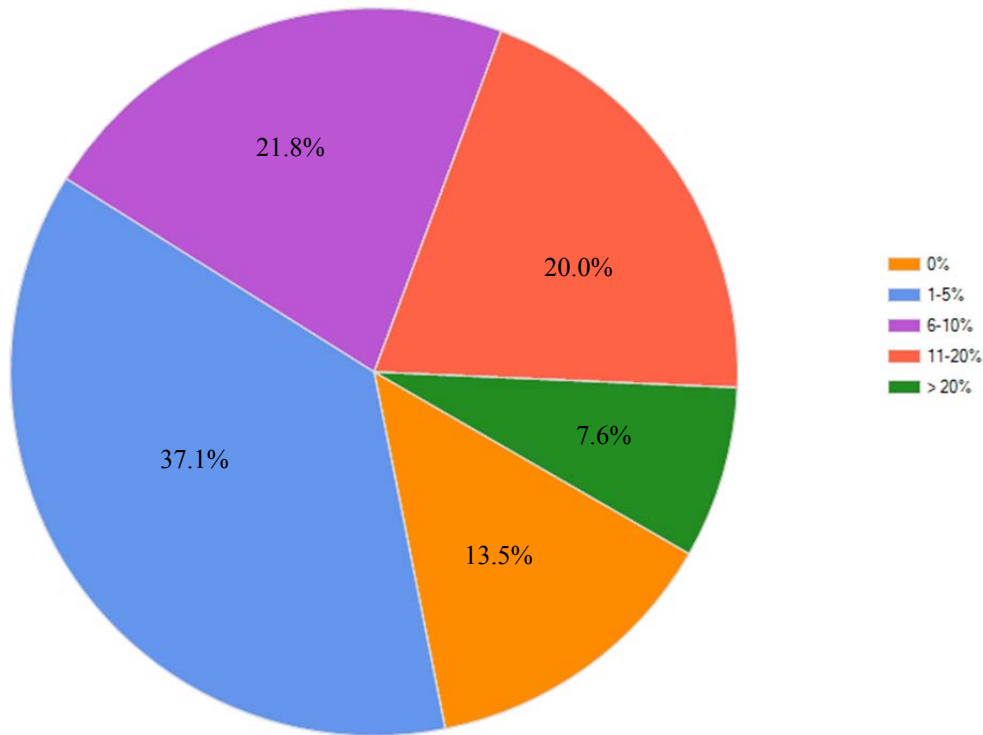
In order to assess the current screening practices for pelvic exam and PTO visits in Region I, we used the regional provider assessment that was conducted in 2009 with providers at clinics offering STD screening in the six states in Region I. These providers were asked questions about their protocol and experience with PTO visits and their practice for screening of chlamydia at a PTO visit.

The first questions were designed to describe the capacity and test technology available to providers across the region. All six states in Region I were using (and continue to use) NAAT testing and had the capacity to do urine-based or self-collected vaginal swab screening at the clinic level, which makes screening of walk-in PTO clients feasible. In fact, the provider assessment survey asked about what percent of respondents utilized urine-based screening already: 99% for men, 93% for women. In other words, the test technology and capacity to provide chlamydia screening at PTO visits is present and utilized consistently across the region.

Next, in order to assess the burden of PTO visits and the potential impact of adding CT testing to these visits on FP clinics, staff respondents were asked what percent of the patients they see were PTO. The majority (86%) responded that PTO visits were fewer than 20% of their visits. Six percent stated that they had no PTO visits, and 8% of the respondents stated that more than 20% of their visits were PTO (see Figure 1). The survey findings indicated that about 40% of the PTO visits were walk-ins (though responses ranged from 0 to 100).

Figure 1: Percent of patients coming to clinic for PTO visit

Of your caseload, about what % of patients in an average week would you say are coming in for these PTO visits?



Source: Region I IPP Provider Assessment Survey, 2009

The provider assessment showed that there was interest in and commitment to increasing screening at PTO visits in the region. During the key informant interviews with practicing clinicians (which preceded the provider assessment), clinicians from across the region were asked, “Do you routinely offer chlamydia (and/or GC) testing to women coming in to your clinic for a walk-in pregnancy-test only visit?” All six of the respondents said they had incorporated routine CT screening among PTO visits in women age 24- or 25-and-younger since being provided evidence that chlamydia rates were higher in women coming to the clinic for PTO than other women of the same age coming in for a PTO visit. An example of a typical answer to this question was “Any woman coming in for a pregnancy test is offered the option to have a CT/GC screen with the urine sample. They’re welcome to opt out of it but it is run routinely if they do not. It’s fairly new that we’re offering that.”

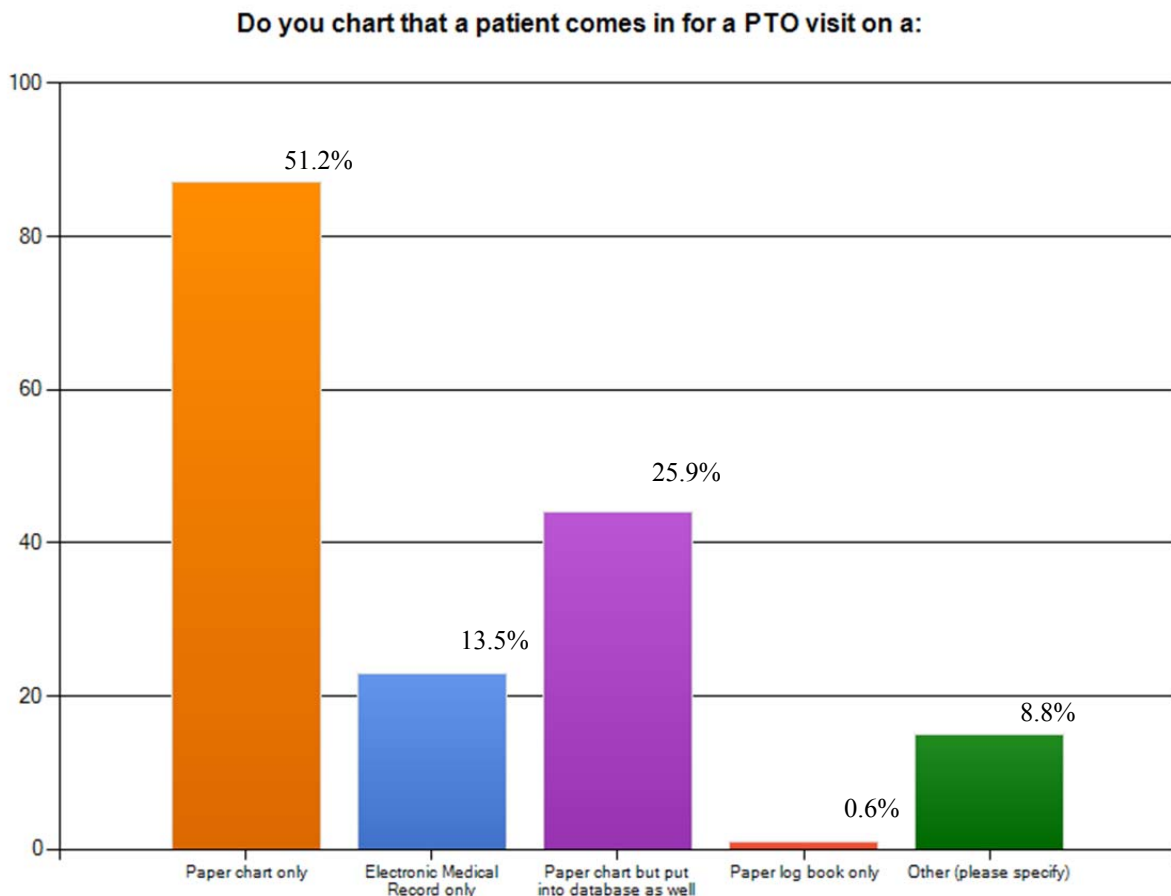
The survey results showed there was significant variability in current clinical practice across the region from state to state. When asked (in the provider assessment) if they agreed with the statement “Our clinic policy is to only do CT testing during scheduled visits and annual exams” (and therefore not at a walk-in PTO visit), responses ranged from 2.3% agreeing with this statement in Maine to 46% agreeing in Massachusetts. Although increases in screening were seen across the region, policies have changed faster

in some areas than others. Interestingly, 100% of respondents in Maine disagreed with the statement that they “did not have time to do an STD screening at walk-in PTO visits,” compared to 26% in Rhode Island and 11% in Massachusetts.

The Region I IPP Advisory Board members, too, have expressed a great deal of support for PTO screening. They have consistently supported screening but it has been hard to track the progress and identify ways in which to evaluate increased screening in this area. In fact, one of the provider assessment survey questions asked how they were documenting that they were doing a PTO screen. The results suggest that although only about a quarter (22%) were documenting it in an electronic medical record (EMR), nearly half (44%) were entering it into some kind of database, both of which represent opportunities for tracking (see Figure 2). It was determined, however, that there was no consistent way to track PTO visits across states.

Still, the advisory board reaffirmed their support for PTO screening at the 2010 June Region I IPP Advisory Board meeting, when they voted to include the PTO variable on all IPP lab slips, beginning in January 2011.

Figure 2: Documentation method of PTO visits

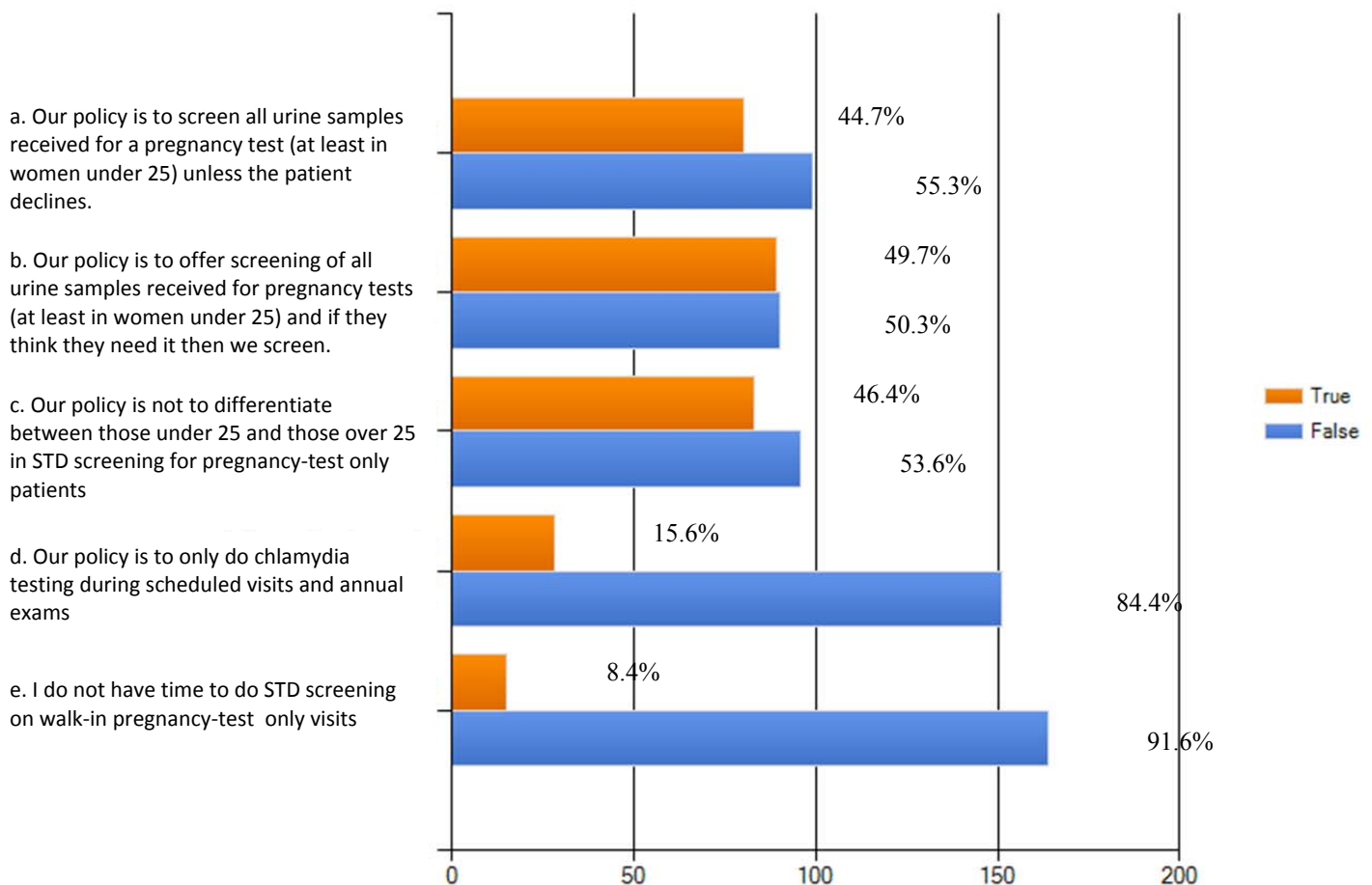


Source: Region I IPP Provider Assessment Survey, 2009

Providers were asked a series of questions about their clinic’s PTO testing policy. Figure 3 describes responses to questions about provider policy for screening women under the age of 25 for chlamydia at pregnancy-test only visits. Providers from all facilities except STD clinics were more likely to provide chlamydia testing at PTO visits as an “opt-in” approach, as opposed to an “opt-out” approach (data not shown).. The screening guidelines for all six states in Region I are that all sexually active women aged 24/25 and younger should be screened for CT, however, fewer than 50% of providers, regardless of clinic type, said they screened women according to the guidelines (Figure 4). It should be noted that providers from family planning clinics, as opposed to other clinic types, were the most likely (44%) to screen women at PTO visits according the state guidelines for chlamydia screening (data not shown).

Figure 3: Clinic Policies for PTO Visits

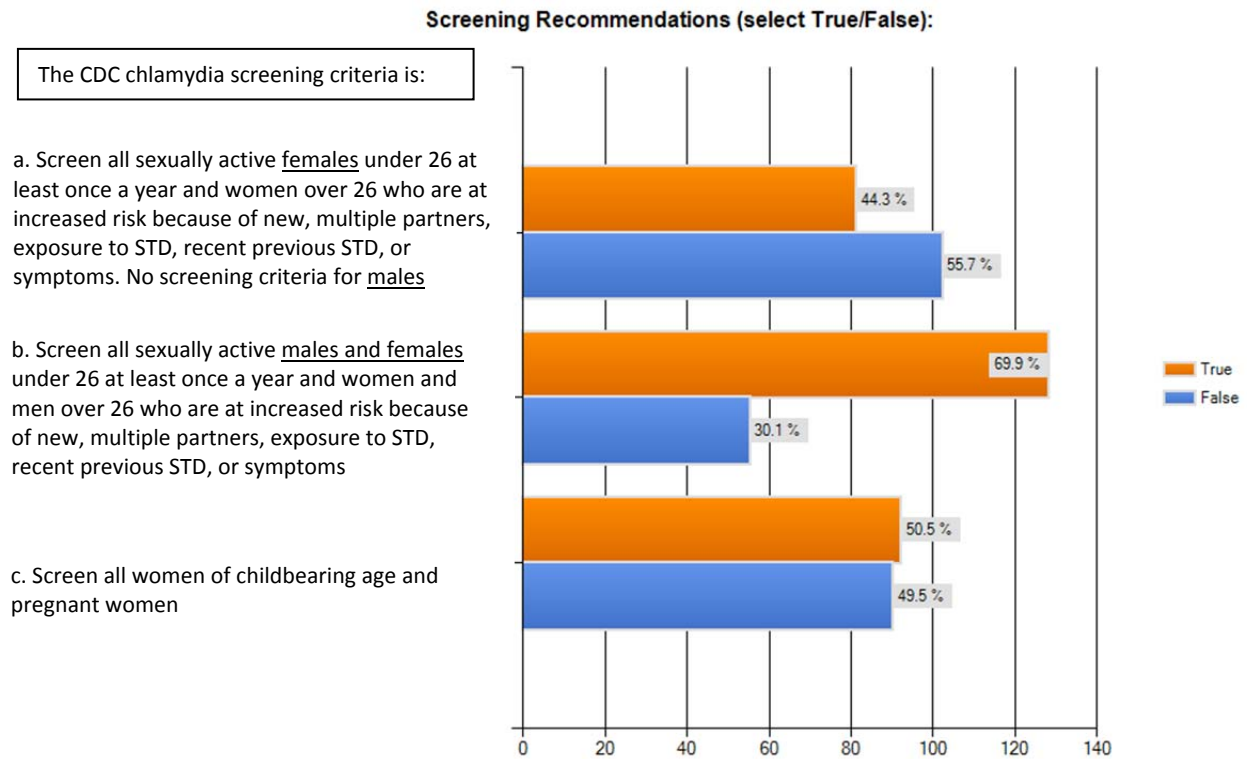
Pregnancy Test “Only” (select True/False):



N=179, missing 46

Source: Region I IPP Provider Assessment Survey, 2009

Figure 4: Identifying CDC Screening Recommendations



Source: Region I IPP Provider Assessment Survey, 2009

There may be a number of reasons why providers are not screening women age 24/25 and younger at pregnancy-test only visits. First, they may not know their state’s chlamydia screening guidelines—more than half (55%) of the providers in this survey could not correctly identify the CDC screening recommendations (see Figure 4). Alternatively, providers may not know that women seeking a pregnancy test may be at higher risk for CT than other women¹⁰ or they may not have enough time during the visit to provide CT screening. When asked on the provider assessment survey, the majority of respondents, (67%) agreed with the statement that they “Offer chlamydia testing to everyone and leave it up to them to decide if they need it or not.” This approach does not target specific visit types or age range, and it was clear from the responses that providers were not using the screening criteria to make decisions about chlamydia screening.

When asked, providers did not think that time was a barrier to screening for chlamydia during a PTO visit, as fewer than 10% of all providers said that they did not have time to provide a chlamydia test to a walk-in pregnancy-test only visits (Table 3). There was, however, variation by clinic type: more (but still a minority) of the respondents from CHC responded that they did not have time to do CT screening for walk-ins (17%), as compared to other clinic types (9%) that do STD screening during walk-in pregnancy-test only visits. CHC’s were also more likely (42%) to agree that their policies were to offer chlamydia screening only during scheduled visits and annual exams than FP clinics, of which only 18% stated this was their policy. Finally, as mentioned above, only 10% of

respondents said they “do not have time to do STD screening on walk-in PTO visits”, suggesting a high level of provider support to offer CT screening at PTO visits. When analyzed by staff type, 15% of FP counselors or other non-licensed clinic staff said they “did not have time,” while only 8% of licensed clinical staff said they didn’t have time to do CT screening during PTO visits, suggesting that staff roles and level of education may be a factor (data not shown).

Table 3: There is no time to do STD screening on walk-in PTO visits by clinic type (N=242)*

Clinic Type	Total	% True
Family planning	159	9% (14)
Community health center	36	17% (6)
STD	23	9% (2)
Other	24	0% (0)
Total	242	9% (22)

*Missing 63

Source: Region I IPP Provider Assessment Survey, 2009

In summary, more than half of the providers did not correctly identify the CDC CT screening guidelines, and more than half did not screen according to their state-specific IPP CT screening guidelines, suggesting that targeted, age-based screening for PTO visits is currently not a universal practice – even at IPP sites. Despite urine screening technology being readily available and widely used, PTO CT screening practices differed across clinic types and cadre of clinicians. According to the interview findings and comment section of the survey, providers were most strongly influenced to change their screening practices by evidence of higher positivity. Additional positivity data gathered using the PTO variable from the IPP program in 2011 might be a way to encourage providers to target screening at future PTO visits.

While time was a potential barrier, the results from the survey suggest that staff feel they have time for CT screening at PTO visits. Urine-based screening could be conducted at the same time as a pregnancy test and IPP funding is available to support CT screening at PTO visits for the target age group of women 24/25 and younger. According to IPP Advisory Board members, a program to promote PTO screening would likely be well-received.

II. *Chlamydia Screening Rates among Women at PTO and Pelvic Exam Visits*

Chlamydia screening rates among women at PTO visit by age in Region I

The second part of the epidemiological profile focuses on chlamydia screening rates among women who had a PTO visit¹. While no CDC guidance exists for CT screening in PTO visits, chlamydia screening during PTO visits has been increasing over the last five years in Region I. However, it was still a relatively rare intervention in 2009 (Table 5). Between 2005 and 2009, the rates of women with a PTO visit who received a CT test increased from 2.9% overall to 9% overall. In Region I, chlamydia testing among women presenting for PTO visits has been increasing steadily among the under-15 and 15-19 age groups (those at highest risk for chlamydia in Region I). In 2005, only 5.6% of teens under age 15 received a CT test along with a pregnancy test, while in 2009 it increased to 21.1%. In the next age group (15-19-year-olds), the rate increased from 4.3% in 2005 to 15.7% in 2009. Screening rates among women age 20-24 increased from 2.2% to 7.0%, but the other age groups (older than 24 years) saw very little increase (3% or less).

Table 4: Region I: Percent of women with chlamydia test during PTO visit by age (2005-2009)

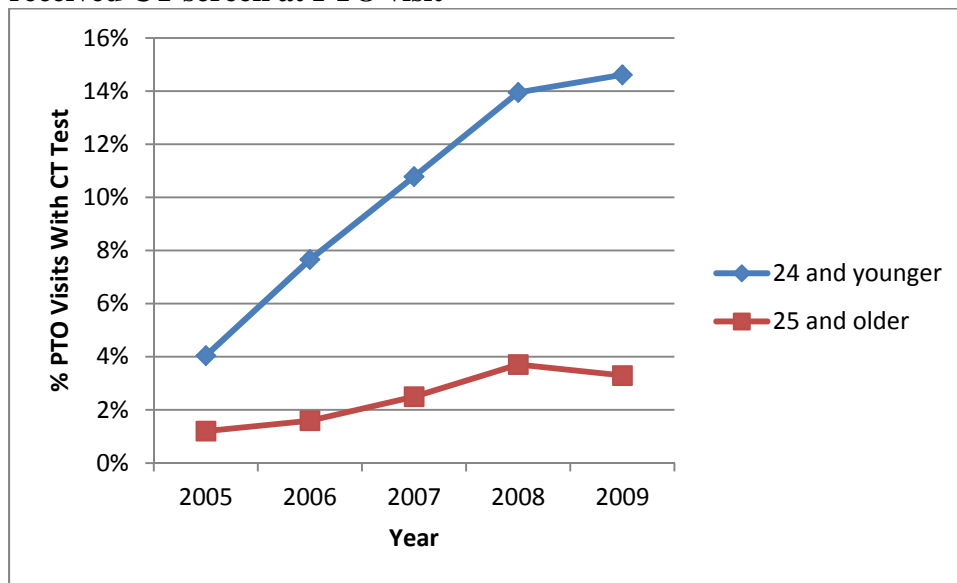
Age	2005		2006		2007		2008		2009	
	# of Women with PTO visit	% Women with CT test during PTO visit	# of Women with PTO visit	% Women with CT test during PTO visit	# of Women with PTO visit	% Women with CT test during PTO visit	# of Women with PTO visit	% Women with CT test during PTO visit	# of Women with PTO visit	% Women with CT test during PTO visit
<15	753	5.6% (42)	722	12.9% (93)	679	16.8% (114)	668	18.7% (125)	626	21.1% (132)
15-19	15,511	4.3% (671)	15,404	7.3% (1122)	14,653	11.2% (1639)	15,480	15.1% (2,333)	14,662	15.7% (2,303)
20-24	11,554	2.2% (256)	11,526	2.8% (324)	10,593	4.4% (462)	12,439	8.1% (1,004)	13,016	7.0% (917)
25-29	5,509	1.3% (70)	5,900	1.7% (99)	5,666	2.6% (149)	6,720	4.3% (286)	7,439	3.9% (292)
30+	5,092	1.1% (58)	5,234	1.5% (79)	5,070	2.4% (120)	6,043	3.2% (191)	6,601	2.7% (176)
Total	38,419	2.9% (1097)	38,786	4.4% (1717)	36,661	6.8% (2484)	41,350	9.5% (3,939)	42,344	9% (3,820)

Source: Region I Family Planning Data System 2005-2009

¹ As mentioned, a pregnancy-test only visit is defined as a visit where a woman received a pregnancy test but no physical exam. At the visit, she may also have received a chlamydia or gonorrhea test, an HIV test, emergency contraception, and/or blood pressure. The primary reason for the visit was not indicated in the dataset and was unknown, which could contribute to either an upward or downward bias in screening rates.

The most significant increases in CT screening during PTO visits were seen in the 24-and-younger age group. The increases in screening 24-and-younger were consistent with the state-specific screening criteria in Region I focusing on increasing screening in women age 24/25 and younger (Figure 5).

Figure 5: Comparison of women 24-and-younger to women 25-and-older who received CT screen at PTO visit



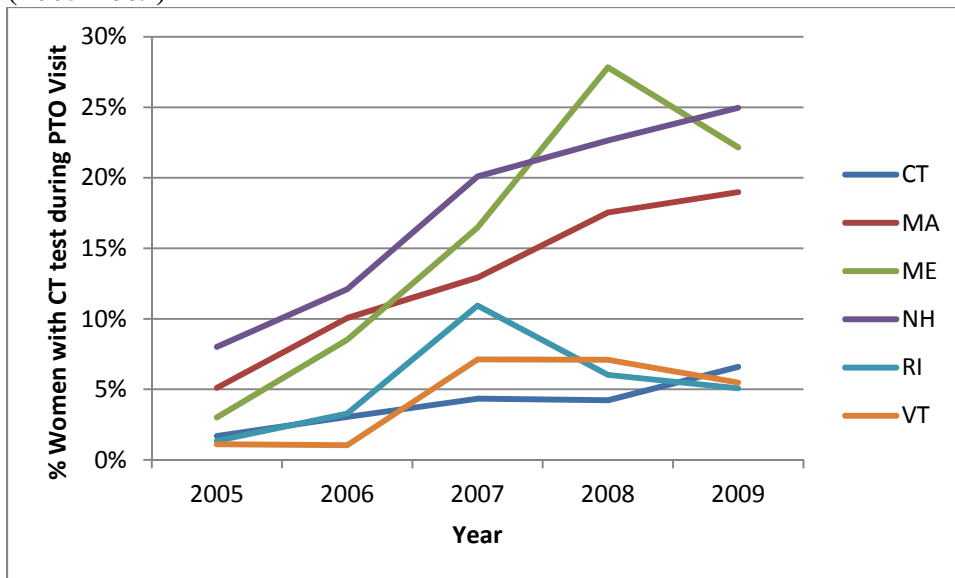
Source: Region I Family Planning Data System 2005-2009

While the trend to test women for CT during a PTO visit is increasing, especially among women 19 and younger, there is room for additional improvement in screening rates. As of 2009, less than 12% of PTO visits in women 24 and younger were screened for CT. Clinicians should especially be reminded that women 20-24 also would benefit from CT screening at a PTO visit as the data suggest that this age group is more often overlooked for chlamydia screening than screening for teenagers.

Chlamydia Screening Rates Among Women with PTO Visit by State

Chlamydia screening rates among women with PTO visits who were 24-and-younger increased dramatically in three of the six states across the five years (Figure 6). New Hampshire (NH) and Maine (ME) had the largest increase over the five years, increasing from 8% in 2005 to 25% in 2009 in NH, and 3% in 2005 to 22% in 2009 in ME with Massachusetts (MA) close behind, increasing from 5% in 2005 to 19% in 2009. Rhode Island, Vermont and Connecticut did not have as dramatic an increase in CT screening during PTO visits among women 24-and-younger over the five year period: Vermont and Connecticut's rates increased from 1% to 5% and 1% to 6% respectively, and Rhode Island's rates increased from 1% to 5%.

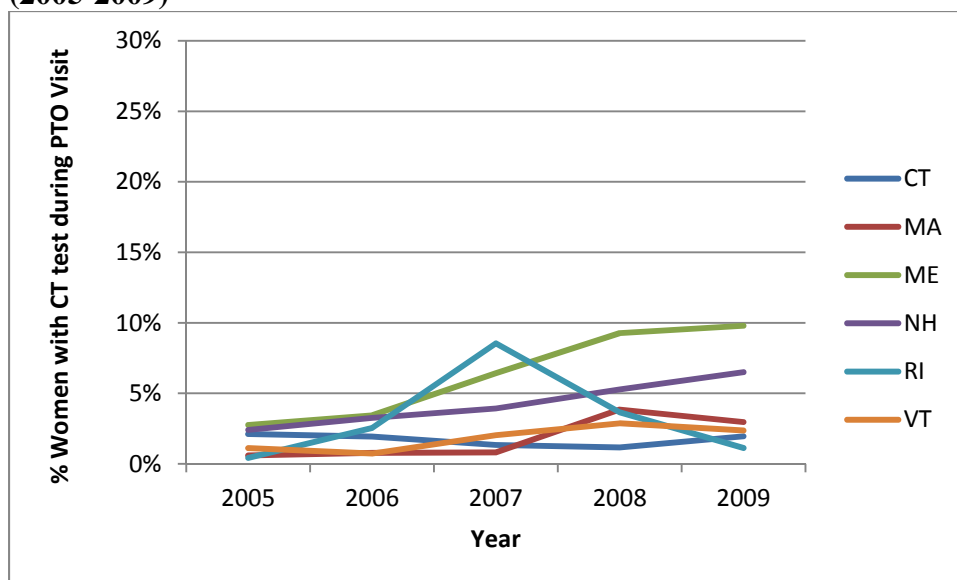
Figure 6: Percent of women 24-and-younger with CT test during PTO visit by state (2005-2009)



Source: Region I Family Planning Data System 2005-2009

Chlamydia screening rates among women 25-and-older with a PTO visit for women were highest among Maine, New Hampshire (as they were for women 24-and-younger—see Figure 7). For these two states, the screening rates were significantly lower than the CT screening rates among PTO visits for women 24-and-younger, which is consistent with state screening guidelines. Connecticut, Massachusetts, and Vermont had CT screening rates that never exceeded 5% and were consistently around 1-3%, which mirrored their screening of women 24-and-younger. Since there was no risk data in the the Region I Family Planning dataset, it could not be determined if screening rates were also associated with the number or percent of women over the age of 25 who had identified risk factors or clinical indications for CT.

Figure 7: Percent of women 25-and-older with CT test during PTO visit by state (2005-2009)

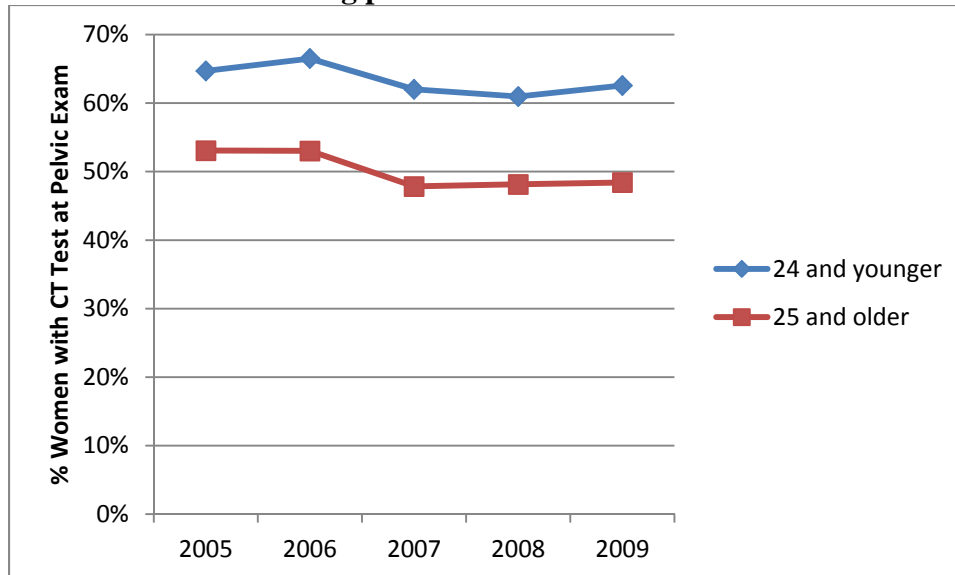


Source: Region I Family Planning Data System 2005-2009

CT Screening Rates among Women with Pelvic Exam Visit by Age in Region I

In contrast to a PTO visit, CT screening has traditionally been done during a pelvic exam during an initial, annual, or scheduled “problem” visit exam. Chlamydia screening rates among women with pelvic exam visits are presented as a reference point for CT screening rates in Region I. Figure 8 describes how often a chlamydia test was done among women 24-and-younger and 25-and-older at a pelvic exam visit.

Figure 8: Region I: Comparison of percent of women 24-and-younger to 25-and-older with CT test during pelvic exam visit



Source: Region I Family Planning Data System 2005-2009

The percent of women tested for chlamydia during a pelvic exam decreased slightly from 2005 to 2009; the decrease is likely due in part to changes in national pap screening guidelines. Although CT can be performed without a pelvic exam, because they have traditionally been bundled, a slight decrease since 2005 is not unexpected. In 2009, around half (52.6%) of all 25-29 year-olds were screened and 44.2% of women 30 and older. From 2005 to 2009, the percentage of women 24 and younger with a CT test during a pelvic exam stayed relatively constant, moving from 64.7% to 62.6%. During the same time period, chlamydia testing among PTO visits (for women 24 and younger) increased substantially, from 4% to 14.6%. Another promising aspect of screening women during PTO visits is that the number of women getting PTO visits have been increasing over five years, while the number of women getting pelvic exams has remained stable. This suggests that there will be more opportunities to target testing in women with PTO visits.

Women coming in for a pelvic exam received CT testing three-to-nine times as often as those women with PTO visits in the 24-and-younger. Among >15 year-old-women in 2009, 59% had a chlamydia test during a pelvic exam but only 21% had one during a PTO visit. In 2009, 15-19-year-old women had a CT test 68% of the time during a pelvic exam, yet only 16% had one during a PTO visit; 20-24-year-olds had a CT test 61% of the time during a pelvic exam, and only 7% of the time during a PTO visit (Table 5). The data suggest that CT screening among women with PTO visits could potentially increase from 20% to 60% in the coming years.

Table 5: Region I: Percent of women with chlamydia test during pelvic exam visit by age in 2005-2009

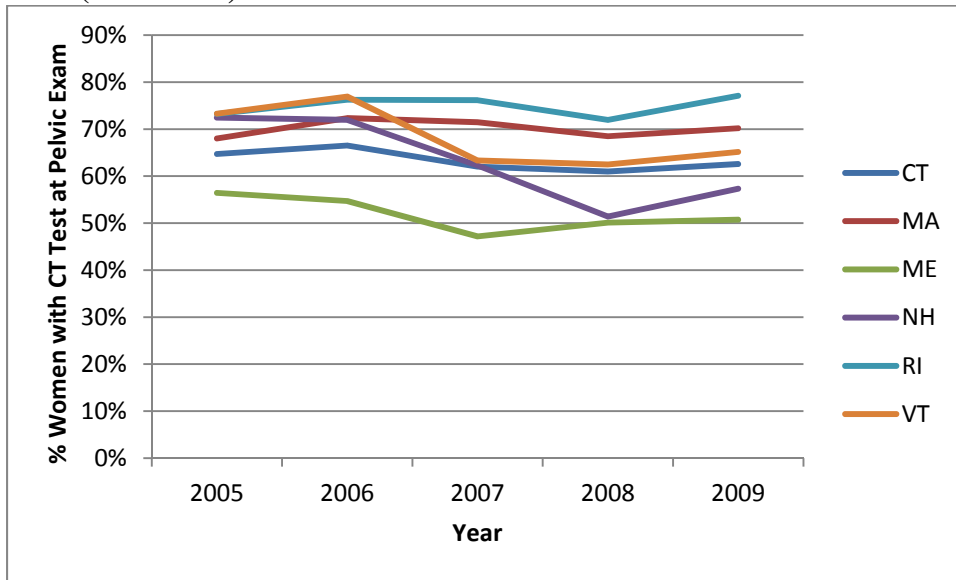
Age	2005		2006		2007		2008		2009	
	# of Women with pelvic exam	% Women with CT test during pelvic exam	# of Women with pelvic exam	% Women with CT test during pelvic exam	# of Women with pelvic exam	% Women with CT test during pelvic exam	# of Women with pelvic exam	% Women with CT test during pelvic exam	# of Women with pelvic exam	% Women with CT test during pelvic exam
<15	908	64.4% (585)	827	68.2% (564)	887	60.9% (540)	819	56.3% (461)	737	59.4% (438)
15-19	28,036	68.2% (19,113)	28,685	69.1% (19,818)	28,974	65.3% (18,909)	24,908	66.3% (16,516)	35,936	67.5% (14,514)
20-24	35,558	61.5% (21,864)	38,247	62.2% (23,804)	40,515	59.9% (24,267)	36,540	60.3% (22,022)	24,604	60.8% (21,840)
25-29	20,123	56.9% (11,448)	22,777	56.8% (12,929)	25,417	52.3% (13,294)	23,246	52.6% (12,226)	37,939	52.6% (12,944)
30+	33,354	49.2% (16,419)	35,161	49.3% (17,326)	39,070	43.4% (16,940)	36,915	43.7% (16,121)	99,216	44.2% (16,771)
Total	117,979	58.8% (69,429)	125,697	59.2% (74,441)	134,863	54.8% (73,950)	122,428	55.1% (67,346)	120,714	55.1% (66,507)

Source: Region I Family Planning Data System 2005-2009

Chlamydia Screening among Women with Pelvic Exam Visits by Age and State

In all states, chlamydia screening among pelvic exams was much more common than the CT screening among PTO visits. Chlamydia screening rates among PTO visits were never higher than 30%, while screening rates among pelvic exams hovered around 50-70%. There is potential to raise CT screening rates among women with PTO visits to match CT screening rates among the more traditional pelvic exam visit.

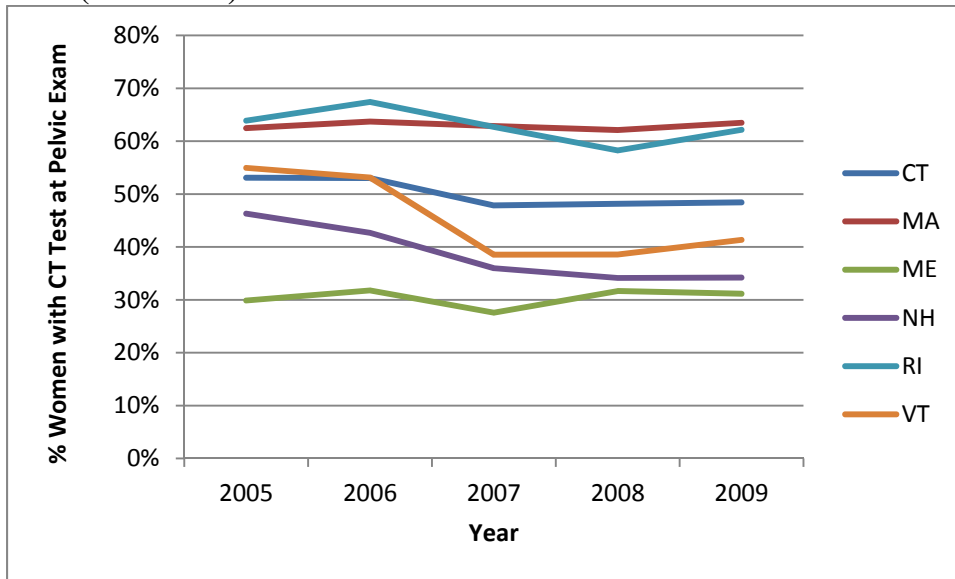
Figure 9: Percent of women 24-and-younger with CT test during pelvic exam by state (2005-2009)



Source: Region I Family Planning Data System 2005-2009

Overall, screening rates for women 25-and-older were lower than the screening rates for women 24-and-younger, reflecting adherence to IPP CT screening guidelines. This was also true for PTO visits.

Figure 10: Percent of women 25-and-older with CT test during pelvic exam visit by state (2005-2009)



Source: Region I Family Planning Data System 2005-2009

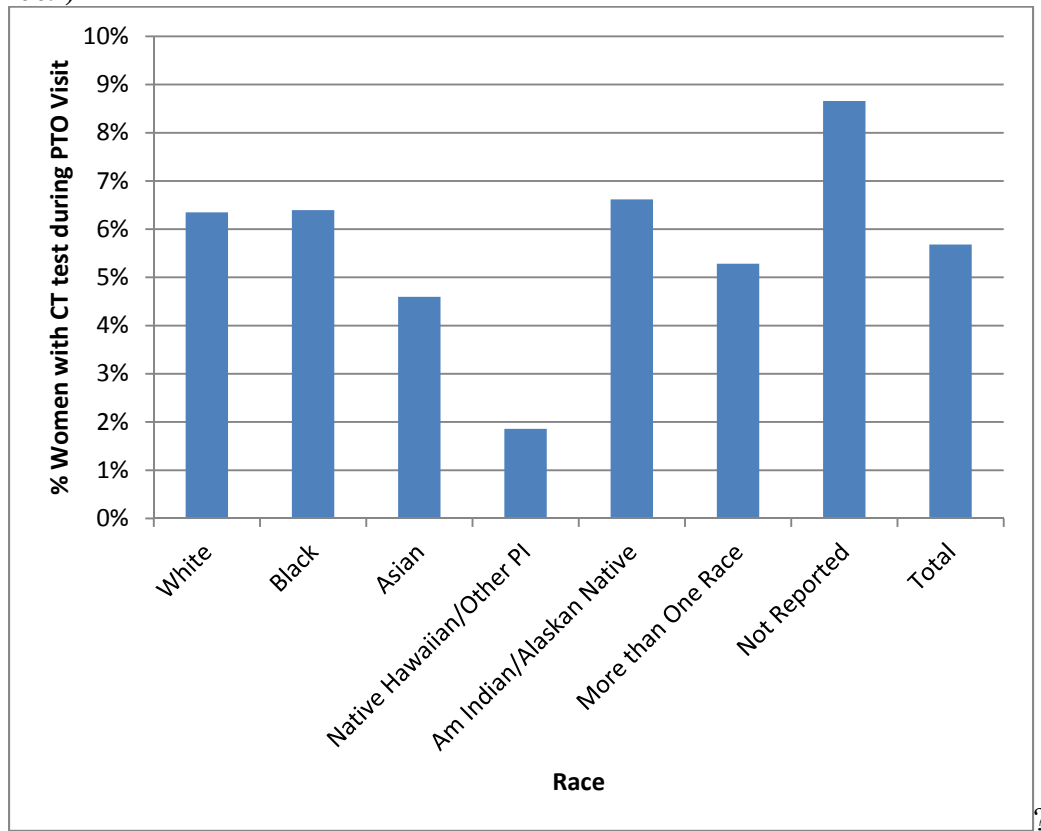
Chlamydia Testing Rates among Women with PTO Visits by Race in Region I

Because of the focus on targeted screening and the attempt to reach young women at highest risk, PTO chlamydia screening rates were analyzed by race. Racial disparities in chlamydia rates are well established¹¹ and it is hoped that future screening will be targeted to high-risk populations. Racial categories with the most disproportionate burden of chlamydia in Region I are: Black/African American and Native American/Alaska Native (analysis not shown). Chlamydia screening rates at PTO visits across all races increased from 2005-2009. From 2005-2009, chlamydia screening was lowest for Native Hawaiian/Other Pacific Islanders, which may be due to low numbers of this population, leading to more variability in the data. In 2009, CT screening rates were lowest in Native Hawaiian/Other Pacific Islanders, and highest among American Indians/Alaska Natives (AI/AN) (who also have very low testing numbers and may also have more variable rates). Looking over time, CT screening rates at PTO visits among whites increased from 3.0% in 2005, to 8.7% in 2009. Rates among black/African Americans increased from 2.9% to 9.4%, and among AI/AN from 2.2% to 9.7% (see Appendix A for Race Table).

Figure 11 shows CT screening rates in women with PTO visits by race categories. All data from 2005-2009 were pooled. While blacks and AI/AN have the highest rates of chlamydia, their screening rates were similar to whites (with variations of less than 1%). However, this data should be interpreted with caution for two reasons. Since the race data were not broken down by age, it was not clear if women in one racial category were older

and less likely to be screened than women from another race category. Secondly, a large percentage of PTO visit records had either “more than one” race (5.3%) or “no race reported” (8.7%), which potentially skewed the screening rates among race categories.

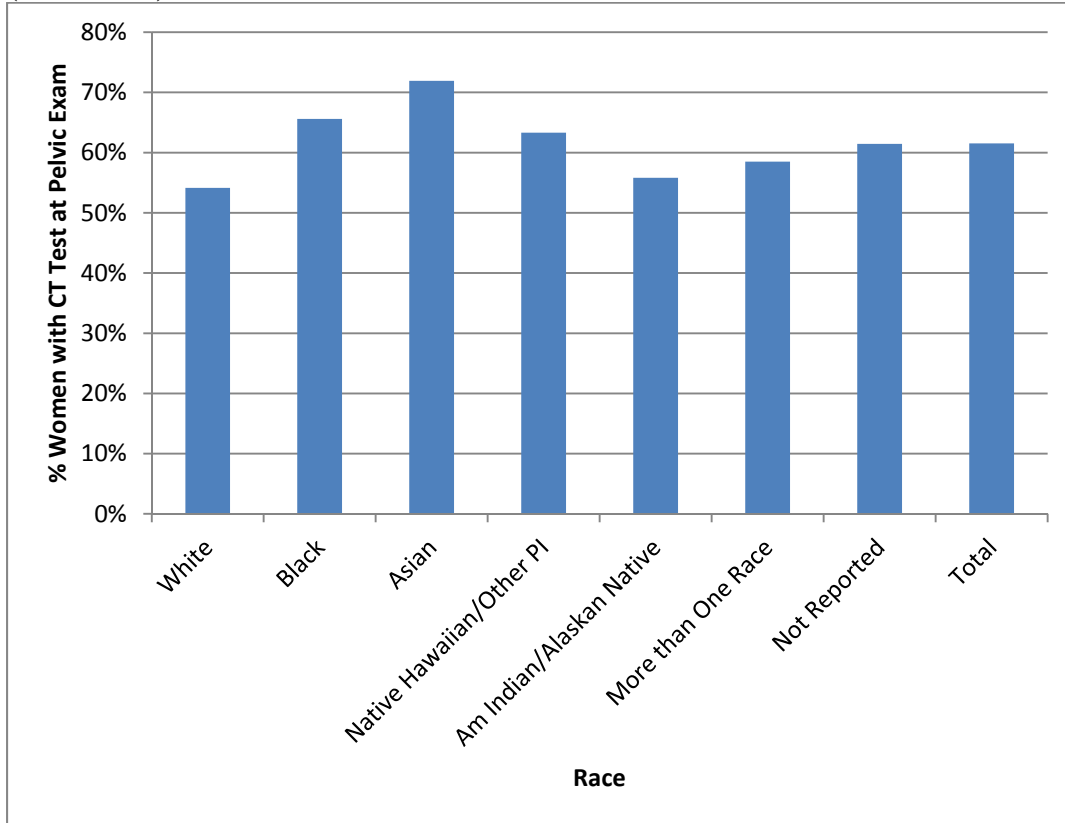
Figure 11: Region I: Percent of women with CT test during PTO visit by race (2005-2009)



Source: Region I Family Planning Data System 2005-2009

Figure 12 shows CT screening rates among women with pelvic exam visits by race categories for 2005-2009. Chlamydia screening rates among women with pelvic exam visits were higher in all races when compared to screening at PTO visits. Screening during pelvic exam was highest among women identified as Black or Asian, although there was not substantial variation. For all racial categories, screening was higher with pelvic exam than during PTO visits.

Figure 12: Region I: Percent of women with CT test during pelvic exam visit by race (2005-2009)



Source: Region I Family Planning Data System 2005-2009

State-specific data on CT screening rates in PTO and Pelvic Exam visits by age and race are available in Appendix B.

Discussion

In summary, screening for CT among women with PTO visits in Region I has been increasing over time, even without national screening guidance. The largest increases were seen among age groups younger than 15 and 15-19, however, CT screening rates among women with PTO visits never exceeded 22%. As expected, CT screening rates among women with PTO visits were substantially (three-to-nine times) lower than CT screening rates among women with pelvic exams visits, regardless of age or race. Meanwhile, the total number of women with PTO visits increased over time, while the number of women with pelvic exams stayed the same over five years. These data suggest that there is potential to increase CT screening rates among women coming in for a PTO visit to match CT screening rates during pelvic exam visits.

While CT positivity rates were not presented in this profile, several other studies have shown that CT rates among PTO visits are significantly higher than the IPP 3% minimum. In the Pennsylvania example, the CT positivity rate among PTO visits was

higher than the average positivity rate for their program. Programs may benefit from targeting limited testing resources at women presenting for a pregnancy-test only visit.

There was considerable variability of screening rates among PTO visits across states: between 2005 and 2009, screening rates among women with PTO visits increased significantly in Maine, New Hampshire, and Massachusetts, whereas there were minor increases in Connecticut, Vermont, and Rhode Island. The reasons for the variability across states were not explored in this report.

There is evidence that CT screening during PTO visits could be increased over the next couple of years. The region has the appropriate technology and there appears to be willingness on the part of providers. Based on the provider practices assessment findings, providers indicated they had the time to fit CT screening into a PTO visits.

It is anticipated that the age-related screening criteria would follow this initiative. In 2009, while women 24-years-and-younger were screened 12% of the time in PTO visits, 20-24-year-olds were less likely (7%) to be screened during a PTO visit. Clinicians should be reminded that women age 20-24 would benefit from CT screening at a PTO visit, as the data suggest that this age group is more often overlooked for chlamydia screening than screening for teenagers. Given that positivity rates were higher in PTO visits than average clinic rates¹², more emphasis should be made on testing at PTO visits for younger-than-24/25-year-olds in general. In addition, Gonorrhea screening may be added to the chlamydia screening, depending upon local prevalence monitoring data for gonorrhea.

Women coming into a clinic for a pregnancy test present an opportunity to provide comprehensive preventive care. This opportunity for counseling, education, and screening should not be missed. Women should be screened for CT, GC, and HIV as appropriate. Women can also be counseled about safer sex and provided a reliable method of birth control in the same visit.

Efforts to improve clinic efficiency and streamline the screening process will help to facilitate adding another service to this already time-limited visit type. Provider education focusing on state IPP chlamydia screening guidelines and an increased emphasis on the higher CT positivity among women seeking PTO visits may help to increase screening in this population. Establishing standing orders, written policies, and protocols that assume chlamydia screening during PTO visits may also help to increase CT screening rates. In addition to clinic-level changes, the IPP can take this opportunity to promote CT screening among PTO visits by collecting CT positivity data among PTO visits, sharing data with direct providers, and promoting CT screening during PTO visits with IPP Advisory Boards.

Currently, IPP Advisory Board members from all six states stated they were making screening women for chlamydia at PTO visits a priority. At the June 2010 Advisory Board meeting, all the Region I states agreed to add a new PTO variable to their IPP lab slip, which in the future will provide an opportunity for program monitoring of CT

screening during PTO visits. It also provided an opportunity to collect positivity rates among PTO visits in Region I. Starting in January 2012, these data will be presented at Region I IPP Advisory Board meetings.

Conclusion

Widespread commitment to the evidence-based practice of PTO screening on the part of family planning and public health programs across the region is clear. Chlamydia screening during PTO visits has been increasing over the last five years in Region I, although it is still not widely practiced. Given the high positivity rates among PTO visits in other studies, Region I could make even more of an impact on the disease burden and identify more cases of disease by targeting resources and increasing screening rates during PTO visits.

Recent changes to the Region I Prevalence Monitoring Data System will allow CT positivity rates among PTO visits to be evaluated. Future reports from Region I should evaluate whether chlamydia screening among PTO visits is increasing, and what the positivity rate is for PTO visits. These data should be presented by age, race and facility type. The IPP infrastructure should make efforts to share data at the Region I IPP Advisory Board meetings, and with states and IPP facilities. Future research on other visit types such as EC and other walk-in visits should be considered to evaluate the impact of including chlamydia screening in other types of visits.

Appendix A:

**CT Screening among Women with PTO and Pelvic Exam Visits by Race
for Region I**

Table 1 : Region I: Percent of women with CT test during PTO visit by race (2005-2009)

Race	2005		2006		2007		2008		2009	
	# of Women with PTO visit	% Women with CT test during PTO visit	# of Women with PTO visit	% Women with CT test during PTO visit	# of Women with PTO visit	% Women with CT test during PTO visit	# of Women with PTO visit	% Women with CT test during PTO visit	# of Women with PTO visit	% Women with CT test during PTO visit
White	25,038	3.0% (750)	24,575	4.6% (1119)	22,230	6.6% (1476)	24,425	8.9% (2174)	24,957	8.7% (2162)
Black	6,323	2.9% (183)	6,685	4.0% (270)	6,793	6.1% (416)	7,832	9.5% (747)	7,682	9.4% (721)
Asian	1,039	1.7% (18)	1,132	2.9% (33)	1,075	5.3% (57)	1,220	6.8% (83)	1,172	6.2% (73)
Native Hawaiian/Other Pacific Islander	119	0.0% (0)	165	1.8% (3)	189	2.1% (4)	166	2.4% (4)	237	3.0% (7)
American Indian/Alaskan Native	137	2.2% (3)	110	4.5% (5)	89	9.0% (8)	104	7.7% (8)	124	9.7% (12)
More than one race	1,375	3.3% (46)	1,760	4.6% (81)	1,948	7.5% (146)	2,414	4.2% (101)	2,417	6.8% (164)
Not reported	4,388	2.2% (97)	4,359	4.7% (206)	4,337	8.7% (377)	5,189	15.8% (822)	5,755	11.8% (681)
Total	38,419	2.9% (1097)	38,786	4.4% (1717)	36,661	6.8% (2484)	41,350	9.5% (3939)	42,344	9.0% (3820)

Table 2: Region I: Percent of women with CT Test during pelvic exam visit by race (2005-2009)

	2005		2006		2007		2008		2009	
	# of Women with pelvic exam	% Women with CT test during pelvic exam	# of Women with pelvic exam	% Women with CT test during pelvic exam	# of Women with pelvic exam	% Women with CT test during pelvic exam	# of Women with pelvic exam	% Women with CT test during pelvic exam	# of Women with pelvic exam	% Women with CT test during pelvic exam
White	88,424	57.0% (50,360)	96,159	57.2% (55,036)	104,793	52.4% (54,869)	94,531	51.9% (49,089)	90,083	52.3% (47,081)
Black	12,621	65.6% (8,274)	12,799	66.2% (8,472)	13,227	64.5% (8,530)	12,777	66.9% (8,548)	13,210	64.9% (8,570)
Asian	4,476	69.3% (3,104)	4,600	72.1% (3,318)	4,878	71.5% (3,489)	5,022	71.9% (3,610)	5,199	74.7% (3,885)
Native Hawaiian/Other Pacific Islander	276	70.7% (195)	227	63.9% (145)	192	58.3% (112)	228	61.8% (141)	307	61.9% (190)
American Indian/Alaskan Native	251	55.8% (140)	286	62.9% (180)	338	51.5% (174)	308	56.8% (175)	340	52.1% (177)
More than one race	4,848	55.7% (2,700)	5,187	61.5% (3,189)	4,995	57.4% (2,867)	4,098	61.8% (2,532)	4,202	56.1% (2,358)
Not reported	7,083	65.7% (4,656)	6,439	63.7% (4,101)	6,440	60.7% (3,909)	5,464	59.5% (3,251)	7,373	57.6% (4,246)
Total	117,979	58.8% (69,429)	125,697	59.2% (74,441)	134,863	54.8% (73,950)	122,428	55.0% (67,346)	120,714	55.1% (66,507)

Appendix B:
State Tables and Figures

Connecticut:

Table 1: Connecticut: Percent of women with CT test during PTO visit by age (2005-2009)

	2005		2006		2007		2008		2009	
	# of Women with PTO visit	% Women with CT test during PTO visit	# of Women with PTO visit	% Women with CT test during PTO visit	# of Women with PTO visit	% Women with CT test during PTO visit	# of Women with PTO visit	% Women with CT test during PTO visit	# of Women with PTO visit	% Women with CT test during PTO visit
<15	158	2.5% (4)	190	5.3% (10)	250	6.4% (16)	199	6.0% (12)	197	10.2% (20)
15-19	2,974	1.2% (35)	3,646	3.1% (112)	3,918	5.3% (206)	4,476	5.4% (242)	4,232	7.9% (336)
20-24	1,596	1.4% (22)	2,118	0.8% (17)	2,157	1.3% (29)	2,952	1.2% (36)	3,345	1.7% (56)
25-29	739	1.4% (10)	957	1.9% (18)	1,082	1.4% (15)	1,510	1.4% (21)	1,784	1.9% (34)
30+	661	2.9% (19)	807	2.0% (16)	853	1.3% (11)	1,195	0.9% (11)	1,353	2.0% (27)
Total	6,128	2.1% (90)	7,718	1.9% (173)	8,260	1.3% (277)	10,332	3.1% (322)	10,911	4.3% (473)

Figure 1: Percent of women with CT test during PTO visit (Connecticut: 2005-2009)

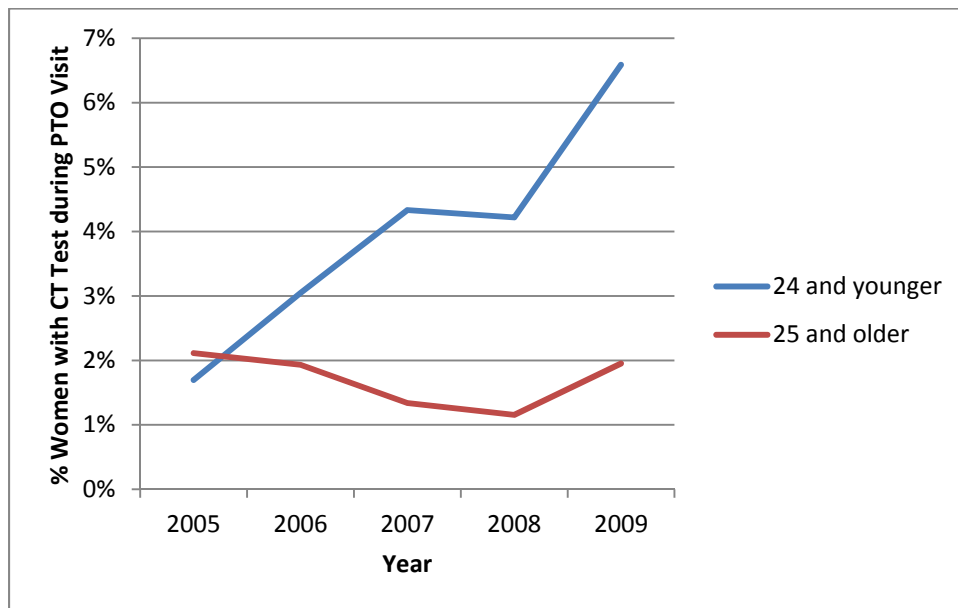


Table 2: Connecticut: Percent of women with CT Test during PTO visit by race (2005-2009)

	2005		2006		2007		2008		2009	
	# of Women with PTO visit	% Women with CT test during PTO visit	# of Women with PTO visit	% Women with CT test during PTO visit	# of Women with PTO visit	% Women with CT test during PTO visit	# of Women with PTO visit	% Women with CT test during PTO visit	# of Women with PTO visit	% Women with CT test during PTO visit
White	2,784	1.1% (30)	3,370	1.1% (38)	3,431	1.0% (34)	4,620	0.8% (37)	4,809	1.2% (60)
Black	1,773	1.4% (25)	2,319	2.0% (47)	2,475	3.7% (91)	2,889	4.9% (141)	2,851	6.3% (179)
Asian	45	2.2% (1)	54	0.0% (0)	76	2.6% (2)	110	0.0% (0)	105	3.8% (4)
Native Hawaiian/Other Pacific Islander	2	0.0% (0)	5	20.0% (1)	1	0.0% (0)	2	0.0% (0)	25	16.0% (4)
American Indian/Alaskan Native	19	0.0% (0)	13	0.0% (0)	13	0.0% (0)	21	4.8% (1)	19	0.0% (0)
More than one race	651	0.9% (6)	824	0.5% (4)	882	0.2% (2)	1,190	0.3% (3)	1,096	1.4% (15)
Not reported	854	3.3% (28)	1,133	7.3% (83)	1,382	10.7% (148)	1,500	9.4% (141)	2,006	10.5% (211)
Total	6,128	1.5% (90)	7,718	2.2% (173)	8,260	3.4% (277)	10,332	3.1% (322)	10,911	4.3% (473)

Table 3: Connecticut: Percent of women with CT test during pelvic exam visit by age (2005-2009)

	2005		2006		2007		2008		2009	
	# of Women with pelvic exam	% Women with CT test during pelvic exam	# of Women with pelvic exam	% Women with CT test during pelvic exam	# of Women with pelvic exam	% Women with CT test during pelvic exam	# of Women with pelvic exam	% Women with CT test during pelvic exam	# of Women with pelvic exam	% Women with CT test during pelvic exam
<15	261	60.2% (157)	227	63.9% (145)	171	64.3% (110)	144	69.4% (100)	144	68.8% (99)
15-19	7567	61.3% (4641)	7109	64.7% (4598)	6928	62.5% (4332)	5543	71.0% (3934)	5620	68.2% (3831)
20-24	9075	55.7% (5051)	9438	56.5% (5328)	10222	52.7% (5387)	8728	57.4% (5008)	9490	53.5% (5078)
25-29	5002	55.1% (2755)	5667	54.3% (3078)	6574	50.0% (3287)	5796	51.3% (2975)	6811	47.8% (3255)
30+	6593	50.0% (3297)	7101	45.8% (3255)	8794	36.2% (3180)	7802	38.6% (3011)	8757	37.5% (3283)
Total	28498	55.8% (15901)	29542	55.5% (16404)	32689	49.9% (16296)	28013	53.7% (15028)	30822	50.4% (15546)

Figure 2: Percent of women with CT test at pelvic exam (Connecticut: 2005-2009)

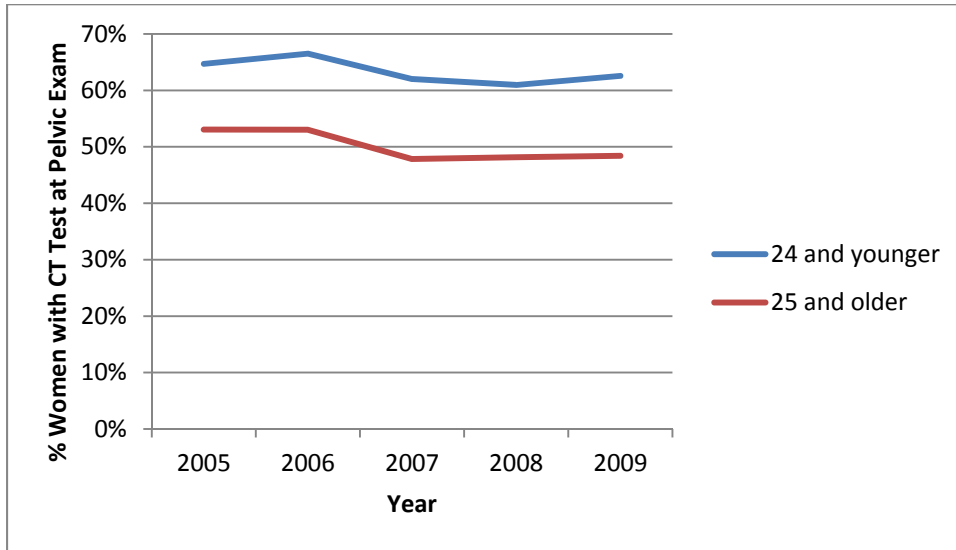


Table 4: Connecticut: Percent of women with CT test during pelvic exam visit by race (2005-2009)

	2005		2006		2007		2008		2009	
	# of Women with pelvic exam	% Women with CT test during pelvic exam	# of Women with pelvic exam	% Women with CT test during pelvic exam	# of Women with pelvic exam	% Women with CT test during pelvic exam	# of Women with pelvic exam	% Women with CT test during pelvic exam	# of Women with pelvic exam	% Women with CT test during pelvic exam
White	17066	55.3% (9,439)	18,485	54.2% (10,012)	20,983	47.2% (9,897)	17,816	49.1% (8,741)	17,970	45.5% (8,168)
Black	6341	57.5% (3,648)	6,191	59.5% (3,685)	6,477	56.9% (3,687)	6,043	63.9% (3,863)	6,583	61.2% (4,028)
Asian	257	55.3% (142)	312	50.6% (158)	332	44.6% (148)	294	45.6% (134)	335	46.6% (156)
Native Hawaiian/Other Pacific Islander	5	20.0% (1)	5	40.0% (2)	8	12.5% (1)	0	0.0% (0)	0	0.0% (0)
American Indian/Alaskan Native	79	46.8% (37)	80	56.3% (45)	75	45.3% (34)	76	57.9% (44)	74	47.3% (35)
More than one race	3529	53.8% (1,897)	3,195	56.4% (1,803)	2,999	53.5% (1,605)	2,709	60.7% (1,645)	3,096	55.6% (1,720)
Not reported	1221	60.4% (737)	1,274	54.9% (699)	1,815	50.9% (924)	1,075	55.9% (601)	2,764	52.1% (1,439)
Total	28498	55.8% (15,901)	29,542	55.5% (16,404)	32,689	49.9% (16,296)	28,013	53.7% (15,028)	30,822	50.4% (15,546)

Massachusetts:

Table 5: Massachusetts: Percent of women with CT test during PTO visit by age (2005-2009)

	2005		2006		2007		2008		2009	
	# of Women with PTO visit	% Women with CT test during PTO visit	# of Women with PTO visit	% Women with CT test during PTO visit	# of Women with PTO visit	% Women with CT test during PTO visit	# of Women with PTO visit	% Women with CT test during PTO visit	# of Women with PTO visit	% Women with CT test during PTO visit
<15	328	8.8% (29)	324	19.4% (63)	259	22.4% (58)	312	22.8% (71)	260	29.6% (77)
15-19	6,847	5.1% (349)	6,939	9.2% (637)	6,584	13.9% (913)	6,882	20.1% (1,383)	6064	19.9% (1,205)
20-24	5,255	1.4% (72)	5,251	1.5% (80)	4,904	2.5% (124)	5,309	9.8% (519)	5064	7.5% (378)
25-29	2,700	0.5% (14)	2,908	0.9% (25)	2,720	0.8% (21)	3,113	4.7% (145)	3130	3.8% (119)
30+	2,727	0.7% (18)	2,811	0.7% (19)	2,643	0.8% (22)	3,036	3.0% (92)	3166	2.1% (67)
Total	17,857	2.7% (482)	18,233	4.5% (824)	17,110	6.7% (1138)	18,652	11.8% (2,210)	17684	10.4% (1,846)

Figure 3: Percent of women with CT test during PTO visit (Massachusetts: 2005-2009)

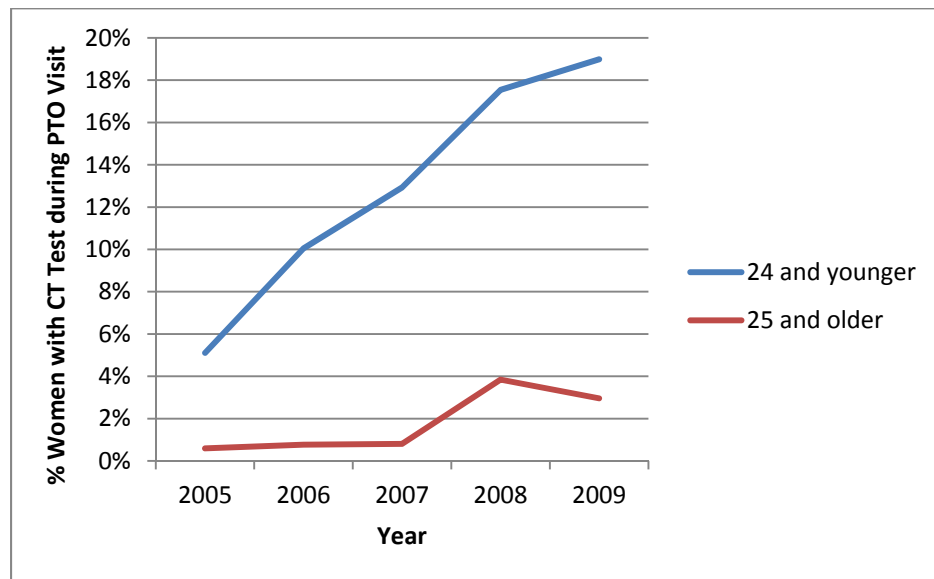


Table 6: Massachusetts: Percent of women with CT test during PTO visit by race (2005-2009)

	2005		2006		2007		2008		2009	
	# of Women with PTO visit	% Women with CT test during PTO visit	# of Women with PTO visit	% Women with CT test during PTO visit	# of Women with PTO visit	% Women with CT test during PTO visit	# of Women with PTO visit	% Women with CT test during PTO visit	# of Women with PTO visit	% Women with CT test during PTO visit
White	9,327	2.5% (229)	9,537	4.4% (424)	8,577	5.9% (506)	41	7.3% (3)	35	5.7% (2)
Black	4,006	3.6% (144)	3,837	5.3% (202)	3,848	7.2% (278)	1,108	8.1% (90)	1,179	11.5% (135)
Asian	788	1.6% (13)	899	2.7% (24)	829	4.1% (34)	4,253	12.9% (550)	4,038	12.3% (496)
Native Hawaiian/ Other Pacific Islander	103	0.0% (0)	134	1.5% (2)	163	1.2% (2)	3,340	18.7% (624)	3,323	12.7% (422)
American Indian/ Alaskan Native	63	4.8% (3)	44	4.5% (2)	30	10.0% (3)	922	6.5% (60)	843	6.8% (57)
More than one race	594	5.7% (34)	830	8.1% (67)	955	11.2% (107)	136	0.0% (0)	137	0.7% (1)
Not reported	2,976	2.0% (59)	2,952	3.5% (103)	2,708	7.7% (208)	8,852	10.0% (883)	8,129	9.0% (733)
Total	17,857	2.7% (482)	18,233	4.5% (824)	17,110	6.7% (1,138)	18,652	11.8% (2,210)	17,684	10.4% (1,846)

Table 7: Massachusetts: Percent of women with CT test during pelvic exam visit by age (2005-2009)

	2005		2006		2007		2008		2009	
	# of Women with pelvic exam	% Women with CT test during pelvic exam	# of Women with pelvic exam	% Women with CT test during pelvic exam	# of Women with pelvic exam	% Women with CT test during pelvic exam	# of Women with pelvic exam	% Women with CT test during pelvic exam	# of Women with pelvic exam	% Women with CT test during pelvic exam
<15	249	63.9% (159)	221	72.4% (160)	272	68.0% (185)	235	65.5% (154)	207	62.8% (130)
15-19	7,621	73.5% (5,604)	8,024	75.4% (6,048)	8,238	74.8% (6,166)	7,476	71.6% (5,356)	6,312	75.0% (4,734)
20-24	9,921	66.7% (6,617)	10,933	69.3% (7,574)	11,407	71.5% (8,157)	10,546	68.3% (7,201)	10,240	72.7% (7,447)
25-29	6,402	63.8% (4,082)	7,228	64.6% (4,666)	7,540	63.0% (4,753)	7,069	61.9% (4,377)	7,364	64.5% (4,750)
30+	11,183	61.1% (6,835)	12,322	62.8% (7,744)	12,383	62.6% (7,757)	12,307	62.2% (7,659)	12,798	62.4% (7,991)
Total	35,376	65.9% (23,297)	38,728	67.6% (26,192)	39,840	67.8% (27,018)	37,633	65.8% (24,747)	36,921	67.9% (25,052)

Figure 4: Percent of women with CT test at pelvic exam (Massachusetts: 2005-2009)

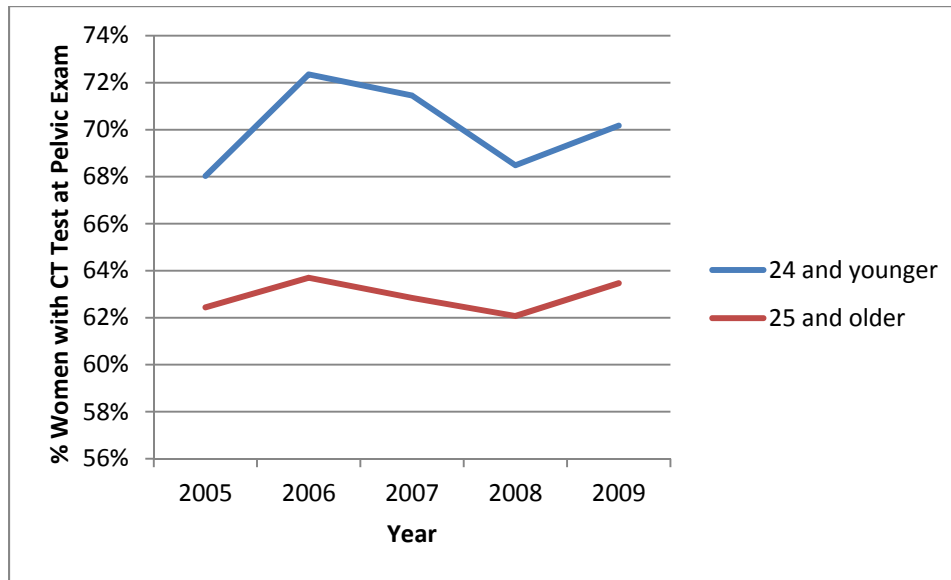


Table 8: Massachusetts: Percent of women with CT test during pelvic exam visit by race (2005-2009)

	2005		2006		2007		2008		2009	
	# of Women with pelvic exam	% Women with CT test during pelvic exam	# of Women with pelvic exam	% Women with CT test during pelvic exam	# of Women with pelvic exam	% Women with CT test during pelvic exam	# of Women with pelvic exam	% Women with CT test during pelvic exam	# of Women with pelvic exam	% Women with CT test during pelvic exam
White	21,980	63.2% (13,896)	24,515	65.0% (15,945)	25,757	65.1% (16,773)	23,677	62.8% (14,870)	22,543	66.1% (14,906)
Black	4,784	74.4% (3,561)	5,001	74.0% (3,701)	4,965	75.1% (3,728)	4,993	72.6% (3,624)	4,921	71.3% (3,510)
Asian	3,541	72.0% (2,548)	3,597	76.5% (2,752)	3,771	76.9% (2,899)	4,113	76.3% (3,137)	4,317	79.1% (3,415)
Native Hawaiian/Other Pacific Islander	66	71.2% (47)	80	77.5% (62)	82	80.5% (66)	103	65.1% (67)	82	64.6% (53)
American Indian/Alaskan Native	56	64.3% (36)	69	72.5% (50)	95	64.2% (61)	83	66.3% (55)	107	67.3% (72)
More than one race	816	64.8% (529)	1,387	74.0% (1,027)	1,265	70.4% (891)	977	65.9% (644)	884	59.2% (523)
Not reported	4,133	64.8% (2,680)	4,079	65.1% (2,655)	3,905	66.6% (2,600)	3,687	63.7% (2,350)	4,067	63.3% (2,573)
Total	35,376	65.9% (23,297)	38,728	67.6% (26,192)	39,840	67.8% (27,018)	37,633	65.8% (24,747)	36,921	67.9% (25,052)

Maine:

Table 9: Maine: Percent of women with CT test during PTO visit by age (2005-2009)

	2005		2006		2007		2008		2009	
	# of Women with PTO visit	% Women with CT test during PTO visit	# of Women with PTO visit	% Women with CT test during PTO visit	# of Women with PTO visit	% Women with CT test during PTO visit	# of Women with PTO visit	% Women with CT test during PTO visit	# of Women with PTO visit	% Women with CT test during PTO visit
<15	113	1.8% (2)	85	11.8% (10)	65	27.7% (18)	53	45.3% (24)	58	24.1% (14)
15-19	1,900	4.1% (78)	1,641	9.1% (149)	1,404	13.5% (190)	1,499	22.3% (334)	1471	26.4% (388)
20-24	1,362	3.2% (43)	1,263	4.7% (59)	1,035	8.2% (85)	1,155	15.9% (184)	1297	16.0% (207)
25-29	527	3.2% (17)	537	3.0% (16)	468	7.5% (35)	524	10.5% (55)	663	11.5% (76)
30+	392	2.3% (9)	384	3.9% (15)	335	5.4% (18)	398	8% (32)	431	8.1% (35)
Total	4,294	3.5% (149)	3,910	6.4% (249)	3,307	10.5% (346)	3,629	17.3% (629)	3920	18.4% (720)

Figure 5: Percent of women with CT test during PTO visit (Maine: 2005-2009)

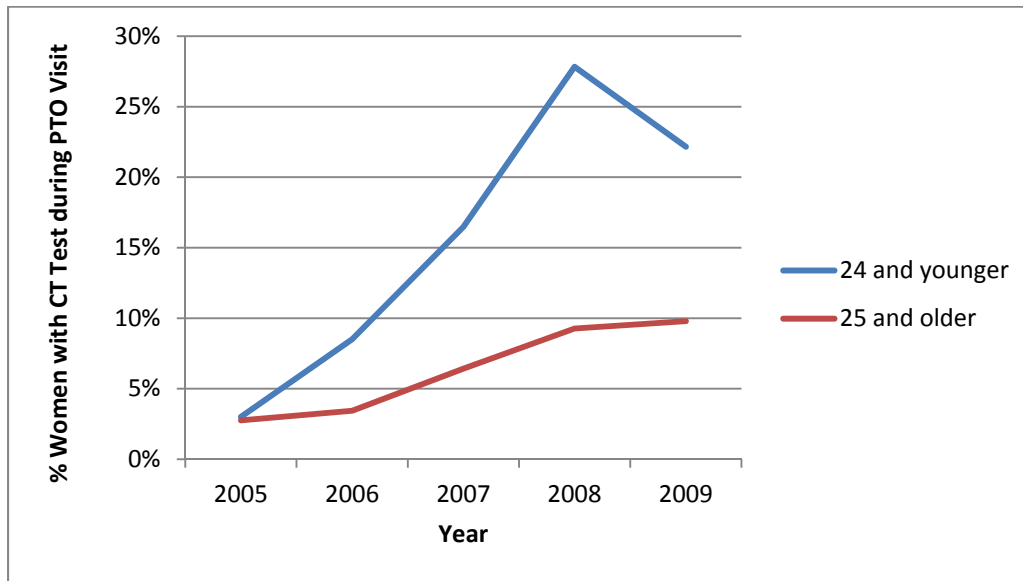


Table 10: Maine: Percent of women with CT Test during PTO visit by race (2005-2009)

	2005		2006		2007		2008		2009	
	# of Women with PTO visit	% Women with CT test during PTO visit	# of Women with PTO visit	% Women with CT test during PTO visit	# of Women with PTO visit	% Women with CT test during PTO visit	# of Women with PTO visit	% Women with CT test during PTO visit	# of Women with PTO visit	% Women with CT test during PTO visit
White	4,129	3.5% (144)	3,724	6.2% (230)	3,156	10.0% (316)	3,444	16.8% (578)	3702	18.3% (679)
Black	59	5.1% (3)	71	14.1% (10)	53	18.9% (10)	70	32.9% (23)	87	25.3% (22)
Asian	30	0.0% (0)	35	8.6% (3)	43	27.9% (12)	48	20.8% (10)	43	14.0% (6)
Native Hawaiian/Other Pacific Islander	2	0.0% (0)	6	0.0% (0)	4	0.0% (0)	5	40.0% (2)	7	14.3% (1)
American Indian/ Alaskan Native	18	0.0% (0)	22	9.1% (2)	24	12.5% (3)	16	18.8% (3)	27	14.8% (4)
More than one race	24	4.2% (1)	22	13.6% (3)	13	30.8% (4)	17	41.2% (7)	23	26.1% (6)
Not reported	32	3.1% (1)	30	3.3% (1)	14	7.1% (1)	29	20.7% (6)	31	6.5% (2)
Total	4,294	3.5% (149)	3,910	6.4% (249)	3,307	10.5% (346)	3,629	17.3% (629)	3920	18.4% (720)

Table 11: Maine: Percent of women with CT test during pelvic exam visit by age (2005-2009)

	2005		2006		2007		2008		2009	
	# of Women with pelvic exam	% Women with CT test during pelvic exam	# of Women with pelvic exam	% Women with CT test during pelvic exam	# of Women with pelvic exam	% Women with CT test during pelvic exam	# of Women with pelvic exam	% Women with CT test during pelvic exam	# of Women with pelvic exam	% Women with CT test during pelvic exam
<15	170	63.5% (108)	182	60.4% (110)	190	46.8% (89)	192	48.4% (93)	151	51.7% (78)
15-19	5,409	57.8% (3,127)	5,920	56.7% (3,358)	6,011	50.5% (3,035)	5,338	54.0% (2,880)	3873	54.0% (2,092)
20-24	6,814	48.0% (3,271)	7,585	47.0% (3,563)	7,708	44.2% (3,409)	7,251	47.9% (3,472)	6883	46.5% (3,201)
25-29	3,283	38.4% (1,261)	3,772	41.4% (1,560)	4,218	34.9% (1,471)	3,771	40.0% (1,507)	3985	38.6% (1,540)
30+	5,444	21.3% (1,161)	5,788	22.2% (1,283)	6,190	20.3% (1,255)	5,893	23.3% (1,374)	6009	23.6% (1,420)
Total	21,120	42.3% (8,928)	23,247	42.5% (9,874)	24,317	38.1% (9,259)	22,445	41.6% (9,326)	20901	39.9% (8,331)

Figure 6: Percent of women with CT test at pelvic exam (Maine: 2005-2009)

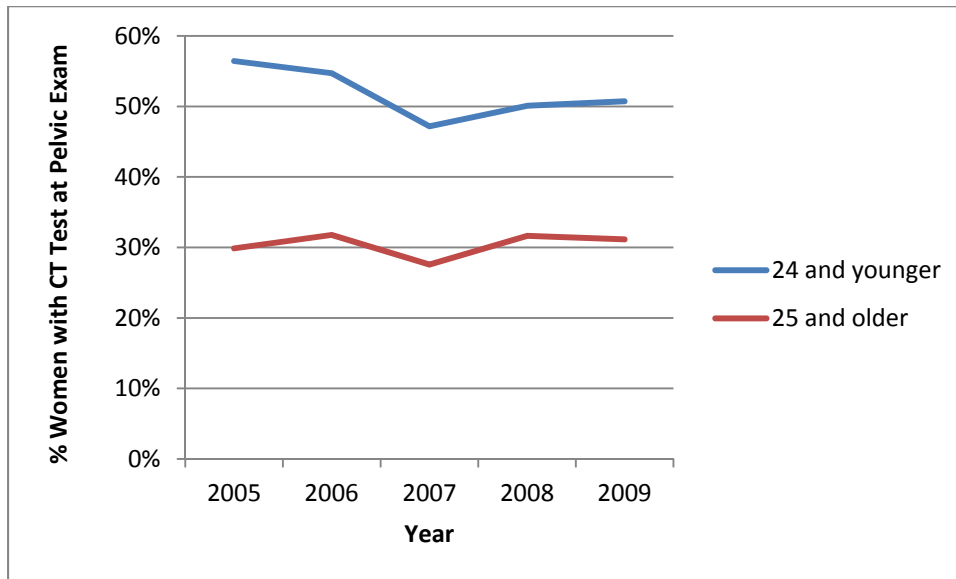


Table 12: Maine: Percent of women with CT test during pelvic exam visit by race (2005-2009)

	2005		2006		2007		2008		2009	
	# of Women with pelvic exam	% Women with CT test during pelvic exam	# of Women with pelvic exam	% Women with CT test during pelvic exam	# of Women with pelvic exam	% Women with CT test during pelvic exam	# of Women with pelvic exam	% Women with CT test during pelvic exam	# of Women with pelvic exam	% Women with CT test during pelvic exam
White	20,631	42.1% (8,676)	22,591	42.4% (9,576)	23,570	37.9% (8,933)	21,767	41.4% (9,012)	20,210	39.7% (8,015)
Black	147	54.4% (80)	184	51.6% (95)	233	48.1% (112)	179	52.5% (94)	250	44.8% (112)
Asian	150	49.3% (74)	168	41.1% (69)	186	42.5% (79)	162	43.8% (71)	137	48.9% (67)
Native Hawaiian/ Other Pacific Islander	21	61.9% (13)	58	43.1% (25)	44	22.7% (10)	36	44.4% (16)	29	48.3% (14)
American Indian/ Alaskan Native	46	47.8% (22)	64	50.0% (32)	76	44.7% (34)	81	48.2% (39)	83	38.6% (32)
More than one race	65	53.8% (35)	97	41.2% (40)	126	45.2% (57)	139	47.5% (66)	103	47.6% (49)
Not reported	60	46.7% (28)	85	43.5% (37)	82	41.5% (34)	81	34.6% (28)	89	47.2% (42)
Total	21,120	42.3% (8,928)	23,247	42.5% (9,874)	24,317	38.1% (9,259)	22,445	41.6% (9,326)	20,901	39.9% (8,331)

New Hampshire:

Table 13: New Hampshire: Percent of women with CT test during PTO visit by age (2005-2009)

	2005		2006		2007		2008		2009	
	# of Women with PTO visit	% Women with CT test during PTO visit	# of Women with PTO visit	% Women with CT test during PTO visit	# of Women with PTO visit	% Women with CT test during PTO visit	# of Women with PTO visit	% Women with CT test during PTO visit	# of Women with PTO visit	% Women with CT test during PTO visit
<15	76	7.9% (6)	67	13.4% (9)	47	31.9% (15)	36	27.8% (10)	46	32.6% (15)
15-19	1940	9.6% (187)	1,588	11.7% (186)	1,242	16.5% (205)	1,106	24.4% (270)	1,134	25.3% (287)
20-24	1557	6.5% (101)	1,148	11.1% (128)	902	11.9% (107)	1,078	15.8% (170)	1250	17.0% (212)
25-29	647	3.2% (21)	592	4.2% (25)	481	3.7% (18)	514	4.9% (25)	639	7.0% (45)
30+	450	1.6% (7)	392	2.3% (9)	389	4.1% (16)	439	5.7% (25)	487	6.0% (29)
Total	4,670	6.9% (322)	3,787	9.4% (357)	3,061	11.8% (361)	3,173	15.8% (500)	3,556	16.5% (588)

Figure 7: Percent of women with CT test during PTO visit (New Hampshire: 2005-2009)

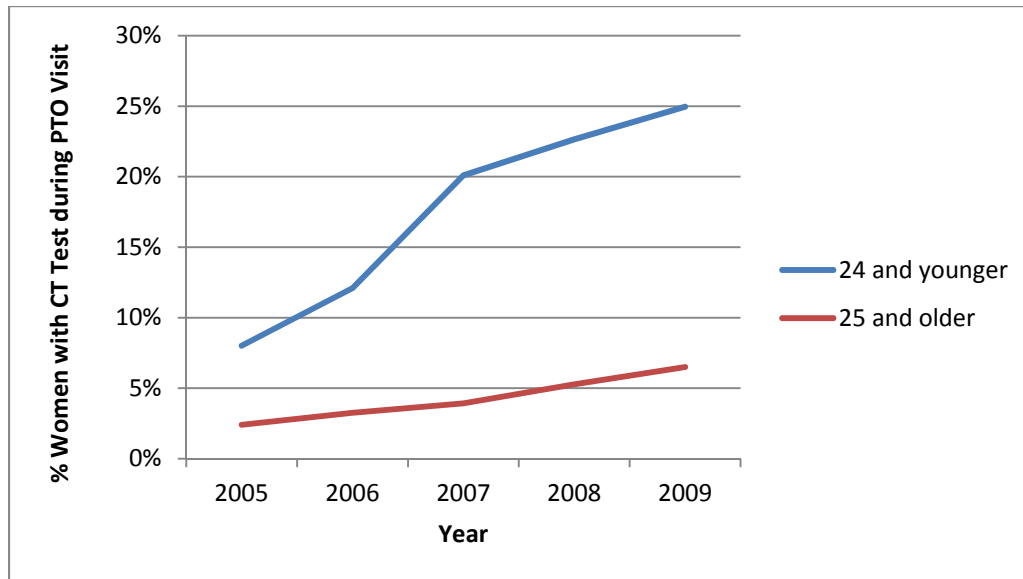


Table 14: New Hampshire: Percent of women with CT test during PTO visit by race (2005-2009)

	2005		2006		2007		2008		2009	
	# of Women with PTO visit	% Women with CT test during PTO visit	# of Women with PTO visit	% Women with CT test during PTO visit	# of Women with PTO visit	% Women with CT test during PTO visit	# of Women with PTO visit	% Women with CT test during PTO visit	# of Women with PTO visit	% Women with CT test during PTO visit
White	4,432	6.8% (303)	3,592	9.4% (337)	2,870	12.0% (344)	2,863	15.3% (438)	3,227	16.5% (534)
Black	66	9.1% (6)	57	5.3% (3)	56	7.1% (4)	94	12.8% (12)	88	9.1% (8)
Asian	45	8.9% (4)	30	3.3% (1)	15	0.0% (0)	30	23.3% (7)	38	13.2% (5)
Native Hawaiian/ Other Pacific Islander	3	0.0% (0)	4	0.0% (0)	1	0.0% (0)	4	50.0% (2)	3	33.3% (1)
American Indian/ Alaskan Native	5	0.0% (0)	5	0.0% (0)	2	0.0% (0)	6	0.0% (0)	20	30.0% (6)
More than one race	8	12.5% (1)	8	25.0% (2)	10	10.0% (1)	7	14.3% (1)	12	25.0% (3)
Not reported	111	7.2% (8)	91	15.4% (14)	107	11.2% (12)	169	23.7% (40)	168	18.5% (31)
Total	4,670	6.9% (322)	3,787	9.4% (357)	3,061	11.8% (361)	3,173	15.8% (500)	3,556	16.5% (588)

15: New Hampshire: Percent of women with CT test during pelvic exam visit by age (2005-2009)

	2005		2006		2007		2008		2009	
	# of Women with pelvic exam	% Women with CT test during pelvic exam	# of Women with pelvic exam	% Women with CT test during pelvic exam	# of Women with pelvic exam	% Women with CT test during pelvic exam	# of Women with pelvic exam	% Women with CT test during pelvic exam	# of Women with pelvic exam	% Women with CT test during pelvic exam
<15	102	69.6% (71)	88	71.6% (63)	117	59.8% (70)	111	33.3% (37)	119	47.1% (56)
15-19	3,898	77.2% (3010)	4,298	74.4% (3198)	4,167	65.0% (2,708)	3,367	61.2% (2,061)	2,735	62.8% (1,717)
20-24	5,044	70.5% (3555)	5,432	69.9% (3797)	5,729	62.0% (3,551)	4,948	59.7% (2,952)	4,638	62.2% (2,884)
25-29	2,345	54.7% (1283)	2,962	50.2% (1488)	3,280	43.6% (1,431)	3,091	41.1% (1,269)	2,987	41.6% (1,241)
30+	2,947	37.9% (1117)	3,278	35.1% (1150)	3,826	28.3% (1,083)	3,870	27.2% (1,054)	3,822	26.8% (1,026)
Total	14,336	63.0% (9,036)	16,058	60.4% (9,696)	17,119	51.7% (8,843)	15,387	47.9% (7,373)	14,301	48.4% (6,924)

Figure 8: Percent of women with CT test at pelvic exam (New Hampshire: 2005-2009)

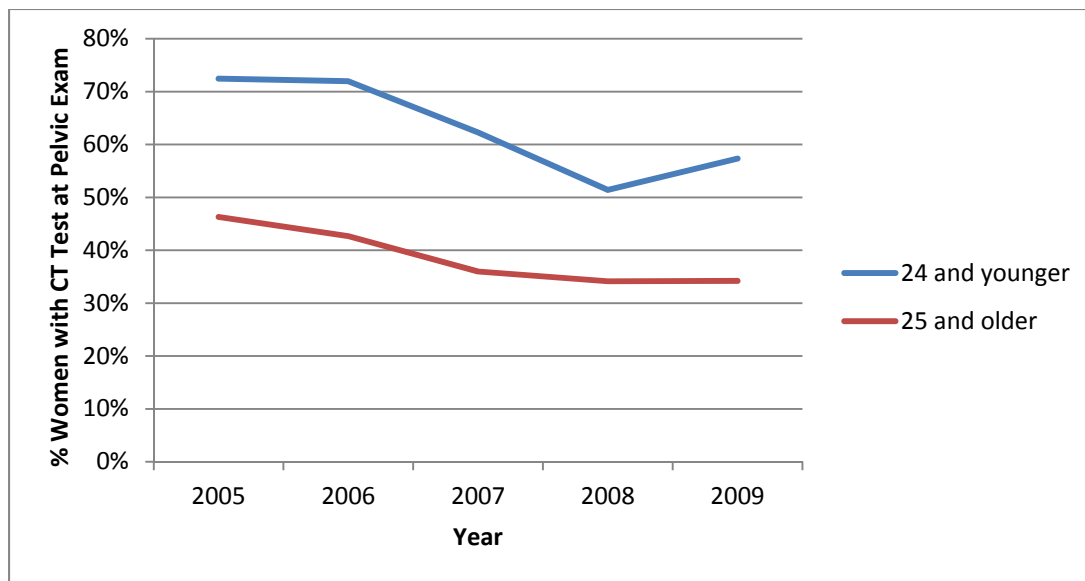


Table 16: New Hampshire: Percent of women with CT test during pelvic exam visit by race (2005-2009)

	2005		2006		2007		2008		2009	
	# of Women with pelvic exam	% Women with CT test during pelvic exam	# of Women with pelvic exam	% Women with CT test during pelvic exam	# of Women with pelvic exam	% Women with CT test during pelvic exam	# of Women with pelvic exam	% Women with CT test during pelvic exam	# of Women with pelvic exam	% Women with CT test during pelvic exam
White	13,772	62.9% (8,668)	15,427	60.5% (9,330)	16,356	51.9% (8,494)	14,621	48.3% (7,063)	13,540	48.8% (6,602)
Black	136	76.5% (104)	175	54.9% (96)	240	50.4% (121)	216	44.4% (96)	243	49.4% (120)
Asian	121	62.0% (75)	148	56.1% (83)	136	50.7% (69)	133	51.1% (68)	133	49.6% (66)
Native Hawaiian/Other Pacific Islander	9	55.6% (5)	12	66.7% (8)	15	46.7% (7)	12	66.7% (8)	11	27.3% (3)
American Indian/ Alaskan Native	30	60.0% (18)	28	75.0% (21)	36	38.9% (14)	29	48.3% (14)	46	43.5% (20)
More than one Race	38	71.1% (27)	42	69.0% (29)	47	59.6% (28)	37	64.9% (24)	34	47.1% (16)
Not reported	230	60.4% (139)	226	57.1% (129)	289	38.1% (110)	339	29.50% (100)	294	33.0% (97)
Total	14,336	63.0% (9,036)	16,058	60.4% (9,696)	17,119	51.7% (8,843)	15,387	47.92% (7,373)	14,301	48.4% (6,924)

Rhode Island:

Table 17: Rhode Island: Percent of women with CT test during PTO visit by age (2005-2009)

	2005		2006		2007		2008		2009	
	# of Women with PTO visit	% Women with CT test during PTO visit	# of Women with PTO visit	% Women with CT test during PTO visit	# of Women with PTO visit	% Women with CT test during PTO visit	# of Women with PTO visit	% Women with CT test during PTO visit	# of Women with PTO visit	% Women with CT test during PTO visit
<15		3.0% (1)	24	4.2% (1)	36	11.1% (4)	35	8.6% (3)	44	9.1% (4)
15-19	888	0.5% (4)	772	2.7% (21)	794	11.3% (90)	891	4.9% (44)	1,134	3.5% (40)
20-24	1,023	0.6% (6)	1,016	3.0% (30)	954	10.4% (99)	1271	4.6% (58)	1,429	2.6% (37)
25-29	596	0.3% (2)	598	2.0% (12)	593	9.1% (54)	733	4.2% (31)	890	1.0% (9)
30+	599	0.5% (3)	586	3.1% (18)	588	8.0% (47)	680	3.1% (21)	892	1.2% (11)
Total	3,139	0.5% (16)	2,996	2.7% (82)	2,965	9.9% (294)	3,610	4.3% (157)	4,389	2.3% (101)

Figure 9: Percent of women with CT test during PTO visit (Rhode Island: 2005-2009)

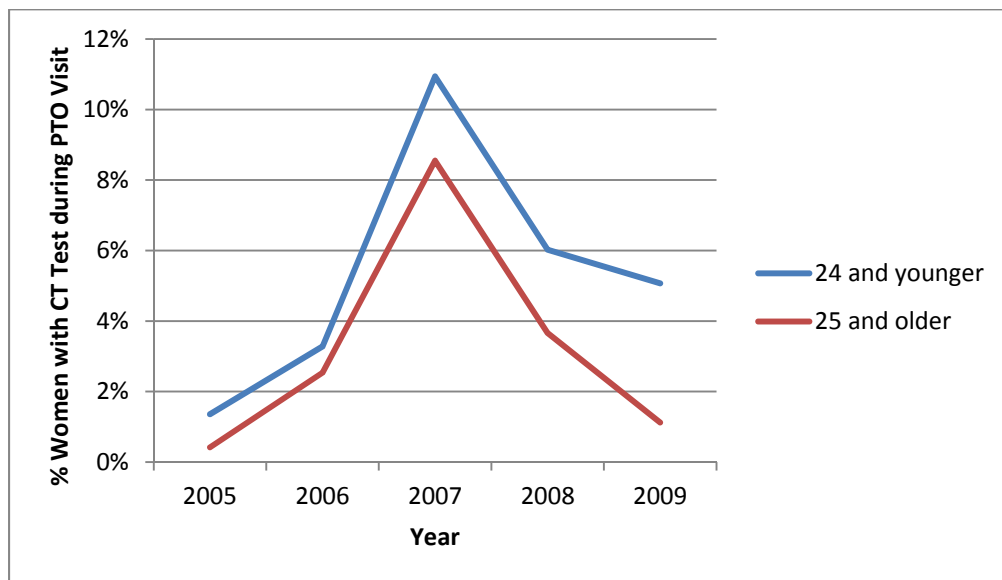


Table 18: Rhode Island: Percent of women with CT test during PTO visit by race (2005-2009)

	2005		2006		2007		2008		2009	
	# of Women with PTO visit	% Women with CT test during PTO visit	# of Women with PTO visit	% Women with CT test during PTO visit	# of Women with PTO visit	% Women with CT test during PTO visit	# of Women with PTO visit	% Women with CT test during PTO visit	# of Women with PTO visit	% Women with CT test during PTO visit
White	2,124	0.5% (10)	2,308	2.6% (61)	2,328	9.1% (212)	2,814	4.5% (128)	3,344	2.2% (73)
Black	381	0.8% (3)	362	1.4% (5)	322	9.6% (31)	484	3.5% (17)	555	2.2% (12)
Asian	119	0.0% (0)	100	5.0% (5)	103	7.8% (8)	102	5.9% (6)	135	0.7% (1)
Native Hawaiian/ Other Pacific Islander	7	0.0% (0)	14	0.0% (0)	17	11.8% (2)	16	0.0% (0)	60	0.0% (0)
American Indian/ Alaskan Native	24	0.0% (0)	13	7.7% (1)	11	18.2% (2)	10	10.0% (1)	12	0.0% (0)
More than one race	86	2.3% (2)	64	7.8% (5)	78	39.7% (31)	74	0.0% (0)	91	5.5% (5)
Not reported	398	0.3% (1)	135	3.7% (5)	106	7.5% (8)	110	4.5% (5)	192	5.2% (10)
Total	3,139	0.5% (16)	2,996	2.7% (82)	2,965	9.9% (294)	3,610	4.3% (157)	4,389	2.3% (101)

Table 19: Rhode Island: Percent of women with CT test during pelvic exam visit by age (2005-2009)

	2005		2006		2007		2008		2009	
	# of Women with pelvic exam	% Women with CT test during pelvic exam	# of Women with pelvic exam	% Women with CT test during pelvic exam	# of Women with pelvic exam	% Women with CT test during pelvic exam	# of Women with pelvic exam	% Women with CT test during pelvic exam	# of Women with pelvic exam	% Women with CT test during pelvic exam
<15	50	70.0% (35)	33	75.8% (25)	48	75.0% (36)	16	68.8% (11)	13	76.9% (10)
15-19	1,525	76.8% (1,171)	1,305	77.9% (1,017)	1,442	78.5% (1,132)	1,091	75.9% (828)	879	80.6% (708)
20-24	2,651	72.9% (1,932)	2,570	75.0% (1,928)	2,880	74.9% (2,158)	2,687	71.2% (1,914)	2,427	73.8% (1,791)
25-29	2,017	69.9% (1,410)	1,977	72.0% (1,423)	2,289	70.9% (1,623)	2,060	67.2% (1,385)	2,041	70.1% (1,430)
30+	5,696	57.8% (3,294)	5,082	62.9% (3,195)	5,412	54.5% (2,950)	4,746	49.3% (2,338)	4,315	54.3% (2,341)
Total	11,939	65.7% (7,842)	10,967	69.2% (7,588)	12,071	65.4% (7,899)	10,600	61.1% (6,476)	9,675	64.9% (6,280)

Figure 10: Percent of women with CT test at pelvic exam (Rhode Island: 2005-2009)

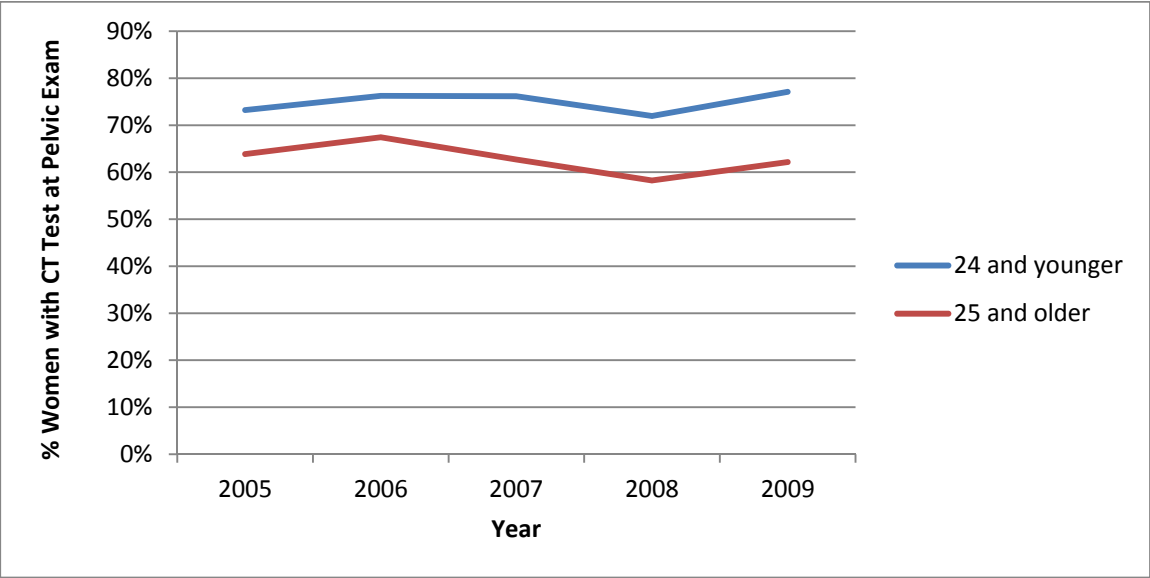


Table 20: Rhode Island: Percent of women with CT test during pelvic exam visit by race (2005-2009)

	2005		2006		2007		2008		2009	
	# of Women with pelvic exam	% Women with CT test during pelvic exam	# of Women with pelvic exam	% Women with CT test during pelvic exam	# of Women with pelvic exam	% Women with CT test during pelvic exam	# of Women with pelvic exam	% Women with CT test during pelvic exam	# of Women with pelvic exam	% Women with CT test during pelvic exam
White	8,550	63.6% (5,438)	8,266	68.6% (5,671)	9,594	65.7% (6,301)	8,651	60.3% (5,218)	8,078	64.6% (5,222)
Black	1,110	72.7% (807)	1,125	72.4% (814)	1,185	68.2% (808)	1,192	65.3% (778)	1,054	67.0% (706)
Asian	344	66.3% (228)	326	68.1% (222)	399	66.7% (266)	239	61.5% (147)	209	67.0% (140)
Native Hawaiian/ Other Pacific Islander	171	74.9% (128)	69	65.2% (45)	41	63.4% (26)	71	64.8% (46)	173	63.6% (110)
American Indian/ Alaskan Native	20	65.0% (13)	22	77.3% (17)	31	58.1% (18)	20	60.0% (12)	12	50.0% (6)
More than one race	368	53.0% (195)	428	62.1% (266)	518	50.6% (262)	201	65.2% (131)	56	60.7% (34)
Not reported	1,376	75.1% (1,033)	731	75.6% (553)	303	71.9% (218)	226	63.7% (144)	93	66.7% (62)
Total	11,939	65.7% (7,842)	10,967	69.2% (7,588)	12,071	65.4% (7,899)	10,600	61.1% (6,476)	9,675	64.9% (6,280)

Vermont:

Table 21: Vermont: Percent of women with CT test during PTO visit by age (2005-2009)

	2005		2006		2007		2008		2009	
	# of Women with PTO visit	% Women with CT test during PTO visit	# of Women with PTO visit	% Women with CT test during PTO visit	# of Women with PTO visit	% Women with CT test during PTO visit	# of Women with PTO visit	% Women with CT test during PTO visit	# of Women with PTO visit	% Women with CT test during PTO visit
<15	45	0.0% (0)	30	0.0% (0)	22	13.6% (3)	29	6.9% (2)	15	6.7% (1)
15-19	906	1.7% (15)	772	1.9% (15)	673	5.2% (35)	564	8.9% (50)	570	6.5% (37)
20-24	724	1.7% (12)	683	1.2% (8)	597	2.5% (15)	599	5.5% (33)	550	3.3% (18)
25-29	278	1.4% (4)	290	1.0% (3)	304	1.6% (5)	295	2.7% (8)	304	2.6% (8)
30+	252	0.8% (2)	245	0.4% (1)	247	2.4% (6)	263	3.0% (8)	240	2.1% (5)
Total	2,205	1.5% (33)	2,020	1.3% (27)	1,843	3.5% (64)	1,750	5.8% (101)	1,679	4.1% (69)

Figure 11: Percent of women with CT test during PTO visit (Vermont: 2005-2009)

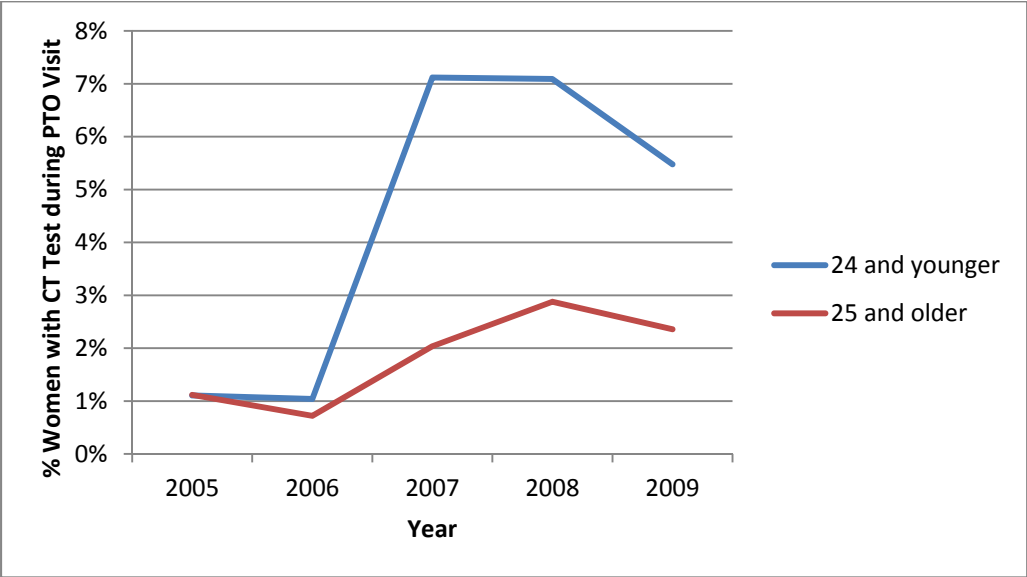


Table 22: Vermont: Percent of women with CT test during PTO visit by race (2005-2009)

	2005		2006		2007		2008		2009	
	# of Women with PTO visit	% Women with CT test during PTO visit	# of Women with PTO visit	% Women with CT test during PTO visit	# of Women with PTO visit	% Women with CT test during PTO visit	# of Women with PTO visit	% Women with CT test during PTO visit	# of Women with PTO visit	% Women with CT test during PTO visit
White	2,138	1.4% (30)	1,957	1.3% (26)	1,795	3.5% (62)	1,692	5.7% (96)	1,616	4.2% (68)
Black	26	3.8% (1)	20	5.0% (1)	17	5.9% (1)	20	10.0% (2)	24	4.2% (1)
Asian	9	0.0% (0)	13	0.0% (0)	7	14.3% (1)	3	0.0% (0)	6	0.0% (0)
Native Hawaiian/ Other Pacific Islander	2	0.0% (0)	2	0.0% (0)	0	0.0% (0)	2	0.0% (0)	3	0.0% (0)
American Indian/ Alaskan Native	8	0.0% (0)	11	0.0% (0)	8	0.0% (0)	8	0.0% (0)	10	0.0% (0)
More than one race	7	28.6% (2)	6	0.0% (0)	6	0.0% (0)	6	0.0% (0)	4	0.0% (0)
Not reported	15	0.0% (0)	11	0.0% (0)	10	0.0% (0)	19	15.8% (3)	16	0.0% (0)
Total	2,205	1.5% (33)	2,020	1.3% (27)	1,843	3.5% (64)	1,750	5.8% (101)	1,679	4.1% (69)

Table 23: Vermont: Percent of women with CT test during pelvic exam visit by age (2005-2009)

	2005		2006		2007		2008		2009	
	# of Women with pelvic exam	% Women with CT test during pelvic exam	# of Women with pelvic exam	% Women with CT test during pelvic exam	# of Women with pelvic exam	% Women with CT test during pelvic exam	# of Women with pelvic exam	% Women with CT test during pelvic exam	# of Women with pelvic exam	% Women with CT test during pelvic exam
<15	73	71.2% (52)	76	80.3% (61)	86	57.0% (49)	118	55.1% (65)	99	61.6% (61)
15-19	1,861	78.1% (1,454)	1,885	79.4% (1,497)	2,015	70.1% (1,413)	1,916	69.8% (1,338)	1,920	69.0% (1,325)
20-24	1,799	70.5% (1,269)	1,959	71.1% (1,393)	2,204	62.8% (1,385)	2,020	62.4% (1,261)	1,907	64.9% (1,237)
25-29	922	62.0% (572)	1,030	62.1% (640)	1,352	48.2% (651)	1,259	48.5% (610)	1,225	51.5% (631)
30+	1,369	47.8% (655)	1,476	44.1% (651)	2,349	28.9% (678)	2,069	28.7% (593)	2,038	31.2% (635)
Total	6,024	66.4% (4,002)	6,426	66.0% (4,242)	8,006	52.2% (4,176)	7,382	52.4% (3,867)	7,189	54.1% (3,889)

Figure 12: Percent of women with CT test at pelvic exam (Vermont: 2005-2009)

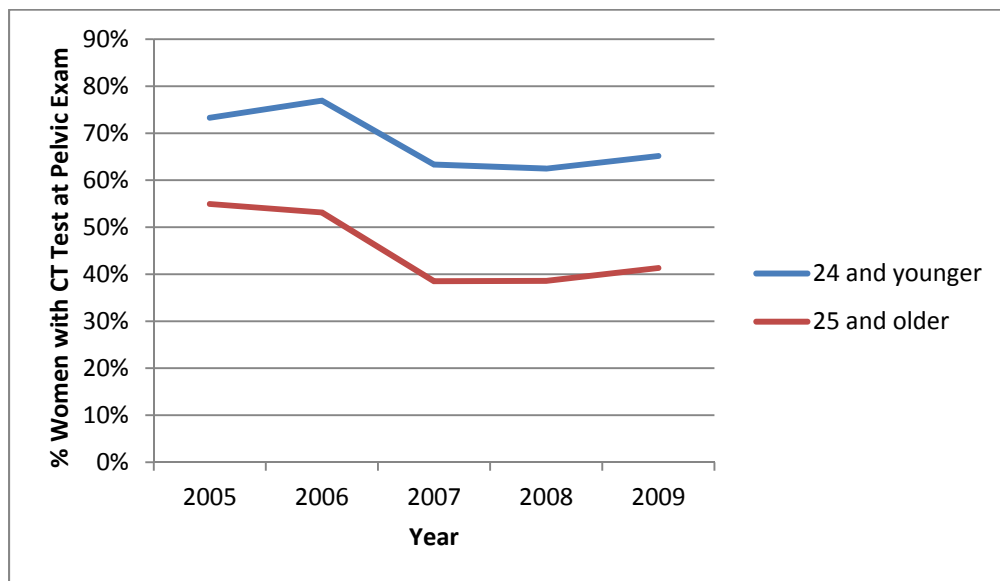


Table 24: Vermont: Percent of women with CT test during pelvic exam visit by race (2005-2009)

	2005		2006		2007		2008		2009	
	# of Women with pelvic exam	% Women with CT test during pelvic exam	# of Women with pelvic exam	% Women with CT test during pelvic exam	# of Women with pelvic exam	% Women with CT test during pelvic exam	# of Women with pelvic exam	% Women with CT test during pelvic exam	# of Women with pelvic exam	% Women with CT test during pelvic exam
White	5,845	66.6% (3,893)	6,244	66.0% (4,122)	7,795	52.1% (4,063)	7,185	52.3% (3,759)	6,960	54.0% (3,756)
Black	49	67.3% (33)	68	66.2% (45)	86	58.1% (50)	81	61.7% (50)	105	61.0% (64)
Asian	41	56.1% (23)	34	61.8% (21)	45	48.9% (22)	38	47.4% (18)	38	52.6% (20)
Native Hawaiian/ Other Pacific Islander	3	0.0% (0)	2	100.0% (2)	2	100.0% (2)	6	66.7% (4)	11	81.8% (9)
American Indian/ Alaskan Native	18	66.7% (12)	21	61.9% (13)	24	50.0% (12)	17	58.8% (10)	17	64.7% (11)
More than one race	19	63.2% (12)	23	73.9% (17)	24	54.2% (13)	17	58.8% (10)	16	56.3% (9)
Not reported	49	59.2% (29)	34	64.7% (22)	30	46.7% (14)	38	42.1% (16)	42	47.6% (20)
Total	6,024	66.4% (4,002)	6,426	66.0% (4,242)	8,006	52.2% (4,176)	7,382	52.4% (3,867)	7,189	54.1% (3,889)

Appendix C:
Provider Assessment Survey Tool

Provider Assessment Survey Tool	
Type of agency you are associated with:	
	Title X family planning clinic
	Community Health Center
	STD Clinic
	Other (Please Specify):
Please tell us the agency or clinic for which you work:	
	<i>Open-ended</i>
Are you using an electronic medical record (EMR)?	
	Yes—we are using an EMR
	We are transitioning to an EMR system
	No—we are using paper medical records
In which state do you primarily work?	
	Connecticut
	Rhode Island
	Massachusetts
	New Hampshire
	Vermont
	Maine
Can you identify your primary role in your agency?	
	Direct Service Patient Care
	Clinic Manager
	Administrative (non-clinical)
	Other (please specify)
Which of the credentials applies to you, if any?	
	MD/NP/CNM/PA
	RN/LPN
	FP/HIV Counselor
	DIS
	None of the above
Do you practice expedited partner therapy (EPT) in your clinical practice?	
	Yes
	No

Please rate the following statements:	
a. EPT is legal in the state in which I primarily work	
	Agree
	Disagree
	Don't Know
b. I feel EPT puts me at an unreasonable legal risk as a provider	
	Strongly Agree
	Agree
	Disagree
	Strongly Disagree
	Don't Know
c. If legal, I am comfortable with EPT as a mechanism of partner treatment	
	Strongly Agree
	Agree
	Disagree
	Strongly Disagree
	Don't Know
d. EPT is an effective and beneficial method of getting partners treated	
	Strongly Agree
	Agree
	Disagree
	Strongly Disagree
	Don't Know
Without referring to your records, can you please estimate your clinic positivity rate for chlamydia infection among those you screen:	
	In our clinic, the percent (%) of patients screened who are positive for chlamydia is:
<u>My practice (select True/False)</u>	
a. I offer chlamydia testing to everyone and leave it up to them to decide	
	True
	False
b. I screen <u>all women</u> under 26	
	True
	False

c. I screen <u>all men and all women</u> under 26	True
	False
d. I screen <u>men</u> and <u>women</u> above 26 if they are at increased risk (i.e. new, multiple partners, STD in past 12 months, exposure or symptoms)	True
	False
e. I screen everyone I can (if they cannot show me a documented recent negative)	True
	False
<u>CDC Recommendations (select True/False):</u>	
a. The CDC chlamydia screening criteria is: Screen all sexually active <u>females</u> under 26 at least once a year and women over 26 who are at increased risk because of new, multiple partners, exposure to STD, recent previous STD, or symptoms. No screening criteria for <u>males</u>	True
	False
b. The CDC chlamydia screening criteria is: Screen all sexually active <u>males and females</u> under 26 at least once a year and women and men over 26 who are at increased risk because of new, multiple partners, exposure to STD, recent previous STD, or symptoms	True
	False
c. The CDC chlamydia screening criteria is: Screen all women of childbearing age and pregnant women	True
	False
<u>Pregnancy-test only (Select True/False):</u>	
a. Our policy is to screen all urine samples received for a pregnancy test (at least in women under 25) unless the patient declines.	True
	False
b. Our policy is to offer screening of all urine samples received for pregnancy tests (at least in women under 25) and if they think they need it then we screen.	True
	False

c. Our policy is not to differentiate between those under 25 and those over 25 in STD screening for pregnancy-test only patients	
	True
	False
d. Our policy is to only do chlamydia testing during scheduled visits and annual exams	
	True
	False
e. I do not have time to do STD screening on walk-in pregnancy-test only visits	
	True
	False
Does your clinic participate in the Region I Infertility Prevention Project (IPP)?	
	Yes
	No
	Don't Know
Which chlamydia screening modalities do you use? (Check all that apply)	
For men:	
	Penile
	Urine
	Rectal
For women:	
	Cytology (Thin Prep Pap) specimen
	Cervical / Vaginal Swab
	Urine
	Rectal
Which chlamydia testing modality do you trust more?	
For men:	
	Urethral
	Urine specimen
	Trust them the same
For women:	
	Cytology (Thin Prep Pap) specimen
	Cervical / Vaginal Swab
	Urine specimen
	Trust them the same

From what sources do you hear about chlamydia positivity, screening recommendations, or treatment updates (check all that apply):	
	Professional literature, conferences
	Colleagues and administrators
	IPP Advisory Board Representative
	Health Department Personnel
	None (I do not hear about this)
	Other (please specify)
From what sources do you hear about your clinic specific information such as clinic positivity and clinic screening rates? (check all that apply)	
	Colleagues and administrators
	IPP Advisory Board Representative
	Health Department Personnel
	None (I do not hear about this)
	Other (please specify)
Approximately what percentage of pregnancy-test only (PTO) visits are walk-in (with no appointment):	
	In our clinic, the percent (%) of PTO visits that are walk-ins is about:
Do you chart that a patient comes in for a PTO visit on a:	
	Paper chart only
	Electronic Medical Record only
	Paper chart but put into database as well
	Paper log book only
	Other (please specify)
Of your caseload, about what % of patients in an average week would you say are coming in for these PTO visits?	
	0%
	1-5%
	6-10%
	11-20%
	> 20%
In the case of a positive chlamydia result, do you ask the patients to come back for a re-screen:	
	3-4 <u>weeks</u> post treatment
	5-11 <u>weeks</u> post treatment
	3-4 <u>months</u> post treatment
	5-11 <u>months</u> post treatment
	One <u>year</u> post treatment or at their next annual exam

I don't ask them to come back.
Which methods you use for following up with patient to encourage them to come back for a chlamydia re-screen? (check all that apply)
Ask patients to contact us and make appointment when re-screen time has arrived.
Ask patients to come back for a Test of Cure.
Contact the patient via phone/mail/text message when rescreen time has arrived.
Other (please specify)

Appendix D:
Acronym List

Acronym List

American Indians/Alaska Natives (AI/AN)
Centers for Disease Control and Prevention (CDC)
Chlamydia (CT)
Community Health Centers (CHC)
Electronic Medical Record (EMR)
Emergency Contraception (EC)
Family Planning (FP)
Family Planning Annual Report (FPAR)
Gonorrhea (GC)
Hepatitis B (Hep B)
Hepatitis C (Hep C)
Human Immunodeficiency Virus (HIV)
Human Papillomavirus (HPV)
Infertility Prevention Project (IPP)
Nucleic Acid Amplification Test (NAAT)
Office of Population Affairs (OPA)
Pregnancy Test (PT)
Pregnancy Test Only (PTO)
Sexually Transmitted Disease (STD)
Statistical Analysis System (SAS)
U.S. Preventative Services Task Force (USPSTF)

References

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- ¹ Marrazzo JM, Celum CL, Hillis SD, et al. Performance and cost-effectiveness of selective screening criteria for Chlamydia trachomatis infection in women. Implications for a national Chlamydia control strategy. *Sex Transm Dis* 1997; 24:131–141.
- Howell MR, Quinn TC, Gaydos CA. Screening for Chlamydia trachomatis in asymptomatic women attending family planning clinics. A cost-effectiveness analysis of three strategies. *Ann Intern Med* 1998; 128:277–284.
- ² Butler, B. Chlamydia Screening of Young Women Seeking Pregnancy Tests or Emergency Contraception. Infertility Prevention Project, PA Department of Health 2007.
- ³ Stevens-Simon, C., Rudnick, M., Beach, R. K. , Weinberg, A. Screening positive urine pregnancy tests for sexually transmitted diseases expedites the treatment of infected adolescent gravidas. *The Journal of Maternal–Fetal and Neonatal Medicine* 2002;11:391–395.
- Geisler WM, James AB. Chlamydial and gonococcal infections in women seeking pregnancy testing at family-planning clinics. *Am J Obstet Gynecol* 2008;198:502.e1-502.e4.
- Gulatil, R., Marrazzo, J., Fine, D. Characteristics of and Risks for Chlamydia trachomatis for Pregnancy-Associated Visits Among Women Aged 15 - 24 Years at Region X Family Planning Clinics, 2003-2006.
- Butler, B. Chlamydia Screening of Young Women Seeking Pregnancy Tests or Emergency Contraception. Infertility Prevention Project, PA Department of Health 2007.
- ⁴ Stevens-Simon, C., Rudnick, M., Beach, R. K. , Weinberg, A. Screening positive urine pregnancy tests for sexually transmitted diseases expedites the treatment of infected adolescent gravidas. *The Journal of Maternal–Fetal and Neonatal Medicine* 2002;11:391–395.
- ⁵ Geisler WM, James AB. Chlamydial and gonococcal infections in women seeking pregnancy testing at family-planning clinics. *Am J Obstet Gynecol* 2008;198:502.e1-502.e4.
- ⁶ Gulatil, R., Marrazzo, J., Fine, D. Characteristics of and Risks for Chlamydia trachomatis for Pregnancy-Associated Visits Among Women Aged 15 - 24 Years at Region X Family Planning Clinics, 2003-2006.
- ⁷ Goldzier Thomas, A., Brodine, S., Shaffer, R., Shafer, M., Boyer, C., Putnam, S., Schachter, J. Chlamydial Infection and Unplanned Pregnancy in Women With Ready Access to Health Care. *The American College of Obstetricians and Gynecologists* 2001: VOL. 98, NO. 6.
- ⁸ Butler, B. Chlamydia Screening of Young Women Seeking Pregnancy Tests or Emergency Contraception. Infertility Prevention Project, PA Department of Health 2007.
- ⁹ Ibid.
- ¹⁰ Ibid.
- ¹¹ CDC, 2009. STD Rates by Race/Ethnicity. <http://www.cdc.gov/std/health-disparities/race.htm>. Last accessed 2/2011.
- ¹² Butler, B. Chlamydia Screening of Young Women Seeking Pregnancy Tests or Emergency Contraception. Infertility Prevention Project, PA Department of Health 2007.