



# 2008 New Jersey Health Care Provider Tobacco Survey

*A Statewide Report*



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Governor



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## Acknowledgments

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## EXECUTIVE SUMMARY

Tobacco use continues to be the single most important preventable health crisis in this country. States have made strong efforts to reduce the impact of this public health problem. The New Jersey Department of Health and Senior Services (DHSS) funds a Comprehensive Tobacco Control Program (CTCP) to reduce the prevalence of tobacco use and prevent its associated health-damaging effects among the people of New Jersey.

Health care providers play a key role in the identification, assessment, and treatment of smokers. Therefore, any comprehensive tobacco intervention must involve providers and should strive to increase their role in tobacco dependence treatment. At the national level, clinical practice guidelines have been established to assist providers in treating tobacco dependence. In New Jersey, CTCP resources are also available for providers to help their patients quit smoking. The first survey of New Jersey health care providers was conducted in 2002 to assess the extent to which providers were implementing tobacco treatment in their practices or providing referrals to CTCP services. This report presents the results of the first follow-up to the 2002 report.

The 2008 New Jersey Health Care Provider Tobacco Survey (NJHCPTS) was designed to collect data from primary care physicians who see outpatients in New Jersey. The purpose of this report is to:

- Present follow-up data of New Jersey health care providers' knowledge, attitudes, and practices regarding tobacco dependence treatment.
- Provide recommendations to the CTCP to improve tobacco dependence treatment among providers.

Highlights from the 2008 NJHCPTS are found below.

### Provider awareness and adherence of guidelines

Overall, 65.2% of providers reported some awareness of the Public Health Service (PHS) Guidelines for Treating Tobacco Dependence. However, only 12.8% reported having integrated these guidelines into clinical practice. While this suggests substantial improvement from 2002 the rate of implementation is still very low. The evidence-based guidelines call for clinicians to conduct basic intervention strategies for patients who smoke using the "5 A's".

- **ASK** about tobacco use from every patient at every visit
- **ADVISE** smokers to quit
- **ASSESS** readiness to quit
- **ASSIST** in the quit attempt
- **ARRANGE** follow up contact

The application of the 5 A's recommendations was not universal. The majority of providers reported ASKING (72.8%) and ADVISING (75.5%), but fewer reported ASSESSING (56.1%), ASSISTING (28.6% quit-date; 36% medication; and, 9.6% referral), and ARRANGING (9.8%). With the exception of ASKING, which observed a 10 percentage point decline, these estimates remain unchanged since 2002.

### **Provider perceptions of treatment effectiveness**

Health care providers were generally confident in their ability to treat nicotine dependence with pharmacological aids (76.1%). Overall, the vast majority perceived Chantix® (Varenicline) (93.4%) and Zyban® (Bupropion) (78.1%) to be somewhat or very effective, while fewer perceived the same of Nicotine Replacement Therapies (60.9% Patch; 42.3% Gum; 34.7% Lozenges; 39.8% Inhaler; 33.3% Nasal Spray). The majority of physicians rated the combination of two or more NRTs (62%), Bupropion and NRT (79.5%), and Varenicline and NRT (82.5%) as somewhat or very effective.

The majority perceived cessation programs that include group counseling (69.6%) and face to face counseling (67.4%) to be somewhat or very effective. In contrast, just over one-fourth perceived the same about telephone counseling (27.5%) or interactive internet sites (27%).

### **Barriers to treatment**

More than half (64.3%) of providers reported having a system in their practice to screen for smoking status. The majority of providers agreed that patient resistance (78.2%), competing priorities during the visit (73.5%), lack of time (60.6%), limited reimbursement (56.5%), cost to the patient (65.2%), and lack of community resources (61.3%) were barriers to providing treatment. Fewer than one out of three identified lack of training or expertise as a barrier to provide treatment (31.9%).

### **Awareness of state resources**

Awareness of quit services has increased but remains low. While over half of providers (56.6%) were aware of NJ Quitline, a substantially lower proportion was aware of NJ Quitnet (28.4%) or Quitcenters (17.5%). Quitcenters observed the largest relative increase in awareness since 2002 but remain the service of which providers are least likely to be aware. Of those who reported being aware of each respective service, 63.3% had referred patients to NJ Quitline, 63.9% to NJ Quitnet, and 70.6% to Quitcenters.

The results reveal that the recommendations from 2002 still hold today. Physicians remain an untapped source to facilitate smoking cessation treatment in New Jersey. Opportunities exist for CTCP activities to engage providers, increase use of the PHS Guidelines, and improve utilization of Quit services. These activities can address improving clinical skills, dispelling misperceptions, and reducing perceived barriers to treatment. Outreach strategies need to be improved via direct marketing, training, and linkages to key individuals and organizations.

## INTRODUCTION

Smoking is the leading cause of preventable death and disability in the United States.<sup>1</sup> It is estimated that smoking accounts for 440,000 deaths per year (or 1 in 5 deaths) and upwards of 8.6 million cases of serious illness every year nationally.<sup>2, 3</sup> A primary goal of the New Jersey Comprehensive Tobacco Control Program (CTCP) is to reduce the prevalence of smoking. The most recent surveillance data shows that 17% of New Jersey adults were current smokers in 2007 and 16% of New Jersey high school students in 2006.<sup>4,5</sup> In addition to reducing initiation among youth and young adults, an effective smoking cessation program is needed to reduce the smoking prevalence among New Jerseyans.

Since approximately 70% of all smokers are seen by a physician each year, health care providers can play a vital role in the identification, assessment, and treatment of smokers.<sup>6,7</sup> Studies have shown that physician-delivered smoking cessation interventions are well-received and effective. Smokers note that receiving advice from their physician to quit smoking is an effective motivator toward making a quit attempt.<sup>8-13</sup> Physician advice or counseling, combined with adjuvant supports, such as nicotine replacement therapies, non-nicotine medications, follow-up counseling sessions, and referrals to additional supports, such as telephone and internet-based services, have been shown to significantly increase quit rates over no or minimal contact.<sup>14,15</sup>

To provide healthcare providers with clinical practice guidelines for tobacco use identification and treatment, the National Cancer Institute and Agency for Healthcare Research and Quality developed the *Smoking Cessation Clinical Practice Guideline* in the early 1990's and over one million copies were disseminated to providers.<sup>16</sup> Due to significant new research evidence, the Public Health Service revised and disseminated these in 2000 and again in 2008.<sup>14,17</sup> These evidence-based guidelines call for clinicians to conduct proven effective intervention strategies for all of their patients who smoke by following the 5 A's:<sup>14</sup>

- Ask: Screen all patients for tobacco use
- Advise: Advise all tobacco-using patients that they should quit
- Assess: Assess the patient's willingness to quit
- Assist: Assist with quitting, including counseling, pharmaceutical aids, and referrals
- Arrange: Arrange a follow-up to discuss progress

Since the dissemination of these guidelines, healthcare provider-initiated intervention rates increased in certain subpopulations. For example, in 2005, 75.5% of Medicare patients noted receiving advice to quit, an increase of 11 percentage points from 2004.<sup>18</sup> Although this represents substantial progress, there is still room for improvement. In New Jersey, just over three out of four adults who saw a medical professional in the past 12 months reported being asked if they smoked.<sup>19</sup>

The CTCP provides four free or low-cost services available to help smokers quit. Healthcare providers may also refer patients interested in quitting to these services:

- New Jersey Quitnet, developed by Boston University, is a free online resource designed to provide individually tailored cessation support, free information, quitting tools, such as a quit calendar, chat rooms and online peer support 24 hours per day, 7 days per week.
- New Jersey Quitline, operated by counselors trained by the American Cancer Society, is a free telephone-based service that provides individualized treatment planning, one-to-one smoking cessation counseling and follow-up support six days per week in 26 languages.
- New Jersey Quitcenters, located throughout the state, offer individual and group counseling provided by trained and certified Tobacco Treatment Specialists, as well as nicotine replacement therapy at reduced costs.
- Mom's Quit Connection, run by the Southern New Jersey Perinatal Cooperative, is designed to help pregnant women and new moms quit smoking through individual counseling, support group meetings, and educational programs.

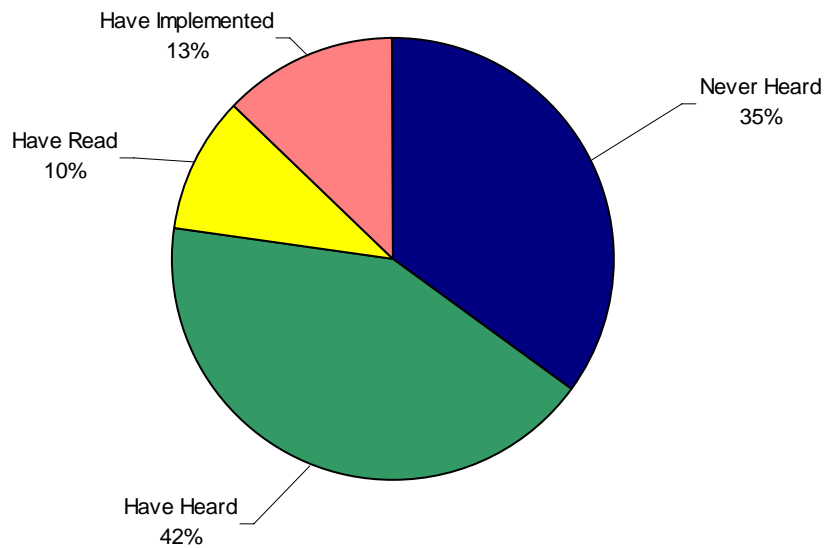
The University of Medicine and Dentistry of New Jersey - School of Public Health (UMDNJ-SPH) developed the New Jersey Health Care Provider Tobacco Survey (NJHCPTS) to provide baseline measures to monitor the effect of the State's tobacco cessation activities among physicians. The first round of this survey was completed by 1,241 physicians and midwives between June and November 2002. This report includes data and recommendations from the second administration of the NJHCPTS, which was completed by 1,299 eligible physicians between February and September 2008. It highlights current data on tobacco cessation knowledge, attitudes and practices as they relate to the *Clinical Practice Guidelines* among New Jersey health care providers. The report draws comparisons between the 2002 and 2008 NJHCPTS findings and provides recommendations to improve New Jersey health care providers' use of the 5 A's, to increase their rates of referral to NJ Quit Services, and to address their perceived barriers to providing tobacco dependence treatment to their patients.

## RESULTS

### Clinical practices for tobacco dependence treatment

Overall, 65.2% ( $\pm 2.5\%$ ) reported some awareness of the guidelines (Figure 1), an almost 11 percentage point increase from 2002. However, only 12.8% ( $\pm 1.8\%$ ) reported using the guidelines in clinical practice. Despite the relatively low rate of use, this is more than a twofold increase in implementation from 2002 where only 5.9% ( $\pm 2.5\%$ ) of physicians treating adults reported implementing the guidelines.

**Figure 1: Awareness of Clinical Practice Guidelines for Treating Tobacco Dependence**



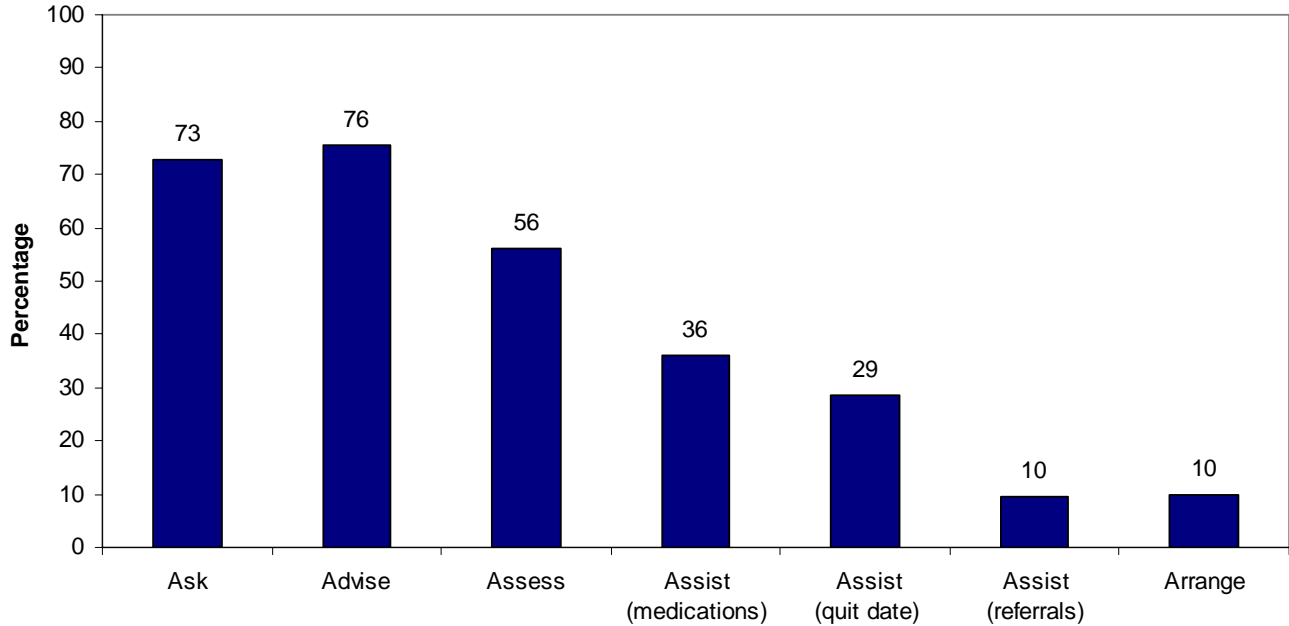
***Health care provider implementation of the 5 A's increased more than twofold from 2002 to 2008 from 5.9% to 12.8%.***

Figure 2 describes the rates of “always” implementing the 5 A’s among health care providers. Overall, 72.8% ( $\pm 2.3\%$ ) of health care providers reported always ASKING all patients about their smoking status. This did not differ statistically between family practice and internal medicine specialists (69.7  $\pm$  4.7% vs. 75.9  $\pm$  3.0%). However, it is an overall 10 percentage point decrease relative to the percent of physicians treating adults in 2002 (82.9  $\pm$  4.0%).

Implementation of the remaining 5 A’s was unchanged relative to 2002. About three-quarters of all providers reported ADVISING all smokers to quit, while over half of all providers reported always ASSESSING the patient’s interest in quitting (i.e., stage of change). Providers less

frequently ASSISTED with quitting by helping the patient set a quit date, discussing medication, or referring to treatment. Less than one-third of providers reported always discussing quit dates, one-third reported discussing medication options, and less than one in ten reported referring patients to treatment. Lastly, less than one in ten reported ARRANGING follow-up.

**Figure 2: "Always" Adherence to Guidelines**



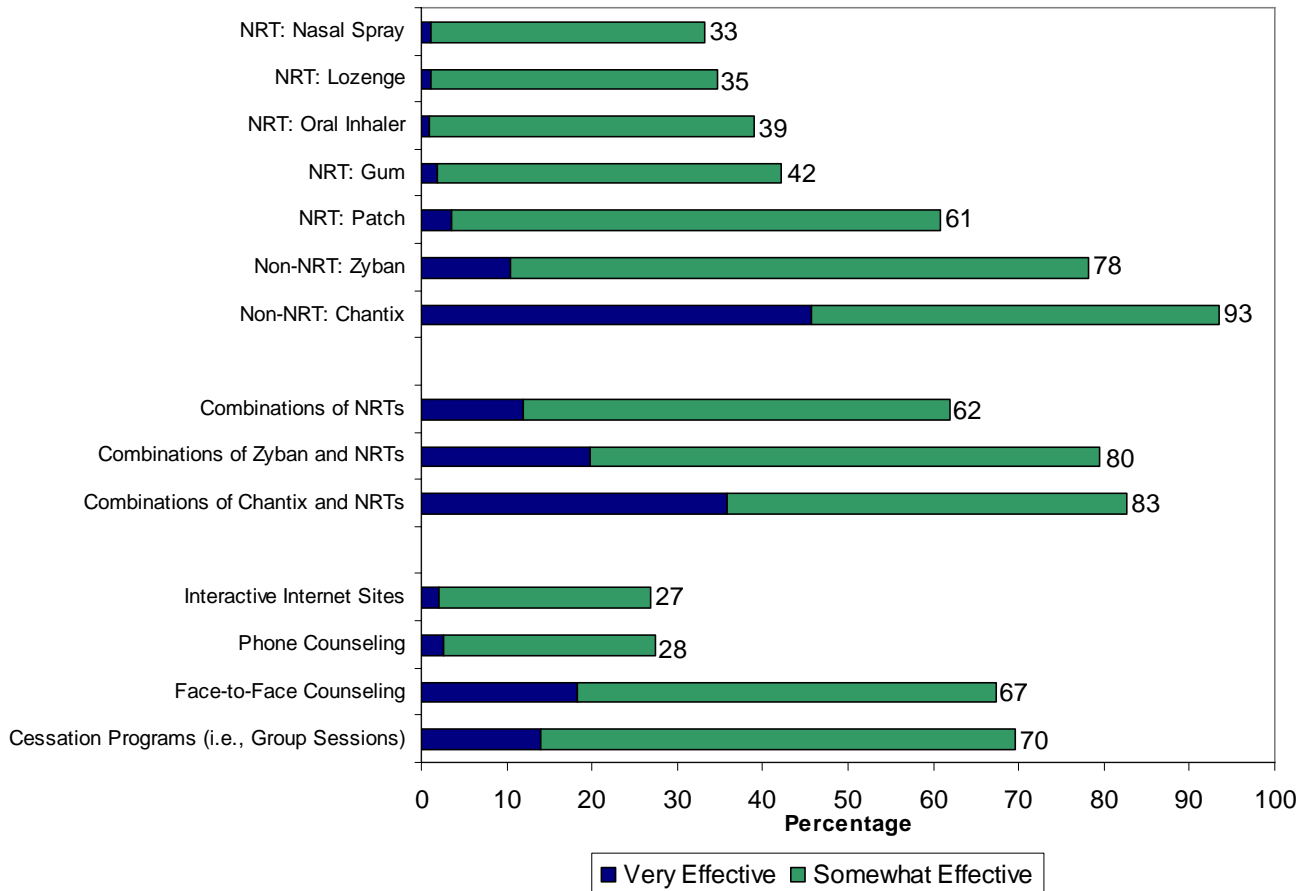
### Perceptions towards tobacco dependence treatment

There were differences between specialties with regards to confidence in helping smokers quit with pharmacological aids. Overall, 76.1% ( $\pm 2.2\%$ ) agreed either somewhat or strongly that they were confident in helping smokers quit with pharmacological aids. However, family practice specialists were more likely to agree that they were confident compared to internal medicine specialists ( $87.3 \pm 3.4\%$  vs.  $70.3 \pm 3.2\%$ ).

Providers rated the perceived effectiveness of various adjuvant intervention strategies to help smokers quit (Figure 3). Treatment programs including group counseling were perceived by providers as being effective; more than two out of three providers believed cessation programs that include group counseling were somewhat or very effective. Similarly, more than two out of three providers perceived face-to-face counseling to be somewhat or very effective. In contrast, just over one out of four providers perceived telephone counseling or interactive internet sites to be effective.

With the exception of the Nicotine Patch (60.9 ±2.6%), relatively few providers perceived nicotine replacement therapies (NRT) to be somewhat or very effective. In fact, less than half considered any other NRT to be effective, though 62% (±2.8%) reported that combination of two or more NRT is effective. In contrast, Varenicline and Bupropion were perceived to be effective, 93.4% (±1.4%) and 78.1% (±2.2%) respectively. Moreover, more than two of three providers reported that combination of Bupropion and NRT or Varenicline and NRT is somewhat or very effective.

**Figure 3: Perceived Effectiveness of Treatment Strategies**

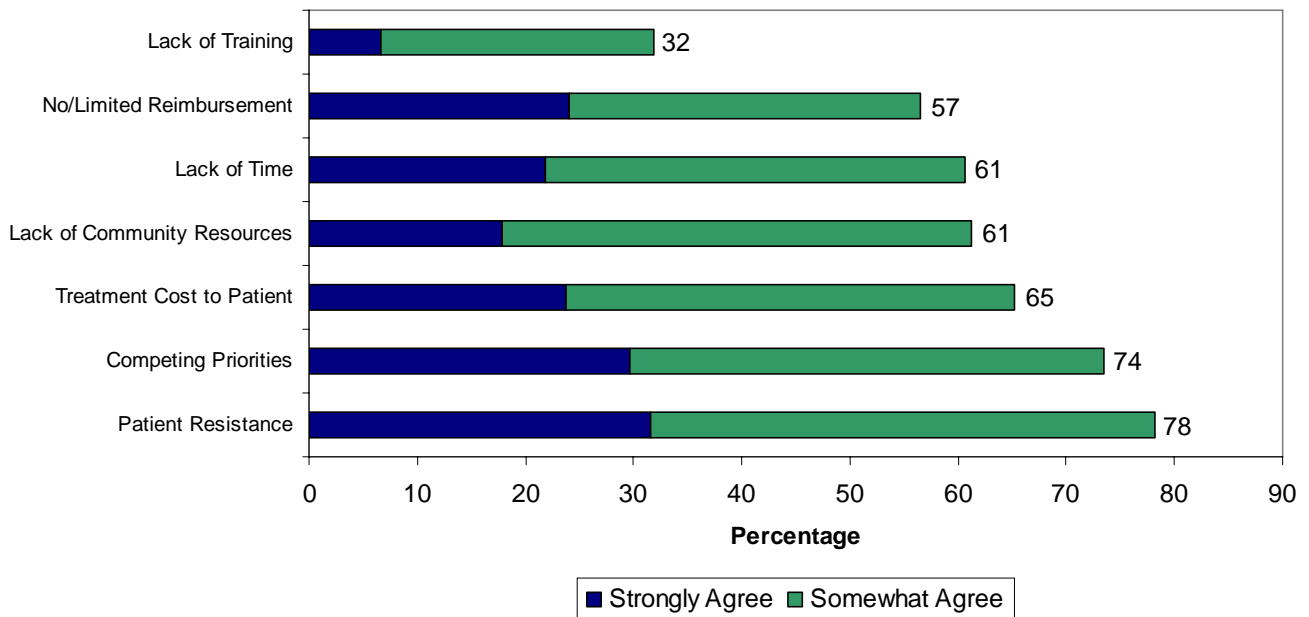


### Barriers to providing tobacco dependence treatment

Providers reported on perceived barriers toward providing tobacco dependence treatment (Figure 4). Three barriers - lack of time (60.6 ±2.6%), limited reimbursement (56.5 ±2.6%) and competing priorities during the visit (73.5 ±2.3%) - were common barriers to all preventive services. These types of barriers are likely to be inherent to the clinical practice setting and, therefore, more challenging to modify.

Almost two-thirds of providers perceived the lack of community resources ( $61.3 \pm 2.6\%$ ) and cost to patient ( $65.2 \pm 2.5$ ) as barriers to smoking cessation. Providers overwhelmingly perceived that patients were resistant to cessation advice ( $78.3 \pm 2.2\%$ ), which conflicts with population-based data that indicate most smokers want to quit.<sup>20</sup> Lastly, less than one out of three providers indicated that their own lack of training or expertise in tobacco dependence treatment was a barrier to providing treatment.

**Figure 4: Barriers Reported Toward Providing Tobacco Dependence Treatment**



### Aids to providing tobacco dependence treatment

The guidelines suggest that tobacco use should be treated as a vital sign with prompts to screen and document tobacco use at every visit. Overall,  $64.3\% (\pm 2.6\%)$  of providers reported having a system in place to screen for smoking status. This was slightly higher among family medicine specialists ( $68.7 \pm 4.9\%$ ) than internal medicine specialists ( $61.7\% \pm 3.5\%$ ), though not significantly different. Overall, this is unchanged since 2002.

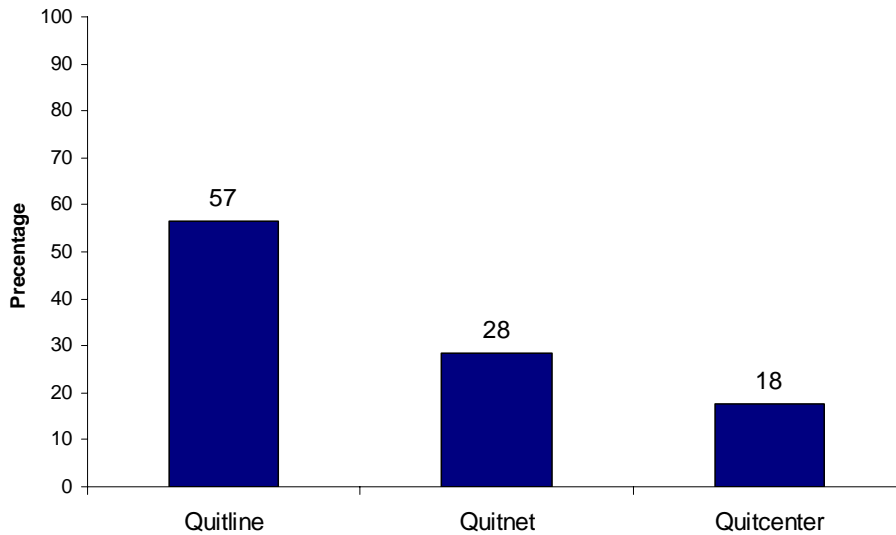
### Awareness of and referral to NJ Quit Services

There was an increase in awareness for all three Quit Services since 2002. In 2008, NJ Quitline had the highest rate of awareness ( $56.6 \pm 2.6\%$ ) while Quitcenters had the lowest rate ( $17.5 \pm 2.0\%$ ) (Figure 5). Although awareness of Quitcenters remained low compared to other

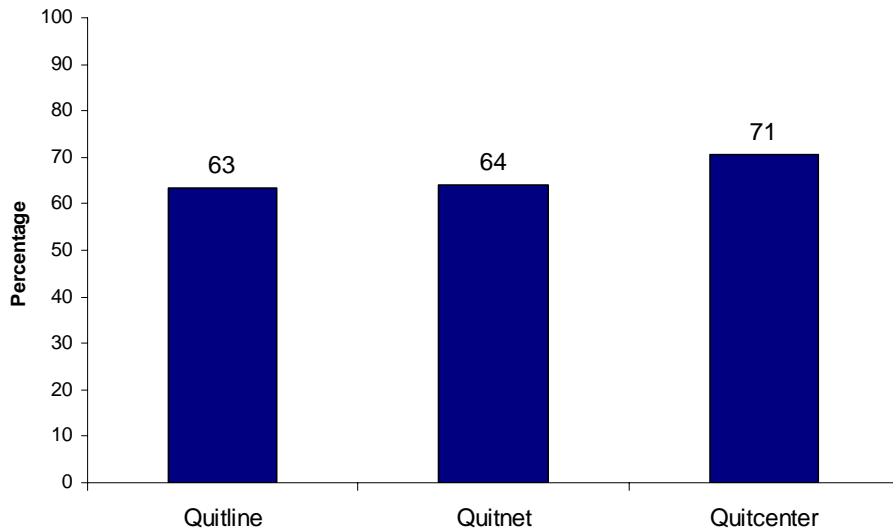
services, Quitcenters had the highest relative rate of increase in awareness (69.9%) relative to NJ Quitline (51.5%) and NJ Quitnet (31.1%).

Providers who were aware of NJ's Quit Services were asked whether or not they referred patients to these services (Figure 6). Referral patterns were similar across all three Quit Services; among those who were aware of a particular Quit Service, approximately two-thirds referred patients to the respective Quit Service.

**Figure 5: Awareness of NJ Quit Services**



**Figure 6: Referral to NJ Quit Services**



## CONCLUSIONS AND RECOMMENDATIONS

### **Encourage physicians to always ASK all patients about smoking status and ASSIST them with effective medications**

The results of the 2008 NJHCPTS found that the recommendations from 2002 still hold true. While tobacco treatment has advanced and population level “best practice” interventions have increased notably since 2002 this does not appear to have altered physician practices in New Jersey. It is clear that physicians remain an underutilized resource to facilitate smoking cessation treatment. In particular, while there was some increase in reported awareness and usage of the PHS Guidelines, few physicians reported implementing them into their clinical practice. Moreover, the rate of always ASKING about a patient’s smoking status declined 10 percentage points from 2002 and there was no change in the rate of physicians who have a system to screen for smoking status. That now only three out of four physicians are always ASKING is of great concern since, which was noted previously,<sup>21</sup> if providers are not ASKING if their patients smoke they are not likely to refer them to NJ Quit Services. This demonstrates a strong need for system-based interventions to incorporate ASKING about tobacco use as part of the vital signs at every visit, as recommended by the PHS Guidelines.

The reported rates of ADVISING, ASSESSING, ASSISTING, and ARRANGING remained unchanged from 2002. The unchanged rate of ASSISTING is puzzling since awareness of the NJ Quit Services has increased. This suggests that NJ Quit Services have become more visible to physicians in New Jersey but has not yet translated into changing practices. Moreover, despite new and effective medications becoming available, ASSISTING by discussing medication options hasn’t changed since 2002. As such, there is still a need for educational interventions to change physician practices. Interventions should aim to increase the rates of ASSISTING with a patient’s quit attempt and ARRANGING follow-up, as well as emphasize increasing referrals to evidence-based resources available in New Jersey. Moreover, physicians should be encouraged to incorporate system-based approaches to adhering to the 5 A’s, specifically documenting smoking status *and* facilitating referrals to NJ Quit Services. Such a systems based approach could improve adherence to the PHS guidelines without major interruptions in current clinical practice.

## **Educate physicians about the effectiveness of available treatments and correct misperceptions about combination therapies**

Providers were generally confident in their ability to treat tobacco dependence with pharmacological aids. However, the perceived effectiveness of the various options does not accurately reflect the current scientific literature. For example, Varenicline and Bupropion were much more likely than NRT and NRT combination therapy to be perceived as effective. While both Varenicline and Bupropion are effective therapies, NRT combination therapy has shown to be as effective as Varenicline.<sup>14,22</sup> Moreover, the fact that over 80% perceived combination Varenicline and NRT therapy to be effective shows a particular lack of knowledge of the recommendation for use. Due to their respective mechanisms of action (NRT provides nicotine to the patient while Varenicline blocks the nicotine receptors), neither the PHS Guidelines nor Pfizer, Inc. recommend combining Varenicline with NRT.<sup>14,23</sup>

This signals a need to educate providers about the effectiveness of the various pharmacological treatment options currently available and the method of use that are most effective. Indeed, only one-fourth of physicians reported having received training in smoking cessation treatment. The CTCP could link with professional organizations and health-related schools to support more education on tobacco dependence treatment. However, improving provider education and delivery of tobacco dependence treatment to patients is a long-term outcome that may take years to achieve. Providers can offer assistance to patients immediately by referring them to any one of the state's Quit Services, where trained cessation counselors can help them quit.

## **Reduce the perceived barriers to providing treatment by raising awareness and educating physicians of Quit Services**

The high rate of perceived barriers to providing smoking cessation treatment is also discouraging. Over three-fourths of providers reported patient resistance to cessation messages as a barrier to providing tobacco dependence treatment. Previous studies have established that a majority of smokers want to quit<sup>20</sup> and many smokers report higher satisfaction with the visit when their physicians' advise them to quit.<sup>9-13</sup> The perception of patient resistance may reflect providers' beliefs that smokers are not interested in quitting. Cessation materials and resources targeted at health care providers should dispel the commonly held myths by providers that smokers are unwilling to quit.

Many providers also identify limited reimbursement and cost to patients as a significant barrier to treatment. Cost should not be perceived as a barrier to tobacco cessation among patients and providers in New Jersey. NJ Quitline and NJ Quitnet are still free services, and NJ Quitcenters are available to residents on a sliding fee scale based on income. Additionally, some Quitcenters provide NRT at reduced or no cost to clients. Promotional materials for these services should clearly state the fee for services to lower cost as perceived barriers for treatment.

Awareness of Quit Services has increased since 2002, and referral rates are high among those who were aware of a respective service. This is promising as these services have empirical support. While Quitnet has limited evidence<sup>14</sup>, both Quitline and Quitcenters have reported cessation rates higher than the national average among those who do not receive treatment (4%-7%).<sup>14,24</sup> Between one-fourth and one-third of smokers in New Jersey who used Quitline reported not smoking after 6 months.<sup>25,26</sup> This is similar to the outcomes in other states.<sup>14</sup> Similarly, data from the NJ Quitcenters show quit rates of 24.4% among a highly addicted population.<sup>27</sup> Moreover, a low proportion of providers perceived telephone counseling to be an effective treatment option. Also, while a high rate of providers perceived treatment programs with group counseling (like those available at Quitcenters) to be effective, awareness of this service remained the lowest of all CTCP cessation services. As such, there is a need to raise awareness of the services and educate providers about their respective empirical evidence. Direct marketing and other educational services targeted at providers may raise awareness. Studies show that smokers are more likely to follow the advice of their provider to seek treatment for their tobacco dependence.<sup>9</sup> Lastly, referral rates are still relatively low among those who are aware of services. One way to potentially increase referral rates to Quitcenters is to publish a list of physicians who have referred patients in the past. This may provide physicians with incentive to refer patients to a Quitcenter.

## TECHNICAL NOTES

### Instrument

The 2008 New Jersey Health Care Provider tobacco Survey (NJHCPTS) was based on the 2002 NJHCPTS, and is a self-administered instrument designed to meet the specific needs of the CTCP. The 2008 NJHCPTS addressed seven content areas: tobacco dependence treatment practices, barriers to treatment, attitudes towards cessation, perceived effectiveness of treatment, self-efficacy, awareness of clinical guidelines, and awareness and referral to CTCP's Quit services. Some changes in wording and response scales were made to reflect advances in survey research methodology and some content was changed to reflect current interests of the CTCP. As such, comparisons between 2002 and 2008 should be interpreted with caution as we cannot rule out changes due to methodological factors.

### Sample

The NJHCPTS utilized a stratified random sample design of Family Practice and Internal Medicine Physicians in the state of New Jersey. The sampling frame for physicians in New Jersey was obtained from the American Medical Association's (AMA) master list of licensed physicians. The AMA master list is not limited to AMA members and is acknowledged to be the most complete listing of physicians' names, addresses, and specialties. A simple random sample was taken within each specialty, and to ensure enough sample members to make group comparisons Family Practice physicians were oversampled. We sampled 900 of the 1,490 Family Medicine physicians in the sampling frame and 2,100 of the 5,021 Internal Medicine physicians for a total sample of 3,000.

Of the 3,000 sampled physicians, 1,475 responded and 427 were identified as ineligible due to a variety of reasons (e.g., retired, no direct patient care, revoked license or relocation). We achieved an overall response rate of 57.3% - 63.8% among Family Medicine specialists and 54.5% among Internal Medicine specialists. We were unable to determine specialty for 299 of the sample in the dataset. We present unweighted estimates in this report. Because we drew a stratified simple random sample, unweighted and weighted point estimates are equal within strata. Stratified random sampling tends to produce more efficient estimates so standard errors will be larger in the unweighted estimates for most variables. As such, comparisons by specialty using unweighted data are more conservative. All analyses were rerun using sampling weights adjusting for the varying probabilities of selection and non-response, and, due to the high sampling rate, a finite population correction. No substantive or statistically significant differences were observed between these analyses.

### Analysis

We used STATA 10 SE for all analyses. Differences between estimates are considered statistically significant at  $p \leq 0.05$  if the 95% confidence intervals do not overlap.

## GLOSSARY

**CTCP:** The Comprehensive Tobacco Control Program, created using MSA funds and launched in New Jersey in 2000, is a program of the New Jersey Department of Health and Senior Services. Its mission is to decrease deaths, sickness and disability among New Jersey residents who use tobacco or are exposed to environmental tobacco smoke.

**DHSS:** Department of Health and Senior Services, State of New Jersey.

**NHIS:** The National Health Interview Survey is conducted by the National Center for Health Statistics to collect data on a broad array of health topics through a statistically representative sample of all US households via face-to-face personal household interviews.

**NJ Quitnet:** The New Jersey Quitnet ([www.njquitnet.com](http://www.njquitnet.com)) is a free online resource for smokers. The website offers peer support groups and trained counselors, 24 hours a day, as well as a quitting calendar, quitting tools and strategies, and a directory of local treatment options.

**NJ Quitline:** The New Jersey Quitline (1-866-NJSTOPS) is a toll-free telephone based service for smokers that offers one-on-one counseling in 26 languages. Counselors are trained by the American Cancer Society to provide individualized treatment plans, ongoing support and follow-up.

**NJ Quitcenters:** The New Jersey Quitcenters offer smokers face-to-face counseling in a clinic setting. The Quitcenters offer individual and group therapy as well as reduced-cost nicotine replacement therapy.

**NJATS:** The New Jersey Adult Tobacco Survey is a population-based survey designed to examine the tobacco behavior, knowledge, and attitudes of New Jersey adults. The survey was conducted in 2000, 2001, 2002, 2005, 2006, and 2008.

**NJYTS:** The New Jersey Youth Tobacco Survey is a component of CDC's Youth Tobacco Surveillance and Evaluation System and monitors tobacco use behavior among middle and high school students. The baseline survey was conducted in 1999, 2001, 2004, and 2006. The NJYTS is currently in the field.

**UMDNJ:** The University of Medicine & Dentistry of New Jersey is the state's university of the health sciences and includes eight schools on five campuses.

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