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Pilot Mobile Smoking Cessation Program Reaches Underserved — Increases Access

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Abstract: *This paper describes a pilot mobile smoking cessation program that occurred between 2007 and 2009 across two suburban New York counties, serving 1,263 individuals. The program was designed and carried out with three objectives: (a) to assess and reduce a potential service disparity faced by adult smokers in heavily disadvantaged communities—including people marginalized by homelessness, economic distress, lack of transportation, alcoholism / drug addiction, mental illness, and/or HIV; (b) to use evidence-based methods to promote smoking cessation and reduction among such adults in 14 specific low-income Long Island, NY areas; (c) to evaluate the impact and effectiveness of the program's mobile service modality. Results of this pilot program show that meaningful percentages of the target population had: (1) never encountered a smoking cessation message prior to engagement with this mobile program (38%); (2) a demonstrated desire to quit smoking despite the heightened stresses in their lives that other people don't face, and (3) a demonstrated ability to quit or reduce smoking when given help in a form (including mobile service) that works for them. This paper concludes that Stakeholders and Policymakers in this and/or similar jurisdications would benefit from uniting to fund and design an extended mobile service delivery and data-gathering project that serves a greater number of at-risk / multi-disadvantaged people, while seeking to quantify the financial savings to the community that results from helping disadvantaged people to: (1) quit smoking and (2) become linked to affordable doctors for regular check-ups. This pilot program demonstrated a positive social justice impact and suggests a possible parallel positive financial impact on the community worthy of exploration.*

1. Introduction

This paper describes a pilot mobile smoking cessation program that occurred between 2007 and 2009 across Nassau and Suffolk Counties in suburban New York, serving 1,263 individuals. The program, "Long Island Quits"—run by the nonprofit Long Island Network of Community Services

(LINCS)—was designed and carried out with three objectives: (1) to assess and reduce a potential service disparity faced by adult smokers in heavily disadvantaged communities—including people marginalized by homelessness, economic distress, lack of transportation, alcoholism / drug addiction, mental illness, and/or HIV; (2) to use evidence-based methods to promote smoking cessation and reduction among such adults in 14 specific low-income Long Island, NY areas; (3) to evaluate the impact and effectiveness of the program's mobile service modality.

Context / Funding source:

This pilot program was funded by the New York State Tobacco Control Program at $150,000 per year as a client outreach and service project.

Method:

This program leveraged and adapted best practices and evidence-based smoking cessation procedures from: (1) state-of-the-art, fixed-location smoking cessation programs consistent with guidance from the Centers for Disease Control and Prevention, New York State Department of Health, and the American Lung Association; and (2) traditional smoking cessation media campaigns.

The signature adaptation of this program is the unprecedented provision of 'we come to you' smoking cessation services through the use of mobile service personnel and proactive field outreach to marginalized suburban smokers in high-need localities who would otherwise remain unserved or even unnoticed.

The theortical underpinnings of the service provided represent a modern-day nexus of the Health Belief Model (Hochbaum, Kegels, & Rosenstock, 1952) and the Transtheoretical "Stages of Change" Model (Prochaska, 1979; Prochaska & DiClemente, 1983; Prochaska, DiClemente, & Norcross, 1993) [Please see Figure 1] in conjunction with CDC-promoted 21st century smoking cessation protocols. As

such, the program's documented successes were enacted by building trust and then bringing credible information about the particular health threats of smoking—and benefits of quitting—to the encountered multi-disadvantaged individuals. These individuals then, depending on their assessed "readiness to quit" and/or their particular current "stage of change" (with potentials ranging from 'pre-contemplation' to 'contemplation', to 'preparation,' to 'action,' 'relapse,' or 'maintenance'), were offered—by the LI Quits Health Educator—some stage-appropriate education, literature, and/or cessation counseling to help each client move toward quitting smoking and staying quit.

Over a 23-month period between March 1, 2007 and January 31, 2009, the Long Island Quits project used a trained Health Educator / Smoking Cessation Counselor and a motorized office / r.v. to physically bring smoking cessation information and education—with a more in-depth on-the-spot opportunity for one-on-one smoking cessation counseling—to 1,263 multi-disadvantaged individuals who smoke across 14 economically distressed communities in New York's Nassau and Suffolk Counties. The targeted localities were selected based on high vulnerability indicated by a combination of: (1) The Community Need Index Report Series for Nassau and Suffolk Counties published by the New York State Department of Health (2006); and (2) the LINCS project team's own decade-long local experience reaching multi-disadvantaged individuals in these areas with other successful mobile outreach services (e.g., HIV counseling, testing, and referral; substance abuse assessments and linkage to substance abuse treatment; linkage to nutrition and social services; and other services).

Individual smokers selected for introduction to smoking cessation services were those anticipated least likely to: (1) know about and/or access fixed location smoking cessation services; and/or (2) have encountered traditional media smoking cessation messages at the same rate as other Long Island residents. Toward that end, individuals were targeted for outreach based on prior service encounters in these same localities with individuals who: exhibited or self-reported homelessness, mental illness,

substance abuse (beyond tobacco), HIV+ status, limited or no means of transportation, and/or severe economic hardship. For the purposes of this program, smokers were identified as 'smokers' through visual observation of their smoking and/or through verbal inquiry.

"Mobile media campaign" encounters of this program were initiated in strategic locations where transient smokers frequently were known to go individually or to congregate: near homeless shelters, soup kitchens, food pantries, social service buildings, parole offices, parking lots, alleys, parks, and low-income residential streets and avenues.

For the purposes of this pilot project, an "encounter" was defined as an instance of the Health Educator / Smoking Cessation Counselor introducing herself to a smoker in the target localities and receiving permission to talk to the person about the topic of smoking and smoking cessation.

Of the 1,263 individuals encountered, 985 agreed to receive an on-the-spot deeper education session, lasting approximately five or more minutes and/or including a verbal explanation of CDC-consistent smoking cessation literature that the client could take home.

In addition, a total of 88 of the individuals encountered agreed to participate in an approximately 20-minute initial smoking cessation counseling session in which, among other collaborative activities, the client worked with the counselor to set his or her own target quit date for smoking cigarettes. Each counseled client was asked to fill out a survey and was offered the opportunity for follow-up counseling.

Following are details of the methods of this pilot project:

1. Targeted Mobile Media Campaign:

Smoking cessation media campaigns have garnered recognition as a recommended best practice by the Centers for Disease Control and Prevention (1999), the

U.S. Surgeon General's office (2000 U.S. Surgeon General's Report, Reducing Tobacco Use) , and the World Health Organization (2001). In summary:

A growing number of tobacco control programs around the world have conducted cessation-focused mass media campaigns as part of their comprehensive efforts to reduce tobacco use, with some of these campaigns in the field for many years.... Evaluations of these [mass-media] cessation campaign efforts... have indicated that cessation campaigns can indeed build knowledge, change key beliefs and attitudes, increase calls to quit lines, and contribute (along with other tobacco control program elements) to overall decreases in tobacco consumption and increases in cessation among smokers. (Gutierrez, 2005)

Simultaneously, significant questions linger about whether socio-economically disadvantaged individuals are impacted by these mass media campaigns—or even exposed to such campaigns—in a manner equal to members of other socio-economic classes. (Niederdeepe, 2008)

The LI Quits program intergrates the messages of mass media smoking cessation campaigns with a high level of mobile, culturally sensitive personal delivery of the media messages. One thousand two hundred sixty-three (1,263) smokers participating in local HIV+ service programs, smokers engaged in or considering substance abuse programs, and/or smokers found in low-income spots within the 14 target localities received a key variation of an effective 'mass' media campaign; they received a *targeted*, *mobile* media campaign: a brief face-to-face introduction to the risks of smoking along with approved educational information—authored or endorsed by the Centers For Disease Control, the New York State Department of Health (NYSDOH), the American Lung Association, and/or the Substance Abuse and Mental Health Services Administration (SAMHSA)—indicating the benefits of reducing/quitting smoking and calling for cessation.

LI Quits educated and motivated this at-need community by delivering face-to-face encouragement

tailored for this population and free resources that would never otherwise reach these smokers because of the complexity of their disadvantages. Hard-copy resources included a motivating array of awareness-builders such as the colorful, 3-D, and engaging "*Break Loose! The Truth About Cigarettes—A Pack of Facts to Help You Stop Smoking*" die-cut pamphlet created by the Tobacco Control Program at Roswell Park Cancer Insitutue and the American Lung Association's upbeat and supportive "*Facts About How You Can Stop Smoking For Good*" brochure (ALA Item #0485C). All resources that were distributed through this LI Quits initiative were clearly emblazoned with the New York State Smokers' QuitLine phone number: 1-866-697-8487 and the agency LINCS' own number. The Health Educator / Smoking Cessation Counselor verbally emphasized that the smoking cessation hotline was open to help 7 days/week.

This initiative provided alternatives to traditional broadcast messages on television, radio, and in print by providing a better mechanism to meet local needs and capabilities of the targeted population. The primary goal was to blanket multi-disadvantaged individuals living in high-risk communities with literature by getting valuable education and resources into the hands of the people who need them the most and who may not have ever encountered smoking cessation messages before.

2. Behavioral Counseling: Eighty-eight (88) of the individuals that we approached in this intervention voluntarily received, in our mobile or traditional offices, a tailored face-to-face individual counseling session, lasting approximately 20 minutes, plus a separate opportunity to watch one of several effective, compelling videos including *"Health Management: Smoking Cessation*" (19 min.) produced by the American Heart Association; "*Tobacco: Fatal Addiction*" (25-min.) produced by CorVision, and the 11-minute "*Fumigation: A Short Video about People with HIV Who Smoke Cigarettes*," created by The Lesbian, Gay, Bisexual and Transgender Community Center in New York City.

LI Quits counseling sessions interactively presented to clients: (1) the deadly consequences of smoking; (2) personal testimony about the benefits—and difficulties—of quitting smoking from those who have successfully done so; (3) facts about the physical, emotional, and psychological effects of smoking and nicotine withdrawal; and (4) an understanding of how quitting will have positive effects on many facets of life.

3. Specific client activities supported and catalyzed by LI Quits counselling sessions included: setting a quit date, telling others of the plan to quit smoking, anticipating and planning for challenges, discussing medicines that help with withdrawal, and advocating that clients talk to their doctors. Each counseling session also sensitively gathered and promoted voluntary sharing of thought-provoking responses to "Why do you smoke?" "Have you tried quitting and failed before?" "What role do cigarettes play in your life?" Every session concluded with a structured series of next steps that participants could take, including ways to receive help via the 1-866-NY-QUITS hotline and opportunities with Nassau and Suffolk County's smoking cessation programs.

4. Follow-up Reminder System w/ Behavioral Counseling: Thirty-five (35) of the most committed individuals that we counselled chose to receive an expanded range of cessation services, including reinforcing, individualized, follow-up behavioral counseling by LI Quits (up to 4 times per client) and—whenever appropriate—direct, immediate supervised referral to Nassau County's or Suffolk County's smoking cessation programs, the latter of which ("*Learn To Be Tobacco-Free*") was distinguished by its unparalleled ability to offer free nicotine replacement therapy to any county resident who needs it. Specific topics of these sessions included: managing cravings, withdrawal symptoms, 'what to do if you slip', and 'further developing your support system'. The LI Quits pilot smoking cessation service educated, motivated, and provided cessation tools—and 7 day/week access to New York State's Quit Line—to a previously largely un-reached population.

5. Follow-up Survey and Measurement: LI Quits consistenly encouraged counselled participants to participate in follow-up survey activity. One hope of this program was that clients who were counselled would, upon follow-up months later, report having quit smoking.

2. Outcomes/Results and Discussion

Regarding this program's social justice goal of reducing disparity of **access** to smoking cessation information, education, counseling, and/or treatment resources, this project succeeded. Evidence — 1,263 disadvantaged individuals voluntarily agreed to engage in a conversation about smoking cessation. Of these individuals, 483 (38.2%) reported to LI Quits that they had *never* received anti-smoking information before the day of this Long Island Quits encounter. This is an extremely significant finding because it confirms that even in a TV / Internet era, policy makers cannot assume that everyone has access to vital messages about the hazards of smoking and the benefits of quitting. Because this program adapted the evidence-based components of a traditional media campaign and tailored it to a transient, hard-to-reach population, it succeeded at reaching those who otherwise would miss a health-critical message.

Of the 88 transient individuals who participated in the Long Island Quits smoking cessation counseling, 40% made themselves available for—and participated in—at least one follow-up counseling session and survey at least 30 days from the first counseling session, with an average duration of 180 days between intake and their final counseling session. This willingness to follow-up months later on the part of many counseled clients is further evidence of the program's favorable impact on clients, particularly because each such follow-up contact presents another opportunity to help move a client along the continuum of the Stages of Change (Prochaska, 1979) toward quitting or toward maintaining a successful quit status.

Regarding the goal of promoting smoking cessation and reduction among adults: The mean self-reported rate of smoking at intake among the 88 clients participating in the counseling program was 16 cigarettes per day (with a mode of 20 cigarettes, or one pack, per day). The mean self-reported rate of smoking at conclusion among the 40% of counseled clients who voluntarily participated in one or more follow-up counseling sessions was two (2) cigarettes per day (with a mode of zero). Sixty percent (60%) of these follow-up clients had reported quitting entirely by the time of their most recent follow-up counseling session. [Please see Figure 2]. Among the remaining follow-up clients, the mean reduction in cigarettes smoked from baseline to final follow-up was an average of 72%.

On a social investment meter, a grant of $450,000 over three years resulted in bringing 1,263 unduplicated individuals access to smoking cessation resources and encouragement that they likely would have received in few or no other ways. The cost of the program along this metric was approximately $356 per individual served.

A recent study published in the international journal Lung Cancer estimated the average cost of treating a single case of lung cancer (including hospitalization and outpatient office visits) to be $6,520 (U.S.) per month. (Kutikova, 2005). Considering that smoking has been directly linked to a large variety of costly health conditions including lung cancer, cardiovascular disease, chronic obstructive pulmonary disease (COPD), other cancers, and multiple other illnesses, it can be reasonably hypothesized that monies invested in mobile smoking cessation service programs—especially to serve people dependent on public / taxpayer support for their medical care—offer a strong possibility of measurable economic and financial return, in addition to the more visible social return. Further exploration and quantification of such financial impact is encouraged as an area of future study and investment by policymakers.

An equally recognizable benefit of this program: some among the 1,263 individuals served—but not followed-up upon due to their transience and lack of earmarked funds to track them—were likely to have been moved at least one step further along the Transtheoretical Model's Stages of Change scale of readiness to quit [Figure 1] (Prochaska, 1979), and some such un-tracked individuals likely reduced their smoking habit or even quit outright. This is another reason why this grant may in the end have saved New York State far more than it invested.

Further, due to this program's ability to link clients with affordable primary medical care through on-the-spot, proactive referral, clients encountered by this program may be less likely to use costly emergency room facilities as their primary source of medical care and they may be less likely to consume public health resources that are fueled chiefly by taxpayer dollars.

Through one or several dedicated research studies—focused on quantifying the community costs and benefits of mobile smoking cessation programs for the multi-disadvantaged—we will begin to gather quantitative support or rejection of programs like Long Island Quits, which was a success by many qualitative measures and by basic case studies.

3. Qualitative Outcomes: Mini-Case Study

As told in the words of Vanessa Washington, a Health Educator / Cessation Counselor for this LI Quits program:

> *"I met [client's first name, redacted] at a soup kitchen in Wyandanch, while performing street outreach for LI Quits. He was an African American, 53 year-old single father of three children. He was a veteran of the U.S. Army. This client had no debilitating health issues; he was living in a homeless shelter when I encountered him. He was in need of several services.*
>
> *"During my initial encounter and meeting with this client, he stated that he really wanted to stop smoking. I gave him*

educational information and details about the LI Quits program. During this first meeting, we discussed in-depth how long he had been smoking—which was 20 years. The client stated he was unable to afford to purchase the NRT [Nicotine Replacement Therapy] patches. I gave the client a direct referral to the New York State toll-free quit line.

"As part of a counseling session, the client and I then set up a personalized quit plan, and the client set a target date of quitting smoking 30 days from that moment. The client said that he felt encouraged by his three daughters. During this meeting, and in subsequent follow-up contact, he appeared to be very determined to live a healthier lifestyle for his children.

"The client was able to successfully arrange for the receipt of free NRT patches when he reached out to the NYS Quitline. He also used nicotine gum which he subsequently got on his own.

"As of my most recent-follow-up, the client is now smoke-free for over 6 months. He has started exercising, walking, and drinking lots of water.

"I think that the most valuable service that was rendered to this man was compassion, experience, and respect. This man really wanted to do all the right things to make a positive impact on both his life and his children's. I think he just needed a little support and guidance to assist him in reaching his goal to stop smoking. With the stresses that he was dealing with, I was able to refer him for different services which have enhanced his life by giving him more self-esteem and self-worth. He is a different person now because he has self-respect and respect of his family, which was most important to him." (V. Washington, personal communication, September 12, 2008)

4. State of the Art

The LI Quits pilot program applied evidence-based smoking cessation techniques with a targeted adaptation that makes it unique. The evidence basis made the smoking reduction and cessation efforts likely to succeed. The

adaptation made the program able to reach those who were not previously reachable.

4.1 Literature Review

The problem of smoking and our target population was clearly established in the literature and research that we drew upon before undertaking the pilot program.

A 2004 published report finds very high correlation between *homelessness* and tobacco use, with 90% of homeless people who sleep on the streets and 68% of homeless who sleep in shelters routinely smoking tobacco (Crosier, 2004). While a U.S. guideline published by the American Psychiatric Association recommends that patients with mental illness be treated for smoking addiction (1996), and the 2004 smoking study has conclusively determined that poor/homeless smokers want to quit as much as other social classes (Crosier, 2004), a group of reports this decade conclude that the homeless and mentally ill are much less likely than the general population to be offered smoking cessation services (McNeil, 2004) (Osborne, 2001) (Le Fevre, 2001). This speaks directly to the deficiency in access that a pilot program like LI Quits sought to address.

Studies in both the U.S. and England conclusively find that people with *mental illness* are more than twice as likely (McNeil, 2004) to smoke as those with no neurotic disorders. The Journal of the American Medical Association published a study concluding that persons with mental illness are about twice as likely to smoke as other persons (Lasser, 2000).

Likewise, a New York State Department of Health—AIDS Institute-led in-person meeting on September 17, 2004 at 5 Penn Plaza in New York City reported that **HIV+** smokers, on average, want to quit as much as people without HIV — both about 70%; however, public perception often fails to acknowledge this fact and/or dismissively 'writes off' people with HIV as a 'lost cause' for targeted smoking cessation activity because of a widespread false

perception that "smoking must be the least of their concerns if they have HIV."

Many facts indicate a reality quite to the contrary: with higher-quality life-prolonging medications now available for people with HIV, people with HIV are now more likely to die from smoking-related illness than from HIV-related disease (Murray, 2004). Since the advent of HAART (Highly Active Anti-Retroviral Therapy) especially, there have been huge increases in cancers of the larynx and oropharynx among patients with HIV. These cancers in HIV+ patients (as in HIV-) have been directly linked to smoking (Murray, 2004). Other cancers linked to smoking, such as prostate cancer, have now *also* been increasing steadily among the HIV+ population (Murray, 2004). People with HIV are dying much more now from illnesses **not** related to HIV (71.7%) than they were in 1996 (45.7%) (Murray, 2004). Smoking-related illnesses are now the biggest threat to the lives and quality of life to those who are HIV+ (Murray, 2004).

As a final consideration of need and targeting, the National Household Survey on Drug Abuse reports a high correlation between income level and tobacco use, citing that in 1999 and 2000, past-month use of tobacco products was more common among persons from families with *lower incomes* than persons from families with higher incomes.

Data About Solutions/Successful Approaches:

Current smoking literature acknowledges that it generally takes people 5-6 distinct attempts to quit smoking when they successfully do so. People who attempt to quit 'cold turkey' with no assistance have an approximately 11% success rate (Murray, 2004). People who attempt to quit with 'Quit Line' and other support double that success rate to approximately 22% (Murray, 2004). And people who participate in specific New York State- and American Legacy Foundation-funded interventions are beginning to see enduring successful quit rates in the **40%** to **85%** range (Murray, 2004), varying within that range depending on the interaction of the specific programs with the specific targeted populations.

LINCS—in the pilot LI Quits intervention—sought and expected to improve overall wellness among the targeted populations in two distinct ways: (1) the program *increased motivation* and intention to quit among the population; and (2) the program strived to *elevate the success rate* of quitting (cessation) *significantly* above the standard 'cold turkey' and 'QuitLine-only' rates of success. The program thereby added value directly to each of the special populations that were targeted in this initiative, each in a culturally sensitive and highly adapted/tailored manner.

The pilot program increased motivation to quit based on evidence-based practices, but with innovative adaptations. The predominant academic/scholarly approach that successfully drove many of LINCS' outreach and health-and-wellness methodologies and efforts (including this LI Quits pilot) is the Health Belief Model (Hochbaum, Kegels, & Rosenstock, 1952) which for years has predicted/affirmed that individuals are more likely to reduce threats to their health when their *awareness* about particular**,** credible health consequences is maximized; this model indicates that any person's perception of a personal health behavior threat (lung cancer, throat cancer, or emphysema, for example) is influenced by at least three factors: (1) the person's general interest in and concern about *health*; (2) specific beliefs about *vulnerability* to a particular health threat (such as lung cancer, throat cancer, or emphysema); and (3) beliefs about the consequences of the health problem. Individuals are most likely to undertake recommended preventive health action when their attention is shifted to these matters and when they are supplied with *credible* information. This pilot program enabled multi-disadvantaged individuals to shift individual attention to tobacco use, smoking, and related diseases (and also included those consequences faced by friends and family of smokers through second-hand smoke), by providing nonjudgmental, credible information.

5. Conclusion

This project successfully demonstrated a viable way to reach transient individuals living in disadvantaged communities with smoking cessation messages, in many cases for the first time in their lives. It adapted a traditional media campaign by making it mobile, in-person, culturally relevant, and instantly accessible. In addition to providing increased access and reduced disparity of smoking cessation services, the program further succeeded by reducing smoking habits (and potentially related disease, disability, and death) among a measurable percentage of the encountered individuals in southeastern New York.

Further, this innovative project—by virtue of its mobile components—represents a creative implementation in the field of tobacco control and has strong potential to act as a proof-of-concept model for future projects in other low-income suburban regions outside of major cities. Quantifying the financial benefits of a program like this is a subject worthy of future research. Policy-makers, stakeholders, and researchers are encouraged to consider both the social justice and financial/economic benefits of supporting programs like LI Quits and of finding new ways to quantify and further recognize the benefits.

References

American Psychiatric Association (1996) "Practice Guideline for The Treatment of Patients with Nicotine Dependence". American Journal of Psychiatry, vol. 153, 1-31.

Centers for Disease Control and Prevention. (1999) "Best Practices for Comprehensive Tobacco Control Programs."

Crosier, A. (2004). "Homelessness, Smoking and Health," Health Development Agency. England. Adam Crosier. Page 3

Gutierrez, K. (2005). "Global Dialogue for Effective Stop Smoking Campaigns," Concept Paper 10/18/2005. Available at: Gutierrez@globalink.org or 651-330-5293.

"Health Belief Model" (1952). Hochbaum, G., Kegels, S. & Rosenstock, I. developed while working in the U.S. Public Health Services.

Kutikova, L., Bowman, L., Chang, S., Long S., Obasaju, C., & Crown W. (2005)."The economic burden of lung cancer and the associated costs of treatment failure in the United States." Lung Cancer, Volume 50, Issue 2, Pages 143-154

Lasser, K., Boyd, J.W., Woolhandler, S., Himmelstein, D.U., McCormick, D., & Bor, D.H. (2000) "Smoking and Mental Illiness, A Population –Based Prevalence Study." JAMA November 22/29, 2000 vol. 284, No. 20, 2606-2610

Lefevre, P.D. (2001) "Improving the Physical Health of Patients with Schizophrenia." Scottish Medical Journal. Feb. 2001; 46(1):11-3. Royal Cornhill Hospital, Cornhill Road, Aberdeen, AB25 2ZH

McNeil, A. (2004). "Smoking and Patients with Mental Health Problems." Health Development Agnecy England. Pages 3-6.

Murray, C. (2004). Data presented in-person by Christopher Murray of the Lesbian, Gay, Bisexual, Transgender Community (LGBT) on 13th Street in Manhattan, New York at the New York State Department of Health AIDS Institute at 5 Penn Plaza, New York City on September 17, 2004.

New York State Department of Health, AIDS Institute. The Community Need Index Report Series for Nassau / Suffolk Region (2006 Edition). Albany, New York: New York State Department of Health.

Niederdeepe J., Kuangb, X., Crockc, B.& Skeltond, A.; (2008) "Media campaigns to promote smoking cessation among socioeconomically disadvantaged populations: what do we know, what do we need to learn, and what should we do now?" Social Science and Medicine, 67(9), November 2008, pp.1343-1355

Osborn, D. P. J. (2001) "The poor physical health of people with mental illness." Western Journal of Medicine, 2001 November; 175(5): 329–332.

Prochaska, J. O. (1979). Systems of psychotherapy: A transtheoretical analysis. Homewood. Illinois, Dorsey Press.

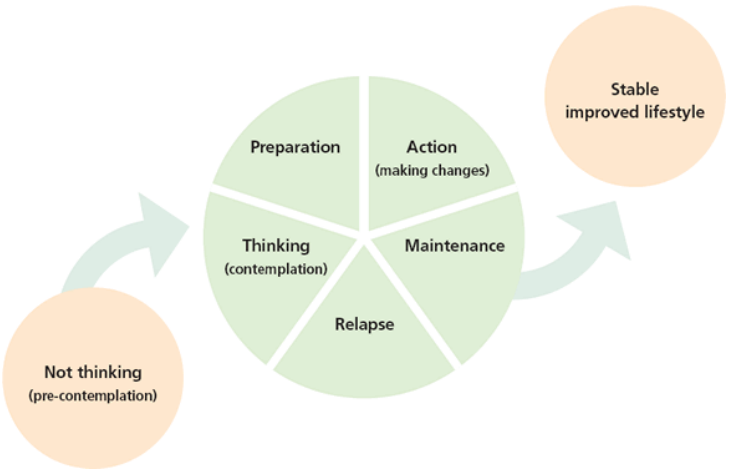
Prochaska, J.O. & DiClemente,C. C. (1983). "Stages and processes of self-change of smoking: Toward an integrative model of change." Journal of Consulting and Clinical Psychology. Vol 51(3), Jun 1983, 390-395.

Prochaska, J.O., DiClemente, C. C, & Norcross, J.C. (1993) "In Search of How People Change: Applications to Addictive Behaviors." Journal of Addictions Nursing, Volume 5, Issue 1 Spring 1993, pages 2 - 16

Tobacco Control Program at Roswell Cancer Institute in Buffalo, NY. (Date unknown) "*Break Loose! The Truth About Cigarettes—A Pack of Facts to Help You Stop Smoking*"" retrieved February 17, 2009 from http://www.health.state.ny.us/prevention/tobacco_control/docs/break_loose.pdf

United States Department of Health and Human Services, Substance Abuse and Mental Health Services Administration (2000). "National Household Survey on Drug Use and Health" retrieved 8th of February, 2009 from http://www.oas.samhsa.gov/NHSDA/2kNHSDA/2knhsda.htm

Figure 1
Transtheoretical "Stages of Change" Model



Source:
Working In Partnership Program (WiPP). United Kingdom
http://www.wipp.nhs.uk/tools_scfp/img/participants_hbook_activity2_model.gif (2/1/2009)
chaired by Chris Town, with representatives from the Department of Health, the British Medical Association, NHS Direct, the Royal College of Nursing and The Patients Association

Drawing upon model by James O. Prochaska (1979).