Public Health Detailing: A Strategy to Improve the Delivery of Clinical Preventive Services in New York City

Kelly Larson, MPH[a]
Joslyn Levy, MPH[b]
Martha G. Rome, MPH[c]
Thomas D. Matte, MD, MPH[d]
Lynn D. Silver, MD, MPH[e]
Thomas R. Frieden, MD, MPH[f]

SYNOPSIS

To promote use of essential clinical preventive services, the New York City Department of Health and Mental Hygiene developed the Public Health Detailing Program, a primary care provider outreach initiative modeled on pharmaceutical detailing. Department representatives conducted topical campaigns, making unscheduled visits to health care practices and meeting with providers and office staff members. Representatives distributed "action kits" containing practice tools, provider information, and patient education materials; nicotine replacement therapy was distributed during the smoking cessation campaign.

More than 2,500 interactions with practice staff members were completed by six health department representatives at approximately 200 sites. Physician visits lasted 10 minutes or longer, and by provider self-report, use of office systems for prevention and adherence to recommended practices increased.

Public health detailing is an effective method of reaching providers to deliver key prevention messages, feasible for public health agencies and acceptable to practices. The effectiveness of this intervention in improving clinical prevention services requires further evaluation.

[a]Public Health Detailing Program, New York City Department of Health and Mental Hygiene, New York, NY

[b]Quality Improvement, New York City Department of Health and Mental Hygiene, New York, NY

[c]Clinical Systems Improvement, New York City Department of Health and Mental Hygiene, New York, NY

[d]Development and Evaluation, Division of Health Promotion and Disease Prevention, New York City Department of Health and Mental Hygiene, New York, NY

[e]Bureau of Chronic Disease Prevention and Control, New York City Department of Health and Mental Hygiene, New York, NY

[f]Department of Health and Mental Hygiene, New York, NY

Address correspondence to: Kelly Larson, MPH, Public Health Detailing Program, New York City Dept. of Health and Mental Hygiene, 2 Lafayette St., 20th Flr., CN 46, New York, NY 10007; tel. 212-341-0161; fax 212-676-2161; e-mail <klarson@health.nyc.gov>.

©2006 Association of Schools of Public Health

The leading causes of illness, disability, and death in New York City are largely preventable. While disease prevention has generally been a longstanding focus of public health agencies, relatively little effort has been directed at supporting the delivery of preventive services in the clinical setting. Working with community providers to enhance the provision of preventive services could both strengthen the relationship between the public health and health care communities and contribute significantly to the attainment of *Healthy People 2010* goals, such as increasing the proportion of persons appropriately counseled about health behaviors and reducing hospitalization rates for three ambulatory-care-sensitive conditions—pediatric asthma, uncontrolled diabetes, and immunization-preventable pneumonia and influenza.[1] The potential reach of such an effort is great, given the large numbers of doctor visits per year—even in disadvantaged communities. The mean annual number of ambulatory care visits is 7.1—5.6 and 6.0 for blacks and Hispanics, respectively, providing ample opportunity for clinicians to deliver preventive services.[2]

Influencing physician practice through one-on-one visits or "detailing" is a well known and successful marketing strategy used by pharmaceutical manufacturers. "Academic detailing," which utilizes the behavior change strategies of pharmaceutical detailing, has proven effective in improving provider practices in areas ranging from diabetes and asthma to otitis media and acute bronchitis.[3]

In 2003, the New York City Department of Health and Mental Hygiene (DOHMH) launched the Public Health Detailing Program to promote essential preventive and disease management practices in high mortality areas in New York City. Drawing on evidence that gaps in provider knowledge and the absence of office systems contribute to suboptimal care, this DOHMH program was designed to address these and other issues deemed relevant to care delivery.[4]

This article outlines the development of public health detailing strategies and our implementation experience for the first three campaigns.

METHODS

The DOHMH sought to adapt a successful private-sector marketing strategy and draw on its own "brand" strength as a technical expert agency with no vested interests. While the DOHMH has promoted best clinical practices in its *City Health Information* bulletins, mailed to New York City's licensed health care practitioners for more than 20 years, and has ample expertise in the design and implementation of public health interventions, experience in one-on-one marketing was lacking. A partnership with Pfizer Inc.'s Global Learning and Development group (Pfizer Inc.) allowed us to draw on a pharmaceutical company's expertise in detailing.

Practice site identification

The DOHMH piloted the program in three high-need neighborhoods: East and Central Harlem, Central Brooklyn, and the South and East Bronx (Figure 1). These communities have, on average, the city's highest rates of risk behaviors, morbidity, and mortality, and the lowest treatment rates for a range of conditions.[5]

Initial listings of health care sites were compiled for each of the three geographic areas using information provided by DOHMH programs, local directories, block-by-block canvassing, and telephone surveys. Sites included solo and group practices, community health centers, free-standing ambulatory care centers, and hospital outpatient departments. By the end of the third campaign, 202 sites had been identified in the three neighborhoods. These sites are believed to represent the majority of adult or family practice settings in these three communities.

Topic selection and key messages

The Public Health Detailing Program was organized around three-month outreach campaigns, each

Figure 1. Public Health Detailing neighborhoods: New York City

targeting a specific clinical topic addressed by existing DOHMH programs. Considerations in selecting detailing topics included relative need based on most recent New York City data on health risks, morbidity, and mortality; and the availability of cost-effective interventions. Our initial campaigns, conducted between September 2003 and July 2004, focused on influenza vaccination, colon cancer screening, and smoking cessation.

Each campaign revolved around a limited number of key messages, rather than a full set of guidelines. These carefully crafted messages identified specific DOHMH recommendations to close the gap between actual and best practice. In some instances, the local recommendation was more stringent than the national standard. For example, on the basis of local data and available information, the DOHMH recently recommended colonoscopy as the preferred screening method for colon cancer, with Fecal Occult Blood Testing (FOBT) as an acceptable alternative for patients unwilling or unable to undergo colonoscopy.[6] Figure 2 describes the need and rationale for the three campaigns, along with corresponding sets of key messages.

Action kits

A detailing "action kit" (Figures 3 and 4) was developed for each campaign. Kits were designed to have the look and feel of a commercially developed product so as to compete with private industry materials. Attractively packaged, each kit contained a standard set of components: (*1*) clinical tools to support delivery of evidence-based care (e.g., flow sheets, reminder stickers, and self-administered questionnaires); (*2*) peer-reviewed journal articles and guidelines on evidence-based care; and (*3*) patient education materials (e.g., brochures, posters, and 2x3-inch "palm cards").

Health department representatives distributed kits at the first visit, although kits remained available both during and after campaigns. Prices ranged from $15 to $20 per kit. All campaigns featured incentive items, ranging from $2 to $3, such as pens, post-it pads, bags, etc. In addition, the smoking cessation campaign was accompanied by the offer of free six-week courses of nicotine replacement therapy.

Detailing visits

Unscheduled visits were made to practice settings where health department representatives asked to meet with

Figure 2. Public Health Detailing: need, rationale, and campaign messages

Campaign topic	*Rationale*[a]	*Amenability to intervention*	*Key campaign messages*
Influenza vaccination	54% of New Yorkers ≥65 years did not receive an influenza vaccine in the past 12 months; approximately 1,000 seniors die annually from influenza.	Immunization of seniors reduces influenza-related mortality.[b]	• Vaccinate adults ≥50 years annually. • Vaccinate other high-risk populations annually.
Colon cancer screening	50% of New Yorkers ≥50 years have never been endoscopically screened (sigmoidoscopy or colonoscopy); more than 1,500 New Yorkers die from colon cancer each year.	Colonoscopy prevents colon cancer by removing precancerous polyps.[c]	• Recommend and arrange colonoscopy for adults ≥50 years old and those with a family history of colon cancer. • Provide acceptable alternative screening method for those unable or unwilling to undergo colonoscopy.
Smoking cessation	1.3 million adult New Yorkers are smokers. Smoking kills 10,000 New Yorkers each year.	7 in 10 smokers want to stop; 63% of New York smokers tried to quit in the past year.[a] Counseling, nicotine replacement therapy, and other medications double quit rates.[d]	• Assess smoking status and readiness to quit at every visit. • Provide brief counseling on cessation. • Prescribe medication to assist patients in becoming tobacco-free.

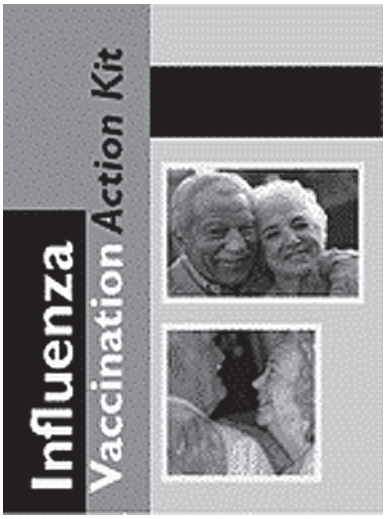
[a]New York City Department of Health and Mental Hygiene. Community health survey 2002 [cited 2006 Jan 11]. Available from: URL: http://www.nyc.gov/html/doh/html/survey/survey.shtml

[b]Nichol KL, Nordin J, Mullooly J, Lask R, Fillbrandt K, Iwane M. Influenza vaccination and reduction in hospitalizations for cardiac disease and stroke among the elderly. N Engl J Med 2003;348:1322-32.

[c]Walsh JM, Terdiman JP. Colorectal cancer screening: scientific review. JAMA 2003;289:1288-96.

[d]Fiore MC, Bailey WC, Cohen SJ, Dorfman SF, Goldstein MG, Gritz ER, et al. Treating tobacco use and dependence: clinical practice guideline. Rockville (MD): Department of Health and Human Services (US), Public Health Service; 2000.

Figure 3. Action kit for influenza vaccination



clinicians, primarily doctors and nurses, and administrative staff. Interactions were intentionally brief, lasting 5 to 10 minutes. The goal was to complete three visits to each person contacted over the course of a 12-week campaign.

During the first visit of each campaign, the representative assessed current practices relevant to the topic and provided a topic overview, emphasizing key messages and suggesting strategies for achieving identified objectives. In keeping with a core principle of pharmaceutical detailing, at the close of each visit, the representative asked the contact to commit to taking a specific action related to the strategies introduced. In subsequent visits, key messages were reinforced and tailored to the level of knowledge, interest, and responsibilities of each contact. During the final visit of each campaign, the practice assessment was readministered.

Staff recruitment and training

Six health department representatives, each assigned to 30 practices, were recruited to visit providers and staff in the three geographic areas. Required qualifications included public health education credentials and/or clinical experience. Previous work experience with medical providers was desirable. Other attributes sought included good interpersonal and verbal communication skills and the ability to work independently.

A two-week training program for department representatives preceded each campaign. The curriculum covered the clinical topic; communication skills, e.g., engaging providers and other clinical staff, rapport building, and strategies for handling questions and objections; and a review of visit documentation procedures. Faculty included experts in the detailing topic, drawn from DOHMH and Pfizer Inc. Pfizer also supplied trainers knowledgeable in pharmaceutical sales. Training sessions were interactive and included discussion, role-playing, and team-building exercises. During the campaign, ongoing training was provided at weekly staff meetings and at periodic field visits.

Program tracking

Each representative maintained a daily visit log containing both quantitative and qualitative information. The number of site visits, individual contacts completed, duration of each interaction, and role of each

Figure 4. Action kit for colon cancer screening

Tools
- Chart stickers: "Is Colon Cancer Screening Needed?"
- Referral form for colonoscopy
- 50th birthday cards inviting patients to schedule a colonoscopy
- Adult preventive care flow sheet

Information for providers
- "Preventing Colon Cancer": *City Health Information* March 2003; Vol. 22; No. 2. (Available from: URL: http://www.nyc.gov/html/doh/downloads/pdf/chi/chi22-2.pdf)
- Colon cancer screening guidelines and answers to FAQs about screening and prevention
- "Colorectal Cancer Screening: Scientific Review" JAMA 2003:289:1288-96. (Evidence-based literature review on current status of colorectal cancer screening)
- Resource listing of low-cost colonoscopy programs

Patient education materials (English and Spanish)
- Patient brochures/easel display: "Get Checked. 50 or older? Get a Colonoscopy to Prevent Colon Cancer" (Available from: URL: http://www.nyc.gov/html/doh/html/cancer/colonoscopy_brochure/index.html)
- Wall posters: "Get Checked"
- Palm cards recommending colonoscopy for people 50 and older

NOTE: All materials are available at http://www.nyc.gov/health/publichealthdetailing

contact (e.g., physician, administrator, nurse, etc.) were recorded, along with brief comments.

Initial and follow-up practice assessments were conducted to identify self-reported practice changes that may have occurred over the course of the campaign. Using standardized questions, the representative ascertained both provider knowledge and the extent to which office systems were used to support care delivery (e.g., computer prompts, patient reminders, standing orders, and chart stickers) at the first and final visits. For this report, chi-square tests were used to test the statistical significance of changes in the distribution of provider responses between the initial and follow-up detailing visit.

After each visit, the representative summarized the content of the visit and rated how well the messages and materials were received using a 1–5 Likert scale (1=hostile, 2=indifferent, 3=receptive, 4=engaging, and 5=intention to adopt). In addition, brief notes recorded barriers to implementation and information about each clinician that would be useful in subsequent visits.

Weekly reports summarized activity by individual representatives, neighborhoods, and campaigns. These reports formed the basis for weekly reviews and highlighted effective detailing approaches.

RESULTS

Interaction length and type

The three initial campaigns, focused on influenza vaccination promotion, colon cancer screening, and smoking cessation, reached more than 90% of all identified practices in the target areas and resulted in more than 2,500 interactions at nearly 200 sites (Table 1). More than 80% of practices received multiple visits. Mean visit duration varied slightly by campaign, from 7 minutes in the influenza vaccine campaign to 12 and 10 minutes, respectively, for the colon cancer screening and smoking cessation campaigns. Each interaction entailed 60 minutes, on average, of non-visit time including visit preparation, travel, in-office wait time, and visit reporting. Representatives completed an average of five interactions per day; about half were with primary care providers such as physicians, nurse practitioners, and physician assistants (52%), while nurses and administrators represented 17% and 15% of interactions, respectively. The remaining 16% included medical assistants and other office staff members. Representatives distributed 1,840 action kits, and during the smoking cessation campaign, distributed a total of 3,500 six-week courses of nicotine replacement therapy.

Practice, policy, and system findings

Clinical staff reported improvements in practice in both the influenza vaccination and colon cancer screening campaigns (see Tables 2 and 3). At the outset of the influenza campaign, 94% of clinical staff contacted (115/123) reported that they offered influenza vaccine to patients in all groups for which vaccine is recommended by the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices. The rate was noteworthy and left limited room for self-reported improvement; at the campaign's end, 99% (122/123) reported this practice (p=0.018). In the colon cancer screening campaign, baseline self-reported practices were less consistent with recommended guidelines. At the initial visit, clinical staff at 26% of sites (38/149) reported that colonoscopy (the colon cancer screening method recommended by the DOHMH in guidelines disseminated to providers in 2002 and reinforced during the detailing campaign) was the primary method recommended to patients. At the completion of the colon cancer screening cam-

Table 1. Visit activity for three Public Health Detailing campaigns

Campaign and dates	*Number of sites visited*	*Percent of all identified sites visited*	*Number of one-on-one contacts[a] (interactions)*	*Average visit length (minutes)*	*Average number of interactions/ day*	*Percent of interactions involving doctors[b]*	*Number of sites receiving ≥2 visits*	*Percent of sites receiving ≥2 visits*
Influenza vaccination (10/03 – 12/03)	151	75	674	7.1	4.6	56	83	75
Colon cancer screening (02/04 – 04/04)	183	91	982	11.9	6.5	54	162	89
Smoking cessation (05/04 – 7/04)	151	75	911	9.6	4.2	48	110	80

[a]Includes multiple contacts per individual.

[b]Although visits were made to other types of primary care providers (physician assistants, nurse practitioners), this represents doctors only.

Table 2. Influenza vaccination policy and practice: baseline and follow-up data by clinical staff[a] (*N*=123 staff representing 82 practice sites)

	Baseline data		*Follow-up data*		
Measures	N	*Percent*	N	*Percent*	p-value
Vaccinate all eligible	115	94	122	99	0.018
Has office system for influenza vaccination	66	54	82	67	0.038

[a]Clinical staff are physicians, nurse practitioners, nurses, physician assistants, and medical assistants.

paign, a significantly higher proportion of the same sites, 42% (62/149), indicated that colonoscopy was the preferred method (p=0.001).

Because of logistical demands related to distributing free nicotine replacement therapy to practice sites, only baseline data were available for the smoking cessation campaign. At baseline, only 42% of clinical staff (78/186) indicated that smoking status was either assessed at every visit or at every visit where vital signs were taken. Among the non-clinical staff interviewed, 50% (54/108) reported that smoking status was assessed at the initial visit only; 40% (43/108) reported that smoking status was assessed only when considered relevant to the chief complaint; and 33% (36/108) reported that smoking status was determined during periodic health exams.

The proportion of practices reporting use of office systems to improve clinical preventive services increased over the course of the influenza and colon cancer screening campaigns (Tables 2 and 3). At the start of the influenza vaccination campaign, 54% (66/123) reported that a system was in place to identify patients in need of vaccine and prompt providers to administer vaccine to those patients at the time of the visit. At campaign's end, 67% (82/123) reported the use of computer prompts, patient refusal documents, reminder postcards, prevention flow sheets, standing orders, and/or vaccine administration records (p=0.038). Similarly, some increase was seen in the proportion of practices using office systems to promote colon cancer screening; at the campaign's start, 52% (78/149) of sites indicated that office systems were in place, while 62% (93/149) reported such systems at the campaign's conclusion (p=0.08).

Perceived value of campaigns

Feedback from clinical staff—about the interactions with health department representatives, key messages conveyed, and educational materials received—was uniformly positive. Using a Likert scale, the average staff responses to materials and messages were 3.5 and 3.6 (between 3=receptive and 4=engaging), respectively. Among sites receiving follow-up visits in the influenza campaign, approximately 80% reported using the patient education materials provided in the influenza vaccination action kit. More than 95% of sites revisited in the colon cancer screening campaign reported the use of patient education materials, with positive feedback on their usefulness.

Table 3. Colon cancer screening methods: baseline and follow-up data for practice sites (*N*=149)

	Baseline data		*Follow-up data*			
Measures	N	*Percent*	N	*Percent*	*Chi-square*	p-value
Primary method you recommend for colon cancer screening?						
Colonoscopy	38	26	62	42	15.92	0.001
Colonoscopy with FOBT	50	34	56	38		
FOBT alone	54	36	27	18		
Other	7	5	4	3		
System or prompt to implement policy/practice						
System (chart stickers, flow sheet, electronic prompt)	78	52	93	62	3.08	0.079

FOBT=Fecal Occult Blood Testing

DISCUSSION

The Public Health Detailing Program appears to be an effective method of reaching providers, delivering key messages appropriate for a brief interaction, and mapping practice sites in high-need neighborhoods. Self-reported adherence to clinical practice guidelines improved, and provider tools, patient education materials, and nicotine replacement therapy was distributed widely.

The campaigns succeeded in reaching health care providers, gaining access to more than 90% of identified sites. Interactions occurred with both clinical and administrative staff. Primary care providers, often hard to reach, accounted for half of the more than 2,500 contacts. Further, physicians often spent more than 10 minutes with representatives, much longer than typical pharmaceutical detailing encounters. The program was well received, and by early indications, successful, with sites reporting increased use of office systems and adherence to recommended practice for influenza vaccination and colon cancer screening. Although these are self-reported changes, they reflect, at a minimum, the intent to change.

By conducting brief, unscheduled visits at the practice sites, the DOHMH was able to increase its access to primary care providers. The approach removed two frequently encountered barriers to engaging providers in typical clinical quality improvement activities: scheduling and time commitment. These findings are encouraging and suggest that the public health detailing approach is feasible for public health agencies and acceptable to clinicians and their practices.

This program, and our initial analysis of it, has several limitations. No complete enumeration of practice sites is available, so we do not know what percentage of total sites we reached. We lack information on the volume of patient visits, so we cannot estimate the potential impact on patient care. Nor do we know whether self-reported changes reflect actual improvements in clinical preventive practices, and if so, how long those improvements will be sustained.

The Public Health Detailing Program has strengthened relationships with community providers, reinforcing the DOHMH's role as an ally in efforts to overcome barriers to achieving desired health outcomes. These relationships should serve the agency well as it strives to build on its detailing activities. Recognizing that sustainable change may not be achieved in two or three brief encounters, the DOHMH is working on complementary strategies to improve care and outcomes, such as intensive interventions to support practice change at high-volume provider sites; financial incentives to encourage best practices; support of electronic tools, including electronic health records, which provide point-of-care decision support; and media campaigns to raise consumer awareness and increase demand for needed services.

The success of public health detailing—as well as other complementary, community-based interventions—will ultimately be determined by documented changes in provider practice and increases in the proportion of New Yorkers receiving recommended care. Such an evaluation will be possible using Community Health Survey data,[8] a New York City risk factor survey much like the CDC's Behavioral Risk Factor Surveillance Survey, as well as insurance claims data to assess changes in influenza vaccination, colonoscopy, and tobacco cessation rates in target neighborhoods relative to the rest of the city.

The New York City Department of Health and Mental Hygiene gratefully acknowledges the health care professionals of New York City; the staff of the Department of Health and Mental Hygiene's Public Health Detailing Program; District Public Health Offices; Immunization, Cancer Prevention and Tobacco Control programs; the Public Health Library; and the Health Media and Marketing Group for their valuable contributions to the design and implementation of this new program. Pfizer Inc's Global Learning and Development group collaborated on the design of the training program. The authors also thank Deborah Deitcher, Dr. Mary T. Bassett, and Dr. Jane Zucker for their editorial guidance.

This program is funded in part by The Mayor's Fund to Advance New York City.

REFERENCES

1. Department of Health and Human Services (US). Healthy People 2010. Understanding and improving health. 2nd ed. Washington: Government Printing Office; 2000. Also available from: URL: http://www.healthypeople.gov/ [cited 2006 Jan 20].
2. Krauss NA, Machlin S, Kass BL. Use of health care services, 1996. MEPS Research Findings No. 7. AHCPR Pub. No. 99-0018. Rockville (MD): Agency for Health Care Policy and Research; 1999.
3. Soumerai SB, Avorn J. Principles of educational outreach ('academic detailing') to improve clinical decision making. JAMA 1990; 263:549-56.
4. Wagner EH, Austin B, Von Korff M. Improving outcomes in chronic illness. Manag Care Q 1996;4:12-25.
5. New York City Department of Health and Mental Hygiene. NYC Community health profiles 2003 [cited 2006 Jan 11]. Available from: URL: http://www.nyc.gov/html/doh/html/data/data.shtml
6. New York City Department of Health and Mental Hygiene. Preventing colorectal cancer. City Health Information 2003:22;1-4 [cited 2006 Jan 11]. Available from: URL: http://www.nyc.gov/html/doh/downloads/pdf/chi/chi22-2.pdf
7. Mizik N, Jacobson R. Are physicians 'easy marks'?: quantifying the effects of detailing and sampling on new prescriptions. Institute for the Study of Business Markets. Pennsylvania State University; ISBM Report 9-2003.
8. New York City Department of Health and Mental Hygiene. Community health survey 2002 [cited 2006 Jan 11]. Available from: URL: http://www.nyc.gov/html/doh/html/survey/survey.shtml