

STATEMENT TO THE CAMBRIDGE CITY COUNCIL
REGARDING THE CAMBRIDGE NO-SMOKING ORDINANCE

Nancy Rigotti, M.D.
Institute for the Study of Smoking Behavior and Policy
John F. Kennedy School of Government
Harvard University

December 19, 1988

Thank you for the opportunity to speak to you tonight. I am a physician with a particular interest in the health consequences of cigarette smoking, and I serve as Associate Director of the Institute for the Study of Smoking Behavior and Policy at the Kennedy School of Government at Harvard University. The purpose of our Institute is to study links between public policy and smoking behavior--to study the effects of public policies such as the No-Smoking Ordinance in Cambridge on smoking behavior. Our overall goal is to contribute to reducing the toll of death, disease, and suffering caused by tobacco. As you probably already know, this toll is high. Tobacco smoking accounts for an estimated 350,000 deaths per year and represents the number one preventable cause of death in the U.S., according to Surgeon General C. Everett Koop. Over the past decade, there has been increasing awareness of passive or involuntary smoking. These risks include lung cancer and respiratory illness. Concerns about these health risks have led to the passage of laws restricting smoking in public places and workplaces. The Cambridge No-Smoking ordinance, passed by the City Council in December 1986, was one of the growing number of these laws.

I have been asked to speak to you tonight about our Institute's study of the implementation and impact of Cambridge's law. I will describe the purpose, results, and conclusions of this study, along with recommendations based on our findings. Let me begin by putting the Cambridge Ordinance, with which you are all familiar, into context.

Over the past 15 years, a growing number of states and communities have passed laws restricting smoking in public places and workplaces. These laws were first passed at the state government level. Currently, 42 states, including Massachusetts, have passed laws limiting smoking in at least some public places, although few state laws are as comprehensive as the Cambridge law. Over the past decade, the momentum of action has shifted from states to local governments and the pace of action has been accelerating. In 1986, when the Cambridge ordinance passed, I estimated in a chapter in the Surgeon General's Report on Smoking that approximately 90 communities nationwide had passed no-smoking ordinances; now, over 350 cities and counties have passed such laws--nearly a four-fold increase in only two years. In 1986, Cambridge was notable in being one of the first cities on the East Coast to pass a comprehensive ordinance restricting smoking both in public places and at the workplace. Since that time, a number of other communities in Massachusetts and around the country have passed similar laws, and the provisions of the Cambridge ordinance, once considered strong, are becoming standard for new city no-smoking ordinances. So, in retrospect, it appears that Cambridge was at the forefront of a movement that has become widespread.

PURPOSE OF THE STUDY

In 1986, I had just completed a review for the Surgeon General's Report of what little was then known about smoking restrictions in public places and at work. Research showed that no-smoking ordinances were becoming widespread, both in the private and public sectors, and that they had important potential public health benefits. They were expected to reduce individuals' exposure to passive smoke, and it was suggested that they might also discourage people from smoking. However, little was known about the actual impact of no-smoking laws and policies. Cities and states that passed these laws had little guidance about how to implement and enforce them. How well the public and businesses approved of and complied with these laws as unknown. From a public health perspective, this was important, since if they laws are not complied with, they cannot improve indoor air quality and thereby reduce exposure to passive smoke.

The passage of a No-Smoking Ordinance in our own community-- Cambridge--afforded our Institute the opportunity to observe closely the implementation and impact of a new No-Smoking Ordinance and address some of the public health questions. Our goal was understand the implementation process better in order to help this and other communities that are and will be passing similar laws. Our purpose was neither to intervene nor to serve as enforcers of the Cambridge law.

DESCRIPTION OF THE STUDY

Our evaluation focused on the early effects of the new Cambridge ordinance. Baseline information was collected during February 1987, the month before the policy took effect, and follow-up data 3 months later (June 1987). The study had 5 components but I will report on the relevant 4 parts tonight. These were:

1. A telephone survey of Cambridge residents that measured knowledge and approval of the law, compliance, and smoking behavior.
2. A telephone survey of 300 Cambridge businesses 3 months after the law took effect assessed their opinion and compliance with the laws.
3. Interviews with city officials involved in the passage, implementation, and enforcement of the law. To track the flow of information, city officials kept a running log of phone calls received about the ordinance.
4. Direct observations in nearly 200 retail stores and 88 restaurants to determine compliance with the law. These were made at baseline, at 3-month follow-up, and one year after the law was adopted. This is the only part of the study with information about compliance beyond 3 months.

RESULTS

I am summarizing results from ongoing analyses. More detail is presented in the two reports that I sent to the Council last week.

IMPLEMENTATION AND ENFORCEMENT

The implementation of laws regulating smoking in public places and worksites has generally been put into the hands of public health departments rather than police departments. These laws are often said to be "self-enforcing." The assumption is that the majority of smokers, being law-abiding, will obey smoking restrictions and that nonsmokers will enforce any noncompliance, freeing government from the need to actively police the laws. Compliance is measured passively rather than actively; the lack of complaints is equated with adequate compliance. To be successful, this strategy requires that the public have a high level of awareness of the law's provisions.

The Cambridge ordinance followed this established pattern, assigning implementation and enforcement to the Health Department. The Health Commissioner, Dr. Chalfen, assigned one employee to spend a portion of his time to coordinate plans. The City Manager was given responsibility for insuring that the offices and employees of city government complied with the law.

To inform the public about the law, the Health Commissioner relied on the local news media. The ordinance attracted considerable attention both locally and nationally. To inform city businesses about the no-smoking law, the Health Commissioner collaborated with the local Chamber of Commerce to prepare and mail a two-page information sheet which summarized the provisions of the law. This information was mailed by the Chamber of Commerce to its members, which is about half of city businesses. Although intended to be mailed in January, it was mailed in late February, leaving businesses with only a couple of weeks to come into compliance.

The Health Commissioner enforced the law by responding to complaints rather than by active surveillance. One employee in his office was designated to respond to telephone and written questions and complaints. The telephone call logs demonstrate a peak of calls in the few weeks after the law took effect, followed by a rapid decline. The nature of calls changed over time. Initially most calls were to request information on compliance; as time passed, a larger proportion of calls were to report violations. In the first 3 months, no standardized method of response to complaints was established, and there was no formal action to penalize violators. No individual or business was fined, no city license was suspended, and no judicial action taken. According to a recent conversation with Dr. Chalfen, this remains true. This approach appeared to reflect both the political and financial climate in which the law was implemented. The city authorized no additional personnel or funds to cover implementation costs. There did not appear to be strong public pressure for more active enforcement. Three months after the policy took effect, the majority of city residents (54%) felt that enforcement was adequate, although a substantial number (36%) felt that it was not strict enough.

AWARENESS AND APPROVAL

Public awareness of the law was high. Most residents (57%) were aware of the ordinance at baseline and this proportion increased to 80% at 3 months. Support for the ordinance was also strong. Over three-quarters (77%) favored the law at baseline; there was no change at 3 months. More nonsmokers than smokers were in favor of the law, but 41% of smokers approved.

Awareness and approval were also high when Cambridge businessmen were surveyed 3 months after the ordinance took effect. Nearly all (93%) managers of businesses were aware of the law. Nearly two-thirds (64%) of managers supported the law, 20% opposed it, and 16% were neutral. Most managers (73%) knew the law's provisions, although over half incorrectly believed that they were required to provide a smoking working area for employees requesting one. Businesses appeared to have learned of the law through the news media rather than the city mailings. Only 27% had received the city's information sheet. Forty percent felt that they were not well informed about their responsibilities under the law.

COMPLIANCE

Compliance was measured by direct observation in public places, by managers' reports in worksites, and by city residents' reports.

At 3 months, 32% of residents surveyed had recently noticed smoking in public where it was not allowed. Most noticed it in public transport, government buildings, restaurants, and stores. Residents' most common response to violations of the law was to do nothing (82% of smokers and 53% of nonsmokers). No respondent envisioned calling the police or a city official in response to a violation.

We directly observed retail stores and restaurants. In retail stores, compliance with the letter of the law was poor; only 3% of stores had posted a sign with the required wording, and fewer than half had posted any no-smoking sign at all. The number of stores displaying a no-smoking sign increased after the law took effect, from 22% at baseline to 41% at 11 months, but this occurred only after a delay of 3 months. A smoker was seen in 12% of stores one year after the law was adopted. If a smoker was seen, it was more often an employee than a customer.

Smoking in restaurants was not affected by the law we studied. It had already been addressed by a 1984 city ordinance mandating a nonsmoking section in restaurants with 25 or more seats and bars seating 75 or more. Consequently, our baseline observations served as an evaluation of compliance 3 years after passage. There was a high level of compliance. Of the 69 restaurants subject to the ordinance (25 or more seats), 87% had a nonsmoking section that was of the adequate size (25% or more seats designated nonsmoking). However, in most cases there was no physical barrier separating smoking and nonsmoking sections.

Self-reported compliance was high by Cambridge businesses. A large majority of managers who know of the no-smoking law report that they are in compliance with it (85%) or planning to comply (2%). A similar large majority of managers reported having no problems coming into compliance with the law.

Overall, 82% of city businesses have a smoking policy, but only 33% of these are written policies. An additional 2% plan to adopt a policy in the next year. About one third of policies appear to have been adopted in response to the law.

CONCLUSIONS OF THE STUDY

1. PUBLIC OPINION WAS FAVORABLE. The law was widely supported by both the public and the business community. There has been little opposition or confrontation by individuals or groups. We believe that this is because the law was an accurate reflection of public attitudes about smoking--people no longer believe that it is acceptable to have to breathe tobacco smoke in public places and at work. It is also probably because the city has regarded smoking in public as a public health issue--and not a public safety issue.
2. ALTHOUGH THE MAJORITY OF CITIZENS AND BUSINESSES KNEW ABOUT THE NO-SMOKING ORDINANCE, THIS KNOWLEDGE WAS OFTEN INCOMPLETE. For example, businesses felt that the law required them to provide smoking as well as nonsmoking areas, and it appears that retail stores did not know about the requirement for posting no-smoking signs with specific wording and did not inform their employees.
3. A CONSIDERABLE DEGREE OF COMPLIANCE WITH THE LAW WAS ACHIEVED WITH THE CITY'S MODEST EXPENDITURE OF TIME AND RESOURCES. For example, by and large the public obeyed the law, and, at least by the self-report of business managers, the majority of businesses had adopted some sort of smoking policy within three months of the law's passage. However, there also clearly are problem areas. The major problem was with posting of signs. The lowest level of compliance we noted was in retail stores, where there were few no-smoking signs one year after the law went into effect, and virtually none that technically complied with the letter of the law, stating that smoking was prohibited by law. It was also clear that employees in these stores were not informed about the law. This is important, because employees are the ones who must make sure that customers comply with the law. Our data suggests that some types of stores are doing better than others, and that future efforts might target types of stores or areas of the city with low compliance--for example, liquor stores and convenience stores.
4. THE CITY'S APPROACH OF ENFORCEMENT WAS SIMILAR TO THAT USED IN MOST OTHER TOWNS--TO RELY ON "SELF-ENFORCEMENT" AND TO ASSUME THAT THE LACK OF COMPLAINTS EQUALS GOOD COMPLIANCE. OUR STUDY OF RETAIL STORES SUGGESTS THAT THIS IS NOT ALWAYS THE CASE. The alternative would be to monitor the level of compliance more actively.
5. THE ENFORCEMENT PROVISIONS OF THE LAW--FINES OR RESCINDING OF LICENSES--WERE NOT USED. The optimal way to enforce the law is probably the most challenging matter faced by the city.
6. IT IS NOT TOO LATE TO IMPROVE COMPLIANCE WITH THE NO-SMOKING LAW.

RECOMMENDATIONS

1. Although the law has worked reasonably well, THERE IS NO REASON NOT TO AIM TO IMPROVE COMPLIANCE, especially in areas where compliance is low. Because there is virtually no evidence of opposition to the law, we can assume that a considerable degree of noncompliance is the result of ignorance of the law--or at least the details of its provisions.

2. THE FIRST PRIORITY SHOULD BE TO INCREASE KNOWLEDGE OF THE DETAILS OF THE LAWS BY PUBLIC EDUCATION. Articles in the news media are inexpensive and, in our study, an effective way to reach both citizens and businesses. These probably need to appear at some regular interval--such on the anniversary of the adoption of the law--to remind people and inform new residents and businesses.

However, the news media may not be sufficient to ensure that retail stores and businesses are accurately informed about the specific requirements of the law. To do this, WE SUGGEST THAT THE CITY MAIL INFORMATION TO ALL ITS BUSINESSES. One factor hampering this in the past was that the city had no comprehensive list of its businesses. It might be possible to find such a list, for example from lists maintained by the state. Such a list would be useful for many purposes, beyond just this particular ordinance.

3. As part of efforts to inform the public, THE CITY COULD TAKE SEVERAL SIMPLE STEPS TO HELP CITIZENS AND BUSINESSES COMPLY. For example, a mailing to city businesses could do more than just tell them about the law; it could help businesses comply. Such a mailing could include a copy of the law, a sample no-smoking policy for businesses to adopt, and a sample information sheet to be provided to employees, so that they will be informed about their responsibilities. Since the posting of signs is a particular problem, the city might consider providing (or selling at cost) sample signs with the correct wording. At least, the city could provide information about where businesses could get correctly worded signs. To defray costs, I suggest that the city consider working with organizations such as the American Lung Association, the Chamber of Commerce, or the Massachusetts Restaurant Association, who might help in providing signs to businesses.

4. What should the city do beyond providing information? What type of enforcement is appropriate? It is probably not easy to make people not smoke using the police--it will only engender dissent and hostility and conjure up notions of Big Brother. Furthermore, in most cases smokers do not smoke in places that are clearly marked as no-smoking. On the other hand, it is probably easy to enforce the requirement to post signs, because the lack of signs probably indicates a lack of knowledge, not an opposition to the law. THEREFORE, WE RECOMMEND THAT THE CITY FOCUS ON GETTING SIGNS POSTED AND ENSURING THAT BUSINESSES HAVE A NON-SMOKING POLICY FOR EMPLOYEES. The most efficient way to do so is to monitor that signs are posted in public places and that businesses have a no-smoking policy. With very little additional expense, the city could monitor signs in those places that are already inspected for other reasons--such as restaurants and retail food establishments. All that would be necessary is to have health inspectors check on signs and, in restaurants, also count the number of smoking and no-smoking seats. To cover other public places, any other ongoing inspections might add a check for no-smoking signs. There may be some categories of public places that are not monitored (e.g., some types of retail stores). I

would tell you that in our experience, it took very little of an individual's time to visit nearly 200 retail stores and check for signs.

It is more difficult to monitor whether businesses have smoking policies for employees. The ordinance does specifically allow the Health Commissioner to require businesses to provide a copy of their smoking policies; this power could be used to monitor businesses' compliance.

5. BECAUSE ENFORCEMENT CONSISTS OF RESPONDING TO COMPLAINTS, IT IS ESSENTIAL THAT THE CITY HAVE A CLEAR, STANDARDIZED METHOD OF DOING SO.

6. CAMBRIDGE COULD TAKE SEVERAL SIMPLE, INEXPENSIVE STEPS TO INCREASE COMPLIANCE WITH ITS NO-SMOKING ORDINANCE AND THEREBY INCREASE PROTECTIONS ON THE HEALTH OF ITS CITIZENS.

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CONCLUSIONS OF THE STUDY

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2. ALTHOUGH THE MAJORITY OF CITIZENS AND BUSINESSES KNEW ABOUT THE NO-SMOKING ORDINANCE, THIS KNOWLEDGE WAS OFTEN INCOMPLETE. For example, businesses felt that the law required them to provide smoking as well as nonsmoking areas, and it appears that retail stores did not know about the requirement for posting no-smoking signs with specific wording and did not inform their employees.

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6. IT IS NOT TOO LATE TO IMPROVE COMPLIANCE WITH THE NO-SMOKING LAW.

RECOMMENDATIONS

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Thank you for the opportunity to speak to you tonight. I am a physician with a particular interest in the health consequences of cigarette smoking, and I serve as Associate Director of the Institute for the Study of Smoking Behavior and Policy at the Kennedy School of Government at Harvard University. The purpose of our Institute is to study links between public policy and smoking behavior--to study the effects of public policies such as the No-Smoking Ordinance in Cambridge on smoking behavior. Our overall goal is to contribute to reducing the toll of death, disease, and suffering caused by tobacco. As you probably already know, this toll is high. Tobacco smoking accounts for an estimated 350,000 deaths per year and represents the number one preventable cause of death in the U.S., according to Surgeon General C. Everett Koop. Over the past decade, there has been increasing awareness of passive or involuntary smoking. These risks include lung cancer and respiratory illness. Concerns about these health risks have led to the passage of laws restricting smoking in public places and workplaces. The Cambridge No-Smoking ordinance, passed by the City Council in December 1986, was one of the growing number of these laws.

I have been asked to speak to you tonight about our Institute's study of the implementation and impact of Cambridge's law. I will describe the purpose, results, and conclusions of this study, along with recommendations based on our findings. Let me begin by putting the Cambridge Ordinance, with which you are all familiar, into context.

Over the past 15 years, a growing number of states and communities have passed laws restricting smoking in public places and workplaces. These laws were first passed at the state government level. Currently, 42 states, including Massachusetts, have passed laws limiting smoking in at least some public places, although few state laws are as comprehensive as the Cambridge law. Over the past decade, the momentum of action has shifted from states to local governments and the pace of action has been accelerating. In 1986, when the Cambridge ordinance passed, I estimated in a chapter in the Surgeon General's Report on Smoking that approximately 90 communities nationwide had passed no-smoking ordinances; now, over 350 cities and counties have passed such laws--nearly a four-fold increase in only two years. In 1986, Cambridge was notable in being one of the first cities on the East Coast to pass a comprehensive ordinance restricting smoking both in public places and at the workplace. Since that time, a number of other communities in Massachusetts and around the country have passed similar laws, and the provisions of the Cambridge ordinance, once considered strong, are becoming standard for new city no-smoking ordinances. So, in retrospect, it appears that Cambridge was at the forefront of a movement that has become widespread.

PURPOSE OF THE STUDY

In 1986, I had just completed a review for the Surgeon General's Report of what little was then known about smoking restrictions in public places and at work. Research showed that no-smoking ordinances were becoming widespread, both in the private and public sectors, and that they had important potential public health benefits. They were expected to reduce individuals' exposure to passive smoke, and it was suggested that they might also discourage people from smoking. However, little was known about the actual impact of no-smoking laws and policies. Cities and states that passed these laws had little guidance about how to implement and enforce them. How well the public and businesses approved of and complied with these laws as unknown. From a public health perspective, this was important, since if they laws are not complied with, they cannot improve indoor air quality and thereby reduce exposure to passive smoke.

The passage of a No-Smoking Ordinance in our own community-- Cambridge--afforded our Institute the opportunity to observe closely the implementation and impact of a new No-Smoking Ordinance and address some of the public health questions. Our goal was understand the implementation process better in order to help this and other communities that are and will be passing similar laws. Our purpose was neither to intervene nor to serve as enforcers of the Cambridge law.

DESCRIPTION OF THE STUDY

Our evaluation focused on the early effects of the new Cambridge ordinance. Baseline information was collected during February 1987, the month before the policy took effect, and follow-up data 3 months later (June 1987). The study had 5 components but I will report on the relevant 4 parts tonight. These were:

1. A telephone survey of Cambridge residents that measured knowledge and approval of the law, compliance, and smoking behavior.
2. A telephone survey of 300 Cambridge businesses 3 months after the law took effect assessed their opinion and compliance with the laws.
3. Interviews with city officials involved in the passage, implementation, and enforcement of the law. To track the flow of information, city officials kept a running log of phone calls received about the ordinance.
4. Direct observations in nearly 200 retail stores and 88 restaurants to determine compliance with the law. These were made at baseline, at 3-month follow-up, and one year after the law was adopted. This is the only part of the study with information about compliance beyond 3 months.

RESULTS

I am summarizing results from ongoing analyses. More detail is presented in the two reports that I sent to the Council last week.

IMPLEMENTATION AND ENFORCEMENT

The implementation of laws regulating smoking in public places and worksites has generally been put into the hands of public health departments rather than police departments. These laws are often said to be "self-enforcing." The assumption is that the majority of smokers, being law-abiding, will obey smoking restrictions and that nonsmokers will enforce any noncompliance, freeing government from the need to actively police the laws. Compliance is measured passively rather than actively; the lack of complaints is equated with adequate compliance. To be successful, this strategy requires that the public have a high level of awareness of the law's provisions.

The Cambridge ordinance followed this established pattern, assigning implementation and enforcement to the Health Department. The Health Commissioner, Dr. Chalfen, assigned one employee to spend a portion of his time to coordinate plans. The City Manager was given responsibility for insuring that the offices and employees of city government complied with the law.

To inform the public about the law, the Health Commissioner relied on the local news media. The ordinance attracted considerable attention both locally and nationally. To inform city businesses about the no-smoking law, the Health Commissioner collaborated with the local Chamber of Commerce to prepare and mail a two-page information sheet which summarized the provisions of the law. This information was mailed by the Chamber of Commerce to its members, which is about half of city businesses. Although intended to be mailed in January, it was mailed in late February, leaving businesses with only a couple of weeks to come into compliance.

The Health Commissioner enforced the law by responding to complaints rather than by active surveillance. One employee in his office was designated to respond to telephone and written questions and complaints. The telephone call logs demonstrate a peak of calls in the few weeks after the law took effect, followed by a rapid decline. The nature of calls changed over time. Initially most calls were to request information on compliance; as time passed, a larger proportion of calls were to report violations. In the first 3 months, no standardized method of response to complaints was established, and there was no formal action to penalize violators. No individual or business was fined, no city license was suspended, and no judicial action taken. According to a recent conversation with Dr. Chalfen, this remains true. This approach appeared to reflect both the political and financial climate in which the law was implemented. The city authorized no additional personnel or funds to cover implementation costs. There did not appear to be strong public pressure for more active enforcement. Three months after the policy took effect, the majority of city residents (54%) felt that enforcement was adequate, although a substantial number (36%) felt that it was not strict enough.

AWARENESS AND APPROVAL

Public awareness of the law was high. Most residents (57%) were aware of the ordinance at baseline and this proportion increased to 80% at 3 months. Support for the ordinance was also strong. Over three-quarters (77%) favored the law at baseline; there was no change at 3 months. More nonsmokers than smokers were in favor of the law, but 41% of smokers approved.

Awareness and approval were also high when Cambridge businessmen were surveyed 3 months after the ordinance took effect. Nearly all (93%) managers of businesses were aware of the law. Nearly two-thirds (64%) of managers supported the law, 20% opposed it, and 16% were neutral. Most managers (73%) knew the law's provisions, although over half incorrectly believed that they were required to provide a smoking working area for employees requesting one. Businesses appeared to have learned of the law through the news media rather than the city mailings. Only 27% had received the city's information sheet. Forty percent felt that they were not well informed about their responsibilities under the law.

COMPLIANCE

Compliance was measured by direct observation in public places, by managers' reports in worksites, and by city residents' reports.

At 3 months, 32% of residents surveyed had recently noticed smoking in public where it was not allowed. Most noticed it in public transport, government buildings, restaurants, and stores. Residents' most common response to violations of the law was to do nothing (82% of smokers and 53% of nonsmokers). No respondent envisioned calling the police or a city official in response to a violation.

We directly observed retail stores and restaurants. In retail stores, compliance with the letter of the law was poor; only 3% of stores had posted a sign with the required wording, and fewer than half had posted any no-smoking sign at all. The number of stores displaying a no-smoking sign increased after the law took effect, from 22% at baseline to 41% at 11 months, but this occurred only after a delay of 3 months. A smoker was seen in 12% of stores one year after the law was adopted. If a smoker was seen, it was more often an employee than a customer.

Smoking in restaurants was not affected by the law we studied. It had already been addressed by a 1984 city ordinance mandating a nonsmoking section in restaurants with 25 or more seats and bars seating 75 or more. Consequently, our baseline observations served as an evaluation of compliance 3 years after passage. There was a high level of compliance. Of the 69 restaurants subject to the ordinance (25 or more seats), 87% had a nonsmoking section that was of the adequate size (25% or more seats designated nonsmoking). However, in most cases there was no physical barrier separating smoking and nonsmoking sections.

Self-reported compliance was high by Cambridge businesses. A large majority of managers who know of the no-smoking law report that they are in compliance with it (85%) or planning to comply (2%). A similar large majority of managers reported having no problems coming into compliance with the law.

Overall, 82% of city businesses have a smoking policy, but only 33% of these are written policies. An additional 2% plan to adopt a policy in the next year. About one third of policies appear to have been adopted in response to the law.

CONCLUSIONS OF THE STUDY

1. PUBLIC OPINION WAS FAVORABLE. The law was widely supported by both the public and the business community. There has been little opposition or confrontation by individuals or groups. We believe that this is because the law was an accurate reflection of public attitudes about smoking--people no longer believe that it is acceptable to have to breathe tobacco smoke in public places and at work. It is also probably because the city has regarded smoking in public as a public health issue--and not a public safety issue.

2. ALTHOUGH THE MAJORITY OF CITIZENS AND BUSINESSES KNEW ABOUT THE NO-SMOKING ORDINANCE, THIS KNOWLEDGE WAS OFTEN INCOMPLETE. For example, businesses felt that the law required them to provide smoking as well as nonsmoking areas, and it appears that retail stores did not know about the requirement for posting no-smoking signs with specific wording and did not inform their employees.

3. A CONSIDERABLE DEGREE OF COMPLIANCE WITH THE LAW WAS ACHIEVED WITH THE CITY'S MODEST EXPENDITURE OF TIME AND RESOURCES. For example, by and large the public obeyed the law, and, at least by the self-report of business managers, the majority of businesses had adopted some sort of smoking policy within three months of the law's passage. However, there also clearly are problem areas. The major problem was with posting of signs. The lowest level of compliance we noted was in retail stores, where there were few no-smoking signs one year after the law went into effect, and virtually none that technically complied with the letter of the law, stating that smoking was prohibited by law. It was also clear that employees in these stores were not informed about the law. This is important, because employees are the ones who must make sure that customers comply with the law. Our data suggests that some types of stores are doing better than others, and that future efforts might target types of stores or areas of the city with low compliance--for example, liquor stores and convenience stores.

4. THE CITY'S APPROACH OF ENFORCEMENT WAS SIMILAR TO THAT USED IN MOST OTHER TOWNS--TO RELY ON "SELF-ENFORCEMENT" AND TO ASSUME THAT THE LACK OF COMPLAINTS EQUALS GOOD COMPLIANCE. OUR STUDY OF RETAIL STORES SUGGESTS THAT THIS IS NOT ALWAYS THE CASE. The alternative would be to monitor the level of compliance more actively.

5. THE ENFORCEMENT PROVISIONS OF THE LAW--FINES OR RESCINDING OF LICENSES--WERE NOT USED. The optimal way to enforce the law is probably the most challenging matter faced by the city.

6. IT IS NOT TOO LATE TO IMPROVE COMPLIANCE WITH THE NO-SMOKING LAW.

RECOMMENDATIONS

1. Although the law has worked reasonably well, THERE IS NO REASON NOT TO AIM TO IMPROVE COMPLIANCE, especially in areas where compliance is low. Because there is virtually no evidence of opposition to the law, we can assume that a considerable degree of noncompliance is the result of ignorance of the law--or at least the details of its provisions.

2. THE FIRST PRIORITY SHOULD BE TO INCREASE KNOWLEDGE OF THE DETAILS OF THE LAWS BY PUBLIC EDUCATION. Articles in the news media are inexpensive and, in our study, an effective way to reach both citizens and businesses. These probably need to appear at some regular interval--such on the anniversary of the adoption of the law--to remind people and inform new residents and businesses.

However, the news media may not be sufficient to ensure that retail stores and businesses are accurately informed about the specific requirements of the law. To do this, WE SUGGEST THAT THE CITY MAIL INFORMATION TO ALL ITS BUSINESSES. One factor hampering this in the past was that the city had no comprehensive list of its businesses. It might be possible to find such a list, for example from lists maintained by the state. Such a list would be useful for many purposes, beyond just this particular ordinance.

3. As part of efforts to inform the public, THE CITY COULD TAKE SEVERAL SIMPLE STEPS TO HELP CITIZENS AND BUSINESSES COMPLY. For example, a mailing to city businesses could do more than just tell them about the law; it could help businesses comply. Such a mailing could include a copy of the law, a sample no-smoking policy for businesses to adopt, and a sample information sheet to be provided to employees, so that they will be informed about their responsibilities. Since the posting of signs is a particular problem, the city might consider providing (or selling at cost) sample signs with the correct wording. At least, the city could provide information about where businesses could get correctly worded signs. To defray costs, I suggest that the city consider working with organizations such as the American Lung Association, the Chamber of Commerce, or the Massachusetts Restaurant Association, who might help in providing signs to businesses.

4. What should the city do beyond providing information? What type of enforcement is appropriate? It is probably not easy to make people not smoke using the police--it will only engender dissent and hostility and conjure up notions of Big Brother. Furthermore, in most cases smokers do not smoke in places that are clearly marked as no-smoking. On the other hand, it is probably easy to enforce the requirement to post signs, because the lack of signs probably indicates a lack of knowledge, not an opposition to the law. THEREFORE, WE RECOMMEND THAT THE CITY FOCUS ON GETTING SIGNS POSTED AND ENSURING THAT BUSINESSES HAVE A NON-SMOKING POLICY FOR EMPLOYEES. The most efficient way to do so is to monitor that signs are posted in public places and that businesses have a no-smoking policy. With very little additional expense, the city could monitor signs in those places that are already inspected for other reasons--such as restaurants and retail food establishments. All that would be necessary is to have health inspectors check on signs and, in restaurants, also count the number of smoking and no-smoking seats. To cover other public places, any other ongoing inspections might add a check for no-smoking signs. There may be some categories of public places that are not monitored (e.g., some types of retail stores). I

would tell you that in our experience, it took very little of an individual's time to visit nearly 200 retail stores and check for signs.

It is more difficult to monitor whether businesses have smoking policies for employees. The ordinance does specifically allow the Health Commissioner to require businesses to provide a copy of their smoking policies; this power could be used to monitor businesses' compliance.

5. BECAUSE ENFORCEMENT CONSISTS OF RESPONDING TO COMPLAINTS, IT IS ESSENTIAL THAT THE CITY HAVE A CLEAR, STANDARDIZED METHOD OF DOING SO.

6. CAMBRIDGE COULD TAKE SEVERAL SIMPLE, INEXPENSIVE STEPS TO INCREASE COMPLIANCE WITH ITS NO-SMOKING ORDINANCE AND THEREBY INCREASE PROTECTIONS ON THE HEALTH OF ITS CITIZENS.

STATEMENT TO THE CAMBRIDGE CITY COUNCIL
REGARDING THE CAMBRIDGE NO-SMOKING ORDINANCE

Nancy Rigotti, M.D.
Institute for the Study of Smoking Behavior and Policy
John F. Kennedy School of Government
Harvard University

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CONCLUSIONS OF THE STUDY

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RECOMMENDATIONS

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Harvard University

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Thank you for the opportunity to speak to you tonight. I am a physician with a particular interest in the health consequences of cigarette smoking, and I serve as Associate Director of the Institute for the Study of Smoking Behavior and Policy at the Kennedy School of Government at Harvard University. The purpose of our Institute is to study links between public policy and smoking behavior--to study the effects of public policies such as the No-Smoking Ordinance in Cambridge on smoking behavior. Our overall goal is to contribute to reducing the toll of death, disease, and suffering caused by tobacco. As you probably already know, this toll is high. Tobacco smoking accounts for an estimated 350,000 deaths per year and represents the number one preventable cause of death in the U.S., according to Surgeon General C. Everett Koop. Over the past decade, there has been increasing awareness of passive or involuntary smoking. These risks include lung cancer and respiratory illness. Concerns about these health risks have led to the passage of laws restricting smoking in public places and workplaces. The Cambridge No-Smoking ordinance, passed by the City Council in December 1986, was one of the growing number of these laws.

I have been asked to speak to you tonight about our Institute's study of the implementation and impact of Cambridge's law. I will describe the purpose, results, and conclusions of this study, along with recommendations based on our findings. Let me begin by putting the Cambridge Ordinance, with which you are all familiar, into context.

Over the past 15 years, a growing number of states and communities have passed laws restricting smoking in public places and workplaces. These laws were first passed at the state government level. Currently, 42 states, including Massachusetts, have passed laws limiting smoking in at least some public places, although few state laws are as comprehensive as the Cambridge law. Over the past decade, the momentum of action has shifted from states to local governments and the pace of action has been accelerating. In 1986, when the Cambridge ordinance passed, I estimated in a chapter in the Surgeon General's Report on Smoking that approximately 90 communities nationwide had passed no-smoking ordinances; now, over 350 cities and counties have passed such laws--nearly a four-fold increase in only two years. In 1986, Cambridge was notable in being one of the first cities on the East Coast to pass a comprehensive ordinance restricting smoking both in public places and at the workplace. Since that time, a number of other communities in Massachusetts and around the country have passed similar laws, and the provisions of the Cambridge ordinance, once considered strong, are becoming standard for new city no-smoking ordinances. So, in retrospect, it appears that Cambridge was at the forefront of a movement that has become widespread.

PURPOSE OF THE STUDY

In 1986, I had just completed a review for the Surgeon General's Report of what little was then known about smoking restrictions in public places and at work. Research showed that no-smoking ordinances were becoming widespread, both in the private and public sectors, and that they had important potential public health benefits. They were expected to reduce individuals' exposure to passive smoke, and it was suggested that they might also discourage people from smoking. However, little was known about the actual impact of no-smoking laws and policies. Cities and states that passed these laws had little guidance about how to implement and enforce them. How well the public and businesses approved of and complied with these laws as unknown. From a public health perspective, this was important, since if they laws are not complied with, they cannot improve indoor air quality and thereby reduce exposure to passive smoke.

The passage of a No-Smoking Ordinance in our own community-- Cambridge--afforded our Institute the opportunity to observe closely the implementation and impact of a new No-Smoking Ordinance and address some of the public health questions. Our goal was understand the implementation process better in order to help this and other communities that are and will be passing similar laws. Our purpose was neither to intervene nor to serve as enforcers of the Cambridge law.

DESCRIPTION OF THE STUDY

Our evaluation focused on the early effects of the new Cambridge ordinance. Baseline information was collected during February 1987, the month before the policy took effect, and follow-up data 3 months later (June 1987). The study had 5 components but I will report on the relevant 4 parts tonight. These were:

1. A telephone survey of Cambridge residents that measured knowledge and approval of the law, compliance, and smoking behavior.
2. A telephone survey of 300 Cambridge businesses 3 months after the law took effect assessed their opinion and compliance with the laws.
3. Interviews with city officials involved in the passage, implementation, and enforcement of the law. To track the flow of information, city officials kept a running log of phone calls received about the ordinance.
4. Direct observations in nearly 200 retail stores and 88 restaurants to determine compliance with the law. These were made at baseline, at 3-month follow-up, and one year after the law was adopted. This is the only part of the study with information about compliance beyond 3 months.

RESULTS

I am summarizing results from ongoing analyses. More detail is presented in the two reports that I sent to the Council last week.

IMPLEMENTATION AND ENFORCEMENT

The implementation of laws regulating smoking in public places and worksites has generally been put into the hands of public health departments rather than police departments. These laws are often said to be "self-enforcing." The assumption is that the majority of smokers, being law-abiding, will obey smoking restrictions and that nonsmokers will enforce any noncompliance, freeing government from the need to actively police the laws. Compliance is measured passively rather than actively; the lack of complaints is equated with adequate compliance. To be successful, this strategy requires that the public have a high level of awareness of the law's provisions.

The Cambridge ordinance followed this established pattern, assigning implementation and enforcement to the Health Department. The Health Commissioner, Dr. Chalfen, assigned one employee to spend a portion of his time to coordinate plans. The City Manager was given responsibility for insuring that the offices and employees of city government complied with the law.

To inform the public about the law, the Health Commissioner relied on the local news media. The ordinance attracted considerable attention both locally and nationally. To inform city businesses about the no-smoking law, the Health Commissioner collaborated with the local Chamber of Commerce to prepare and mail a two-page information sheet which summarized the provisions of the law. This information was mailed by the Chamber of Commerce to its members, which is about half of city businesses. Although intended to be mailed in January, it was mailed in late February, leaving businesses with only a couple of weeks to come into compliance.

The Health Commissioner enforced the law by responding to complaints rather than by active surveillance. One employee in his office was designated to respond to telephone and written questions and complaints. The telephone call logs demonstrate a peak of calls in the few weeks after the law took effect, followed by a rapid decline. The nature of calls changed over time. Initially most calls were to request information on compliance; as time passed, a larger proportion of calls were to report violations. In the first 3 months, no standardized method of response to complaints was established, and there was no formal action to penalize violators. No individual or business was fined, no city license was suspended, and no judicial action taken. According to a recent conversation with Dr. Chalfen, this remains true. This approach appeared to reflect both the political and financial climate in which the law was implemented. The city authorized no additional personnel or funds to cover implementation costs. There did not appear to be strong public pressure for more active enforcement. Three months after the policy took effect, the majority of city residents (54%) felt that enforcement was adequate, although a substantial number (36%) felt that it was not strict enough.

AWARENESS AND APPROVAL

Public awareness of the law was high. Most residents (57%) were aware of the ordinance at baseline and this proportion increased to 80% at 3 months. Support for the ordinance was also strong. Over three-quarters (77%) favored the law at baseline; there was no change at 3 months. More nonsmokers than smokers were in favor of the law, but 41% of smokers approved.

Awareness and approval were also high when Cambridge businessmen were surveyed 3 months after the ordinance took effect. Nearly all (93%) managers of businesses were aware of the law. Nearly two-thirds (64%) of managers supported the law, 20% opposed it, and 16% were neutral. Most managers (73%) knew the law's provisions, although over half incorrectly believed that they were required to provide a smoking working area for employees requesting one. Businesses appeared to have learned of the law through the news media rather than the city mailings. Only 27% had received the city's information sheet. Forty percent felt that they were not well informed about their responsibilities under the law.

COMPLIANCE

Compliance was measured by direct observation in public places, by managers' reports in worksites, and by city residents' reports.

At 3 months, 32% of residents surveyed had recently noticed smoking in public where it was not allowed. Most noticed it in public transport, government buildings, restaurants, and stores. Residents' most common response to violations of the law was to do nothing (82% of smokers and 53% of nonsmokers). No respondent envisioned calling the police or a city official in response to a violation.

We directly observed retail stores and restaurants. In retail stores, compliance with the letter of the law was poor; only 3% of stores had posted a sign with the required wording, and fewer than half had posted any no-smoking sign at all. The number of stores displaying a no-smoking sign increased after the law took effect, from 22% at baseline to 41% at 11 months, but this occurred only after a delay of 3 months. A smoker was seen in 12% of stores one year after the law was adopted. If a smoker was seen, it was more often an employee than a customer.

Smoking in restaurants was not affected by the law we studied. It had already been addressed by a 1984 city ordinance mandating a nonsmoking section in restaurants with 25 or more seats and bars seating 75 or more. Consequently, our baseline observations served as an evaluation of compliance 3 years after passage. There was a high level of compliance. Of the 69 restaurants subject to the ordinance (25 or more seats), 87% had a nonsmoking section that was of the adequate size (25%) or more seats designated nonsmoking). However, in most cases there was no physical barrier separating smoking and nonsmoking sections.

Self-reported compliance was high by Cambridge businesses. A large majority of managers who know of the no-smoking law report that they are in compliance with it (85%) or planning to comply (2%). A similar large majority of managers reported having no problems coming into compliance with the law.

Overall, 82% of city businesses have a smoking policy, but only 33% of these are written policies. An additional 2% plan to adopt a policy in the next year. About one third of policies appear to have been adopted in response to the law.

CONCLUSIONS OF THE STUDY

1. PUBLIC OPINION WAS FAVORABLE. The law was widely supported by both the public and the business community. There has been little opposition or confrontation by individuals or groups. We believe that this is because the law was an accurate reflection of public attitudes about smoking--people no longer believe that it is acceptable to have to breathe tobacco smoke in public places and at work. It is also probably because the city has regarded smoking in public as a public health issue--and not a public safety issue.

2. ALTHOUGH THE MAJORITY OF CITIZENS AND BUSINESSES KNEW ABOUT THE NO-SMOKING ORDINANCE, THIS KNOWLEDGE WAS OFTEN INCOMPLETE. For example, businesses felt that the law required them to provide smoking as well as nonsmoking areas, and it appears that retail stores did not know about the requirement for posting no-smoking signs with specific wording and did not inform their employees.

3. A CONSIDERABLE DEGREE OF COMPLIANCE WITH THE LAW WAS ACHIEVED WITH THE CITY'S MODEST EXPENDITURE OF TIME AND RESOURCES. For example, by and large the public obeyed the law, and, at least by the self-report of business managers, the majority of businesses had adopted some sort of smoking policy within three months of the law's passage. However, there also clearly are problem areas. The major problem was with posting of signs. The lowest level of compliance we noted was in retail stores, where there were few no-smoking signs one year after the law went into effect, and virtually none that technically complied with the letter of the law, stating that smoking was prohibited by law. It was also clear that employees in these stores were not informed about the law. This is important, because employees are the ones who must make sure that customers comply with the law. Our data suggests that some types of stores are doing better than others, and that future efforts might target types of stores or areas of the city with low compliance--for example, liquor stores and convenience stores.

4. THE CITY'S APPROACH OF ENFORCEMENT WAS SIMILAR TO THAT USED IN MOST OTHER TOWNS--TO RELY ON "SELF-ENFORCEMENT" AND TO ASSUME THAT THE LACK OF COMPLAINTS EQUALS GOOD COMPLIANCE. OUR STUDY OF RETAIL STORES SUGGESTS THAT THIS IS NOT ALWAYS THE CASE. The alternative would be to monitor the level of compliance more actively.

5. THE ENFORCEMENT PROVISIONS OF THE LAW--FINES OR RESCINDING OF LICENSES--WERE NOT USED. The optimal way to enforce the law is probably the most challenging matter faced by the city.

6. IT IS NOT TOO LATE TO IMPROVE COMPLIANCE WITH THE NO-SMOKING LAW.

RECOMMENDATIONS

1. Although the law has worked reasonably well, THERE IS NO REASON NOT TO AIM TO IMPROVE COMPLIANCE, especially in areas where compliance is low. Because there is virtually no evidence of opposition to the law, we can assume that a considerable degree of noncompliance is the result of ignorance of the law--or at least the details of its provisions.

2. THE FIRST PRIORITY SHOULD BE TO INCREASE KNOWLEDGE OF THE DETAILS OF THE LAWS BY PUBLIC EDUCATION. Articles in the news media are inexpensive and, in our study, an effective way to reach both citizens and businesses. These probably need to appear at some regular interval--such on the anniversary of the adoption of the law--to remind people and inform new residents and businesses.

However, the news media may not be sufficient to ensure that retail stores and businesses are accurately informed about the specific requirements of the law. To do this, WE SUGGEST THAT THE CITY MAIL INFORMATION TO ALL ITS BUSINESSES. One factor hampering this in the past was that the city had no comprehensive list of its businesses. It might be possible to find such a list, for example from lists maintained by the state. Such a list would be useful for many purposes, beyond just this particular ordinance.

3. As part of efforts to inform the public, THE CITY COULD TAKE SEVERAL SIMPLE STEPS TO HELP CITIZENS AND BUSINESSES COMPLY. For example, a mailing to city businesses could do more than just tell them about the law; it could help businesses comply. Such a mailing could include a copy of the law, a sample no-smoking policy for businesses to adopt, and a sample information sheet to be provided to employees, so that they will be informed about their responsibilities. Since the posting of signs is a particular problem, the city might consider providing (or selling at cost) sample signs with the correct wording. At least, the city could provide information about where businesses could get correctly worded signs. To defray costs, I suggest that the city consider working with organizations such as the American Lung Association, the Chamber of Commerce, or the Massachusetts Restaurant Association, who might help in providing signs to businesses.

4. What should the city do beyond providing information? What type of enforcement is appropriate? It is probably not easy to make people not smoke using the police--it will only engender dissent and hostility and conjure up notions of Big Brother. Furthermore, in most cases smokers do not smoke in places that are clearly marked as no-smoking. On the other hand, it is probably easy to enforce the requirement to post signs, because the lack of signs probably indicates a lack of knowledge, not an opposition to the law. THEREFORE, WE RECOMMEND THAT THE CITY FOCUS ON GETTING SIGNS POSTED AND ENSURING THAT BUSINESSES HAVE A NON-SMOKING POLICY FOR EMPLOYEES. The most efficient way to do so is to monitor that signs are posted in public places and that businesses have a no-smoking policy. With very little additional expense, the city could monitor signs in those places that are already inspected for other reasons--such as restaurants and retail food establishments. All that would be necessary is to have health inspectors check on signs and, in restaurants, also count the number of smoking and no-smoking seats. To cover other public places, any other ongoing inspections might add a check for no-smoking signs. There may be some categories of public places that are not monitored (e.g., some types of retail stores). I

would tell you that in our experience, it took very little of an individual's time to visit nearly 200 retail stores and check for signs.

It is more difficult to monitor whether businesses have smoking policies for employees. The ordinance does specifically allow the Health Commissioner to require businesses to provide a copy of their smoking policies; this power could be used to monitor businesses' compliance.

5. BECAUSE ENFORCEMENT CONSISTS OF RESPONDING TO COMPLAINTS, IT IS ESSENTIAL THAT THE CITY HAVE A CLEAR, STANDARDIZED METHOD OF DOING SO.

6. CAMBRIDGE COULD TAKE SEVERAL SIMPLE, INEXPENSIVE STEPS TO INCREASE COMPLIANCE WITH ITS NO-SMOKING ORDINANCE AND THEREBY INCREASE PROTECTIONS ON THE HEALTH OF ITS CITIZENS.

STATEMENT TO THE CAMBRIDGE CITY COUNCIL
REGARDING THE CAMBRIDGE NO-SMOKING ORDINANCE

Nancy Rigotti, M.D.
Institute for the Study of Smoking Behavior and Policy
John F. Kennedy School of Government
Harvard University

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CONCLUSIONS OF THE STUDY

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RECOMMENDATIONS

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Harvard University

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Thank you for the opportunity to speak to you tonight. I am a physician with a particular interest in the health consequences of cigarette smoking, and I serve as Associate Director of the Institute for the Study of Smoking Behavior and Policy at the Kennedy School of Government at Harvard University. The purpose of our Institute is to study links between public policy and smoking behavior--to study the effects of public policies such as the No-Smoking Ordinance in Cambridge on smoking behavior. Our overall goal is to contribute to reducing the toll of death, disease, and suffering caused by tobacco. As you probably already know, this toll is high. Tobacco smoking accounts for an estimated 350,000 deaths per year and represents the number one preventable cause of death in the U.S., according to Surgeon General C. Everett Koop. Over the past decade, there has been increasing awareness of passive or involuntary smoking. These risks include lung cancer and respiratory illness. Concerns about these health risks have led to the passage of laws restricting smoking in public places and workplaces. The Cambridge No-Smoking ordinance, passed by the City Council in December 1986, was one of the growing number of these laws.

I have been asked to speak to you tonight about our Institute's study of the implementation and impact of Cambridge's law. I will describe the purpose, results, and conclusions of this study, along with recommendations based on our findings. Let me begin by putting the Cambridge Ordinance, with which you are all familiar, into context.

Over the past 15 years, a growing number of states and communities have passed laws restricting smoking in public places and workplaces. These laws were first passed at the state government level. Currently, 42 states, including Massachusetts, have passed laws limiting smoking in at least some public places, although few state laws are as comprehensive as the Cambridge law. Over the past decade, the momentum of action has shifted from states to local governments and the pace of action has been accelerating. In 1986, when the Cambridge ordinance passed, I estimated in a chapter in the Surgeon General's Report on Smoking that approximately 90 communities nationwide had passed no-smoking ordinances; now, over 350 cities and counties have passed such laws--nearly a four-fold increase in only two years. In 1986, Cambridge was notable in being one of the first cities on the East Coast to pass a comprehensive ordinance restricting smoking both in public places and at the workplace. Since that time, a number of other communities in Massachusetts and around the country have passed similar laws, and the provisions of the Cambridge ordinance, once considered strong, are becoming standard for new city no-smoking ordinances. So, in retrospect, it appears that Cambridge was at the forefront of a movement that has become widespread.

PURPOSE OF THE STUDY

In 1986, I had just completed a review for the Surgeon General's Report of what little was then known about smoking restrictions in public places and at work. Research showed that no-smoking ordinances were becoming widespread, both in the private and public sectors, and that they had important potential public health benefits. They were expected to reduce individuals' exposure to passive smoke, and it was suggested that they might also discourage people from smoking. However, little was known about the actual impact of no-smoking laws and policies. Cities and states that passed these laws had little guidance about how to implement and enforce them. How well the public and businesses approved of and complied with these laws as unknown. From a public health perspective, this was important, since if they laws are not complied with, they cannot improve indoor air quality and thereby reduce exposure to passive smoke.

The passage of a No-Smoking Ordinance in our own community-- Cambridge--afforded our Institute the opportunity to observe closely the implementation and impact of a new No-Smoking Ordinance and address some of the public health questions. Our goal was understand the implementation process better in order to help this and other communities that are and will be passing similar laws. Our purpose was neither to intervene nor to serve as enforcers of the Cambridge law.

DESCRIPTION OF THE STUDY

Our evaluation focused on the early effects of the new Cambridge ordinance. Baseline information was collected during February 1987, the month before the policy took effect, and follow-up data 3 months later (June 1987). The study had 5 components but I will report on the relevant 4 parts tonight. These were:

1. A telephone survey of Cambridge residents that measured knowledge and approval of the law, compliance, and smoking behavior.
2. A telephone survey of 300 Cambridge businesses 3 months after the law took effect assessed their opinion and compliance with the laws.
3. Interviews with city officials involved in the passage, implementation, and enforcement of the law. To track the flow of information, city officials kept a running log of phone calls received about the ordinance.
4. Direct observations in nearly 200 retail stores and 88 restaurants to determine compliance with the law. These were made at baseline, at 3-month follow-up, and one year after the law was adopted. This is the only part of the study with information about compliance beyond 3 months.

RESULTS

I am summarizing results from ongoing analyses. More detail is presented in the two reports that I sent to the Council last week.

IMPLEMENTATION AND ENFORCEMENT

The implementation of laws regulating smoking in public places and worksites has generally been put into the hands of public health departments rather than police departments. These laws are often said to be "self-enforcing." The assumption is that the majority of smokers, being law-abiding, will obey smoking restrictions and that nonsmokers will enforce any noncompliance, freeing government from the need to actively police the laws. Compliance is measured passively rather than actively; the lack of complaints is equated with adequate compliance. To be successful, this strategy requires that the public have a high level of awareness of the law's provisions.

The Cambridge ordinance followed this established pattern, assigning implementation and enforcement to the Health Department. The Health Commissioner, Dr. Chalfen, assigned one employee to spend a portion of his time to coordinate plans. The City Manager was given responsibility for insuring that the offices and employees of city government complied with the law.

To inform the public about the law, the Health Commissioner relied on the local news media. The ordinance attracted considerable attention both locally and nationally. To inform city businesses about the no-smoking law, the Health Commissioner collaborated with the local Chamber of Commerce to prepare and mail a two-page information sheet which summarized the provisions of the law. This information was mailed by the Chamber of Commerce to its members, which is about half of city businesses. Although intended to be mailed in January, it was mailed in late February, leaving businesses with only a couple of weeks to come into compliance.

The Health Commissioner enforced the law by responding to complaints rather than by active surveillance. One employee in his office was designated to respond to telephone and written questions and complaints. The telephone call logs demonstrate a peak of calls in the few weeks after the law took effect, followed by a rapid decline. The nature of calls changed over time. Initially most calls were to request information on compliance; as time passed, a larger proportion of calls were to report violations. In the first 3 months, no standardized method of response to complaints was established, and there was no formal action to penalize violators. No individual or business was fined, no city license was suspended, and no judicial action taken. According to a recent conversation with Dr. Chalfen, this remains true. This approach appeared to reflect both the political and financial climate in which the law was implemented. The city authorized no additional personnel or funds to cover implementation costs. There did not appear to be strong public pressure for more active enforcement. Three months after the policy took effect, the majority of city residents (54%) felt that enforcement was adequate, although a substantial number (36%) felt that it was not strict enough.

AWARENESS AND APPROVAL

Public awareness of the law was high. Most residents (57%) were aware of the ordinance at baseline and this proportion increased to 80% at 3 months. Support for the ordinance was also strong. Over three-quarters (77%) favored the law at baseline; there was no change at 3 months. More nonsmokers than smokers were in favor of the law, but 41% of smokers approved.

Awareness and approval were also high when Cambridge businessmen were surveyed 3 months after the ordinance took effect. Nearly all (93%) managers of businesses were aware of the law. Nearly two-thirds (64%) of managers supported the law, 20% opposed it, and 16% were neutral. Most managers (73%) knew the law's provisions, although over half incorrectly believed that they were required to provide a smoking working area for employees requesting one. Businesses appeared to have learned of the law through the news media rather than the city mailings. Only 27% had received the city's information sheet. Forty percent felt that they were not well informed about their responsibilities under the law.

COMPLIANCE

Compliance was measured by direct observation in public places, by managers' reports in worksites, and by city residents' reports.

At 3 months, 32% of residents surveyed had recently noticed smoking in public where it was not allowed. Most noticed it in public transport, government buildings, restaurants, and stores. Residents' most common response to violations of the law was to do nothing (82% of smokers and 53% of nonsmokers). No respondent envisioned calling the police or a city official in response to a violation.

We directly observed retail stores and restaurants. In retail stores, compliance with the letter of the law was poor; only 3% of stores had posted a sign with the required wording, and fewer than half had posted any no-smoking sign at all. The number of stores displaying a no-smoking sign increased after the law took effect, from 22% at baseline to 41% at 11 months, but this occurred only after a delay of 3 months. A smoker was seen in 12% of stores one year after the law was adopted. If a smoker was seen, it was more often an employee than a customer.

Smoking in restaurants was not affected by the law we studied. It had already been addressed by a 1984 city ordinance mandating a nonsmoking section in restaurants with 25 or more seats and bars seating 75 or more. Consequently, our baseline observations served as an evaluation of compliance 3 years after passage. There was a high level of compliance. Of the 69 restaurants subject to the ordinance (25 or more seats), 87% had a nonsmoking section that was of the adequate size (25%) or more seats designated nonsmoking). However, in most cases there was no physical barrier separating smoking and nonsmoking sections.

Self-reported compliance was high by Cambridge businesses. A large majority of managers who know of the no-smoking law report that they are in compliance with it (85%) or planning to comply (2%). A similar large majority of managers reported having no problems coming into compliance with the law.

Overall, 82% of city businesses have a smoking policy, but only 33% of these are written policies. An additional 2% plan to adopt a policy in the next year. About one third of policies appear to have been adopted in response to the law.

CONCLUSIONS OF THE STUDY

1. PUBLIC OPINION WAS FAVORABLE. The law was widely supported by both the public and the business community. There has been little opposition or confrontation by individuals or groups. We believe that this is because the law was an accurate reflection of public attitudes about smoking--people no longer believe that it is acceptable to have to breathe tobacco smoke in public places and at work. It is also probably because the city has regarded smoking in public as a public health issue--and not a public safety issue.

2. ALTHOUGH THE MAJORITY OF CITIZENS AND BUSINESSES KNEW ABOUT THE NO-SMOKING ORDINANCE, THIS KNOWLEDGE WAS OFTEN INCOMPLETE. For example, businesses felt that the law required them to provide smoking as well as nonsmoking areas, and it appears that retail stores did not know about the requirement for posting no-smoking signs with specific wording and did not inform their employees.

3. A CONSIDERABLE DEGREE OF COMPLIANCE WITH THE LAW WAS ACHIEVED WITH THE CITY'S MODEST EXPENDITURE OF TIME AND RESOURCES. For example, by and large the public obeyed the law, and, at least by the self-report of business managers, the majority of businesses had adopted some sort of smoking policy within three months of the law's passage. However, there also clearly are problem areas. The major problem was with posting of signs. The lowest level of compliance we noted was in retail stores, where there were few no-smoking signs one year after the law went into effect, and virtually none that technically complied with the letter of the law, stating that smoking was prohibited by law. It was also clear that employees in these stores were not informed about the law. This is important, because employees are the ones who must make sure that customers comply with the law. Our data suggests that some types of stores are doing better than others, and that future efforts might target types of stores or areas of the city with low compliance--for example, liquor stores and convenience stores.

4. THE CITY'S APPROACH OF ENFORCEMENT WAS SIMILAR TO THAT USED IN MOST OTHER TOWNS--TO RELY ON "SELF-ENFORCEMENT" AND TO ASSUME THAT THE LACK OF COMPLAINTS EQUALS GOOD COMPLIANCE. OUR STUDY OF RETAIL STORES SUGGESTS THAT THIS IS NOT ALWAYS THE CASE. The alternative would be to monitor the level of compliance more actively.

5. THE ENFORCEMENT PROVISIONS OF THE LAW--FINES OR RESCINDING OF LICENSES--WERE NOT USED. The optimal way to enforce the law is probably the most challenging matter faced by the city.

6. IT IS NOT TOO LATE TO IMPROVE COMPLIANCE WITH THE NO-SMOKING LAW.

RECOMMENDATIONS

1. Although the law has worked reasonably well, THERE IS NO REASON NOT TO AIM TO IMPROVE COMPLIANCE, especially in areas where compliance is low. Because there is virtually no evidence of opposition to the law, we can assume that a considerable degree of noncompliance is the result of ignorance of the law--or at least the details of its provisions.

2. THE FIRST PRIORITY SHOULD BE TO INCREASE KNOWLEDGE OF THE DETAILS OF THE LAWS BY PUBLIC EDUCATION. Articles in the news media are inexpensive and, in our study, an effective way to reach both citizens and businesses. These probably need to appear at some regular interval--such on the anniversary of the adoption of the law--to remind people and inform new residents and businesses.

However, the news media may not be sufficient to ensure that retail stores and businesses are accurately informed about the specific requirements of the law. To do this, WE SUGGEST THAT THE CITY MAIL INFORMATION TO ALL ITS BUSINESSES. One factor hampering this in the past was that the city had no comprehensive list of its businesses. It might be possible to find such a list, for example from lists maintained by the state. Such a list would be useful for many purposes, beyond just this particular ordinance.

3. As part of efforts to inform the public, THE CITY COULD TAKE SEVERAL SIMPLE STEPS TO HELP CITIZENS AND BUSINESSES COMPLY. For example, a mailing to city businesses could do more than just tell them about the law; it could help businesses comply. Such a mailing could include a copy of the law, a sample no-smoking policy for businesses to adopt, and a sample information sheet to be provided to employees, so that they will be informed about their responsibilities. Since the posting of signs is a particular problem, the city might consider providing (or selling at cost) sample signs with the correct wording. At least, the city could provide information about where businesses could get correctly worded signs. To defray costs, I suggest that the city consider working with organizations such as the American Lung Association, the Chamber of Commerce, or the Massachusetts Restaurant Association, who might help in providing signs to businesses.

4. What should the city do beyond providing information? What type of enforcement is appropriate? It is probably not easy to make people not smoke using the police--it will only engender dissent and hostility and conjure up notions of Big Brother. Furthermore, in most cases smokers do not smoke in places that are clearly marked as no-smoking. On the other hand, it is probably easy to enforce the requirement to post signs, because the lack of signs probably indicates a lack of knowledge, not an opposition to the law. THEREFORE, WE RECOMMEND THAT THE CITY FOCUS ON GETTING SIGNS POSTED AND ENSURING THAT BUSINESSES HAVE A NON-SMOKING POLICY FOR EMPLOYEES. The most efficient way to do so is to monitor that signs are posted in public places and that businesses have a no-smoking policy. With very little additional expense, the city could monitor signs in those places that are already inspected for other reasons--such as restaurants and retail food establishments. All that would be necessary is to have health inspectors check on signs and, in restaurants, also count the number of smoking and no-smoking seats. To cover other public places, any other ongoing inspections might add a check for no-smoking signs. There may be some categories of public places that are not monitored (e.g., some types of retail stores). I

would tell you that in our experience, it took very little of an individual's time to visit nearly 200 retail stores and check for signs.

It is more difficult to monitor whether businesses have smoking policies for employees. The ordinance does specifically allow the Health Commissioner to require businesses to provide a copy of their smoking policies; this power could be used to monitor businesses' compliance.

5. BECAUSE ENFORCEMENT CONSISTS OF RESPONDING TO COMPLAINTS, IT IS ESSENTIAL THAT THE CITY HAVE A CLEAR, STANDARDIZED METHOD OF DOING SO.

6. CAMBRIDGE COULD TAKE SEVERAL SIMPLE, INEXPENSIVE STEPS TO INCREASE COMPLIANCE WITH ITS NO-SMOKING ORDINANCE AND THEREBY INCREASE PROTECTIONS ON THE HEALTH OF ITS CITIZENS.

STATEMENT TO THE CAMBRIDGE CITY COUNCIL
REGARDING THE CAMBRIDGE NO-SMOKING ORDINANCE

Nancy Rigotti, M.D.
Institute for the Study of Smoking Behavior and Policy
John F. Kennedy School of Government
Harvard University

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RECOMMENDATIONS

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Harvard University

December 19, 1988

Thank you for the opportunity to speak to you tonight. I am a physician with a particular interest in the health consequences of cigarette smoking, and I serve as Associate Director of the Institute for the Study of Smoking Behavior and Policy at the Kennedy School of Government at Harvard University. The purpose of our Institute is to study links between public policy and smoking behavior--to study the effects of public policies such as the No-Smoking Ordinance in Cambridge on smoking behavior. Our overall goal is to contribute to reducing the toll of death, disease, and suffering caused by tobacco. As you probably already know, this toll is high. Tobacco smoking accounts for an estimated 350,000 deaths per year and represents the number one preventable cause of death in the U.S., according to Surgeon General C. Everett Koop. Over the past decade, there has been increasing awareness of passive or involuntary smoking. These risks include lung cancer and respiratory illness. Concerns about these health risks have led to the passage of laws restricting smoking in public places and workplaces. The Cambridge No-Smoking ordinance, passed by the City Council in December 1986, was one of the growing number of these laws.

I have been asked to speak to you tonight about our Institute's study of the implementation and impact of Cambridge's law. I will describe the purpose, results, and conclusions of this study, along with recommendations based on our findings. Let me begin by putting the Cambridge Ordinance, with which you are all familiar, into context.

Over the past 15 years, a growing number of states and communities have passed laws restricting smoking in public places and workplaces. These laws were first passed at the state government level. Currently, 42 states, including Massachusetts, have passed laws limiting smoking in at least some public places, although few state laws are as comprehensive as the Cambridge law. Over the past decade, the momentum of action has shifted from states to local governments and the pace of action has been accelerating. In 1986, when the Cambridge ordinance passed, I estimated in a chapter in the Surgeon General's Report on Smoking that approximately 90 communities nationwide had passed no-smoking ordinances; now, over 350 cities and counties have passed such laws--nearly a four-fold increase in only two years. In 1986, Cambridge was notable in being one of the first cities on the East Coast to pass a comprehensive ordinance restricting smoking both in public places and at the workplace. Since that time, a number of other communities in Massachusetts and around the country have passed similar laws, and the provisions of the Cambridge ordinance, once considered strong, are becoming standard for new city no-smoking ordinances. So, in retrospect, it appears that Cambridge was at the forefront of a movement that has become widespread.

PURPOSE OF THE STUDY

In 1986, I had just completed a review for the Surgeon General's Report of what little was then known about smoking restrictions in public places and at work. Research showed that no-smoking ordinances were becoming widespread, both in the private and public sectors, and that they had important potential public health benefits. They were expected to reduce individuals' exposure to passive smoke, and it was suggested that they might also discourage people from smoking. However, little was known about the actual impact of no-smoking laws and policies. Cities and states that passed these laws had little guidance about how to implement and enforce them. How well the public and businesses approved of and complied with these laws as unknown. From a public health perspective, this was important, since if they laws are not complied with, they cannot improve indoor air quality and thereby reduce exposure to passive smoke.

The passage of a No-Smoking Ordinance in our own community-- Cambridge--afforded our Institute the opportunity to observe closely the implementation and impact of a new No-Smoking Ordinance and address some of the public health questions. Our goal was understand the implementation process better in order to help this and other communities that are and will be passing similar laws. Our purpose was neither to intervene nor to serve as enforcers of the Cambridge law.

DESCRIPTION OF THE STUDY

Our evaluation focused on the early effects of the new Cambridge ordinance. Baseline information was collected during February 1987, the month before the policy took effect, and follow-up data 3 months later (June 1987). The study had 5 components but I will report on the relevant 4 parts tonight. These were:

1. A telephone survey of Cambridge residents that measured knowledge and approval of the law, compliance, and smoking behavior.
2. A telephone survey of 300 Cambridge businesses 3 months after the law took effect assessed their opinion and compliance with the laws.
3. Interviews with city officials involved in the passage, implementation, and enforcement of the law. To track the flow of information, city officials kept a running log of phone calls received about the ordinance.
4. Direct observations in nearly 200 retail stores and 88 restaurants to determine compliance with the law. These were made at baseline, at 3-month follow-up, and one year after the law was adopted. This is the only part of the study with information about compliance beyond 3 months.

RESULTS

I am summarizing results from ongoing analyses. More detail is presented in the two reports that I sent to the Council last week.

IMPLEMENTATION AND ENFORCEMENT

The implementation of laws regulating smoking in public places and worksites has generally been put into the hands of public health departments rather than police departments. These laws are often said to be "self-enforcing." The assumption is that the majority of smokers, being law-abiding, will obey smoking restrictions and that nonsmokers will enforce any noncompliance, freeing government from the need to actively police the laws. Compliance is measured passively rather than actively; the lack of complaints is equated with adequate compliance. To be successful, this strategy requires that the public have a high level of awareness of the law's provisions.

The Cambridge ordinance followed this established pattern, assigning implementation and enforcement to the Health Department. The Health Commissioner, Dr. Chalfen, assigned one employee to spend a portion of his time to coordinate plans. The City Manager was given responsibility for insuring that the offices and employees of city government complied with the law.

To inform the public about the law, the Health Commissioner relied on the local news media. The ordinance attracted considerable attention both locally and nationally. To inform city businesses about the no-smoking law, the Health Commissioner collaborated with the local Chamber of Commerce to prepare and mail a two-page information sheet which summarized the provisions of the law. This information was mailed by the Chamber of Commerce to its members, which is about half of city businesses. Although intended to be mailed in January, it was mailed in late February, leaving businesses with only a couple of weeks to come into compliance.

The Health Commissioner enforced the law by responding to complaints rather than by active surveillance. One employee in his office was designated to respond to telephone and written questions and complaints. The telephone call logs demonstrate a peak of calls in the few weeks after the law took effect, followed by a rapid decline. The nature of calls changed over time. Initially most calls were to request information on compliance; as time passed, a larger proportion of calls were to report violations. In the first 3 months, no standardized method of response to complaints was established, and there was no formal action to penalize violators. No individual or business was fined, no city license was suspended, and no judicial action taken. According to a recent conversation with Dr. Chalfen, this remains true. This approach appeared to reflect both the political and financial climate in which the law was implemented. The city authorized no additional personnel or funds to cover implementation costs. There did not appear to be strong public pressure for more active enforcement. Three months after the policy took effect, the majority of city residents (54%) felt that enforcement was adequate, although a substantial number (36%) felt that it was not strict enough.

AWARENESS AND APPROVAL

Public awareness of the law was high. Most residents (57%) were aware of the ordinance at baseline and this proportion increased to 80% at 3 months. Support for the ordinance was also strong. Over three-quarters (77%) favored the law at baseline; there was no change at 3 months. More nonsmokers than smokers were in favor of the law, but 41% of smokers approved.

Awareness and approval were also high when Cambridge businessmen were surveyed 3 months after the ordinance took effect. Nearly all (93%) managers of businesses were aware of the law. Nearly two-thirds (64%) of managers supported the law, 20% opposed it, and 16% were neutral. Most managers (73%) knew the law's provisions, although over half incorrectly believed that they were required to provide a smoking working area for employees requesting one. Businesses appeared to have learned of the law through the news media rather than the city mailings. Only 27% had received the city's information sheet. Forty percent felt that they were not well informed about their responsibilities under the law.

COMPLIANCE

Compliance was measured by direct observation in public places, by managers' reports in worksites, and by city residents' reports.

At 3 months, 32% of residents surveyed had recently noticed smoking in public where it was not allowed. Most noticed it in public transport, government buildings, restaurants, and stores. Residents' most common response to violations of the law was to do nothing (82% of smokers and 53% of nonsmokers). No respondent envisioned calling the police or a city official in response to a violation.

We directly observed retail stores and restaurants. In retail stores, compliance with the letter of the law was poor; only 3% of stores had posted a sign with the required wording, and fewer than half had posted any no-smoking sign at all. The number of stores displaying a no-smoking sign increased after the law took effect, from 22% at baseline to 41% at 11 months, but this occurred only after a delay of 3 months. A smoker was seen in 12% of stores one year after the law was adopted. If a smoker was seen, it was more often an employee than a customer.

Smoking in restaurants was not affected by the law we studied. It had already been addressed by a 1984 city ordinance mandating a nonsmoking section in restaurants with 25 or more seats and bars seating 75 or more. Consequently, our baseline observations served as an evaluation of compliance 3 years after passage. There was a high level of compliance. Of the 69 restaurants subject to the ordinance (25 or more seats), 87% had a nonsmoking section that was of the adequate size (25%) or more seats designated nonsmoking). However, in most cases there was no physical barrier separating smoking and nonsmoking sections.

Self-reported compliance was high by Cambridge businesses. A large majority of managers who know of the no-smoking law report that they are in compliance with it (85%) or planning to comply (2%). A similar large majority of managers reported having no problems coming into compliance with the law.

Overall, 82% of city businesses have a smoking policy, but only 33% of these are written policies. An additional 2% plan to adopt a policy in the next year. About one third of policies appear to have been adopted in response to the law.

CONCLUSIONS OF THE STUDY

1. PUBLIC OPINION WAS FAVORABLE. The law was widely supported by both the public and the business community. There has been little opposition or confrontation by individuals or groups. We believe that this is because the law was an accurate reflection of public attitudes about smoking--people no longer believe that it is acceptable to have to breathe tobacco smoke in public places and at work. It is also probably because the city has regarded smoking in public as a public health issue--and not a public safety issue.
2. ALTHOUGH THE MAJORITY OF CITIZENS AND BUSINESSES KNEW ABOUT THE NO-SMOKING ORDINANCE, THIS KNOWLEDGE WAS OFTEN INCOMPLETE. For example, businesses felt that the law required them to provide smoking as well as nonsmoking areas, and it appears that retail stores did not know about the requirement for posting no-smoking signs with specific wording and did not inform their employees.
3. A CONSIDERABLE DEGREE OF COMPLIANCE WITH THE LAW WAS ACHIEVED WITH THE CITY'S MODEST EXPENDITURE OF TIME AND RESOURCES. For example, by and large the public obeyed the law, and, at least by the self-report of business managers, the majority of businesses had adopted some sort of smoking policy within three months of the law's passage. However, there also clearly are problem areas. The major problem was with posting of signs. The lowest level of compliance we noted was in retail stores, where there were few no-smoking signs one year after the law went into effect, and virtually none that technically complied with the letter of the law, stating that smoking was prohibited by law. It was also clear that employees in these stores were not informed about the law. This is important, because employees are the ones who must make sure that customers comply with the law. Our data suggests that some types of stores are doing better than others, and that future efforts might target types of stores or areas of the city with low compliance--for example, liquor stores and convenience stores.
4. THE CITY'S APPROACH OF ENFORCEMENT WAS SIMILAR TO THAT USED IN MOST OTHER TOWNS--TO RELY ON "SELF-ENFORCEMENT" AND TO ASSUME THAT THE LACK OF COMPLAINTS EQUALS GOOD COMPLIANCE. OUR STUDY OF RETAIL STORES SUGGESTS THAT THIS IS NOT ALWAYS THE CASE. The alternative would be to monitor the level of compliance more actively.
5. THE ENFORCEMENT PROVISIONS OF THE LAW--FINES OR RESCINDING OF LICENSES--WERE NOT USED. The optimal way to enforce the law is probably the most challenging matter faced by the city.
6. IT IS NOT TOO LATE TO IMPROVE COMPLIANCE WITH THE NO-SMOKING LAW.

RECOMMENDATIONS

1. Although the law has worked reasonably well, THERE IS NO REASON NOT TO AIM TO IMPROVE COMPLIANCE, especially in areas where compliance is low. Because there is virtually no evidence of opposition to the law, we can assume that a considerable degree of noncompliance is the result of ignorance of the law--or at least the details of its provisions.

2. THE FIRST PRIORITY SHOULD BE TO INCREASE KNOWLEDGE OF THE DETAILS OF THE LAWS BY PUBLIC EDUCATION. Articles in the news media are inexpensive and, in our study, an effective way to reach both citizens and businesses. These probably need to appear at some regular interval--such on the anniversary of the adoption of the law--to remind people and inform new residents and businesses.

However, the news media may not be sufficient to ensure that retail stores and businesses are accurately informed about the specific requirements of the law. To do this, WE SUGGEST THAT THE CITY MAIL INFORMATION TO ALL ITS BUSINESSES. One factor hampering this in the past was that the city had no comprehensive list of its businesses. It might be possible to find such a list, for example from lists maintained by the state. Such a list would be useful for many purposes, beyond just this particular ordinance.

3. As part of efforts to inform the public, THE CITY COULD TAKE SEVERAL SIMPLE STEPS TO HELP CITIZENS AND BUSINESSES COMPLY. For example, a mailing to city businesses could do more than just tell them about the law; it could help businesses comply. Such a mailing could include a copy of the law, a sample no-smoking policy for businesses to adopt, and a sample information sheet to be provided to employees, so that they will be informed about their responsibilities. Since the posting of signs is a particular problem, the city might consider providing (or selling at cost) sample signs with the correct wording. At least, the city could provide information about where businesses could get correctly worded signs. To defray costs, I suggest that the city consider working with organizations such as the American Lung Association, the Chamber of Commerce, or the Massachusetts Restaurant Association, who might help in providing signs to businesses.

4. What should the city do beyond providing information? What type of enforcement is appropriate? It is probably not easy to make people not smoke using the police--it will only engender dissent and hostility and conjure up notions of Big Brother. Furthermore, in most cases smokers do not smoke in places that are clearly marked as no-smoking. On the other hand, it is probably easy to enforce the requirement to post signs, because the lack of signs probably indicates a lack of knowledge, not an opposition to the law. THEREFORE, WE RECOMMEND THAT THE CITY FOCUS ON GETTING SIGNS POSTED AND ENSURING THAT BUSINESSES HAVE A NON-SMOKING POLICY FOR EMPLOYEES. The most efficient way to do so is to monitor that signs are posted in public places and that businesses have a no-smoking policy. With very little additional expense, the city could monitor signs in those places that are already inspected for other reasons--such as restaurants and retail food establishments. All that would be necessary is to have health inspectors check on signs and, in restaurants, also count the number of smoking and no-smoking seats. To cover other public places, any other ongoing inspections might add a check for no-smoking signs. There may be some categories of public places that are not monitored (e.g., some types of retail stores). I

would tell you that in our experience, it took very little of an individual's time to visit nearly 200 retail stores and check for signs.

It is more difficult to monitor whether businesses have smoking policies for employees. The ordinance does specifically allow the Health Commissioner to require businesses to provide a copy of their smoking policies; this power could be used to monitor businesses' compliance.

5. BECAUSE ENFORCEMENT CONSISTS OF RESPONDING TO COMPLAINTS, IT IS ESSENTIAL THAT THE CITY HAVE A CLEAR, STANDARDIZED METHOD OF DOING SO.

6. CAMBRIDGE COULD TAKE SEVERAL SIMPLE, INEXPENSIVE STEPS TO INCREASE COMPLIANCE WITH ITS NO-SMOKING ORDINANCE AND THEREBY INCREASE PROTECTIONS ON THE HEALTH OF ITS CITIZENS.

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Statement of Dr. Nancy Rigotti, Harvard University, JFK School of Government, Institute for the Study of Smoking Behavior & Policy before the City Council on December 19, 1988.

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