Special Reports

THE ONTARIO TOBACCO RESEARCH UNIT
UNITÉ DE RECHERCHE SUR LE TABAC DE L'ONTARIO

Monitoring the Ontario Tobacco Strategy

8th Annual Monitoring Report

Part 4

OTS Progress and Implications 2001/2002

December 2002

OTS Progress and Implications 2001/2002

Ontario Tobacco Research Unit

December 2002

Parts 1-4 of the 8th Annual Monitoring Report are available
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PREFACE

This report is the final instalment of a new, annual four-part series on monitoring and evaluation initiated by the Ontario Tobacco Research Unit (OTRU) in 2002. The series expands upon the content of the seven previous annual monitoring reports and two evaluation reports published to date. The objective of this reorganization is to provide more analysis and to do so in a more timely fashion.

OTS Progress and Implications is the last of four "modules" that make up the new series. It is a discussion of the evidence presented in the series' first three reports. The full series consists of:

Part 1. Tobacco Control Highlights: Ontario and Beyond 2001/2002 – an overview of new developments, which provides a context for what is happening in Ontario (August 2002)

Part 2. OTS Project Evaluations: A Coordinated Review 2001/2002 – a largely qualitative summary of accomplishments by projects funded in 2001/02 (August 2002)

Part 3. Indicators of Progress 2001/2002 – quantitative data from a variety of survey and other sources measuring recent progress in tobacco control in Ontario (November 2002)

Part 4. OTS Progress and Implications 2001/2002 – a discussion of the results and implications of the findings in the previous three modules (December 2002).

Parts 1-4 of the 8th Annual Monitoring Report are available on the OTRU website at http://www.otru.org/special_reports.html.

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The interpretation and opinions expressed in this report are the responsibility of the Principal Investigators of OTRU:

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EXECUTIVE SUMMARY

Strategic Issues

- Cessation was the major focus of the Ontario Tobacco Strategy (OTS) in 2001/02, accounting for 53% of project funds. Protection and prevention consumed 14% and 30% of project spending, respectively. Only 3% was for activities clearly related to denormalization.
- The most prominent *strategy* was public education, at 47% of project spending, while assistance to smokers and infrastructure development each accounted for approximately one quarter of the money spent on OTS projects in the past year.
- The introduction of two-year funding in 2002 is a welcome move that should permit better planning and more thorough implementation of programs. However, the slow transfer of funds to projects effectively reduces this to a period of 1½ years. A three-year period would be preferable, with funding for a full 36 months. If this cannot be achieved with present structures, alternatives should be considered, including routing OTS funding through an external agency.
- Ontario's per capita allocation for tobacco control ($1.53 in 2001/02, returning to $1.60 in 2002/03) falls short of international standards. This has been true from the outset of the OTS, even after renewal in 1999. In 2001/02, Ontario's effort was less than that in Alberta ($3.82/capita), Quebec ($2.70) and British Columbia ($1.59). Tobacco tax revenue in Ontario was $493 million in 2000/01, while expenditures on tobacco control were $18.2 million. Thus only 3.7% of the tobacco tax was devoted to controlling the epidemic that generates the revenue.
- Tobacco taxes have increased substantially in the past year, and this should have a salutary – but temporary – effect on prevalence and consumption. Ontario's cigarette prices remain well below the national average and are more than 40% below those of Ontario's major US neighbour. No other single measure can contribute as much to tobacco control as an increase in the price of cigarettes.
- After increased tobacco prices, the most effective measure for population-wide tobacco control is widespread smoke-free spaces. Ontario would do well to emulate the California program in this regard.
- A media campaign that exposes the tobacco industry as not just another normal corporate citizen would buttress all the other efforts of the OTS: it would boost support for smoke-free spaces, it would reduce the current hypocrisy observed by youth, and it would provide the needed motivation to quit. In the absence of an effective federal campaign in this regard, provincial action is essential.

Smoke-free Spaces: Progress and Implications

- Progress in extending protection to nonsmokers in Ontario has been better than in other tobacco control areas, but slower than it could be, if California is taken as the model.
- Ontario is second only to British Columbia with respect to smoke-free homes and the objective for smoke-free homes of the Ministry's Mandatory Health Programs and Services Guidelines (MHPSG) *is* being achieved. However, since this objective simply calls for an increase over time, it is important to set a quantitative target for this area, as exists for the other objectives.
- To accelerate current positive trends and enhance the visibility of the OTS, expanded support for projects focused on smoke-free homes is recommended. These could be explicitly established as demonstration projects with a view to later adoption province-wide.
- The MHPSG target of 100% smoke-free *workplaces* by 2005 is unlikely to be reached without dramatic improvement, and it is unlikely that voluntary measures will be sufficient. The Health Protection and Promotion Act would provide the increase in coverage needed to achieve this objective.
- Given the importance of public support for any regulatory or legislative measures, programs are needed to address the low level of awareness that ETS is a major health hazard.

- It is doubtful whether, *in the absence of province-wide legislation*, less than $1 million is adequate support for achieving the smoke-free objective of the OTS, given the size and dispersion of the provincial population.

Reducing Adult Smoking: Progress and Implications

- *Current* smoking (25%) has declined from its high in 1995 but is now the same as at the start of the OTS in 1994 and when the OTS was renewed in 1999. During these same time periods, adult smoking in California declined 1-2%.
- Unlike adults aged 25+, there has been no recent change in the smoking of Ontarians age 20-24. However, this compares favourably to age 18-24 in California, where smoking has been steadily *increasing* since 1995. The unchanging prevalence of this age group in Ontario, their high consumption levels and their life circumstances suggest that they should be designated as a target group.
- Men are more likely than women to smoke; they consume more cigarettes daily; their smoking declined less from 1996 to 2001; and they are more nicotine-dependent. This suggests that some programs, if not objectives, should target men.
- Ontario smokers are more likely to prefer light/mild cigarettes than their counterparts anywhere else in Canada. This preference, coupled with the erroneous beliefs about their reduced risk, calls for educational measures and labeling regulations. Both are within Ontario's jurisdiction.
- Aspirations to quit among Ontario smokers are near the average for Canada, but well below those of California. There is also limited awareness of resources for Ontario smokers who want to quit. Educational and other measures to increase motivation to quit and to raise awareness of resources would be appropriate.
- Long-term trends in prevalence and consumption are developing as expected, given the substantial price drop in1994 and the gradual introduction of tobacco control programs since that time, especially since 1999. The MHPSG target of 15% daily smokers by 2005 will be achieved if current trends continue.

Eliminating Sales to Minors: Progress and Implications

- The MHPSG target of 100% compliance by 2000 was not reached, and is unlikely to be achieved even by 2005, if present trends continue. This target needs to be updated.

Reducing Teen Smoking: Progress and Implications

- The prevalence of smoking by Ontario teens is lower than in any other province except British Columbia, and it *may* be declining. Declines in student smoking are comparable to those in the United States.
- Despite recent tobacco tax increases, the price of cigarettes in Ontario still lags behind the rest of Canada and its closest US neighbours. Further increases can be expected to discourage uptake and reduce the number of smokers and the amount they smoke, even while increasing provincial tax revenue.
- Denormalization, i.e., reframing the tobacco industry as duplicitous and self-serving, has worked elsewhere, but this strategy remains to be tried in Ontario. It should become a focus of the media campaign.

Overall Progress in Reducing Tobacco Use

- Per capita consumption has dropped 15% since the inception of the OTS in 1994 and most of this decline has been in the past two years. While encouraging, the decline in Ontario for these two time periods is less than that seen in the rest of Canada and in California.

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INTRODUCTION

Framework for this Report

This report is organized around the six objectives of the Ontario Tobacco Strategy (OTS): 1) to make all schools, workplaces, and public places smoke-free, 2) to reduce adult smoking, 3) to eliminate smoking by pregnant women, 4) to eliminate sales to minors, 5) to reduce teen smoking, and 6) to reduce overall tobacco sales (expressed here as "to reduce overall tobacco use").

The report is a discussion of evidence presented elsewhere, particularly in the earlier parts of this annual monitoring series. Data from Part 2 (OTS Project Evaluations: A Coordinated Review 2001/2002) are primarily about changes in the environment and behaviour related to projects, whereas data from Part 3 (Indicators of Progress 2001/2002) are indicators of progress toward OTS objectives. However, it is not practical to repeat all the evidence for the discussion that is the focus of the present report.

The report is a discussion of evidence presented elsewhere, particularly in the earlier parts of this annual monitoring series.

The juxtaposition of project outcomes and population indicators in this report is not meant to imply that the OTS projects were the sole or even the main cause of progress reported here. However, Part 2 and the present discussion give credit for some positive change to OTS projects.

Most of this report describes progress toward the six objectives. A section devoted to each objective summarizes some of the key indicators and project achievements. Progress is interpreted with reference to the targets of the Mandatory Health Programs and Services Guidelines (MHPSG; Ontario Ministry of Health, 1997). There is also a focus on the *public health impact* of the project achievements. Each section concludes with implications for (a) programs and policy and (b) research and evaluation.

There are frequent comparisons in this report to California. This serves as a useful standard of comparison for two basic reasons: California has one of the most developed and successful tobacco control programs in the world, and the state also has more current population data than other states that also have comprehensive programs.

In order to analyze the impact of OTS achievements and to identify future opportunities, we introduce here the RE-AIM framework, developed for such a purpose by Glasgow and colleagues (1998). RE-AIM is essentially a population health perspective on interventions. It was developed to expand the usual discussion of interventions that tends to emphasize *efficacy* and to consider their public health *impact*, that is, the actual contribution of the intervention to solving a public-health problem in the real world (sometimes referred to as effectiveness).

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The critical dimensions of the RE-AIM framework are Reach and Efficacy, which interact to produce impact. The reach of program(s) refers to the size and representativeness of program participants and settings, whereas the

efficacy of interventions is related to use of best practices and refers to the magnitude of change achieved. The Reach and Efficacy of programs directed at each OTS objective are discussed below, as evidence permits.[1]

The other dimensions of the RE-AIM framework are Adoption (or diffusion), Implementation, or whether adoption goes as planned, and Maintenance of innovations, which requires capacity and infrastructure to continue to deliver programs. These latter dimensions are used in the discussion to consider future opportunities and needs relative to current projects.

Overview of the Strategy

Table 1 summarizes the status of OTS projects in 2001/02 and shows the extent to which funding was directed to each of protection, prevention, cessation and denormalization. Project funds (excluding evaluation, administration, public health unit [PHU] activity, and partner agency support) were allocated to these four areas on the basis of OTRU's perception of program activity. Thus, for example, the media campaign, which consisted largely of health messages, was allocated primarily to prevention and cessation, with a smaller amount seen as directed at protection (Part 2, pp. 29-31). Since no messages were directed at changing attitudes toward the tobacco industry or its products, none of the media campaign funds are allocated to denormalization.

...cessation was the major focus in 2001/02 (53% of project funds).... Only 3% was for activities clearly related to denormalization. The most prominent *strategy* was public education, at 47% of project spending...

On this basis, cessation was the major focus in 2001/02 (53% of project funds). Protection and prevention accounted for 14% and 30% of project spending, respectively. Only 3% was for activities clearly related to denormalization.

The most prominent *strategy* was public education, at 47% of project spending, while assistance to smokers and infrastructure development each accounted for approximately one quarter of the $6.95 million spent on OTS projects in the past year.

[1] A project is underway by the Program Training and Consultation Centre (PTCC) to assess the use of best practices by several recently funded projects (Part 2, pp. 40-41) and to facilitate their adoption by future projects. The projects assessed to date by PTCC generally predate 2001/02.

Table 1: OTS Project Budgets, by Tobacco Control Goals and Main Strategy Employed, 2001/02 (in $000)

	Tobacco Control Goals			
Main Strategy Project	**Protection**	**Prevention**	**Cessation**	**Denormalization**
Public Education				
Mass Media Campaign	$300	$1,350	$1,350	
TeenNet		125	125	
Assistance to Smokers				
Leave the Pack Behind	50		300	
Telephone Helpline for Smokers			1,370	
Infrastructure Development				
Best Practices	100		100	
Youth Vortal		100		
Lungs are for Life		450		
Youth Initiative	300			50
Clinical Tobacco Intervention			400	
Media Network	140			140
Tobacco Control Conference	60	60	60	20
TOTAL, $ %	**950 14**	**2,085 30**	**3,705 53**	**210 3**

Adapted from Part 2, Table 5 of the 8th Annual Monitoring Report series. Funds were allocated by OTRU across objectives to reflect the approximate proportion of effort for each. Does not include evaluation and administration, public health unit activity or other partner agency support.

PROGRESS IN 2001/02 TOWARD SMOKE-FREE SPACES

Overview of Progress Indicators

- Public awareness of the adverse health effects of environmental tobacco smoke (ETS) is low (Part 3, p. 11).
- Public support for smoke-free public places is growing but remains modest (Part 3, Figs. 6-8).
- Protection against ETS at work is spreading – slowly (Part 3, Fig. 9)
- There has been good progress on ETS protection at home (Part 3, Fig. 12).
- Municipal bylaw coverage is quite good: more municipalities adopted smoke-free bylaws, and 54% of Ontarians were living in communities with 100% smoke-free restaurants by early 2002 (Part 3, p. 11).

Overview of Project Outcomes

- While no OTS projects were *focused* on ETS last year, approximately 14% of OTS program resources in 2001/02 were devoted to protection, including portions of the *Youth Initiative* and *Leave the Pack* Behind *(LTPB)* (Table 1).
- The *Media Campaign* sought to erode permission to smoke and contributed indirectly to protection by publicizing the health effects of ETS in one of its spots (Part 2, pp. 29-31).
- Smoke-free residences, pubs and courtyards were established at five post-secondary institutions through the efforts of *LTPB* (Part 2, pp. 34-37).

Discussion

Compared to other tobacco control measures in Ontario, progress in extending protection to nonsmokers has been better, but perhaps slower than it could be, if California is taken as the model.

The MHPSG objective for smoke-free homes is being achieved.

Progress

- Compared to other tobacco control measures in Ontario, progress in extending protection to nonsmokers has been better, but perhaps slower than it could be, if California is taken as the model (Gilpin et al., 2002). Ontario is second only to British Columbia with respect to smoke-free homes.[2]
- Progress in protecting nonsmokers has been greatest in homes and municipalities. The least progress is noted with respect to public knowledge of health effects and attitudes supportive of greater restrictions on public smoking.
- The MHPSG objective for smoke-free homes is being achieved. However, this objective is not quantified, simply calling for an increase over time.

[2] Ontario *may* lead the nation in ETS bylaw protection, as measured by proportion of the population covered, but definitive national data await the Health Canada report on this topic.

Public Health Impact

- **Reach.** The proportion of the Ontario population reached by OTS projects *focused* on ETS is minimal because there are so few projects. The *Media Campaign* has great potential reach, but is modest in its frequency and variety of messages, and, in any event, is not focused in this area. *LTPB* is limited to post-secondary institutions – an appropriate focus but one that reaches only about 1% of the Ontario population. Otherwise, reach is good: much municipal bylaw coverage is comprehensive and the population covered is growing steadily. (See http://www.theotn.org/ for continual updates.)
- **Efficacy** appears to be quite high for *LTPB* in establishing smoke-free areas on a few campuses (Part 2, pp. 34-37). Evidence of attitude change related to exposure to the *Media Campaign* is not yet available (Part 2, pp. 29-31). Message content and frequency may be issues affecting efficacy; more evaluation is needed of the campaign. At this time, Ontario is only average within Canada in public support for total smoking restrictions in bars and restaurants (Part 3, Figs. 7, 8), although there was an increase in support from 2000 to 2001 (Part 3, Fig. 7).

Implications

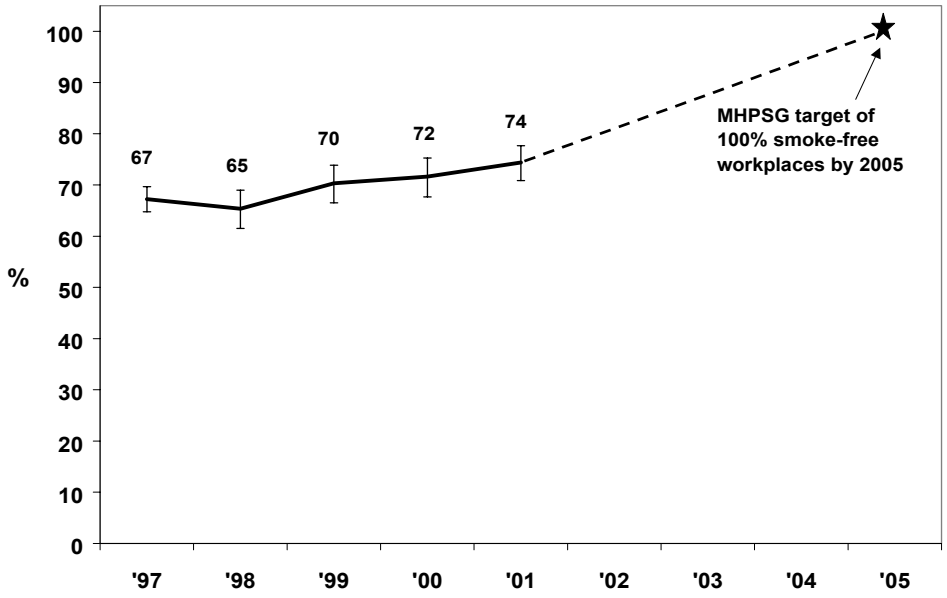
Implications for Programs and Policies

- While there is progress toward the MHPSG objective for more smoke-free homes, it is time to set a quantitative target for this area, as exists for the other objectives. To accelerate this trend and enhance the visibility of the OTS, expanded support for projects focused on smoke-free homes is recommended. These could be explicitly established as demonstration projects with a view to later adoption province-wide.
- The MHPSG target of 100% smoke-free workplaces by 2005 is unlikely to be reached without dramatic improvement (Fig. 1), and it is unlikely that voluntary measures will be sufficient. The Health Protection and Promotion Act could be used to provide the increase in coverage needed to achieve this objective.

While there is progress toward the MHPSG objective for more smoke-free homes, it is time to set a quantitative target for this area, as exists for the other objectives.

The MHPSG target of 100% smoke-free workplaces by 2005 is unlikely to be reached without dramatic improvement..., and it is unlikely that voluntary measures will be sufficient.

Figure 1: Total Smoking Bans at Work, Adult Workers Aged 18+, Ontario
1997-2001 and 2005 MHPSG Target



Source: Centre for Addiction and Mental Health Monitor.

The MHPSG target of 100% smoke-free *public places* by 2005 will also not be reached without significant assistance such as would be provided by provincial legislation.

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The MHPSG target of 100% smoke-free *public places* by 2005 will also not be reached without significant assistance such as would be provided by provincial legislation. Only legislation can address uneven coverage and create a 'level playing field' among, for example, bars and restaurants in neighbouring municipalities. This has been recommended before by OTRU:

> A municipality-by-municipality approach to smoke-free bylaw implementation has inherent deficits. Such an approach can lead to an absence of a level playing field of smoke-free rules for the hospitality industry, which results in different levels of worker protection and proprietor requirements in many adjoining municipalities. It also results in wasteful and expensive duplication as municipality after municipality embarks on campaign after campaign with different available levels of expertise, information, advertising and implementation funding, and enforcement resources.
>
> Provincial action would be much more cost-effective in providing protection for the large number of workers, especially those in blue-collar jobs, exposed to ETS while at work. Support for just such a position comes from the Association of Municipalities of Ontario. At their August 2000 annual convention, the Association passed a resolution asking the provincial government to take over responsibility for protecting the health of Ontarians in public places and workplaces through the enactment of a provincial smoking policy. Provincial action should take the form of an updated *Smoking in the Workplace Act* or revised regulations under the *Occupational Safety and Health Act.*
>
> *OTRU, Seventh Annual Monitoring Report, 2001*

- Given the importance of public support for any regulatory or legislative measures, programs are needed to address the low level of awareness that ETS is a major health hazard. Perhaps this should be linked to the low awareness of the hazards associated with using light cigarettes (see below). The provincial *Media Campaign* has addressed this issue minimally, although the hazards of ETS are currently receiving attention from the federal media campaign.
- In the absence of province-wide legislation – which is inherently cost-effective – and given the size and dispersion of the provincial population, it is doubtful whether less than $1 million (Table 1) is adequate support for achieving the smoke-free objective of the OTS. Meeting this objective is especially important since prevalence and amounts smoked are also reduced where there is progress on protection (Gilpin et al., 2002; Stephens et al., 2001).

In the absence of province-wide legislation... it is doubtful whether less than $1 million is adequate support for achieving the smoke-free objective of the OTS. Meeting this objective is especially important since prevalence and amounts smoked are also reduced where there is progress on protection

Implications for Research and Evaluation

- Data are needed on the reach of the *Media Campaign* and on the attitudes of exposed versus unexposed persons. Although attribution of change is complex, this would help demonstrate the incremental impact of this campaign among the host of other ongoing influences on attitudes and knowledge.
- A better understanding is needed on the nature of workplace ETS exposure and why it is not declining as total bans slowly increase.
- Progress on bylaw coverage needs to be continually monitored (as the Ontario Tobacco-free Network [OTN] is doing) and Health Canada needs to be urged to collect and publish more timely data on the national picture; their last published report on bylaws was in 1996; the next one, to report 2001 data, is already dated.

PROGRESS IN 2001/02 TOWARD REDUCING ADULT SMOKING

Overview of Progress Indicators

...nondaily smokers now account for about one quarter of all adult current smokers in the province. This is a substantial change from a decade ago when almost all smokers smoked on a daily basis.

- The prevalence of daily smoking has declined since 1997 (Part 3, Fig. 15), but daily consumption by daily smokers is unchanged (Part 3, Fig. 19).
- Occasional smoking has become more common than ever and nondaily smokers now account for about one quarter of all adult current smokers in the province (Part 3, Fig.17). This is a substantial change from a decade ago when almost all smokers smoked on a daily basis.
- As a consequence of this pattern, cigarettes consumed per capita have declined since 1996 (Part 3, Fig. 3).
- Gender differences persist: Men are more likely than women to smoke; they consume more cigarettes daily (Part 3, Fig. 19); their smoking declined less from 1996 to 2001 (Part 3, Figs. 13, 15); and they are more nicotine-dependent (Part 3, Fig. 20).
- Interprovincial comparisons indicate that Ontario is doing relatively well with respect to adult smoking: daily and current smoking (age 18+) were lower in 2001 than in all other provinces except British Columbia. More ambiguously, Ontario smokers were more likely to prefer light/mild cigarettes (76%) than their counterparts anywhere else in Canada (Part 3, Fig. 21).
- Differences related to socio-economic status persist as well: There is a greater prevalence of smoking among blue--collar workers than other working people (Part 3, Fig. 14) and this mirrors the higher level of ETS exposure among such workers (Part 3, Fig. 11). The result is a double jeopardy for the health of blue-collar workers.
- One quarter (27%) of Ontario smokers say they want to quit within the next 30 days; another quarter (a total of 55%) want to quit within the next six months (Part 3, Fig. 22).

Overview of Project Outcomes

- $3.7 million (53% of OTS project funds) was allocated directly or indirectly to cessation in 2001/02, of which almost all was directed at adults (Table 1).[3] The projects most closely associated with cessation were the *Smokers' Helpline* and the *Clinical Tobacco Intervention,* which provided services to smokers and developed professionals' capacity, respectively. Other cessation-oriented projects with an adult focus were *LTPB* and *Best Practices;* these were relatively small in expenditure and impact on adult smoking (Table 1).
- A minority of Ontario smokers was aware of cessation programs in 2001/02, although more than a quarter of them (29%) knew about the *Helpline* (Part 3, Fig. 23), which is impressive visibility. The *Helpline* had

[3] Without the $1.35 million of the *Media Campaign,* which was only indirectly aimed at cessation, the proportion would be more like one third of funds.

over 7,000 first-time callers and 657 repeat contacts in 2001/02. The overall quit rate was 11-12% after a six-month period (Part 2, p. 39).
- Specific groups such as blue-collar workers, low-literacy adults and pregnant women were not targeted for any cessation projects in 2001/02.

Discussion

Progress

- *Current* smoking (25%) has declined from its high in 1995 but is now the same as at the start of the OTS in 1994 and when the OTS was renewed in 1999 (Part 3, Fig. 13). During these same time periods, adult smoking in California declined 1-2% annually (California Department of Health, 2002).
- Unlike teens and adults aged 25+, there has been no recent change in the smoking of Ontarians age 20-24 (Part 3, Fig. 28). However, this compares favourably to age 18-24 in California, where smoking has been steadily *increasing* since 1995 (California Department of Health, 2002).
- Aspirations to quit among Ontario smokers are near the Canadian average, but well below those of California where 38% of smokers plan to quit within the next 30 days (vs. 27% in Ontario) and 72% are thinking of quitting within the ensuing six months (vs. 55% in Ontario) (California Department of Health, 2002).
- Long-term trends in prevalence and consumption are developing as expected, given the substantial price drop in 1994 and the gradual introduction of tobacco control programs since that time, especially since 1999.
- Progress has been slow, but there *is* progress: The MHPSG target of 15% daily smokers by 2005 will be achieved if current trends continue (Fig. 2).

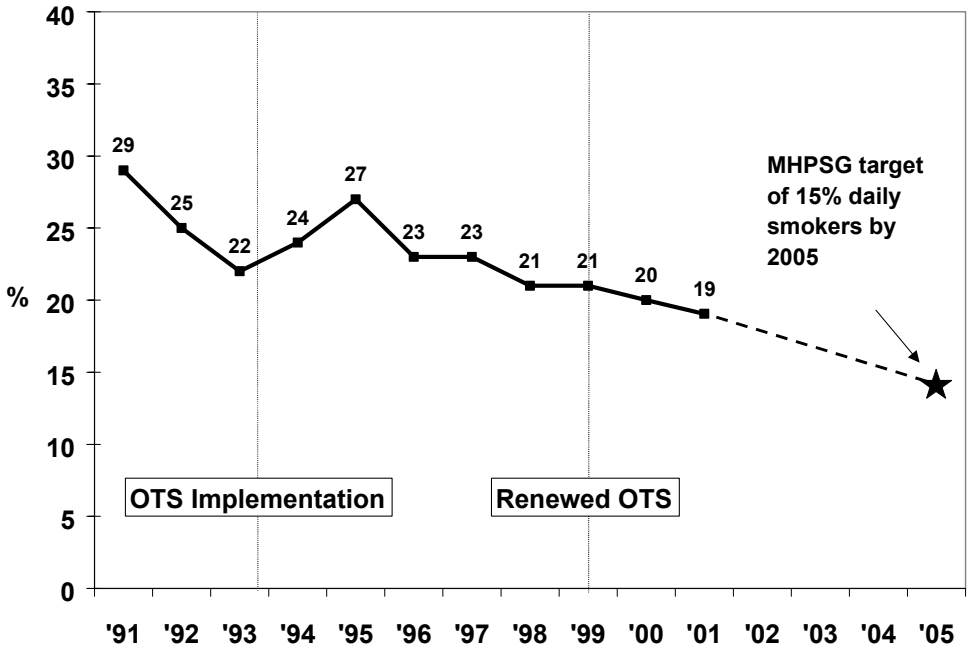
Unlike teens and adults aged 25+, there has been no recent change in the smoking of Ontarians age 20-24.

The MHPSG target of 15% daily smokers by 2005 will be achieved if current trends continue.

Public Health Impact (Reach x Efficacy)

- *Helpline* and *LTPB*, the only projects that provide direct services to smokers, are reporting encouraging evidence of efficacy (Part 2, p. 37, 39). However, the *reach* of the *Helpline* is still limited – 0.5% of smokers have contacted it. *LTPB* has expanded from its original 10 campuses; since there are 28 public colleges and 20 universities in Ontario, there is much room to grow. The *representativeness* of participants in the *Helpline* and *LTPB* is unknown, but it can be assumed that the more motivated smokers are attracted initially and that early success rates may not be achieved indefinitely without more intensive program efforts.
- Similarly, early *Clinical Tobacco Initiative* (*CTI)* participants are likely to be more committed than average and recruitment may become more challenging over time. Reach is still limited for the *CTI*, as 700 professionals received training in 2001/02 (Part 2, p. 47); this is 2% of the approximately 34,000 physicians, dentists, and pharmacists in Ontario.

Figure 2: Daily Cigarette Smoking, Age 18+, Ontario, 1991-2001 and 2005 MHPSG Target



Source: Centre for Addiction and Mental Health Monitor.

Implications

Implications for Programs and Policies

- There are OTS objectives for adults and teens, but none refers specifically to young adults (age 20-24 or 18-24). The unchanging prevalence of this group, their high consumption levels and life circumstances (either in post-secondary education or entering the workforce) suggest that they should be a designated target group. Only *LTPB* targets this group, although this project misses those in this group at highest risk (i.e., youth with lower levels of education).
- Similarly, the data on prevalence, consumption, and dependence suggest that some programs, if not objectives, should target men. Blue-collar workers have been identified as a target group, but are not the object of any projects.
- Given the large potential public health impact of the *Smokers' Helpline*, continued support is appropriate.
- The preference for light/mild cigarettes (Part 3, Fig. 20), coupled with the erroneous beliefs about their reduced risk, calls for educational measures and labeling regulations. Both are within Ontario's jurisdiction.
- There is a fairly high readiness to quit among Ontario adult smokers, yet there is relatively low awareness of resources for smokers. Educational and other measures to increase motivation to quit, and to raise awareness of resources available for smokers, are appropriate at this time.

There is a fairly high readiness to quit among Ontario adult smokers, yet there is relatively low awareness of resources for smokers. Educational and other measures to increase motivation to quit, and to raise awareness of resources available for smokers, would be appropriate…

Implications for Research and Evaluation

- There needs to be clearer understanding of the strong preference for light/mild cigarettes by Ontario adults and the role of product marketing in establishing and maintaining these mistaken beliefs.
- Continued evaluation of the *Helpline* and *Leave the Pack Behind* is important for understanding whether the current quit rates are maintained by early adopters and if they are matched by later participants.
- More generally, an ongoing study of quitters of all ages, perhaps with a cohort design and a strong qualitative component, could shed light on the process of quitting, the causes of relapse, and the role of OTS programs and other influences including price increases.

Progress In 2001/02 Toward Eliminating Smoking By Pregnant Women

Overview of Progress Indicators

- There are no data to report at this time on smoking by pregnant women. Data will be available in the near future from the Canadian Community Health Survey (CCHS) for 2000/01 and the Canadian Tobacco Use Monitoring Survey (CTUMS) for 2002. Some data are also expected soon from the OTRU pilot project involving several health units.

Overview of Project Outcomes

- No projects addressed this target group during 2001/02. Pregnant women have had little attention as a target group throughout the life of the OTS.

Discussion

Progress

- There are no time series on this indicator so progress will be almost impossible to judge, even when data become available.

Public Health Impact (Reach x Efficacy)

- While there are no projects specific to this group, some impact may have spilled over from programs aimed at adults generally, but there is no way of determining this with present or expected data sources.

Implications

If this is to be a genuine target group, there should be some appropriate programs addressed to it, perhaps at the community level.

Implications for Programs and Policies

- If this is to be a genuine target group, there should be some appropriate programs addressed to it, perhaps at the community level.

Implications for Research and Evaluation

- In 2002, CTUMS inquired about smoking during pregnancies during the five years prior to the survey;[4] this will be repeated in 2003. Sample size considerations require such a long reporting period, indicating that this issue should be part of the CCHS, and PHUs in Ontario could request this for the next cycle of the national survey.

[4] Data are not yet available.

PROGRESS IN 2001/02 TOWARD ELIMINATING SALES TO MINORS

Overview of Progress Indicators

- 71% of students reported purchasing cigarettes at a corner store in 2001, unchanged from 1995 (Part 3, Fig. 31). Data from a year earlier suggest that this was most likely to have happened in chain convenience stores (AC Nielsen, 2001).
- Substantially improved compliance by tobacco retailers was noted in most store types during the period 1995-2000. The notable exceptions, where there was no such improvement in compliance with the law, were gas stations and chain convenience stores (AC Nielsen, 2001).

Overview of Project Outcomes

- $2,085,000 (30% of OTS program resources) was devoted directly or indirectly to the prevention objective, broadly defined, in 2001/02 (Table 1).[5]
- No projects have focused on sales to minors since 2000.
- The *Media Network* and others in the tobacco control community successfully exposed Operation ID as a ploy of the tobacco industry (Part 2, pp. 48-49).

Discussion

Progress

- Progress in restricting access has been good in some locales, but is uneven; in general, compliance is not improving and access is still too easy. Without better data on enforcement, however, it is hard to know whether this is adequate or even effective as a measure to reduce sales. Some respected authorities doubt the overall impact of sales restrictions as a measure to reduce teen smoking (Chaloupka, 2002).
- The MHPSG target of 100% compliance by 2000 was not reached, and is unlikely to be achieved even by 2005, if present trends continue. This target needs to be updated.

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Public Health Impact (Reach x Efficacy)

- Overall, the reach and efficacy of programs directed to reducing youth access since 1999 have been low – since these programs have been rare. This type of program tends to be focused at the community level, and there were no community grants in 2001/02. However, enforcement is mandated by the MHPSG.

[5] Without the M*edia Campaign*, the proportion was 11%.

Implications

Implications for Programs and Policies

- It is not clear why there are no programs intended to address elimination of sales to minors, and the OTS Steering Committee might usefully examine this question. Perhaps there were no credible proposals in recent years or the Ministry decided they were a low priority and assumed the PHUs are handling this adequately. In the absence of current enforcement data, it is impossible to know. As noted, there are some doubts about the overall impact of this strategy.
- Measures other than enforcement of minimum age should be considered. Saskatchewan provides an example of innovation in this area with its restrictions on retail displays (Part 2, p. 7). Manitoba is now following Saskatchewan's lead; Ontario should do likewise. Legislation to eliminate all point-of-sale displays is entirely within provincial jurisdiction and should be acted upon as a priority. Such action would effectively support denormalization.
- A province-wide approach is needed to achieve the required reach and thus impact in this area. In the interim, a total of 19 PHUs will be involved in various community-grant projects in 2002-04, but their major focus will be on enacting and enforcing smoke-free bylaws.

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Implications for Research and Evaluation

- It is important to have the AC Nielsen series on compliance updated annually and wider community coverage would also be desirable.
- OTRU needs to have timely access to relevant existing data, such as results of the Mandatory Programs Indicator Questionnaire, collected by the Public Health Branch. However, there may still be a need for more comprehensive and timely data on PHU activity.

PROGRESS IN 2001/02 TOWARD REDUCING TEEN SMOKING

Overview of Progress Indicators

- Sixteen percent of Ontario teens (age 15-19) were current smokers in 2001. There is a suggestion of a decline since 1999, but the difference is not yet statistically significant (Part 3, Fig. 26).
- As of 2001, there were recent declines in smoking among *students* in all grades from 7 through the final year of high school (Part 3, Fig. 27). Amount smoked daily has also declined in recent years (OTRU, November 2001).
- A pronounced drop in lifetime abstinence by students appears between grades 8 and 9 (Part 3, Fig 25), or between ages 15-17 and 18-19 (Part 3, Fig. 29).
- Ontario teens express a strong preference (83%) for light/mild cigarettes – more than in any other province (Part 3, Fig. 30).

Overview of Project Outcomes

- Five OTS projects focused on a mix of prevention and cessation aimed at teens or near-teens (*TeenNet, Youth Vortal, Lungs Are for Life (LAFL), Youth Initiative, and Leave the Pack Behind*). A total of about $1.3 million (19% of project budgets) was directed at this target group (Table 1).[6]
- 5000 youth joined *TeenNet* and used the *Smoking Zine* (Part 2, p. 33).
- *Lungs are for Life* increased student knowledge of tobacco, but had no demonstrable impact on attitudes or behaviour – although this was not expected in 2001/02 (Part 2, pp. 44-45).

Discussion

Progress

- The prevalence of smoking by Ontario teens is lower than in any other province except British Columbia and it may be declining, but more monitoring is needed to confirm this.
- Although definitions vary, it appears that declines in student smoking are comparable to those in the US in general. From 1999-2001, student smoking fell17% in Ontario and 20% in the US (Johnston et al., 2002). In California, the 30-day prevalence of smoking fell 15% during this period (California Department of Health, 2002).
- Analysis of the CCHS, once it is available, will reveal the extent of smoking by Ontarians age 12-19 vis-à-vis the MHPSG target of 10% by 2005.[7] In the meantime, progress for this age group is unknown.

From 1999-2001, student smoking fell17% in Ontario and 20% in the United States. In California, the 30-day prevalence of smoking fell 15% during this period.

[6] Assuming half of the LTPB participants were teens.

[7] No other existing data sources are fully adequate for this monitoring task. While the Ontario Student Drug Use Survey (OSDUS) covers most of this age range, it covers only high-school students, who account for an ever-diminishing proportion of the population from age 16 onward.

Public Health Impact (Reach x Efficacy)

- The reach of *LAFL* is good (4,700 modules distributed last year, 127,000 students involved), especially considering the representativeness of the students involved in the pilot phase. The potential reach is universal. There is some early promising evidence of efficacy, and continued development and further evaluation is warranted.
- The reach of *TeenNet* and *Youth Vortal*, being web-based, also have considerable potential, but the impact of the latter, as an infrastructure project, cannot be fairly judged on the basis of *population* reach. The representativeness of early adopters may not reflect later uptake of either project, but further evaluation may shed more light on this. The efficacy of the *Smoking Zine* will be better known at the end of this year.

Implications

Implications for Programs and Policies

- Even with modest efficacy, the potential public health impact of *LAFL* is considerable since it could reach 100% of Ontario students. If evaluation demonstrates a positive impact on attitudes and behaviour, the province should consider making this program a mandatory part of the school curriculum. As the only OTS program clearly focused on prevention, it makes sense to continue support at least through the next phase of this project.
- Tobacco price increases through higher tobacco taxes have been more substantial recently, but Ontario still lags behind the rest of Canada and its closest US neighbours (Part 3, Fig. 2). Further increases can be expected to discourage uptake, and to reduce the number of smokers and the amount they smoke, even while increasing provincial tax revenue.
- Denormalization, i.e., reframing the tobacco industry as duplicitous and self-serving, has worked elsewhere (Bal, 2002) but this strategy remains to be tried in Ontario. It should become a focus of the media campaign.

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Implications for Research and Evaluation

- It is critical to continue monitoring youth smoking using OSDUS and CTUMS to confirm recent downward moves. Annual monitoring and adequate sample size are important for detecting trends early.
- It is important to identify the reasons why Ontario teens have such a strong preference for light cigarettes. If there is an assumption of reduced risk and that it is easier to give up light cigarettes, this needs to be documented and acted upon.
- Continued evaluation of all these initiatives is critical.

It may be that Ontario's success in curbing youth smoking has reached the limits of what can be accomplished with the type of program and policy initiatives that have been part of the OTS to date. To reach the more resistant youth smokers, Ontario needs to act aggressively. What is required is the type of comprehensive and well funded program and policy initiatives seen in some U.S. States. Critical measures needed are higher tobacco prices, restricted access to tobacco from retailers and other sources, more time in school curricula for proven prevention programs, leadership and commitment to make existing programs work in school and in the community, and a better example provided by adults who currently smoke at home or in other settings frequented by young people. Complete smoking bans in workplaces popular with youth and young adults, including restaurants and bars, are also important components of a comprehensive prevention program.

OTRU, Seventh Annual Monitoring Report, 2001

PROGRESS IN 2001/02 TOWARD REDUCING OVERALL TOBACCO USE

Total cigarette sales per capita is a measure of overall progress in tobacco control. In the Ontario context, this statistic reflects a wide range of influences in opposition to tobacco industry efforts: OTS projects; tobacco control activities by the PHUs, OTS partners, and the Ontario Heart Health Project; federal tobacco control initiatives in Ontario; the beneficial spillover via the media of tobacco control in other provinces and the US (see Part 1 of this series, *Tobacco Control Highlights: Ontario and Beyond 2001/2002*); and secular trends, especially a population that is aging and is becoming increasingly well educated.

Per capita consumption has dropped 15% since the inception of the OTS in 1994; most of this decline (11%) has been in the past two years. While encouraging, the decline in Ontario for these two periods is less than that seen in the rest of Canada and in California.

In 2001/02, cigarette sales per capita continued the slow and steady decline that has been apparent for the past several years (Fig. 3). Per capita consumption has dropped 15% since the inception of the OTS in 1994; most of this decline (11%) has been in the past two years. While encouraging, the decline in Ontario for these two periods is less than that seen in the rest of Canada and in California[8] (Table 2).

Table 2: Declines in Per Capita Consumption of Cigarettes Over Two Recent Time Periods

	1994-2001	1999-2001
Ontario	15%	11%
Canada excl. Ontario	22%	14%
California	35%	18%

Sources: Tobacco industry reports to Health Canada; California Department of Health

The important question, for which there is starting to be some encouraging evidence, is whether the OTS can accelerate this trend and reduce disparities among groups in society as smoking – and its costs – are reduced.

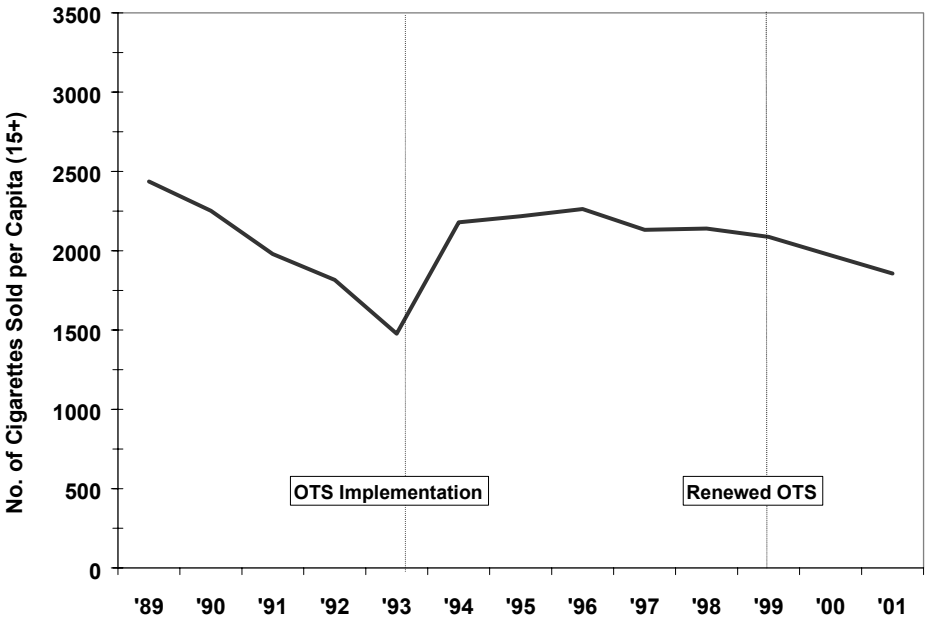
The indicators reviewed in earlier sections reveal mixed progress toward OTS objectives – positive with respect to daily adult smoking and ETS at home and in public places, less so with respect to ETS at work and smoking by teens. With only a few exceptions, it is difficult to attribute this progress to particular projects, given the multifaceted nature of the OTS and ongoing campaigns across the country and in the US. However, many of the better-documented project outcomes suggest clearly that they are contributing to this progress (Part 2, pp. 44-45).

The OTS as a Strategy

This section makes some observations about the Strategy as a whole, including its coordination, funding and coverage.

[8] California Department of Health, 2002 (website).

Figure 3: Legal Sales[a] of Cigarettes and Equivalents Per Capita (Age 15+), Ontario, 1989-2001



[a] Excludes smuggling.
Source: Tobacco industry reports to Health Canada.

Coordination

The principal role of the Ontario Ministry of Health and Long-Term Care (MOHLTC) has been the setting of strategic direction, the selection of projects, and the financial support of these projects. Coordination is the fourth pillar of the Ministry's tobacco control approach.

OTS projects reported a fairly high level of mutual awareness and collaboration in 2001/02 and this extended to at least some PHUs (Part 2, pp. 10-14). This was achieved in the absence of any formal mechanism for communication and collaboration, whether supplied by the Ministry or any other agency, at least until the fall of 2001.

Toward the end of the reporting period, two committees were established to provide overall guidance to the Ministry. In the process of developing this advice, the OTS Coordinating and Steering Committees have become focal points for exchange of information among projects and agencies. Whether or not this leads to greater strategic coordination will depend in part on the Ministry's response to this advice. The "Tobacco Cluster" group also provides an opportunity for information exchange and coordination of efforts.

Funding

As noted frequently in the past, Ontario's per capita allocation for tobacco control ($1.53 in 2001/02; $1.60 in 2002/03) falls well short of international standards ($7 - $24 [US $5-16]). This has been true from the outset, even with the renewal in 1999. In 2002/02, Ontario's effort was behind that of Alberta ($3.82/capita), Quebec ($2.70) and British Columbia ($1.59) (Part 3, Fig. 4).

Tobacco tax revenue in Ontario was $493 million in 2000/01 (The National Clearinghouse on Tobacco and Health website, http://www.ncth.ca/) while expenditures on tobacco control were $18.2 million. Thus only 3.7% of the tobacco tax was devoted to controlling the epidemic that generates the revenue. The tax increase of $5.00 per carton in June 2002 will yield an estimated additional $460 million in revenue for the province at current rates of consumption (Ontario Ministry of Finance, 2002). However, there was no increase in support for tobacco control when tobacco taxes were raised most recently despite the clear demonstration that the overall OTS programming "dose" is too low, by international standards, to achieve much public health impact.

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Project funding is also undergoing some evolution, in particular, community projects approved to start in fiscal 2002/03 have been funded for two years. This is a welcome move toward the multi-year funding that OTRU and others have recommended in the past, and should allow for better project execution.

One of the most critical factors in programme success is the extent of programme funding, and consequent level of programme implementation, and the degree to which this is undermined by the tobacco industry and other competitors for funding.

Wakefield and Chaloupka, 2000

Unfortunately, the transfer of funds to these projects continues to be delayed well past the beginning of the fiscal year, effectively reducing 24-month projects to 18-month efforts. This delay in moving approved funds is a long-standing, government-wide problem that is unlikely to find a solution within the MOHLTC. Establishing an external agency to run the OTS with assured funding might provide a mechanism to improve the flow of funds to individual projects, however. Year-to-year continuity and stability will be critical to the *implementation* and *maintenance* of projects (see below), and there is no element more fundamental to this than the predictable flow of funds.

Coverage

When funding is below recommended levels, its allocation becomes critical. In 2001/02, the OTS continued with a major focus on cessation (53% of project funds) and prevention (30%) (Table 1). The balance was devoted to protection (14%) and denormalization (3%), although none of the latter was directed at the public in the way that is done in California and Massachusetts. From a strategic perspective, 47% was devoted to public education, 25% was for assistance to smokers, and 28% was for infrastructure development.

It could be argued that these strategies have both a short-term and a long-term focus: assisting smokers to quit addresses the immediate reality of almost two million established adult smokers, while infrastructure development is fundamental to maintaining a consistent and effective approach over time. Public education, if effective, can serve both short- and long-term needs, e.g., by raising smokers' awareness of cessation supports, and by establishing a

climate of public opinion supportive of new restrictions on public smoking. School-based and youth-focused prevention is a long-term investment; in this context, one has to wonder if 15% of the project budget should be increased over time.

Discussion

Earlier sections commented on the reach and efficacy of specific projects or sets of projects directed at the various OTS objectives. This section extends that impact analysis by considering the other elements of the RE-AIM framework – *Adoption, Implementation*, and *Maintenance* (Glasgow et al., 1998). This discussion is focused on future considerations since, with the clear exception of smoke-free bylaws (see p. 23), there are as yet few projects that have extended beyond their original coverage and are eligible for wider adoption.

Table 3 lists some examples of resources from current projects that could be considered for wider adoption, identifies opportunities for implementing these on a wider basis, and spells out some requirements for maintaining this wider implementation into the future. The listings are not meant to be exhaustive, but to illustrate the RE-AIM framework and its potential for evaluating the OTS. As an example, the RE-AIM concepts are applied to the area of municipal smoke-free bylaws (p. 23). At the present time, the bylaws are probably the most effective tobacco control measure widely adopted in the absence of a clear provincial role (such as seen in tobacco taxation). However, as the RE-AIM analysis makes clear, there is an important opportunity for the province in this area.

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Table 3: Extending the Public Health Impact of Current Tobacco Control Activities

	Protection	**Prevention**	**Cessation**
Adoption (examples of resources)	Model bylaws and case studies; Media Network materials	Materials from LAFL and Youth Vortal	PTCC "Tool Kit" identifying Best Practices
Implementation (selected opportunities)	Community-based projects in 19 PHUs in 2002/04	Province-wide curriculum adoption for LAFL	More professionals trained through CTI; greater awareness of Quit Line and other resources
Maintenance (requirements)	Data on local health and economic impacts; demonstration that benefits exceed costs	Ongoing teacher training	Continuing medical education to maintain skills; increased smoker awareness of available resources
	• Media campaign to raise awareness, create supportive climate of opinion. • Continuing tobacco price increases to discourage initiation and encourage cessation. • Extended smoke-free spaces to provide cleaner air, reduce visibility of smoking, encourage reduced consumption and cessation. • Assured and adequate multi-year funding to provide continuity for projects demonstrating impact.		

Implications for Programs and Policies

The foregoing discussion, including the RE-AIM analysis, points to several implications and recommendation for the immediate future of the OTS.

- The introduction of two-year funding in 2002 is a welcome move that should permit better planning and more thorough implementation of programs. However, the slow transfer of funds effectively reduces this to a period of 1½ years. A three-year period would be preferable, with funding for a full 36 months. If this cannot be achieved with present structures, alternatives should be considered including an external agency.
- Tobacco taxes have increased substantially in the past year, and this should have a salutary – but temporary – effect on prevalence and consumption. Ontario's cigarette prices remain well below the national average and are more than 40% below those of Ontario's major US neighbour (Part 3, Fig 2). No other single measure can contribute as much to tobacco control as an increase in the price of cigarettes – a truth grasped some years ago in the US and demonstrated repeatedly with the regular increases in that country (DHHS, 2000).
- After increased tobacco prices, the most effective measure for population-wide tobacco control is widespread smoke-free spaces, whether established by bylaw, regulation, local custom, or personal conviction. The benefits of the California smoke-free campaign extend well beyond cleaner air and have been well documented (Fichtenberg and Glantz, 2000; Gilpin et al., 2002). Ontario would do well to emulate California in this regard.
- A media campaign that exposes the tobacco industry as not just another normal corporate citizen would buttress all the other efforts of the OTS: it would boost support for smoke-free spaces, it would reduce the current hypocrisy observed by youth, and it would provide the needed motivation to quit. In the absence of an effective federal campaign in this regard, provincial action is essential.
- The absence of updated targets – quantitative objectives with dates – makes it difficult to assess whether the current rate of progress in Ontario is adequate. The MOHLTC should consider asking the OTS Steering Committee to review Strategy objectives, modify them as necessary, and establish 5- and 10-year targets for each that are attainable with focused effort. This approach has worked well in the US in the field of health generally for the past 20 years (DHHS, 1986); there is no reason it cannot work in Ontario in the field of tobacco control. The conclusion of the Minister's Expert Panel (Ashley et al., 1999) that targets are meaningless without adequate funding for a meaningful effort may still be valid, however, and deserves careful consideration in any such discussion.

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Example of a RE-AIM Analysis: Smoke-free Public Places

This issue provides an example of a well-developed intervention with a clear model available for wider adoption and capable of greater public health impact. It also serves as an example where a more active provincial role may promote progress.

Adoption. The ongoing spread of municipal bylaws to limit public smoking exemplifies adoption. While this development is occurring in the absence of much OTS project support, it likely benefits from tobacco control funds disbursed to the PHUs. Would the public health impact be even greater with *provincial legislation*? If applied to public places currently regulated by municipal bylaws, as in Saskatchewan (Part 1, p. 7), provincial legislation would increase the size of the protected population and reduce disparities among regions. Provincial legislation regulating *workplace smoking* would not only reduce the disparities among *types of worker* (Part 3, Fig. 11), but broaden coverage (Part 3, Fig. 9) and give Ontario workers at least the same level of protection as those in British Columbia (Part 3, Fig. 10).

Implementation of smoke-free bylaws is aided by a network of public health units that collaborate actively on several fronts (e.g., Association of Local Public Health Agencies), and who use resources disseminated through the Media Network (Part 2, Table 3) to prepare for the media campaigns that are integral to the successful introduction and implementation of clean-air bylaws. Other resources available to assist bylaw implantation are: the report of the Waterloo bylaw project completed in the Fall of 2000 (OTRU, July 2001), best practices analyses by PTCC (Part 2, pp. 40-41), and model bylaws available through a variety of sources including the Ontario Campaign for Action on Tobacco website. The implementation of smoke-free homes campaigns has been aided by the distribution by PTCC of 90,000 pamphlets and window signs (Part 2, p. 41), but other assistance directed at the home environment from or through OTS projects has been minimal.

Maintenance. Maintaining smoke-free interventions in the face of public indifference or tobacco-industry hostility and disinformation campaigns is a constant challenge that requires networks and resources similar to those needed for implementation. Most municipalities have limited resources for fighting the legal challenges that follow bylaw action (Part 1, pp. 13-14). These challenges are common in the United States, where some state legislation provides municipalities with a buffer against tobacco-industry challenges (Dearlove and Glantz, 2002). Provincial legislation in Ontario would serve an equally useful role.

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