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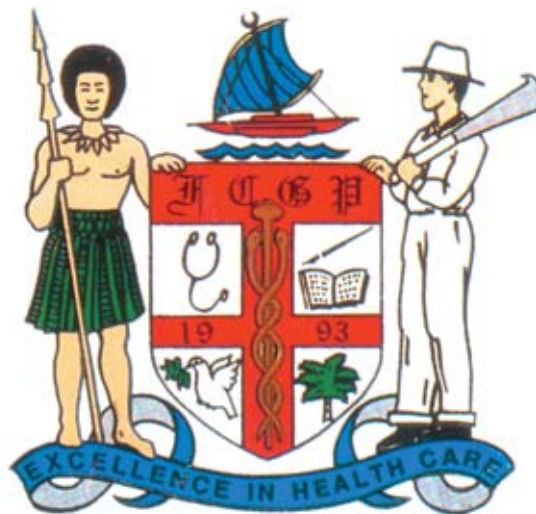
**EXPOSING MR. BUTTS'
TRICKS OF THE TRADE**

**INVESTING IN YOUTH
TOBACCO CONTROL**

**ABSTRACTS ON SMOKING
CESSATION ACTIVITIES**

**STRESS IN CARERS OF
THE ELDERLY**

CREATIVE CORNER



Theme: Tobacco Cessation & the
General Practitioner



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Editorial

Tobacco Cessation

The General Practitioner highlights Tobacco Cessation and possible roles the national college and individual members can undertake to assist in reducing risks associated with tobacco consumption.

Tobacco cessation activities take on greater dimensions as initiatives by WONCA and are being undertaken at a global level in 2002. National colleges have been advised to motivate individual members and faculties to mount such programs locally, nationally, regionally and on a one-to-one basis in our clinics.

Recent assessment at grassroot level in Fiji indicates that GPs are uncertain about tobacco cessation program initiation, implementation and evaluation. Attempts to mount train-the-trainer programs for GPs have not gained momentum due to a lack of manpower, lack of resource materials and poor strategic planning by College executives.

Hopefully this issue of the journal will initiate program development and strategic plans, in Fiji. A train-the-trainer workshop and a public awareness campaign are being planned for October this year.

This journal, aimed at self-directed learning, is evolving a new format, as the theme is not totally clinical oriented. In this age of Internet and super information highways we can seek specifically and learning can be self-directed, as it should be. Our herd mentality needs to be broadened, and lateral visions the order of the day.

This journal reprints an article in its medico-political section titled "Mr Butts' tricks of the trade" This article sums up the industry's strategic planning which promotes the sale of cigarettes despite opposition. The lead article reviews tobacco usage by youth.

Interestingly, comments about chronic consumers having an early commencement in their teens are so true in Fiji. We have failed to act in schools and community efforts at reducing commencement of tobacco use by youth have also failed.

We deal with adults when quit programs become difficult with failure rates extremely high. The abstract 1-6 look at various programs in dif-

ferent countries from which we can learn from.

Dr Jagdish Maharaj at the Rehabilitation Center, Tamavua has kindly agreed to publish his work with Padda et al, which looks at "Stress in Health Care providers". The reprint of an original piece of research is compliments of the Australian physician.

Rajeshwar Sharma in his article on "Citing Bibliography" shows many novice skills, which one needs as part of indexing. This is of literary interest.

We also have added a Creative Writing Column in which I have dealt with "The Indian Diaspora". This article was printed in the Fiji Times of 6/08/2002 for wider readership as unrepentant politicians continue their racial onslaught on Fiji-born Indians.

Surely, the power of the pen should be stronger than verbal garbage by self-serving politicians who address issues on a personal nature rather than address national issues such as poverty, crimes, violence and lawlessness.

In the area of creativity we have Tom Kayes Recipe on "Marmalade jam" and his "Summer Song". We can only encourage members to add to this creative column with pieces of writing, which may not have clinical bearings.

The college leadership changes every two years. Strategic policy changes over time. Recently I note a dissipation of effort and waning collegiality.

The visions and strategies may get a little foggy but in difficult times the tough always meet, reaffirm allegiances and strive forward collectively. At national level we are in dire need of a binding force.

Issues need to be prioritised and executives need to refocus as we near a possible change of leadership at the next annual general meeting.

Peace be with you.

Neil Sharma ,
— Editor in chief

EXPOSING MR. BUTTS' TRICKS OF THE TRADE

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Keywords: Tobacco documents; tobacco industry

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<http://www.tobaccoresolution.com>

or

<http://www.tobaccodocuments.com>

Abbreviations: BAT, British American Tobacco, B&W, Brown and Williamson Tobacco Company; NCI, National Cancer Institute; UCSF, University of California at San Francisco

On 12 May 1994, an unsolicited box of what appeared to be tobacco industry documents was delivered to Professor Stanton Glantz at the University of California at San Francisco (UCSF).¹ The return address on the box was listed as "Mr Butts". As it turned out, the box contained a collection of internal industry studies and reports that had been copied by a paralegal working for the law firm representing the Brown and Williamson Tobacco Company (B&W). The paralegal, Dr Merrell Williams, had been hired in 1988 by the law firm of Wyatt, Tarrant and Coombs to review millions of pages of memoranda, reports, and research studies related to B&W and their parent affiliate British American Tobacco (BAT). The goal of the exercise was to identify material that was perceived to be "critical" in terms of litigation risk for the company. Williams was laid off in 1992, but retained copies of thousands of pages of documents. The following year Williams who had been a heavy smoker himself, was diagnosed with a serious heart ailment. He contacted the Wyatt firm and informed them that he had retained some of the documents and would return them. However, he blamed his heart condition on the stress induced by what he had read about smoking in those documents and threatened to sue the Wyatt firm for his health problems unless they settled. Instead, the Wyatt firm filed a civil action against Williams, for theft of the secret tobacco documents.

In 1995, Glantz and his colleagues published a series of articles in the *Journal of the American Medical Association*²⁻⁶ and then a book, *Cigarette Papers*,¹ summarising what was learned from that box of documents and related documents then available from scattered other sources. These reports provided the first real glimpse into the inner workings of the tobacco industry and facilitated further document discovery in subsequent tobacco litigation. Glantz and his colleagues provided undeniable evidence that the tobacco companies recognised early on that cigarettes were addictive and clearly harmful to health. Publication of this material attracted the attention of public officials, attorneys and even the president of the USA. Former President Clinton has commented that the published documents summaries had influenced his decision to move forward with a proposal to regulate nicotine as an addictive drug and cigarettes and smokeless tobacco as drug delivery devices.¹

SECOND WAVE OF RESEARCH PAPERS

This supplement to Tobacco Control provides the second wave of research papers based on tobacco

industry documents. The papers presented in this issue are based on the approximately 33 million pages of tobacco industry documents released as part of a settlement agreement between the tobacco industry and the Minnesota attorney general's office stemming from lawsuit over payment of insurance claims for treatment of tobacco caused illnesses.⁷ Initially, these documents were available only in hard copy in a warehouse located in Minneapolis, Minnesota. As a result of the Master Settlement Agreement between the major tobacco companies and a consortium of state attorney's general the documents in the Minnesota Depository are also available through company sponsored websites on the internet via: <http://www.tobaccoresolution.com> or <http://www.tobaccodocuments.com>

Recognising the importance of this unique new source of data, the National Cancer Institute (NCI) developed a Program Announcement to encourage the study and analysis of the tobacco industry documents in a wide variety of subject areas. The NCI Program Announcement to encourage the study and analysis of the tobacco industry documents in a wide variety of subject areas. The NCI Program Announcement has played a major role in stimulating research in this field. At present, NCI is funding about a dozen tobacco document research grants on topics ranging from environmental tobacco smoke to the design of less hazardous cigarettes; funding for this supplement to Tobacco Control and several of the research papers were made possible because of NCI support. Similarly, the Centres for Disease Control and Prevention (CDC) has sought to broaden access to the tobacco industry documents through mounting certain collections of documents on its website. In January 2001, the American Legacy Foundation provided a \$15 million grant to the UCSF library to create a permanent electronic collection of the tobacco industry documents.

This supplement to Tobacco Control focuses on what the tobacco documents teach us about how tobacco products are marketed. Because of this focus on marketing, these papers were peer reviewed by scholars trained in marketing, advertising, economics, and consumer behaviour; as well as by those working in tobacco control. The papers presented in this issue reveal that nothing in the marketing of tobacco products is left to chance by the tobacco industry. Summaries of elaborate industry studies provide insight into how the tobacco industry used marketing research to peddle a deadly product. The papers in this issue identify the importance of two key target markets of new smokers and concerned smokers, and cover a wide range of marketing tactics to craft strategies to be effective against these target markets: the classic domains of product, price, and promotion as well as other marketing tools such as packaging, product placement in cinema, public relations, and political lobbying to shape the regulatory environment within which their marketing operates.⁸

MARKETING TO YOUTH

The paper by Cummings and colleagues evaluates the tobacco industry's claim that the tobacco industry does not market its products to youth.⁹ The material presented in this paper should put to rest any debate over this question. Candid quotes from industry executives refer to youth as a source of sales and as fundamental to the survival of the tobacco industry. The documents reveal that the features of cigarette brands, packaging, and advertising were developed and manipulated specifically with the intent of appealing to beginning smokers.

Also on the youth marketing theme, the paper by Wayne and Connolly illustrate how product design and formulation is as much a part of the marketing mix as product placement and advertising.¹⁰ Wayne and Connolly describe the effort made in the 1980s and early 1990s by RJ Reynolds Tobacco Company to capture a larger share of the youth smoking market by reformulating Camel cigarettes to reduce harshness and irritation so as to make it more appealing to new smokers.

The paper by Katz and Lavack analysed marketing documents in an effort to understand the tobacco industry's frequent use of bar promotions.¹³ Their review shows that such promotions are carefully planned and targeted to reach a young adult market. While one might expect that bar promotions would have no impact on teenage smokers, tobacco industry documents reveal that such promotions help communicate product brand information indirectly through a diffusion process. The bar promotions appear to be highly successful in increasing sales of particular brands. It turns out tobacco manufacturers recognised that recruiting younger adults to smoke their cigarette brand is an effective way to communicate to teens which brand is "in". Since teens aspire to be older and more mature than they are, younger adult smokers represent a valuable way to extend the advertising message to teenagers.¹⁴

The paper by Mekemson and Glantz describes efforts made by the tobacco industry to use the entertainment industry to promote cigarette smoking.¹⁵ The documents reveal that in the 1980s, each of the major cigarette companies had hired product placement firms to get their brands advertised on television and in the movies. These product placement firms placed products and signage in positive situations that were calculated to encourage viewers to use tobacco. Despite the claim that cigarette companies have discontinued product placements in movies, recent evidence suggests otherwise.¹⁶

MARKETING THE "LIGHT" ILLUSION

Based on the assumption that less tar would produce less cancer, public health authorities in the 1950s and 1960s encouraged smokers who persisted in smoking to switch to filtered and low tar cigarette brands.¹⁷ With the endorsement of low tar cigarettes by public health authorities, cigarette manufacturers increasingly devoted their marketing budgets to promote lower tar yield cigarettes, with the resulting effect being a steady increase in the market share for cigarette brands with lower machine measured tar deliveries. The

paper by Pollay and Dewhirst provides a presentation and interpretation of the evidence pertaining to the tobacco industry's intent in developing and marketing filtered and low tar and nicotine cigarettes.¹⁸ Corporate documents show that advertisements of filtered and low tar cigarettes was intended to reassure smokers concerned about the health risks of smoking and to give the "health concerned smoker" an alternative to quitting. The paper by Wakefield and colleagues describes how the cigarette industry employed pack designs and colour to communicate the impression of lower tar or milder cigarettes.¹⁹

Industry documents also reveal that the cigarette companies recognised the inherent deceptiveness of cigarette brands labelled as "Light" or "Ultra Light".²⁰ While it is true that changes in cigarette design did result in a more than a 60% reduction in the machine measured average sales weighted tar levels for the USA since 1954,²¹ the illusion of less tar, proved to be just that—an illusion.²² For the past three decades, cigarette filter ventilation was the main design feature that resulted in lower machine measured tar yields. The paper by Kozlowski and O'Connor examines what the industry knew about cigarette filter ventilation and smoker compensation.²³ Their review of corporate documents reveals that industry scientists recognised that cigarette filter ventilation would result in smokers taking bigger puffs and blocking vent holes to maintain nicotine delivery, and that smokers of Ultra Light cigarettes would likely increase their daily smoking intake to satisfy the body's need for nicotine. In other words, cigarettes would continue to sell, and cigarette smokers would continue to die at an undiminished rate.

DEFECTIVE FILTERS

The paper by Pauly and colleagues discusses another product feature and brings attention to a little known fact about cigarette filters—namely, that they are defective.²⁴ In 1995, Pauly and his colleagues first published their seminal research showing that the cut surface of virtually all cigarette filters are first published their seminal research showing that the cut surface of virtually all cigarette filters are contaminated with loose microscopic cellulose acetate filter fibres that have the potential to be ingested and inhaled during smoking.^{25,26} If the cigarette's filter included charcoal, the filter tip would be further polluted with carbon particles.²⁷ The tobacco industry response to Pauly's research was to deny that filter fibre "fall-out" occurred at all. However, the documents reviewed in the paper by Pauly and colleagues leave no doubt that the tobacco industry and Philip Morris in particular has known about the filter contamination problem for more than 40 years.²⁴ Moreover, evidence is presented that shows that the tobacco industry has been negligent in testing the health risks associated with ingesting filter contaminants and implementing technologies that would correct or at least reduce the contamination problem.

MANIPULATING PUBLIC OPINION AND POLICY

The final two papers in this issue by Morley and colleagues²⁸ and Cummings and associates²⁹ offer accounts of how the tobacco industry has

“Tobacco control practitioners would be wise to heed the old adage, “unless you learn from the mistakes of the past, you are

attempted to manipulate public policy and public opinion related to the marketing of tobacco products. The paper by Morley and colleagues provides an accounting of Tobacco Institute spending at the state level during the 1990s.²⁸ The findings from this study show that the Tobacco Institute hired lobbyists to represent them in every state in the USA and that the amount of money allocated for lobbying and special projects was highest in states that were the most active in implementing public health measures to reduce cigarette smoking.

In January 1954, US tobacco manufacturers jointly sponsored an advocacy advertisement entitled “A Frank Statement to cigarette smokers” which appeared in 448 newspapers in 258 cities reaching an estimated 43 245 000 Americans.³⁰ The advertisement questioned research findings implicating smoking as a cause of cancer, promised consumers that their cigarettes were safe and pledged to support impartial research to investigate allegations that smoking was harmful to human health. The paper by Cummings and colleagues provides an analysis of the extent to which the promises made by the tobacco industry in the “Frank Statement to Cigarette Smokers” were fulfilled.²⁹ This paper is very relevant to US tobacco liability litigation, since the Frank Statement has been a centrepiece of most such cases. The paper exposes the industry’s bad faith from the very beginning of the smoking and health controversy, its failure to comply with promises made to the public thereafter, and the resulting misinformation among the consuming public.

IMPLICATIONS FOR TOBACCO CONTROL

Tobacco control practitioners would be wise to heed the old adage, “unless you learn from the mistakes of the past, you are doomed to repeat them”. No doubt mistakes made by public health authorities in responding to the industry’s marketing of filtered and low tar cigarettes could inform the contemporary discussion of tobacco harm reduction, with the industry’s test marketing of numerous “lower risk” cigarettes and pseudo-cigarettes (for example, Eclipse, Accord).

The papers presented in this supplement to Tobacco Control illustrate how a careful analysis of corporate documents can be used to validate and inform the design of tobacco control strategies. For example, the industry documents confirm the observation that young people are especially sensitive to variations in the price of cigarettes.¹¹ The documents also reveal that young smokers primarily select a brand because of its image, not price.⁹ Thus, while young smokers are price sensitive, they tend not to want to substitute a premium, image oriented brand for one whose main feature is its low price. To help reduce the conflict young smokers experience between price and imagery, tobacco companies have devised marketing strategies to add value to the higher priced premium brands that teenagers want.^{9,11} These strategies have included promotions such as buy one pack, get one free, the offer of gifts in return for used cigarettes packs and packaging cigarettes into smaller more, affordable units (that is, 10 cigarettes per pack instead of 20). Presumably, restricting these types of marketing approaches would help

discourage young people from smoking.

The industry documents also provide evidence for some new approaches to tobacco prevention. The studies contained in this issue illustrate how the industry’s manipulation of product design features such as the package style and colour, the length and diameter of the cigarette and the use of additives to make the smoke less harsh (that is, milder and smoother) are critically important to public health goals in tobacco control.^{19,20,24} The evidence showing how cigarette pack design and advertising can be manipulated to mislead smokers into thinking that certain cigarette brands are safer than others, reinforces the need for independent oversight and regulation of these two elements of the marketing mix.^{18,19}

The tobacco industry has vehemently opposed and will likely continue to oppose meaningful efforts to regulate their marketing of tobacco products.^{28,29} The corporate documents provide a clear message to public health officials and political leader, no matter what the tobacco industry says, their actions are motivated by one thing—greed. As far as the tobacco industry’s behaviour is concerned, private profits always dump public health.^{31,32} Much like the battle against terrorism, success in tobacco control will depend largely upon the quality of the intelligence information we have to predict the future actions of the tobacco industry. The tobacco industry documents have provided an unprecedented opportunity to understand the past motivations and methods of the industry so that the mistakes of the past do not have to be repeated. The only question that remains is whether public health practitioners will be able to utilise the knowledge gained about the marketing of tobacco products to effectively regulate and counter the industry’s well researched and well financed efforts to maximise tobacco sales and hence profits.

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Reference available with Editor in chief

INVESTING IN YOUTH TOBACCO CONTROL: A REVIEW OF SMOKING PREVENTION AND CONTROL STRATEGIES

Through Medline, we identified articles reporting evaluations of smoking prevention and control initiatives involving youth.

Abstract

OBJECTIVE—To provide a comprehensive review of interventions and policies aimed at reducing youth cigarette smoking in the United States, including strategies that have undergone evaluation and emerging innovations that have not yet been assessed for efficacy.

DATA SOURCES — Medline literature searches, books, reports, electronic list servers, and interviews with tobacco control advocates.

DATA SYNTHESIS— Interventions and policy approaches that have been assessed or evaluated were categorised using a typology with seven categories (school based, community interventions, mass media/public education, advertising restrictions, youth access restrictions, tobacco excise taxes, and direct restrictions on smoking). Novel and largely untested interventions were described using nine categories.

CONCLUSIONS— Youth smoking prevention and control efforts have had mixed results. However, this review suggests a number of prevention strategies that are promising, especially if conducted in a coordinated way to take advantage of potential synergies across interventions. Several types of strategies warrant additional attention and evaluation, including aggressive media campaigns, teen smoking cessation programmes, social environment changes, community interventions, and increasing cigarette prices. A significant proportion of the resources obtained from the recent settlement between 46 US states and the tobacco prevention and control activities. (Tobacco Control 2000;9:47-63)

Keywords: youth smoking prevention; teen cessation programmes; community interventions; policy

Introduction

A large body of research shows that, at the present time, very few people initiate smoking or become habitual smokers after their teen years. In the United States, nearly nine out of 10 current adult smokers (89%) started their habit before the age of 19 years.¹ By this age, most youth who

are going to smoke have already become or are in the process of becoming habitual smokers. Although many tobacco prevention activities have focused on youth, smoking among adolescents in the United States rose throughout most of the 1990s, until declining somewhat in the past two years.^{2,4}

Given the epidemiology of smoking initiation, a great deal of policy and programmatic attention has been directed at youth smoking in the United States.⁵ In this article, we synthesise and comment on the burgeoning literature regarding efforts to discourage youth from smoking. This article describes a number of youth smoking prevention and control strategies, and summarises the state of the science regarding the impact or effectiveness of each strategy. Two previous reports—the US surgeon general's 1994 report on youth smoking and the Institute of Medicine's (IOM) 1994 report Growing up tobacco free—are valuable resources.^{1,4} We summarise material from these earlier reports, but also review studies and strategies that have emerged since. Our emphasis here is on the youth smoking situation and the state of youth tobacco control science in the United States, although we believe that much of what we present in this review is relevant and salient to other countries as well.

We limit our review to youth oriented prevention and control strategies and to smoking recognising that adult interventions and smokeless tobacco also deserve similar attention. Note, too, that since very few tobacco intervention studies include cost analyses, we cannot offer specific advice regarding the costs of various interventions and the likely returns to these investments. Nonetheless, our goal is to provide a cogent summary of the main foci of youth tobacco prevention and control in the United States, an assessment of the current state of the science, a description of recent programmatic or policy innovations, and a lengthy reference list to which people can turn for additional information. As such this review article should be quite useful to tobacco control advocates and policy makers. Although we do not emphasise study design and methodological issues in our comments of individual studies, we believe that this review will be useful to researchers as well.

We conducted an extensive literature review and synthesis of published research addressing interventions to reduce youth smoking. Through Medline, we identified articles reporting evalua-

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tions of smoking prevention and control initiatives involving youth. We mostly review studies employing experimental or rigorous quasi-experimental designs. While we reviewed some pre-1994 literature, our focus was on what has been learned since 1994 when both the IOM and surgeon general reports were published.

In addition, we collected and reviewed information on emerging initiatives and interventions that have not yet evaluated or received much attention in the peer reviewed literature. We monitored reports of recent strategies distributed through several different electronic mailing lists. We also conducted a series of informal interviews with tobacco control advocates in the United States to learn of new approaches currently being tried to discourage youth smoking. The purpose of these activities was to identify emerging trends and promising innovations. Our discussion of recent innovations is neither comprehensive nor systematic in a scientific series. Rather, it is an attempt to identify emerging trends and to provide information about some of the new and creative interventions that are currently being implemented and evaluated.

To organise the wealth of information on the topic of tobacco prevention and control efforts among youth, we categorised efforts into the following areas: (1) school based educational interventions; (2) community interventions; (3) mass media/public education; (4) tobacco advertising restrictions; (5) youth access restrictions; (6) tobacco excise taxes; and (7) direct restrictions on smoking. The published research regarding interventions in these areas is summarised and reviewed. We also describe a number of novel and largely untested interventions. These include: (1) youth oriented smoking cessation programmes; (2) computer based systems; (3) peer based interventions; (4) recent anti-tobacco advertising campaigns; (5) penalties for possession and use; (6) school policies; (7) vendor penalties; (8) restrictions on the sale and marketing of tobacco products; and (9) interventions to identify youth with a propensity to use tobacco. We conclude with a discussion of prevention strategies (both proven and new) that are promising and warrant further implementation and rigorous evaluation.

Prevention activities

SCHOOLBASED EDUCATIONAL INTERVENTIONS

Elementary and secondary levels

A large number of school based programmes have been implemented during the past three decades. Most of these efforts target elementary school and/or middle school students. As described in the IOM report on youth smoking, the majority of these programmes have tended to be based on one of three main approaches.⁴ The first approach is an "information deficit or rational model" in which the programme provides information about the health risks and negative consequences of tobacco, most

often in a manner intended to arouse concern or fear. Many of the early education interventions in youth tobacco control (before the mid 1970s) were based on this model. The primary premise of this approach is that youth are generally misinformed about the risks of smoking and that educating them on the health and social detriments of smoking will provide a deterrent. Programmes based on the information deficit or rational model have generally been found to be ineffective in deterring initiation or reducing volume among current smokers, although many programmes were not evaluated or only short term impact was assessed.

The second major approach to youth tobacco prevention programmes is an "affective education model" in which the programme attempts to influence beliefs, attitudes, intentions, and norms related to tobacco use with a focus on enhancing self esteem and values clarification. This type of prevention programme emphasises initiation influences within an individual, recognising that knowledge deficits are not the only factors associated with smoking initiation.⁴ Content themes across many of these programmes include self esteem and self image enhancement, stress management techniques, values clarification, decision making skills, and goal setting. Evaluation findings for this type of intervention generally have suggested a weak or insignificant impact.

The third approach to tobacco prevention is based on a "social influence resistance model". In this model, the programme recognises and emphasises the social environment as a critical factor in tobacco use. In addition to individual factors, influences outside of an individual, such as peer behaviour or attitudes (both positive and negative), and certain aspects of the environmental, familial, and cultural contexts, are of great importance. As such, this type of intervention focuses on building skills needed to recognise and resist negative influences, including recognition of advertising tactics and peer influences, communication and decision-making skills, and assertiveness.⁴

The results of many individual evaluations and meta-analysis of tobacco and other drug prevention programmes strongly suggest that programmes based on the social influence resistance model are the most effective of the three approaches. The IOM report concluded that evaluations of school based prevention programmes have "consistently demonstrated that a brief school intervention that focuses on social influences and teaches refusal skills can have a modest but significant effect in reducing the onset and level of tobacco use".⁴ In a meta-analysis of smoking prevention programme evaluations published between 1974 and 1991, Rooney and Murray found that social influence programmes could account for reductions in smoking between 5-30% (with the upper range given as the highest estimate of programme performance under "optimal" conditions only).⁶

In meta-analysis of controlled studies of drug use prevention programmes for youth, Tobler reported that interactive programmes and those led by peers that addressed the social influences of substance use were most effective.^{7,8} These findings were echoed by Black and colleagues, whose meta-analysis suggested that interactive peer interventions for middles schoolers are superior to non-interactive, didactic programmes led by researchers or teachers.⁹

Similarly, in a different meta-analysis of smoking prevention programmes for adolescents, Bruvold found that the effects of interventions with a "traditional" or "rational" orientation were small and often insignificant.¹⁰ In contrast, Bruvold found that those interventions with a social reinforcement orientation (that is, those focusing on the development of skills to recognise and resist social pressures) had the largest effects in terms of attitude and behavioural change. Although not all social influence interventions have been successful, a wide body of literature suggested that this approach has the best track record overall.¹¹

One particular intervention that has received a great amount of attention is the "Drug Abuse Resistance Education" or DARE programme. Taught by uniformed police officers, DARE combines the building of self esteem, the development of resistance skills, and information about the negative effects of drug use and violence.¹² Despite DARE's popularity and proliferation, few positive results regarding tobacco and other drug use have been revealed in numerous individual or combined programme evaluations.^{12,13}

The long term impact of school based educational interventions is of concern. It appears that the effects tend to dissipate with time, with effects generally persisting in the range of 1-4 years.¹ The IOM report stated that "while the results of more than 20 research studies have shown that school based prevention programmes alone have consistently delayed onset of smoking, lasting effects have only been demonstrated at 2 year follow up".⁴ Programme "boosters" or subsequent interventions appear to enhance the staying power of the intervention effects, although the most appropriate content of and timing for these booster sessions is not known.^{15,16}

College Level

Recent evidence indicates a disturbing increase in smoking behaviour among college students, suggesting the limits of elementary and secondary school based prevention efforts. As Wechsler and colleagues showed, the prevalence of smoking on college campuses has increased nationwide.¹⁷ Based on longitudinal data from 130 college campuses, these researchers estimated that the prevalence of self reported smoking in the past 30 days increased from 22.3% in 1993 to 28.5% in 1997. Recent results from the "Monitoring the Future" project

reveal a trend toward increased cigarette use among young adults in general.¹⁸ This increase in smoking is believed to reflect the rise in smoking that occurred among adolescents earlier in the 1990s.¹⁷ It is also possible that an increase in smoking initiation among older teenagers and young adults is also playing a role. In a study of four universities, Naquin and Gilbert found that 10% of smokers had their first cigarette and 11% started smoking on a regular basis after high school.¹⁹ Besides the risks posed by smoking, young adults who smoke cigarettes are also at a higher risk for binge drinking and the use of marijuana, cocaine, and LSD.²⁰ A number of interventions aimed at preventing tobacco, alcohol and other drug abuse have been implemented in both urban and rural colleges and universities, although few have undergone rigorous evaluation and few are perceived as being effective by those implementing them.²¹

Summary

A large number of individual evaluations and review articles regarding controlled educational interventions to reduce youth tobacco use have been published.²²⁻²⁶ A wide range of evaluation results from experimental and quasi-experimental studies suggest that some of these educational programmes resulted in a significant short term reduction in smoking, a delay in initiation, or a desirable change in attitudes toward tobacco use.^{1,4}

Programmes that embrace a "social influences" model tend to be the most effective, especially when enhanced by an extensive community based health education programme. The recent literature confirms, but does not greatly expand on, the 1994 reports. Perhaps more surprisingly, there is not a welter of new evaluations of school based programmes, suggesting either that such programmes have not changed very much or that scholars have been discouraged by previous findings from exploring these programmes any further.

Many of the guidelines for developing and implementing school based tobacco prevention programmes previously issued by the National Cancer Institute and the Centers for Disease Control and Prevention (CDC) are still relevant.^{4,22} The CDC's recommendations include: (1) that the instruction should provide information on the social influences of and peer norms regarding tobacco use in addition to information on the short and long term physiologic consequences of smoking; (2) programme specific training for teachers should be provided; and (3) that schools should develop and enforce tobacco free policies, to make sure prevention programmes are implemented in a setting with broad policy support.²² Additional information on CDC guidelines and specific programmes or curricula that the CDC endorses through its "Research to Classroom" programme is available.²⁷ Recently, Manske and colleagues recommended

testing intervention models that involve youth developing their own solutions and that examine the interaction between school based interventions and other community-based activities.²³ They also recommended that research be conducted to better understand why many youth do not smoke.

COMMUNITY INTERVENTIONS

The increased understanding of the combined effects of environmental, social and cultural conditions on tobacco and other substance use has resulted in an emphasis on interventions that include comprehensive, community based approaches.²⁸ Such an approach targets multiple systems, institutions, or channels simultaneously, and employs multiple strategies. In general, community interventions have multiple components and involve the use of community resources to influence both individual behaviour and community norms or practices related to adolescent tobacco use. This includes the involvement of families, schools, community organisations, churches, businesses, the media, social service and health agencies, government and law enforcement, with intervention strategies generally focused on making changes in both the environment and individual behaviour. Although community interventions take a variety of shapes, common elements among them include a shared emphasis on altering the social environment or social context in which tobacco products are obtained or consumed and a shared goal of creating a social environment that is supportive of non-smoking or cessation.⁴ Some of the components of community interventions, such as mass media campaigns and youth access restrictions, are also implemented as stand alone interventions, as described below.

While an increasing number of communities are attempting to influence youth tobacco use with multiple component interventions, there are few published reports of evaluations with rigorous designs. The available research results are encouraging in many cases.^{1,28-32} For example, based on the results of a longitudinal trial, Pentz and colleagues reported that a community intervention involving mass media, school based education, parent education, community organising and health policy components in some of the 15 communities in the Kansas City metropolitan area was effective in reducing tobacco, alcohol, and illicit drug use.³³ Regarding use, a significantly lower rate of smoking was observed in the intervention group at six months and at two years (when the rates for smoking in the last month were 19% in the programme group versus 29% in the control group).³⁴ In addition, the results of a randomised trial conducted by Biglan and colleagues in rural Oregon communities demonstrated a reduction in the prevalence of weekly cigarette use in communities exposed to the intervention (which focused

on key social influences of smoking and included media advocacy, anti-tobacco activities for youth and family communication activities).³⁵

School based programmes and community interventions involving parents, mass media, and community organizations appear to have a stronger impact over time when they work in tandem rather than as separate, stand alone interventions.^{4,25,28,36-38} Mobilising parents and community elements outside of the school (including the media) is seen as enhancing school based interventions and increasing the potential for a lasting behavioural impact.¹ For example, Lewit and colleagues examined the impact of tobacco taxes, public smoking ordinances, law regulating youth access and exposure to tobacco messages (both pro and anti) in 21 of the 22 community intervention trial for smoking cessation (COMMIT) communities.³⁹ These researchers found that tax increases (discussed in greater detail below), exposure to tobacco education in schools and policies restricting youth access to tobacco were associated with decreased smoking and intention to use cigarettes among ninth graders (ages 14-15 years): The authors also observed that the frequency of exposure to anti-tobacco advertisements was correlated with an increased likelihood of smoking. This counterintuitive finding was not significant in some of the sub analyses conducted by the authors and is contradicted by other findings from the same study, including with reductions in smoking behaviour and intentions.³⁹ Some might argue that the paradoxical finding tends credence to the perspective that the strong focus of tobacco control interventions on youth may unintentionally be glamorising tobacco use as an adult behaviour and thus have counterproductive effects.⁴⁰ At the present time, however, there is little empirical evidence to substantiate this concern.

Another comprehensive community intervention is the American stop smoking intervention study for cancer prevention (ASSIST), an eight year programme (1991 to 1999) funded by the National Cancer Institute in collaboration with the American Cancer Society and state and local health departments.⁴¹ The overall goal of ASSIST is to reduce smoking prevalence to 15% by the year 2000 by encouraging smokers to quit and by discouraging young people from initiating the habit. Many local ASSIST coalitions emphasise the use of public health information and advocacy to denormalise tobacco use in the community. Some strategies used by ASSIST communities to prevent and reduce youth tobacco use include: youth education; encouraging enforcement of laws restricting youth access; banning tobacco advertising that is youth oriented; environmental tobacco smoke restrictions; and increasing physicians' role in youth tobacco prevention efforts. Currently, there are few published articles evaluating the effectiveness of ASSIST

in general, or relative to youth in particular. Manley and colleagues reported that interim results regarding the impact of ASSIST suggest that this programme has led to reduced tobacco consumption in ASSIST states and that this effect reflects more than increased prices from tobacco taxation.⁴² Kegler and colleagues studied the factors related to coalition effectiveness in 10 ASSIST communities in North Carolina, but did not evaluate individual programmes for effectiveness in reducing smoking rates.⁴³ They found that community groups possessing an articulated plan, including specific goals and strategies for implementation, had stronger coalitions than community groups lacking these characteristics.

The efforts of several community interventions have involved a particular focus on youth access to tobacco products (as described below). Numerous other examples of community intervention efforts related to youth access were reviewed by Forster and Wolfson, including the development and implementation of restrictions regarding cigarette vending machines, restrictions regarding the sale of "loose" or single cigarettes, restrictions regarding the age of people who can sell cigarettes and requirements regarding the training of salespersons.⁴⁴ All of these are examples of attempts to alter the social environment or policy context in which tobacco products are obtained, distributed or consumed. As noted below, there is little evidence as to the effectiveness of these initiatives in reducing youth tobacco consumption.

Summary

The results of a small number of controlled trials of community interventions attest to their ability to have an effect of youth smoking behaviour. An important finding is that the effectiveness of school based programmes appears to be enhanced when they are included in broad based community efforts in which parents, mass media and community organizations are involved and in which the social policy or social environment as well as individual knowledge, attitudes and behaviours are targeted for change. However, it is our opinion that broad based community interventions alone are not sufficient to bring about a substantial and sustained decline in youth smoking. Community efforts, as symbolised by COMMIT, ASSIST, and other interventions, likely need to be combined with stronger advocacy, taxation, media interventions and policy formation and implementation.^{41,45,46} It is also important to recognise that the limited number of evaluations with experimental or strong quasi-experimental designs seriously limits our understanding of whether community interventions are effective and, of equal importance, which of their components are most useful in reducing youth tobacco use.

MASS MEDIA/PUBLIC EDUCATION

Mass media strategies have been used for broad based public education regarding a variety of public health issues, including tobacco use prevention and control. Mass media efforts are viewed as particularly appropriate reaching youth, who are often heavily exposed to and greatly interested in media messages. Further as Jason and Macaskill and colleagues suggested, media based health promotion efforts have the potential to reach large segments of the population, especially those who are less educated, and to lower barriers to participation in health related programmes.

It is clear that the tobacco industry is successful in advertising and marketing pro-tobacco messages for youth. Some have proposed that the "very tools used by the tobacco industry to make cigarettes into the single most profitable legal consumer product sold can also be used to combat the smoking pandemic unleashed by tobacco products". Young people have been the primary target of some sophisticated anti-tobacco media campaigns in several states, including California, Michigan, Minnesota and Massachusetts. However, the impact of media campaigns on tobacco use among youth in general or specific subgroups is unknown. The few existing studies of the impact of mass media campaigns on youth smoking have shown varying results. Hu and colleagues found that both increased taxation and the anti-smoking media campaign had an independent and significant impact on overall cigarette consumption in California from 1990 to 1992. In addition, Popham and colleagues' evaluation of the California media campaign suggested some positive results for youth in grades 4-12 (ages 9-18 years). Almost 50% of students surveyed were able to describe an advertisement without prompting, and almost 90% were able to recall parts of the campaign with a brief description. Although smoking prevalence among students decreased slightly in California after the media campaign was implemented, this study could not sort out the effects of the campaign from the myriad of other tobacco control efforts underway at the same time. Subsequent data suggest increases in California youth smoking behaviour during the mid to late 1990s, although the smoking rate there is below the national average.

Flynn and colleagues showed that combining traditional school based prevention efforts with a mass media campaign increases intervention effectiveness. In a study of two communities, the one that received a mass media intervention along with the educational programme for four years had an almost 40% lower rate of smoking than the one receiving the educational programme alone. The researchers also found that the media intervention was particularly effective among high risk youth, defined as students who reported ever smoking at baseline (grades 4-6, ages 9-12 years) and had two or more smokers in their immediate social or family environment.

Based on the evaluation results of Flynn and colleagues and Worden and colleagues, Secker-Walker and colleagues performed a cost analysis of a mass media programme and found that (in 1996 US dollars) the cost per exposed student was \$41, the cost per averted smoker was \$754 and cost per life year gained was \$696. If the campaign were to be implemented nationwide, the authors argued that economies of scale would produce significant decreases in these costs. Thus it is believed that mass media interventions can have a significant and cost effective impact on youth smoking behaviour.

Goldman and Glantz recently reviewed research on the effectiveness of various anti-smoking messages and of paid anti-smoking advertising, and also conducted a qualitative study of 180 focus groups involving more than 1500 adults and youth. They concluded that “aggressive” public education campaigns that focus on “industry manipulation” (that is, the goal of the tobacco industry to recruit young smokers and the tactics used to achieve this goal) and the negative effects of second hand smoke are more likely to reduce cigarette consumption and denormalise smoking. According to these researchers, incorporating messages of industry manipulation into campaigns resonates with youth in particular because such messages emphasise that people are not acting independently in their decision to smoke. Goldman and Glantz also concluded that advertising strategies that focus on youth access, the short and long term health effects of smoking and romantic rejection have less potential for effectiveness.

It is important to recognise that the majority of “marketing” that has been aimed at smoking and other substance use prevention should more accurately be called “social advertising. There are important differences between mass media or advertising campaigns and social marketing as a structured approach to influencing ideas and behaviours related to public health. Social marketing employs marketing tools and techniques in a rigorous and disciplined approach that involves consumer testing and feedback and product responsiveness to this feedback. In addition, Logan and Longo argue that it is time to “rethink” the theoretical approaches to anti-smoking media campaigns and to devise a “third generation” of campaigns that encompass more of what is known about the behavioural and social dynamics of smoking.

Summary

Sophisticated mass media campaigns that involve essential elements of social marketing and are theoretically driven may well have an effect on the attitudes and behaviours of youth regarding tobacco use, although the impact of such campaigns is challenging to evaluate and has not yet been demonstrated. The literature suggests that mass media interventions increase their chance of having an impact if the following

conditions are met: (1) the campaign strategies are based on sound social marketing principles; (2) the effort is large and intense enough; (3) target groups are carefully differentiated; (4) messages for specific target groups are based on empirical findings regarding the needs and interests of the group; and (5) the campaign is of sufficient duration.

TOBACCO ADVERTISING RESTRICTIONS

Of all consumer products, cigarettes are the most heavily advertised and marketed. There is great concern that tobacco advertising and marketing—including the distribution of promotional products such as clothing, sporting equipment and gear for outdoor activities—is positively associated with youth smoking. A historical review of tobacco marketing foci and smoking rates among youth showed that smoking initiation among females (but not males) greatly increased at the same time large scale marketing campaigns aimed at women were implemented. This work showed that “major marketing impact occurred in youth smoking initiation only in the sex group targeted”, and adds indirect evidence to the proposition that youth smoking initiation is influenced by industry advertising and marketing.

While colleagues reported that cigarette advertising “appears to increase children’s awareness of smoking at a generic level and encourages them to take up the behaviour, beginning with any cigarettes which are available and affordable. Altman and colleagues found evidence that youth awareness of tobacco marketing campaigns, receipt of free tobacco samples and receipt of direct mail promotional paraphernalia were found to be associated with susceptibility to tobacco use. Consistent with these findings, Pierce and colleagues reported that adolescents who had a tobacco promotional item and/or had an interest in tobacco advertising (that is, had a favourite advertisement) were significantly more likely to initiate smoking in the following three years. Pierce and colleagues concluded that a significant portion of youth experimentation with smoking can be attributed to tobacco promotional activities. However, because these promotional items are not randomly distributed, selection bias could explain this finding.

The econometric evidence on the effects of advertising on cigarette consumption has focused on the aggregate impact on adult smoking. With many studies finding no significant relationship and many others finding a significant but generally small relationship, this literature is indeterminate on the issue. In any event, technical limitations of the dominant econometric approach combined with a lack of studies on adolescent smoking make this literature of little utility in trying to assess whether advertising affects smoking by children.

Similarly, the potential effect of restrictions or bans on cigarette advertising on adoles-

cent smoking behaviour also is unclear. Some states and municipalities have implemented restrictions regarding tobacco advertising. For example, the state of Utah and several major cities such as San Francisco and Baltimore have banned tobacco advertising from all billboards and other objects of display. These types of bans are too new to have been evaluated yet and the implementation of similar bans has been delayed because of legal challenges. Nevertheless, the evidence regarding the effects of cigarette advertising bans is mixed, as different statistical analyses have come to opposite conclusions about whether bans reduce cigarette consumption. Saffer and Chaloupka explain the inconsistent findings by the fact that partial and complete bans have different effects, but are not clearly distinguished from each other in research studies. Using both theory and the existing empirical evidence, these researchers conclude that partial bans have little effect because they afford cigarette companies the opportunity to switch advertising expenditures to other promotional media and methods. In contrast, they find that complete bans could reduce tobacco consumption by approximately 6%, an amount that may seem small but could still have an important public health impact.

YOUTH ACCESS RESTRICTIONS

In the past decade, the issue of youth access to tobacco products has received an explosion of attention. Before this time, most intervention activities in this area were focused on discouraging individual adolescents from smoking. Starting in the late 1980s, when the evidence that adolescents have easy access to tobacco products was mounting, concern and action proliferated regarding broader environmental factors affecting the ability of youths to purchase or otherwise obtain cigarettes. In a recent review article, Forster and Wolfston explained that many policies have been implemented at the local, state and federal levels regarding the distribution and sale of tobacco products. Policy action has been seen in a number of areas, including regulation of sellers, regulation of buyers, restrictions on the distribution of free products or samples (including coupons) and regulation of the means of tobacco sale (where and how it can be sold). The latter includes state and local efforts to restrict or totally ban vending machine sales of tobacco.

At the present time, all states prohibit the sale and distribution of tobacco products to minors through a variety of "youth access laws" or policies that involve age restrictions for selling tobacco. All 50 states and the District of Columbia prohibit the sale of tobacco products to people under the age of 18. In contrast, laws banning adolescent purchase or possession of cigarettes vary by jurisdiction. Some tobacco control advocates have argued that purchase and possession laws are more difficult to enforce

than restrictions on the seller, and are part of an effort to shift responsibility for tobacco sales from retailers to minors.

Youth access laws and tobacco sales

Federal Public Law 102-321, commonly referred to as the Synar amendment and enacted in 1991, stipulates that states must enforce laws restricting the sale and distribution of tobacco products to minors and must demonstrate success in reducing youth tobacco access or risk not receiving the full complement of block grant funding for the treatment and prevention of substance abuse. Jacobson and Wasserman suggested that the Synar amendment has led to a number of developments in youth tobacco control, including passage of age-of-sale legislation, increased enforcement efforts and the increased use of undercover or "sting operations" or undercover studies. They also suggested, however, that Synar may be fuelling the growth in the penalising of the purchasing or possession of tobacco among minors. Even with the leverage from the Synar amendment, it is believed that few jurisdictions seriously enforce laws regarding the sale of tobacco to minors. An objective in the Public Health Services' draft "Healthy People 2010 Objectives" is to increase to 100% the proportion of states with retail licensure systems that include licence suspension or revocation for violations of state minor access laws.

Some studies suggest that merchant education regarding youth tobacco access laws has failed to produce sustained refusal to sell cigarettes to minors. Numerous sting operation studies show that illegal tobacco sales to minors are common, with older minors more able to purchase cigarettes than younger minors. While laws regarding sales to minors appear to be rather benign in and of themselves, what seems to make a difference regarding illegal tobacco sales to minors is whether or not the laws are enforced. Upon completion of an extensive study of the enforcement and implementation of tobacco control laws, Jacobson and Wasserman concluded that ongoing enforcement is the key to reducing illegal sales to minors. These researchers stated that "to be effective, local ordinances must have a graduated penalty structure that starts with a moderate fine for the first offense and escalates in severity with each subsequent effect". They also concluded that local licensure and license removal for vendors who sell tobacco products to minors would further restrict vendors' willingness to sell cigarettes to minors.

An experimental study of the effectiveness of an intervention regarding tobacco sales to minors was conducted by Rigotti and colleagues. In this study, three communities in an intervention group enforced tobacco sales laws, while three matched communities in the control group did not. The findings suggested that increased enforcement enhanced vendors' compliance with

Massachusetts' tobacco sales laws, thus reducing illegal sales to minors. Similarly, Altman and colleagues, after conducting a randomised trial of an intervention to reduce tobacco sales to minors in some California communities, concluded that "tobacco sales to minors can be reduced through a broad based intervention.

Cummings and colleagues evaluated the impact of an intervention to increase compliance with tobacco purchasing laws by monitoring 319 outlets in six community pairs, where one of the communities in the pair was randomly assigned to an active enforcement programme. Their results showed a dramatic increase in compliance with the law in both the intervention and control communities. The authors believe that their finding of no intervention effect, which is contradictory to several other studies, may be explained by "contamination" from publicity about the enforcement intervention and hence almost universal awareness of the project sting operations among retailers in both the intervention and control communities.

Some researchers have evaluated the impact of youth access strategies when combined with other interventions. For example, Feighery and colleagues investigated the effects of a community education and law enforcement intervention in a two year controlled trial. Their primary conclusion was that an educational intervention (directed at merchants, law enforcement agencies and the community at large) alone had a limited effect on reducing illegal sales to minors, but that education plus enforcement significantly reduced illegal over-the-counter sales. Biglan and colleagues used a multiple time series design to assess the impact of an intervention involving community mobilisation, merchant education, changing consequences for clerks, publicity about clerks refusing to sell and feedback to store owners and managers about sales to youth in rural Oregon. Their analyses suggested that the intervention led to a significant (62%) reduction in sales in the intervention communities.

In response to public pressure, the tobacco industry has embarked on a highly publicised campaign to reduce youth smoking behaviour. The effects of the Tobacco Institute's "it's the Law" campaign – which is a public relations effort purportedly designed to eliminate the sale of tobacco products to minors – appear to be minimal. A survey of tobacco retailers revealed that less than 5% of retail respondents were participating in the programme and that there was no difference between participating and non-participating retailers in terms of their willingness to sell cigarettes to minors (86% v 88%). In another study, DiFranza and colleagues found that vendors participating in the "It's the Law" programme were just as likely to make sales to minors as non-participating vendors.

Youth access laws and smoking behaviour

While several studies suggest that the enforcement of youth access laws can lead to reductions in illegal sales to minors, the evidence that this actually translates into reduced tobacco consumption is limited. Several studies failed to look at the impact of enforcement interventions on smoking behaviour. In studies that looked at both and behaviour, the two did not always go hand in hand. For example, the study by Rigotti and colleagues cited above found that reduced sales to minors were not accompanied by changes in adolescents' perceptions of their access to cigarettes or in their smoking behaviour. Similarly, Altman and colleagues concluded that, while interventions to reduce tobacco sales to minors can be effective, multiple supply and demand focused strategies are needed to actually reduce tobacco use.

In contrast, in an observational study of the impact of anti-smoking legislation in one suburban community, Jason and colleagues found that both merchant sales and adolescent smoking behaviour were reduced after the passage of the law. Data from their student surveys suggested that both experimentation and habitual use of cigarettes decreased by over 50% between the pre-and post-test observations, subsequent inquiry suggested that a reduction in use was still apparent after seven years.

Forster and colleagues conducted a randomised community trial in 14 Minnesota communities. The goal of the intervention was to make youth access a community wide issue. Intervention communities organised to enact local ordinances, change retail merchants' behaviour, and promote enforcement of illegal sales to minors. Although youth smoking rose in both intervention and control communities, the rate of increase was much smaller in intervention communities. The authors concluded that "this study provides evidence that a community mobilisation intervention resulting in policy adoption and enforcement to reduce youth access to tobacco can affect adolescent smoking rates", they were careful to note that the results reflect only short term effects.

If the only or primary way in which youth gained access to cigarettes was through illegal sales, then we might expect the enforcement of youth access laws to have a powerful effect on smoking behaviour. However, youth a number of "social sources" (such as family, friends, or even strangers) for their cigarettes as well as illegal purchase. Forster and colleagues found that, in the 14 communities in their intervention trial, youth who reported ever smoking were very likely to cite social sources for cigarettes, although older youth and those reporting weekly smoking also reported purchasing their own tobacco. The literature to date appears to suggest that youth obtain tobacco products from a wide variety of sources, including social sources.

Summary

It is undeniable that the current state of regulatory, judicial and legislative pressure on the tobacco industry and tobacco retailers represents an unprecedented and concentrated assault on youth access to tobacco products. Forster and Wolfson have stated that although "it seems reasonable to assume that reducing the number of retailers that sell tobacco to minors illegally will reduce minors' access to tobacco, which will in turn reduce youth smoking rates, it is surprising how little evidence is available to support those assumptions. More evidence, in the form of controlled trials of interventions, is needed to support the intense growth of activity in the area of youth access restrictions. Furthermore, it is clear that in the face of increased enforcement of youth access laws, tobacco remains an alluring and addictive substance of great appeal to youth. What can be said with the evidence at hand is that youth access interventions can lead to a general reduction in illegal sales of cigarettes to minors. Whether this will translate into reduced and sustained reductions in youth tobacco use remains to be seen.

In 1977, the Food and Drug Administration (FDA) implemented a number of regulations regarding youth access to tobacco. These regulations make it a violation of federal law to sell tobacco products to anyone under the age of 18 years and to fail to request an identification card for anyone appearing to be under 27 years. In addition, the regulations establish a minimum cigarette pack size of 20 cigarettes, ban free samples of cigarettes and smokeless tobacco, prohibit cigarette sales through vending machines (with some exceptions) and ban self service displays of tobacco products. At the present time, it is not clear if the FDA will have the resources necessary to enforce these regulations. More significantly, the tobacco industry challenged these regulations as being beyond the FDA's cope of authority. In the case of *Brown & Williamson Tobacco Corp v FDA*, the Fourth Circuit Court of Appeals agreed with the industry and ruled that the FDA could not promulgate most of the regulations. That case is now on appeal to the US Supreme Court, with a decision expected by mid 2000.

TOBACCO EXCISE TAXES

In this section, we review the evidence regarding the impact of tobacco excise taxes on youth smoking. Much of what we report here was taken, with permission, from previous work of Chaloupka and Warner. Tobacco products are taxed by the federal government, states and a few local governments. While generating revenue, tobacco taxation is also a policy that creates an economic disincentive to use tobacco. Theoretically, increasing the price of cigarettes through taxation could reduce adolescent cigarette consumption through three mechanisms: some adolescents would quit smoking, some would reduce the amount that they smoke and

some would not start smoking in the first place. The extent to which higher cigarette taxes will achieve these objectives depends upon how responsive smokers and prospective smokers, are to price increases.

The addictive nature of cigarettes suggests that teenagers could indeed be more responsive than adults to changes in cigarette prices, as it is easier to start smoking than to quit. Thus, any factor that can deter or reduce consumption, especially in older adults (who are established smokers), is likely to have a larger effect on teenagers who are initiating the habit. Studies of the elasticity of demand for cigarettes have followed a long tradition, dating back more than half a century. Most of these studies have focused on the adult, or overall, demand for cigarettes, with comparatively few focused on teenage cigarette demand. After reviewing the relevant literature a 1993 National Cancer Institute expert panel concluded that most estimates of the adult elasticity of demand have clustered around -0.40 . This implies that a 10% increase in the price of cigarettes will reduce the number of cigarettes demanded by 4%. The panel further found that prices influence teenage cigarette consumption "at least as much as adult consumption". Yet the dearth of studies devoted to calculating teenage cigarette price elasticities prevented the panel from arriving at a more precise estimate.

In one of the early studies in this area, Lewit and colleagues estimated elasticities for teens likelihood to smoke and the quantity of cigarettes smoked by continuing smokers to -1.19 and -1.44 , respectively. These researchers suggested that youths should be more price sensitive than adults because, in light of the addictive nature of smoking, long term adult smokers are likely to adjust less quickly to changes in price than teenagers who have been smoking for a relatively short time, if at all. In addition, peer behaviour is likely to be much more influential for youths, multiplying the effects of price on youth smoking. That is, an increase in cigarette price directly reduces youth smoking and then again indirectly reduces youth smoking and then again indirectly reduces it through its impact on peer smoking. Grossman and Chaloupka offered two additional reasons. First, the fraction of disposable income a young smoker spends on cigarettes is likely to exceed that spent by an adult smoker. Second, compared to adults, youths are more to be oriented toward the present than the future.

The conclusion that youth cigarette demand is more price elastic than adult demand was widely accepted until 1991 when Wasserman and colleagues published a study indicating that prices did not have a significant impact on youth smoking. They attributed this result to the inclusion in their models of an index of restrictions on smoking. These restrictions, which they note are positively correlated with price, had not been included in most previous studies of

cigarette demand. Moreover, Chaloupka found that the price elasticity of demand for young adults (that is, individuals between 17-24 years of age) was also insignificant.

However, a recent study of the impact of cigarette price increases on young adults (college age students) challenges these results. Chaloupka and Wechsler estimated price elasticities ranging from -0.906 to -1.309 , with approximately half of the response caused by the impact of price on smoking prevalence and the remaining half caused by the impact of price on the number of cigarettes smoked by smokers. Noting that their sample was not a random sample of all young adults, Chaloupka and Wechsler suggested that the price elasticity of cigarette demand by college students may be even higher, given the evidence that cigarette demand is relatively less elastic for more educated or higher income individuals. Recent studies by Farelly and colleagues, Lewit and colleagues and Tauras and Chaloupka provide additional support for the inverse relationship between price sensitivity and age.

In general, researchers examining the effects of price on smoking participation using individual level data from cross sectional surveys have assumed that much of the price effect estimated for youth reflects the impact of price on smoking initiation, while the estimate for adults is largely capturing the effects of price on smoking cessation. A few recent studies have attempted to examine directly the impact of cigarette prices on smoking initiation. Douglas and Hariharan found that a number of socio-economic and demographic factors had a significant effect on initiation, but their estimates for cigarette prices were insignificant. These results were supported by DeCicca and colleagues, raising doubts about the hypothesis that higher cigarette prices lead to significant reductions in youth smoking.

Re-examining the longitudinal data used by DeCicca and colleagues, Dee and Evans found a negative and significant impact of cigarette taxes on smoking initiation was largely the result of the way in which their sample was constructed. Their estimated price elasticity of smoking onset is -0.63 , consistent with several other recent studies of youth smoking employing cross sectional data. Clearly, the use of longitudinal data to examine the impact of cigarette tax and price changes on smoking initiation and cessation is an important advance. The findings from studies using relatively longer panels that control for unobserved state and/or individual factors affecting demand are consistent with the findings that price sensitivity is inversely related to age.

Evans and Farelly recently examined a phenomenon not previously studied by economists: the compensating behaviour by smokers in response to tax and price changes. Specifically, they found consistent evidence that although smokers reduced daily cigarette consumption in

response to higher taxes, they also compensated in several ways. In particular, smokers in high tax states consumed longer cigarettes and those that are higher in tar and nicotine, with young adult smokers also most likely to engage in this compensating behaviour. As a result, they argued that the perceived health benefits associated with higher cigarette taxes are likely to be somewhat overstated. Given this compensating behaviour, Evans and Farelly suggested that if cigarette taxes are to be used to reduce the health consequences of smoking, then taxes based on tar and nicotine content would be appropriate. This is a controversial idea, however, that can be criticised on other grounds. Concerns include that such a policy conveys the impression that low tar and nicotine cigarettes are less hazardous, although this is not at all clear; that as people shift to low tar and nicotine brands their daily consumption may increase to compensate; and that if such a tax varied across states, it might increase cigarette smuggling.

Summary

The evidence on the degree to which teenagers are responsive to changes in cigarette prices is mixed, but the general consensus is that higher prices are an effective deterrent to youth smoking. Because cigarette price increases have been relatively small (under a dollar and, in many cases, just a few cents), it is difficult to predict with confidence the impact that a large price increase—such as a dollar or more per pack—would have on teenage cigarette consumption. The effects might be expected to be proportionately greater than those of a small tax increase.

Recent innovations in youth smoking prevention and control

The purpose of this section is to identify emerging trends and promising innovations in policy and programmatic responses to youth smoking. In considering programmes to investigate further and to implement, tobacco control advocates and policy makers might want to be familiar with emerging programmes that have received little to no evaluation attention date. We stress that this section provides neither a comprehensive nor systematic review. Rather, this section represents an attempt to provide information about major themes that are referred to in published reports and in the media, that recur in reports on the internet of current tobacco control activities and have emerged in our interviews and interactions with tobacco control advocates and professionals. In addition, it is important to emphasise that the majority of strategies described below have received no or only cursory evaluations. Thus, while some of these approaches may be compelling or appear to have promise, there is little to no empirical evidence to support claims about their worth or effectiveness at this point in time.

Smoking Cessation Interventions

The results of a number of descriptive studies and focus group studies suggest that many teen smokers are motivated to quit smoking. It has been estimated that 74% of occasional teen smokers and 65% of daily users have a desire to quit, although some studies suggest that the success rate among those who do attempt to quit is low. Sargent and colleagues found that smoking cessation rates among adolescents were comparable to adult rates, and varied according to smoking status (46.3% among occasional smokers, 12.3% among daily smokers of 1-9 cigarettes, and 6.8% among daily smokers of >10 cigarettes).

An important conclusion of several studies of adolescent smoking is that it is important to intervene to keep occasional smokers from becoming daily smokers. Yet, the results from a large focus group study of high school smokers suggest that adolescents are unfamiliar with the concept of a smoking cessation programme or with other tools or methods that support quit attempts. Participants were not interested in seeking help or assistance from any professional person or service in attempting to quit, including physicians. Concerns about confidentiality and parental involvement were strongly voiced.

Unfortunately, as Sussman and colleagues documented in a recent review article, there have been very few controlled trials of efficacy regarding adolescent smoking cessation. Brief office interventions delivered by health care professionals hold great promise as a cessation strategy among smokers, especially those who are not yet addicted to nicotine. There is a clear need for training regarding smoking cessation interventions among clinicians serving adolescent patients. Frank and colleagues reported that while over 50% of adult smokers who had seen a physician in the past year were counselled to quit smoking, only 14% of smokers aged 12-17 had received cessation advice. Similarly, data from the 1993 Teenage Attitudes and Practices survey showed that only 25% of 10-22 year olds report that a healthcare provider had discussed cigarette smoking with them. Research has shown that most paediatricians feel confident and prepared to address issues regarding environmental tobacco smoke with their patients, yet fewer feel comfortable advising paediatric patients and their support of clinician based interventions regarding smoking cessation are available from the Agency for Health Care Research and Quality (formerly the Agency for Health Care Policy and Research) or the CDC.

In summary, the impact of smoking cessation interventions among adolescents is not well understood. Until recently, format smoking cessation programmes were aimed exclusively at adults. An important recent trend, however, is an increase in the number of such smoking cessation programmes now available for youth. Given the cost effectiveness of smoking cessation interventions for adults and the large number of addicted teenagers, research on cessation

programmes tailored to youth is an important area and should be a high priority.

Computer based systems

An important emerging trend is the use of computer based systems to communicate messages about tobacco to teens. Some of these innovations have been evaluated, but because most are in various stages of development and implementation we consider them under the category of new innovations. For instance, Innovative Training Systems is developing a computer game designed to educate children about the harms from tobacco products. Former surgeon general C. Everett Koop is developing a similar system. The advantages of these efforts, if successful, are their low cost and adolescent receptivity to computer based information.

As an example of a recently evaluated programme, Pallonen and colleagues described two new computerised self help smoking cessation programmes for adolescents. In the first intervention, the authors adapted a computer system based on a model of adult smoking behaviour change to adolescents. For the second intervention, they used a teen smoking cessation clinic programme developed by the American Lung Association. The results suggested reasonable cessation attempts and initial success (14-20%), but decreasing cessation rates (6%) after the six month follow up survey. The authors noted that the technology and approach are at an early stage of development, but that this study supports the feasibility of using computer based systems in adolescent smoking cessation interventions.

Peer based interventions

A major trend in school based interventions is the use of peer education programmes like Teens Against Tobacco Use (TATU), which has had programmes in many states. These programmes, sponsored by the American Lung Association, train older students to become positive role models for middle and elementary school students. TATU Interventions include multiple, intensive sessions during the first phase, with "boosters" in subsequent years. Prevention programmes often include media literacy component (for example, teens learn how the tobacco industry's advertising savvy has manipulated and distorted information about tobacco).

Recent anti-tobacco advertising campaigns

As a result of the perceived success of the hard hitting anti-tobacco advertisements in California, several states have begun a new generation of anti-tobacco advertising. These ads can be characterised as youth oriented —high energy, aggressive, fast paced and in turn angry, sarcastic and irreverent. They are also now being youth influenced, with teens being part of the production process under the assumption that teens bet know how to appeal to other teens.

For example, as a result of its 1997 settlement with the tobacco industry, Florida launched the "Truth" ads, which were meant to "demonise" the tobacco industry. The Truth/SWT (Students Working Against Tobacco) messages were partially designed by teens and specifically aimed at teens. Initial evaluation reports indicate that the ads reached 92% of teens and significantly increased their negative attitudes toward tobacco companies.

There is no agreement on the best approach to media counter advertising and states are using a variety of models for their anti-tobacco advertisements. The current anti-smoking ads in California continue previous anti-industry messages. In a slightly different approach, Florida ads focus on youths asking the industry to be truthful. Arizona ads offer the message that smoking is neither cool nor healthy, while ads in Massachusetts concentrate on adverse health effects. At this point, it is too soon to tell whether the heightened awareness of these ads will lead to lower youth smoking rates.

Penalties for possession and use

A controversial initiative that has emerged recently is the increasing willingness of policy makers to fine underage youth for using tobacco products. Until recently, policy makers focused on penalising the vendor for an illegal sale to minors as opposed to the user. Under pressure from retail merchants' associations and perhaps out of frustration that "supply side" policies have not adequately discouraged youth tobacco consumption, policy makers have begun to enact laws that fine minors for smoking in public or possessing tobacco products. Tobacco control advocates have vociferously protested this approach as an attempt to shift attention away from vendors who sell tobacco products to minors. Regardless, this shift appears to be gaining momentum. As with many of the more well established prevention strategies, we have no information on whether user fines will discourage youth from smoking.

Minors caught smoking or in possession of cigarettes can face a variety of penalties, ranging from a ticket or fine to an appearance in smoking courts, suspension from school, denial of a driver's licence, or any combination of these. Fines differ widely in severity, some starting as low as \$25 and increase with repeat violations. Fines can also be combined with tobacco education or cessation classes. Some areas allow for the removal or denial of the offender's drivers licence. For example, minors in Florida may lose their licence or be legally prohibited from attaining one if found in violation of the state's 1997 possession law. Driver's licence suspension or denial appears to be reserved for repeat offenders, licences are usually reinstated within a period of three to six months.

An important innovation to watch is the use of teen smoking courts. Florida, Indiana, Utah and

various countries in other states are experimenting with teen smoking courts, where teens must appear with their parents. The experience is more like a prevention programme than a traditional court. In Plantain, Florida, a trip to the teen smoking court includes a lecture by a throat cancer survivor, an anti-smoking video and an appearance in front of the judge. The smoking court in Linn County, Oregon "tries" first time offenders using teen prosecutors and teen juries in an attempt to stop tobacco use before the transition to routine or addicted smoker.

School policies

Schools may have their own smoking policies, which can apply even to those students over 18 years old. Penalties for violations include fines, smoking education and cessation classes, informing the student's parents, and suspension and/or expulsion. In 1997, Jacobson and Wasserman reported that schools were not very aggressive in enforcing no smoking rules and considered it to be a low priority. It appears, however, that schools are increasingly willing to develop, implement and enforce no smoking policies. Recently developed school smoking policies seem to use a combination of punishments, rather than just fining or suspending students. Pentz and colleagues found, in a study of 23 schools in California, that schools with smoking policies with four components (that is, a smoking prevention education plan is in place and students are restricted from smoking on school grounds, when leaving school grounds and when near school grounds) had lower rates of self reported smoking among the students. Although not a controlled study, these results suggest that strong school smoking policies are associated with decreased rates of youth smoking.

Vendor penalties

There do not appear to be any significant innovations regarding actions against retail vendors who sell tobacco products to minors, but there are some nascent trends to watch. For example, one trend may be local licensure of tobacco vendors and increasing penalties for illegal sales to minors. Fines in Utah start at \$250 and go up to \$10 000. Despite the potential financial penalty for non-compliance, the volume of violations was so great that a tobacco court was instituted in 1998. Local licensure is important because municipalities are more likely to monitor compliance and threaten licensure removal than state agencies.

Restrictions on the sale and marketing of tobacco products

One way to restrict youth access to tobacco products is to remove the products from areas where youth can go. For example, recent restrictions on vending machines have been effective in removing them as a source of cigarettes for minors. An emerging trend is to restrict self

service displays of cigarettes. Vendors oppose such restrictions because self service displays enhance sales. Another area of marketing restrictions involves billboard advertising. The issue of billboard tobacco advertising was addressed in the 46 state tobacco settlement, which stipulates the removal of billboard advertisements by April 23, 1999. Even before that, several communities had banned or restricted the use of billboard advertising. Most restrictions concern the area in which the ads are located.

Direct restrictions on smoking

Policy efforts to restrict public smoking have proliferated since the 1980s. Such efforts include state and local restrictions on smoking in public facilities and outdoor spaces, in worksites, in hospitals, in restaurants and bars, hotels and motels and on airline flights. Brownson and colleagues concluded that public smoking bans appear to be effective in reducing non-smokers' exposure to environmental tobacco smoke and that work site bans do influence the intensity of smoking among workers. Such bans may also have a positive impact on quit rates.

Some econometric studies of teenage and young adult smoking behaviour found evidence that clean indoor air laws may reduce teenage cigarette consumption. Wasserman and colleagues found that imposing strict regulations on smoking in public places can significantly reduce the number of cigarettes consumed by teenagers. Similarly, Chaloupka and Grossman, using data from the Monitoring the Future project, found that restricting smoking in public places significantly reduced the prevalence of youth smoking and that restricting smoking in schools, in particular, reduced the average number of cigarettes smoked by young smokers. Finally, Chaloupka and Wechsler found that laws restricting smoking in restaurants and schools significantly lowered college students' smoking participation rates. Although the reasons why such laws may be effective in reducing youth smoking are unknown one could speculate that they simply reduce the opportunities available for smoking. Alternatively, or perhaps in conjunction with these reduced opportunities, clean indoor air laws may be a useful vehicle for creating a cultural norm that suggests smoking is socially unacceptable.

Interventions that focus on adolescent risk taking in general and/or on problem behaviours

Youth smoking occurs in a web of social relations that foster many types of adolescent experimentation and that also may foster problem behaviours. Because of this social context, youth smoking arises from some of the same family, peer, and community influences that are also important to sexual risk taking, crime and violence and the initiation of harmful alcohol and illicit substance use. Existing prevention research regarding other adolescent problem behaviours therefore has potentially important

implications for the design and evaluation of programmes to curb youth smoking. Such interventions for older adolescents are often focused on improving academic skills. Many are also aimed at creating a sustained relationship with adult advisors or mentors who can provide social and emotional support while reinforcing appropriate social norms regarding substance abuse and other behaviours. An additional approach involves "family focused" interventions. Biglan purported that there is a "great deal" of evidence supporting the efficacy of family focused interventions regarding substance abuse, including interventions that address the multiple factors affecting family functioning.

A small, but potentially interesting literature for policy makers to consider examines the effectiveness of interventions designed to deal with behaviour that indicates a propensity to use tobacco products. For example, Kellam and Anthony conducted a randomised prevention trial to determine whether interventions targeting aggressive or disruptive classroom behaviour — an early antecedent to smoking — would reduce adolescent use of tobacco. Using the "good behaviour game" or the "mastery learning curriculum" as the behavioural intervention, the authors found that tobacco initiation for disruptive boys who were assigned to the intervention was lower than the control group. There were no differences for girls. The authors conclude that these results suggest targeting early risk factors for tobacco use as a complement to subsequent prevention activities. This finding is consistent with Hu and colleagues, who found that higher academic performance is associated with a lower probability of smoking and that policies directed toward improving academic performance may also reduce adolescent tobacco use.

Discussion

Our review suggests a number of prevention strategies that are promising, especially if conducted in a coordinated way to take advantage of potential synergies across interventions. Equally important, there is great potential for these interventions to be cost effective. Even modest gains from prevention and cessation efforts could lead to substantial reductions in the morbidity and mortality costs of smoking. Our assessment and recommendations are similar to those of the CDC regarding "best practices: for comprehensive tobacco control programmes. We recommend that significant attention be given to the following strategies.

MEDIA CAMPAIGNS

Evidence from hard hitting state sponsored anti-tobacco campaigns suggest that a sustained media campaign against smoking can be a successful strategy. At this point, we are not prepared to recommend a particular media strategy among those now being tried. According to the available evidence, one shot campaigns are

not likely to change behaviour. Rather, a plan for a multi-year campaign that utilises a strong social marketing approach and also incorporates a rigorous evaluation component—should be developed and implemented. In addition, more research is needed to examine whether and how tobacco advertising has been successful in reaching children and convincing them to use tobacco products. Once more information is learned, these marketing techniques can be used to the advantage of anti-tobacco groups and state organizations in developing effective media messages.

TEEN CESSATION PROGRAMMES

Almost all of the attention on smoking cessation has focused on adults. Our review suggest that efforts to develop and implement adolescent smoking cessation programmes should be accelerated. It is particularly important to target adolescents who are just at the transition point before or after habitual smoking begins. The evidence at hand suggests that, although the processes by which nicotine dependence develops in adolescence are not well understood, teenagers certainly can and do become addicted to nicotine. There is a need to reconsider the use of nicotine replacement therapy for adolescents. Currently, these therapies are unavailable legally to persons under 18 and very few studies have assessed efficacy and safety in adolescents. As Patten concluded in a recent review article, much research is needed to evaluate the benefits of nicotine replacement therapies in adolescent smokers and to assess adjuvant behavioural interventions tailored to adolescent's unique developmental and psychosocial characteristics.

CHANGING THE ENVIRONMENT

Although the focus of this article and of the recommendations is on adolescents, it is important for tobacco control advocates to consider how to change the overall environment that induces adolescents to initiate tobacco use. One problem with targeted prevention strategies is that single programme cannot always or perhaps even often prevent smoking if the environment surrounding the child encourage tobacco use. Cigarette advertising, easy access to tobacco products and tolerance toward smoking are only some of the issues that may contribute to high rates of youth smoking. We believe that an aggressive approach to changing the social context of smoking would include: (1) an emphasis on smoking cessation among adults in an attempt to reduce the amount of smoking among adult role models for children; (2) the expansion of state and local clean indoor air laws; and (3) rigorous enforcement of illegal tobacco sales to minors.

SCHOOL AND COMMUNITY BASED EFFORTS

Despite the mixed results of previous school

based efforts, prevention programmes based on a social influence model have shown to have short term effects on middle school students, the time when students are most likely to initiate smoking. Unfortunately, little is known about the effect of these interventions when they are removed from a highly controlled research setting and implemented on a large scale in schools. We suggest that policy makers should focus on taking advantage of synergies between different strategies, especially school and community based programmes. One possibility for expanding school based interventions is to combine them with community based programmes that use a social influences model and also target the familial environment and the overall socio-political context of the community. We recognise that tobacco use is not the only risk taking behaviour in which many adolescents engage. Thus, it is important in the development of new interventions to view adolescent smoking in the context of broader developmental issues, and to recognise that, for some youth, smoking serves as a marker for other behavioural problems.

School and community based interventions should also explore the use of computers in their programmes. Adolescents represent a perfect audience for using emerging computer based anti-smoking strategies. The development and expansion of computer based systems presents a unique opportunity to take advantage of technology that most adolescents are comfortable with and to adapt anti-smoking messages to individual needs and circumstances.

Our review suggests that most school based prevention programmes target students in the elementary and junior high school, while high school students are often ignored. High school students may receive "booster" sessions, but these sessions are often unconnected to the interventions received in junior high. High school students are also excellent candidates for participating in sting operations, lobbying for anti-smoking legislation and becoming peer educators for children in their community. Interventions using peer educators should be evaluated both for their impact on the children receiving the programme and for the effect of reinforcing non-smoking behaviour on the teens themselves.

INCREASING CIGARETTE PRICES

Raising excise taxes and increasing the price of cigarettes is likely to have an observable impact on youth smoking. Adolescents are price sensitive. Even if adolescents still have access to cigarettes through friends and family, higher prices are likely to result in fewer routine smokers and perhaps fewer cigarettes consumed by occasional smokers. Therefore, efforts to increase state and federal tobacco excise taxes should continue.

INVEST IN PROGRAMME EVALUATION

One possible explanation for the mixed results of smoking prevention and control programmes for youth is inadequate programme evaluation. One of the most significant barriers to implementing effective prevention programmes is translating a successful, but small scale and tightly controlled, intervention to the community. Once the intervention has reached the community it is often assumed to be effective without any further evaluation. Our review suggests that the failure to evaluate youth prevention programmes is a serious deficiency in being able to defend additional investments in youth tobacco control efforts. Many new innovations appear promising. However, they all need rigorous programme evaluation in order for us to understand better the magnitude of the effects, whether or not different groups of youth respond differently to the intervention, the cost involved and the barriers and facilitators to programme implementation.

CONCLUSIONS

The most obvious conclusion from this review is that adolescent smoking prevention efforts have had mixed results. It is also clear that no one approach is likely to reverse that finding. Despite a considerable amount of additional research and wide range of new and innovative prevention strategies, we cannot say that there are any new revelations about the effectiveness of these programmes beyond the conclusions reached by the surgeon general and the IOM in 1994. As a result, advocating for a focus on youth smoking prevention and control is somewhat controversial. Some policy analysts have suggested that the focus of public policy should be to reduce teenage smoking initiation rates. Others have suggested that the focus on children will undermine the broader and likely more fruitful initiatives and programmes needed to attack smoking and to promote cessation among adult habitual smokers.

From a practical perspective, these different policy views are not mutually exclusive. Both can be implemented simultaneously and should be considered as complementary rather than competing strategies. From a public health perspective, we are appropriately concerned that the prevalence of youth smoking remains high despite the amount of resources already devoted to this problem and the wide array of interventions that have been tried. Yet it is possible that without these interventions, rates of both experimental and habitual smoking among youth would be even higher.

On November 19 1998, 46 state attorneys general in the United States agreed to a \$206 billion settlement with the tobacco industry. The money from the settlement was given to states to reimburse them for past and future health care costs associated with smoking. There are no requirements, however, for how states must spend the settlement funds. Faced

with a windfall of billions of unrestricted dollars, state legislators and health officials are being pressured to spend the money on a number of issues unrelated to smoking, from tax breaks to improving roads. Although these issues are important and may be politically popular, the settlement will not maximise public health objectives unless some of the money is used to reduce the morbidity and mortality burdens of tobacco use.

As part of the multistate settlement with the tobacco industry, an independent foundation—the American Legacy Foundation—was established to pursue a variety of tobacco control goals. These goals include reducing youth tobacco use, protecting non-smokers from environmental tobacco smoke and helping adult smokers to quit. The foundation will receive approximately \$1.2 billion to spend toward these goals in its first four years, with the majority of funds being targeted toward youth smoking prevention. The foundation will work through states, primarily through grant mechanisms, to develop novel and effective interventions. At the present time, the foundation intends to direct its support to states that provide matching funds for the effort. As such, this further emphasises the importance of states investing some of their settlement funds in tobacco control.

We believe that previous calls for tobacco control efforts that are “youth centred” remain relevant and critically important as we move into the 21st century. This review suggests that there are a number of interventions and strategies that deserve further consideration, dissemination and evaluation. The resources available through the settlement with the tobacco industry provide an unprecedented opportunity to invest in youth tobacco control. Thus, we strongly advocate that this opportunity be seized and that significant state resources—along with other resources—be devoted to expanding, improving and evaluating tobacco prevention and control activities among youth.

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Abstracts on smoking cessation activities

Abstract 1

Promotion of smoking cessation by New Zealand General Practitioners. A description of current practice

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AIMS: To describe the advice and support New Zealand general practitioners (GPs) reported providing to patients about smoking cessation, to explore barriers encountered in providing this advice, and to compare reported practice with recommended best practice. **METHODS:** 450 GPs were surveyed from four different localities using a structured postal questionnaire.

RESULTS: Questionnaires were returned by 283 GPs, giving a response rate of 63%. Approximately one-third of GPs asked every adult patient about their smoking status. Fewer recorded this information in the patient's notes. GPs based on their own experience, considered nicotine replacement therapy (NRT) and their own advice to quit to be the two most useful smoking cessation strategies. They perceived patient resistance and time pressures as the main barriers limiting their ability to give advice to patients about smoking cessation.

CONCLUSIONS: GPs provide smoking cessation advice to many patients, but this needs to be viewed in the context of the New Zealand fee-for-service primary care system and competing demands placed on the limited time available within a consultation. There is potential to increase the practice nurse's involvement in providing smoking cessation advice.

Abstract 2

General Practitioners' views on the English national smoking cessation guidelines

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OBJECTIVES: Several countries have followed the US example in publishing national guidelines on smoking cessation interventions. Gauging responses to these guidelines can provide important lessons for future implementation and revision internationally. This study sought to assess General Practitioners' (GP's) views on recently published English smoking cessation guidelines that form the foundation of the UK National Health Service's smoking cessation strategy.

DESIGN: Postal survey in which GPs were asked to judge the appropriateness, effectiveness and practicability of key recommendations for primary care in recent national smoking cessation guidelines.

SETTING: General Practice, England and Wales.

SUBJECTS: Random national sample of GPs; 236 GPs completed the questionnaire; effective response rate: 62%.

RESULTS: Only 16% of GPs accepted that all the recommendations in the guidelines were appropriate; 43% accepted that it was appropriate to check the smoking status of known smokers when they visit the surgery and only 30% thought it was practicable to advise smokers to stop at every opportunity. However, 77% of GPs thought that they should provide assistance for smokers wanting to stop; 74% believed that they should refer smokers to specialist services if appropriate and a similar proportion (77%) believed that it was appropriate to recommend nicotine replacement therapy.

CONCLUSIONS: There was greater acceptance by GPs that they should assist smokers wanting to stop than that they should routinely monitor smoking status and give opportunistic advice to patients to stop. Given that opportunistic advice is a cornerstone of the national guidelines there is a need to find ways of reconciling what is being recommended and what GP's feel is appropriate.

Abstract 3

Direct observation of smoking cessation activities in primary care practice

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OBJECTIVE: Our goals were to determine how often family physicians incorporate smoking cessation efforts into routine office visits and to examine the effect of patient, physician and office characteristics on the frequency of these efforts.

STUDY DESIGN: Data was gathered using direct observation of physician-patient encounters, a survey of physicians and an on-site examination of office systems for supporting smoking cessation.

POPULATION: We included patients seen for routine office visits in 38 primary care physician practices.

OUTCOMES MEASURED: The frequency of tobacco discussions among all patients, the extent of these discussions among smokers and the presence of tobacco-related systems and policies in physicians' offices were measured.

RESULTS: Tobacco was discussed during 633 of 2963 encounters (21%; range among practices = 0%-90%). Discussion of tobacco was more common in the 58% of practices that had standard forms for recording smoking status (26% vs 16%; $P=.01$). Tobacco discussions were more common during new patient visits but occurred less often with older patients and among physicians in practice more than 10 years. Of 244 smokers identified, physicians provided assistance with smoking cessation for 38% (range among practices = 0%-100%).

ABSTRACT 4

Smoking cessation counselling practices of general practitioners in Montreal

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BACKGROUND:

Despite the cost-effectiveness of physician smoking cessation counselling, many physicians do not adhere to current practice guide lines.

METHODS: A cross-sectional mail survey was conducted in a random sample of general practitioners in Montreal to document cessation-counselling practices and identify correlates of these activities.

RESULTS: Of 440 eligible general practitioners, 337 (77%) completed the questionnaire. Despite favourable beliefs/attitudes about cessation counselling, only 10.5% of general practitioners provided "thorough" counselling. While high proportions of general practitioners ascertained smoking status and encouraged patients to quit, relatively few offered adjunct support (i.e. for patients preparing to quit, 49.8% offered follow-up visits; 42.5% offered educational material; 20% referred patients to community resources).

Correlates of counselling completeness included high self-efficacy to provide counselling (odds ratio (OR) = 2.0, 95% confidence interval (1.1-3.6) and favourable beliefs/attitudes about counselling (OR = 3.6 (2.0-6.4).

Correlates of ascertaining smoking status included female gender (OR = 2.3 (1.5-3.5) high self-efficacy (OR = 3.5 (2.0-5.9) and favourable beliefs/attitudes (OR = 2.7 (1.6-4.5). Correlates of offering adjunct support included female gender (OR = 1.9 (1.1-3.2), awareness of stages of change (OR = 2.4 (1.3-4.4) and knowledge of community resources to help patients quit (OR = 2.3 (1.3-3.9).

CONCLUSION: Support, training and intervention programs to overcome lack of awareness and knowledge, unfavourable beliefs/attitudes, and low self-efficacy could increase and enhance cessation counselling practices among general practitioners.

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ABSTRACT 5

General practitioners' perceived barriers to smoking cessation-results from four Nordic countries.

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AIMS: Studies indicate that doctors may be reluctant to discuss smoking with their patients.

Knowledge about this problem might be solved is limited. The aim of this study was to identify barriers for engaging in tobacco prevention in general practice.

METHODS: An anonymous questionnaire was mailed to 3,167 randomly selected general practitioners (GPs) in Sweden, Norway, Finland and Iceland. The questionnaire identified practice and barriers for the discussion of smoking and smoking cessation with patients and the GPs own smoking behaviour.

RESULTS: The overall response rate was 67%. A large majority of the GPs perceived the discussion of patients' smoking habits as part of their job. However, most GPs did not enquire about smoking unless the patient had smoking-related symptoms and few engaged in smoking cessation support. Many GPs felt that smoking cessation support was too time consuming and that the time spent was not effective because few patients quit. Shortage of smoking cessation experts to whom patients could be referred was the most common barrier for systematic involvement in smoking cessation support. On average, GPs had spent approximately one hour during the previous month on smoking cessation support.

CONCLUSION: The main barriers identified in this study indicate that smoking cessation expertise needs to be more accessible. One alternative is to establish telephone help (Quit-lines) that are easily available for all and could serve as a back-up for the GPs. Another more costly approach is to develop smoking cessation expertise at major clinics. A combination of both is probably the best solution.

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ABSTRACT 6

Effect of a GP desktop resource on smoking cessation activities of general practitioners.

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OBJECTIVES:

To evaluate an intervention aimed at increasing the quantity and quality of brief opportunistic general practitioner (GP) advice to smokers encouraging and supporting quit attempts.

DESIGN: Randomized controlled trial with two groups: (1) control and (2) GP desktop resource (GDR). Smoking cessation activities of GPs were assessed by an independent postal survey 1 month after distribution of resource.

SUBJECTS AND SETTING: One hundred and seven GPs in West Dorset.

MAIN OUTCOME MEASURES: GPs self reported rates of advising and counselling smokers on cessation over the previous week.

RESULTS: The rate of opportunistic advice per week in the GDR group was 4.9 (SD=4.1), compared with 2.8 (SD=1.8) in the control group, $F=8.2$, $p=0.0025$, one-tailed. The rate of giving counselling was also higher 2.2 (SD=3.2) in the intervention group versus 1.0 (SD=1.4) in the control group, $F=4.0$, $p=0.025$, one-tailed. The proportion who had recommended or prescribed NRT was greater, although not significantly (54%, versus 46%, Fisher's exact = 0.1, one tailed).

CONCLUSIONS: The findings indicate that the GDR can increase the rate of delivery of opportunistic advice and provision of counselling. Given the importance of this activity, a larger trial appears to be warranted to examine the long-term effect and the effect on cessation rates in patients.

STRESS IN CARERS OF THE ELDERLY

A controlled study of patients attending a Sydney family medical practice

Reprint courtesy of "Australian Physician"

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AIM To examine stress in carers of the elderly who attended a solo family medical practice.

METHOD Eighty-seven carers were compared with 102 non-caregiving controls. Subjects were asked to complete survey questionnaires either in the surgery or at home. The General Health Questionnaire (GHQ) was used to assess psychological morbidity, the Relative Stress Scale as a measure of subjective burden and information was collected on activities of daily living and instrumental activities of daily living.

RESULTS No significant difference was found in GHQ scores, reflecting the high level of stress in this family practice sample (mean GHQ = 4.7, standard deviation = 6.2). Psychological morbidity in carers was associated with the provision of assistance with instrumental activities of daily living such as shopping, cooking and finances.

CONCLUSIONS: We suggest that because carers often encounter specific challenges which may be amendable to interventions, general practitioners should familiarize themselves with these issues, determine the caregiving status of their patients and provide information about community services to carers.

As people age, their risk of disability increases and they are more likely to require assistance in various facets of their lives.¹ Most informal care of older people in the Australian community is

provided by families.^{2,3} While the majority of carers report positive aspects of caring,⁴ numerous studies have demonstrated that many carers feel burdened by the caregiving role, with adverse effects upon their mental and physical health, social and family function.⁵

The general practitioner (GP) is often responsible for providing the primary health care to both the disabled older patient and their carer. Further, GPs are usually the first health professional from whom advice is sought by carers about the disabled, older person's condition.^{4,6} Thus, the GP is frequently the linchpin in developing the management plan involving the carer, the care recipient and other health and welfare services.

While there have been Australian surveys of carers of the elderly obtained through random samples,^{2,7} carer support groups^{8,9} and health/welfare services,^{4,9,11} there have been no published surveys of carers attending an Australian family medical practice. Carers identified through random sampling report fewer problems with caring and less stress than carers identified through carer support groups and health/welfare services.^{3,7,10}

However, as studies of family medical practice attenders have shown high levels of psychological distress,¹² it is not known whether carers attending a GP are more distressed than other family medical practice attenders.

The main aim of this study is to determine the psychological morbidity of carers of the elderly attending a family medical practice in comparison with a control group of family medical practice attenders. We also intend to identify factors associated with burden and psychological morbidity in carers.

Methods

Subjects were selected from patients who regularly attended a Sydney solo family medical practice located in the Rockdale local government area (LGA) which has 16.3% of its population aged 65 years and over.¹³ During 1995, 1797 patients registered with the practice, of whom 22% were aged 65 years and over as compared to the national average of nearly 11% (Personal communication, Health Insurance Commission).

For a period of 4 weeks during April/May 1996, the practice secretary asked all patients over 20 years of age, if they were carers to any person aged 60 years or over. All eligible patients were informed of the survey and those who indicated an interest in participating were provided information about the survey by the GP (C.P.) at the completion of their consultation. Informed

consent was obtained from subjects who were then given the survey questionnaire to either complete in the surgery or at home. Control subjects were patients over 20 years of age who were not carers. They were enrolled over 2 weeks during January/February 1997 using a similar process as that described for the carers.

Study instruments

Two self-administered questionnaires were used. The 30-item General Health Questionnaire (GHQ) was completed by carers and controls. It is a measure of psychological morbidity in which scores greater than four (range 0-30) are consistent with significant psychological distress.¹⁴ The Relatives Stress Scale (RSS),¹⁵ a 15 item measure of the subjective burden in the carer, was completed by the carer only. The revised three point scale¹⁶ (never/not at all, sometimes/moderately, a great deal of the time/considerably) was used in this survey with higher scores (range 0-30) indicating greater burden.

Demographics

The following demographic information was obtained from both the carers and controls—age range (50 years and under; 51-60 years; 61 years and over) and sex. In addition, carers were asked to self rate their own health as 'poor', 'fair', 'good' or excellent; whether they were co-resident with the cared-for person; how long they had been a carer; their utilization of community services, such as 'meals on wheels', community nursing, home help; and the amount of family support received.

The following information was obtained about the cared-for person: age (60-70, 71-80, over 80 years); sex; amount of help needed with activities of daily living (ADL), such as eating, dressing, toileting; and amount of help needed with instrumental activities of daily living (IADL), such as shopping, cooking and finances. The response to these two separate scales were recorded as no help needed', 'some help needed', 'a lot of help needed' or 'help needed for everything'.

Data analysis

The survey data was coded and entered in the 'EPI INFO 6.0' database and analysed using SPSS statistical package.¹⁷ Ninety-five percent confidence intervals (95% CI) are presented for mean GHQ scores. Categorical variables were analysed using Chi-square analysis (with Yates' continuity correction for all 2X2 analyses) and continuous variables by independent sample student's t tests, using separate and pooled variance tests as appropriate or one-way ANOVAs for three or four group comparisons. GHQ scores were significantly skewed, so two group comparisons were made using the Wilcoxon rank sum test and for three or four group comparisons Kruskal-Wallis one-way ANOVAs. The Spearman's correlation coefficient was used to measure the association between RSS and GHQ scores. All

analyses were two-tailed and alpha was set at 0.05 unless modified by a Bonferroni correction for multiple comparisons.

Results

Of the 97 eligible carers of the elderly, 87 participated (10 refused); Twenty-seven were males, 59 females and one did not respond. Twenty-five carers were under 50 years of age; 21 were aged 51-60 and 41 were over 60 years of age. Forty-two carers were Co-resident with the cared for person and 45 lived separately. Three carers had been caring for less than one year, thirty for 1-5 years, twenty for 5-10 years, thirty-two for over 10 years and two did not respond. Four carers rated their health as 'excellent', 48 as 'good', 32 as 'fair' and three as 'poor'.

Sixty carers did not use any community services, 18 used them 'occasionally', seven used them 'a fair bit', one 'used them all the time'; and one carer did not respond. Twenty nine carers received 'no support or help, from family members', 33 received it 'occasionally', ten received it 'a fair bit' and 15 'all the time'.

Of the 87 cared for persons, sixteen were aged 60-70 years, twenty-nine were 71-80 years and forty-two were over 80 years of age. Twenty-four were males and 63 were females. Forty-four 'did not need any help with activities of daily living', 29 'needed some help', seven 'needed a lot of help' and seven 'needed help with everything'. For the instrumental activities of daily living, 11 'did not require any help', 36 'needed some help', 21 'needed a lot of help' and 19 'needed help with everything'.

On the GHQ, the carers had a mean score of 5.2 (range 0-24; 95% CI = 4.0-6.5), with 40% scoring 5 or more. Carers who provided more assistance to the cared-for person with IADL were significantly more distressed ($X^2 = 16.18$, $df = 3$, $p < 0.05$ after Bonferroni correction). There were trends for co-resident carers to be more psychologically distressed than non co-resident carers ($z = -2.73$, $p < 0.01$, ns after Bonferroni correction) and for carers who provided more assistance to the cared for person with ADL ($X^2 = 11.04$, $df = 3$, $p < 0.005$, ns after Bonferroni correction). There was also a trend for carers who rated themselves to be in poorer health to be psychologically distressed ($X^2 = 11.20$, $df = 3$, $p < 0.05$, ns after Bonferroni correction). There were no significant differences in GHQ scores with age of the carer or cared for person, sex of the carer or cared for person, family support or use of community services.

There were 112 eligible control subjects, of whom 102 participated (10 refused). Thirty-seven were male and 65 were female. Thirty-seven controls were under 50 years of age, fourteen were aged 51-60 and fifty-one were over 60 years of age. There were no significant differences between the carers and controls in the age ($X^2 = 3.64$, $df = 2$, ns) and sex distribution ($X^2 = 0.30$, $df = 1$, ns).

For the controls, the mean GHQ score was 4.3 (range 0-23; 95% CI = 3.2-5.5) with 32% scoring 5 or more. Mean GHQ scores of the controls did not differ significantly with age or sex. There were no significant differences between the carers and controls on the mean GHQ scores ($z = -1.10, p > 0.2, ns$). Although 4% of carers reported symptoms of psychological distress, this was not significantly higher than the psychological morbidity in non-carers ($X^2 = 0.95, df = 1, ns$).

On the RSS, the carers mean score was 11.3 (range 2-29). Carer self-rated health was significantly related to subjective burden, with carers in poorer health reporting more burden ($t = 5.92, df = 3, 83, p < 0.005$ after Bonferroni correction). Carers who provided more assistance to the cared-for person with IADL, reported significantly more burden ($F = 8.00, df = 3, 83, p < 0.005$ after Bonferroni correction). There was a similar trend for carers who provided more assistance to the cared-for person with ADL ($F = 3.91, df = 3, 83, p < 0.05, ns$ after Bonferroni correction). There were no significant differences in RSS scores with age of the carer or cared-for person, sex of the carer or cared-for person, use of community services, family support and living arrangements.

There was a significant correlation between carer GHQ scores and RSS scores ($r = 0.55, n = 87, p < 0.001$).

Discussion

Before discussing the findings of this study, there are a number of limitations to be considered in interpreting the results. The lack of significant differences between the carers and controls may be due to a Type II error. The sample size was based on an anticipated medium effect size, but the results of this survey would suggest that a small effect size would be more appropriate in a family medical practice setting due to the higher levels of psychological distress in patients overall. This would require 392 subjects per group to detect significant differences.¹⁸

Further, as only one urban family practice was involved, the results may not generalise to other practices. The design of the study was cross-sectional so some of the associations with carer burden could well be the result of stress rather than a cause. Prospective longitudinal studies are required to clarify this.

Concerns have been raised that GPs fail to recognise the needs of carers.^{4,19} In a busy family medical practice, carer stress can easily be missed by the GP unless this is the specific focus of the consultation. Many factors contribute to psychological morbidity in family medical practice and being a carer is just one of them. In our survey, while 40% of carers were psychologically distressed, these levels of psychological morbidity are similar to those reported in carer support groups,^{3,8} and health/welfare services,^{4,9,11} rather than those found in random community

samples.²⁷

Identification of the carer may be a problem, although around 20% of family medical practice patients have been estimated to be carers.²⁰ During this survey, the GP (C.P.3) was surprised to find that he did not know that many of his patients were carers of the elderly. On questioning a few of the carers as to why the issue of their being a carer was never discussed, various reasons were given but many indicated they felt it

nothing to do with the reason for the consultation and that the GP was too busy for such 'trivial non-medical matters'. Yet, such matters may be far from trivial. Use of a simple, brief questionnaire or focused questioning to identify carers and their concerns may be of assistance to the GP.

As has been found in previous studies, the perception of burden related to caregiving is significantly associated with psychological distress.¹⁰ The main factor identified as being associated with carer burden and psychological distress was the need for the carer to provide assistance with activities such as shopping, cooking and finances (IADL). Only 30% of carers were receiving community services. Carers report that information about services is not received early enough from GPs.⁴ The GP may be able to overcome this by providing a short information sheet about the types of community services available in the local area. This should be linked with advice tailored to the patient's needs. However, as noted in this study, the receipt of community services is not necessarily associated with reduced burden or distress.

Family help and support was under used. Carers seldom solicit assistance from other family members.^{8,21} Support from family, friends and community agencies has been found to buffer the negative impact of care giving.²² To this end, the GP could hold a round table conference inviting all the family members and explaining not only the problems and stresses but the gratification of care giving. This discussion could help in motivating the family to share the burden of care giving and help maintain the older person in their own home with sufficient support.

For carers who are psychologically distressed, interventions directed towards improving self-sufficiency and coping strategies may decrease carer stress.²³ Referral to self help groups such as the Alzheimer's Association or the Carers Association may be of benefit. Many carers become clinically depressed and may require specific management of depression. The GP needs to be aware of when to refer the carer for specialist advice from the local aged care services in order to mobilise the most appropriate service to obtain the maximum benefit for both the carer and the cared for person.

Conclusion

This study has shown that carers of the elderly attending a family medical practice demonstrate

similar levels of psychological morbidity as other non carer patients attending the same practice. Future studies should be prospective and have a large sample size to determine whether carers are significantly more distressed than other family medical practice patients.

Acknowledgments

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We suggest that because carers often encounter specific challenges which may be amenable to interventions, general practitioners should familiarise themselves with these issues, determine the caregiving status of their patients, provide information about local community services to carers and be aware of when to refer the carer for specialist advice.

CITING ACADEMIC WORK

Rajeshwar Sharma, Suva.

Academic citation of academic work in presentations - a process also called documentation of sources (Singh 1995: 479) - is essential not just for moral obligations but also for legal requisites. Noteworthy ideas; the prominent interconnections amongst phenomena, become the creators' intellectual properties and are protected by copyright acts. These statutes - spelled out pellucidly in all publications; on the title page version of books, editorial board pages of journals, for example - necessitate authorization for usage. Furthermore, scholarly conventions dictate the sine qua non for apt documentation: neglect begets shoddiness, imperils plagiarism, -stealing, in simple terms - and risks forfeiture of recognition for originality. (Ryan and Davidson 1985: 6); negating the audacious undertaking of authorship. There are two principal methods for the acknowledgement of sources: The traditional Modern Language of America (MLA) footnote system and the acclaimed Harvard author date system. (Khan 1996: 67). This digest outlines the later modus operandi by specific prototypes in an endeavor to simplify and systematize documentation of sources.

The Harvard system has many descriptive synonyms: author date references, in text referencing, and parenthetical documentation's, for example (Khan 1996: 63). Like the MLA footnote system that marks the begetter's idea with a superscripted Arabic numerical and places corresponding reference at either the bottom of the same page = a footnote - or at the end of the article - an endnote - (Gibaldi and Walter 1985: 5), the Harvard system also has two components. First, the originator's idea is cited by the surname, the year of publication, and the page number of the manuscript, bracketed in various combination, and intercalated within the text. The author (Khan), date (1996), and the page number (63). Secondly, at the end of the article, like the MLA system, a reference or bibliography is compiled but unlike the endnote system that enumerates the citations, the Harvard System arranges the publications alphabetically in accordance to the authors' surnames, as illustrated at the end of this article.

Documentation of source is procured by either of the systems. Short direct quotes, consisting of parts of a sentence, should be incorporated within the text; the quoted passage enclosed in single open and close inverted commas ' and followed by the citation. A complete sentence and a longer quote, on the other hand, should begin on a new line, be indented, and written without the inverted commas. (Ryan and Davidson 1985: 11) Citation is not limited to — as many perceive - direct quotes. All important ideas that are borrowed need to be documented (2001: 46). The first of the following examples; a longer direct

quote, evinces commencement on a new line, indentation, and absence of the single inverted commas; the second - a paraphrased idea - accentuates the need for citation. Both samples reveal the flexibility and elegance of the author date referencing. It should be noted, nevertheless, that long direct quotes, unless in exceptional circumstances, should be circumvented.

Example 1: In his article; ~The new anti depressants - clinical applications," Tiller highlights the problematic role of drug therapy in depression:

Although some patients may benefit more from drug treatment psychological treatments as effective as anti-depressants for mild depression. For depression of moderate severity, pharmacotherapy is superior, while for severe depression, electroconvulsive therapy (ECT) is the most efficacious treatment. (1999: 109t).

Example 2: (Paraphrased). The role of drug therapy in depression is debatable: ideal for moderate cases, and equally effective as psychotherapy in mild illness, antidepressants do not supercede electroconvulsive therapy (ECT) in severe depression. (Tiller 1999: 109).

The Harvard system is laudable and easy to apply. Enumerated herein are some clarifiers; adapted and appended from various sources: (Chicago University Press 1982: 40, Howell 1983: 50, Ryan and Davidson 1985: 5- 12, Taylor 1989: 50, Khan 1996: 63 - 73, Gates 2001: 46 - 7).

1. ...et al or and others - for example, (Chand et al 1990: 7) or (Chand and others 1990: 7) - may be used within text for more than two authors of a single document after first instance all the writers should be named in the bibliography, however.

2. Initials; and if the initials are same, full names or other identifying markers, can be used to distinguished same surnamed authors in the same year; in text.

3. More than one paper per idea may be cited in chronological order: (X 1970: 5, Y 1980: 4, Z 2000: 5), for example. Roydhouse's advice against using too many citations (1995: 112- 113) should be considered.

4. If citing more than one work of the same author in the same year, lower case letters - a, b, c - may be suffixed to the date: (Deo 1999: 10).... (Deo 1996: 17)... (Deo 1996: 5), as an in-text example. These markers appear in the bibliography.

5. Both primary and secondary sources should be documented in cases of Inaccessibility of the primary citation. In this simulated example; (Rao 1980: 11 in Prasad 1990: 12), the begetter; Rao, was initially cited by source; Prasad. Other words such as: quoted in, cited by, etc may be used instead of in. Moreover, fecund paragraphing can be employed.

6. The organization's name replaces the au-

thor's only if the latter is not available. Compare (Fiji Times 2000:3): (Ali 2002:3), where Ali named his article.

7. The page number need not be documented when only the theme of the work is used — Hippocratic (460 - 367 BC) oath, for example.

8. Punctuation may vary but once chosen should be adhere to; (Author, Date, Page) or (A,D:P) or (AD:P).

9. Creative combinations can be used: (AD:P), (AD) (P), A (DP),

(D)... (A)... (P) and so on. That is, author's surname, dates, and page number can be placed at different locations within a sentence.

10. All borrowed - with permission, of course - tables, diagrams, charts.

Figures, schemes, guidelines, algorithms, protocols, slides, graphs, pictures, abstracts, summaries, and the like, should be documented clearly by the author date system. Status of certification and alterations, if any, should also be included.

11. A **Bibliography**; a list of all books (bibles) and writings that are cited, consulted but not cited and recommended for the reader, or a reference; a list that includes only the cited works, is compiled alphabetically by authors' surnames and put at the end of the article. The information in both systems are same, however. The Harvard system based bibliography at the end of this article, have titles of books, journals, reports, magazines, newspapers (when the author's name is given) italicized. A typical example of a **book** —Thaman —shows the main features: author, date, italicized title, place of publication and publisher. Variations include; two or more authors, citations for editors and more than two editions (see for instance Williams and Torrens).

Royhouse's and Gate's citations show a journal and a magazine respectively. Note the entry for organizations; Chicago University press and Fiji Times. In case of the later compare Ali's reference. A brief study of all the publications in the bibliography will enable referencing skills.

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THE INDIAN DIASPORA

Neil Sharma, Suva.

In the early 1800s with abolition of slavery worldwide, came the dire need for workers in the expanding British Empire and its colonies. The British Raj had found Indians most suited to farming. The seeds of the great Indian Diaspora were laid.

There was much social turbulence in India at this time and this contributed to a net flow of people to the east. The Darjeeling tea plantations were being developed, the Bihar coalmines were operational and so were the jute factories in Calcutta. These were the pull factors to the east, where the British East Indian Companies were based. The push factors were the social upheavals of dowry, caste and religious persecution, the British take over of land and its subsequent land-lease policies.

The exploitation of humans was much to bear and a net movement of human traffic was already in motion. The recruiting agents (Arkatis) hired by the British Administration swept far and wide into Punjab, Gujarat and even Madras in search of hardy, able bodied people to work the fertile fields of the empire. How successful they were.

One million Indians sailed the deep blue seas (kala-pani) to countries like South Africa, Surinam, British Guyana, Trinidad and Tobago, Malaya, Mauritius and finally to Fiji in 1879. Our history remains similar to this date and even today we still live a life traditionally Indian but much modified due to the cultural influences of the new country, its cultures and the influence of the empire. So similar yet so different.

60,000 Indians were transported to Fiji as indentured labourers (girmitiyas) to work the fertile soil, planting sugar, rice and copra. Life was difficult from the start of the journey. The caste system was thrown out as Chamars, Brahmins, Sikhs, Rajputs and the Ahris all built new alliances to survive. The unique concept of shipmates (jahaji-bhai) evolved, which became thicker than blood in times of need later in their lives. Specific to Fiji but quite probable in the rest of the new lands many difficult times lay ahead.

20,000 died from diseases related to malnutrition, worm infestations, anemia, tuberculosis, leprosy and violence of homicide, accidental and suicidal nature.

Another 20,000 returned to India, a few after five years, paying their way back whilst others managed a free pass after ten years of continuous labour. The atrocity of the worldwide indenture was highlighted to the Gandhi-an movement and Fiji was the darkest spot in the British Empire. The indentured migration came to an end in 1916 after much agitation and contribution from the colonies.

Pundit Totaram Sanadhya was one such character that spent twenty-one years in Fiji and returned to India to publish his book: **meri ekis waris fiji depyme**. There is very little documentation of our history apart from the folk music that reveals the Narak status of indenture.

The Fiji-born Indian is the proud progeny of simple unlettered farm hands who survived the bravery of travel into the unknown, of resettlement in a strange land, of physical, emotional and spiritual torture. These simple folk saw only one future and that was to educate the next generation into teachers, lawyers, doctors and engineers. There remained little hope on the land but a means to survival. He was trained for little else so he continued.

Confined to small acreages of 3-5 acres most became free settlers after the ten-year spell of slavery/bondage/indenture. Dependent on their capabilities some purchased freehold pieces; others leased crown and native land to continue farming but diligently working towards educating their children. In education lay salvation, for within one generation we evolved teachers, clerks and within two generations we developed doctors, lawyers, engineers and academics.

Fiji Indians have worked hard, remained frugal, saved and progressed materially for they are reminded of their simple background. There should never be another girmit period ever. Attempts to bring in Indians as free settlers after indenture largely failed due to a damning report by Indian Govt. officials upon enquiry by a contingent from Fiji. A small number of Indians from Gujarat state arrived in the early 1920s and worked their way up the social ladders from humble travelling salesmen to prominent shopkeepers, grocers, drapers and duty free retailers and recently owners of prominent transnational groups in this day and age.

By contrast the ethnic Fijian, also progeny of the Lapita migration from Asia around 4000 BC island-hopped to arrive in Fiji around 1500 BC. Sailors of great fame, star-navigated their way to the friendly islands to stake claim. Much strife existed in the tribes, clans, mataqalis and provinces. Attempts to form a govt. under Ratu Seru Cakobau proved futile, even in the face of Maafu, the Tongan prince who was gradually invading the eastern province of Lau.

In desperation with the burning of American property on Nukulau Island, Fiji was ceded to the British under Queen Victoria. The British Administration system. It would have been most difficult to control the warring tribes otherwise. Then, one third of Fijians perished from measles introduced by a British schooler, on a tour of the Fijian colony.

The governor was of the opinion that the Fijian was perishable and happily brought in indentured Indian labourers to work the virgin forests for the British entrepreneurs and Australian sugar companies who had seen potential in the arable land resources.

From the 1930s, two great cultures lived in parallel dimensions, looking at each other with suspicion yet happy and cordial about things like land, money, economic wealth, with concerns unaired. Independence from the British was mutual and arrived in 1970. The processes of Indian marginalisation and legislation by successive governments resulted in secondary diasporic migration to countries around the Pacific Basin. Canada, United States, Australia, New Zealand became new homes for Fiji Indians. Unfortunately successive Fijian governments have not addressed concerns raised by this group of Fiji born of Indian ancestry 123 years down the timeline.

Today, one-third the total Fiji-born Indians now reside in these countries. Migration continues at the rate of 500 people leaving each month in 2002. Pockets of Fiji-born Indians are found well settled in USA (Modesto, Sacramento, Seattle), in Canada (Surrey-Vancouver), widely in New Zealand and Australia. The Diaspora continues.

Life in Fiji remains comfortable for the wealthy. The poverty line is rising exponentially. Lawlessness, increasingly violent crime is on the

increase. The vulnerable suffer when the have-nots short track material gains without sweat and tears. The politicians who have without qualification amassed wealth cannot get off the proverbial tigers back as the beast gains momentum. Remaining on the beasts back is the safest position.

Corruption and nepotism the order of each day, reaching unparalleled heights. Government by dishing out \$20 million worth farm implements gained power. These are interesting but sad gimmicks. Corrupt politicians, civil servants, smooth businessmen are all in it together.

The economists are forecasting bankruptcy economically but we are already morally and spiritually bankrupt and overdrawn to maximum credit limit. A new lawlessness is in sight. Judiciary cannot cope. Democracy is being tested truly.

So is life in Fiji.

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NEXT ISSUE:

Prescription – A medium of communication

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Hobby Corner

Tom's Cumquat Marmalade

Ingredients

1 kg cumquats
1 kg sugar
juice of half a large lemon
1 litre water
1 generous tot whisky
peace of mind

1. Setting the Day

Choose a day when your soul is untroubled and such other duties as you have may be safely postponed. A Saturday is good. Lay in a stock of suitable bread or scones on which to eat the marmalade for Sunday breakfast, or - better still - make some wholemeal bread yourself. You will also need a large pressure cooker, Bombay pot or preserving pan, a wooden spoon, a small muslin bag, several empty jars, and command of the kitchen. If you are confident of the outcome, invite some friends round to share Sunday breakfast with you, in which case you will, of course need a few bottles of champagne, fresh oranges, good coffee, cream, eggs and bacon and other incidentals to toast and marmalade.

2. Buying the Cumquats

Saturday is market day in Suva, so that is a good time to find cumquats. There are not many stalls that sell them, and you may even have to ask. They are sold in small heaps of 7 to 10, depending on size. The current price is 50 cents to a dollar a heap. However, since the heaps will usually include several small green cumquats, you may care to offer to buy 5 heaps of yellow cumquats for \$7. You will still end up with a few hard green ones, but 5 heaps should give you rather more than 1 kilo.

3. Preparing the Cumquats.

Put some old clothes on, or a fancy apron. Choose some agreeable music on the player; Bach's Orchestral Suites are excellent for the purpose but you may prefer Edith Piaf singing *La Vie en Rose* (My favourite song of all time) or Billy Holiday's *Gravy Train* or Mozart's *Marriage of Figaro*, with Kin Te Kanawa singing *Rosina*, Fischer-Dieskau the lecherous Count Almaviva and the delicious Maria Ewing as *Cherubino*. Fix yourself a long drink. (Vodka and orange seems appropriate, but the choice is yours.) Set out on your work top a chopping board (if you have one with a rim, or a channel round, so much the better), your Bombay pot or pressure cooker, a very sharp knife (preferably one with a serrated edge, which will not slip and cut your fingers), a tablespoon, your muslin bag, a weighing machine and have the waste bin near at hand. Take a good long swig of your drink and then begin by removing the stalks from the cumquats, discarding any small, hard green fruits as you go along. The larger green fruits may be perfectly acceptable if they feel soft. Put the selected fruits in the weighing machine and stop when you have reached a kilo. If you end up with a few more or less, keep the discrepancy in mind for when you come to add the sugar later on.

At this stage, if you are a health fanatic, you should scrub the fruit, but personally I am willing to take on board any microbes than can survive two hours or so of boiling, so I omit this desideratum.

Take another swig of your drink and change the record, cassette or disk if necessary. Now slice open the first cumquat on the chopping board. Do NOT slice it through the equator, or you will cut through most of the pips. It is better to slice it at about the Tropic of Capricorn, which

will probably show you where the pips are. Cut the fruit into five to seven large, irregular pieces, pushing the pips to one side as you go. Thin slithers of peel are not becoming to this marmalade, which should contain interesting, even provocative chunks.

If your chopping boards has a rim, you may be able to deal with four or five fruits before putting the chunks plus resultant juice into the pressure cooker, but if you have only a small flat board, you may have to deal with them one or two at a time, otherwise the juice will run over on to the work top and be lost. From time to time scoop up the store of pips and put them in the muslin bag. (This is what the tablespoon is for.)

You will get fairly sticky in this process, but the smell is worth it. You will probably need to replenish your glass several times. As you progress, your pieces of peel will become more imaginative.

4. Softening the Cumquats.

By now you will have all the cumquat pieces and juice in the pan, all the pips in the muslin bag, and several vodkas-and-orange in yourself and your back will be aching. Never mind. Clear up the work top, scrub the chopping board, wash the knife, spoon and weighing machine pan, and put the kettle on. While it is boiling, you can squeeze the half-lemon into a cup. Now consider the question of the density of the marmalade you want. Personally, I prefer very thick marmalade, with the pieces of peel constituting at least half the quantity. This calls for rather less water than I have given above; say three-quarters of a litre, rather than a litre. If, on the other hand, you want a thin, mimsy kind of jelly-like substance with odd bits of peel scattered about in it, then you might go for a litre and a half, or even more, only don't tell people who eat the stuff that you used my recipe; after all I have a reputation to keep up.

Tie a knot in the top of the muslin bag and put it in with the fruit. (The pips contain pectin, which will help the marmalade to set.) By now the water has boiled. Add the appropriate amount to the fruit in the pan, and bring to the boil, stirring the while. Turn down the heat and boil gently for about an hour in an open pan, stirring from time to time. If you use a Bombay pot, you will need to stir more often. If you use a closed pressure cooker, then 20 minutes should be ample, but you will need to do it in two batches or the stuff will come out of the valve and make a fine mess of your cooker. At the end of this first boiling, and before the sugar is added, the peel should be soft enough to cut with the edge of a spoon.

5. Adding the Sugar

Now add the same weight of sugar as you had fruit, plus the lemon juice. Boil rapidly, stirring frequently. Put a dinner plate in the freezer. (Yes, in the freezer!) After 20 minutes, test for setting by dripping some of the hot liquid on to the cold plate. Run it from side to side. If it does not set to the required consistency within a couple of seconds, it needs more boiling. A minute or so before you judge it to be ready, add the generous tot of whisky and stir well. You should not need to boil for more than 30 minutes after adding the sugar, otherwise the peel will begin to harden.

6. Filling the Jars

When the marmalade sets well, remove it from the heat and leave it to cool for a bit. Meanwhile, set some more water to boil and cover your work top with two or three layers of newspaper. You may need to replenish your drink or

perhaps you have had enough by now. At all events, put on another record: something triumphant, such as Dvorak's New World Symphony or Mahalia Jackson. Set out your jars, which should have been well cleaned. I suggest you use old 275g jam jars with wide tops, so that when you spoon out the marmalade it doesn't get all over your fingers. I find Monbulk jam jars are the best. Add the boiling water to each jar, a small amount at a time, so that they are hot, and hence do not crack with the hot marmalade. Have ready a ladle or a small jug. Bring the pan of marmalade to the work top. Now fill the jars one at a time, first emptying out the water. Make sure you stir the pan each time you take a ladleful or jugful, so that the peel is well distributed. Don't take more than half a ladle at a time, or it will run down the outside of the jars. If necessary, clean the outside of the jars as you go along. Filling the jars is a precise business, and you may wish you had not had so many vodkas-andorange. Use a plastic spatula to scrape out the last precious traces. Or, of course, you can wait until the next day when you can simply fill your jars from the pot. ~ Cover the jars with clingfilm. If you have an obsessional personality, or are fool ~, enough to plan to give away some of your marmalade, you may wish to label the jars.

7. Historical Note

You may be interested to learn that the word marmalade comes from the Portuguese for quince, marmelo. The Romans made a preserve from quinces, honey and wine. In the middle ages this preserve, flavoured with ginger, cinnamon and galingale, was called ~marmalade'.

The preserve made with Seville oranges was a Scottish specialty, first made by the Keiller family early in the eighteenth century, and not known in England except by those few Englishmen who ventured into the barbarous north. Dr Johnson, who knew a good thing when he found it, enjoyed Scottish marmalade, and Boswell's wife sent him some after his return to London. It was not until the 1870s that a grocer's wife in Oxford, Mrs Cooper, who had been given a recipe, began to make it for sale. It rapidly became popular with the undergraduates of the day. According to the Mabeys, on whose charming book, Jams, Packles and Chutneys (Penguin, 197:5) I base this note, it was the changing life-style of the middle-class commuters who had no time for the traditional English breakfast of steak, pies, lamb chops, curried eggs, stuffed pigs' ears, and kippered salmon, washed down with porter, that made marmalade the essential breakfast food it has since become. And it was not until the twentieth ~ century that the word, marmalade, came to be reserved for a preserve made from citrus fruits. Keiller's Scottish marmalade is still sold in printed stone jars, I believe, though I have not bought one since I was briefly in Poona during the war, where it was, of course, served in the officers' mess for breakfast, and I dare say it still is.

Tom

The best cure for all disease

Is to sit and listen to the bees

(from Tom Kaye's Other Love Poems, Fiji Times & Herald, 1988)

POETRY

Summersong

Truth, that poets' cast-off whore, came begging in the summer,
When the harvest hours smelled of warm wine, and my arms were aching
From hugging brown-bosomed glean-ing-girls, over by the river.
And I was lying strong on the stubble ground, and my mind full of the clouds,
And my sore-sharp knees, and the taste of their mouths, wet like watermelons.
And she stood with bloodied toes on the crumble-hard earth, and her bodice unlatched,
Like the practiced strumpet she is, so her shadow fell on my face.
And I told her to keep her charity, I said, she could stroke her own pussywillow,
And all I wanted was the sun-hot smell of the cornfield, and the waving grasses,

And maybe in a sweet hour I'd chase the maids, and bite their nimble thighs again.
But she leaned over me like a whorebitch, and worked her arts on me,
And her body reeked so of lovesweat that I lost my summer senses,
And I forgot my poppygirls, and their supple-sweet bellies,
And I heard only her honeytongue, and the sound of fame and brass trumpets,
And all the while we worked the shadows grew like desert grass.

Note: Summersong is written in gal-liambics, the metre Catullus used in his long orgiastic poem, Attis, about the self-castrating worshippers of Cybele. As far as I know, the only other time this metre has been used was in Ten-nyson's Boadicea.

The Station

by Robert Hastings

Tucked away in our subconscious is an idyllic vision. We see ourselves on a long trip that spans the continent. We are traveling by train. Out the windows we drink in the passing scene of cars on nearby highways, of children waving at a crossing, of cattle grazing on a distant hillside, of smoke pouring from a power plant, of row upon row of corn and wheat, of flatlands and valleys, of mountains and rolling hillsides, of city skylines and village halls.

But uppermost in our minds is the final destination. On a certain day at a certain hour, we will pull into the station. Bands will be playing and flags waving. Once we get there, so many wonderful dreams will come true and the pieces of our lives will fit together like a completed jigsaw puzzle. How restlessly we pace the aisles, damning the minutes for loitering - waiting, waiting, waiting for the station.

"When we reach the station, that will be it!" we cry. "When I'm 18." "When I buy a new 450SL Mercedes Benz!" "When I put the last kid through college." "When I have paid off the mortgage!" "When I get a promotion." "When I reach the age of retirement, I shall live happily ever after!"

Sooner or later we must realize there is no station, no place to arrive at once and for all. The true joy of life is the trip. The station is only a dream. It constantly outdistances us.

"Relish the moment" is a good motto, especially when coupled with Psalm 118:24: "This is the day which the Lord hath made: we will rejoice and be glad in it." It isn't the burdens of today that drive men mad. It is the regrets over yesterday and the fear of tomorrow. Regret and fear are twin thieves who rob us of today.

So stop pacing the aisles and counting the miles. Instead, climb more mountains, eat more ice cream, go barefoot more often, swim more rivers, watch more sunsets, laugh more, cry less. Life must be lived as we go along. The station will come soon enough.

Listen to the Exhortation of the Dawn!

Listen to the Exhortation of the Dawn!

Look to this Day!

For it is Life, the very Life of Life.

In its brief Course lie all the

Varieties and Realities of your Existence:

The Bliss of Growth,

The Glory of Action,

The Splendour of Beauty;

For Yesterday is but a Dream

And Tomorrow is only a Vision;

But Today well lived makes

Every Yesterday a Dream of Happiness,

And every Tomorrow a Vision of Hope.

Look well therefore to this Day!

Such is the Salutation of the Dawn!