A Report on Effective Access to Tobacco Dependence Treatment (TDT) in Hong Kong Special Administrative Region

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Introduction

— A Hong Kong (HK) SAR case control study of 27,507 deaths and 13,054 living controls showed that, in 1998, 5,720 deaths or 18.2% of all deaths aged ≥ 35 years were attributable to tobacco. Among middle-aged men (35-69) the proportion of deaths caused by smoking in Hong Kong SAR is more than twice now (33%) what it was in mainland China 10 years ago. (1)

In Hong Kong SAR, cigarette consumption in men had reached ten a day by the early 1970s, 20 years later than the United States and 20 years ahead of mainland China. The US pattern of overall mortality attributable to smoking in men in 1975 was repeated in Hong Kong SAR about two or three decades later. This case control study, which is the first to assess the hazards in a Chinese population at a fairly advanced stage of the epidemic of tobacco deaths among middle-aged men, supports predictions of a large increase in tobacco-attributable mortality in China as a whole in the next few decades, unless there is widespread cessation by adults who already smoke. (1)

— The 2000 Thematic Household Survey showed that prevalence of current smokers aged 15+ years was 14.4% (men: 25.2%, women: 4.4%). Of the estimated 804,200 current smokers, 86.1% were daily and 13.9% were non-daily smokers. Of the daily smokers, 52% had tried or intended to quit. (2)

— From 1982 to 2000, the prevalence of daily smokers aged 15+ decreased from 23.3% to 12.4% (39.7% to 22.0% in men, and 5.6% to 3.5% in women). Falls were greatest in the older age groups in both sexes, but the prevalence increased in young women (age 20-29: from 1.5% to 4.7%). (2,3)

— From 1994 to 1999, the prevalence of current smokers (those who had smoked in the past 30 days) increased in Secondary 1 to 3 students (aged 12-16), with a particularly dramatic increase (from 6% to 12%) in Secondary 3 female students (mostly aged 15), whereas the corresponding increase in male students was from 13% to 14%.4

— The Hong Kong Government Health, Welfare and Food Bureau is the policy bureau responsible for tobacco control and public health. The Department of Health of the Hong Kong Government answers to the Bureau; it enforces public health legislation and runs some primary health services, including 64 general out-patient clinics. The Hospital Authority is funded by the government to run public hospitals, which provide heavily subsidized specialist and in-patient treatments. Private medical practitioners provide about 72% of out-patient treatments. Public hospitals provide about 90% of in-patient treatments, the remaining being provided by private hospitals.

Description of the policy intervention

— How was the policy used for tobacco control?

Types of treatment:

Available nicotine replacement therapies (NRT) include nicotine chewing gum, patch, inhaler and lozenge. Only NRTs of 2mg or less are available over-the-counter. Other NRTs are available without prescription in private pharmacies with registered pharmacists. NRT gum and patch are available in selected pharmacies of the Department of Health of the Hong Kong Government, and Hospital Authority. Bupropion (Zyban) is available only by prescription from a registered medical practitioner.

Smoking cessation talks and classes are held occasionally in hospitals and clinics. A small percentage of doctors give brief advice on quitting to their patients, and very few prescribe NRT or bupropion. Patients have to pay for Tobacco Dependent Treatment (TDT) services provided by private medical practitioners. There is no systemic documentation and evaluation.

Since 2000, the following regular services for TDT are available:

- HK Council on Smoking and Health (COSH) Smoking Cessation Health Centre
- HK Department of Health Enhanced Smoking Cessation Services in four general outpatient clinics and Smoking Cessation Hotline
- HK Hospital Authority Smoking Counselling and Cessation Centres (10 centres) and Quitline (mainly for enquiries and making clinic appointments)

Access and payments for these services are described below.

— When did the intervention take place?

The established policy on tobacco control of the Government of the Hong Kong Special Administrative Region of the People’s Republic of China “is to seek, through a step-by-step approach, to discourage smok-
ing, contain the proliferation of tobacco use and protect the public from passive smoking to the maximum extent possible. A multi-pronged approach, comprising legislation, taxation, publicity, education and enforcement, has been adopted to achieve the above policy objectives."\(^{(5)}\)

The Smoking (Public Health) Ordinance was first enacted in 1982 to restrict the use, sale, and promotion of tobacco products. The latest amendment with more control stringent control was in 1997. New proposals to further strengthen the tobacco control framework were presented by the Government for public consultation in June 2001.\(^{(5)}\)

The Hong Kong Council on Smoking and Health (COSH) was established in 1987 as an independent non-governmental statutory body and its functions include public education, research and advising the Government and the public on matters relating to smoking and health. It receives recurrent funding from the Government, which in 2000 committed a substantial capital grant to conduct more publicity, educational programmes and research in the coming three years. COSH then adopted a new policy of increasing promotion of smoking cessation and started a Smoking Cessation Health Centre (SCHC).

In 1994, the Department of Community Medicine, Hong Kong University (HKU) and the Department of Health started the first randomized controlled trial on smoking cessation in Hong Kong in the Department of Health’s general outpatient clinics. The results showed that doctors’ brief advice was effective.\(^{(6)}\) This was followed by several randomized controlled trials on quitting. Several staff members from HKU received training on TDT in the US and the UK. The HKU Department of Community Medicine also successfully obtained a grant from the government’s Health Care and Promotion Fund to set up a quitline jointly with COSH and the HKU Department of Nursing Studies. Training programmes for smoking cessation counsellors were organized by trained HKU staff so as to provide trained counsellors for the new TDT services.

The SCHC started operating in August 2000. After operating for a few months with good evaluation data in January 2001, the opening ceremony was overseen by the Secretary for Health and Welfare of the HK Government, who stated that “while tobacco control legislation, public education and health promotion are vital means in containing the proliferation of this epidemic, it is equally important that we have in place an effective smoking cessation programme to help those who have made up their mind to quit”. The Secretary announced that HK$2 million (US$1 = HK$7.8) was approved to COSH for cessation-related activities in the coming 3 years.\(^{(7)}\)

In the 2001 Government Policy objectives made strengthening of smoking cessation services a new initiative with a double target: (1) establishment of 10 hospital and community based smoking counselling and cessation centres in 2002-3 by the Hospital Authority; and (2) introduction of NRT in Department of Health General Outpatient Clinics in 2002.\(^{(8)}\)

The Smoking Cessation Health Centre (SCHC)

This is the first smoking cessation clinic in Hong Kong which operates regularly with individual counselling and NRT provided by trained smoking cessation counsellors. The service is free and one week’s free supply of NRT is given to all clients who are prescribed NRT (including gum, patch and inhaler). Clients also get discount coupons to buy NRT from private pharmacies. This pilot part-time clinic is funded by COSH with emphasis on publicity, training and evaluation. It operates 3 days a week from 18:00-21:00, using the specialist outpatient department of a hospital (Ruttonjee Hospital). It has a steering group with members from COSH, the universities and the hospital. Three reports have been published up to 2002 with wide circulation (Quit.Com Report 1 to 3).\(^{(9)}\) The SCHC also serves as a training centre for smoking cessation counsellors, medical and nursing students.

HKU and COSH Quitline

This is the first quitline which provides counselling by trained smoking cessation counsellors. Funding was first provided by the Health Care and Promotion Fund and is now funded mainly by the HKU Department of Community Medicine with contributions from the Hong Kong Cancer Fund. It started operating on 13 December 2000. Working hours are 14:00-20:00 from Monday to Friday and 10:00-18:00 on Saturday (38 hours per week). Services are free.

Department of Health Smoking Cessation Service

Enhanced smoking cessation services with NRT (patch and gum) were introduced by the Department of Health from September 2001. Clients have to enrol and return at scheduled intervals (up to 5 times in the first 2 months)
A Report on Effective Access to Tobacco Dependence Treatment (TDT) in Hong Kong Special Administrative Region for consultation and NRT. The standard consultation fee (HK$37) is charged per visit and there is no extra cost for NRT. A free-of-charge smoking cessation hotline is provided by a nurse counsellor.

Hospital Authority Smoking Counselling and Cessation Programme

The Hospital Authority received special funding from the Health, Welfare and Food Bureau and inaugurated 10 smoking counselling and cessation centres in May 2002. The counsellors are nurses trained by the HKU Departments of Nursing Studies and Community Medicine in association with the COSH SCHC. A quitline was also set up mainly for enquiries and counselling appointments at the centres; brief telephone counselling is provided only if the callers do not wish to go to the centres. The normal out-patient fee (HK$39-44) is charged for each visit. One week's supply of free NRT gum, patch or inhaler is prescribed by the counsellor, and clients have to pay the hospital pharmacy for further NRT at the discounted price.

— Other actions in tobacco control taken at the same time:

• COSH organized an annual Quit Campaign from 1995 to 2000. COSH also organized publicity and activities for the World No Tobacco Day, No-Smoking Day in the Workplace, press conferences on research findings on public opinion, smoking and passive smoking.

• The Tobacco Control Office was set up in the Department of Health in February 2001 to enhance and coordinate the Government's anti-smoking efforts.

• The Government raised tobacco tax by 5% in 2001-2. There was no tax increase in 2002-3 but the duty-free tobacco allowance for local residents was cut by 40% to 60 cigarettes.

• The Health, Welfare and Food Bureau of the HK Government proposed amendments to the existing Smoking (Public Health) Ordinance for public consultation in June 2001. The proposals include expansion of statutory no-smoking areas to all restaurants and other public indoor premises, kindergartens and schools (indoor and outdoor), universities (indoor) and all indoor workplaces, further restrictions on tobacco advertising and sponsorship, introduction of pictorial contents on health warnings and stronger law enforcement measures.(5) The consultation resulted in much public awareness and majority support, and strong objections from the tobacco industry and some representatives of the catering industry.

— In August 2001, a press conference of the HKU Department of Community Medicine on the findings of a large case control study showing that, in 1998, 5720 deaths were caused by tobacco. The results received wide coverage in local and international media.(?)

Steps of implementation

— Which steps had to be taken to reach the final implementation stage of the policy?

For legislation on tobacco control, the initial steps in reviewing existing legislation and proposing legislative changes were taken mainly by COSH. The government policy bureau also carried out internal reviews. Surveys and other research were carried out by COSH and the universities with funding from COSH and other sources. Publicity about research findings was mainly released by COSH.

The Health, Welfare and Food Bureau received proposals and recommendations from COSH and prepared consultative documents for legislative changes. Proposals were presented to the Legislative Council. COSH organized working groups to discuss the proposals and solicit support for them. Further studies were also commissioned or carried out by the Bureau, COSH and other organizations, especially on controversial issues, such as the economic implications of banning smoking in all restaurants and bars.

After consultation, the Bureau presented its results to the Legislative Council. The 2001 proposed amendments to the Smoking (Public Health) Ordinance will undergo further discussion and examination by the Legislative Council. Draft legislations will be prepared by the Bureau and presented to the Legislative Council for further examination before final enactment.

For tobacco dependence treatment, the first steps in formulating a policy and application for government funding were taken by COSH. The SCHC was set up under a COSH Steering Group which reviewed the evidence. When the UK National Health Service smoking cessation services were first started, one week's supply of free NRT was provided. The steering group decided to follow this practice with the provision of one week’s free NRT in order to motivate smokers to try NRT.
The systematic collection of data and evaluation by SCHC provided strong evidence that TDT services with NRT was acceptable, with satisfactory quit rates and minimal side-effects. The SCHC also became a training centre for more smoking cessation counsellors.

— Who were the key actors of the process? Which ones were in favour of/against the intervention? Why?

For tobacco control legislation, the key actors were COSH, and the Health, Welfare and Food Bureau. The universities contributed important evidence and other expertise. Public opinion surveys (unpublished) showed that majority of the HK general public supported the proposed changes. The key actors against were the tobacco industry (represented by the Hong Kong Tobacco Institute), the legislator representing the catering industry and some restaurant and bar owners. The latter were concerned that a total ban of smoking would result in fewer customers and a loss of revenue. Some catering workers were concerned that this would result in unemployment. Concern was raised by the tourist industry and its representatives that tourists might be deterred from visiting Hong Kong by the smoking ban. The Labour Department of the HK Government and the Occupational Safety and Health Council supported a ban on smoking in workplaces.

For tobacco dependence treatment, the key actors were COSH and members of the SCHC steering group, the Health, Welfare and Food Bureau, the Department of Health, the Hospital Authority and HKU. The pharmaceutical companies were in favour and provided NRT to the smoking cessation clinics at discounted prices. No key actors were openly against the policy on smoking cessation.

— Which actions were taken by opponents to counter the intervention?

For tobacco control legislation, actions taken included a study report on the adverse economic effect of banning smoking in restaurants, press conferences, a mass rally of catering workers to protest against the ban, public speeches and interviews in the mass media, and lobbying. The tobacco industry also donated a large sum of money on youth smoking prevention. No actions against smoking cessation were apparent.

Success of the intervention

What was the documented impact of the policy intervention on tobacco use?

Success on TDT can be measured mainly by the quit rate. As the interventions have been in operation for a short period, only short-term quit rates based on self-reporting of successfully followed-up subjects are available. Some validation by exhaled CO was done on a small percentage of quitters. Subjects who were not followed up were not included.

However, quit rates were measured by different centres using different definitions and at different follow-up points. These ranged from 39% at 6 months (Department of Health) to 68% at 1 month (Hospital Authority). Detailed information was reported by SCHC with a 7-day point quitting prevalence of 42% at 3 months.

A quit rate of 19% at 6 months was registered by the HKU Quitline.

Other impacts of the intervention

— How was government finance affected by the policy?

As the smoking cessation services have been in operation for a short time, the impact on smoking prevalence, long term health benefits and reduced government spending on the treatment of tobacco-related diseases cannot yet be estimated. The loss of tobacco tax, if any, will not be obvious until after a few years. The main expenditure is for staff, NRT, publicity and other costs for the TDT services. These represent only a very small percentage of the total government expenditure on health care costs (The Hospital Authority caters for about 90% of in-patient day-treatments, and 98% of the costs for Hospital Authority in-patient treatment services were funded by the government).

— How was treatment advertising affected by the policy?

For many years before the policy, publicity on tobacco control did not draw attention to quitting or tobacco dependence treatment. It has been COSH’s experience that anti-smoking campaigns usually result in telephone enquires from smokers about smoking cessation treatment services. As such treatments were not available before 2000, smokers in need of treatment were not given any satisfactory answers. When the pharmaceutical companies first introduced NRT to Hong Kong in 1994, they targeted their publicity essentially
at medical practitioners and pharmacies, because the main outlets of NRT are private pharmacies with registered pharmacists. Moreover, medical practitioners are always the first targets when new pharmaceutical products are introduced in Hong Kong. Advertisement of non-OTC medications (such as NRT with more than 2mg) to the public are restricted by law. Seminars or lectures on NRT over a free lunch were the usual approaches adopted, though they proved to be poor methods of motivating busy doctors to initiate NRT prescription. Furthermore, the Hospital Authority and Department of Health failed to respond to the publicity. There was also a lack of awareness about and demand for NRT from smokers in the community, as there was no advertising on quitting in general and NRT in particular in the mass media. When the publicity produced by the pharmaceutical companies to launch NRT failed to result in good sales, publicity efforts declined over the next few years.

When buproprion (Zyban) was first launched in Hong Kong in 2000, similar publicity strategies were adopted by the pharmaceutical company involved. Advertising on the mass media is not possible as it is a prescription-only drug. Usage is very low and confined only to a few private doctors who are strongly committed to smoking cessation. This situation is likely to persist as all the smoking cessation services are now provided by counsellors who are mainly nurses. Without the direct involvement of many doctors in providing TDT to smokers, buproprion cannot be offered or prescribed by existing TDT services. Further and large-scale publicity about buproprion from the pharmaceutical company will not be forthcoming.

The first major publicity on TDT directed at the public was the opening ceremony of the SCHC. This received wide media coverage and represented the beginning of government support for TDT. Further publicity was carried out by COSH and both the public and health care professionals were targeted. The new services and new treatment modalities (NRT) aroused new interests in the mass media with many follow-up interviews and reporting.

The launch of the HKU Quitline in December 2000 also attracted much publicity. A press statement was released in September 2001 by the Department of Health to publicize the commencement of treatment services in 4 government general out-patient clinics. On 1 May 2002, the Hospital Authority smoking cessation services were launched in a large community health function with participation of the public in exhibitions and seminars, resulting in wide coverage by the mass media. In August 2002, an “Announcement in the Public’s Interest” (API) concerning Department of Health services and the quitline number was broadcast on TV. This is the first regular treatment advertising on TV in Hong Kong and a new milestone for TDT publicity.

The publicity efforts of the Department of Health and the Hospital Authority are the direct results of the government policy to introduce the new services. The HKU Quitline data showed that telephone enquires and client attendance increase sharply with each new publicity campaign and decline after a few days. As targets are set for the services, regular and sustained publicity campaigns are needed so that targets can be met. Proactive approaches to smokers in hospitals and clinics are also used to motivate smokers to use TDT services.

The provision of services independently by several organizations would engender a competitive atmosphere. Although existing service capacity is inadequate if all smokers who want to quit were to use those services on offer, each organization attempts to achieve its own targets particularly in terms of comparable quit rates. Differences in terms of days open and working hours, fees and locations can provide more choices to suit different smokers. However, because smoker characteristics (some are in-patients, specialist or general out-patients, while others are healthy subjects) differ from one TDT centre to the next, comparison of quit rates should be interpreted cautiously.

How were pharmacies/pharmaceutical companies affected by the policy?

The decision of the COSH SCHC to provide one week’s free NRT made the first breakthrough on the sales of NRT. Although the pharmaceutical companies refused to sponsor the free NRT and COSH had to buy using its own funding, they agreed to provide discount coupons for SCHC clients to purchase NRT in private pharmacies. They also provided some support in the publication of posters and pamphlets on smoking cessation and NRT. Bigger breakthroughs occurred when Department of Health and Hospital Authority started to use NRT, and greater discounted prices were agreed for bulk sale. With increasing sales of NRT and better prospects, the pharmaceutical companies are more
willing to provide free NRT or to sponsor research and publicity. A new NRT product (lozenges) has recently been introduced with some advertising (August 2002). However, many clients found the costs of NRT too high and their complaint has been fed back to the companies. Although the costs of NRT are roughly similar to the costs of cigarettes, smuggled or illegal cigarettes are much cheaper and are readily available.

Whether the prices of NRT will be lowered is not certain. TV advertising of NRT (which is a heavy investment) by the pharmaceutical companies is still lacking, although such advertising is very likely to increase demand.

There are two companies supplying NRT. It is not certain whether market competition would generate more advertising by the companies and lead to lower prices.

As for the company (only one) supplying bupropion, it seems that the policy has not resulted in any breakthrough in sales or publicity. On the other hand, because none of the existing smoking cessation services use bupropion, this may affect the sales of bupropion adversely. The concern about side-effects among doctors and public sensitivity about the use of a psychotropic drug are other major barriers.

Conclusions

— Setting up a pilot smoking cessation centre can serve as the foundation stone for further developments. It can serve as a site for training more counsellors and educating medical and nursing students. It has to be run by a group of committed volunteers with some core funding so that treatment, including NRT, can be offered free-of-charge. Free publicity in the mass media is needed, something which can be achieved more readily with government support. Publicity efforts have to be sustained to motivate more smokers to come to the service. The number of smokers requesting cessation service versus the capacity of the pilot centre can be used to demonstrate initial demand and supply, in which case excess demand is required to support expansion of services. Successful quitters provide good publicity stories in the mass media. Evaluation of process (e.g. number of enquiries, appointments, clients and counselling sessions, and consumption of NRT), outcomes (e.g. quit rate and client satisfaction) and cost-effectiveness is essential, and the results should be disseminated to policy makers, health care professionals and the public.

The pilot centre has to run for at least one year (with the possibility of continuing beyond this period if necessary). It is vital to ensure that the project will be a success so that it be maintained until replaced by new and better services. Failure of the pilot project or premature termination due to a rupture in funding would be a disaster as it would send wrong messages (such as lack of demand, treatment failures, and cost-ineffectiveness) and would deter future attempts to introduce TDT.

— Funding: Some small core funding from government, directly or indirectly, is needed for a pilot project. Commitment of government funding can raise awareness among government officials who, convinced of the success of the pilot project, will support further treatment services.

— Funding from government is not enough and volunteers are needed. A few tobacco control advocates need to commit themselves to running the treatment services, as many of them are more interested in preventing young people smoking or other measures such as legislation.

— Negotiation for funding or other support from suppliers of NRT is useful. If funding is not possible, sponsorships for publicity, free or discounted NRT, and joint publicity efforts are usually fruitful.

— Training of a few trainers is needed initially, and this should be followed up with training programmes in order to acquire a critical mass of smoking cessation counsellors. Nurses are usually more committed to specialized TDT services than medical practitioners. Training must be followed by establishment of TDT services so that the trained counsellors can put what they have learned into practice and acquire more experience.

— TDT will have limited success without an environment which discourages and restricts smoking. Stringent tobacco control measures (such as taxation and smoke free policies) are needed to motivate smokers to quit and seek help. The price of cigarettes should not be much lower than that of NRT, since smokers would then be spending less on cigarettes than NRT.

— Many smokers and health care professionals are sceptical about the effectiveness of NRT. An initial free supply for at least one weak is effective in motivating most smokers wishing to quit to try NRT.
— Many health care professionals have the unrealistic expectation that if NRT is effective, it has to produce a very high quit rate. The failure of some clients to quit often discourages health care professionals. They need to be informed about the strong evidence on counselling and NRT, the high cost-effectiveness of TDT, and the more favourable number needed to treat in comparison with other treatments (such as cholesterol lowering and antihypertensive treatments) if they are going to continue helping their smoking clients or referring them for specialized TDT.

— Working with the mass media is critical for raising public awareness and soliciting public support for tobacco control measures as well as for motivating smokers to quit. Non-smokers will also be motivated to protect themselves and their children from passive smoking, and to encourage and support their smoking relatives and friends to quit.

— The Hong Kong experience can be generalized to countries, districts or cities which have government support on tobacco control, an environment which increasingly discourages and restricts smoking, and a small core group of health care professionals resolutely committed to TDT. It is critical for TDT that smoking cessation should be recognized as a most cost-effective way to reduce the disease burden for both healthy smokers, patients, and the non-smoking population particularly children. If NRT is affordable or it costs about the same as cigarettes, NRT should be introduced with some subsidy. Even if NRT is not available or not affordable (e.g. in many developing countries), counselling can still be effective, and more intensive counselling by trained and experienced counsellors will have better results. Some funding must be made available to set up a pilot TDT centre. The success of the centre will provide the foundation for a more comprehensive TDT policy and service.

References


3 Census and Statistics Department, Hong Kong. Social data collected by the general household survey special topics reports.


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