Therapeutic nihilism, smoking and severe mental illness (SMI): why do people with SMI smoke and can we help them quit?

Simon Gilbody
Professor of Psychological Medicine & Health Services Research
University of York & HYMS
12th November 2010

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Today's talk

- Smoking – is not good for you
- Smoking and severe mental ill health – poor health, poverty and early death
- Cultural & social determinants of smoking in SMI
- What works to help people quit?
- Does these work in SMI?
- Making it happen: service-level training, implementation and evaluation

Severe Mental Ill Health

Problems of definition; politics; culture; philosophy; history

Schizophrenia, psychotic disorders and (probably) bipolar illness

Severe M[illegible]th

Problems of definition; politics; culture; philosophy; history

Smoking is not good for you

- Cancers
- Chromic lung disease
- IHD
- Osteoporosis
- Etc etc
- 'Current cigarette smoking will cause 450 million deaths over the next 50 years' *Richard Peto*

The benefits of quitting

Mortality in relation to smoking: 50 years' observations on male British doctors

Richard Doll, Richard Peto, Jillian Boreham, Isabelle Sutherland

Abstract

Objective To compare the hazards of cigarette smoking in men who formed their habits at different periods, and the extent of the reduction in risk when cigarette smoking is stopped at different ages.
Design Prospective study that has continued from 1951 to 2001.
Setting United Kingdom.
Participants 34 439 male British doctors. Information about their smoking habits was obtained in 1951, and periodically thereafter; cause specific mortality was monitored for 50 years.
Main outcome measures Overall mortality by smoking habit, considering separately men born in different periods.
Results The excess mortality associated with smoking chiefly involved vascular, neoplastic, and respiratory diseases that can be caused by smoking. Men born in 1900-1930 who smoked only cigarettes and continued smoking died on average about 10 years younger than lifelong non-smokers. Cessation at age 60, 50, 40, or 30 years gained, respectively, about 3, 6, 9, or 10 years of life expectancy. The excess mortality associated with cigarette smoking was less for men born in the 19th century and was greatest for men born in the 1920s. The cigarette smoker versus non-smoker probabilities of dying in middle age

Kingdom (where the disease became by the 1940s a major cause of death). Throughout the first half of the 20th century the hazards of smoking had remained largely unsuspected.[1] Around the middle of the century, however, several case-control studies of lung cancer were published in Western Europe[2-6] and North America,[7-10] leading to the conclusion in 1950 that smoking was "a cause, and an important cause" of the disease.[3]

1951 prospective study

This discovery stimulated much further research into the effects of smoking (not only on lung cancer but also on many other diseases), including a UK prospective study of smoking and death among British doctors that began in 1951 and has now continued for 50 years.[11-17] The decision that this study would be conducted among doctors was taken partly because it was thought that doctors might take the trouble to describe their own smoking habits accurately, but principally because their subsequent mortality would be relatively easy to follow, as they had to keep their names on the medical register if they were to continue to practise. Moreover, as most doctors would themselves have access to good medical care, the medical causes of any deaths among them should be reasonably accurately

The British doctors study found that every year that smoking cessation is postponed after the age of 40 reduces life expectancy by three months

Why smoke?

- Most common reason cited:
- 'stress-relief and enjoyment'
- Main reason is Nicotine dependence

Professor Robert West UCL

Nicotine dependence

1. Acts in the midbrain creating impulse to smoke in the face of smoking-associated stimuli
2. Changes in the brain chemistry to produce 'nicotine hunger'
3. Nicotine withdrawal: unpleasant mood and physical symptoms that occur on abstinence and are relieved by smoking

Nicotine dependence

1. Acts in the
   impulse to
   smoking
2. Changes
   produce
3. Nicotine with
   mood and p sical symptoms that
   occur on stinence and are
   relieved by smoking

'Stress relief and enjoyment'

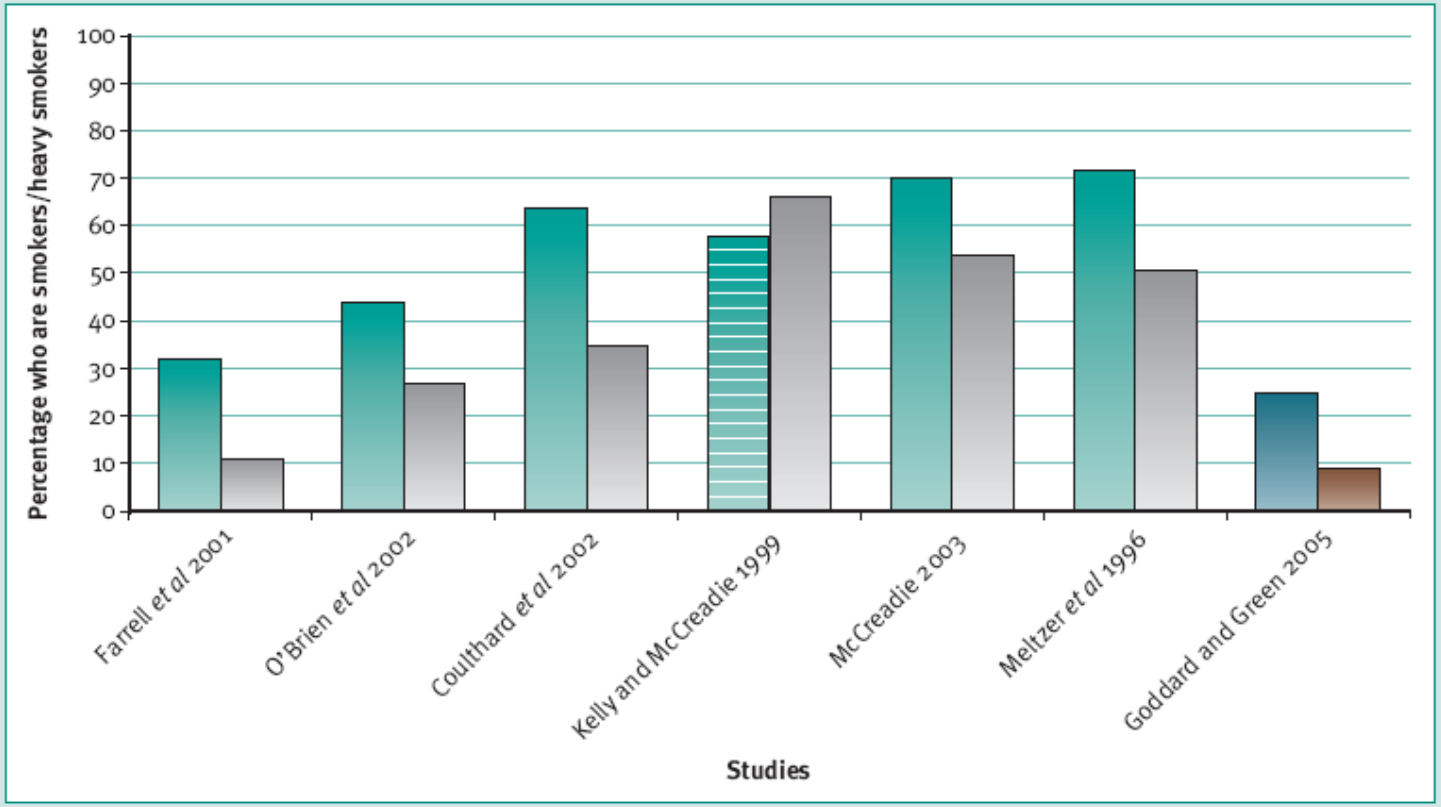
Despite this: Lots of people express a desire to quit

Smoking and SMI

- Those with SMI smoke more, more often, start earlier and inhale more deeply and spend a greater proportion of their income on cigarettes

What proportion of people with SMI smoke?

1 PERCENTAGE OF PEOPLE WITH MENTAL ILLNESS WHO ARE SMOKERS AND, OF THESE, WHO ARE HEAVY SMOKERS* COMPARED WITH GENERAL POPULATION



Source: Based on data from Farrell *et al* 2001, O'Brien *et al* 2002, Coulthard *et al* 2002, Kelly and McCreadie 1999, McCreadie 2003, Meltzer *et al* 1996, Goddard and Green 2005

* Heavy smokers are defined as those smoking more than 20 cigarettes per day.

What are the health consequences of smoking in SMI?

- People with SMI die on average 25 years earlier than those without chronic mental health problems
- SMR 156 for men and 141 for women
- Cause-specific mortality:
  - Respiratory illness, IHD
- smoking-related illness in combination with other risk factors:
  - Obesity; poor diet; lack of exercise

And at what monetary cost?

- SMI = income from benefits
- 'Give back' 25-38% benefits to the state based on a 20-30/day habit
  - McReadie & Kelly (2000)

SMI and primary healthcare

- Consult more often than general population
- Greater levels of healthcare need
- Fewer data recorded for health promotion activities (including smoking cessation)

Kendrick 1996; Burns & Cohen 1998

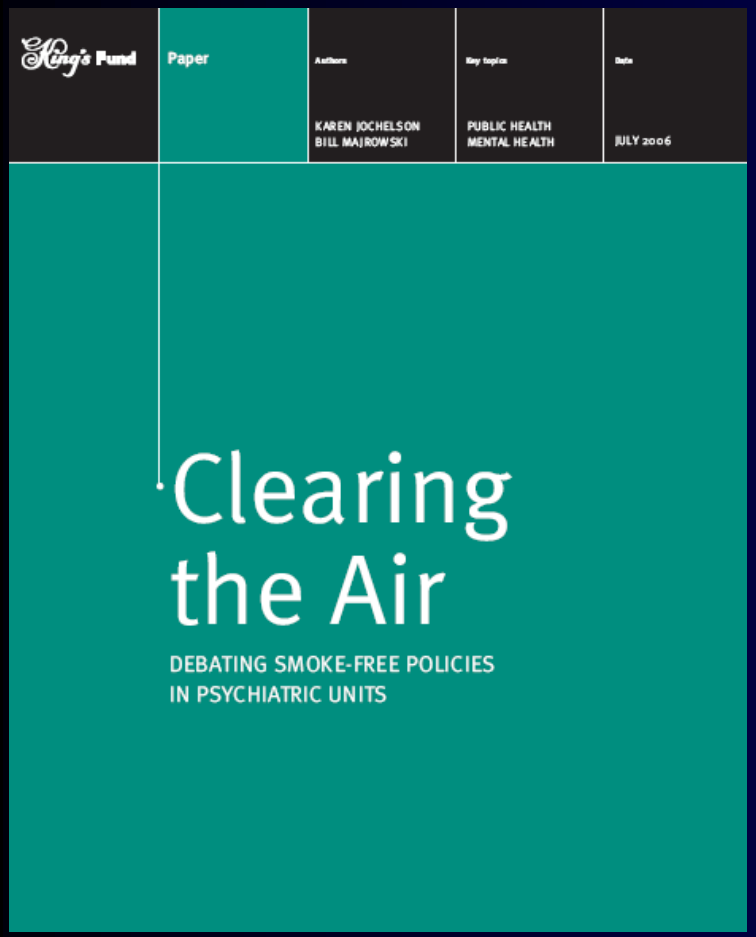
Why do people with SMI smoke?

- Addictive psychopharmacology of nicotine
- Self medication for distress?
- Cultural influences

Why do people with SMI smoke?

- Addictive psychopharmacology of nicotine
- Self medication for distress?
- Cultural influences

Cultural influences



- **People with SMI** 'enter the service as non-smokers and come out … as smokers because of the culture' (House of Commons Health Committee 2005, question 239)

Understanding the cultural influences on smoking

Evidence from ethnographic studies

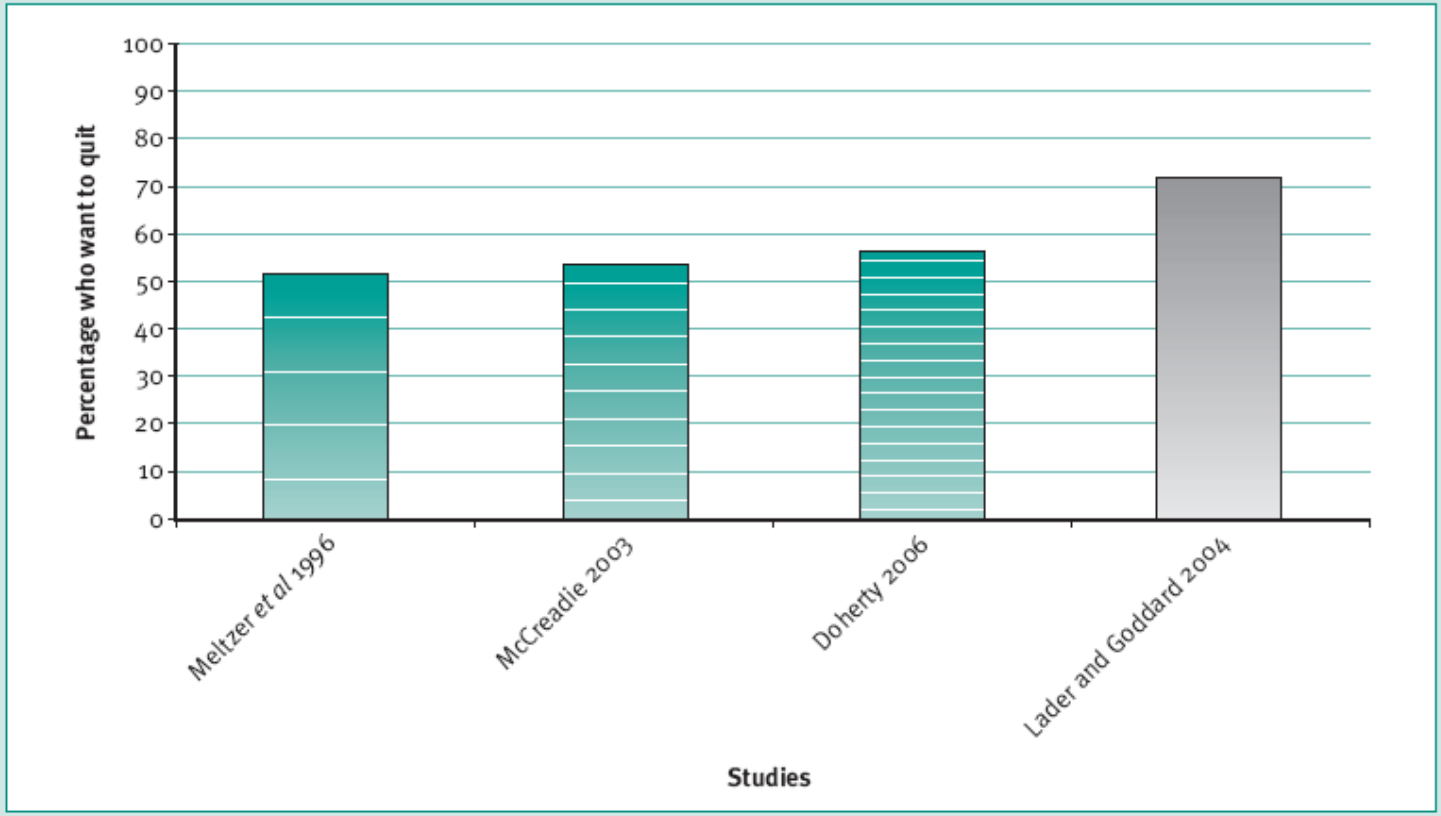
The smoking culture in mental health services

- Elevated smoking rates amongst MH staff
- Staff accept smoking as routine and offer cigarettes
- Staff smoke with patients
- Means of pacifying distressed patients
- Lack of stimulation and relief of boredom in inpatient units
- Access to cigarettes is a source of conflict and control between staff and patients and between patients
- The 'cigarette economy of institutions'
- Trade cigarettes for sexual favours
- Non-smokers initiated in smoking upon admission

Lawn 2004; Hempel et al 2000

Do people with SMI want to quit?

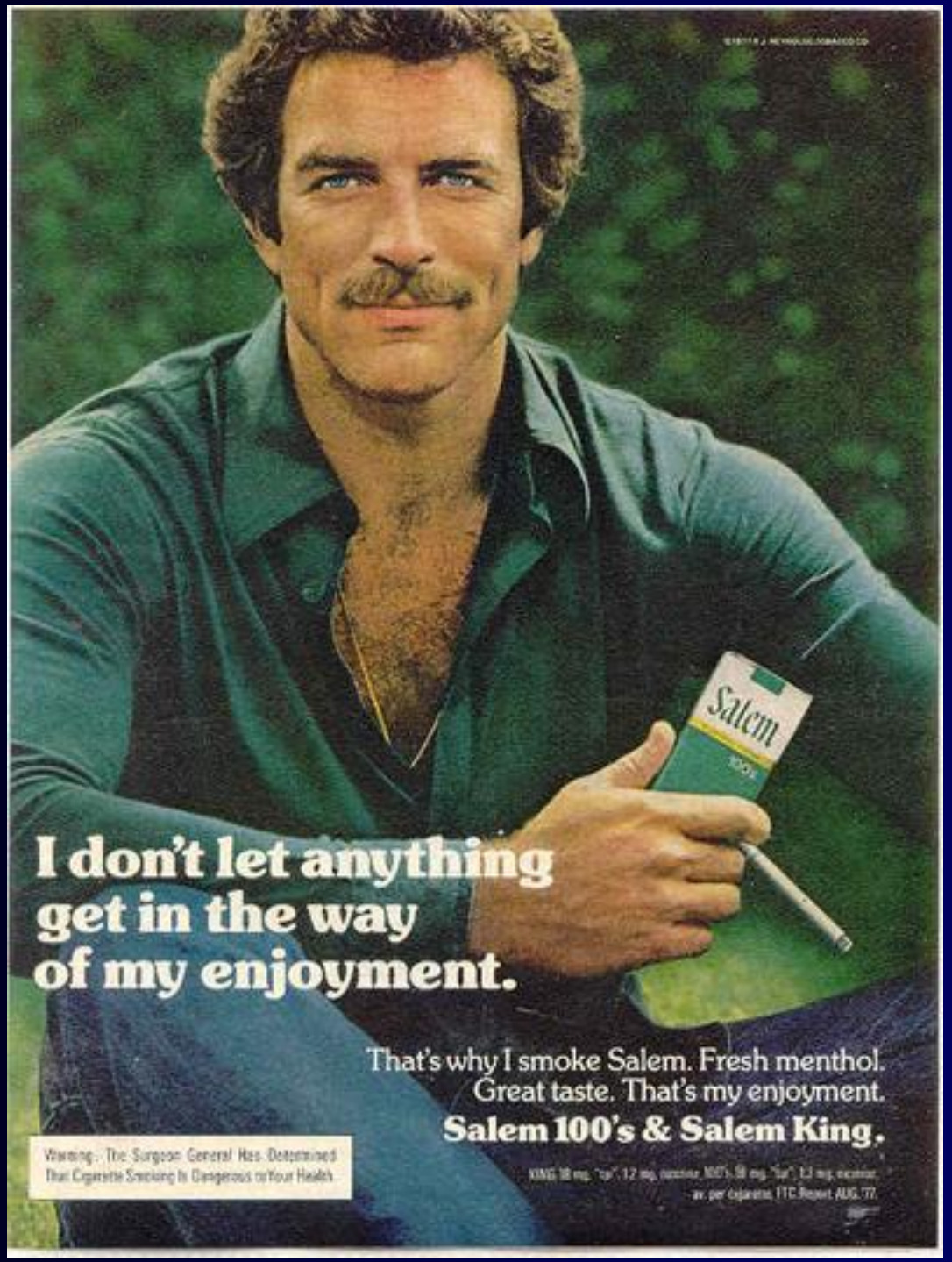
2 PERCENTAGE OF SMOKERS WITH MENTAL ILLNESS WHO WANT TO QUIT COMPARED WITH GENERAL POPULATION



Source: Based on data from Meltzer *et al* 1996, McCreadie 2003, Doherty 2006, Lader and Goddard 2004

Story so far…

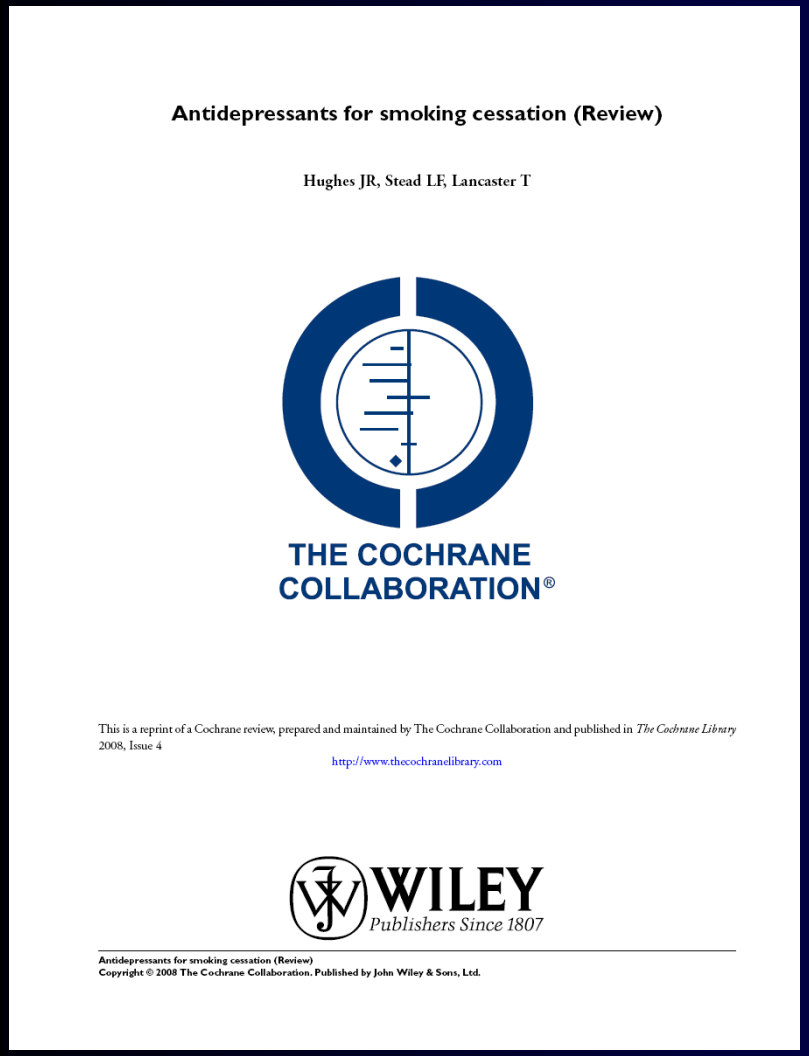
- Elevated smoking levels and SMI
- Poor physical health and poor provision/uptake of healthcare/health promotion
- Strong chemical and cultural influences on smoking
- But, some expressed desire to quit


Salem
I don't let anything get in the way of my enjoyment.
That's why I smoke Salem. Fresh menthol. Great taste. That's my enjoyment.
Salem 100's & Salem King.
Warning: The Surgeon General Has Determined That Cigarette Smoking Is Dangerous to Your Health

Smoking & nicotine addiction

What works?

What works to help people quit?



Antidepressants for smoking cessation (Review)

Hughes JR, Stead LF, Lancaster T

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Issue date: March 2006

Quick reference guide

NHS National Institute for Health and Clinical Excellence

Brief interventions and referral for smoking cessation in primary care and other settings

Introduction

This quick reference guide presents recommendations on brief interventions and referral for smoking cessation in primary care and other settings. The guidance only considers whether brief smoking cessation interventions are effective at encouraging individuals to quit smoking. The impact of wider policy and practice on smoking cessation will be the subject of future NICE programme guidance.

This guidance is for professionals working in local health services – in primary care trusts (PCTs), pharmacies and dental practices – and secondary NHS care, including mental health and hospital trusts.

Brief interventions in primary care

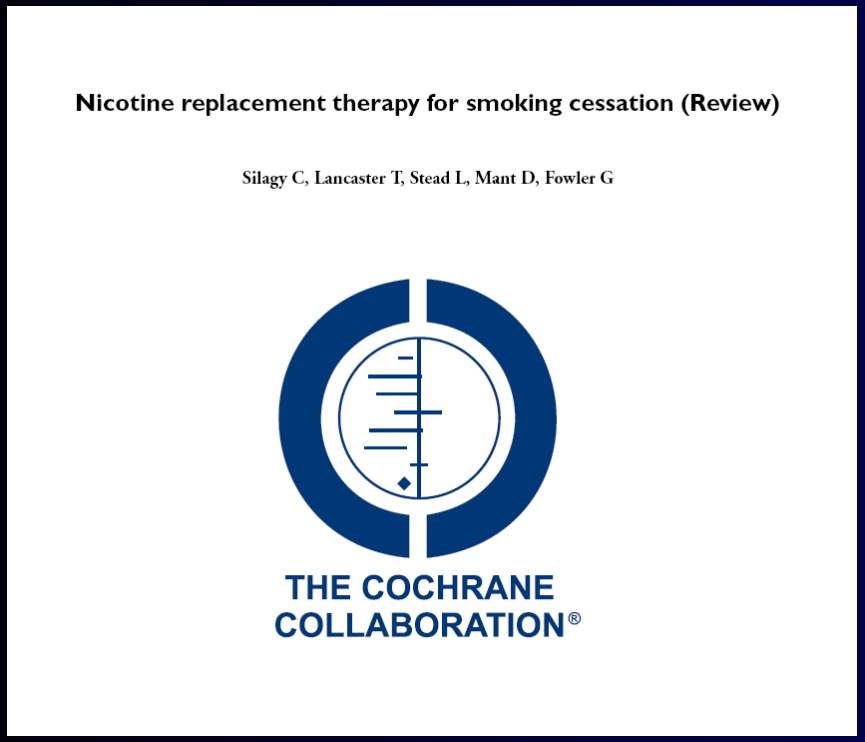
Brief interventions involve opportunistic advice, discussion, negotiation or encouragement. They are commonly used in many areas of health promotion by a range of primary and community care professionals.

For smoking cessation, brief interventions typically take between 5 and 10 minutes. The particular package that is provided will depend on a number of factors, including the individual's willingness to quit, how acceptable they find the intervention on offer and the previous ways they have tried to quit. It may include one or more of the following:

- simple opportunistic advice to stop
- an assessment of the patient's commitment to quit
- an offer of pharmacotherapy and/or behavioural support
- provision of self-help material and referral to more intensive support such as the NHS Stop Smoking Services.

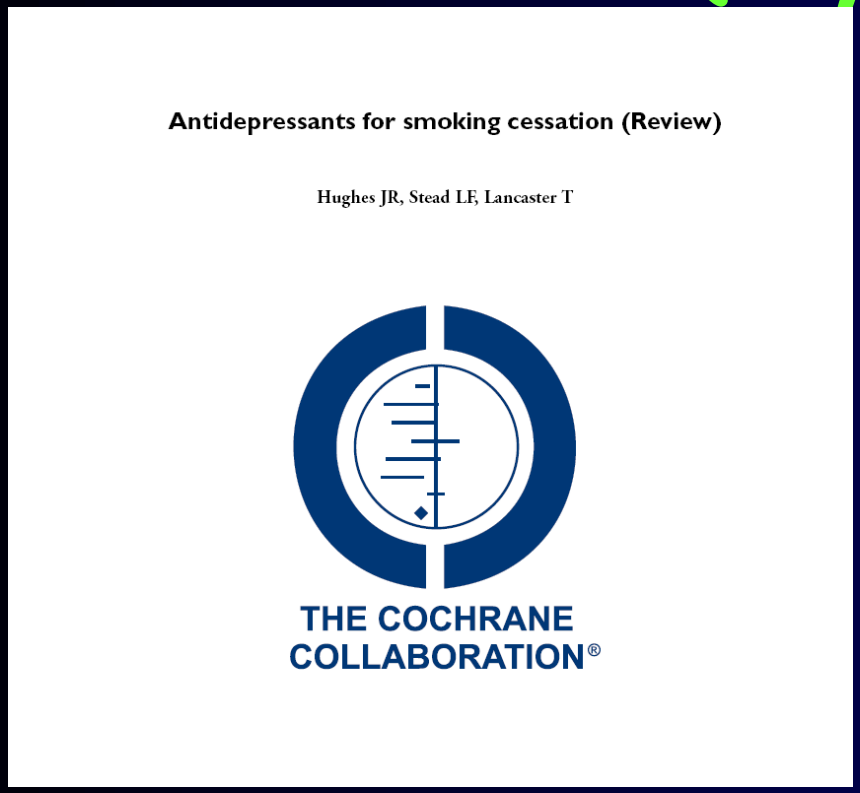
Public Health Intervention Guidance 1
The guidance represents the views of the Institute and was arrived at after careful consideration of the evidence. Health and other professionals with an interest in smoking cessation are advised to take it into account.

Nicotine replacement therapy



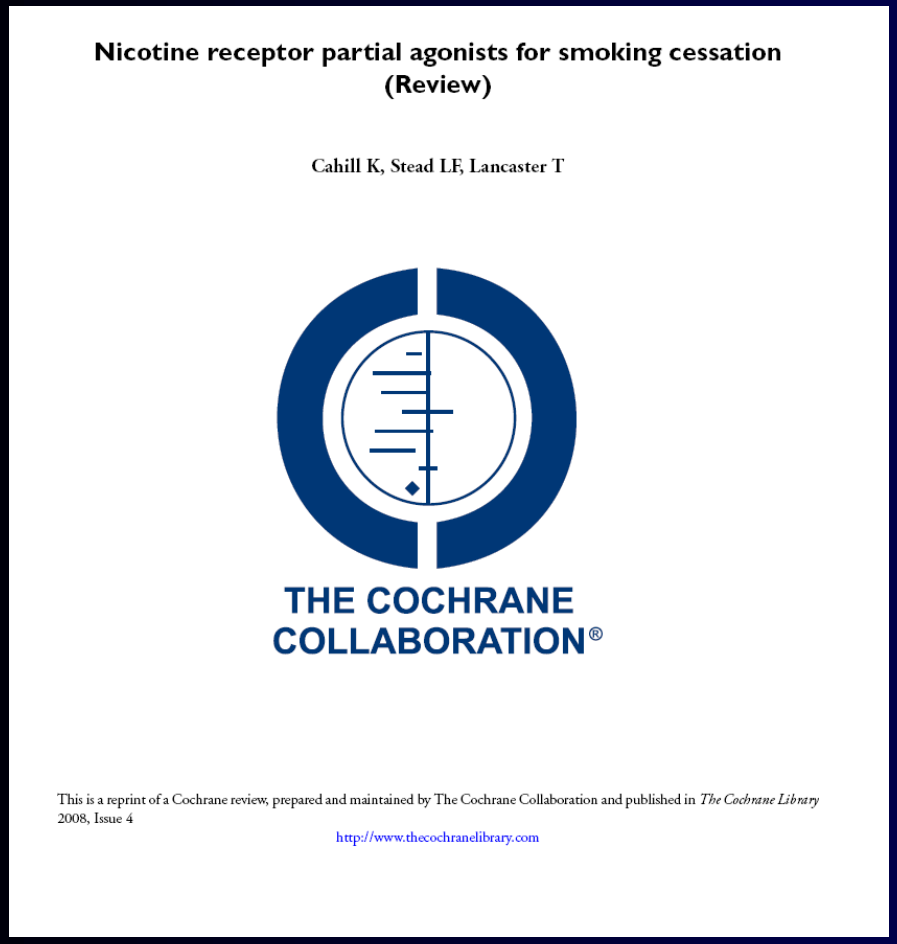
- 123 trials NRT vs placebo
- OR 1.77 (95%CI 1.66 – 1.88

Antidepressants: Bupropion ('Zyban')



- Bupropion v placebo
- 31 trials
- OR 1.94 (95%CI 1.72-2.19)

Varenicline ('Champix')



Nicotine receptor partial agonists for smoking cessation (Review)

Cahill K, Stead LF, Lancaster T

THE COCHRANE COLLABORATION®

This is a reprint of a Cochrane review, prepared and maintained by The Cochrane Collaboration and published in *The Cochrane Library* 2008, Issue 4

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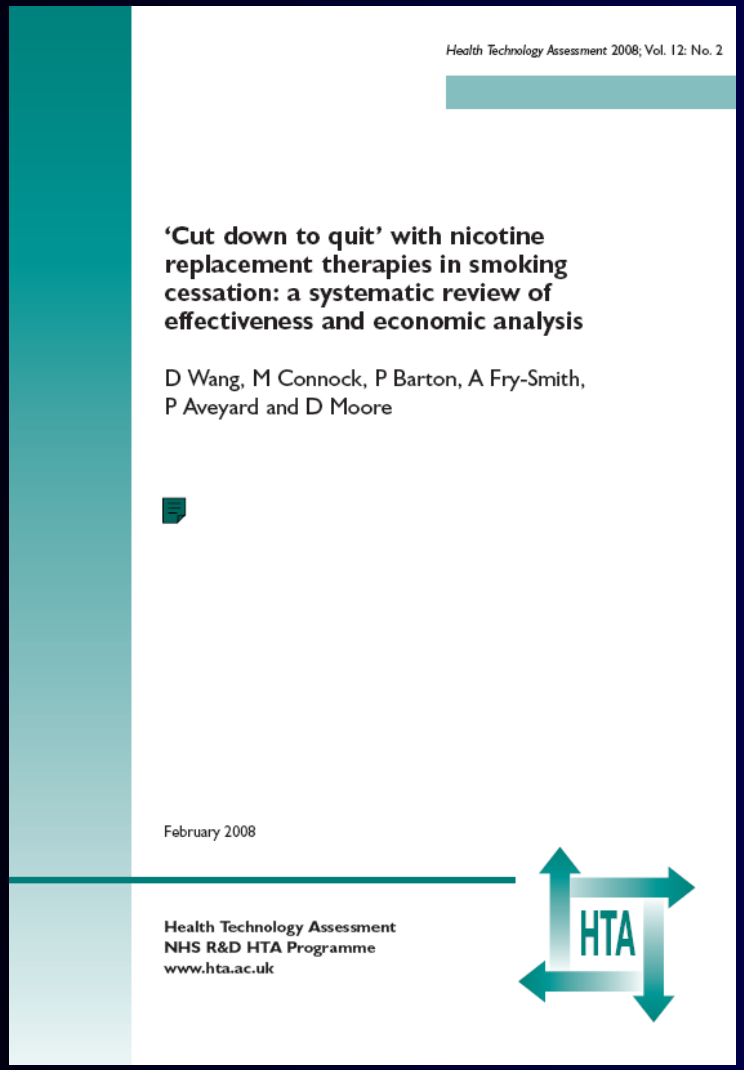
- Nicotine receptor partial agonist
- versus placebo
- OR 3.22 (95%CI 2.43 - 4.27)
- Versus bupropion
- OR 1.66 (95% CI 1.28 - 2.16)

Behavioural support

- Brief advice
- Different models of psychological intervention
- Motivational enhancement
- CBT
- Support over the telephone
- Individual & group
- Better with specialist training

What about those with lower motivation to quit?

'Cut down to quit': CDTQ



- Sustained NRT for smokers
- Some behavioural support/motivational enhancement
- No obligation to set a quit date
- Build upon early success from smoking reduction
- Look at longer-term quit rates

CDTQ: 6 mo sustained abstinence

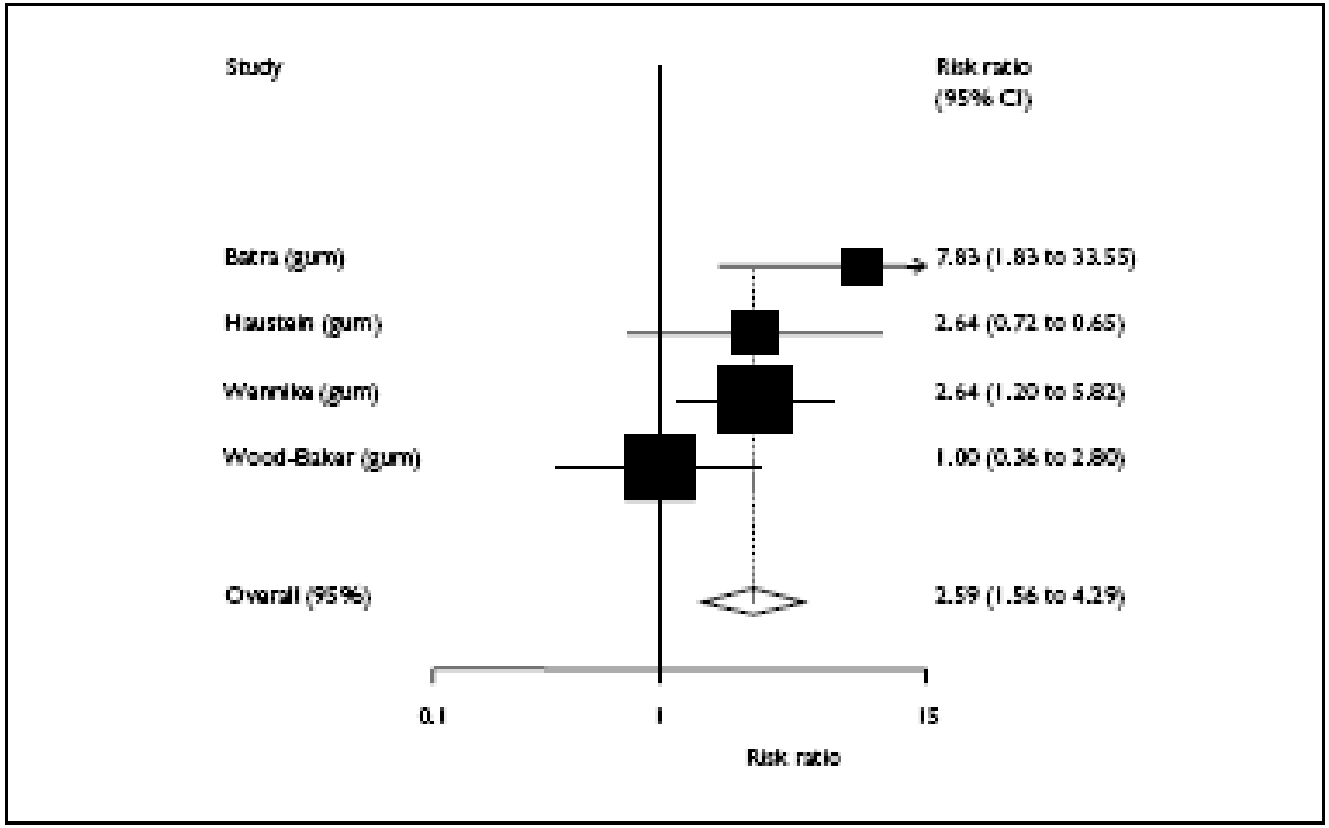
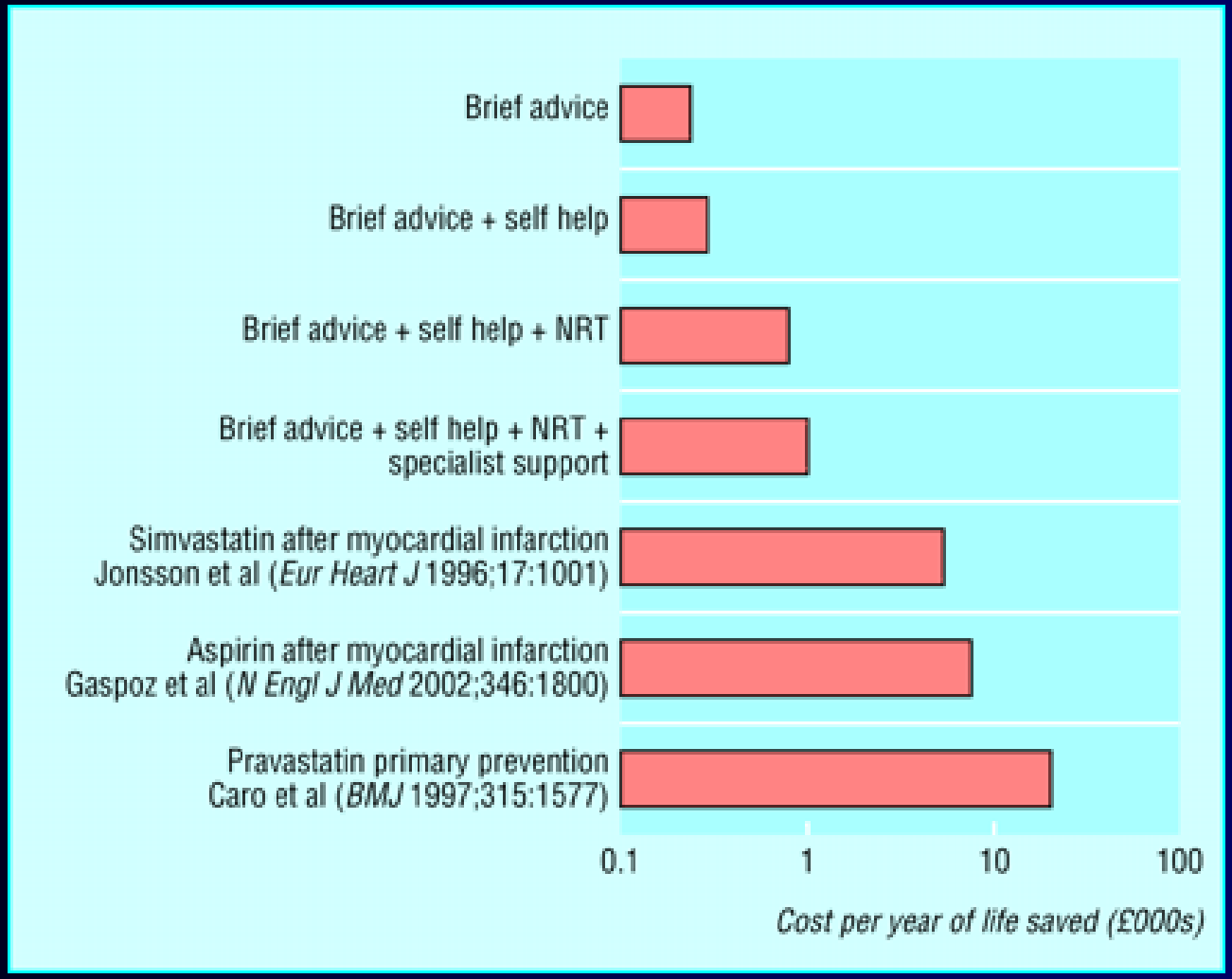


FIGURE 4 Relative risk for at least 6 months' sustained abstinence (gum NRT) IPD. Data from unpublished study reports where available; Batra = study 980-CHC-1013-028,[44] Haustein = study 980-CHC-9021-0013,[47] Wennike = study 98-NNCG-014,[42] Wood-Baker = study 98-NNCG-017.[28]

Cost effectiveness of smoking cessation



Some messages from existing reviews of smoking cessation

- NRT, buroprion/varenciline, behavioural support
- Short term quitting relatively easy to achieve, longer term more difficult
- Cost effective
- CDTQ – 'prescribing for smokers'

www.whitehouse.org

So what works in SMI?

- Hardcore smokers
- Expressed desire to quit; motivational deficits
- Poorer provision/uptake of general/primary healthcare and health promotion
- Poorer uptake of smoking cessation services
- Cultural determinants of smoking and barriers to quitting
- Polyphamracy – powerful psychotropics

Smoking cessation in SMI

Recently completed systematic review of 'what works'

Addiction
REVIEW
doi:10.1111/j.1360-0443.2010.02946.x

Smoking cessation in severe mental illness: what works?

Lindsay Banham[1,2] & Simon Gilbody[2]

South London and the Maudsley Mental Health Trust, Beckenham, Kent, UK[1] and Department of Health Sciences, and Hull York Medical School, Seebohm Rowntree Building, University of York, York, UK[2]

ABSTRACT

Aims The physical health of people with severe mental illness (SMI) is poor. Smoking-related illnesses are a major contributor to excess mortality and morbidity. An up-to-date review of the evidence for smoking cessation interventions in SMI is needed to inform clinical guidelines. **Methods** We searched bibliographic databases for relevant studies and independently extracted data. Included studies were randomized controlled trials (RCTs) of smoking cessation or reduction conducted in adult smokers with SMI. Interventions were compared to usual care or placebo. The primary outcome was smoking cessation and secondary outcomes were smoking reduction, change in weight, change in psychiatric symptoms and adverse events. **Results** We included eight RCTs of pharmacological and/or psychological interventions. Most cessation interventions showed moderate positive results, some reaching statistical significance. One study compared behavioural support and nicotine replacement therapy (NRT) to usual care and showed a risk ratio (RR) of 2.74 (95% CI 1.10–6.81) for short-term smoking cessation, which was not significant at longer follow-up. We pooled five trials that effectively compared bupropion to placebo giving an RR of 2.77 (95% CI 1.48–5.16), which was comparable to Hughes *et al.*'s 2009 figures for general population data: RR = 1.69 (95% CI 1.53–1.85). Smoking reduction data were too heterogeneous for meta-analysis, but results were generally positive. Trials suggest few adverse events. All trials recorded psychiatric symptoms and the most significant changes favoured the intervention groups over the control groups. **Conclusions** Treating tobacco dependence is effective in patients with SMI. Treatments that work in the general population work for those with severe mental illness and appear approximately equally effective. Treating tobacco dependence in patients with stable psychiatric conditions does not worsen mental state.

Keywords Health inequalities, severe mental illness, smoking, smoking cessation, systematic review, UK smoking ban.

Correspondence to: Lindsay Banham, Lambeth Hospital, 108 Landor Road, London SW9 9NU, UK. E-mail: lindsaybanham@slam.nhs.uk
Submitted 20 February 2009; initial review completed 27 April 2009; final version accepted 19 January 2010

INTRODUCTION

People with severe mental illnesses (SMIs), such as schizophrenia and bipolar disorder, experience much poorer physical health and die much earlier than the rest of the population [1]. In the developed world, we know that those with schizophrenia are at 1.5 times greater risk of death compared with those in the general population, and people with any form of serious mental illness die approximately 25 years earlier than the general population [2,3]. The causes of these health inequalities are multi-factorial, but smoking-related illnesses are a major contributor to excess mortality and morbidity. Those with SMI are two to three times more likely to smoke than the general population [4]. Studies show that up to 70% smoke, and around 50% are heavy smokers [5,6]. Nicotine addiction and cigarette consumption have implications beyond their effects on physical health. Cigarettes are expensive, and those with SMI often survive on state benefits and may sacrifice a healthier diet or social activities in order to smoke [7].

In the United Kingdom, a number of public health interventions have been introduced to address nicotine addiction within the population in general, including a ban on smoking in public places. Initially, both acute and long-stay psychiatric in-patient units were exempt from the ban [8]; however, from 1 July 2008, psychiatric residential units in England enforced a complete indoor

Smoking cessation in SMI: systematic review of what works

- Systematic review of randomised evidence
- SMI/psychotic disorders (largely schizophrenia)
- Excluded populations with drugs and alcohol problems
- Any intervention
- Outcomes:
  - abstinence

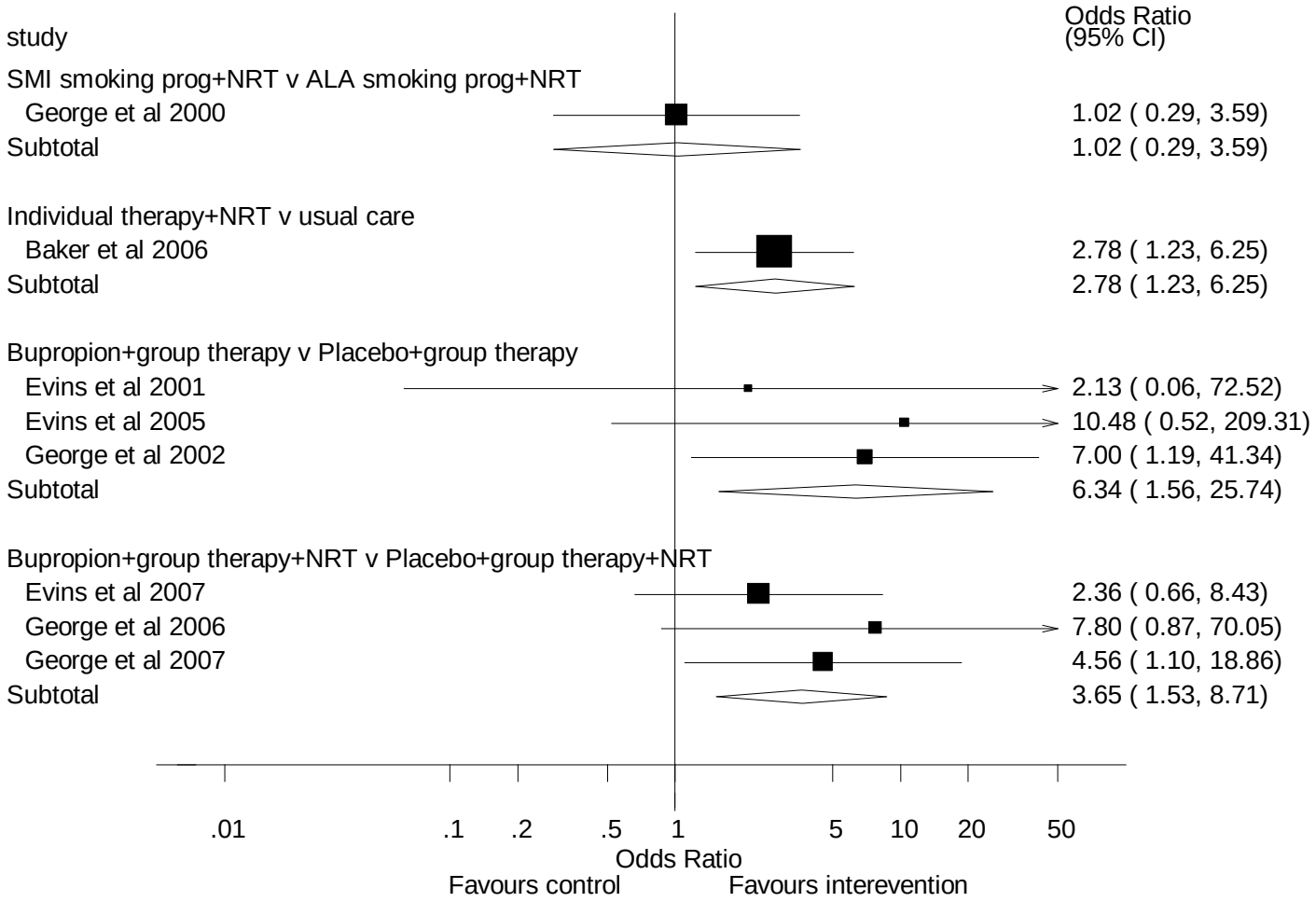
Included studies

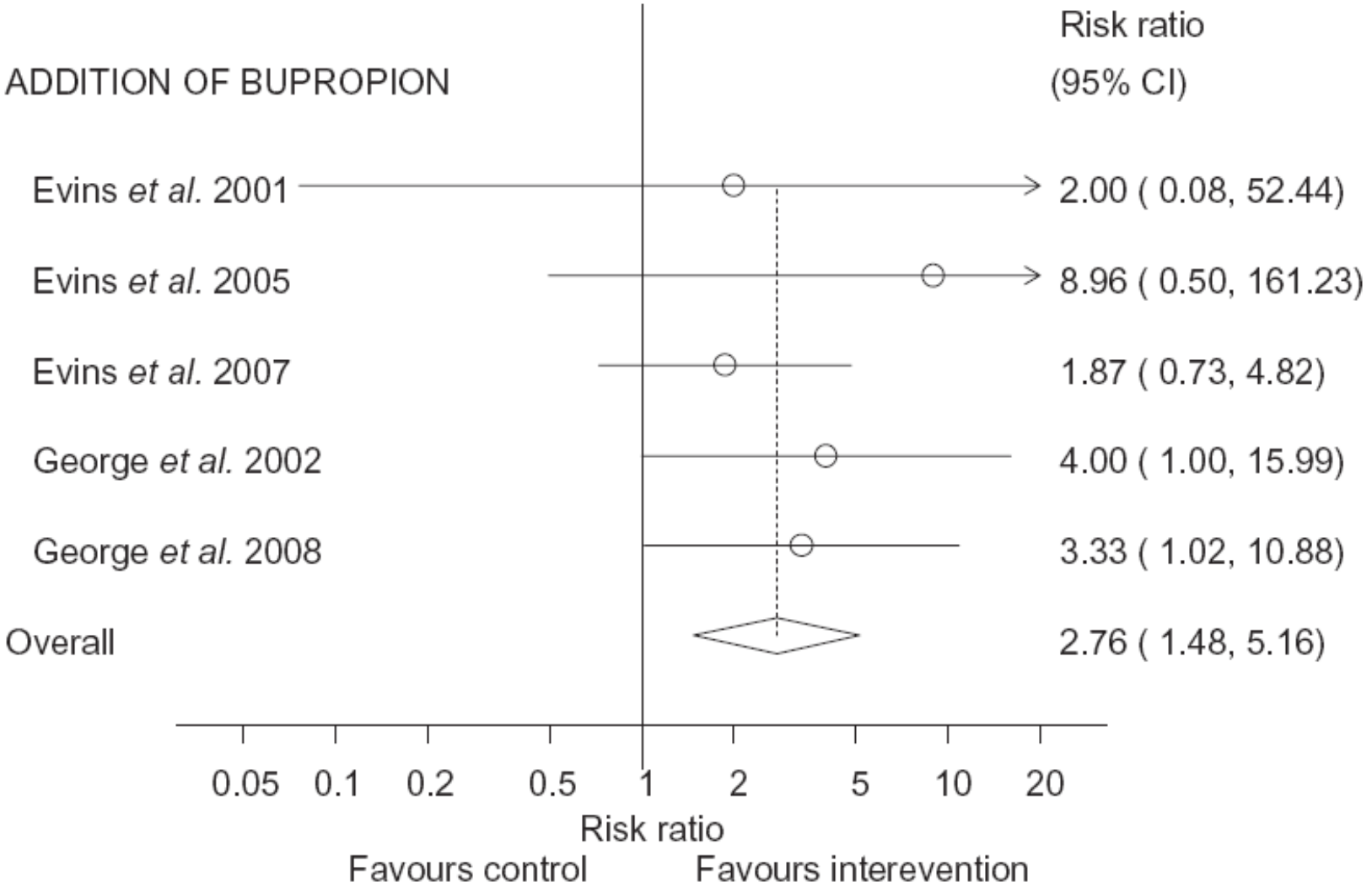
- 10 RCTs (n=10 to 298)
- 8 US studies, 1 Aus 1 Taiwan
- Schizophrenia/schizoaffective disorder
- Usually 'an interest in stopping or cutting down'
- Point prevalent abstinence

interventions

- Combinations of:
- NRT (6 studies)
- +/-Bupropion (3 studies)
- +/- Individual support (1 study)
- +/- group support (3 studies)

Point prevalence abstinence at 3-6 months




ADDITION OF BUPROPION
Risk ratio
(95% CI)
Evins et al. 2001
2.00 (0.08, 52.44)
Evins et al. 2005
8.96 (0.50, 161.23)
Evins et al. 2007
1.87 (0.73, 4.82)
George et al. 2002
4.00 (1.00, 15.99)
George et al. 2008
3.33 (1.02, 10.88)
Overall
2.76 (1.48, 5.16)
0.05
0.1
0.2
0.5
1
2
5
10
20
Risk ratio
Favours control
Favours interevention

In SMI…..

- Things can work:
  - NRT
  - Bupropion
  - Group and individual therapy

  - Drug-based and behavioural interventions worked well

Are there any issues in the use of drug therapies in SMI populations?

- NRT
- Bupropion
- Varenicline

BMJ

RESEARCH

Varenicline and suicidal behaviour: a cohort study based on data from the General Practice Research Database

D Gunnell, professor of epidemiology,[1] D Irvine, pharmacoepidemiologist,[2] L Wise, senior pharmacoepidemiologist,[2] C Davies, senior pharmacovigilance assessor,[2] R M Martin, professor of clinical epidemiology[1]

[1]University of Bristol, Department of Social Medicine, University of Bristol, Bristol BS8 2PS

[2]Vigilance and Risk Management of Medicines, Medicines and Healthcare products Regulatory Agency, London SW8 5NQ

Correspondence to: D Gunnell
d.j.gunnell@bristol.ac.uk

Cite this as: *BMJ* 2009;339:b3805
doi:10.1136/bmj.b3805

ABSTRACT

Objective To determine whether varenicline, a recently licensed smoking cessation product, is associated with an increased risk of suicide and suicidal behaviour compared with alternative treatments bupropion and nicotine replacement therapy.

Design Cohort study nested within the General Practice Research Database.

Setting Primary care in the United Kingdom.

Participants 80 660 men and women aged 18-95 years were prescribed a new course of a smoking cessation product between 1 September 2006 and 31 May 2008; the initial drugs prescribed during follow-up were nicotine replacement products (n=63 265), varenicline (n=10 973), and bupropion (n=6422).

and its effects include the stimulation of dopamine release, it is possible that it may have an impact on mood and suicide risk.[2,3]

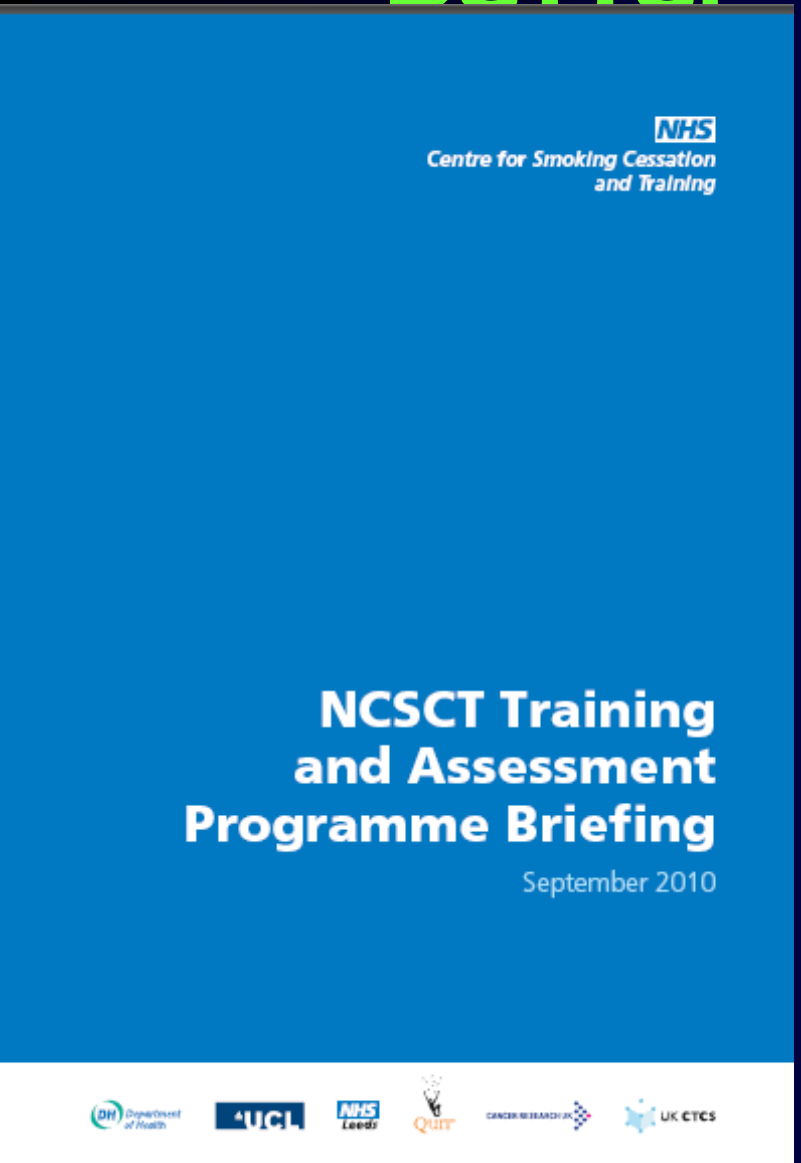
In December 2007, after reports of depression and suicidal thoughts among people prescribed varenicline, the Medicines and Healthcare Products Regulatory Agency (MHRA) issued a warning concerning possible increased risks,[4] with further warnings issued in July and November 2008. Similar warnings have been issued by regulatory authorities worldwide, and warnings have been added to the prescribing information and information for patients. In July 2009, the US Food and Drugs Administration (FDA) required the manufacturers of both varenicline and bupropion to add a new "boxed warning" (the strongest warning

Always think of the risks of smoking vs risks of stopping smoking

Current and future developments

1. Better quality-assured training for mental health practitioners (NCSCT)
2. Clear guidance from RCGP & RCPsych
3. Smoking and SMI – annual smoking checks and offer of interventions under the QOF
4. A really important trial of a service level intervention - SCIMITAR

Better training……



Clear guidance……

forum
working together for mental wellbeing

Primary Care Guidance On Smoking and Mental Health

December 2008

Smoking the biggest killer

Smoking is the largest cause of preventable illness in the UK with smokers dying on average 10 years earlier than non-smokers.[1] Smokers who smoke at least 20 cigarettes a day also have a 61% increased risk of type 2 diabetes compared with non-smokers.[2]

People with mental health problems smoke significantly more than others[3] and therefore experience proportionally even greater smoke-related harm.

Smoking and mental illness

Smoking is associated with an increased prevalence of all major psychiatric disorders [4] as well as higher suicide rates.[5] Smoking also increases the lifetime risk of developing a mental health problem.[6]

Life expectancy for people with schizophrenia is 20% shorter compared to the general population. [7] Since smoking is responsible for most of this increased mortality [8], many premature deaths are preventable with appropriate smoking cessation support.

Furthermore, the amount of tobacco smoked is related to the number of depressive or anxiety symptoms and, after cessation, such symptoms reduce. [4, 9]

Effective interventions exist

Pharmacotherapy and other support such as counseling can increase abstinence rates in those with mental health problems to similar rates as for the general population.[10, 11]

However, people with mental illness have previously been less likely to receive smoking cessation interventions in primary care. [12]

Smoking and medication

Smoking increases metabolism of different medications including some anti-depressants (tricyclics and mirtazapine), anti-psychotics (clozapine, olanzapine and haloperidol), benzodiazepines and opiates. This can result in significantly lower plasma levels [11] and therefore, larger doses are required for a similar therapeutic effect.

However, following smoking cessation, doses of these medications can be reduced.

Key learning points

Smoking is a major determinant of health inequality for those with mental illness

With appropriate support, those with mental illness are able to stop smoking.

Smoking cessation for those with mental illness significantly improves mental and physical health while reducing the risk of premature death.

Doses of medication can be significantly reduced following cessation

Cessation and medication

Stopping smoking can reduce metabolism of some medication resulting in higher, sometimes toxic blood levels over a few days.[11,13] Therefore, it is recommended that:

1. Blood levels of clozapine (and olanzapine if assays available) should be measured before smoking cessation.[13] With clozapine and olanzapine, 25% dose reduction should occur during first week of cessation and then further blood levels taken on a weekly basis until levels have stabilised.[13]
2. Doses of fluphenazine and benzodiazepine should be reduced by up to 25% in first week of cessation. [13]
3. Tricyclic antidepressants may need to be reduced by 10-25% in first week. [13] Further dose reductions within British National Formulary levels may be required with continued cessation.

The key role of primary care

Explain how smoking cessation can improve both physical and mental health and also reduce doses of medication.

Initially offer Nicotine Replacement Therapy (NRT) to all, including those who continue to smoke which supports smoking reduction as a first step to cessation.

Encourage engagement in group or individual smoking cessation counseling.

Coordinate with psychiatric secondary care services and NHS Stop Smoking Services to offer ongoing smoking cessation support as part of a more joined up health promoting service.

Following cessation, monitor mental state especially of those with depression since a minority who stop smoking experience an increase in depressive symptoms. [14]

Smoking cessation prescribing

Nicotine replacement is available in a variety of forms and strengths to encourage patient preference and acceptability. Combining patch and faster-acting oral NRT improves efficacy. Side effects include mild local irritation of mouth, throat or nose.

Bupropion has been shown to be effective for those with depression and schizophrenia [11] although it has been associated with increased anxiety and depression. It is associated with seizures and is contraindicated in bipolar affective disorder and epilepsy. It should not be prescribed with drugs which increase risk of seizures such as tricyclic antidepressants and some anti-psychotics. Bupropion can also alter blood levels of medication such as anti-psychotics and antidepressants.

Varenicline has been reported to be more effective and have fewer side effects than bupropion. [15] However, since reports of exacerbation of depression and suicidal ideation are currently being reviewed, further data is required for those with mental illness.

iris · Royal College of Nursing · Royal College of General Practitioners · RC PSYCH · NHS National Institute for Mental Health in England

A really important trial….

- Bespoke Smoking Cessation (BSC) trial for SMI - SCIMITAR
- NIHR HTA-funded trial
- York, Manchester & other sites
- 2011-2014

Uncertainties:

- Content of the intervention
- Acceptability of the intervention
- Barriers to recruitment (staff and patients)
- Setting and mode of delivery
- Feasibility of longer-term follow-up

Content of the intervention

- NRT – as much and for as long as patients want
- GPs prescribe other things in line with guidance
- Delivered by competency-assured NHS smoking cessation therapists (MH background) – Big thanks to Helen Hartley & Leeds Mental Health Foundation Trust

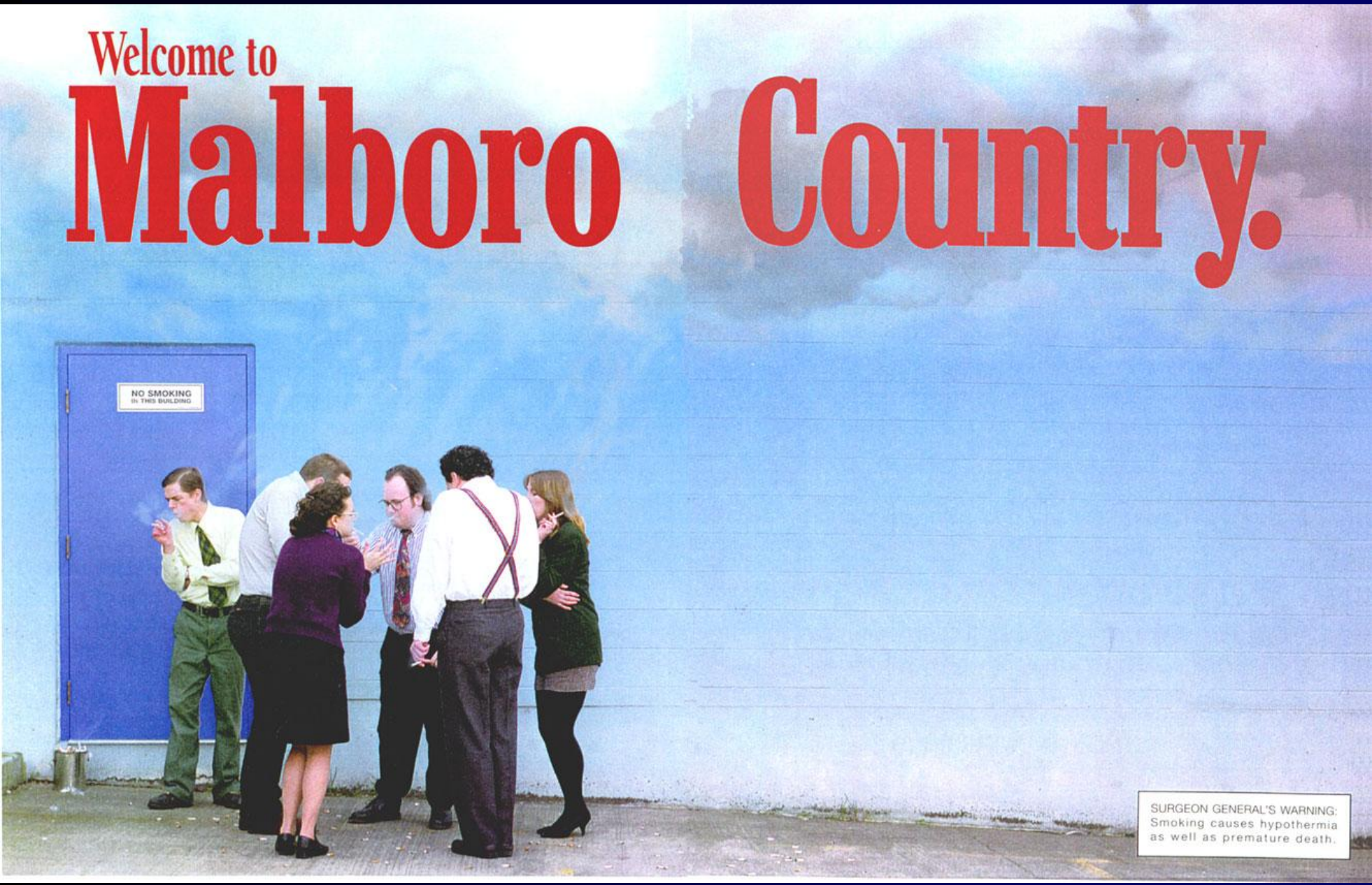
Mode of delivery

- Who?
  - Mental health (nursing) staff
  - With additional training
  - NHS-assured Level II training and competencies
- How?
  - Telephone, and face to face
  - Assertive follow up and multiple quit attempts
- 'One stop shop'

Smoking and SMI: summing up

- Smoking = single most important (modifiable) risk factor for illness and death
- Neurochemical, environmental and social determinants of smoking in SMI
- We know what works
- Same things work in SMI
- Important barriers to implementation and uptake
- Soon have trial-based evidence in UK NHS services
- Therapeutic nihilism not justified


Welcome to
Malboro Country.


Welcome to
Malboro Country.
NO SMOKING
IN THIS BUILDING
SURGEON GENERAL'S WARNING:
Smoking causes hypothermia
as well as premature death.