

Tobacco control, inequalities in health and action at the local level in England.

FINAL REPORT

Appendices B and C

Appendix B Summary tables

1. Mass Media

First Author	Year	Study design	Study type	Study population	Outcome studied	Equity impact
Bala	2008	0.2	Universal	Education	Prevalence, consumption.	No relationship observed
Burns	2010	3.2	State-wide	Spanish speakers (low education)	Reach	Increased reach and outcomes among a low ses population.
Cahill	2008	0.2	Universal	Education, income, SES	Participation/ reach, quits	No consistent findings but tendency for participants to more disadvantaged and therefore increase inequalities.
Cummins	2007	2.3	Targeted	Young smokers	Reach	Low education group increasingly over-represented among quitline users, low income and deprived neighbourhoods always over-represented among quitline callers.
Czarnecki	2010	2.1	State-wide	Income and education	Awareness/and exposure, interest in service.	Low SES groups had lower awareness of media campaign, but higher hypothetical interest in the service.
Davis	2010	1.2	Universal	Income and education	Perceived effectiveness	Cessation-related ads perceived more effective by higher income groups.
Durkin	2009	2.2	State-wide	Education/Income composite	Cessation and exposure	Overall higher quit rates among higher SES groups. Mid-SES group most influenced by intense adverts.
Gagne	2007	3.2	Province-wide	20-34 year olds without university education	Prevalence and consumption	No significant impact on target population, but may have protected them from national trend to increase consumption.
Graham	2008	2.1	Internet users	Education	Uptake and engagement	Some forms of online adverts more effective at recruiting low SES groups, but engagement is slightly lower among online users.

McKay	2008	3.1	Universal	(Education)	Reach	Far higher rate of enrolment among smokers with some college education and college graduates
Maher	2007	2.1	Quitline callers	Income	Call volume and 7 day quit rates	Increased call rate among low SES smokers. Variation in quit rate widened, likely due to widened NRT eligibility.
Niederdeppe	2008	2.1	State-wide	Education and income	Recall, quit attempts	SHS have lower chance of widening disparities. KTQ more effective in higher SES groups.
Niederdeppe	2008	0.2	Targeted	Disadvantaged populations	Exposure, motivational response, action	No evidence that universal or targeted campaigns narrow inequalities. Some universal campaigns widen inequalities.
Owen	2006	1.1	National	Social class	Awareness and participation	Participation equal across social grades.
van Osch	2007	2.1	Universal	Quit and win contest (Education)	Cessation	Contest significantly increased cessation. Education predicts cessation - OR=1.199 (sig) at 1 month, 1.109 ns at 12 months)

2. Smokefree workplaces, public places and homes

First Author	Year	Study design	Study type	Study population (SES variable)	Outcome studied	Equity impact
Akhtar	2010	2.1	Universal	Children (Family SEC)	Exposure	Greatest absolute reduction for low SES, but relative inequalities may have widened.
Braverman	2008	4.3	Targeted	Bar staff (income)	Cessation	No sig impact
Fowkes	2008	2.1	Universal	Artherosclerosis trial participants	Cessation	No assoc, works across all SES
Friedrich	2007	1.1	Universal	Workplaces (unskilled workers)	Level of tobacco prevention	More skilled workforces more likely to be covered by smoke-free policy, and by more advanced policies.
Giskes	2007	0.1	Targeted	Disadvantaged groups	Policy comprehensiveness	More likely to be implemented in white-collar dominated workplaces.

Hackshaw	2010	1.2	Universal	(Occupational class)	Quit attempts. Perceived impact on intentions and actions	No significant difference in quit attempts by social grade.
Hargreaves	2010	4.3	Universal	Affluent + deprived communities	Behaviour	Decrease across all localities, better facilities in less deprived
Hawkins	2010	3.2	Universal	Parents (income, education)	Parental smoking, child exposure	Socio-economic gradient in smoking prevalence may have flattened.
Hyland	2009	3.2	Universal	Scottish smokers (Income and education combined)	Exposure and cessation	No assoc, works across all SES
Lock	2010	4.2	Targeted	Ethnic minorities in deprived neighbourhood	Changes in smoking behaviour	1/33 quit, half reduced their intake and imposed home smoking bans, others smoke more at home.
Moore	2009	4.1	Targeted	Low income women (bartenders)	SHS exposure + Unintended consequences	Low income women exposed to SHS due to ban flouting.
Nagelhout	In press	1.2	Universal	(Education + income)	Prevalence and quit attempts	Hospitality ban had no significant impact.
Ritchie	2010	4.3	Universal	Affluent + deprived communities	Behaviour	Behavioural changes most apparent in deprived localities
Schaap	2008	1.1	Universal	Education	Cessation	Appears to have no differential impact.
Shavers	2006	1.2	Universal	Employed females (poverty level)	Presence of workplace smoking restrictions	Complete smoking bans associated with higher family incomes.
Verdonk-Kleinjan	2009	1.2	Universal	Non-smokers (education)	Exposure	Low ed still twice as likely to be exposed

3. Price

First Author	Year	Study design	Study type	Study population (SES variable)	Outcome studied	Equity impact
Chaloupka	2010	0.1	Universal	(Low income populations)	Prevalence	Low income groups appear to be more responsive.
Colman	2008	1.4	Universal	Low income	Prevalence and tax burden	Low income groups more responsive, but taxation is regressive.
DeCicca	2008	1.4	Universal	Older smokers (income and education)	Cessation	Large impact on narrowing education and income-related disparities
Franks	2007	1.4	Universal	Low income	Prevalence	No significant impact on disparities.
Giskes	2007	0.1	Universal	Disadvantaged groups	Policy comprehensiveness	Evidence of higher responsiveness among low income, but also switching to cheaper forms.
Levy	2006	1.2	Universal	Education	Prevalence	Low income most responsive
Madden	2007	1.4	Universal	Education	Initiation and cessation	Low income most responsive.
Peretti-Watel	2009	4.2	Universal	Subjective social status	Self-reported smoking	Low SES groups less likely to respond due to external influencers.
Schaap	2008	1.1	Universal	Education	Self-reported cessation	No differential impact of price
Siahpush	2009	1.4	Universal	Income	Prevalence	Low income most responsive

4. Community programmes

First Author	Year	Study design	Study type	Study population (SES variable)	Outcome studied	Equity impact
Kloek	2006	3.2	Targeted	Deprived communities	Cessation	No significant difference between intervention and control.
Secker-Walker	2008	0.2	Universal	(Low income, one article)	Cessation	Lower prevalence and great quit rate in intervention counties.
Wendel-Vos	2009	3.2	Targeted	General and deprived communities	Cessation and initiation	No difference between intervention and control, either overall or by education.

5. Cessation

5.1 Behavioural and Pharmacotherapy

First Author	Year	Study design	Study type	Study population (SES variable)	Outcome studied	Equity impact
Andrews	2007	3.2	Targeted	Women in public housing (95% below poverty level)	6-month continuous abstinence	27.5% abstinence in intervention, 5.7% in control
Baker	2006	3.1	Targeted	Psychotic disorder (welfare recipients, low educated)	Abstinence and reduction	Integrated psych and NRT program shows sig impact at 3, 6 and 12m follow up
Bauld	2009	0.1	Universal	Area, occupational class	Cessation	Some evidence of a modest narrowing, but insufficient equity-specific research.
Bauld	2009	2.3	Universal	Glasgow (various measures of deprivation)	Cessation	Lower quit rates for lower SES group, but higher enrolment rates from these groups
Biazzo	2010	2.2	Universal	Quitline users (education, insurance status)	Choice of pharmacotherapy	Insured and higher educated more likely to use subsidised varenicline than free NRT and insured have higher quit rates.
Bryce	2009	2.1	Targeted	Young pregnant smokers in deprived community	Cessation (3m and 12m)	23% quit at 3m, 12.7% at 12m. High refusal rate.
Croghan	2009	2.1	Universal	Hospital patients (education)	Cessation	Non significant association between education and abstinence
Edwards	2007	1.1	Universal	Smokers in South Derbyshire (area)	Cessation and awareness	Equal desire to quit, but low SES quit rates were lower, and had 6x lower awareness of cessation services
Gnich	2008	2.1	Universal and targeted	Under 25 year olds in Scotland	Cessation at 3 months	No relationship between area level deprivation and cessation at 3 months.
Hiscock	2009	2.1	Universal	Deprived areas	Uptake and cessation	Utilisation equal, 25%v17% cessation in favour of less deprived.
King	2008	2.1	Targeted	African-American communities (income)	Cessation and adherence	Effective, but hard to tell if this would be sustained over longer follow up and with more open selection criteria

McEwen	2010	2.1	Targeted	Smokers in London (deprived neighbourhood)	Enrolment and cessation	39% accepted referral to service, 28% set quit date, 12% achieved 4-week cessation.
Murray	2009	0.1	Targeted	Disadvantaged populations	Access	Some evidence that targeting narrows inequality. Most research lacks equity focus.
Northridge	2008	2.2	Targeted	Disadvantaged communities (income education)	Cessation	Higher, but non-significant, quit rates among higher education & income groups but odd outcome measure.
Okuyemi	2006	3.1	Targeted	Homeless smokers	Recruitment and retention	70% attendance, 6/50 quit at 26 weeks but incentives for attendance.
Okuyemi	2007	3.1	Targeted	Low-income smokers	7 day & 26 week abstinence	No significant difference between groups
Okuyemi	2010	3.1	Targeted	African American light smokers (Education)	Adherence and 7 day and 26 week cessation	High school graduate predicted counselling adherence. Counselling more significant indicator of success than NRT.
Piper	2010	3.1	Targeted	Women, African Americans and low educated	Cessation	Education associated with cessation. Combination pharmaco more effective for low-education than monotherapy.
Reitzel	2010	2.1	Targeted	(subjective social status)	Relapse 2 weeks post-quit	SSS strong predictor of relapse
Sadr Azodi	2009	3.1	Targeted	Employed, University educated	Abstinence, 1y	Employed approached sig (small sample)
Sias	2008	2.1	Targeted	Low income clinics	Cessation	63% at 8-12w, 44% at 6m (self-report)
Smith	2006	2.1	Universal	NHS smoking cessation service users (area)	52 week cessation	Started 16.8% cessation rate at 12 months incorrect.

5.2 Behavioural

First Author	Year	Study design	Study type	Study population (SES variable)	Outcome studied	Equity impact
Britton	2006	3.2	Universal	Rural pregnant women (education)	Cessation	Education positively associated with cessation.
Cupertino	2007	2.1	Targeted	Rural communities	Engagement	Higher income/education and those with health insurance more likely to use service

Lowry	2007	3.2	Targeted	Deprived communities	Cessation	Increased utilisation, but no difference in prevalence between intervention and control
Reitzel	2010	3.1	Targeted	Low-income pregnant women	Abstinence, relapse	Intervention more effective (p=0.05), more effective among heavier smokers.
Smith	2009	3.1	Universal	Cardiac patients (education/employment)	Cessation	Post-secondary ed sig predictor (OR 2.34)
Sorensen	2007	3.1	Targeted	Occupational class	Cessation	Intervention group more than twice as likely to quit, and significantly more likely to make at least one quit attempt.
Stewart	2010	2.1 + 4	Targeted	Low income smokers	Cessation	4 out of 44 smokers quit and many reduced consumption. Low starting point however.

5.3 Pharmacotherapy

First Author	Year	Study design	Study type	Study population (SES variable)	Outcome studied	Equity impact
Burgess	2009	2.1	Targeted	NRT users (employed, low income)	4 week abstinence	11.4% abstinence among women, 19.2% among males. Employed males, and unemployed females had higher abstinence rates.
Fernandez	2006	2.1	Targeted	Clinic patients (education and social class)	CO-verified abstinence	Lower SES patients more likely to have relapsed.
Lillard	2007	1.1	Universal	Education and income	Type of intervention used (product, programme, none)	Higher family income associated with product use, moderately successful method
Murphy	2010	2.1	Targeted	Low income smokers	Use	NRT use doubled in three years.

5.4 Brief interventions

First Author	Year	Study design	Study type	Study population (SES variable)	Outcome studied	Equity impact
Bao	2006	2.1	Universal	Smokers in USA (Education)	Received brief cessation advice	Education associated with likelihood of receiving provider advice
Crittenden	2007	2.1	Targeted	Pregnant low SES women	Cessation	Education and employment act as significant predictors of positive outcomes
Giskes	2007	0.1	Targeted	Disadvantaged groups	Reach	Lower SES less likely to visit GP
Turner	2008	3.2	Targeted	Low educated with history of depression	Self-reported 7 day abstinence	Intervention had no significant impact, thus no equity impact.

5.5 Quitlines

First Author	Year	Study design	Study type	Study population (SES variable)	Outcome studied	Equity impact
An	2006	2.1	Universal	Quitline users (Education)	Uptake and cessation	College cessation rate double high school educated, but non-sig after controlling for treatment characteristics. No change in reach by education.
Czarnecki	2010	2.1	Universal	Smokers in New York (education, income)	Awareness, interest	Low incomes hypothetically most likely to call the quitline if they had heard of it.
Ellis	2008	2.1	Universal	Quitline callers (neighbourhood income)	Reach, adherence, cessation.	Enrolment inversely associated with neighbourhood income. Adherence uniform.
Maher	2007	2.1	Targeted	Quitline callers (low educated)	Abstinence at 3 months	Quit rate is higher among high SES group, possibly widening inequality in prevalence.
Miller	2009	3.1	Targeted	Low income neighbourhoods	Reach, cessation after free NRT	Equity impact is unclear
Murphy	2010	2.1	Targeted	Low income smokers	Awareness and use	Low income smokers increasingly aware of and using Quitline service.
Tzelepis	2009	2.1	Universal	(Education)	Acceptability of proactive recruit + counselling	Unclear, recruited under-represented groups, but had very low intention to quit.

5.6 Internet

First Author	Year	Study design	Study type	Study population (SES variable)	Outcome studied	Equity impact
An	2008	2.1	Universal	Service users (education, employment, insurance status)	Self-report 30 day abstinence, utilisation	No significant association.
Civljak	2010	0.2	Universal	Service users (education)	Enrolment, 3 month cessation	Two articles. Majority college educated enrolees. Use far higher among higher educated groups, cessation also higher, but intervention ineffective.
Seidman	2010	3.1	Universal	Service users (education)	12m abstinence	Recruited a majority college-graduate population, and college educated showed higher quit rates and higher follow-up rates.
Strecher	2008	3.1	Universal	Service users (education)	Abstinence, utilisation	Higher educated less likely to disengage, website engagement predicted cessation.

5.7 Other cessation interventions

First Author	Year	Study design	Study type	Study population (SES variable)	Outcome studied	Equity impact
Reid	2007	3.1	Universal	Hospitalised (education)	Cessation	No significant relationship
Sorensen	2009	2.1	Targeted	Blue collar occupational group	Participation	Working day shifts and intention to quit associated with health promotion program participation.
van Osch	2007	2.1	Universal	Quit and win contest (education)	Cessation	Contest significantly increased cessation. Higher education predicted cessation at 1 month, but not significant at 12 months.
Velicer	2007	2.2	Universal	Various populations (education)	Cessation (12 & 24 month)	Small, near-significant effect of education on cessation, especially at later follow up

Appendix C Data extraction sheets

1. Mass Media

Details	Method	Result	Comments
<p><u>Author , year & journal</u> Bala, 2008 Cochrane Review</p> <p><u>Study design</u> Systematic Review</p> <p><u>Objective/RQs</u> Impact of mass media interventions on cessation in adults.</p> <p><u>Intervention</u> Mass media advertising targeting adult smokers.</p> <p><u>SES variables used</u> Education</p> <p><u>Author's conclusions</u> TCPs which include mass media campaigns can be effective in adults, but there is only a small evidence base of varying quality.</p>	<p><u>Intervention details</u> Interventions via radio, tv, newspapers, billboards, posters, leaflets or booklets intended to reach large numbers of people directly.</p> <p><u>Data sources</u> Controlled trials among communities, regions or states. Interrupted time-series. N = 11 Dates of trials appear to range from 1977 to 2003.</p> <p><u>Participant selection</u> Adults 25 or over who regularly smoke</p> <p><u>Participant characteristics</u> All adults but age-groups varied. Three targeted men, two targeted Vietnamese sub-pops in USA,</p> <p><u>Outcomes measured</u> Change in smoking behaviour: prevalence, consumption, quit rates or odds of being a smoker. Measured at least 6 months from intervention start date.</p>	<p><u>General population impact</u> Prevalence: significant decrease in prevalence seen in 8/9 of the programmes that studied it, though two failed to detect a significant decrease in women (but did in men). 3/5 studies looking at quit attempts found a significant impact. 3/7 found a significant impact on quit rates, 1 found significant impact for women only. 1/7 found a significant difference in cigarette consumption.</p> <p><u>Impact by SES variable</u> Sydney 1986 found education and SES were not predictive of quitting. In California the highest decline for females came among those with who did not graduate high school, but for males it was college graduates. In Massachusetts the largest decline was among those who had graduated from high school but not college.</p> <p><u>Author's conclusion of SES impact</u> No consistent relationship observed between campaign effectiveness and age, education, ethnicity or gender.</p>	<p><u>Internal validity</u> Heterogeneous studies with varying methodological quality. Response rates varied from 62-94%, Some studies had almost 50% drop-out rate. Funding appears to have fluctuated for some of the projects, influencing their effectiveness. Varying age; approaches likely to have become more sophisticated and effective since 1977.</p> <p><u>External validity</u> Don't appear to cover a representative population. Little consideration of equity.</p> <p><u>Validity of author's conclusion</u> Studies varied in populations, approach (targeted etc), and the time of implementation, so there appears little chance of finding a consistent relationship between SES and effectiveness.</p> <p><u>Other</u></p>

Details	Method	Result	Comments
<p><u>Author , year & journal</u> Burns, 2010 American Journal of Public Health</p> <p><u>Study design</u> Quasi-experimental</p> <p><u>Objective/RQs</u> Examine the effect of a Spanish-language media campaign on the reach and outcomes of a state-sponsored Quitline among Latino smokers.</p> <p><u>Intervention</u> Television advertising</p> <p><u>SES variables used</u> Education and insurance status.</p> <p><u>Author's conclusions</u> The media campaign increased reach and improved cessation outcomes among a young, low SES population. Quitline-supported cessation can be improved among this population.</p>	<p><u>Intervention details</u> Spanish-language advertising to promote a state Quitline to Latino smokers in Colorado, a population historically under-represented among users of the service. Adverts were aired between Sep-Nov 2007 on predominantly Spanish-language television and radio channels and in movie theatres attended by Latino populations. Ads designed to deliver positive, supportive, family-oriented messages about cessation. Quitline offered free NRT and 5 proactive coaching cessations. First 40% of participants and heavy smokers referencing the campaign received 8 weeks of NRT, others received 4 weeks.</p> <p><u>Data sources</u> Service utilisation data from the Quitline database during pre and post-campaign periods (Apr-Aug and Sep-Nov). Random selection of users from pre and post groups were followed up at 7 months.</p> <p><u>Participant selection</u> All smokers calling the Quitline were eligible if they provided data on ethnicity.</p>	<p><u>General population impact</u> Estimated 79.8% of households exposed to campaign messages an average of 12 times each. Call volume increased from 390 per month to 614 per month during the intervention period. Service use was higher and more sustained during the campaign. Six-month abstinence among Latinos increased significantly during the campaign, and 7 day abstinence increased marginally. However abstinence rates at both time periods were significantly lower for non-Latinos during the campaign. Suggest that this may be a consequence of the change in NRT eligibility included as a part of the study. Individuals lost to follow up typically younger, less likely to have completed the program, and less likely to have requested a second NRT shipment.</p> <p><u>Impact by SES variable</u> Respondents during the campaign period were significantly more likely to be less educated and uninsured. 42.5% of callers during the intervention had less than high school education, compared to 22.2% pre-intervention. 56.0% uninsured, compared to 40.5% pre-intervention.</p>	<p><u>Internal validity</u> Post-campaign group was actual 'during' campaign, may have missed the influence of final weeks of the campaign. No direct measure of campaign exposure. Used complete case outcomes, rather than including non-response at follow up as a failed cessation attempt which appears more likely given the characteristics of non-respondents presented. Response rates 44.1% and 50.4% among pre and post-campaign Latinos, and 54.3% and 52.7% among pre and post-intervention non-Latinos. Potential for advertising campaign to have influenced the cessation outcomes among pre-intervention callers.</p> <p><u>External validity</u> Target ethnic group is not as substantial in England, unclear if a similarly targeted intervention would be as effective among other minority ethnic groups.</p> <p><u>Validity of author's conclusion</u> SES variations in quit rates are not discussed, but is assumed that the rise in low SES callers has led to a rise in</p>

	<p><u>Participant characteristics</u> See results column.</p> <p><u>Outcomes measured</u> Characteristics of Quitline callers. Service utilisation. 7d & 6m abstinence.</p>	<p><u>Author's conclusion of SES impact</u> Increased reach among low SES Latinos, while sustaining or improving service use among the group. Negative impact among non-Latino ethnic groups.</p>	<p>low SES service utilisation and quit rates. Appears that the media intervention is having a positive impact on inequalities in smoking behaviours, but the changes in Quitline NRT-provision have had a negative impact on overall quit rates, potentially more significantly among low SES service users.</p>
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Details	Method	Result	Comments
<p><u>Author , year & journal</u> Cummins, 2007 American Journal of Preventive Medicine</p> <p><u>Study design</u> Cross-sectional study</p> <p><u>Objective/RQs</u> Assess quitline usage among 18-24 year olds in California.</p> <p><u>Intervention</u> Mass media quitline promotion</p> <p><u>SES variables used</u> Education and income (by zip code median)</p> <p><u>Author's conclusions</u> Quitlines are a viable means of engaging with young adults, including those from minority populations.</p>	<p><u>Data sources</u> California Tobacco Survey (state-wide figures, 1993-2005 n varies from 327-887), California Smokers' Helpline usage (users, 1992/4-2004-6, n varies from 2903-17093). Callers provided demographic information. Calls assigned to income categories by zip code.</p> <p><u>Participant selection</u> Smokers between the ages of 18 and 24 who have called the helpline.</p> <p><u>Participant characteristics</u> Young adult smokers from California. Predominantly white (49%), male (55.7%), low education, income average.</p> <p><u>Outcomes measured</u> Quitline usage</p> <p><u>Intervention details</u> Helpline available since 1992, promoted by the California Dept of Health Services through TV adverts (in 6 languages) and community health departments, physicians and volunteer organisations.</p>	<p><u>General population impact</u> Callers more likely to be women, and ethnic minorities are over-represented. Young occasional smokers slightly under-represented in the quitline callers, young quitline callers smoked 3.4 more cigarettes a day than the average smoker. Young smokers consistently more likely to have heard about the helpline from media than older callers (58.1% v 44.3%, p<0.01).</p> <p><u>Impact by SES variable</u> Young adults with lower education were initially under-represented, but have become increasingly over-represented in recent years (sig difference in 2004-6). Calls from zip codes with low median incomes have been over-represented ever since data available (1995, sig difference almost every year).</p> <p><u>Author's conclusion of SES impact</u> High use of helpline among low-income neighbourhoods was encouraging, and chiefly the result of the strong media campaign orchestrated by the CDHS.</p>	<p><u>Internal validity</u> Lack of reporting on the relationship between the adverts and the quitline use. Doesn't mention the refusal rate for the CTS, so low-income neighbourhoods may well be under-represented in this, calling the low-income finding in to question.</p> <p><u>External validity</u> International transferability of the program?</p> <p><u>Validity of author's conclusion</u> Don't include the results on why the users called the helpline, only states that the campaign influenced callers and particularly young people. Media campaign could have had a negative equity impact. No consideration of who the low-income callers were, could be student neighbourhoods? Or neighbourhoods of young career starters, hence the income measure becomes a little spurious.</p> <p><u>Other</u></p>

Details	Method	Result	Comments
<p><u>Author, year & journal</u> Czarnecki, 2010 Am J of Preventive Medicine</p> <p><u>Study design</u> Cross-sectional survey</p> <p><u>Objective/RQs</u> Awareness of NYC's NRT giveaway, socio-demographic differences in interest, perceived barriers to participation, outreach methods for future giveaways.</p> <p><u>Intervention</u> Media campaign to promote a time limited NRT giveaway</p> <p><u>SES variables used</u> Income and education</p> <p><u>Author's conclusions</u> Mass media effective for informing smokers. Enrolment could be improved by addressing barriers as well as expanding outreach to minority groups.</p>	<p><u>Intervention details</u> Nicotine patch giveaway between May 3rd and June 6th 2006. Smokers could enrol via free non-emergency Gov info line. Callers received 4 weeks of patches. Advertised via multimedia campaign (paid and unpaid TV/radio/print in Eng & Span) from Jan-Oct-06, inc testimonials from dying/sick smokers, and graphic images of smoking's impact.</p> <p><u>Data sources</u> Random telephone survey of adult smokers in NYC (n=1000) conducted in 2006. Survey conducted in English or Spanish only. Responses weighted</p> <p><u>Participant selection</u> Current smokers (10 cigs or more) or those who had quit since beginning of NPP (14% screening rate). 56% of eligible smokers completed the survey (n=602).</p> <p><u>Participant characteristics</u> Hard to assess due to the use of 'population estimates'. Appears sample was dominated by Hispanics, males, and mid-low income groups. High school grads the largest group, followed by college educated, then some college and <high school. No indication of the representativeness of the sample.</p> <p><u>Outcomes measured</u> Program awareness, interest in free NRT (hypothetical), perceived barriers (hypothetical?).</p>	<p><u>General population impact</u> 35,000 registered for the program. Program awareness high (60% overall), with most awareness coming from TV advertising. Interest among those who hadn't heard of the program fairly high (54%). Most 'barriers' were a lack of interest in quitting/aids.</p> <p><u>Impact by SES variable</u> High income and college educated sig less likely to be aware of the NPP. No sig difference between other ses groups. Low income groups hypothetically more likely to have called than high income. High school grads and less than high school also more likely to have called than college. No SES evaluation of the other RQs.</p> <p><u>Author's conclusion of SES impact</u> Highest untapped interest in populations with the lowest knowledge of the program.</p>	<p><u>Internal validity</u> Response and cooperation rates were low. Extrapolate from a very small population to make assertions about a huge, diverse city. No assessment of the representativeness of the sample of either smokers or NYC as a whole. Likely to over-estimate the number of people aware of the programme, and also potential users given the hypothetical question on interest (those reporting interest would massively outweigh the number of actual users). Doesn't mention the type of TV used: free-to-air, potential demographics.</p> <p><u>External validity</u> Likely to be less cost-effective in less dense populations (less target audience, same tv (and radio?) advertising costs?)</p> <p><u>Validity of author's conclusion</u> Theoretically yes, but given the reservations above it's hard to make any serious judgements.</p> <p><u>Other</u></p>

Details	Method	Result	Comments
<p><u>Author , year & journal</u> Davis, 2010 Tobacco Control</p> <p><u>Study design</u> Repeat cross-sectional</p> <p><u>Objective/RQs</u> Examine which types of cessation-focussed advertisements are perceived as effective by smokers, and whether smoker characteristics influenced the type of advert they perceived to be effective.</p> <p><u>Intervention</u> TV advertisements</p> <p><u>SES variables used</u> Education and annual income.</p> <p><u>Author's conclusions</u> Tobacco control programmes that use cessation-focused advertising should focus more on “why to quit” type adverts with graphic images or personal testimonials.</p>	<p><u>Intervention details</u> 37 television adverts within four categories: why to quit with graphic images (10 ads), why to quit with testimonials (15), how to quit (8), and anti-industry (4).</p> <p><u>Data sources</u> New York Media Tracking Survey Online, a self-administered internet survey. Study used five waves of data between spring 2007 and spring 2009. Data weighted to reflect the demographic characteristics of New York smoking population.</p> <p><u>Participant selection</u> Sample drawn from participants in Harris Poll Online, 7060 unique participants and a small sample of repeat participants in all surveys to compare across survey waves.</p> <p><u>Participant characteristics</u> 81.9% white, 64.5% female, 60% aged 40-64, 41% some college education and 36% college graduates. Sample weighted to match both MTSO and Adult Tobacco Survey sample characteristics, with 58.1 and 52.3% female respectively, 61.8% and 62.6% white, and 33.3% and 25.9% some college education and 24.7% and 37.8% college graduates.</p> <p><u>Outcomes measured</u> Perceived effectiveness, participants rated 1 (strongly disagree) to 4 (strongly agree) whether the ad made them: stop and think, grabbed their attention, and 1 (not at all) to 5 (very) for believability of ad and whether it made them want to quit.</p>	<p><u>General population impact</u> Overall perceived effectiveness of 13.1 (out of 18). ‘Why to quit - graphic’ ads significantly more effective than others ($p<0.05$), and ‘Why to quit – testimonial’ (12.8/18) were significantly more effective than the remaining two types of ads ($p<0.05$). Why to quit ads remained effective after adjusting for all measured confounders.</p> <p>Perceived effectiveness overall was lower for heavier smokers, only the ‘hard to quit’ ads were more effective for these. Calculated an effect size of 0.2, larger than the effect size associated with some antismoking campaigns widely perceived as effective.</p> <p><u>Impact by SES variable</u> Little relationship between education and perceived effectiveness. Anti-industry ads less effective among some/completed college than less than high school. Ads were significantly more effective for those with incomes of \$75-\$99,000 ($p<0.001$) and \$50-\$74999 ($p<0.05$). Why to quit – graphic images were both significantly more effective for those with incomes of \$35-49000 and \$75-99999 ($p<0.05$), and testimonials were more effective for all income groups between \$35000 and \$99999 ($p<0.01$).</p> <p><u>Author's conclusion of SES impact</u> No conclusion.</p>	<p><u>Internal validity</u> Selection bias: different survey weights produce very different sample characteristics, both of which are still noticeably different to the smoking population that would be expected. Replicated the analysis with standardised version of effectiveness scale and found no differences in results or conclusions. One attempt to validate relationship between perceived effectiveness and actual belief, but unable to determine causal impact of advert.</p> <p><u>External validity</u> Results specific to these adverts and their design/message.</p> <p><u>Validity of author's conclusion</u> No discussion of SES impact, only relative impact presented in table. Cessation related ads are more effective among high income groups, but reference point for income-based analysis is unclear. Failure to find differential impacts for education may be influenced by using a very small reference group.</p> <p><u>Other</u> Unclear why different scales were used, rather than using 1-4 or 1-5 for all questions.</p>

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<p><u>Author , year & journal</u> Durkin, 2009 American Journal of Public Health</p> <p><u>Study design</u> Cohort</p> <p><u>Objective/RQs</u> Which type of mass media messages might reduce disparities in smoking prevalence among disadvantaged populations?</p> <p><u>Intervention</u> Mass media (highly evocative and/or personal testimonial or comparison television adverts)</p> <p><u>SES variables used</u> Cumulative measure. High school education or lower and household income of \$50,000 or less = low SES. More than \$50,000 household income and at least college education = high SES. All others medium.</p> <p><u>Author's conclusions</u> Emotionally evocative adverts with personalised stories hold promise for efforts to reduce socio-economic disparities in smoking and promote cessation.</p>	<p><u>Intervention details</u> TV ads of varying intensity aired in the two years prior to data collection. 20.2% were highly evocative personal testimonials, 13.4% emotional but not testimonials, 11.2% testimonials but not highly emotional and 53.7% not highly emotional or testimonials. Exposure measured by Gross Rating Points (GRP, estimated). 1 unit increase in GRP equates to 10 exposures to an ad over study period.</p> <p><u>Data sources</u> 2 waves of longitudinal study for baseline collection</p> <p><u>Participant selection</u> Probability sample of 6739, over-sampling 18-30year olds and recent quitters. Response rate 46%, follow up rate 56%. Excluded those not smoking at baseline and not from Massachusetts's three main media markets.</p> <p><u>Participant characteristics</u> Av age 40, 55% women, 41% ear under \$50,000, 46% high school education or lower. 87% live in Boston. 83.9% non-Hispanic white.</p> <p><u>Outcomes measured</u> Smoking status at 24 month follow-up, quit defined as one month abstinence.</p>	<p><u>General population impact</u> Each additional 10 exposures to highly emotional or personal testimonial ads raised odds of quitting significantly (OR=1.14, 1.02-1.29, p<0.05). Comparison ads had no significant effect (OR=0.93)</p> <p><u>Impact by SES variable</u> TV watching frequency varied, low SES more likely to watch TV 0-3 days a week or 7 days a week (no indication of length of time viewing). No significant variation in exposure: Low 440.5 GRP, Mid 439.9, High 434.8. 13% of low SES ex-smokers at follow up, 18% of mid and 19% of high SES. Mid SES significantly more likely to quit than low SES (OR=1.70, 1.02-2.83, p<0.05) High SES slightly less significant (OR=1.70, 0.95-3.03, p<0.1). Undetermined SES most likely to quit (OR=2.11, 10.7-4.14, p<0.05). Adjusted odds ratios show that each additional 10 exposures to emotional and/or testimonial ads increased odds of quitting by approx. 13% for low-SES, approx.47% for mid-SES, and reduced the chance of quitting for high-SES.</p> <p><u>Author's conclusion of SES impact</u> Considered together, all ads had an equal effect on SES. Exposure to harder hitting ads (highly emotional and/or personal testimonial) had a greater impact on low and mid-SES groups. Likely to be more effective among high-risk (low SES), and high-proportions of smokers (mid-SES).</p>	<p><u>Internal validity</u> One branch of ads not included in analysis due to lack of data on exposure. Unusual interpretation of SES. 218 (14.6%) undetermined SES due to lack of data. Tracking quit rates against exposure pre-baseline. Miss those who quit smoking during the initial two year period, and the effect of other interventions during the subsequent two years.</p> <p><u>External validity</u> Population appear to have similar characteristics as the UK population. Unclear if English audiences would react as strongly to emotive ads.</p> <p><u>Validity of author's conclusion</u> Disagree about overall impact of the advert exposure - raw data shows middle and high SES groups had a higher quit rate than low SES despite lower overall exposure. But they report no significant interaction between total exposure and ses. Greater impact on mid-SES groups than low. No relationship between TV watching and SES, suggests that adverts could be better targeted to have a greater impact on SES. Role of undetermined SES group may be undermining the significance of intervention's impact.</p> <p><u>Other</u></p>

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<p><u>Author , year & journal</u> Gagné, 2007 J of Public Health Management Practice</p> <p><u>Study design</u> Quasi-experimental</p> <p><u>Objective/RQs</u> Evaluate the impact of 2005 smoking cessation mass media campaign on short-term smoking behaviour</p> <p><u>Intervention</u> 2005 British Columbia MoH Smoking Cessation Mass Media Campaign</p> <p><u>SES variables used</u> Target population – 20-34 year olds with no University degree.</p> <p><u>Author's conclusions</u> High-risk group less responsive due to higher socio-cultural exposure to smoking. Mass media could be effective if longer-term and combined with other incentives.</p>	<p><u>Intervention details</u> Government funded mass media campaign in British Columbia that targeted 20-30yo blue collar smokers. Two, four-week, waves of TV, radio and poster adverts in early 2005 and early 2006 to raise awareness of cessation support program and encourage cessation. 2005 campaign subject of study.</p> <p><u>Data sources</u> Canadian Tobacco Use Monitoring Survey (CTUMS) data from 1999-05. Feb 2005 data excluded as it spanned before and after. Tobacco Behavior and Attitudes Survey (TBAS) data from 2004, targets BC residents excluding reserves and institutionalised.</p> <p><u>Participant selection</u> Both surveys use random digit dialling, over-samples 15-24yo. Data geographically stratified.</p> <p><u>Participant characteristics</u> Not discussed but assumed to be reasonably representative of urban BC population, with over-representation of young smokers. Target population constitutes one third of study population (n=37229/139744)</p> <p><u>Outcomes measured</u> Prevalence and consumption.</p>	<p><u>General population impact</u> Percentage of smokers in BC fell from 15% to 14.8% in the study period, compared to a rise from 19.9% to 21.6% in the rest of Canada (ROC) (non sig). 2.6% annual decline for BC, 15.1% rise for ROC. Trends show a significant diversion from preceding decline in ROC during the study period, but no significant divergence in BC. Consumption among smokers declined from 12.01cpd to 10.83 in BC, compared to 12.77 rising to 13.51 in ROC. 16.9% annual decline compared to 10% increase (non sig).</p> <p><u>Impact by SES variable</u> Target population show above average increases in probability of smoking in both BC and ROC, but not statistically significant. No sig increase in non-target group. Target population shows an above average increase in consumption in ROC (2.97cpd), and a slightly increase in consumption (0.70cpd) in BC compared with the overall decline in BC consumption. ROC divergence significant, BC not.</p> <p><u>Author's conclusion of SES impact</u> Campaign may have averted the target population following the national trend towards increased consumption. Poor results for target population may be linked to greater exposure to smoking, and hence difficulty in quitting.</p>	<p><u>Internal validity</u> Control sample subject to wider changes in advertising. Both samples subject to other changes in the context of smoking. ROC rises are inconsistent with the downward or constant trend for previous five years. Analysis based on continuously running survey. Many respondents likely to have been contacted in the weeks immediately following media messages, which is likely to have reduced time for messages to be translated in to action. Quit attempts (or prevalence data further in the future) may have been more useful outcome.</p> <p><u>External validity</u> Hard to tell given the lack of information about the characteristics of the study population.</p> <p><u>Validity of author's conclusion</u> Appears to have little impact. Lack of exploration of the reasons for the apparent sudden increase in consumption in Canada. Equity impact difficult to untangle given that the non-target population includes both 20-34 year olds with a University education and all over 35 year olds.</p>

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<p><u>Author , year & journal</u> Graham, 2008 Journal of Medical Internet Research</p> <p><u>Study design</u> Cohort</p> <p><u>Objective/RQs</u> Demonstrate the feasibility of online advertising to increase demand for cessation services.</p> <p><u>Intervention</u> Online advertising (compared with traditional advertising)</p> <p><u>SES variables used</u> Education</p> <p><u>Author's conclusions</u> Results suggest that online advertising is promising. Enrolment rate of 9.1% exceeds most studies of traditional recruitment approaches.</p>	<p><u>Data sources</u> 'Click' data, registration details. Quitnet telephone counselling data not available for analysis.</p> <p><u>Participant selection</u> Registered with QuitNet either through traditional (n=23293) or online advertising (n=8536, total=9655 but 1119 registered for phone only and data not available).</p> <p><u>Participant characteristics</u> Predominantly female (59%), white (84%), age 25-44 (57.3%), preparing or contemplating quitting (86.1%)</p> <p><u>Outcomes measured</u> Number of enrollees, demographic, smoking and treatment use characteristics of enrollees, and cost.</p> <p><u>Intervention details</u> Online ads placed on national and local websites and search engines between Dec 1 2004 and October 31 2006.to promote QuitNet's web-based cessation program and state run telephone quitlines (Minnesota and New Jersey). Invite user to click to receive more information (3 diff ways to quit). Comparison: Billboards, tv and radio ads, outdoor ads (eg bus shelters), direct mail and physician referrals.</p>	<p><u>General population impact</u> 106291 clicked on online advert, but only 9.1% registered for Intervention (6.8% for a web-only intervention). Online ads recruited more males, non-whites, 18-24yos, with high school degree or less. Significant, but relatively small, difference in engagement with the intervention between smokers recruited traditionally and via the online ads.</p> <p><u>Impact by SES variable</u> Online ads recruited more people with a high school degree or less than traditional media (24.6% v 23.2%, p<0.02). Humorous online ads were significantly more likely to recruit than traditional media (26.8%, p<0.01). Banner adverts, rather than actively searching for cessation assistance, was a source of significantly more smokers with high or lower school education. Engagement not analysed by SES.</p> <p><u>Author's conclusion of SES impact</u> More effective at recruiting smokers from certain minority groups.</p>	<p><u>Internal validity</u> Big drop off between those who click on the ads and those who register - accidental clicks or people who are curious but not enticed by the intervention?</p> <p><u>External validity</u> Only likely to attract, and keep engaged, those who are fairly regular internet users through work or home life.</p> <p><u>Validity of author's conclusion</u> Would fail to reach parts of the population who are not internet users, or infrequent users so potential equity impact for the lowest groups is limited. Doesn't entirely compare like with like – humorous ads may be more effective than traditional media as a whole but may not be as effective as a humorous traditional advert. May still be inequitable as doesn't compare to SES and smoking in the population</p> <p><u>Other</u> Study was a partnership b/w Healthways Quitnet, ClearWay Minnesota and NJ DoH.</p>

Details	Method	Result	Comments
<p><u>Author, year & journal</u> Maher, 2007 Tobacco Control</p> <p><u>Study design</u> Before and after</p> <p><u>Objective/RQs</u> Does free nicotine replacement therapy for young adults prompt them to call a quitline?</p> <p><u>Intervention</u> Media campaign advertising addition of free NRT and additional counselling sessions to a Quitline ('Washington Benefit').</p> <p><u>SES variables used</u> Income</p> <p><u>Author's conclusions</u> Uptake and quit rates both increased while the Washington Benefit was available.</p>	<p><u>Intervention details</u> 18-29yo callers who were willing to set a quit date in the next 30days or having trouble staying quit were eligible for 8 weeks of free NRT and 4 additional counselling calls from Jan-05. Benefit was advertised through press releases, flyers, community promotions, but spending on media promotions actually decreased during the intervention period from \$1.4m to \$1.1m.</p> <p><u>Data sources</u> Monthly call volume from Quitline database. Quit rates from telephone interviews with Quitline users at 3-months (RR=51%).</p> <p><u>Participant selection</u> Enrolees during 2004-6, aged at least 18, and received at least one call from the Quitline.</p> <p><u>Participant characteristics</u> Not discussed</p> <p><u>Outcomes measured</u> Call volume and 7 day quit rates at 3-month follow up.</p>	<p><u>General population impact</u> Greatest increase in calls among the target age group, with a 2.5 or 3-fold increase in calls for most months, and almost 5-fold for the final month of the offer. Intervention had an impact beyond the target population (i.e. among callers aged 30+), possibly as a result of publicity generated by the offer. Quit rates also increased from 21% to 38% (p=0.014). No change in quit rates among older participants.</p> <p><u>Impact by SES variable</u> Follow-up survey suggested a higher call-rate among those with a household income over \$20,000, probably due to change in eligibility criteria to include privately insured. Quit rates increased most dramatically among those with a higher income, (28% before intervention v 48% after), than other income groups (20% v 29%).</p> <p><u>Author's conclusion of SES impact</u> No conclusion on SES impact.</p>	<p><u>Internal validity</u> Threshold for high income group not defined.</p> <p><u>External validity</u> No discussion of the characteristics of the population using the Quitline during this period. Those followed up for interview briefly described in an overlapping study which is also included in this review [9]</p> <p><u>Validity of author's conclusion</u> Increased call rate among non-low income smokers and increased quit rate among higher income smokers are likely to be a result of the increased eligibility rather than the media campaign. Also fairly inevitable, given that they are the group benefiting most from widened eligibility criteria.</p> <p>Quit rate is only for 7 days, information on any longer quit rates would be useful to determine more about the intervention's impact.</p> <p><u>Other</u></p>

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<p><u>Author , year & journal</u> McKay, 2008 Journal of Medical Internet Research</p> <p><u>Study design</u> RCT</p> <p><u>Objective/RQs</u> RCT to compare a web-based smoking cessation program against a control website.</p> <p><u>Intervention</u> Quit Smoking Network website.</p> <p><u>SES variables used</u> Education</p> <p><u>Author's conclusions</u> No difference between the outcomes from the two websites.</p>	<p><u>Intervention details</u> Purely internet-based recruitment campaign, placing ads on search engines to attract smokers searching for “quit smoking” or “stop smoking”, with the links directing users to one of two websites. Intervention website included extensive information and strategies for users. Control condition focused on increasing physical activity in order to reduce smoking.</p> <p><u>Data sources</u> Self-reported data provided to the website at baseline, and 3 and 6 month follow up.</p> <p><u>Participant selection</u> 2318 participants were randomised in to two conditions, from 23336 website visits. Needed to be 18+, willing to quit in next 30 days, willing to engage in physical activity and have access to the internet. 56% attrition rate at 3-months and 60.8% at 6 months.</p> <p><u>Participant characteristics</u> 70% female, wide age spread, 86% white, highly educated (40.7% some college, 27.5% college graduates)</p> <p><u>Outcomes measured</u> Point-prevalence data at 3 and 6 months.</p>	<p><u>General population impact</u> Recruited 2318 smokers in 10 weeks, 69.8% through Google, 19.9% from Yahoo and 10.3% from word of mouth/other.</p> <p>Abstinence at 3 and 6 months: Experimental: 19.7% and 25% (Intent-to-treat: 8.9% and 9.7%) Control: 19.6% and 26% (ITT: 8.5% and 10.4%)</p> <p><u>Impact by SES variable</u> Education was the significant predictor of abstinence: 3 months OR=1.50 (1.24-1.83) (p<0.001) 6 months OR=1.31 (1.09-1.57) (p=0.004)</p> <p>[No data provided by experimental or control group]</p> <p><u>Author's conclusion of SES impact</u> No discussion</p>	<p><u>Internal validity</u> Experienced a high loss to attrition rate, though comparable to other studies of online cessation programs. Essentially used two active websites, rather than a control group which may have skewed the results of the control group. 109 were excluded for an unwillingness to exercise or answers to the physical activity readiness questionnaire.</p> <p><u>External validity</u> Highly educated population, not representative of the English smoking population, but may be representative of those likely to use such a service..</p> <p><u>Validity of author's conclusion</u> Apparently no impact of the intervention, therefore the observed impact of education is likely to be indicative of their higher quit success rate overall, rather than specific to users of online. Showed a high rate of uptake among college educated however, which suggests that successful interventions of this type is likely to widen inequalities.</p> <p><u>Other</u></p>

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<p><u>Author , year & journal</u> Niederdeppe, 2008 American Journal of Public Health</p> <p><u>Study design</u> Before and after</p> <p><u>Objective/RQs</u> Examine whether impact of televised smoking cessation ads differed by education or income.</p> <p><u>Intervention</u> Television smoking cessation ads in Wisconsin Tobacco Control and Prevention Programme</p> <p><u>SES variables used</u> Education, income</p> <p><u>Author's conclusions</u> Some campaigns less effective in promoting quit attempts among less educated.</p>	<p><u>Intervention details</u> Televised smoking cessation ads aired most weeks between May 2002 and Dec 03. Highlighted dangers of SHS or keep trying to quit messages (KTQ), and aimed to promote Quitline calls. SHS ads included personal testimonials, KTQ didn't.. Subset of both ads targeted at low ses groups.</p> <p><u>Data sources</u> Wisconsin Tobacco Survey 2003 (baseline, random digit dialling). WI Behavioral Health Survey 2004 (follow up), interviews conducted in 2003/4.</p> <p><u>Participant selection</u> Participants in both health surveys above. Smoked over 100 cigs in lifetime and currently smoked some/every day.</p> <p><u>Participant characteristics</u> Education: 47% HSD or less, 33% some college, 20% college degree. Income (Annual Household): <25k (31%) 25-50k (36%) 50k+ (29%) Unreported (4%) Less loss to follow up among older, women, non-Hispanic, more educated, more nicotine dependent, more quit attempts, and advised by Doctor to quit.</p> <p><u>Outcomes measured</u> Quit attempts and abstinence at 1yr. Ad recall</p>	<p><u>General population impact</u> 42% had made a quit attempt, 13% abstinent at one year.</p> <p><u>Impact by SES variable</u> KTQ ads had higher recall among higher educated groups ($p<.05$). SHS ads showed no differential recall. Low educated group who recalled SHS ad were less likely to agree that SHS concerns were over-stated. SHS ads were also associated with low income respondents being more likely to believe that SHS is harmful. Positive relation between KTQ ad recall and quit attempts for higher educated, but negative relationship for lower educated. No relationship between KTQ recall and income. KTQ ad recall showed some, non-significant, association with education (high school or lower v college educated OR=0.47, 0.16-1.33).</p> <p><u>Author's conclusion of SES impact</u> Media messages may have a greater impact on quit attempts among more-educated populations, though there is no indication of directionality (quit because they saw the advert, or recall advert because they were trying to quit?). Need to develop media campaigns that are more effective with disadvantaged groups. SHS ads may have lower chance of widening health disparities.</p>	<p><u>Internal validity</u> Low rate of enrolment (29%) Greater loss to follow up among the disadvantaged groups. Combined with small initial sample size to give low overall ability to detect influence of adverts.</p> <p><u>External validity</u> Doesn't mention which form of television the adverts were run on.</p> <p><u>Validity of author's conclusion</u> Agreed. SHS ads only have lower chance of widening health disparities because they appear to have little impact on behaviour.</p> <p>Odds ratios for 'income not reported' groups are strongly linked with quit attempts and abstinence for most models, but they were only 4% of the sample.</p> <p><u>Other</u> Funding considerably lower than CDC recommended level.</p>

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<p><u>Author , year & journal</u> Niederdeppe, 2008 Social Science and Medicine</p> <p><u>Study design</u> Systematic Review</p> <p><u>Objective/RQs</u> Does mass media campaign effectiveness vary by SES? Are targeted campaigns more effective among low SES smokers? What interventions constitute best practice?</p> <p><u>Intervention</u> Mass media (+/- other support or interventions) in US and similar countries</p> <p><u>SES variables used</u> Various measures of low SES.</p> <p><u>Author's conclusions</u> Evidence that media campaigns are sometimes less, occasionally equally, and rarely more effective in low socio-economic groups.</p>	<p><u>Intervention details</u> Mass media to promote service use, encourage cessation, or publicise services among adults in the US or equivalent nations</p> <p><u>Data sources</u> Primary research articles, from reference lists of previous reviews and search of PubMed and Communication Abstracts.</p> <p><u>Participant selection</u> Any articles examining the use of mass media in the above criteria that examines impact by SES (n=50).</p> <p><u>Participant characteristics</u> 29 articles (18 interventions) making explicit examination of campaign effectiveness by SES (RQ1). 21 articles (on 13 interventions) reporting on campaigns targeting low SES smokers or ethnic minorities (Low SES defined as more than half the sample having <\$25k annual income or high school diploma or lower) (RQ2).</p> <p><u>Outcomes measured</u> Based on logic model of potential media effects- recall, motivational response, long-term abstinence.</p>	<p><u>Non-targeted interventions</u> 9 were less effective among lower SES smokers, for all three outcomes. 6 were equally effective, generally larger in scale than the above 9. 3 were more effective among lower SES smokers.</p> <p><u>Impact of targeted media campaigns</u> 8 provided mixed or inconclusive evidence of effectiveness among low SES smokers (3 among low SES African Americans, 4 among low SES Hispanics, 1 with no ethnicity link). 5 studies provided clear evidence that the intervention had not been effective among low SES smokers.</p> <p><u>Author's conclusion of SES impact</u> Non-targeted media campaigns are likely to have a greater impact on the higher SES groups, or an equal impact across SES groups. Rarely narrow inequalities. No evidence that targeted interventions narrow inequalities either.</p>	<p><u>Internal validity</u> Focused upon low SES African Americans and Hispanics, and may have therefore missed other minority ethnic groups. Variations between studies in the length of follow up. Relatively narrow literature search.</p> <p><u>External validity</u> Focus upon low-SES ethnic minorities, including interventions in Spanish. Findings may not be relevant for the majority of the population.</p> <p><u>Validity of author's conclusion</u> Agree based on the evidence provided.</p> <p><u>Other</u> Includes An (2006) capitalising on media coverage of inclusion of NRT in quitline services – spikes in quitline calls across SES but higher quit rates for higher SES. Biener (2006) No differences by SES in use of television ads as a catalyst to stop smoking. Siahpush (2007) reported equal success in promoting quitline calls Levy (2006) low educated women particularly responsive to media messages (and price) but exposure measured by existence of a state tobacco control program's media component, not at individual level.</p>

Details	Method	Result	Comments
<p><u>Author, year & journal</u> Owen, 2006 Tobacco Control</p> <p><u>Study design</u> Triangulation of multiple cross-sectional surveys.</p> <p><u>Objective/RQs</u> Evaluate the impact of No Smoking Day.</p> <p><u>Intervention</u> No Smoking Day (Mass media)</p> <p><u>SES variables used</u> Social class</p> <p><u>Author's conclusions</u> Continued success, despite insufficient budget to pay for advertising.</p>	<p><u>Intervention details</u> Creating publicity through news stories and events to attract attention (rather than paid-for advertising).</p> <p><u>Data sources</u> Annual tracking survey of awareness and participation. Age/sex representative of working population. Quota sampling survey at three months after NSD. Website visits. Media coverage, and helpline calls.</p> <p><u>Participant selection</u> Survey aims to be representative of the nation's age/sex profile. The interviews at 3 months filled quotas of smokers by age, sex and social class.</p> <p><u>Participant characteristics</u> Not discussed further than the above.</p> <p><u>Outcomes measured</u> Reach and changes in smoking behaviour. Helpline call volume. Media coverage.</p>	<p><u>General population impact</u> Awareness level has fluctuated, from high of 92% of adults and 96% of smokers in 1990 to 59% and 68% in 1997, and 55% and 61% in 2002. Each of these followed by a sharp rise the following year. Most recent awareness levels were 66% and 70% for 2005. Participation, of all aware smokers, increased annually during the 2000s, with 15% of aware smokers participating in 2005. At three month follow up awareness is consistently higher than at one week. Between 15 and 18% made an effort to reduce or stop smoking for the day, and 4-6% reported having abstained for up to three months, with 1.2-2.8% smoke-free for three months. Upward trend in news stories, with 1633 published in 2004, generating an advertising value equivalent of doubling the campaign total budget (of which 10% is spent on PR). Increasing use of campaign's website, number of unique visitors is rising each year.</p> <p><u>Impact by SES variable</u> Reported participation at three month follow-up was similar across all social groups, 15.4% for group AB, 15.3% for C1, 16.1% for C2, and 15.7% for DE.</p> <p><u>Author's conclusion of SES impact</u> No conclusion made on SES impact.</p>	<p><u>Internal validity</u> Potential for response bias in interviews.</p> <p><u>External validity</u></p> <p><u>Validity of author's conclusion</u> Appears to be generating an increase in awareness (compared to recent years) as well as an increase in converting awareness to abstinence despite a decreasing smoking population. This, combined with the equal participation across the social classes suggests that No Smoking Day is having a positive impact on relative inequalities in smoking..</p> <p><u>Other</u></p>

Details	Method	Result	Comments
<p><u>Author , year & journal</u> Van Osch, 2007 Health Education Research</p> <p><u>Study design</u> Prospective cohort study</p> <p><u>Objective/RQs</u> Explore determinants of successful quitting through a Quit and Win contest.</p> <p><u>Intervention</u> Quit and Win</p> <p><u>SES variables used</u> Education.</p> <p><u>Author's conclusions</u> Contest was effective, and supportive emails and buddy system were particularly effective aids, with radio and internet advertisements most effective recruitment channels.</p>	<p><u>Intervention details</u> Quit and Win contest in The Netherlands.</p> <p><u>Data sources</u> Baseline questionnaires and follow ups at 1 month and 1 year.</p> <p><u>Participant selection</u> Entrants who provided a valid email address were contacted (2887 of 3694), 1551 consented to participate in study, Random sample of 7500 Dutch smokers approached by email to act as control group, 1147 agreed, 244 met selection criteria. 37% and 25% lost to follow up after one month, 56% and 49% at one year.</p> <p><u>Participant characteristics</u> Mean age 36.9, 60% females, 96% Dutch, 29.7% less than high school education, 44.5% high school, 25% higher. Control older and less educated.</p> <p><u>Outcomes measured</u> Goal, abstinence at 1 and 12 months, recruitment method, use of support, and evaluation of the contest.</p>	<p><u>General population impact</u> Abstinence rates at 1 and 12 months: Control: 15.3% and 5.6% Contest: 57.7% and 27.1%</p> <p>Including non-response as still smoking: Control: 10.9% and 2.9% Contest: 35.4% and 11.9%</p> <p>52.3% recruited by radio, 26.2% by friends.</p> <p><u>Impact by SES variable</u> Higher education was a slightly significant predictor of cessation at one month (OR = 1.199 (95%CI 1.032-1.393) p<0.05), and a non-significant predictor of continuous abstinence (OR=1.109 (0.895-1.374). No analysis of recruitment method, use of buddy system or other aids by SES. The random sample of smokers recruited in to the control sample were significantly more likely to be low educated</p> <p><u>Author's conclusion of SES impact</u> Not discussed.</p>	<p><u>Internal validity</u> High rate of loss to follow up, higher in the experimental group than the control. Self-report measure of cessation likely to over-estimate the impact of the contest. Control group less likely to quit based on their sample being older and less educated.</p> <p><u>External validity</u> Sample characteristics not discussed in detail, but appears that they could be easily mapped on to the English population.</p> <p><u>Validity of author's conclusion</u> Impact of intervention at 1 year is probably only non-significant due to the small size of quitters at this point. Would contribute to a slight widening of inequalities by education. Would have been interesting to know whether this is linked to a lower uptake of support among less educated groups.</p> <p><u>Other</u></p>

2. Smokefree public places, workplaces and homes

Details	Method	Result	Comments
<p><u>Author, year & journal</u> Akhtar, 2010 JECH</p> <p><u>Study design</u> Repeat cross-sectional</p> <p><u>Objective/RQs</u> Explore socioeconomic differences in child exposure to environmental tobacco smoke (CHETS) after Scottish smoke-free legislation.</p> <p><u>Intervention</u> Smoke-free public places</p> <p><u>SES variables used</u> Self-reported SEC and family affluence scale (FAS)</p> <p><u>Author's conclusions</u> Inequalities exist in 11 year olds in Scotland, and these persist and may have widened even though the greatest absolute post-intervention reduction was seen in lowest SEC group.</p>	<p><u>Data sources</u> Two nationally representative surveys of 11 year olds, conducted in January 06 and January 07.</p> <p><u>Participant selection</u> Non-smoking 11 year olds in their final year of primary school. 2006 n=2559 (86%) 2007 n=2424 (85%) 116 & 111 schools out of 170 approached (68% & 65%).</p> <p><u>Participant characteristics</u> FAS and SEC determined using child's answers, including parental occupation and descriptions of home life (e.g. car & computer ownership) then assigned to SEC1-4/excluded and high/med/low affluence. FAS divided evenly. SEC mostly SEC1 and 2. Slightly higher SEC 3-4, lower SEC2 in 2007 sample. Two-thirds both parents, 18% single mother.</p> <p><u>Outcomes measured</u> Pupil's smoking status and that of 'parent figures'. Salivary cotinine levels used to exclude smokers, and to measure ETS exposure.</p> <p><u>Intervention details</u> Smoking prohibited in almost all public and work places in Scotland from March 2006.</p>	<p><u>General population impact</u></p> <p><u>Impact by SES variable</u> Significant association between both SEC and FAS and the number of parents smoking in a household. E.g. 2006 71.7% in SEC1 report neither parent smoking, only 36% in SEC4. For both parents smoking SEC1=8.2% and SEC4=24.4%.</p> <p>After legislation cotinine levels fell across all groups, with the greatest absolute decline among the lowest SEC and FAS groups (e.g. 0.10ng/ml in SEC1 v 0.28ng/ml in SEC4). However a linear regression model suggests that relative inequality between groups has widened.</p> <p><u>Author's conclusion of SES impact</u> Relative inequality may have widened despite a greater absolute fall among lower SES groups.</p>	<p><u>Internal validity</u> Questions on family affluence seem fairly simple, so should lead to few being incorrectly categorised. No bias in non-participation rates. Students absent from school on day of data collection were not included, though these represent a small proportion.</p> <p><u>External validity</u> Ignores those excluded from school, most likely to be low SES. Exclude those not living in dual, single or step-parent households, i.e. children in care, grandparents.</p> <p><u>Validity of author's conclusion</u> Reviewer ratio calculations using reported mean concentrations also suggest a widening of relative inequality by FAS, but not by SEC.</p> <p><u>Other</u></p>

Details	Method	Result	Comments
<p><u>Author , year & journal</u> Braverman, 2008 Health Promotion International</p> <p><u>Study design</u> Longitudinal panel study</p> <p><u>Objective/RQs</u> How has the smoke free law affected bar workers and restaurant workers' smoking habits in Norway,</p> <p><u>Intervention</u> Smoke-free</p> <p><u>SES variables used</u> Income and education (occupational class?)</p> <p><u>Author's conclusions</u> Ban led to sustained reduction in smoking. Strongly associated with intention to quit, suggesting that smokefree could be supplemented with targeted interventions to supplement benefits of ban.</p>	<p><u>Data sources</u> Interviews with employees, conducted in May 04, (pre-ban), Sep/Oct-04 and May-05.</p> <p><u>Participant selection</u> n=1525, RR=53% Random sample of eating/drinking establishments from business registry. Employees from each invited to participate, selected by first letter of surname. Follow-up 879 at T2, 579 at T3.</p> <p><u>Participant characteristics</u> 58% secondary educated, 25% some University. 57% earn 200-399k NOK p/a (29-58000USD). 52.9% daily smokers, particularly prevalent among 15-24yo (526.4%), lower secondary educated or lower (58.4%), 100-199kNOK pa (60.2%)</p> <p><u>Outcomes measured</u> Smoking behaviour, health problems.</p> <p><u>Intervention details</u> Nationwide public smoking ban implemented in June 2004.</p>	<p><u>General population impact</u> Daily smoking prevalence declined, 4.6% at T2, decline maintained at T3, but occasional smokers increased slightly, 1.2% from T1 to T3. Still an overall increase in non-smokers. Smoking at work also decreased. Sig predictors of quitting at T2 were number of cigarettes smoked at baseline and intention to quit in next 30 days (OR=4.24 (1.85,9.69)) Intention to quit also predictor at T3.</p> <p><u>Impact by SES variable</u> No relationship between SES and smoking cessation at T2 or T3.</p> <p><u>Author's conclusion of SES impact</u> Sustained reduction in prevalence suggests that the ban was responsible for the observed decline in smoking prevalence among low-SES workers.</p>	<p><u>Internal validity</u> Sample size fairly small, especially at 1 year follow up. Appears to have restricted the predictive quality of the results for some characteristics.</p> <p><u>External validity</u> One occupational group, but covered wide geographic areas.</p> <p><u>Validity of author's conclusion</u> A larger sample size may have found some variation of impact by SES. Small sample sizes appear to have necessitated the merging of income bands to non-response/low/other.</p> <p><u>Other</u> Relatively small decline in smoking considering the high baseline levels.</p>

Details	Method	Result	Comments
<p><u>Author , year & journal</u> Fowkes, 2008 Addiction</p> <p><u>Study design</u> Cohort (of participants in an arteriosclerosis randomised control trial).</p> <p><u>Objective/RQs</u> Describe trends in cessation before and after smoke-free legislation (Apr 1998-Dec 2007), and the impact of smoke-free on cessation attempts</p> <p><u>Intervention</u> Smoke-free legislation in Scotland</p> <p><u>SES variables used</u> Scottish Index of Multiple Deprivation (Cat 1=high, Cat 5=low)</p> <p><u>Author's conclusions</u> Increase in cessation in 3-months prior to introduction, and gradual increase in quit rates for following two years.</p>	<p><u>Data sources</u> Baseline questionnaire asked about smoking status and daily consumption. Annual follow up asked the same & date of change.</p> <p><u>Participant selection</u> Participants of Aspirin for Asymptomatic Atherosclerosis RCT (3350). Study used data from 1087 current smokers and 54 who restarted during study period (n=1141). 474 of 631 current smokers the year prior to legislation were questioned about the legislation's impact (no sig differences to original study population).</p> <p><u>Participant characteristics</u> 50-75 year olds from central Scotland. 33% male, SIMD1-5 = 13%, 11%, 15%, 25%, 36%</p> <p><u>Outcomes measured</u> Cessation defined as three month abstinence. Perception of legislation and its impact measured on an 11-point scale.</p> <p><u>Intervention details</u> Smoke-free legislation prohibiting smoking in almost all enclosed public places and work places (26th March 2006).</p>	<p><u>General population impact</u> 566 cessation attempts by 491 individuals. Odds of quitting increased annually (OR 1.09 (1.05-1.12)). 5.1% quit in 3 months prior to legislation implementation, far higher than any other 3-month period. 57 (12%) quit following smoke-free. Bi-modal perceptions of the legislation's impact on their decision to quit (20% rated influence as 2 and 8 out of 10), 56% rated the legislation's as having between 0 and 4/10 influence. (43% of these quit before legislation) 22.5% tried to quit following legislation, 66% of whom were influenced to do so by the ban. 70% of current smokers considered the ban to be positive.</p> <p><u>Impact by SES variable</u> No association between area of residence or SIMD with the probability of attempting to quit, or feeling influenced to quit. Smokers from more affluent areas more likely to have a positive perception of the legislation.</p> <p><u>Author's conclusion of SES impact</u> No association between deprivation and cessation in the study period.</p>	<p><u>Internal validity</u> Geographic measure of SES can be misleading. Reliance on patient recall of date they quit/began smoking. Small sample size.</p> <p><u>External validity</u> Based on participants in an existing trial – therefore sample already more health-literate and more likely to respond positively to legislation? Length of time smoking discussed as an influencing factor, therefore higher quit rates may be observed in a younger population.</p> <p><u>Validity of author's conclusion</u> Data on socio-economic impact not presented, but assumed to be accurate.</p> <p><u>Other</u></p>

Details	Method	Result	Comments
<p><u>Author , year & journal</u> Friedrich, 2009 International Journal of Public Health</p> <p><u>Study design</u> Cross-sectional</p> <p><u>Objective/RQs</u> Describe the prevalence of tobacco prevention (TP) policies in the Canton of Zurich.</p> <p><u>Intervention</u> Work-site tobacco prevention</p> <p><u>SES variables used</u> Occupational class (percentage of skilled workers)</p> <p><u>Author's conclusions</u> Health professionals should support less advanced companies to improve their tobacco prevention.</p>	<p><u>Intervention details</u> No legal regulation in place. Mapping the adoption of health promotion measures across the workplace.</p> <p><u>Data sources</u> Questionnaires sent to human resources managers.</p> <p><u>Participant selection</u> Companies in Zurich with 20+ employees (n=4706). 1648 questionnaires returned. 200 companies found to be ineligible. RR=37%</p> <p><u>Participant characteristics</u> 63% of companies had 20-49 employees. Mainly represent maintenance/repair, healthcare/welfare, manufacturing, real estate sectors (16,15,15,13%). Fair representation of businesses in Zurich, and of women in the workplace. 59.4% of companies have <20% unskilled workers, and less than 40% of smokers</p> <p><u>Outcomes measured</u> TP measures adopted, and their intensity. Health outcomes.</p>	<p><u>General population impact</u> 40% have an indoor ban, 50.6% allow smoking outside or designated indoor areas. 4% have small number of smoke-free areas, and 2.5% restrict smoking anywhere onsite. 15.3% offer at least one method of individual support, with 7.6% offering cessation courses, and 7.3% offering informational material. Small companies just as likely to have policy as larger companies.</p> <p><u>Impact by SES variable</u> Workplaces with fewer than 20% unskilled workers are significantly more likely to have a restrictive smoking policy and be at a more advanced stage in their smoke-free policy, compared to those with over 80% unskilled workers. Relationship not significant against other categories, sample size particularly small in the >80% group (4.3%)</p> <p><u>Author's conclusion of SES impact</u> No conclusion</p>	<p><u>Internal validity</u> Reliance upon the HR manager's estimation of smoking status among the workforce, with no attempt to validate even a small sample of these through workforce surveys. Cannot attribute causality from cross-sectional survey.</p> <p><u>External validity</u> Based in a capital city, with relatively small population of unskilled workers. Indoor smoking ban already enforced in almost all workplaces in England.</p> <p><u>Validity of author's conclusion</u> Sample sizes quite small, particularly in the over 80% unskilled group, to draw conclusions of much certainty about the relationship. Difficult to rely heavily on results given that there was no actual measurement of smoking prevalence among the workforces.</p> <p><u>Other</u></p>

Details	Method	Result	Comments
<p><u>Author , year & journal</u> Giskes, 2007 Journal of Public Health Policy</p> <p><u>Study design</u> Review & Policy analysis</p> <p><u>Objective/RQs</u> Identify policies with the potential to reducing smoking among socio-economically disadvantaged groups.</p> <p><u>Intervention</u> Sale restrictions, advertising bans, smokefree workplaces, cessation therapies, cigarette price.</p> <p><u>SES variables used</u> Various measures of socio-economic disadvantage.</p> <p><u>Author's conclusions</u> Advertising bans, workplace bans, increasing access to cessation therapies and increasing price have greatest potential. Many Western countries still lack a comprehensive approach to addressing smoking inequalities.</p>	<p><u>Intervention details</u> UK policy moderately comprehensive, far lower than Sweden and Finland at all time points and equal to Spain. No workplace ban in the UK at any time point. UK tobacco prices were among the highest throughout the data collection period.</p> <p><u>Data sources</u> Literature review of articles between 1980 and January 1st 2004. Policy data for 1985, 1990, 1995, 2000. Retail price of cigarettes for the most popular brand.</p> <p><u>Participant selection</u> 6 countries studied, Sweden, Finland, UK, Germany, The Netherlands, Spain.</p> <p><u>Participant characteristics</u></p> <p><u>Outcomes measured</u> Comprehensiveness of tobacco control policies (scored 0-3) and smoking prevalence. Cigarette affordability (price/per capita GDP)</p>	<p><u>General population impact</u></p> <p><u>Impact by SES variable</u> Low SES associated with purchase of smaller packets of cigarettes. Unclear whether health education strategies reduce prevalence or simply delay initiation. TV advertising bans reduced socio-economic inequalities in smoking. No evidence on the differential impact of work-place bans, but one study found that where optional they were more likely to be enforced in professional, rather than manual workplaces. Low SES groups less likely to visit GP to receive brief counselling. Three studies found that quitlines were more effective among low SES groups, especially when the service is free and the provider made follow up calls. Price limited use of NRT among low SES groups, one study found low-SES women more likely to quit successfully with NRT if it is provided for free. Free cognitive behavioural therapy also effective among those in disadvantaged areas. Some evidence that low SES smokers were more responsive to tax increases, while a Dutch study suggests that they are more likely to switch to self-rolled or cheaper cigarettes.</p>	<p><u>Internal validity</u></p> <p><u>External validity</u> UK tobacco control policy has advanced considerably since the end of the data collection period.</p> <p><u>Author's conclusion of SES impact</u> Literature review reveals considerable potential to reduce smoking inequalities through tobacco control policies, especially through advertising bans, workplace smoking, subsidised cessation therapy and cigarette pricing. UK has observed the greatest narrowing of inequalities, possibly due to the cumulative effective of introduction of several policies simultaneously.</p> <p><u>Validity of author's conclusion</u> The UK has adopted each of the policies recommended in the conclusion.</p> <p><u>Other</u></p>

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<p><u>Author , year & journal</u> Hackshaw, 2010 Tobacco Control</p> <p><u>Study design</u> Repeat cross-sectional</p> <p><u>Objective/RQs</u> Determine the impact of smoke-free legislation on quit attempts and intentions.</p> <p><u>Intervention</u> Smoke-free</p> <p><u>SES variables used</u> Occupational class</p> <p><u>Author's conclusions</u> Smoke-free legislation was associated with a significant, temporary, increase in the percentage of smokers attempting to quit. This was true across all social grades.</p>	<p><u>Intervention details</u> National smoke free legislation enforced in July 2007.</p> <p><u>Data sources</u> Smoking toolkit data from Jan 2007 to Dec 2008 (telephone interviews divided monthly).</p> <p><u>Participant selection</u> Random location sampling method for over 16yos. Extracted data for current smokers, or have smoked in the last year (n=10560)</p> <p><u>Participant characteristics</u> Mean age 41, 52% male. Average cigarette consumption – 13.45cpd. Occ grades: AB=16.3%, C1 25%, C2 24.1%, D 22.5%, E 12.1%</p> <p><u>Outcomes measured</u> Intention to quit before or when the ban was enforced. Influence of the ban on quit attempts.</p>	<p><u>General population impact</u> 8.6% quit attempts in Jul/Aug-07, (5.7% equivalent period in 2008). Partially off-set by fewer quitters in Sep/Nov-07. 2007 also shows significantly higher percentage of smokers making quit attempts in Jan/Mar-07. March-07 saw a significant increase in intention to quit before the ban, which fell by June (18% in March, 7% in June). Coincided with a significant rise in those planning to quit once the ban had been enforced (7% in March to 16% in June). One in five who quit after the ban said they'd been influenced by the ban.</p> <p><u>Impact by SES variable</u> No significant difference in quit attempts by social grade. Intention to quit not discussed by social grade.</p> <p><u>Author's conclusion of SES impact</u> May not necessarily lead to a reduction in smoking-related health inequalities, but did not widen them.</p>	<p><u>Internal validity</u> Non-response rate not discussed. Self-reported quit attempts likely to be higher than actual – no indication of attempts turning in to short-term cessation. Other tobacco control policies within the time period may have influenced the outcomes, only No Smoking Day discussed. Only examine six months of pre-legislation data, unclear whether quit attempts around the ban are different from the equivalent months in 2006.</p> <p><u>External validity</u> Same population.</p> <p><u>Validity of author's conclusion</u> Quit attempts generally more successful in more advantaged social group, so although the influence has been equal across groups it is likely that the net outcome is a widening of inequality.</p> <p><u>Other</u></p>

Details	Method	Result	Comments
<p><u>Author , year & journal</u> Hargreaves, 2010 SS&M</p> <p><u>Study design</u> Qualitative longitudinal</p> <p><u>Objective/RQs</u> Exploring the social context of changing tobacco consumption</p> <p><u>Intervention</u> Smokefree England legislation, July 1st 2007</p> <p><u>SES variables used</u> Area</p> <p><u>Author's conclusions</u> Law provided impetus for some to quit, but changes were shaped by social networks.</p>	<p><u>Data sources</u> Repeat interviews, focus groups, covert observations in study locales conducted in three waves between April/June-07 and Apr/Jun-08.</p> <p><u>Participant selection</u> Two case study areas, and six localities within these, purposively selected to provide variation. Interviewees recruited to over-represent population groups of interest (e.g. ethnic minorities, frequent users of licensed premises)</p> <p><u>Participant characteristics</u> One area North, one South. L1+4:Run-down inner city with ethnic pop, L2+5: ethnic and socio-econ mixed. L3+6: SEAdv outer-city/rural area.</p> <p><u>Outcomes measured</u> Views, attitudes and experiences of families, individuals, target groups between Apr-07 and Dec-08, changing behaviours in, and appearance of, community venues.</p> <p><u>Intervention details</u> Banning of smoking in enclosed public places in England, July 1st 2007.</p>	<p><u>General population impact</u> General decrease in consumption between waves 1 and 3 (1-5 fewer cigs a day) (36/59). 11/59 quit. Felt that ban helped provide impetus, or to sustain existing quit attempts. Only 5/59 increased, linked to social elements of smoking and reliance on tobacco as stress reliever. 4/13 ex-smokers had resumed smoking. Smoking less visible across all localities, except in summer. Less likely to go outside to smoke due to weather, leaving social group, or stigma. No evidence of public to private shift in smoking.</p> <p><u>Impact by SES variable</u> Some places in adv localities were already smoke-free, but have since undergone complete outdoor refurbishment. Less frequent in inner-city localities.</p> <p><u>Author's conclusion of SES impact</u> Structural opportunities for change not adopted by all equally, behavioural change varies by place and context. Important to target the socio-cultural environment in which smoking takes place. Services are bound to become more pressurised, as heavily dependent smokers constitute an increasingly large proportion of remaining smokers.</p>	<p><u>Internal validity</u></p> <p><u>External validity</u> Only two areas, didn't capture full geographic variation. Emphasis placed upon minority population, so findings unlikely to be representative of the wider population.</p> <p><u>Validity of author's conclusion</u> OK.</p> <p><u>Other</u></p>

Details	Method	Result	Comments
<p><u>Author, year & journal</u> Hawkins 2010 Tobacco Control</p> <p><u>Study design</u> Cohort study</p> <p><u>Objective/RQs</u> Investigate parental smoking behaviours in England and Scotland after Scottish smokefree legislation, and inequalities in maternal smoking behaviour between the two countries.</p> <p><u>Intervention</u> Smokefree legislation</p> <p><u>SES variables used</u> Income, education.</p> <p><u>Author's conclusions</u> Smoking behaviours among parents remained relatively stable. Smokefree legislation appears to encourage quitting across all socioeconomic groups, and does not appear to widen health inequalities.</p>	<p><u>Intervention details</u> Smokefree public places introduced in Scotland on March 26th 2006. No smokefree legislation in England during data collection period.</p> <p><u>Data sources</u> Millennium Cohort Study data for parents of children born between Sep-00 and Jan-02. First contact when child was 9 months old, third contact at 5 years old, 99.6% of these in Scotland took place post-legislation.</p> <p><u>Participant selection</u> Only studied singleton births to white British/Irish mothers who participated in all three contacts and lived in England or Scotland at first and third contact. Excluded if mother was pregnant at any contact, main respondent was not female, or partner was not male.</p> <p><u>Participant characteristics</u> Socio-demographic variables from first contact used. 32% of mothers held managerial or professional jobs, 49% left education at or before age of 16, 13% lone parents, 60% employed, mean age at birth 29, no sig differences between England and Scotland. One quarter had income of £33k or higher, sig more English households had income above £22k (56% v 50%, p=0.03)</p> <p><u>Outcomes measured</u> Smoking behaviour at child's age 9 months and 5 years. Smoking in the home measured from 'Does anyone smoke in the same room as [Cohort child] nowadays?' Smoking one cigarette per day classified as smoker, 10 or more per day classified as heavy smoking.</p>	<p><u>General population impact</u> No significant differences between countries in parental smoking or smoking in the home at 5 years, when adjusted for smoking at 9 months. Light smoking parents less likely to quit in Scotland than in England, no difference for heavy smokers. After adjusting for socio-demographics mothers in Scotland were less likely to start smoking by the child's 5th birthday than in England.</p> <p><u>Impact by SES variable</u> Higher rate of smoking cessation between contact 1 and contact 3 among mothers in England who have higher household income, higher occupational class, left school at an older age, or gave birth later. No significant relationship for these factors in Scotland. Lower SES associated with higher rates of maternal smoking uptake and smoking in the home in both countries (p<0.05).</p> <p><u>Author's conclusion of SES impact</u> Smoking behaviours among parents with young children have remained relatively stable, but socio-economic gradient in Scotland has flattened slightly following the smokefree legislation.</p>	<p><u>Internal validity</u> Initial data point several years before the introduction of legislation, during a period of continual change in tobacco control policy, difficult to isolate the impact of smokefree legislation. 45% of respondents in Scotland were surveyed within six months of the legislation. Self-reported smoking behaviour, possible differences in misreporting due to differences in smoking stigma. Higher attrition rate among non-smokers (40% of those who only responded at contact point 1 smoked). No apparent threshold to define a smoker, e.g. smoked at least 100 cigarettes in lifetime, or regular smoker rather than occasional.</p> <p><u>External validity</u> Results may not be applicable to different ethnic groups.</p> <p><u>Validity of author's conclusion</u> Difficult to attribute any of the findings to smokefree legislation, given the range of other tobacco control policies implemented between the two data collection points.</p>

Details	Method	Result	Comments
<p><u>Author , year & journal</u> Hyland, 2009 European Journal of Public Health</p> <p><u>Study design</u> Quasi-experimental evaluation</p> <p><u>Objective/RQs</u> Impact of smoke-free legislation on self-reported SHS, behaviour, and changes in support for the law and comparison of this data to the rest of the UK.</p> <p><u>Intervention</u> Smoke-free, 26th March 2006 (Scotland)</p> <p><u>SES variables used</u> Combined income and education to three-level covariate (low income & education = low SES, moderate or high education and income = high SES, moderate SES refers to all other variations)</p> <p><u>Author's conclusions</u> SHS exposure has decreased, with none of the hypothesised negative outcomes.</p>	<p><u>Intervention details</u> Smoke-free legislation prohibiting smoking in almost all enclosed public places and work places (26th March 2006).</p> <p><u>Data sources</u> International Tobacco Control Scotland/UK Survey. Smokers: n=507 in Scotland, 828 rest of UK Non-smokers: n=601 (301&300) RR 29 & 30%. Sample replenished to compensate for attrition. Interviewed Feb/Mar-06 and Mar-07</p> <p><u>Participant selection</u> First birthday in household, over 18.</p> <p><u>Participant characteristics</u> Not discussed, but weighted to be representative of the smoker/non-smoker populations in each country.</p> <p><u>Outcomes measured</u> Home-smoking rules, perception of smoke-free legislation, self-report quit attempts/success, SHS exposure.</p>	<p><u>General population impact</u> Dramatic fall in observed smoking indoors in Scotland. No difference in the rate of change in number of smoke-free homes. Post-legislation support for smoke-free legislation was far higher in Scotland than the rest of the UK. Self-report visiting of pubs and restaurants show no significant difference between UK and Scotland, Scotland's non-smokers significantly less likely to visit pubs/restaurants less often in 2007 than their 'rest of UK' peers.</p> <p>No statistically significant difference in cessation or quit attempts between Scotland and rest of UK. Statistically significant decrease in use of NRT in Scotland compared to rest of UK after legislation.</p> <p><u>Impact by SES variable</u> Observed no variation in impact by socioeconomic status.</p> <p><u>Author's conclusion of SES impact</u> SES did not moderate the impact of smokefree law, therefore suggest that smokefree should serve to narrow health inequalities given the higher prevalence among lower SES groups.</p>	<p><u>Internal validity</u> Unclear whether moderate income and education will equate to high SES. Relatively small sample of telephone survey respondents.</p> <p><u>External validity</u> Generalisability unclear as participant characteristics not discussed.</p> <p><u>Validity of author's conclusion</u> Agree.</p> <p><u>Other</u> Smokers received £7 boots voucher for participation, non-smokers £4</p>

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<p><u>Author , year & journal</u> Lock, 2010 Tobacco Control</p> <p><u>Study design</u> Qualitative longitudinal</p> <p><u>Objective/RQs</u> Explore differences in the social and behavioural impacts of smoke-free legislation in England by age and ethnicity</p> <p><u>Intervention</u> Smoke-free public places.</p> <p><u>SES variables used</u> Neighbourhood deprivation</p> <p><u>Author's conclusions</u> Smoke-free has reduced smoking prevalence and consumption among some smokers, but effects vary by ethnicity, age and sex.</p>	<p><u>Intervention details</u> Ban on smoking in public places.</p> <p><u>Data sources</u> Qualitative semi-structured interviews.</p> <p><u>Participant selection</u> Purposive sampling to cover the three main ethnicities in deprived North London neighbourhood. Recruited either after observing public smoking or through community centres. 32 recruited, 23 followed up post-ban, 10 replacements added. 5/9 loss to follow up were Somali.</p> <p><u>Participant characteristics</u> 11 (13 in follow up group) Somali, 13 (12) Turkish, 8 (8) White British/Irish. Spread of young, middle aged and older adults. Live or work in a North London neighbourhood where most residents are of lower socio-economic status.</p> <p><u>Outcomes measured</u> Perception of smoke-free legislation (pre-legislation) Post-legislation changes in smoking behaviour, and perceived impact of smoke-free legislation on social networks and norms.</p>	<p><u>General population impact</u></p> <p><u>Impact by SES variable</u> Half of interviewees were highly nicotine dependent before legislation, and most linked smoking closely with social behaviour. Three claimed to have quit successfully after the legislation, one directly resulting from the law. Half had reduced their smoking, either prompted by the legislation or fewer opportunities to smoke socially. High awareness of cessation services and aids, but some misunderstanding or suspicion of their benefits. Half the sample had self-imposed a home smoking ban, the other half reported smoking more at home. Some interviewees reported seeing smoking illegally in cafes and nightclubs.</p> <p>Legislation made some older smokers socially isolated as they can't stand outside to smoke.</p> <p><u>Author's conclusion of SES impact</u> Suggest that legislation may have inadvertently widened inequalities between some demographic groups, no conclusion with regard to socio-economic status.</p>	<p><u>Internal validity</u> Possible selection bias introduced by recruiting smokers openly smoking in public. Some respondents may have felt obliged to say that they have reduced or restricted their smoking post-ban.</p> <p><u>External validity</u> Only an indicative sample of smokers from one neighbourhood, from a restricted set of ethnic groups.</p> <p><u>Validity of author's conclusion</u> Legislation appears to have had a generally positive influence on smoking behaviour, and could have had even greater public health benefits if smokers were educated about the benefits of cessation aids. However rather than denormalise smoking the legislation may have created social groups and locations that are tightly bound by their smoking behaviour, as well as forcing some older smokers to exclude themselves from social locations.</p> <p><u>Other</u></p>

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<p><u>Author , year & journal</u> Moore, 2009 American Journal of Preventive Medicine</p> <p><u>Study design</u> Qualitative case studies</p> <p><u>Objective/RQs</u> Have smokefree policies had unintended positive and negative impacts on female bar staff?</p> <p><u>Intervention</u> Smokefree workplace legislation in California</p> <p><u>SES variables used</u> Occupational class (bartenders as a low SES group, and females as the less educated and lower income than average bartenders)</p> <p><u>Author's conclusions</u> Smokefree laws can have positive and negative impacts for smokers and employees</p>	<p><u>Data sources</u> Observational data from bars. Qualitative data from semi-structured interviews with female bartenders.</p> <p><u>Participant selection</u> 390 bars in San Francisco county. Some randomly selected, effort made to target Irish, Latino, Chinese and Korean-specific bars in one round of selection. Interviewees opportunistically sampled due to general reluctance to discuss legal matters with strangers.</p> <p><u>Participant characteristics</u> Half of bar staff in randomly selected bars female, 82, 58 and 85% in Asian, Irish and Latino. Female bartenders, on average, just 9.9% college graduates and median earnings \$17.5k, compared to males at 16.5% college ed, \$23.2k median.</p> <p><u>Outcomes measured</u> Law compliance and bartender perceptions.</p> <p><u>Intervention details</u> Smoke free workplace legislation, extended in Jan-1998 to cover bars and restaurants, but enforcement is fairly low priority for local police/health inspectors.</p>	<p><u>Impact by SES variable</u> 30% of bars had 'border' smoking; on the way outside, or while in/near doorways and windows. Asian and Irish bars, bars where employees are smokers, and bars with female-only bartenders are particularly non-compliant. Bar staff are subject to the owner's policy on smoking. Bar staff potentially forced in to close proximity to threatening/abusive patrons that they have recently ejected, if they wish to smoke. Known non-compliers attract larger smoking populations as "people will go where they can smoke". Stigma of being seen smoking outside.</p> <p><u>Author's conclusion of SES impact</u> Women more likely to be exposed than men both in terms of high rates of female bartending in immigrant-targeted bars and the bartender gender/non-compliance relationship. Some expressed ambivalence towards ban, others interested in health benefits.</p>	<p><u>Internal validity</u> Opportunistic sampling of interviewees may have introduced bias.</p> <p><u>External validity</u> Focus upon bars targeting the migrant community in a very diverse area of San Francisco, not likely to be representative of England. Compliance appears to have been far more uniform across the UK.</p> <p><u>Validity of author's conclusion</u> There are some negative impacts for employees, but they could be reduced through greater enforcement. Negatives don't seem to outweigh the positives discussed in other articles.</p> <p><u>Other</u> Observations taken over six year period, but no comments on changes over time.</p>

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<p><u>Author, year & journal</u> Nagelhout Addiction (accepted for publication)</p> <p><u>Study design</u> Cross-sectional</p> <p><u>Objective/RQs</u> Study the impact of smokefree workplace and hospitality industry legislation on smoking behaviour.</p> <p><u>Intervention</u> Smokefree workplace and hospitality industry legislation.</p> <p><u>SES variables used</u> Education (low: primary and lower secondary, medium: mid-secondary and secondary vocational, high: senior secondary school, (pre-)university and higher professional). Employment (employed or 'not employed for at least two days a week')</p> <p><u>Author's conclusions</u> Workplace smoking ban had a greater impact on smoking behaviour than a hospitality industry ban. The latter only appeared to increase quit attempts rather than change smoking prevalence.</p>	<p><u>Intervention details</u> Workplace smoking ban in the Netherlands, introduced in 2004, and a hospitality industry smoking ban introduced in 2008.</p> <p><u>Data sources</u> Dutch Continuous Survey of Smoking Habits (DCSSH), a continuous cross-sectional population survey, running from 2001-2008.</p> <p><u>Participant selection</u> Aged 15 or over, randomly selected from regular participants in internet-based research, 18,000 surveyed each year (total=144733).</p> <p><u>Participant characteristics</u> No significant differences between years or pre/post 2008 hospitality ban. Weighted by age, gender, education, working hours, region, urbanisation and household size to make the sample representative of Dutch population over 15 years old. 21% of responses contained no information on income.</p> <p><u>Outcomes measured</u> Smoking prevalence, quit attempts (and success).</p>	<p><u>General population impact</u> There was a slight, significant, decrease in prevalence between 2001 and 2007 (OR=0.97, p<0.001). Workplace ban was followed by a decrease in smoking prevalence in 2004 (OR=0.91, p<0.001), with prevalence lower in the first half of the year than the second, suggesting some relapse. Hospitality ban had no significant influence on prevalence (OR=0.96, p=0.127). Quit attempts higher following the workplace ban (33% (2004) v 27.7% (2003), p<0.001), and workplace ban (26.3% v 24.1%, p=0.013). Seasonal variations in quit rates also support effectiveness of both smokefree policies. Significant increases in successful quit attempts following both policies.</p> <p><u>Impact by SES variable</u> Workplace ban led to more successful quit attempts among higher educated smokers (OR=0.35, p<0.001) than medium (OR=0.41, p<0.001) or lower (OR=0.74, p=0.052). No variation in impact of hospitality ban. More frequent bar visitors more likely to be higher educated, as well as younger, male, and employed (all p<0.001).</p> <p><u>Author's conclusion of SES impact</u> Hospitality industry bans have the potential to increase cessation in all socio-economic groups.</p>	<p><u>Internal validity</u> Population exposed to a number of concurrent tobacco control policies during study period, including three tax rises, national media campaigns, warning labels, advertising ban and a youth access law. Unable to infer causality from cross-sectional data. All data is self-reported. Do not disclose the characteristics of the surveyed population from which the weighted study data was extrapolated.</p> <p><u>External validity</u> Similar population structure to England, with similar recent history in tobacco control policies. Legislation poorly enforced in some areas.</p> <p><u>Validity of author's conclusion</u> Disagree with the equal impact of the smokefree hospitality legislation. There is no significant difference in quit attempts pre-ban, but post-ban higher educated smokers are more likely to attempt to quit than low educated smokers (p=0.022).</p> <p><u>Other</u></p>

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<p><u>Author , year & journal</u> Ritchie, 2010 Health and Place</p> <p><u>Study design</u> Qualitative longitudinal case studies</p> <p><u>Objective/RQs</u> How has the smoking ban influenced smoking behaviour through social and environmental changes in different communities?</p> <p><u>Intervention</u> Scottish smokefree legislation</p> <p><u>SES variables used</u> Area (Socio-economic deprivation)</p> <p><u>Author's conclusions</u> Pre-legislation differences in communities appeared to influence post-legislation changes in behaviour and public spaces.</p>	<p><u>Intervention details</u> Smoking was banned in enclosed public places, including pubs and restaurants in Scotland in March 2006.</p> <p><u>Data sources</u> Interviews in four contrasting locales between October 2005 and March 2007, and observational data recorded in public places.</p> <p><u>Participant selection</u> Four areas selected to provide both urban and rural, affluent and deprived communities 20 male and 20 female current or ex-smokers selected from the local area to fit a pre-defined profile for interviews.</p> <p><u>Participant characteristics</u> Urban Disadv (D1) Mostly social grade E, Adult smoking rate 50.7% Suburban Adv (A1) 48.1% A-B, 18.8% Semi-rural Disadv (D2) 23% E, 38% Semi-rural Adv (A2) 30.5% AB, 21%</p> <p><u>Outcomes measured</u> Changes in smoking behaviour and changes in physical spaces</p>	<p><u>General population impact</u> Pre-legislation there are more outdoor facilities for smokers and a lower rate of smoking in pubs, some already smokefree. Disadvantaged communities less supportive of the ban, some hoped that it would help them quit.</p> <p><u>Impact by SES variable</u> Smokers in disadvantaged areas say they abide by the law to support the licensee, and rush cigarettes because they're worried about their drink. Also may visit public places less because of the ban. Smokers in advantaged areas say that they smoke less, or quicker, because going outside interrupts social activity, and because of concerns over the stigma of being seen smoking.</p> <p><u>Author's conclusion of SES impact</u> Behavioural changes in localities were shaped by environmental constraints as well as the social context.</p>	<p><u>Internal validity</u></p> <p><u>External validity</u> Recruited interviewees to fill quota, unlikely to be representative of the community as a whole. No indication of whether the localities are typical of each urbanisation/affluence category.</p> <p><u>Validity of author's conclusion</u> Appears to have been a more substantial change in deprived areas, because the advantaged areas already had reasonably comfortable accommodation for smokers outside, and opinion changed from being opposed to the ban to accepting it and following it.</p> <p><u>Other</u></p>

Details	Method	Result	Comments
<p><u>Author , year & journal</u> Schaap, 2008, Tobacco Control</p> <p><u>Study design</u> Cross-sectional</p> <p><u>Objective/RQs</u> What impact are tobacco control policies having across Europe, especially among low SES groups?</p> <p><u>Intervention</u> Range of tobacco control policies</p> <p><u>SES variables used</u> Education</p> <p><u>Author's conclusions</u> More developed tobacco control policies are associated with higher quit rates. High and low educated smokers appear to benefit equally.</p>	<p><u>Intervention details</u> Joosens and Raw's tobacco control scale used as a proxy, with some analysis by individual policies</p> <p><u>Data sources</u> Data from national health surveys. 100893 respondents over 18 countries.</p> <p><u>Participant selection</u> Selection process varies. Non-response rate between 13.4 and 49% depending on country.</p> <p><u>Participant characteristics</u> Ireland has most developed TCP, Latvia least.</p> <p><u>Outcomes measured</u> Smoking status – self reported. Impact measured using relative index of inequality by education.</p>	<p><u>General population impact</u> Large variations in quit rate and RII between countries. Quit rates positively associated with tobacco control scale score. Also with the use of taxation and advertising bans. Health warnings negatively associated with quit rates.</p> <p><u>Impact by SES variable</u> More educated smokers more likely to have quit than lower, for men and women. Larger absolute difference between high and low educated for 25-39 year olds. TCS score more positively associated with quite rates among higher educated. Consistent for age and sex. No differential impact of tax found.</p> <p><u>Author's conclusion of SES impact</u> High and low educated groups seem to benefit equally from nationwide tobacco control policies</p>	<p><u>Internal validity</u> Survey conducted before TCS devised, and before some policies enacted. No intervention studied, only measures the associated between ex-smokers and presence of policies. Occasional smokers excluded from all analyses.</p> <p><u>External validity</u> Difficulty in drawing conclusions from multiple nations with varying average standards of education, definition of 'highly educated' likely to vary for some nations. Doesn't present any new ideas for English policy.</p> <p><u>Validity of author's conclusion</u> Agree.</p> <p><u>Other</u></p>

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<p><u>Author , year & journal</u> Shavers, 2006 Journal of Epidemiology and Community Health</p> <p><u>Study design</u> Cross-sectional</p> <p><u>Objective/RQs</u> Examine the association between workplace and home smoking restrictions with smoking status among women</p> <p><u>Intervention</u> Smoke free workplaces and homes</p> <p><u>SES variables used</u> Poverty level: at or below the poverty line, 100-124% of the poverty level, 125-149% of the poverty level, 150% or more above the poverty level.</p> <p><u>Author's conclusions</u> Home smoking policies more consistently associated with smoking than workplace policies, irrespective of poverty and ethnicity.</p>	<p><u>Intervention details</u> Restrictions of varying degrees on smoking in the home or at work.</p> <p><u>Data sources</u> Tobacco Use Supplement 1998-9 and 2000-1, RR approx 80%.</p> <p><u>Participant selection</u> Employed women aged 18-64, based on nationally representative survey data. Proxy respondents and respondents missing smoking-related survey data also excluded. N=82966</p> <p><u>Participant characteristics</u> Majority white, education and income vary significantly by ethnicity. African Americans, American Indians/Alaskans, and Hispanics all significantly more likely to live in poverty (16.8-19.6%), 7.1% overall. White females most likely to be smokers (22.7%).</p> <p><u>Outcomes measured</u> Workplace: Not permitted in any area, permitted in common areas only, permitted in work area only, permitted in all areas, no policy, other. Home: Not permitted anywhere, permitted in some places/times, permitted anywhere at any time.</p>	<p><u>General population impact</u> Almost 66% prohibit smoking anywhere in the home. 11.1% report no workplace smoking policy. Current smoking and heavy smoking (20+ cpd) significantly associated with permitting smoking anywhere in the home for all poverty levels. Lower adjusted odds ratio for quit attempts among those who permit smoking anywhere in the home. Pattern less consistent by workplace smoking policy.</p> <p><u>Impact by SES variable</u> Workplace policies are associated with distance from the poverty level, 61.5% below the poverty level are covered by full workplace restrictions, compared to 76.6% of those 150%+ above the poverty level. 19.1% of those below the poverty level have no workplace smoking policy, compared to just 10% of the 150%+ group. Home smoking policies show the same trend: 56.3% of people below the poverty line don't permit smoking anywhere, and 21.3% allow smoking anywhere; compared to 67.3% and 14.8% of the most advantaged group.</p> <p><u>Author's conclusion of SES impact</u> Variance in exposure to ETS among employed women; those further from the poverty line more likely to be covered by restrictions on smoking in the workplace and home.</p>	<p><u>Internal validity</u> Cross-sectional data, unable to infer any causal relationship.</p> <p><u>External validity</u> Results not heavily influenced by ethnicity, so likely to be fairly representative of the English population as well.</p> <p><u>Validity of author's conclusion</u> Agree.</p> <p><u>Other</u></p>

Details	Method	Result	Comments
<p><u>Author , year & journal</u> Verdonk-Kleinjan, 2009 Health Policy</p> <p><u>Study design</u> Repeat cross-sectional</p> <p><u>Objective/RQs</u> Does a workplace smoking ban reduce exposure and inequalities?</p> <p><u>Intervention</u> Workplace smoking ban in the Netherlands (01/01/2004)</p> <p><u>SES variables used</u> Education</p> <p><u>Author's conclusions</u> Decrease in exposure but 52.2% of non-smoking workers still exposed. Male and low educated employees still about twice as likely to be exposed.</p>	<p><u>Intervention details</u> Full ban of smoking in workplaces except bars, cafes and restaurants, designated smoking rooms allowed.</p> <p><u>Data sources</u> Collected data from Continuous Survey of Smoking Habits (CSSH, Dutch internet survey): between Jul-03 to Jul-05. Sample weighted be nationally representative. 200 respondents selected randomly each week. Any positive response coded as exposed.</p> <p><u>Participant selection</u> Sample consisted of 11,291 non-smoking, working (15+ hours/week) respondents between 16-65 years old.</p> <p><u>Participant characteristics</u> 56% male, mostly 30-49yo, 84% non-Gov employees, 63.9% working 35+ hpw. 39.2% middle education, 34.3% high.</p> <p><u>Outcomes measured</u> Exposure to ETS among non-smokers.</p>	<p><u>General population impact</u> ETS exposure decreased among all employees and subgroups that were at higher risk before the ban. 52.2% still reported being exposed post-legislation.</p> <p><u>Impact by SES variable</u> Lower-educated workers twice as likely to be exposed as those with higher level of education.</p> <p>% exposed, before + after. Low: 79.7% - 61.5% Mid: 71.0% - 53.6% High: 63.5% - 41.7% Sig diff @ p<0.001 both for differences between subgroups and the decrease since intervention.</p> <p>OR between low and middle, pre and post-legislation: 1.61 (1.23-2.10); 1.21 (1.16-1.47) Low v high educated: 2.29 (1.74-3.01); 2.17 (1.91-2.45)</p> <p><u>Author's conclusion of SES impact</u> Ban has not abolished inequalities in exposure.</p>	<p><u>Internal validity</u> Dichotomising responses could be over-stating exposure ('sometimes' could be almost insignificant). Could be including exposure while entering/leaving the building as exposure. Brief period of data collection pre-ban, offered less seasonal variability.</p> <p><u>External validity</u> Education a difficult measure of SES to compare across generations and internationally, more so here as no definition is provided for 'low, middle, high'.</p> <p><u>Validity of author's conclusion</u> Accurate, least educated still significantly more exposed than middle or high educated groups.</p> <p><u>Other</u></p>

3. Price

Details	Method	Result	Comments
<p><u>Author , year & journal</u> Chaloupka, 2010 Tobacco Control</p> <p><u>Study design</u> Expert group.</p> <p><u>Objective/RQs</u> Evaluate the strength of evidence on the effects of tax and price policies to prevent and reduce tobacco use.</p> <p><u>Intervention</u> Price and tax</p> <p><u>SES variables used</u> Low income</p> <p><u>Author’s conclusions</u> Governments should adopt tax structures that include regular above inflation tax increases, and use revenues to fund tobacco control programmes and other health promotion activities that will also help reduce tobacco consumption</p>	<p><u>Intervention details</u> Increases in tobacco prices or taxation.</p> <p><u>Data sources</u> Peer-reviewed studies published or accepted for publication until the week of the meeting were included for analysis, along with publicly available peer-reviewed Government reports and other unpublished work in exceptional cases.</p> <p><u>Participant selection</u> Over 20 experts in economics, epidemiology, public policy and tobacco control participated in the review.</p> <p><u>Participant characteristics</u> N/A</p> <p><u>Outcomes measured</u> Measured the support for 18 statements in the published literature, and categorise the evidence as sufficient, strong, limited or no evidence of effect.</p>	<p><u>General population impact</u></p> <p><u>Impact by SES variable</u> One relevant statement: “In high income countries, tobacco use among lower income populations is more responsive to tax and price increases than is tobacco use among higher income populations”. They found that although some studies find no differences the majority are consistent with this conclusion.</p> <p><u>Author’s conclusion of SES impact</u> The group concluded that there was strong but not sufficient evidence to support this statement. The categorisation as sufficient indicates that the expert group believed that there was evidence of association but not necessarily causation.</p>	<p><u>Internal validity</u> Only three studies cited in support of the conclusion, no indication of the number reviewed with reference to this</p> <p><u>External validity</u> Statement is limited to high income countries, and the three supporting references are all comparable to England.</p> <p><u>Validity of author’s conclusion</u> Evidence from the three articles not discussed in detail, but is consistent with the findings in this review.</p> <p><u>Other</u></p>

Details	Method	Result	Comments
<p><u>Author , year & journal</u> Colman, 2008 Journal of Policy Analysis and Management</p> <p><u>Study design</u> Econometric analysis</p> <p><u>Objective/RQs</u> Are cigarette taxes progressive?</p> <p><u>Intervention</u> Tobacco Tax</p> <p><u>SES variables used</u> Income</p> <p><u>Author's conclusions</u> Taxes may be progressive for a small section of smokers under some behavioural models.</p>	<p><u>Intervention details</u> Real cigarette price rose by over 70% during study period. Estimate the impact of a further \$1 increase on 2003 prices.</p> <p><u>Data sources</u> Current Population Survey's Income Supplements and Tobacco Use Survey, using cross-sections from 1993, 96, 99, 2001, 2002 and 2003.</p> <p><u>Participant selection</u> Excluded those without matching data across surveys, under 18yos, those replying through proxies and those with missing values. N=294693.</p> <p><u>Participant characteristics</u> Smoking prevalence higher among the low income group at all time points. Low income more likely to be an ethnic minority, and not in the labour force. Low income group more likely to have high school education or lower, high income group more likely to have college or post-graduate qualification.</p> <p><u>Outcomes measured</u> Current smoking, either every day or some days.</p>	<p><u>General population impact</u></p> <p><u>Impact by SES variable</u> Higher income individuals are less price-sensitive; however the difference is less than the standard error between groups. A \$1 rise in taxation would cause a decline of approximately 2.3 percentage points in the low-income group, 1.7pp in middle income group and 0.8pp in the high income group. The tax rise would absorb 1.9% of the median income of low income smokers, and 0.7% and 0.3% for the mid and high income smokers. Disparity even wider once the above increase in cessation is accounted for.</p> <p><u>Author's conclusion of SES impact</u> Higher prevalence of smoking among low income groups means that the benefit or taxation is outweighed by the tax burden borne by non-quitters.</p>	<p><u>Internal validity</u></p> <p><u>External validity</u> Reasonably comparable population to English characteristics. English population would have more cessation support services available to them than were available in USA during the data collection period.</p> <p><u>Validity of author's conclusion</u></p> <p><u>Other</u></p>

Details	Method	Result	Comments
<p><u>Author , year & journal</u> De Cicca, 2008 Journal of Health Economics</p> <p><u>Study design</u> Repeat cross-sectional (economic modelling)</p> <p><u>Objective/RQs</u> Are older smokers more responsive to large tax rises?</p> <p><u>Intervention</u> State tax increase</p> <p><u>SES variables used</u> Education (high school diploma or equivalent, or lower) and income (household income <\$35,000).</p> <p><u>Author's conclusions</u> Smokers with low education and income show greater reduction in smoking participation following large tax increases.</p>	<p><u>Intervention details</u> Increases in state tax of at least 50c per pack of 20 cigarettes, introduced between 2000 and 2005. Price increases ranged from 50c to \$1, with resulting taxes ranging from 70c to \$2.46. 22 tax increases are included, from 18 states (Michigan, Montana, New Jersey and Washington introduced two tax increases during the study period).</p> <p><u>Data sources</u> Behaviour Risk Factor Surveillance Survey, 2000-5, an annual survey of US adults.</p> <p><u>Participant selection</u> Individuals between the ages of 45-59 with state of residence data selected.</p> <p><u>Participant characteristics</u> No discussed, but survey described as state-representative.</p> <p><u>Outcomes measured</u> Change in prevalence of self-reported smoking every day or some days.</p>	<p><u>General population impact</u> Daily smokers fell from 19.6% to 17.9%, with almost all decrease coming after 2003 (2003: 19.4%, 2004: 17.9%), after the larger tax increases started. Some days smokers follow similar patterns. Estimate that a \$1 increase in state cigarette tax reduces daily smoking by 1.4 percentage points (approx. 8% overall). Price participation elasticity (PPE) of -0.29 to -0.31.</p> <p><u>Impact by SES variable</u> Greater impact among low-educated smokers. \$1 increase would reduce the fraction of low-educated smokers by over 10%, and only 3% among those with more than a high school education. Price participation elasticities of -0.43 and -0.12 respectively. If low education is only those with less than a high school degree, the PPE is -0.9. A similar pattern is seen by income. A rise of \$1 would reduce fraction of low-income smokers by about 10% and high income by 2%.</p> <p><u>Author's conclusion of SES impact</u> These results indicate a greater impact on differential smoking prevalence than previous studies. However they cite Colman and Remler (2004), stating that the relative response would need to be far more significant for tax increases to be considered a progressive policy option.</p>	<p><u>Internal validity</u> Other tobacco control initiatives are controlled for, but still not necessarily evidence that smokers are quitting in response to the tax increase.</p> <p><u>External validity</u> Studied taxes rising from a relatively low starting point. Unclear whether further tax rises on top of high English prices would have the same impact.</p> <p><u>Validity of author's conclusion</u> Associated with a large narrowing of the education and income-related smoking disparities.</p> <p><u>Other</u></p>

Details	Method	Result	Comments
<p><u>Author, year & journal</u> Franks, 2007 AJPH</p> <p><u>Study design</u> Econometric analysis</p> <p><u>Objective/RQs</u> Are cigarette taxes regressive?</p> <p><u>Intervention</u> Cigarette tax prices</p> <p><u>SES variables used</u> Income</p> <p><u>Author's conclusions</u> Income related smoking disparities have increased, and may impose a disproportionate burden on poor smokers.</p>	<p><u>Intervention details</u> Price increases between 1984 and 2004, adjusted for inflation to 2004 levels.</p> <p><u>Data sources</u> Behavioural Risk Factor Surveillance System (BRFSS), telephone survey of non-institutionalised adults (18+) (1984-2004). Cigarette pack price per year, adjusted for inflation to 2004 levels.</p> <p><u>Participant selection</u> Random-digit dialling across all states. Participants with missing income data, 13.6%, excluded.</p> <p><u>Participant characteristics</u> Nationally (USA) representative sample of adults</p> <p><u>Outcomes measured</u> Smoking prevalence, price elasticity</p>	<p><u>General population impact</u> Pack price increased throughout the study period, and smoking decreased overall</p> <p><u>Impact by SES variable</u> Lowest income group have stayed fairly constant (~30% to 28%), whereas middle groups have shown a downward trend (both 30% to 25+22%). Highest income saw substantial decline between 1990-1993, stable since (c.24% to 16%).</p> <p><u>Author's conclusion of SES impact</u> No significant contribution to reducing smoking disparities. Further price rises likely to exacerbate inequalities due to the burden of tax placed on low income groups.</p>	<p><u>Internal validity</u> BRFSS only included all states from 1995 onwards (after the large fall in high income smoking)</p> <p><u>External validity</u></p> <p><u>Validity of author's conclusion</u> Only report lowest income against all other, rather than high v low. Appears that high income group have responded to prices reaching a threshold (c.\$2.50) and have no further price responsiveness. So despite the widening of inequality the absolute gap of smoking probability narrows as price increases (between lowest and others). Low response could still be clinically significant due to the substantial numbers of smokers in the low income category (Lestikow response letter)</p> <p><u>Other</u></p>

Details	Method	Result	Comments
<p><u>Author , year & journal</u> Giskes, 2007 Journal of Public Health Policy</p> <p><u>Study design</u> Review & Policy analysis</p> <p><u>Objective/RQs</u> Identify policies with the potential to reducing smoking among socio-economically disadvantaged groups.</p> <p><u>Intervention</u> Sale restrictions, advertising bans, smokefree workplaces, cessation therapies, cigarette price.</p> <p><u>SES variables used</u> Various measures of socio-economic disadvantage.</p> <p><u>Author's conclusions</u> Advertising bans, workplace bans, increasing access to cessation therapies and increasing price have greatest potential. Many Western countries still lack a comprehensive approach to addressing smoking inequalities.</p>	<p><u>Intervention details</u> UK policy moderately comprehensive, far lower than Sweden and Finland at all time points and equal to Spain. No workplace ban in the UK at any time point. UK tobacco prices were among the highest throughout the data collection period.</p> <p><u>Data sources</u> Literature review of articles between 1980 and January 1st 2004. Policy data for 1985, 1990, 1995, 2000. Retail price of cigarettes for the most popular brand.</p> <p><u>Participant selection</u> 6 countries studied, Sweden, Finland, UK, Germany, The Netherlands, Spain.</p> <p><u>Participant characteristics</u></p> <p><u>Outcomes measured</u> Comprehensiveness of tobacco control policies (scored 0-3) and smoking prevalence. Cigarette affordability (price/per capita GDP)</p>	<p><u>General population impact</u></p> <p><u>Impact by SES variable</u> Low SES associated with purchase of smaller packets of cigarettes. Unclear whether health education strategies reduce prevalence or simply delay initiation. TV advertising bans reduced socio-economic inequalities in smoking. No evidence on the differential impact of work-place bans, but one study found that where optional they were more likely to be enforced in professional, rather than manual workplaces. Low SES groups less likely to visit GP to receive brief counselling. Three studies found that quitlines were more effective among low SES groups, especially when the service is free and the provider made follow up calls. Price limited use of NRT among low SES groups, one study found low-SES women more likely to quit successfully with NRT if it is provided for free. Free cognitive behavioural therapy also effective among those in disadvantaged areas. Some evidence that low SES smokers were more responsive to tax increases, while a Dutch study suggests that they are more likely to switch to self-rolled or cheaper cigarettes.</p>	<p><u>Internal validity</u></p> <p><u>External validity</u> UK tobacco control policy has advanced considerably since the end of the data collection period.</p> <p><u>Author's conclusion of SES impact</u> Literature review reveals considerable potential to reduce smoking inequalities through tobacco control policies, especially through advertising bans, workplace smoking, subsidised cessation therapy and cigarette pricing. UK has observed the greatest narrowing of inequalities, possibly due to the cumulative effective of introduction of several policies simultaneously.</p> <p><u>Validity of author's conclusion</u> The UK has adopted each of the policies recommended in the conclusion.</p> <p><u>Other</u></p>

Details	Method	Result	Comments																									
<p><u>Author, year & journal</u> Levy, 2006 Journal of Epidemiology and Community Health</p> <p><u>Study design</u> Repeat cross-sectional</p> <p><u>Objective/RQs</u> Examine association between smoking among women of low SES and tobacco control policies.</p> <p><u>Intervention</u> Tax and mass media</p> <p><u>SES variables used</u> Not completed high school or no high school degree or GED</p> <p><u>Author's conclusions</u> Health-SES relationship not irreversible. Tax increases and media messages may reduce prevalence among women with low education.</p>	<p><u>Intervention details</u> Tax increase and mass media campaigns. Media campaign exposure measured at the state level rather than individual, and youth campaigns coded as half a media campaign.</p> <p><u>Data sources</u> Tobacco Use Supplement, four waves between 1992 and 2002. Sample nationally representative of non-institutionalised civilian population over the age of 15.</p> <p><u>Participant selection</u> Females grouped by education level (less than high school, high school or higher, bachelor's degree). Low education males included as a reference population. Sample varies between 176,452 and 228,552.</p> <p><u>Participant characteristics</u> Majority white, with increasing Hispanic proportion in later surveys. Majority 25 year olds or over. Over 40% from the South, approx. 20% each from the Midwest, Northeast and West. Low educated female constitutes between 21 and 26% of each survey, mid-educated 19.3-22.4%, high educated are</p> <p><u>Outcomes measured</u> Individual use, attitudes towards smoking and clean air laws, and smoking bans at home or work.</p>	<p><u>General population impact</u> Smoking prevalence declining across all categories.</p> <table border="1"> <thead> <tr> <th></th> <th>92-3</th> <th>95-6</th> <th>98-9</th> <th>01-2</th> </tr> </thead> <tbody> <tr> <td>Low</td> <td>26.6</td> <td>25.1</td> <td>23.0</td> <td>21.4</td> </tr> <tr> <td>Med</td> <td>22.4</td> <td>21.5</td> <td>20.1</td> <td>19.3</td> </tr> <tr> <td>High</td> <td>9.2</td> <td>8.8</td> <td>7.9</td> <td>7.3</td> </tr> <tr> <td>Low (M)</td> <td>35.1</td> <td>33.9</td> <td>31.8</td> <td>30.4</td> </tr> </tbody> </table> <p><u>Impact by SES variable</u> Price: As price increased the OR of low-education female smoking fell, but influence varies over survey waves. Only lower than 1 in 92-3 and 01-02. Med-higher educated groups less responsive. Media: In a state with a media campaign low education women's OR=0.86, medium education = 0.89, high = 0.93 (non sig). Low education men also significantly less likely to smoke (0.92)</p> <p><u>Author's conclusion of SES impact</u> Low education women particularly responsive to media and price increases. Tax increases can play an important role.</p>		92-3	95-6	98-9	01-2	Low	26.6	25.1	23.0	21.4	Med	22.4	21.5	20.1	19.3	High	9.2	8.8	7.9	7.3	Low (M)	35.1	33.9	31.8	30.4	<p><u>Internal validity</u> No before and after, simply tracks the association between policy and prevalence. Fail to adjust for confounding individual characteristics. Small sample sizes at some state levels. A number of tobacco control policies were introduced during this period as well as changing social norms and increasing awareness, all of which may have influenced the results.</p> <p><u>External validity</u> Data is now one, in some cases nearly two, decades out of date. Covers a substantial Hispanic population that wouldn't exist in the UK. No description of the types of media campaigns involved, and which were the most effective (either the mode of intervention or locations) in order to replicate the study.</p> <p><u>Validity of author's conclusion</u> No examination of individual level exposure, or whether media campaigns were actively influencing people to change their smoking behaviour. Outcome may simply be the consequence of changing social norms in these populations.</p> <p><u>Other</u> Table 1 presents sample characteristics as 'low educated females', but it is assumed to be the characteristics of the full sample given that the totals match with table 2.</p>
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<p><u>Author , year & journal</u> Madden, 2007 Applied Economics</p> <p><u>Study design</u> Econometric analysis</p> <p><u>Objective/RQs</u> Does the impact of tobacco taxation differ by education among women in Ireland?</p> <p><u>Intervention</u> Tax</p> <p><u>SES variables used</u> Education (primary, junior (age 16), secondary (age 18), University)</p> <p><u>Author's conclusions</u> Greatest effect on quitting for the lowest levels of education.</p>	<p><u>Intervention details</u> Tobacco price and taxation from 1960 onwards.</p> <p><u>Data sources</u> Retrospective data from a survey on women's knowledge, understanding and awareness of lifetime health needs (Saffron Survey, 1998).</p> <p><u>Participant selection</u> Include all survey respondents who were at least 10 years old in 1960 (so that sample's exposure matches price data). N=703</p> <p><u>Participant characteristics</u> Average age 34, ex smokers slightly older. 10% have primary education, 27% have junior education, 40% secondary, 21% university. Ever smokers and current smokers more likely to have lower levels of education. 55% employment rate, 47.5% among current smokers.</p> <p><u>Outcomes measured</u> Ever smoked, age of initiation and cessation if applicable.</p>	<p><u>General population impact</u> Higher tax levels are associated with later initiation and earlier cessation.</p> <p><u>Impact by SES variable</u> Taxation has a stronger effect to prevent or delay initiation among those with intermediate education, and weakest among those with the lowest education. Taxation has the strongest effect on cessation among those with the lowest education, an equal impact on those with other levels of education.</p> <p><u>Author's conclusion of SES impact</u> Results are extremely tentative, but it appears that the greater impact is among those with intermediate education.</p>	<p><u>Internal validity</u> Potential for recall bias, going back up to 40 years in some cases. Doesn't capture failed attempts to quit. Covers a period of increasing awareness of the impact of smoking, unclear whether cessation was linked to taxation or increased awareness.</p> <p><u>External validity</u> Based on a twelve year old survey. Tax was relatively low through the study period, unclear whether the relationship would continue with further increases from current levels of taxation. Potential quitters had less cessation support available. Only covers Irish females.</p> <p><u>Validity of author's conclusion</u> Agree based on the data available.</p> <p><u>Other</u></p>

Details	Method	Result	Comments
<p><u>Author , year & journal</u> Peretti-Watel, 2009 International Journal of Environmental Research and Public Health</p> <p><u>Study design</u> Qualitative Interviews</p> <p><u>Objective/RQs</u> Study the social differentiation of smoking between 2000 and 2008, and why low-income smokers are less sensitive to price increases.</p> <p><u>Intervention</u> Price increases between 2000-8</p> <p><u>SES variables used</u> Low-income, subjective: Wealthy, satisfying, on short side = Other. Hard to make ends meet OR we had to get into debt = 'poor'. Consistency checked using neighbourhood socio-demographic profile and respondent's education and occupational status (used for comparing trends in prevalence), gender and age.</p> <p><u>Author's conclusions</u> Acknowledging the functional aspects of smoking helps understand why price is unlikely to deter many poor smokers.</p>	<p><u>Data sources</u> 6 national representative telephone surveys 2000-08 (not 01, 02, 04) (n varied: 3,085-30,513 – no explanation for variance). Motivation studied through qual data extracted from the 2008 survey (poor n=115, other =506).</p> <p><u>Participant selection</u> 'Next birthday' method. Unavailable = call-back. Response = 71%.</p> <p><u>Participant characteristics</u> Measured executive managers and professionals (EM&P), manual workers, and unemployed for prevalence trend. Poor smokers more likely to be female, manual worker/clerk, less than HS education, single parent.</p> <p><u>Outcomes measured</u> Approaches to smoking Variations in self-reported smoking status (smoking, non-smoker, never smoker)</p> <p><u>Intervention details</u> Tobacco price increase between 2000 and 2008. Increase from €3.20, €3.35, €3.60, €4.60, €5(3y) to €5.30(2y)</p>	<p><u>Impact by SES variable</u> Difference in prevalence by occ. class has widened (from 36% EM&P v 44&45% to 29% v 43&50%). EM&P decrease w/price increase, slight rise since prices stabilised. Unemployed similar. Manual show later decline, but then rise again. Appears to be a very large EM&P group – for 2008 manual + unemp n=299&98 out of 2000.</p> <p><u>Reasons for smoking</u> Were aware of addiction and of its financial cost. All spoke of stress-relief, several spoke of 'little moment of happiness', and it filled voids with nothing else to do, compensate for loneliness or emotional problems. Many felt it was the only joy they had left. Quantitative data – Significantly more likely to smoke automatically, less likely to smoke for social reasons, more likely to relieve stress and take mind of worries, less to aid concentration.</p> <p><u>Author's conclusion of SES impact</u> Smokers in low occ groups and of low-income are less likely to respond to tobacco control measures due to the harsh living environment acts to sustain their attachment to smoking, despite understanding the costs.</p>	<p><u>Internal validity</u> Focus on matching data to towns to achieve locally representative populations – ignore rural? Subjective measure of wealth, influenced by peers' as much as personal wealth? Use two different measures of SES. Size of occ. groups is not actively provided, but lower groups are only 30% and 10% respectively for the one year that they're mentioned.</p> <p><u>External validity</u> Based in France, different cultural attachment to smoking?</p> <p><u>Validity of author's conclusion</u> Data on smoking levels between occupational groups is hard to decipher without knowing size of group.</p> <p><u>Other</u> Qual data not presented for non-poor smokers to determine the depth of their links b/w smoking and these factors, would also be interesting to see comparable data for those who did quit smoking from low and high income groups.</p>

Details	Method	Result	Comments
<p><u>Author , year & journal</u> Schaap, 2008 Tobacco Control</p> <p><u>Study design</u> Cross-sectional</p> <p><u>Objective/RQs</u> What impact are tobacco control policies having across Europe, especially among low SES groups?</p> <p><u>Intervention</u> Range of tobacco control policies</p> <p><u>SES variables used</u> Education</p> <p><u>Author’s conclusions</u> More developed tobacco control policies are associated with higher quit rates. High and low educated smokers appear to benefit equally from nationwide tobacco control policies.</p>	<p><u>Intervention details</u> Joosens and Raw’s tobacco control scale used as a proxy, with some analysis by individual policies</p> <p><u>Data sources</u> Data from national health surveys. 100893 respondents over 18 countries.</p> <p><u>Participant selection</u> Selection process varies. Non-response rate between 13.4 and 49% depending on country.</p> <p><u>Participant characteristics</u> Ireland has most developed TCP, Latvia least.</p> <p><u>Outcomes measured</u> Smoking status – self reported. Impact measured using relative index of inequality by education.</p>	<p><u>General population impact</u> Large variations in quit rate and RII between countries. Quit rates positively associated with tobacco control scale score. Also with the use of taxation and advertising bans. Health warnings negatively associated with quit rates.</p> <p>A ‘stripped’ analysis focusing on price, health warnings and treatment (excluding recent policy developments) supported the main findings.</p> <p><u>Impact by SES variable</u> More educated smokers more likely to have quit than lower, for men and women. Larger absolute difference between high and low educated for 25-39 year olds. However no consistent differences were found between quit ratios in high and low educated groups and TCS score.</p> <p><u>Author’s conclusion of SES impact</u> High and low educated groups seem to benefit equally from nationwide tobacco control policies</p>	<p><u>Internal validity</u> Survey conducted before TCS devised, and before some policies enacted so may underestimate the impact of recent policies. Difficult to draw conclusions about causality as study only examines the association between ex-smokers and presence of policies, rather than changes in prevalence post-implementation. Occasional smokers excluded from all analyses.</p> <p><u>External validity</u> Difficulty in drawing conclusions from multiple nations with varying average standards of education, definition of ‘highly educated’ likely to vary for some nations. Doesn’t present any new ideas for English policy.</p> <p><u>Validity of author’s conclusion</u> Conclusion is consistent with the data presented; however it’s difficult to draw strong conclusions about the impact of any one intervention given the methodological limitations discussed above.</p> <p><u>Other</u></p>

Details	Method	Result	Comments
<p><u>Author , year & journal</u> Siahpush, 2009</p> <p><u>Study design</u> Repeat cross-sectional using Poisson regression modelling.</p> <p><u>Objective/RQs</u> Examine the effect of price on cigarette smoking prevalence across different income groups.</p> <p><u>Intervention</u> Cigarette price increase</p> <p><u>SES variables used</u> Income of main earner (3 levels)</p> <p><u>Author's conclusions</u> Real price of cigarettes and smoking prevalence negatively associated. Strongest in lowest income group.</p>	<p><u>Intervention details</u> Change in adjusted ('real') cost of packet of cigarettes based on two leading brands.</p> <p><u>Data sources</u> Weekly omnibus survey 1001-2006 (n=515866)</p> <p><u>Participant selection</u> 18+ years. Willing to co-operate.</p> <p><u>Participant characteristics</u> 48% male, 21% 18-19 years, 41% 30-49 years.</p> <p><u>Outcomes measured</u> Smoking status, current/last month</p>	<p><u>General population impact</u> Price inversely associated with prevalence</p> <p><u>Impact by SES variable</u> Price elasticity in lowest income groups of -0.32, but only -0.04 and -0.02 in medium and high income groups.</p> <p><u>Author's conclusion of SES impact</u> Lowest income group are most responsive to price increases.</p>	<p><u>Internal validity</u> No data on survey refusal rates. Include controls for several other policies enacted during the survey period. Sample not representative, but relevant adjustments made.</p> <p><u>External validity</u> Survey covers 61% of adult population, but only in metropolitan areas. Generalisability to rural areas unknown.</p> <p><u>Validity of author's conclusion</u> Possible impact of illicit tobacco?</p> <p><u>Other</u> Real price of cigarettes usually lower than recommended price, but no relationship between real and recommended price during study period.</p>

4. Community

Details	Method	Result	Comments
<p><u>Author , year & journal</u> Kloek, 2006 Health and Place</p> <p><u>Study design</u> Quasi-experimental</p> <p><u>Objective/RQs</u> Evaluate a community intervention to improve health-related behaviours in deprived Dutch neighbourhoods</p> <p><u>Intervention</u> Community-based</p> <p><u>SES variables used</u> Neighbourhood deprivation, education</p> <p><u>Author's conclusions</u> No impact for smoking, only one intervention has shown any impact.</p>	<p><u>Intervention details</u> 'Working on healthy neighbourhoods', community intervention enacted through neighbourhood coalitions. 53 intervention activities, of which 10 could not be implemented (including 2 of the 4 smoking interventions).</p> <p><u>Data sources</u> Postal questionnaire, follow up two years on.</p> <p><u>Participant selection</u> Random sample of 4800 adults between 18 and 65yo from intervention and control neighbourhoods were sent a postal questionnaire (60% response rate). 31% attrition rate (number at follow up =1929)</p> <p><u>Participant characteristics</u> Drop-outs more likely to be males, younger and smokers.</p> <p><u>Outcomes measured</u> Smoking and quantity consumed, and intermediary outcomes such as comparing consumption and perceptions against national recommendations.</p>	<p><u>General population impact</u></p> <p><u>Impact by SES variable</u> Mean change in consumption approached significance for intervention neighbourhoods (reduction of 1.2c/p/d, p=0.071. Reduction in control 0.1 c/p/d). Adjusting for people moving in and out of the areas made the decline in consumption significant. Smoking prevalence declined from 41% to 40% in intervention group, and 41% to 39% in the control.</p> <p><u>Author's conclusion of SES impact</u> Intervention has had no impact on smoking prevalence, minimal overall impact on reducing socio-economic inequalities in health behaviour.</p>	<p><u>Internal validity</u> Exposure assessment suggested that there was some awareness but very low participation. No pre-testing of the interventions.</p> <p><u>External validity</u> Hard to determine value as the emphasis of the intervention as a whole was so heavily weighted towards other behaviours.</p> <p><u>Validity of author's conclusion</u> Likely to have no impact on inequalities as there has been no impact on quit rates.</p> <p><u>Other</u></p>

Details	Method	Result	Comments
<p><u>Author , year & journal</u> Wendell-Vos, 2009 American Journal of Preventive Medicine</p> <p><u>Study design</u> Cohort</p> <p><u>Objective/RQs</u> Investigate the effect of a CVD prevention program 5 years on.</p> <p><u>Intervention</u> Community</p> <p><u>SES variables used</u> Education (less than intermediate school, intermediate or higher secondary, higher vocational education or university)</p> <p><u>Author's conclusions</u> Prevented negative change in a number of behavioural traits [but not smoking], particularly among women and those of low SES.</p>	<p><u>Intervention details</u> 5 year community intervention program, umbrella project with two strategies, one at population level and the other targeted at deprived communities. 790 interventions were implemented (9 anti-smoking). Almost 50% took place in deprived areas.</p> <p><u>Data sources</u> Baseline questionnaires and physical examination, and follow-up questionnaire 5 years on. (Jan 1998-Jan 2003)</p> <p><u>Participant selection</u> Populations taken from previous monitoring studies. Gender and age stratified sample used from Maastricht (experiment) and Doetinchem (control) 2356 participants in experimental area, 758 in control. Follow-up rate >80%</p> <p><u>Participant characteristics</u> Aged 31-70, 24% male smokers, 27% female. 25% and 22% in control region. 45% males and 61% females of Low education, 43% and 61% for control.</p> <p><u>Outcomes measured</u> Smoking status and frequency (smoker defined as anyone who currently smokes, regardless of quantity)</p>	<p><u>General population impact</u> 6.5% of men in the intervention group quit smoking after 5 years, compared to 5.7% in the control group. 5.8% and 5.9% respectively for women. Initiation was 3.2% and 2.3% for men, and 3.3% and 3.2% for women. All changes were significant at $p < 0.05$. There were no significant differences between intervention and control groups.</p> <p><u>Impact by SES variable</u> Smoking quit rates by education: Low (Control) , med/high (control) 6.2% (5.7%) and 6.1% (5.9%). No sig difference between intervention and control by educational level.</p> <p><u>Author's conclusion of SES impact</u> None.</p>	<p><u>Internal validity</u> Low rate of drop-out. Population involved in previous health monitoring study, potential for selection bias and for them to be more health-conscious than the general population.</p> <p><u>External validity</u> Covers an already health literate population, so may have greater impact than a brand new intervention.</p> <p><u>Validity of author's conclusion</u> No apparent impact of the intervention over the five year period, either overall or by education.</p> <p><u>Other</u></p>

5. 1 Cessation – Behavioural and pharmacotherapy

Details	Method	Result	Comments
<p><u>Author, year & journal</u> Andrews 2007 Research in Nursing and health</p> <p><u>Study design</u> Quasi-experimental</p> <p><u>Objective/RQs</u> Study the effectiveness of a multi-component cessation intervention in African American women living in public housing.</p> <p><u>Intervention</u> 'Sister to sister', Intensive behavioural, educational and pharmacotherapy</p> <p><u>SES variables used</u> Public housing residents. Education and income.</p> <p><u>Author's conclusions</u> Findings support the use of culturally tailored behavioural interventions with marginalised communities</p>	<p><u>Intervention details</u> Nurse-led behavioural counselling, free NRT, community health workers making weekly contact to enhance self-efficacy, social support and wellbeing. Comparison condition included self-help materials and group education on self-image, exercise, hypertension, and smoking cessation at weeks 1, 6, 12 and 24. Two of 16 housing developments in Augusta-Richmond county, Georgia selected, with one randomly selected to receive the intervention.</p> <p><u>Data sources</u> Baseline questionnaire, CO-validated self-reported smoking at 6, 12, 18 and 24 weeks.</p> <p><u>Participant selection</u> Non-breastfeeding/pregnant African American females, daily smokers but planning to quit in next 6 months, and resident a housing community. Excluded if planning to move before end of study or health problems. 157 screened, 16 ineligible, 38 elected not to participate. 103 participants, 51 intervention and 52 control. 13 lost to follow up, 6 (Int) 7(cont).</p> <p><u>Participant characteristics</u> Av age 40.2y, av income \$689/month, 65% unemployed, 57% high school educated or lower. 42% Medicare or Medicaid. Mean consumption 13.3 cigarettes per day.</p> <p><u>Outcomes measured</u> 7 day point prevalence and 6 month continuous smoking abstinence, validated self-reports.</p>	<p><u>General population impact</u> Low SES sample</p> <p><u>Impact by SES variable</u> Intervention group was older, higher income, and higher educated. Intervention group showed 27.5% abstinence at 6 months, control 5.7% (OR=6.18, 1.65-23.01), adjusting for baseline differences had little impact on relationship (OR=6.25). Education and income not associated with cessation. 7 day point prevalence abstinence also showed a significant intervention effect at each data point. Social support and cessation self-efficacy but not spiritual well-being increased in intervention groups and predicted cessation. Increased cessation self-efficacy also mediated quitting outcome.</p> <p><u>Author's conclusion of SES impact</u> Intervention participants were over 6 times more likely to be abstinent than the control group. Providing community health worker (similar backgrounds to participants and ex-smokers) support important to the success of the intervention.</p>	<p><u>Internal validity</u> Small sample sizes. Not randomised. Lack of impact by education may be linked to the decision to break already small samples in to 7 categories of educational attainment.</p> <p><u>External validity</u> Study population not representative of the English population. NRT already available on prescription.</p> <p><u>Validity of author's conclusion</u> Intervention clearly has a significant impact on cessation.</p> <p><u>Other</u> Women received \$20 at each data collection point, paid at the end of study.</p>

Details	Method	Result	Comments
<p><u>Author , year & journal</u> Baker, 2006 American Journal of Psychiatry</p> <p><u>Study design</u> RCT</p> <p><u>Objective/RQs</u> Is an integrated psychological and NRT program more effective for people with a psychotic disorder than routine care.</p> <p><u>Intervention</u> Integrated psychological (MI and CT) and NRT.</p> <p><u>SES variables used</u> Receiving welfare (95.6%), not completed high school (64.8%)</p> <p><u>Author's conclusions</u> NRT + motivational interviewing and cognitive behaviour therapy has utility in these populations.</p>	<p><u>Data sources</u> Pre-treatment and 3, 6 and 12 months after initial assessment.</p> <p><u>Participant selection</u> 298 smokers with a psychotic disorder.</p> <p><u>Participant characteristics</u> A mainly Australian (84.9%) group with a psychotic disorder. High levels of schizophrenia or schizo-affective disorder (56.7%). Very high levels of dependence.</p> <p><u>Outcomes measured</u> Continuous abstinence, point-abstinence, reduction.</p> <p><u>Intervention details</u> Randomly assigned to either eight 1-hr motivational interview sessions and cognitive behavioural therapy, plus NRT and usual treatment. Or usual treatment, booklets and access to GP and community mental health teams. Assessors blinded.</p>	<p><u>General population impact</u> No sig differences in continuous or point prevalence abstinence rates at 3, 6, 12 months. Some sig reductions in consumption. Treatment shows a significant impact for those who attended all sessions at 3, 6 and 12 month follow up for PP and reduction (e.g. 6.76, 5.51 and 3.22 OR for point-prevalence abstinence). Only sig impact at 3 months for continuous abstinence, small numbers in comparison group reduces significance at 6 and 12 months.</p> <p><u>Impact by SES variable</u> Not discussed, but the participants were predominantly receiving welfare and had not completed high school.</p> <p><u>Author's conclusion of SES impact</u> No conclusion of SES impact.</p>	<p><u>Internal validity</u> \$20 reimbursement for patients each time attended assessment sessions. Continuous abstinence appears to be self-reported, validated only by the same measures as point-prevalence abstinence. No control for time with counsellors, so impact could be linked to more time spent with counsellors rather than the efficacy of the motivational interviewing itself. Conclusions re outcome related to treatment adherence may be due to characteristics of smokers who adhered rather than treatment.</p> <p><u>External validity</u> Individuals with psychiatric disorders are a niche population, unclear whether the findings from treatment programs in these populations can be expected among the rest of the population. Also very high levels of dependence.</p> <p><u>Comments on author's conclusion</u> Emphasis in paper on association between attending session and outcome rather than lack of sig impact by intention to treat analysis.</p> <p><u>Other</u></p>

Details	Method	Result	Comments
<p><u>Author, year & journal</u> Bauld 2009 Addiction</p> <p><u>Study design</u> Observational</p> <p><u>Objective/RQs</u> Compare characteristics and outcomes of users accessing pharmacy and group-based smoking treatment</p> <p><u>Intervention</u> Pharmacy (1-1) and community-based group-based smoking treatment services in Glasgow</p> <p><u>SES variables used</u> SEG score, deprivation quintile, employment status, housing status, free prescription eligibility.</p> <p><u>Author's conclusions</u> Specialist-led group services have higher quit rates but lower reach than pharmacy services</p>	<p><u>Intervention details</u> Group support – 7 weeks structured behavioural support with NRT, Varenicline or Bupropion. Pharmacy – 12 weeks support with NRT, 5-10 minute sessions.</p> <p><u>Data sources</u> Routine data monitoring questionnaire and additional questions. Pharmacy had high rates of questionnaire non-completion (28% v 1% in groups).</p> <p><u>Participant selection</u> Cessation service users who set a quit date between March-May 2007 (in Glasgow). Group n=471 (411 at follow up) Pharmacy n=1508 (1374)</p> <p><u>Participant characteristics</u> Pharmacy users were more likely to be males, younger, with lower SEG score, and from lowest deprivation quintile (57% v 45.5%).</p> <p><u>Outcomes measured</u> 4 week quit rate. CO validation of not smoking in previous 2 weeks</p>	<p><u>General population impact</u> CO validated quits significantly higher in group (34.5% v 18.6%). Odds of success (55.09 v 22.79, OR 2.42) Multivariate analysis showing significant OR 1.98 after controlling for other characteristics and pharmacotherapy type.</p> <p><u>Impact by SES variable</u> Both had lower quit rates in SEG 5&6, but only significant for pharmacy group. Deprivation quintiles also showed lower quit rates in low SES group. Ditto renters v home-owners and all other measures of low SES.</p> <p><u>Author's conclusion of SES impact</u> Are reaching large numbers of low SES smokers and are making a contribution to reducing smoking-related health inequalities</p>	<p><u>Internal validity</u> Large loss to follow up. Only 4 week quit rates.</p> <p><u>External validity</u> Glasgow isn't representative of UK as a whole</p> <p><u>Validity of author's conclusion</u> Not convinced that they're reducing health inequalities. Differential rate of relapse would widen unequal impact further. Need to increase effectiveness of pharmacy services and increase access to group services.</p> <p><u>Other</u></p>

Details	Method	Result	Comments
<p><u>Author , year & journal</u> Bauld, 2009 Journal of Public Health</p> <p><u>Study design</u> Systematic Review (1990-2007)</p> <p><u>Objective/RQs</u> Effectiveness of NHS Smoking Cessation Interventions</p> <p><u>Intervention</u> Intensive NHS Smoking Cessation Interventions</p> <p><u>SES variables used</u> Area, Occupational group</p> <p><u>Author's conclusions</u> Further research needed; gender, age, ethnicity and SES appear to influence outcomes but currently insufficient diversity-specific analysis.</p>	<p><u>Intervention details</u> Group v one to one services, Buddy system, Inpatient service, Intense. Not all were sub-group specific.</p> <p><u>Data sources</u> Systematic Review of studies published between 1990 and 2007 (searches conducted May 2006 and November 2007, 14 articles), plus grey literature (6 articles)</p> <p><u>Participant selection</u> Examine NHS smoking cessation interventions. Brief interventions, eg brief advice were excluded.</p> <p><u>Participant characteristics</u> UK studies of NHS SSS efficacy, 8 with an equity focus (SES)</p> <p><u>Outcomes measured</u> CO-validated cessation at 4-52 weeks or self-reported cessation</p>	<p><u>General population impact</u> Effective in short and long term. Generally group and buddy systems were more effective than one-one. Inpatient services among sufferers of tobacco-related illnesses were as effective as conventional smoking cessation interventions. Groups less effective and feasible in some locations.</p> <p><u>Impact by SES variable</u> Evidence that NHS SCIs attract smokers from deprived areas and lower SES groups, but they have below average cessation rates (5 studies). 2 studies found the same pattern for lower occupational groups. Cessation services based in Spearhead areas have slight narrowing effect on inequalities [have primary study]</p> <p><u>Author's conclusion of SES impact</u> Difficult to draw conclusions given the lack of equity-specific research. Some evidence that services are having a modest effect on narrowing health inequalities caused by smoking, but generally a relatively high rate of enrolment isn't converted in to a high cessation rate.</p>	<p><u>Internal validity</u> Lack of high-quality, equity-specific studies, and those that do exist are fairly homogenous.</p> <p><u>External validity</u> Good.</p> <p><u>Validity of author's conclusion</u> Agree.</p> <p><u>Other</u> Includes Bauld 2007 paper on Spearhead areas that would otherwise have been included in our review.</p>

Details	Method	Result	Comments
<p><u>Author, year & journal</u> Biazzo, 2010 Nicotine and Tobacco Research</p> <p><u>Study design</u> Retrospective Cohort</p> <p><u>Objective/RQs</u> Examine characteristics of Quitline enrollees</p> <p><u>Intervention</u> Montana Tobacco Quit Line (MTQL). Counselling and pharmacotherapy</p> <p><u>SES variables used</u> Education, health insurance.</p> <p><u>Author's conclusions</u> Users have different characteristics; commitment to quitting may be the most important.</p>	<p><u>Data sources</u> MTQL callers from: 17/3/08 - 16/3/09</p> <p><u>Participant selection</u> Random selection of quitline participants conducted by external survey agency (n=9133). Must have: Completed intake call and be a tobacco user interested in quitting. Include only enrollees who ordered medication, not self-guided (n=7600).</p> <p><u>Participant characteristics</u> Over-18, non-pregnant, enrolled in medication + counselling program.</p> <p><u>Outcomes measured</u> 7 day abstinence at 3 and 6 month follow up. Choice of cessation therapy.</p> <p><u>Intervention details</u> MTQL, run by Montana Dep of Pub health + Human Services, offers free proactive telephone counselling and 4-week NRT course or 12 weeks of reduced-cost varenicline to enrollees.</p>	<p><u>General population impact</u> Varenicline users more likely to be older, longer-term smokers who have had previous unsuccessful quit attempts. In this instance they were also more likely to have been abstinent for 7 days at 3 or 6 month follow up.</p> <p><u>Impact by SES variable</u> Insured more likely to use the more expensive varenicline, 53% compared with 34% (AOR 1.85, 1.66-2.06). >=12y education also more likely to choose Varenicline, (47% to 34%, AOR 1.54 (1.30-1.83)) Insured Quitline callers were 1.5 times more likely to have been abstinent at 3 months, and 1.25 (non sig) at 6 months. No comment for education.</p> <p><u>Author's conclusion of SES impact</u> No comment</p>	<p><u>Internal validity</u> Does not consider those who registered without ordering medicine, over-estimate intervention impact? 11% excluded for lack of medicine-related data or use of non-Quitline medication. Follow up rate of 36 and 47% at 3 months, and 33 and 41% at 6 months likely to skew the results.</p> <p><u>External validity</u> Difficult to draw any conclusions given the lack of context. It's unclear how representative the sample is of smokers in Montana, or the general Montana population, which would help indicate the SE variations in Quitline call-rates.</p> <p><u>Validity of author's conclusion</u></p> <p><u>Other</u></p>

Details	Method	Result	Comments
<p><u>Author , year & journal</u> Bryce, 2009 Midwifery</p> <p><u>Study design</u> Cohort</p> <p><u>Objective/RQs</u> Develop, implement and evaluate Community Action on Tobacco for Children’s Health, to help young (<25) pregnant smokers to quit.</p> <p><u>Intervention</u> Personalised support (MI) +NRT at home</p> <p><u>SES variables used</u> Deprived community targeted. Nature of deprivation is not described, but authors allude to them being low-income.</p> <p><u>Author’s conclusions</u> Integration in to maternity system and attention to wider control of lives invaluable to achieving cessation.</p>	<p><u>Intervention details</u> Used motivational interviewing with patients and their partner or friend in their home. Discussion of outside influences, and encouragement. Intervention developed after consultation with patients. Majority also used NRT.</p> <p><u>Data sources</u> Baseline questionnaire and interview outcomes.</p> <p><u>Participant selection</u> Deprived area in West of Scotland 2002-4. Referred by self, midwife, or other community health workers. Under 25. Ready to change behaviour. 52% of eligible, referred smokers took up treatment. (n=65+14 partners) 78% follow-up at 3 months, 47% at 12 months.</p> <p><u>Participant characteristics</u> Not described beyond the age criteria.</p> <p><u>Outcomes measured</u> Self-reported and CO-validated cessation at 3 and 12 months.</p>	<p><u>General population impact</u> 3 months: 22% reported cessation, 20% CO-validated. 30.4% reported a reduction. 3.8% smoking more.</p> <p>12 months: 16.5% quit, 12.7% CO-validated 10.1% reduced. 0 reported smoking more.</p> <p><u>Impact by SES variable</u> Not stratified further by SES.</p> <p><u>Author’s conclusion of SES impact</u> Difficult to know how effective the program is given the lack of comparable projects.</p>	<p><u>Internal validity</u> Small sample. High number refusing to participate in the programme, and only 53% of young self-reported smokers were referred to CATCH. 5/18 included in quit at 3 months had quit at baseline. Not broken down by NRT use.</p> <p><u>External validity</u> Unclear about the type of deprived area, or characteristics of the population.</p> <p><u>Validity of author’s conclusion</u> Other papers suggest a very high relapse among this population, coupled with a low uptake rate it suggests there would be little narrowing of inequalities.</p> <p><u>Other</u></p>

Details	Method	Result	Comments
<p><u>Author, year & journal</u> Croghan 2009 Addictive Behaviors</p> <p><u>Study design</u> Retrospective cohort</p> <p><u>Objective/RQs</u> Assess differences between men and women receiving treatment for tobacco dependence in a clinical treatment program</p> <p><u>Intervention</u> Smoking cessation clinic</p> <p><u>SES variables used</u> Education</p> <p><u>Author's conclusions</u> Gender is not associated with failure to achieve smoking abstinence</p>	<p><u>Intervention details</u> Mayo Clinic Nicotine Dependence Center, a smoking cessation clinic treating ambulatory, hospitalised and residential patients (residential patients excluded from this study as they receive a longer intervention). Program includes behavioural, chemical dependence, relapse prevention and pharmacologic approaches.</p> <p><u>Data sources</u> Retrospective analysis of data collected by the clinic on attendees, including their intake questionnaire and 6 month follow up interview.</p> <p><u>Participant selection</u> Patients registered between January 1st 2004 and December 31st 2005. 4,193 registered, 795 excluded as non-tobacco users, residential patients or refused consent. 3398 studied.</p> <p><u>Participant characteristics</u> Presented by gender breakdown for ambulatory/hospitalised: Average age between 48.3 and 52.6yo, mostly high school graduates, ambulatory more likely to have some college or be college graduates.</p> <p><u>Outcomes measured</u> Self-reported 7 day point prevalence abstinence at 6 month follow up.</p>	<p><u>General population impact</u> Hospitalised smokers were more likely to report abstinence at 6 months. 32.6% among females and 32.1% for males, compared to 22.8% and 26.8% respectively for ambulatory patients. Cigarettes per day, being married (hospitalised only) and confidence and length of previous abstinence all predicted abstinence in a multiple logistic regression. No relationship observed between gender and abstinence.</p> <p><u>Impact by SES variable</u> Multiple logistic regression showed a slight trend towards high abstinence rate in more educated smokers, but not significant (p=0.603 for outpatients and p=0.483 for hospitalised)</p> <p>OR and 95% CI, high school grad as comparison: Outpatients and hospitalised Not high school grad 0.9 (0.55-1.49), 0.77 (0.50-1.46) Some college 1.16 (0.53-1.52), 1.23 (0.88-1.71) College grad 1.133 (0.84-1.53), 1.14 (0.72-1.97)</p> <p><u>Author's conclusion of SES impact</u> No discussion</p>	<p><u>Internal validity</u> Nature of the intervention has produced a sample that may be more motivated to quit due to their co-morbidities. Self-report smoking status. No information on intervening contact between patient and practitioner.</p> <p><u>External validity</u> Sample is older, and may be experiencing greater health problems than the general smoking population.</p> <p><u>Validity of author's conclusion</u> Odds ratios suggest a slightly higher cessation rate among more educated smokers, but not significant.</p> <p><u>Other</u></p>

Details	Method	Result	Comments
<p><u>Author, year & journal</u> Edwards 2007 Public Health</p> <p><u>Study design</u> Cross-sectional</p> <p><u>Objective/RQs</u> Describe smoking behaviour, motivation to quit and quit rates, end the effect of advice and support among smokers from more and less advantaged SEG in South Derbyshire.</p> <p><u>Intervention</u> NHS SSS</p> <p><u>SES variables used</u> Areas selected according to deprivation indices. Low SES also defined using a composite of indicators: no access to a car, leaving school before 17th birthday (only for younger age group), living in local authority or housing association rented accommodation, currently unemployed, currently receiving at least one means-tested benefit (only for younger age group). Having one or more of these characteristics led to definition of low SES.</p> <p><u>Author's conclusions</u> Motivation to quit was high and varied little, but higher SES smokers had better outcomes.</p>	<p><u>Intervention details</u> 'Fresh Start', NHS Smoking Cessation Service. Survey area covered five PCTs which each have a Fresh Start service, covering a population of 160,000. Predominantly rural, but included the city of Derby which contains some of the most deprived 10% of small areas in the country.</p> <p><u>Data sources</u> Cross-sectional survey in 2002.</p> <p><u>Participant selection</u> Representative samples across PCTs supplemented by over-sampling disadvantaged areas.</p> <p><u>Participant characteristics</u> Not described. Analysis conducted by 25-44yo and 65-74 yo age groups</p> <p><u>Outcomes measured</u> Current smoking status, intention to quit, sources of advice on cessation, use of cessation support and aids, awareness and attendance at 'Fresh Start' services.</p>	<p><u>General population impact</u> 30% aware of NHS SSS and 5% use them. Between 2-4% reporting they quit using these services. Friends and family most likely to advise smokers to quit (between 37.5 and 64.5% received advice from family and friends), followed by GP (17.5%-47.1%) and then other health professionals (10.2-15.7%). Only exception is for older smokers in deprived areas (GP most likely). NRT use between 11.1% and 18.3%, higher among younger age group.</p> <p><u>Impact by SES variable</u> Smoking prevalence significantly higher in disadvantaged areas for both men and women in both age groups (OR range from 1.37 (65-74yo women) to 1.80 (65-74yo men). Variation even more pronounced by SES after adjusting for area. Quit rates higher in high SES group.</p> <p>Desire to quit did not vary by SES, but awareness is slightly, but non-significantly, higher among low SES and younger smokers from deprived areas.</p> <p>Low SES smokers more likely to receive advice to quit from GPs (OR=1.43, 95% CI=1.16-1.77) and less likely to receive advice from friends and family (OR=0.84, 95% CI=0.76-0.92).</p> <p>NRT use higher, but non-significantly, among low SES smokers for both age groups.</p> <p><u>Author's conclusion of SES impact</u> Socio-economic differentials appear to be widening despite targeting of low SES smokers and awareness and, in some cases, uptake being higher among low SES smokers.</p>	<p><u>Internal validity</u> Cross-sectional survey, cannot interpret causality. Very strict definition of low SES, based on available data rather than designed through choice.</p> <p><u>External validity</u> Predominantly rural population, not representative of England as a whole. Patterns may have changed considerably since 2002. Only covered two age groups due to regional priorities.</p> <p><u>Validity of author's conclusion</u> Agree, although the definition of SES may have skewed the results slightly.</p> <p><u>Other</u></p>

Details	Method	Result	Comments
<p><u>Author , year & journal</u> Gnich, 2008 Addiction</p> <p><u>Study design</u> Prospective Cohort</p> <p><u>Objective/RQs</u> Evaluate uptake and effectiveness of Scottish youth cessation programme</p> <p><u>Intervention</u> 8 programmes to engage and support young smokers. Generally individual and/or group support and NRT provision.</p> <p><u>SES variables used</u> Area deprivation categories.</p> <p><u>Author's conclusions</u> Disappointing quit rate. Low participation made it impossible to draw conclusions about effectiveness of different programmes.</p>	<p><u>Intervention details</u> 8 different targeted projects. Focus on 3, YASCAP, EQiP, Fag Break :included individual and group cessation support. One project offered only group support. NRT offered but not necessarily used by clients.</p> <p><u>Data sources</u> Gathered by project team at 3 month follow up. CO readings at baseline.</p> <p><u>Participant selection</u> Service users who consented to follow-up. N=455, lost 156 (3 mo's) 266 (12m)</p> <p><u>Participant characteristics</u> Young smokers (mean age 17.8) in deprived areas. Majority female participants, except in EQIP, male only project</p> <p><u>Outcomes measured</u> Cessation at 3 months. Uptake.</p>	<p><u>General population impact</u> <u>3 month follow up:</u> 59% reported a quit attempt, 10.8% claimed to have quit, 8.6% CO verified as quitters. <u>12 months:</u> 8% claimed quit, 4% verified. Only 3.3% had quit at 3 and 13 months, 2.4% verified.</p> <p><u>Impact by SES variable</u> Age was the only significant predictor at 3 months, no relationship b/w quitting and deprivation score. No regression analysis possible at 12 months because of the small follow up rate.</p> <p><u>Author's conclusion of SES impact</u> No relationship between area level deprivation and cessation at 3 month follow up.</p>	<p><u>Internal validity</u> Reasonably high drop-out rate, possibly attributable to users moving on from the settings with age rather than failing to quit.</p> <p><u>External validity</u> Wide variety of settings (chatrooms, YOIs etc) and locations (Shetland, Western Isles) used would make comparison difficult, if there were significant results.</p> <p><u>Validity of author's conclusion</u> Fair. Too few successes at follow up to make a reliable conclusion on treatment effect.</p> <p><u>Other</u> Excluded four projects, three focus on under 18s and one CATCH has been included in a fuller report (Bryce)</p>

Details	Method	Result	Comments
<p><u>Author , year & journal</u> Hiscock, 2009</p> <p><u>Study design</u> Case-control?</p> <p><u>Objective/RQs</u> Identify impact of cessation programme on area-based tobacco-use inequalities in Christchurch</p> <p><u>Intervention</u> GPs delivering educational (counselling and literature), including heavily subsidised NRT for 'most ready' participants</p> <p><u>SES variables used</u> Neighbourhood deprivation</p> <p><u>Author's conclusions</u> Effective at reducing smoking prevalence, but no evidence of impact on area inequalities.</p>	<p><u>Data sources</u> PEGS enrolment between 2001 and 2006, routine data collection geo-coded by neighbourhood. (n=11325, f/u=7778). Pre-intervention city-wide smoking rate estimated from 1996 and 2006 census data.</p> <p><u>Participant selection</u> Live in Christchurch.</p> <p><u>Participant characteristics</u> Christchurch residents at the time of PEGS implementation</p> <p><u>Outcomes measured</u> Self-reported cessation at 6 month follow up.</p> <p><u>Intervention details</u> Patients provided with counselling and literature based on their level of 'readiness to change' and NRT if ready to quit.</p>	<p><u>General population impact</u> Enrolment falling year on year.</p> <p><u>Impact by SES variable</u> Though more enrollees came from most vs least deprived quintile, was little difference in utilisation between highest and lowest deprivation areas as proportion of the city's smoking population. Quit rate for least deprived neighbourhoods was 36.1% v 25.6% for most deprived (25.2 v 17.5 assuming non-followed up failed to quit) Estimated actual gap between most and least affluent neighbourhoods was reduced by 0.2 percentage points (15.6% to 15.4%), but relative gap widened from 2.81 to 2.84 OR.</p> <p><u>Author's conclusion of SES impact</u> Effect was small and non-significant, coverage in deprived areas could be further improved.</p>	<p><u>Internal validity</u> 31% loss to follow up Geographic areas not perfect measures of SES. Influence of GP/nurse referrals?</p> <p><u>External validity</u> No indication of the intervention's likely impact in rural areas. NRT already available on the NHS.</p> <p><u>Validity of author's conclusion</u> Likely to over-estimate impact on deprived communities due to emphasis on 'readiness' for referral to the program?</p> <p><u>Other</u></p>

Details	Method	Result	Comments
<p><u>Author , year & journal</u> King, 2008 Journal of the National Medical Association</p> <p><u>Study design</u> Cohort</p> <p><u>Objective/RQs</u> Examine feasibility and early outcome indicators of a community-based cessation program for low/middle income African American smokers.</p> <p><u>Intervention</u> Pilot community-based cessation project.</p> <p><u>SES variables used</u> Income (most participants medium and low income).</p> <p><u>Author's conclusions</u> Larger studies are warranted to examine treatment elements and individual factors that influence outcomes.</p>	<p><u>Intervention details</u> 6 sites in African-American communities in Chicago. Provided with weekly doses of nicotine patch for free at each session in the first month of treatment, and six sessions of behavioural counselling.</p> <p><u>Data sources</u> Baseline questionnaire, smoking timelines</p> <p><u>Participant selection</u> African Americans adults, who smoke daily, with at least 9th grade education, speak English and can read and write at 6th grade level. n= 50</p> <p><u>Participant characteristics</u> 45 females, ages 27-64, 11-16 years education, 60% full time employed, 30% unemployed. 42% for both <\$20k household income and \$20-\$60k. Average 14.3 cigarettes per day and 2.4 previous quit attempts.</p> <p><u>Outcomes measured</u> Cessation measured as 7 day point prevalence at 1, 3 and 6 month follow up. Attendance and adherence.</p>	<p><u>General population impact</u> 74% attended all six sessions. 64% completed the three month follow up questionnaire, and 56% at 6 months. 86% used nicotine patches, of whom 51% used >75% of patches sent during first month. Self-reported point prevalence at one month – 36%. CO-verified for all but one participant. CO-verified 22% and 18% reductions at 3 and 6 month follow ups.</p> <p><u>Impact by SES variable</u> Majority medium and low income, results not differentiated further.</p> <p><u>Author's conclusion of SES impact</u> Results show promise for reducing smoking prevalence in a high risk group.</p>	<p><u>Internal validity</u> Only a pilot study, based on 50 adults and modest follow-up rates. No representation of younger adult smokers, or lowest educated smokers.</p> <p><u>External validity</u> Based on an ethnic minority with high smoking prevalence in USA, but constitute a less significant smoking population in England. Unclear whether the findings would be equivalent in other low income urban environments.</p> <p><u>Validity of author's conclusion</u> Agreed, but hard to tell if there will be a significant improvement over the longer term once the inclusion criteria has been expanded and a proper sample have been through the intervention.</p> <p><u>Other</u></p>

Details	Method	Result	Comments
<p><u>Author, year & journal</u> McEwen 2010 Patient Education and Counselling</p> <p><u>Study design</u> Cohort</p> <p><u>Objective/RQs</u> What proportion of smokers in a deprived area of London are interested in quitting and would accept referral to cessation support?</p> <p><u>Intervention</u> Promoting engagement with NHS Stop Smoking Services (SSS)</p> <p><u>SES variables used</u> Areal deprivation (based in New Deal for Communities regeneration area)</p> <p><u>Author's conclusions</u> Appears to be a promising method of promoting quit attempts and ensuring that quit attempts are maximised through use of existing services.</p>	<p><u>Intervention details</u> Between April 2006 and March 2007 2 Fulham GP practices proactively called patients who were marked as smokers in their records, asked if they were interested in quitting and if so referred them to their local NHS SSS.</p> <p><u>Data sources</u> GP records, NHS SSS records.</p> <p><u>Participant selection</u> Patients marked as smokers in their GP records. 843 called, 547 contactable, 388 confirmed that they were smokers.</p> <p><u>Participant characteristics</u> Original sample not discussed, but smokers interested in referral were 44% male, 73.5% white, with an average age of 47.5.</p> <p><u>Outcomes measured</u> Interest in referral, cessation outcomes at 4 weeks (validated) and 6 months (self- report).</p>	<p><u>General population impact</u> Low SES sample</p> <p><u>Impact by SES variable</u> 53% of smokers contacted were interested in receiving help to quit, of whom 39% (150) accepted a referral and 14% took the SSS contact details with a view to contacting them in future.</p> <p>148/150 followed through with their referral, and 28% of these set a quit date. 39% of these were abstinent 4 weeks after their quit date (4.1% of the 388 smokers contacted initially) Estimate a 12 month abstinence rate of 1.2%.</p> <p>84% of referred patients followed up at 6 months, 18% of these reported not smoking (including those lost to follow up)</p> <p><u>Author's conclusion of SES impact</u> Some impact, but the 39% abstinence is below the national average. Impact could be improved with greater co-ordination with the NHS SSS (eg timely contact after referral) as only a quarter of those referred set a quit date.</p>	<p><u>Internal validity</u> Relatively small sample of SSS users. Did not keep track of those who self- referred after taking the SSS's phone number.</p> <p><u>External validity</u> Study based in England, should be representative of deprived urban areas.</p> <p><u>Validity of author's conclusion</u> Using area-based measures of SES makes it difficult to tell the SES of those who accepted referrals and successfully quit, they may not be representative of the area.</p> <p><u>Other</u></p>

Details	Method	Result	Comments
<p><u>Author , year & journal</u> Murray 2009 Journal of Public Health</p> <p><u>Study design</u> Systematic review</p> <p><u>Objective/RQs</u> Identifying strategies to find and support smokers from disadvantaged groups.</p> <p><u>Intervention</u> NHS Smoking Cessation Services</p> <p><u>SES variables used</u> Various forms of disadvantage</p> <p><u>Author's conclusions</u> Limited evidence on effective strategies to increase access to cessation services for disadvantaged smokers.</p>	<p><u>Intervention details</u> Smoking cessation services in a variety of settings, and efforts to increase the reach of cessation services.</p> <p><u>Data sources</u> Literature search conducted on a range of databases in May 2007.</p> <p><u>Article selection</u> Studies published between 1995 and 2007, focussing on any disadvantaged group, including manual workers and people on a low income. 7842 studies found, 23 UK and 25 international articles found for inclusion.</p> <p><u>Article characteristics</u> Range of UK and international research papers, with a variety of study designs..</p> <p><u>Outcomes measured</u> Access</p>	<p><u>General population impact</u></p> <p><u>Impact by SES variable</u> Two observational studies found that NHS SSS had been effective in reaching smokers in disadvantaged areas of England; both found that services were access by a higher proportion of smokers from deprived areas*. Evidence from a systematic review and two primary research papers that basing services in pharmacies increases reach**An English RCT found that proactively recruiting smokers in deprived areas through primary care records had no impact on cessation rates. 1 US study found that social marketing techniques were effective among low-educated female smokers. It was also found to be effective among ethnic minorities. 1 study suggested QOF may have increased difference of quality of primary care in deprived and less deprived area. Three UK qualitative studies found some evidence that interventions could be adapted to improve access, eg using lay advisors, a drop-in system rather than booked appointments. Two American studies found that tailoring cessation services to accommodate changes recommended by users improved quit rates among some disadvantaged groups. An American study also found that providing cessation services in the workplace of manual workers can improve uptake. A UK study found evidence of proactively contacting smokers in deprived areas and offering NRT increasing quit rates and decreasing consumption.</p> <p><u>Author's conclusion of SES impact</u> A lack of reporting of socio-economic data makes it hard to draw firm conclusions. Much of the evidence can only be seen as examples of promising practice rather than proof of intervention's effectiveness and included studies focused on all smokers not disadvantaged.</p>	<p><u>Internal validity</u> Range of research methods, particularly observational studies, with some poorly measured outcomes. Many papers lacked an equity focus.</p> <p><u>External validity</u> Paper was focused on implications for UK practice.</p> <p><u>Validity of author's conclusion</u> Agree</p> <p><u>Other</u> * includes Bauld et al 2007 which has also been included in Bauld, Bell et al 2009 review ** includes report on which Bauld, Chesterman et al 2009 is based, remaining in our analysis as it also discusses cessation rates by SES.</p> <p>Includes several studies without making any reference to their equity impact, either in the text or summary tables.</p>

Details	Method	Result	Comments
<p><u>Author , year & journal</u> Northridge, 2008 Journal of Rural Health</p> <p><u>Study design</u> Uncontrolled before and after</p> <p><u>Objective/RQs</u> Examine quit success for users of cessation project aimed at disadvantaged rural communities in West Virginia and Greater Charleston</p> <p><u>Intervention</u> Multi-component cessation service</p> <p><u>SES variables used</u> Education</p> <p><u>Author's conclusions</u> Rural programs in West Virginia should be attuned to rural life and the structural and economic needs of the region.</p>	<p><u>Intervention details</u> 4 approaches: free medical exam, 8-session educational and behavioural program, an 8-week supply of NRT or bupropion, group support meetings. Offered at 5, later expanding to 11, sites.</p> <p><u>Data sources</u> Baseline questionnaire, and self-report cessation data.</p> <p><u>Participant selection</u> 725 service users, recruited by staff at local clinics.</p> <p><u>Participant characteristics</u> 90% white (20% African American in urban group), 70% female, 24% less than high school graduates, 49.5% were high school graduates, 26.6% some college or higher (38.2% college in urban). 51.8% less than \$14,630 annual household income, only 23.5% >\$26390. 63% no full-time employment, 49.4% no health insurance</p> <p><u>Outcomes measured</u> Quit success – smoking status recorded at every session, and quit defined as self-reporting as a non-smoker at their last class attended. 61 randomly selected for follow up by telephone at 2 months and a year. Rural or urban definition based on zip codes.</p>	<p><u>General population impact</u> 53.1% successfully quit at the last class they attended. Rural participants less likely to quit – 51.4% v 60.6%. Higher quit rates among African American populations 76.9% compared to 52.4% for white. Higher quit rates among those using pharmacotherapy, 58.5% v 20% cessation rates for NRT users, 60.8% v 42.2% for bupropion. 75% of the 61 followed up reported being tobacco-free at 2 months, and 17% at 1 year.</p> <p><u>Impact by SES variable</u> HS ed OR=1.29 (0.88-1.88) (<HS = ref) College: 1.42 (0.92-2.18) Cessation rates, rural and urban <HS: 45% (R), 63.3% (U) HS: 53.5% (R), 59.3% (U) College: 53.7% (R), 65.5% (U) Quit success strongly associated with income in urban areas, less so in rural <\$14,630: 46.2% (R), 50% (U) \$14630-\$23690: 58.5% (R), 69.6% (U) >\$23690: 59% (R), 77.5% (U) Uninsured participants had the same quit rates as the average.</p> <p><u>Author's conclusion of SES impact</u> Differences in success by SES shows importance of multiple levels of influence on behaviours even in a very disadvantaged population, no comment on narrowing/widening of inequalities.</p>	<p><u>Internal validity</u> Self-report quit success usually overestimates impact of intervention. Very little data on follow-up to judge the rate of relapse. Very unusual outcome measure ie status at last class attended rather than fixed pre-set point eg end of programme. 56% didn't attend the last class. Probably greatly overestimates quit rate.</p> <p><u>External validity</u> A very specific, deprived rural mountain community. Can't compare with other studies because of outcome measure.</p> <p><u>Validity of author's conclusion</u> Hard to be certain of the impact on inequalities without more data (characteristics of local population not quantified, but doesn't appear that 26.2% college-educated is representative) and standard period of follo-up. However the rate of self-reported cessation is very high, and the gap between the high and low SES groups is relatively small</p> <p><u>Other</u> Showed high quit rates despite the deprived nature of communities.</p>

Details	Method	Result	Comments
<p><u>Author , year & journal</u> Okuyemi, 2006 Nicotine and Tobacco Research</p> <p><u>Study design</u> Pilot randomised controlled trial</p> <p><u>Objective/RQs</u> Assess feasibility of community-based smoking cessation intervention among homeless smokers</p> <p><u>Intervention</u> Motivational interviewing and nicotine replacement therapy</p> <p><u>SES variables used</u> Housing status (Homelessness)</p> <p><u>Author's conclusions</u> Feasible to conduct smoking cessation intervention among homeless smokers</p>	<p><u>Intervention details</u> Users of 3 homeless services in Kansas City invited to intervention between Feb-Dec 2004 Randomised to either motivational interviewing on smoking cessation or smoking and other life events such as drug addiction (“smoking+”). 5 motivational interviews and 6 group meetings, and 8 weeks of nicotine patch or lozenge.</p> <p><u>Data sources</u> Baseline questionnaire and biochemical verification of cessation</p> <p><u>Participant selection</u> At least 18yo, smoking 5cpd for over a year, and interested in quitting. 111 screened, 78 eligible, 46 returned and randomised between groups. Smoking group lost 10 of 23 to follow up, smoking+ group 8/23.</p> <p><u>Participant characteristics</u> Average age 43, 56-65% male, 54-69% African American, 82% <\$800p/m income, 78% unemployed, 30-21% high school educated. Averaged 2 quit attempts in previous year.</p> <p><u>Outcomes measured</u> Recruitment and retention. Biochemically verified cessation at 8 and 26 weeks.</p>	<p><u>General population impact</u></p> <p><u>Impact by SES variable</u> 5 withdrew consent during the trial, 68.3% of others completed week 26 follow up. 72% attended at least 3 of the individual sessions. 41.3% attended group sessions. 32 chose to use the nicotine patch, 14 lozenge.</p> <p>13% (smoking) and 17.4% (smoking+) had quit at 8 weeks, 8.7% and 17.4% at 26 weeks, both not sig.</p> <p><u>Author's conclusion of SES impact</u> Homeless population are interested in quitting and willing to participate in interventions. Most eligible smokers took part, and most of those took part fully. Final quit rates relatively low, but good compared to secular trends and only slightly lower than general African American population on NRT.</p>	<p><u>Internal validity</u> Small sample, with high loss to follow up.</p> <p><u>External validity</u> Large African American population, hard to tell its relevance to a wider disadvantaged population. Also impact of incentives for attendance difficult to assess.</p> <p><u>Validity of author's conclusion</u> Difficult to make conclusions based on small sample as was a pilot. Attendance was relatively high for individual sessions, but patients were reimbursed with gift cards, movie passes etc, to an average total of \$110-135 during the treatment period.</p> <p><u>Other</u></p>

Details	Method	Result	Comments
<p><u>Author, year & journal</u> Okuyemi 2007 Health Education and Behavior</p> <p><u>Study design</u> Cluster RCT</p> <p><u>Objective/RQs</u> Test the effectiveness of nicotine gum and motivational interviewing for smoking cessation among smokers in low-income housing.</p> <p><u>Intervention</u> Nicotine gum and motivational interviewing</p> <p><u>SES variables used</u> Low-income</p> <p><u>Author's conclusions</u> Programs are needed to enhance the effectiveness of pharmacotherapy and counselling in underserved populations.</p>	<p><u>Intervention details</u> Monthly health fairs in 20 housing developments in Kansas City between Oct-01 and May-03 to recruit participants. Housing developments were randomised between motivational interviewing and pharmacotherapy (8 week supply of 4mg nicotine gum) and motivational interviewing focused on fruit and vegetable intake.</p> <p><u>Data sources</u> Baseline questionnaire and participant/validation at follow up.</p> <p><u>Participant selection</u> Patients excluded if they: had conflicting medical conditions, were under 18, smoked fewer than 5 cigarettes a day, had recently used pharmacotherapy, planned to move in the next 6 months, couldn't speak English or had no working telephone. Treatment arm n=66, comparison n=107 16.7% (8w) and 28.8% (6m) loss to follow up in intervention arm, 10.3% and 21.5% in control group.</p> <p><u>Participant characteristics</u> Average age 46.3, 70% female, 83% African American. 78% high school education or lower. 41% unemployed, 73% monthly income <=\$800.</p> <p><u>Outcomes measured</u> Smoking status at baseline and validated self-reports of 7 day point prevalence abstinence at 8 weeks and 6 months.</p>	<p><u>General population impact</u> Low SES sample.</p> <p><u>Impact by SES variable</u> 87% of treatment arm and 2% of control reported using any nicotine gum. 61.7% of intervention used some, 25.5% used most of the gum provided. 60.6% of intervention and 71% of control attended 4/5 of their counselling sessions.</p> <p>8 week abstinence of 6.1% in treatment and 5.6% in control, 6 month quit rate of 7.6% for treatment and 9.3% in the control group, difference was not significant at either time point. No relationship between increased fruit and vegetable intake and smoking abstinence in the control group.</p> <p><u>Author's conclusion of SES impact</u> Data suggest that combined nicotine gum and MI were not effective for smoking cessation among smokers in low income housing, which is consistent with some other 'real-world' studies. Both rates are higher than spontaneous quit rates, so intervention may have had some impact.</p>	<p><u>Internal validity</u> Considerable variation in health-fair attendance (8%-66%), introducing some selection bias. Not an entirely inactive control arm, as it may have inspired broader approaches to healthy living. Control group had higher average previous quit attempts (5 v 4)</p> <p><u>External validity</u> Not representative of the English smoking population either by any of the socio-demographic characteristics.</p> <p><u>Validity of author's conclusion</u> Conclusion that the intervention may have had some impact is questionable given the inevitable selection bias in the study population. Hard to draw any conclusion of the impact on abstinence given that the 6 month abstinence percentages were based on just 15 quitters.</p> <p><u>Other</u> Patients reimbursed with incentives at the health fair and at the two follow ups, to the equivalent of \$120.</p>

Details	Method	Result	Comments
<p><u>Author, year & journal</u> Okuyemi 2001 Journal of General Internal Medicine</p> <p><u>Study design</u> RCT</p> <p><u>Objective/RQs</u> Determine predictors of adherence to gum and counselling and effect of adherence on cessation</p> <p><u>Intervention</u> Counselling and nicotine gum</p> <p><u>SES variables used</u> Education, income and employment</p> <p><u>Author's conclusions</u> Individual factors may influence adherence to gum and counselling. Counselling was effective. Improving psychological interventions may improve adherence and therefore success among African American light smokers</p>	<p><u>Intervention details</u> A 2x2 randomisation between 5 sessions of motivational interviewing (MI) and health education (HE), and 8 weeks of nicotine gum and a placebo.</p> <p><u>Data sources</u> Baseline questionnaire and participant feedback on gum adherence, and cotinine validation</p> <p><u>Participant selection</u> African American adults who have been light smokers for at least 6 months (≤ 10 cigarettes per day). And interested in quitting in the next two weeks, and have a home address and telephone. (n=775)</p> <p><u>Participant characteristics</u> Average age 45.1, 66.9% female, 83.6% high school graduates, 81.7% smoked menthol cigarettes</p> <p><u>Outcomes measured</u> Cotinine verified 7 day point prevalence abstinence at 26 weeks, and adherence to counselling sessions and gum/placebo (consumed 75% or more of prescribed gum, measured at weeks 1, 3, 6, 8 and extrapolating the measurements forward/backwards for other weeks)</p>	<p><u>General population impact</u> 36.6% adhered to nicotine gum/placebo, with no significant difference in adherence between gum and placebo (14% v 11%, $p=0.232$). Adherence to gum associated with lower quit rates, (16.7% for non-adherent v 9.5% for adherent, OR=0.5, 95% CI 0.28-0.87). 71.8% adherent to counselling sessions. Counselling adherence predicted abstinence (16.1% abstinent 3.76%). HE was more effective than MI (16.7% v 8.5%, $p<0.001$).</p> <p>Of the four trial arms, adherence was lowest among the NRT/MI group (62.4%) and highest among the placebo/HE group (78.8%).</p> <p><u>Impact by SES variable</u> Unemployed and higher income group were both associated with gum/placebo adherence in univariate analysis, but not in the full regression model (unemployment $p=0.07$ and income $p=0.33$). Being a high school graduate was significant in the univariate analysis of predictors of counselling adherence, and the only significant predictor in the full regression (OR=1.7, CI: 1.12-2.57, $p=0.01$).</p> <p><u>Author's conclusion of SES impact</u> Education finding is consistent with other studies that have found a positive association between education and adherence to health lifestyle behaviours.</p>	<p><u>Internal validity</u> No established level of gum adherence, have adopted a measure used in another study. No analysis of why participants have stopped using gum, inverse relationship with cessation may be indicative of users stopping gum use as they feel they no longer need it, or an indicator of greater nicotine dependence. Health education is not a completely inactive control intervention.</p> <p><u>External validity</u> Not representative of the English smoking population by consumption, ethnicity, gender, or cigarette consumption</p> <p><u>Validity of author's conclusion</u> Difficult to draw any conclusion as the intervention arms have had no apparent effect on abstinence. Education was associated with adherence to counselling, and counselling was the most significant predictor of abstinence. But impossible to draw a direct conclusion as education doesn't appear to have been included in the final regression model. Monetary incentives might have contributed to high counselling attendance but authors don't specify how much these were.</p> <p><u>Other</u></p>

Details	Method	Result	Comments
<p><u>Author, year & journal</u> Piper, 2010 Nicotine and Tobacco Research</p> <p><u>Study design</u> RCT</p> <p><u>Objective/RQs</u> Examine abstinence among two different clinical trials of pharmacotherapies, by gender, ethnicity and educational status.</p> <p><u>Intervention</u> Pharmacotherapy</p> <p><u>SES variables used</u> Education</p> <p><u>Author's conclusions</u> Women, blacks and smokers with less education are at elevated risk of cessation failure.</p>	<p><u>Intervention details</u> Efficacy sample: Recruited through mass media (TV, radio, newspaper ads, fliers and earned media eg TV interviews, press releases). Effectiveness sample: Recruited from 12 primary care clinics. Double blind randomised to: bupropion (9wks), nicotine lozenge (12 wks), nicotine patch (8 wks), nicotine patch and lozenge, bupropion and lozenge, or one of five placebos. Efficacy trial participants received 6 counselling sessions as well.</p> <p><u>Data sources</u> Baseline assessment and self-reported outcomes at follow up. Data was pooled from two similar trials to increase statistical power.</p> <p><u>Participant selection</u> Adults who smoke at least 10 cigarettes a day for the last 6 months, motivated to quit, and women willing to use birth control during the trial. Patients with one of a series of psychological conditions, serious medical conditions, using bupropion, pregnant or breastfeeding excluded.</p> <p><u>Participant characteristics</u> Efficacy: 58% women, 83.9% white, 5.6% less than high school education, 23.5% HS grad, 70.3% more than HS. Av 21.4 cigs per day Effectiveness: 56% women, 87% white, 17.2% less than HS educated, 44.4% HS, 42.9% more than HS.</p> <p><u>Outcomes measured</u> Initial cessation (one day abstinence in first week), abstinence at 8 weeks and 6 months.</p>	<p><u>General population impact</u> Women using combination therapy more likely abstinent at 8 wks (OR=1.96, 1.44-2.69) and 6 months (OR=1.59, 1.26-2.01), both p<0.001. Black smokers in Efficacy sample less likely to be quit at all three measurement points. No observed impact in Effectiveness sample.</p> <p><u>Impact by SES variable</u> White smokers tended to have a higher educational attainment (p<0.001). Efficacy sample: No differences in adherence, but gradient in outcomes by educational attainment at 8 weeks: Less than high school educated were less likely to be abstinent than HS (OR=0.51, 0.3-0.88, p=.02) and more than HS (OR=0.41, 0.21-0.69, p=0.001). High school graduates less likely to be abstinent than those with more than HS (OR=0.78, 0.61-0.99, p=0.04). Less than HS v HS and more than HS educated sgn at 6 months, but HS school v more than HS was not. Combination therapies more than doubled the outcomes of less than HS education. No impact of education in the Effectiveness sample. Education's impact in the logistic regression model of the pooled dataset was significant at 8 weeks (p<0.02) and approached significance at 6 months (p=0.06).</p> <p><u>Author's conclusion of SES impact</u> Education uniquely associated with abstinence outcomes for pharmacotherapy patients. Combination therapy appears to be more effective than mono-therapy for low educated smokers, but still have lower abstinence rates than more educated group.</p>	<p><u>Internal validity</u> Relatively highly educated sample. Hard to detect impact of individual treatments due to the size of each treatment group. Effectiveness sample offered 'limited psychological counselling' but results combined with efficacy sample.</p> <p><u>External validity</u> Study participants may have greater motivation to quit than the general population Appears to be a higher educated sample than smokers in the general population.</p> <p><u>Validity of author's conclusion</u> Agreed.</p> <p><u>Other</u></p>

Details	Method	Result	Comments
<p><u>Author, year & journal</u> Reitzel 2010 Addiction</p> <p><u>Study design</u> Cohort</p> <p><u>Objective/RQs</u> Examine the associations between subjective social status and smoking abstinence during the period of acute withdrawal among a sample of smokers making a quit attempt</p> <p><u>Intervention</u> 6 weeks of nicotine patch and six brief counselling sessions and self-help materials.</p> <p><u>SES variables used</u> Subjective social status (participants asked where they position themselves in society, between 1 (high) and 10)</p> <p><u>Author's conclusions</u> Among a diverse sample of smokers low SSS predicted relapse during acute withdrawal, after controlling for numerous covariates. Relationship partly explained by symptoms of depression on their quit day.</p>	<p><u>Intervention details</u> 6 weeks of nicotine patch and six brief counselling sessions and self-help materials. Recruited through print and radio advertisements in Houston asking for volunteers to a smoking cessation study.</p> <p><u>Data sources</u> Baseline questionnaire and CO-measures and salivary cotinine at 1 and 2 weeks post-quit date.</p> <p><u>Participant selection</u> Enrolled during April 05 – April 07 for a cohort study. 16 and 19% loss to follow up at post-quit weeks 1 and 2.</p> <p><u>Participant characteristics</u> 33% Caucasian, 34% African American, 33% Latino. Av age 41.2m 47% less than \$30,000 annual income, 14% had no high school diploma, 42% currently unemployed. Average cigarette consumption of 21.1/day. (n=421). Lost to follow up were older, heavier smokers and less likely to be Latino.</p> <p><u>Outcomes measured</u> Validated smoking status 1 and 2 weeks after quit date.</p>	<p><u>General population impact</u> Depression, stress and positive affect were associated with smoking status at week 1 ($p<0.03$), depression and positive affect were still associated with smoking status at week 2 ($p<0.02$). This pattern remained after adjusting for baseline scores.</p> <p><u>Impact by SES variable</u> After controlling for demographics and SES, SSS predicted smoking status at week 1 (OR=1.23, 1.04-1.45, $p<0.02$) and week 2 (OR=1.21, 1.01-1.45, $p<0.04$). Grouping SSS scores in to quartiles and comparing high and low quartiles made the relationship more marked, with 20% in the lowest SSS quartile abstinent compared to 44% in the highest quartile, or 16.4% and 36.8% after two weeks (week 1 OR=2.6 and week 2 OR=2.4). Results consistent with interpretation that high SSS led to greater positive affect and less depression and thus higher quit rates.</p> <p><u>Author's conclusion of SES impact</u> SSS predicted abstinence during the period of acute withdrawal, even after controlling for more commonly used indicators of socioeconomic status. Cessation programmes should incorporate interventions which decrease depression and increase positive affect.</p>	<p><u>Internal validity</u> Not a representative population by ethnic groups or socio-economic status.</p> <p><u>External validity</u> Study population significantly different from English population by ethnicity and socioeconomic status.</p> <p><u>Validity of author's conclusion</u> Quite a small relationship, likely to have little relationship longer follow up.</p> <p><u>Other</u> Participants received \$30 for their participation at each data collection point.</p>

Details	Method	Result	Comments
<p><u>Author , year & journal</u> Sadr Azodi 2009 Anaesthesia</p> <p><u>Study design</u> RCT</p> <p><u>Objective/RQs</u> How does a smoking cessation intervention 4 weeks before elective surgery affect probability of permanent cessation</p> <p><u>Intervention</u> Counselling and NRT</p> <p><u>SES variables used</u> Education (university level) and employment</p> <p><u>Author's conclusions</u> Successful cessation can be achieved following a 4 week peri-operative cessation intervention.</p>	<p><u>Intervention details</u> 4 week smoking cessation intervention before surgery, weekly meetings or telephone counselling and free NRT. Patients randomised between this and standard care on a 1-1 basis.</p> <p><u>Data sources</u> Self-administered questionnaire at baseline, 3 weeks post-surgery and 12 months post-surgery.</p> <p><u>Participant selection</u> Patients at 4 hospitals in Stockholm between March 2004 and December 2006. Daily smokers, adult, who spoke Swedish, with no co-morbid substance abuse, severe illness, non-pregnant. (n=117)</p> <p><u>Participant characteristics</u> Intervention group included more males (62%-44%), fewer university educated (19%-27%), and higher employment (65%-57%). Median age 56.5.</p> <p><u>Outcomes measured</u> 3 week abstinence pre-surgery, abstinence 2/3 weeks post-operation (validated), and 1 year post-operative self-report abstinence.</p>	<p><u>General population impact</u> Intervention had higher outcomes pre-operation (36%-2%) and one year post-operation (33%-15%). Unadjusted OR at one year=2.7, 95% CI 1.1-6.9, p=0.03 Adjusted OR=2.5, 95% CI 0.9-6.9, p=0.08</p> <p><u>Impact by SES variable</u> Results not differentiated by intervention and control group. Educated at University level had no significant impact, OR=1.4 95% CI 0.5-4.0. Employment borderline significant unadjusted, OR=2.7, 95% CI 1.0-7.5, p=0.06 Adjusted OR=2.3, 95% CI 0.7-7.1, p=0.15.</p> <p><u>Author's conclusion of SES impact</u> None</p>	<p><u>Internal validity</u> No CO validation of 1 year outcomes. Not primarily designed to find predictors so sample was not randomised by characteristics.</p> <p><u>External validity</u> High rate of refusal means sample is not representative of patients. Patients also not representative of the intervention.</p> <p><u>Validity of author's conclusion</u> Hard to draw any conclusion given small sample size and pooling of data among control/intervention participants..</p> <p><u>Other</u></p>

Details	Method	Result	Comments
<p><u>Author , year & journal</u> Sias 2008 Addictive Behaviors</p> <p><u>Study design</u> Prospective cohort .</p> <p><u>Objective/RQs</u> Identify characteristics of smokers and their reasons for wanting to quit, and assessing abstinence, temptations and coping mechanisms</p> <p><u>Intervention</u> NRT clinic for low-income smokers in US-Mexico border community.</p> <p><u>SES variables used</u> Low-income community</p> <p><u>Author's conclusions</u> Intervention achieved considerable success among a high-risk community.</p>	<p><u>Intervention details</u> Based at community health clinics which served predominantly Mexican-American, Spanish-speaking low-income population. Patients were given nicotine replacement therapy and behavioural therapy,</p> <p><u>Data sources</u> Baseline questionnaire and an interview at 8-12 weeks and 6 months.</p> <p><u>Participant selection</u> 18yo, smokers who wanted to quit, excluded for recent heart conditions or pregnancy, or allergy to medication. Enrolled between Dec 2003 and Aug 2004. 94 recruited, 88% follow up at 8-12 weeks, 83% at 6 months.</p> <p><u>Participant characteristics</u> Average age 51, 52% males. Average 15 cigarettes per day, 75% had 1 or more comorbidity.</p> <p><u>Outcomes measured</u> Smoking status, reasons for smoking. Non-response = assumed still smoking.</p>	<p><u>General population impact</u> Low SES sample.</p> <p><u>Impact by SES variable</u> Main reasons for quitting were personal health (95%) and family health (74%) Main temptation to relapse is when around other smokers (78.7%), anxiety (59.6%), stress (57.4%). These were followed by wanting to smoke after meals (42.6%), and while drinking coffee (39.4%) or alcohol (37.2%). Physicians were their main source of support (58%), family (38.7%) and friends (31.1%).</p> <p>82% said they would use NRT patches, 53% lozenge, 29% gum, and 24% bupropion.</p> <p>63% reported that they were abstinent at 8-12 weeks, and 44% at 6 months. An average decrease in cigarettes per day of 8.3 at 8-12 weeks and 5.8 at 6 months.</p> <p><u>Author's conclusion of SES impact</u> Study found a high rate of cessation at both follow ups and reduction among those who failed to quit.</p>	<p><u>Internal validity</u> Used self-report smoking status. Relatively small sample of smokers and no control group. No analysis of other covariates that may have influenced cessation. No analysis of adherence to NRT, only asked which products they intended to use. Not clear if any behavioural support given apart from at start.</p> <p><u>External validity</u> Based in a Latino community, not representative of the English population. High prevalence of co-morbidities.</p> <p><u>Validity of author's conclusion</u> Surprisingly high rate of cessation in a low-SES community; would have been nice to see some validation of smoking status.</p> <p><u>Other</u></p>

Details	Method	Result	Comments
<p><u>Author, year & journal</u> Smith 2006 Nursing Times</p> <p><u>Study design</u> Retrospective cohort</p> <p><u>Objective/RQs</u> Conduct an equity audit of Blackpool, Fylde and Wyre's NHS Stop Smoking Service</p> <p><u>Intervention</u> NHS Stop Smoking Service</p> <p><u>SES variables used</u> Index of Multiple Deprivation Blackpool local authority 24th most deprived (out of 354), Wyre 161st, Fylde 240th.</p> <p><u>Author's conclusions</u> Overall quit rate exceeds required standard.</p>	<p><u>Intervention details</u> NHS Stop Smoking Service, a 45 minute one-one or telephone counselling and advice on which prescription NRT product would be most suitable.</p> <p><u>Data sources</u> Service database and a postal questionnaire</p> <p><u>Participant selection</u> 500 successful 4 week quitters from October 1st onwards (no end date specified- 2003-4?) were selected from the database. (response rate 40.8%)</p> <p><u>Participant characteristics</u> Sample was proportional to service use by PCT (Blackpool n=250, Fylde n=100, Wyre n=150) and had an equal gender split.</p> <p><u>Outcomes measured</u> 12 month self-reported abstinence and intent to re-register among relapsers.</p>	<p><u>General population impact</u> 84/204 (41.7%) self-report abstinence at 52 weeks. 16.8% if assuming that all non-responders had relapsed. 106/120 (87%) of relapsers say they would be interested in using the service again.</p> <p><u>Impact by SES variable</u> Substantial numbers of the service's clients live in areas of low SES, and the area with the lowest IMD had the lowest response to the service.</p> <p><u>Author's conclusion of SES impact</u> 16.8% 12 month quit rate is still above the required standard and a large number of users live in areas of social and economic disadvantage.</p>	<p><u>Internal validity</u> Not clear how 500 were selected (eg random) or how representative selection of quitters (paper assumed the latter). Relatively low response rate. No individual level data on SES No data broken down by SES</p> <p><u>External validity</u> English study covering a range of affluent and deprived areas.</p> <p><u>Validity of author's conclusion</u> Attribute area of residence (and therefore SES) at town/city level rather than mapping users to neighbourhood-level, which would give a greater understanding of their SES. Article also fails to discuss the different sizes of the towns involved, it claims that the highest rate of use among Blackpool residents is evidence of the service's reach in low SES areas, but the trend in user numbers also corresponds approximately to the size of the areas (Blackpool population: 141,000, Wyre: 111,100, Fylde 76,300 (National Statistics, 2010)) Equity impact should also consider how many users fail to achieve four-week abstinence, and the characteristics of these smokers. No indication of how many relapsers have actually engaged with the service again. Conclusion re reaching 12 month quit rate is wrong as was 16.8% of those who had quit at 4 weeks.</p> <p><u>Other</u></p>

5. 2 Cessation – behavioural interventions

Details	Method	Result	Comments
<p><u>Author , year & journal</u> Britton, 2006 Nicotine and Tobacco Research</p> <p><u>Study design</u> Quasi-experimental</p> <p><u>Objective/RQs</u> Examine effectiveness of nurse-managed cessation program. Assess characteristics associated with successful cessation.</p> <p><u>Intervention</u> 'Smoke free baby and me', self-help materials and individual counselling.</p> <p><u>SES variables used</u> Education</p> <p><u>Author's conclusions</u> Influenced the behaviour of recent quitters but not those who reported smoking at first prenatal visit.</p>	<p><u>Intervention details</u> Based in seven private obstetrics clinics in a rural setting in western New York. Admitted to trial at first prenatal visit, if eligible. Recruited through convenience sampling, control group from Nov 1999-Feb 01, intervention Mar 01-Aug 03.</p> <p>Intervention group given self-help materials, tailored health message</p> <p><u>Data sources</u> Baseline interview, urine samples at 16 and 26 weeks gestation and post-partum.</p> <p><u>Participant selection</u> Pregnant women at less than 16 weeks gestation who were smoking at conception (including those who report quitting since). Intervention n=101 Usual care n=93. Follow up on 140 at 16w, 146 at 26w and, 87 post-partum.</p> <p><u>Participant characteristics</u> 70.6% still smoking at first visit. Mean age 23.7y, 94.8% white, 56.2% on Medicaid, 73.2% single. Education ranged from 8-18 years, mean 12. Mean 5.88 cigarettes smoked per day, higher in intervention group. Only sig difference between control and intervention was marital status. County characteristics: mean income \$18263, 91% white, rural.</p> <p><u>Outcomes measured</u> Self-report smoking status at 16 and 28 week gestation and post-partum visit, and verified by cotinine levels from urine samples.</p>	<p><u>General population impact</u> Significantly higher rate of self-reported abstinence at post-partum visit among experimental group, and higher rate of cotinine validation in the experimental group. Experimental group also showed higher rate of sustained abstinence during earlier follow ups.</p> <p><u>Impact by SES variable</u> Analysis of smokers' characteristics was conducted with pooled data, rather by experimental/control groups. Educational level significantly lower for smokers using either measure of smoking status at all data points, except self-report at baseline. No association between insurance type and smoking status.</p> <p><u>Author's conclusion of SES impact</u> Study is focused on a population with multiple characteristics associated with smoking behaviour. As the number of years of education increases, the likelihood of being a smoker decreases.</p>	<p><u>Internal validity</u> Control and intervention group recruited at different time, potential for changes in external influencers. All variables, including education, were included in the analysis summarised by mean, median and range, rather than at the individual level. 'Single' marital status could have been further broken down by 'cohabiting' or similar.</p> <p><u>External validity</u> Study population were fairly light smokers. Ethnic minorities under-represented, and single parents appear to be significantly over-represented. County has a lower income than the national average (by \$5000, or about 20%).</p> <p><u>Validity of author's conclusion</u> SES analysis conducted with all data, so impossible to detect the equity impact of the intervention.</p> <p><u>Other</u></p>

Details	Method	Result	Comments
<p><u>Author , year & journal</u> Cupertino, 2007 Journal of Health Care for the Poor and Underserved</p> <p><u>Study design</u> Uncontrolled longitudinal</p> <p><u>Objective/RQs</u> Describe long-term engagement with telephone-based cessation counselling, and associated characteristics.</p> <p><u>Intervention</u> KanQuit – Telephone-based smoking cessation counselling sessions</p> <p><u>SES variables used</u> Education, income, health insurance status</p> <p><u>Author’s conclusions</u> Smokers will remain in long-term counselling to address nicotine dependence.</p>	<p><u>Intervention details</u> Offered up to 6 motivational interviewing calls during each of four (6 month) cycles of care. Total intervention period of 24 months.</p> <p><u>Data sources</u> Baseline questionnaires and follow-up at 6, 12, 18 and 24 months.</p> <p><u>Participant selection</u>(n=251) Recruited through physician research network in Kansas. Excluded from the cycle’s analysis if self-identify as non-smoker beginning of the cycle. 20 loss to follow up during first period, 14 in final three periods. 13.5% overall</p> <p><u>Participant characteristics</u> 89% white, 39% male, 51% at least high school educated, 41% > \$40k income, 85% have health insurance.</p> <p><u>Outcomes measured</u> Engagement: None, low (1 call completed), engaged (2+ calls completed)</p>	<p><u>General population impact</u> Complete one phone call – 94% Average call completion per 6-month follow-up period: 3.3, 2.1, 1.8, 2.1 Engagement fell from 80% to just under 50% over the four periods, while non engaged rose from 9% to over 40%.</p> <p><u>Impact by SES variable</u> Education (p<0.001) higher income (p<0.05) and health insurance (p<0.05) are significant predictors of the number of calls completed.</p> <p><u>Author’s conclusion of SES impact</u> Lower SES groups less likely to engage in treatment, new treatment methods need to be devised for these groups.</p>	<p><u>Internal validity</u> Small sample size. Number of self-reported quitters is not presented at each cycle. Also offered NRT or bupropion but this is not discussed.</p> <p><u>External validity</u> Based on a rural sample. Patients may prefer to use a face-to-face service in urban areas</p> <p><u>Validity of author’s conclusion</u></p> <p><u>Other</u></p>

Details	Method	Result	Comments
<p><u>Author , year & journal</u> Lowry, 2006 Unpublished</p> <p><u>Study design</u> Controlled before and after</p> <p><u>Objective/RQs</u> Determine smoking prevalence and evaluate effect of community based smoking cessation project in deprived areas of north-east Ireland.</p> <p><u>Intervention</u> Community-based cessation project using behavioural support</p> <p><u>SES variables used</u> Areal deprivation</p> <p><u>Author's conclusions</u> Current smoking prevalence is very high, although the services helped attendees to quit there has been no significant difference in overall prevalence.</p>	<p><u>Intervention details</u> Lay health advocates available in community houses/centres in targeted estates (6 communities and 3 control communities). One-one and group support available, and a drop in service. All for a 6 month period.</p> <p><u>Data sources</u> Questionnaire administered door-to-door and follow-up phone calls of clients.</p> <p><u>Participant selection</u> 9 communities identified through County Council's revitalisation initiative. Depending on population size every house or every other house were targeted for inclusion, with refusers replaced by next house. Process repeated after intervention. 1053 out of 1101 responded before study (RR=95.6%), and 1121/1200 (93.4%) after intervention. 789 respondents in intervention area pre-intervention, 859 post-intervention.</p> <p><u>Participant characteristics</u> Majority females, 55% (I) and 58.7% (C) current smokers. No significant differences by age, gender or smoking status.</p> <p><u>Outcomes measured</u> Smoking prevalence after 12 months in intervention and control communities, clients 12 months after quit.</p>	<p><u>General population impact</u> Low SES study population</p> <p><u>Impact by SES variable</u> 213 from the intervention area used the cessation services. 70.9% were heavy smokers, and 74.1% had previous quit attempts. 73.7% were successfully followed up after 12 months, 9.9% of whom were recorded as quit. Increase in attendance, previously an average of 11 people per year using the hospital-based cessation service.</p> <p>Control area saw a 0.8% increase in the number of current smokers, compared to a 0.6% decrease in the intervention area.</p> <p><u>Author's conclusion of SES impact</u> Has effectively targeted smokers who would otherwise have failed to engage with cessation services, and achieved a reasonable success rate. However has failed to have a significant effect on the overall smoking prevalence in the areas.</p>	<p><u>Internal validity</u> Self-report cessation measure.</p> <p><u>External validity</u> Hard to tell what impact it would have in the UK given the existing targeting of deprived areas by cessation services.</p> <p><u>Validity of author's conclusion</u> Appears to have made a positive impact on service use and the smoking prevalence in the intervention areas, but not statistically significant. Would be narrowing the disparities in smoking prevalence, but not substantially.</p> <p><u>Other</u></p>

Details	Method	Result	Comments
<p><u>Author , year & journal</u> Reitzel, 2010 Nicotine and Tobacco Research</p> <p><u>Study design</u> RCT</p> <p><u>Objective/RQs</u> Reducing post-partum relapse among low-income women.</p> <p><u>Intervention</u> Behavioural (motivation and problem-solving)</p> <p><u>SES variables used</u> Low-income (<\$30,000 household income)</p> <p><u>Author's conclusions</u> Promising intervention for low-income women and maybe particularly effective for those who smoke heavily.</p>	<p><u>Intervention details</u> Combined motivational enhancement with social-cognitive approach, responding to patient motivation daily, rather than in rigid stages. Patients randomised between two active interventions and usual care.</p> <p><u>Data sources</u> Enrolled between Oct-04 and Apr-08.</p> <p><u>Participant selection</u> 18yo+ women, English-speaking, former daily smokers who stopped smoking during or two months prior to pregnancy, in 30-33rd week of pregnancy. 115 in usual care, 68 in MAPS, 68 in MAPS+. Attrition rate 20.7% at week 8, 26.5% week 26.</p> <p><u>Participant characteristics</u> Average age 24, 25% white, 32% black, 30% Hispanic. 34-39% single 55% low income 14-22% no high school education/GED 10 cpd average</p> <p><u>Outcomes measured</u> Biochemically verified continuous abstinence at 8 and 26 weeks.</p>	<p><u>General population impact</u> Abstinence: 41.9% (I) v 27.8% (C) week 8 22.8% (I) v 16.5% (C) week 26. Approached significance unadjusted, significant once adjusted for socio-demographics (OR=1.60, 1-2.58, p=0.05).</p> <p>No significant impact of MAPS on cigarettes smoked per day, but was twice as effective on cessation for high smokers (OR=2.87 for those smoking more than 7.5cpd, p=0.007).</p> <p><u>Impact by SES variable</u> Completers better educated than those who didn't complete the course (p<0.05). Population in usual care showed higher relapse than previously – impact of low income?</p> <p><u>Author's conclusion of SES impact</u> Results support efficacy of the intervention in a diverse low income population.</p>	<p><u>Internal validity</u> High retention rate but provided \$40 gift cards plus small items for each assessment visit.</p> <p><u>External validity</u> Very ethnically diverse population, and suggests that intervention could be more effective in the UK.</p> <p><u>Validity of author's conclusion</u> Only half were low-income smokers, and no specific data presented on the impact among these - impact was only significant once socio-demographic factors such as income were adjusted for.</p> <p><u>Other</u></p>

Details	Method	Result	Comments
<p><u>Author , year & journal</u> Smith, 2009 CMAJ</p> <p><u>Study design</u> RCT</p> <p><u>Objective/RQs</u> Efficacy of an intervention for hospital patients with coronary artery disease</p> <p><u>Intervention</u> Bedside counselling, take-home materials, 7 nurse-initiated counselling calls for up to 2 months</p> <p><u>SES variables used</u> Education, employment status</p> <p><u>Author's conclusions</u> Providing these courses could major reduce health care costs and improve health</p>	<p><u>Data sources</u> 4 cardiac units in western Canadian hospital, recruited Dec 99 to Mar 03.</p> <p><u>Participant selection</u> Adult cardiac patients who used tobacco a month before admission, min. hospital stay of 36 hours, non-pregnant, with telephone access after discharge. English-speaking, and capable of communicating freely, with no history of substance abuse or psychiatric disorders. 276, 32% of eligible inpatients enrolled. 25 dropped out, 4 died.</p> <p><u>Participant characteristics</u> Mostly white male, av age 54. mostly employed, 54% had high school education or less.</p> <p><u>Outcomes measured</u> Smoking status at 3, 6, 12 month follow up (self-reported 7-day abstinence verified by proxy. If no proxy, or proxy = friend/family then considered smokers).</p> <p><u>Intervention details</u> Bedside counselling, take-home materials, 7 nurse-initiated counselling calls for up to 2 months Pharmacotherapy not included, but was used by many of the patients (34% in both groups).</p>	<p><u>General population impact</u> Claim highest results in cardiac populations and some of the highest reported intervention-control differences (69% v 48% at 12 months, 76% v 60% for non-pharmacotherapy users.).</p> <p>Both pharmacotherapy and intervention predictors of abstinence. Pharmacotherapy users in both groups had slightly lower odds of being abstinent than non-users. Intense intervention showed slightly higher rates of abstinence (OR 2.7, CI 1.5-4.8).</p> <p><u>Impact by SES variable</u> No relationship between employment status and cessation. Having a post-secondary education gave an OR of 2.34 (CI 1.3-4.1)</p> <p><u>Author's conclusion of SES impact</u> Postsecondary education acts as a significant predictor.</p>	<p><u>Internal validity</u> Blinding not possible due to the nature of the intervention. Introduction of pharmacotherapy among some patients clouds intervention impact. Selection criteria likely to have boosted the positive results slightly.</p> <p><u>External validity</u> No mention of utility outside of the hospital setting, but presumably could be used for outpatients as well?</p> <p><u>Validity of author's conclusion</u> No discussion of the other socio-demographic variables, and the possible interactions between them. No indication of the characteristics of those refusing participation. Not reducing inequalities. Suggests a greater impact could be made with a full-time nurse to discuss the intervention with those who refuse participation.</p> <p><u>Other</u></p>

Details	Method	Result	Comments
<p><u>Author, year & journal</u> Sorensen, 2007 Cancer Causes Control</p> <p><u>Study design</u> RCT</p> <p><u>Objective/RQs</u> Does telephone counselling or mailed advice influence smoking or fruit & vegetable consumption among labourers?</p> <p><u>Intervention</u> Telephone counselling and educational materials</p> <p><u>SES variables used</u> Occupational class</p> <p><u>Author's conclusions</u> Evidence that a social context-relevant telephone intervention can be effective.</p>	<p><u>Intervention details</u> Individual Motivational Interviewing sessions, via telephone. Tailored feedback forms. Written educational materials, tailored to needs and daily experiences of the workforce. Delivered in English or Spanish. Control group received no materials or support.</p> <p><u>Data sources</u> Baseline questionnaire, 6-month follow up</p> <p><u>Participant selection</u> Trade union members from previous research were invited to participate (44% response rate to this initial research). 674 (74%) of eligible respondents agreed to participate. 14% lost to follow up.</p> <p><u>Participant characteristics</u> Construction union members. 66% white, 21% no high school education, 46% high school diploma. 55% earn \$15-50,000. 30% smokers in control, 33% in intervention.</p> <p><u>Outcomes measured</u> 7 day quit rates, and number of quit attempts made (self-reported) at 6 months post-baseline.</p>	<p><u>General population impact</u></p> <p><u>Impact by SES variable</u> 8% of control group had not smoked in previous 7 days, 19% in the intervention group (p=0.03) 33% and 53% respectively had made at least one quit attempt (data missing for 15% of baseline smokers)</p> <p><u>Author's conclusion of SES impact</u> Effective method of reducing tobacco use among a high-risk population.</p>	<p><u>Internal validity</u> High follow-up rate. Sample drawn from union members that have already participated in other research in the area, so likely to be more predisposed to taking positive health action. Short-term, unvalidated measure of cessation.</p> <p><u>External validity</u> Tailored to a very specific population, and had few smokers within the population.</p> <p><u>Validity of author's conclusion</u> Intervention was significantly more effective than the control intervention, but based on a relatively small population of smokers.</p> <p><u>Other</u></p>

Details	Method	Result	Comments
<p><u>Author, year & journal</u> Stewart, 2010 Social Science and Medicine</p> <p><u>Study design</u> Cohort study</p> <p><u>Objective/RQs</u> Implement and evaluate the impact of a tailored holistic support intervention for low-income women who smoke.</p> <p><u>Intervention</u> Holistic one-to-one and group support</p> <p><u>SES variables used</u> Low-income* sample</p> <p><u>Author's conclusions</u> Intervention exerted positive impacts on smoking, social networks, coping and health behaviours.</p>	<p><u>Intervention details</u> Pilot test in Western Canada of a holistic one-to-one and group support provided over 14 weeks by peer facilitators, with professional staff acting as consultants and assistants. Intervention included emotional support, empowering strategies, focus on participants' social and economic situations, and measures to improve accessibility such as child care. 2005-7</p> <p><u>Data sources</u> Baseline questionnaire, and semi-structured interviews at the end of the intervention and 3-months post-test.</p> <p><u>Participant selection</u> Recruited through community agencies and provincial organisations. Purposive sampling used to represent a variety of low-income groups and demographic characteristics. Analysis includes only women who attended at least half of sessions (n=44), intervention drop-out rate unclear.</p> <p><u>Participant characteristics</u> English-speaking women between 25-69 living on low-income*. 20/44 participants aboriginal, 18 unemployed, 26 declare welfare/income support as their main income 16 did not complete high school, 7 had a post-secondary education and 2 an undergraduate degree. No participant's family income exceeded CA\$40,000.</p> <p><u>Outcomes measured</u> Qualitative and quantitative data collected pre, post and delayed post-test.</p>	<p><u>General population impact</u> Low SES sample.</p> <p><u>Impact by SES variable</u> Statistically significant decrease in tobacco dependence across the group. Among women who completed all data collection points (n=22) there was a decrease in daily cigarette consumption from 0.95 to 0.32, although it rose again at the delayed post-test to 0.64. Four participants reported sustained cessation at the delayed post-test interview. Participants commented on the usefulness of hearing the strategies employed by fellow quitters, and being able to draw on support from peers from a range of backgrounds. No significant impact on perceived self- efficacy. Participants reported being more aware of both the impact of smoking on their own health and the impact of SHS on the health of others. They also reported an increase in social support, but this fell again at delayed-post test interview.</p> <p><u>Author's conclusion of SES impact</u> Intervention led to significant decreases in consumption and temptation to smoke, and increases in positive health and social behaviours.</p>	<p><u>Internal validity</u> Mean baseline cigarette consumption of less than one cigarette per day indicates that at least some of the participants were not daily smokers. Small sample size, no randomisation of participants (sample had higher than normal self- efficacy, which may explain findings rather than intervention's impact).</p> <p><u>External validity</u> Sample not representative of the local population or the English population. Unclear whether impact would be less significant among a heavier smoking, or more homogenous population.</p> <p><u>Validity of author's conclusion</u> Difficult to compare findings given the small sample, low level of consumption among participants and relatively high level of motivation to quit.</p> <p><u>Other</u> Participants received honorarium and compensation for childcare and transport costs associated with interviews (cost CA\$8630), as well as a gift at the end of each counselling session (cost CA\$820). *Low-income defined according to Statistics Canada's low income cut- off levels, set at 63% of average family income.</p>

5.3 Cessation – Pharmacotherapy

Details	Method	Result	Comments
<p><u>Author, year & journal</u> Burgess 2009 Nicotine and Tobacco Research</p> <p><u>Study design</u> Cohort</p> <p><u>Objective/RQs</u> Examine the presence and correlates of gender disparities in smoking cessation among lower income smokers prescribed NRT.</p> <p><u>Intervention</u> Prescribed NRT</p> <p><u>SES variables used</u> Low income sample, employed.</p> <p><u>Author's conclusions</u> Suggests that women's workplaces may inhibit cessation,</p>	<p><u>Intervention details</u> Prescribed nicotine replacement products, excluding bupropion as reason for prescription could not be determined.</p> <p><u>Data sources</u> Secondary data analysis of smokers in the Minnesota Health Care Programs' pharmacy database, follow-up survey (post or telephone) for random sample of NRT users (mean follow up 8 months)</p> <p><u>Participant selection</u> Minnesota residents aged 18+, whose ethnicity was not missing/unknown or Hispanic (uncertain accuracy). Randomly selected individuals to have 600 in each ethnic group, but selected all AI/AN (575) and Asians (198). 191 excluded through death or uncontactable, final sample of 1782. Survey completion highest among white (65%), lowest among Asians (47.6%). 19 misclassified as smokers. Final sample size at follow up of 1019.</p> <p><u>Participant characteristics</u> 19% females less than high school educated, 53% college, 25% and 38% for males. 43 and 40% earn less than \$10,000, 30 and 35% earn more than \$20,000. 49 and 34% suffer depression</p> <p><u>Outcomes measured</u> 7 day self-reported point prevalence abstinence 8 months after quit date, 30 day abstinence.</p>	<p><u>General population impact</u> 19% males and 11% females abstinent for 7 days (p=0.02). Married (p=0.04), regular worshipper (p=0.03), smokefree home 22% v 9% (some rules) and 9% (no rules) (p<.01), no other household smokers (p<0.01), social support (p<.01), previously quit for 6 months or longer all correlated with 7 day abstinence in unadjusted analyses. Gender differences remained after adjusting for covariates (p=0.08)</p> <p><u>Impact by SES variable</u> Unadjusted quit rates for employed men 26%, unemployed 16%. For women 8% and 14% respectively (only interaction that remained significant in adjusted analyses by gender, at p=0.003). Unemployed women more likely to have some college education than men.</p> <p><u>Author's conclusion of SES impact</u> Unemployment associated with lower quit rates among males, but employment associated with lower quit rates among females. Possible that the unemployed women are single parents, or have another smoking risk factor not covered in the questionnaire.</p>	<p><u>Internal validity</u> Only the efficacy of prescribed NRT, rather than paid for NRT. High loss to follow up, especially among the smallest ethnic groups. No biochemical verification. Very highly educated sample compared to the general smoking population.</p> <p><u>External validity</u> Not representative of the general population by ethnicity, marital status or SES.</p> <p><u>Validity of author's conclusion</u> The combination of a low-income population with such relatively high levels of education is strange. High education category is 'some college or more', which suggests that the highly educated but low income population may be dominated by students, and thus being treated as low-income and unemployed is slightly misleading.</p> <p><u>Other</u></p>

Details	Method	Result	Comments
<p><u>Author , year & journal</u> Fernandez 2006 Nicotine and Tobacco Research</p> <p><u>Study design</u> Cohort</p> <p><u>Objective/RQs</u> Examine social class and educational differences in long-term cessation success among patients of a specialised smoking clinic</p> <p><u>Intervention</u> Specialised smoking cessation clinic</p> <p><u>SES variables used</u> Education and occupational class</p> <p><u>Author's conclusions</u> Patients of lower SES at higher risk of relapse, independent of other well-known predictors.</p>	<p><u>Intervention details</u> Hospital's smoking cessation unit in Barcelona which receives patients from medical, surgical and outpatient departments as well as local primary health centres (referral process not described). Patients received treatment with one of a range of products: 70% nicotine patch, 13.5% nicotine gum, 6.3% patch and gum, 5.3% anxiolytics, 3.6% antidepressants, 0.6% antidepressants plus NRT.</p> <p><u>Data sources</u> Baseline interview and CO-validated smoking status, two-weekly follow ups during the first 2 months and then 3, 6, 12 months. Telephone administered follow-up questionnaires used between February and May 2003.</p> <p><u>Participant selection</u> Patients at the unit between January 1995 and December 2001 (n=2123). 71.4% follow up rate in final questionnaire (20.7% no/wrong telephone number, 3.6% could not be reached, 0.9% refused, 3.4% died)</p> <p><u>Participant characteristics</u> 895 men, 621 women completed follow up, men slightly older (average age 47.5 v 40.2) 18% men and 27% of women in social class I&II, 18% of men and 32% of women University graduates. 59% of patients highly nicotine dependent.</p> <p><u>Outcomes measured</u> CO validated smoking status at each follow up visit in the first year. Self-reported smoking status during final follow-up survey. Relapse defined as self-reporting as daily or occasional smoker after being non-smoker.</p>	<p><u>General population impact</u> Median follow up time 52 months for abstinent group, 1 month for relapsers. 25% of those abstinent were followed up at over 73 months. Higher rate of abstinence among females. Higher nicotine dependence and earlier stage of change more likely to relapse. Gum users slightly more likely to relapse.</p> <p><u>Impact by SES variable</u> Lower social classes and less educated more likely to relapse, for both genders. Trend remained after adjusting for other predictors of relapse.</p> <p><u>Relative risks:</u> Social classes IV&V compared to I&II men: 1.36, 95% CI 1.07-1.72. women 1.60, 95% CI 1.24-2.06. Education: Less than secondary : University Men RR=1.75, 95% CI 1.25-2.25 Women RR=1.92, 95% CI 1.52-2.53 Secondary education : University Men RR=1.22, 95% CI 0.92-1.62 Women RR=1.70, 95% CI 1.28-2.22</p> <p><u>Author's conclusion of SES impact</u> Social inequalities in relapse according to social class and education level. Patients of lower SES more likely to relapse than higher SES. Comes despite no SES variation in motivation to quit.</p>	<p><u>Internal validity</u> Long period of recruitment and long follow up, potential for external factors to change and influence cessation, such as health warnings and mass media interventions, and other health problems. No tracking of use of NRT products outside of the intervention, or of adherence to NRT provision. Assessed SES at the same time as outcomes. Unlikely to have influenced findings given the age of the study group Self-reporting of abstinence at final follow up.</p> <p><u>External validity</u> Patient group not representative of the general population.</p> <p><u>Validity of author's conclusion</u> Fits with existing knowledge.</p>

Details	Method	Result	Comments												
<p><u>Author , year & journal</u> Lillard, 2007 Social Science and Medicine</p> <p><u>Study design</u> Multiple cross-sectional surveys</p> <p><u>Objective/RQs</u> How does cessation method vary by socioeconomic characteristics in the US?</p> <p><u>Intervention</u> Cessation by willpower alone, products, or quit programs.</p> <p><u>SES variables used</u> Income Education</p> <p><u>Author's conclusions</u> Results highlight socio-economic differences across methods. Better targeting of information and resources could lead to higher quit rates.</p>	<p><u>Data sources</u> 1995-9 National Consumer Survey (NCS), 31,425 current and former smokers. 2000 National Health Interview Survey (NHIS), 8291 c/f smokers.</p> <p><u>Participant selection</u> NCS - Representative probability sample of all adults living in USA (excluding Hawaii and Alaska). NHIS – representative of civilian, non-institutionalised population</p> <p><u>Participant characteristics</u> Average age 41, 76% white, 64.4/70.3% employed, \$52/\$39,000 average family income, education: 23% less than high school, 37% high school graduate, 28% some college, 12% college graduate, 64.4/63.2% privately insured. [NCS characteristics noted first, results roughly equal unless otherwise stated.]</p> <p><u>Outcomes measured</u> Quit attempts made, success (self-report cessation at annual survey) Cessation method used.</p> <p><u>Intervention details</u> No cost, 'product' (pharmaceutical aids), 'program' (quit smoking programs). Quitters using more than one method are assigned as below (program>product>no cost)</p>	<p><u>General population impact</u> NCS – 44.8% attempted to quit in previous year. 9% successfully quit (21% of those who attempted to quit). NHIS – 49.3% attempted to quit in previous 12 months, 10.5% successfully quit (21% of those who attempted to quit) See 'Other' for success by method.</p> <p><u>Impact by SES variable</u> Those with some college or college graduates are significantly more likely to attempt to quit, and to be successful. Higher family income associated with more costly methods of quitting. Low educated smokers significantly more likely to use a program/product (OR 1.2/1.22), or a combination of approaches. Those with more than high school education are slightly more likely to attempt to quit alone. More likely to use a product, or product & program if covered by Medicare and Medigap insurance (OR 1.4 and 2.4 respectively).</p> <p><u>Author's conclusion of SES impact</u> Self-selection is causing systematic differences in quit rates by socio-economic status. Quit rates could be boosted by increasing the coverage of cessation products in insurance plans, and by targeting information and resources better. Suggest association between lower education and use of products could be caused by the increased targeting of advertising at these groups.</p>	<p><u>Internal validity</u> Some data is already more than 10 years out of date. "Other" constituted 17.8% of the responses to method in the NCS sample.</p> <p><u>External validity</u> Difficult to interpret implications for the UK were products are already available on the NHS.</p> <p><u>Validity of author's conclusion</u> Would advertising of NRT products at low educated have been occurring in the data collection period?</p> <p>Unclear how resources could be 'better employed', without presentation of method efficacy by socio-economic group.</p> <p><u>Other</u> Success by method:</p> <table border="1"> <thead> <tr> <th></th> <th>NCS</th> <th>NHIS</th> </tr> </thead> <tbody> <tr> <td>No cost</td> <td>22.2%</td> <td>22.9%</td> </tr> <tr> <td>Product</td> <td>19.6%</td> <td>17.9%</td> </tr> <tr> <td>Program</td> <td>18.7%</td> <td>15.5%</td> </tr> </tbody> </table>		NCS	NHIS	No cost	22.2%	22.9%	Product	19.6%	17.9%	Program	18.7%	15.5%
	NCS	NHIS													
No cost	22.2%	22.9%													
Product	19.6%	17.9%													
Program	18.7%	15.5%													

Details	Method	Result	Comments
<p><u>Author , year & journal</u> Murphy, 2010 Journal of Public Health Management and Practice</p> <p><u>Study design</u> Prospective cohort</p> <p><u>Objective/RQs</u> To characterise longitudinal changes in cigarette smoking, purchase and cessation patterns among low-income smokers in New York State</p> <p><u>Intervention</u> Quitline, smokefree workplaces, pharmacotherapy.</p> <p><u>SES variables used</u> Low income</p> <p><u>Author's conclusions</u> State and local tobacco control policies being increasingly effective among low income smokers, but gains are offset by tobacco industry promotions.</p>	<p><u>Intervention details</u> Quitline available to smokers in New York State (introduced in 2000), Clean Indoor Air law passed in 2003.</p> <p><u>Data sources</u> Follow up interviews with low income smokers conducted 3 years after recruitment. Follow up rate of 34%</p> <p><u>Participant selection</u> Participants were volunteers who agreed to be interviewed while waiting for an appointment at Department of Social Services in Erie Country, NY.</p> <p><u>Participant characteristics</u> Followed-up respondents were 80% female, 45% white, 46% black, 27.8% had less than a high school education, and 36.3% had a high school diploma, 86% smoked daily.</p> <p><u>Outcomes measured</u> Current smoking status, quit attempts, use of medication and quitline, support for smokefree workplaces legislation.</p>	<p><u>General population impact</u></p> <p><u>Impact by SES variable</u> 37 (14%) reported successfully quitting smoking since the 2002 interview. 51.9% had ever used stop smoking medication, compared to 26.6% at baseline. Awareness of Quitline had doubled from 32.5% to 73.0%, with utilisation rising from 4.2% to 11%. 44.3% said that their exposure to second hand smoke had decreased since the 2003 CIA law was introduced.</p> <p>78% had used any tobacco industry promotion to buy cheaper cigarettes, and 66% bought their cigarettes on from American Indian reservations or out of state to avoid taxes.</p> <p><u>Author's conclusion of SES impact</u> State and local policies are having a positive effect on the behaviours of low income smokers. However these gains are reduced by the ability of smokers to buy cigarettes cheaply on reservations and their frequent exposure to industry promotions.</p>	<p><u>Internal validity</u> Low follow up rate, those followed up smoked a significantly higher number of cigarettes per day. Small sample size.</p> <p><u>External validity</u> Very specific, predominantly low income female population from one section of a state. Cheap tobacco from reservations not relevant to England.</p> <p><u>Validity of author's conclusion</u> Hard to tell the significance of the findings; it seems natural that far more smokers had heard of a Quitline 5 years after its creation than 2 years after and that more smokers had attempted to use cessation aids.</p> <p><u>Other</u></p>

5.4 Cessation – brief interventions

Details	Method	Result	Comments
<p><u>Author , year & journal</u> Bao, 2006 Health Services Research</p> <p><u>Study design</u> Cross-sectional</p> <p><u>Objective/RQs</u> Estimate the effect of provider advice on patient cessation outcome</p> <p><u>Intervention</u> Brief provider advice</p> <p><u>SES variables used</u> Education</p> <p><u>Author’s conclusions</u> Provider advice has a substantial effect on the success rate of smoking cessation. More effective than doubling tax and likely to have longer running success than policies such as smokefree workplaces.</p>	<p><u>Intervention details</u> Advice from a healthcare provider to quit during medical visits in last 12 months. Advice on diet/nutrition and physical activity included as instrumental variables, to mitigate selection bias.</p> <p><u>Data sources</u> Responses from the Sample Adult File from the 2001 National Health Interview Survey. 33326 interviewed, 7662 self-reported smokers, 712 self-reported quit in last 12 months. 5512 of these 8374 reported contact with their GP in previous 12 months, and these are the sample studied.</p> <p><u>Participant selection</u> Included adult patients who were either current smokers or quit during last 12 months, and had smoked a hundred cigarettes in their life (regular smokers).</p> <p><u>Participant characteristics</u> Av age 42, 54.7% female, 80% white, 18.6% less than HS educated, 35% HS grads, 23.7% some college, 22.5% college or higher. 63.5% privately insured, 12.4% uninsured.</p> <p><u>Outcomes measured</u> Self-report smoking status. Provider advice “has your [healthcare provider] advised you to quit smoking?”</p>	<p><u>General population impact</u> Providers more likely to advise daily smokers and those with co-morbid conditions.</p> <p>Provider advice doubles success, from 6.9% to 14.7% (p<0.001).</p> <p><u>Impact by SES variable</u> Bivariate probit model found that lower education was associated with lower likelihood of quitting (p=0.01 for less than high school and high school graduates, compared to college graduates). No relationship between advice and education. No relationship between insurance status and advice, those dually covered by Medicaid and Medicare more likely to quit than those with no insurance.</p> <p><u>Author’s conclusion of SES impact</u> No conclusion.</p>	<p><u>Internal validity</u> Recall bias, successful quitters more likely to remember being advised to quit, especially those who attribute the advice to their success. Appear to have over-sampled higher educated groups compared to the general smoking population. Those who do not visit their health care provider regularly are not captured. Cross-sectional, so no uniform time-period between provider advice and outcome measurement.</p> <p><u>External validity</u> Higher educated smoking population than one would expect in the general population.</p> <p><u>Validity of author’s conclusion</u> Higher SES groups appear more likely to quit, however the article fails to illustrate where the differential impact occurs – whether lower educated smokers are less likely to respond to provider advice, or whether they are more likely to fail in their quit attempt.</p> <p><u>Other</u></p>

Details	Method	Result	Comments
<p><u>Author , year & journal</u> Crittenden, 2007 Addictive Behaviors</p> <p><u>Study design</u> Prospective cohort</p> <p><u>Objective/RQs</u> Assess how intervening life events (pregnancy, exposure to clinic smoking interventions) affected smoking outcomes directly and indirectly</p> <p><u>Intervention</u> Brief cessation intervention</p> <p><u>SES variables used</u></p> <p><u>Author's conclusions</u> Public health efforts targeted to low-SES women should continue to emphasise benefits of smoking cessation, and incorporate more stress-coping mechanisms.</p>	<p><u>Intervention details</u> A brief smoking cessation intervention, used in previous research. This paper looked deeper in to the relationship between life events and smoking outcomes among a cohort of low SES women.</p> <p><u>Data sources</u> Telephone interviews 2, 6, 12, 18 months after initial clinic visit.</p> <p><u>Participant selection</u> Women recruited from prenatal, family planning and paediatric clinics in Chicago and two suburbs between Nov 1994 and Jul 1996. Women had to complete the first follow up call to be eligible 943 out of 1064, of whom 71%, 57%, 44% completed the remaining follow up calls</p> <p><u>Participant characteristics</u> 78% African American, 37% more than a high school education, 73% single mothers, average of 2.1 children. Average of 11 cigarettes a day.</p> <p><u>Outcomes measured</u> 7 day point prevalence abstinence at 2, 6, 12, 18 months (self-reported). Pregnancy and exposure to health care interventions (video, posters, self-help materials) also measured as influencing factors.</p>	<p><u>General population impact</u> Low SES study population</p> <p><u>Impact by SES variable</u> Exposure to smoking intervention messages did not predict health concerns or perceived stress. Being a member of the intervention group in the previous study has little significance in multivariate models.</p> <p>Pregnancy increased a woman's health concern but decreased her perceived stress, and was associated with abstinence (1.8 times more likely to be abstinent when pregnant as when not). Lower education associated with lower self-efficacy, but not abstinence. Full time employment increased motivation, which was a predictor of abstinence.</p> <p><u>Author's conclusion of SES impact</u> No direct mention of the equity impact of the intervention, but recommend that increased emphasis is placed on stress-reduction exercises as stress appears to mitigate the positive impact of the smoking cessation intervention.</p>	<p><u>Internal validity</u> Restricting sample to completion of the first follow up call misses those who relapse within the first two months. Low rate of follow up at 18 months. Only half of those studied in this paper received the intervention. Self-report measures of cessation.</p> <p><u>External validity</u> Focus on a majority African American population. Experienced substantial attrition at later follow up points.</p> <p><u>Validity of author's conclusion</u> Difficult to draw a particularly strong conclusion on the mediating effect of life-events when the intervention appears to have had little impact, and the article doesn't differentiate greatly between the participants who had been in the intervention or control groups of the previous study.</p> <p><u>Other</u></p>

Details	Method	Result	Comments
<p><u>Author , year & journal</u> Giskes, 2007 Journal of Public Health Policy</p> <p><u>Study design</u> Review & Policy analysis</p> <p><u>Objective/RQs</u> Identify policies with the potential to reducing smoking among socio-economically disadvantaged groups.</p> <p><u>Intervention</u> Sale restrictions, advertising bans, smokefree workplaces, cessation therapies, cigarette price.</p> <p><u>SES variables used</u> Various measures of socio-economic disadvantage.</p> <p><u>Author's conclusions</u> Advertising bans, workplace bans, increasing access to cessation therapies and increasing price have greatest potential. Many Western countries still lack a comprehensive approach to addressing smoking inequalities.</p>	<p><u>Intervention details</u> UK policy moderately comprehensive, less comprehensive than Sweden and Finland at all time points and equal to Spain. No workplace ban in the UK at any time point. UK tobacco prices were among the highest throughout the data collection period.</p> <p><u>Data sources</u> Literature review of articles between 1980 and January 1st 2004. Policy data for 1985, 1990, 1995, 2000. Retail price of cigarettes for the most popular brand.</p> <p><u>Participant selection</u> 6 countries studied, Sweden, Finland, UK, Germany, The Netherlands, Spain.</p> <p><u>Participant characteristics</u></p> <p><u>Outcomes measured</u> Comprehensiveness of tobacco control policies (scored 0-3) and smoking prevalence. Cigarette affordability (price/per capita GDP)</p>	<p><u>General population impact</u></p> <p><u>Impact by SES variable</u> Low SES associated with purchase of smaller packets of cigarettes. Unclear whether health education strategies reduce prevalence or simply delay initiation. TV advertising bans reduced socio-economic inequalities in smoking. No evidence on the differential impact of work-place bans, but one study found that where optional they were more likely to be enforced in professional, rather than manual workplaces. Low SES groups less likely to visit GP to receive brief counselling. Three studies found that quitlines were more effective among low SES groups, especially when the service is free and the provider made follow up calls. Price limited use of NRT among low SES groups, one study found low-SES women more likely to quit successfully with NRT if it is provided for free. Free cognitive behavioural therapy also effective among those in disadvantaged areas. Some evidence that low SES smokers were more responsive to tax increases, while a Dutch study suggests that they are more likely to switch to self-rolled or cheaper cigarettes.</p>	<p><u>Internal validity</u> Found a limited range of literature.</p> <p><u>External validity</u> UK tobacco control policy has advanced considerably since the end of the data collection period.</p> <p><u>Author's conclusion of SES impact</u> Literature review reveals considerable potential to reduce smoking inequalities through tobacco control policies, especially through advertising bans, workplace smoking, subsidised cessation therapy and cigarette pricing. UK has observed the greatest narrowing of inequalities, possibly due to the cumulative effective of introduction of several policies simultaneously or changing social norms.</p> <p><u>Validity of author's conclusion</u> The UK has adopted each of the policies recommended in the conclusion.</p> <p><u>Other</u></p>

Details	Method	Result	Comments
<p><u>Author, year & journal</u> Turner, 2008 Nicotine and Tobacco Research</p> <p><u>Study design</u> Prospective cohort</p> <p><u>Objective/RQs</u> Examine mechanisms linking recent history of depression with short-term smoking cessation.</p> <p><u>Intervention</u> Mass media recruitment, brief cessation intervention.</p> <p><u>SES variables used</u> High school education or lower. Income (\$25,000 or lower v over \$25,000)</p> <p><u>Author's conclusions</u> Recently depressed women who had higher levels of perceived social support were as likely to quit as those with no recent history of depression. Determinants of successful cessation for low educated women differ between those who seek support and those who do not.</p>	<p><u>Intervention details</u> Participants recruited following three television adverts targeting women. Participants were offered a self-help booklet and encouraged to watch a televised intervention. Intervention intended to promote readiness to quit.</p> <p><u>Data sources</u> Baseline questionnaire and follow ups immediately after the televised intervention, and then at 6, 12, 18 and 24 month follow up.</p> <p><u>Participant selection</u> Participants had to be women with no more than a high school education, and smoke at least one cigarette a day on average. Population sample recruited through random-digit dialling.</p> <p><u>Participant characteristics</u> Intervention group older, more likely to have a low income ($p < 0.01$) and be white, be heavier smokers and have a previous 24 hour quit.</p> <p><u>Outcomes measured</u> 7-day point prevalence abstinence at each 6 monthly follow up. Depressive status was assessed by a series of questions on mental state, and defined as having a recent history of depression if they responded yes to "Have you felt sad, blue or empty for two weeks or more in the last 6 months?", as well as having 5 of 8 symptoms.</p>	<p><u>General population impact</u> Focus was on a low-educated sample.</p> <p><u>Impact by SES variable</u> Mass media campaign attracted a lower income group of smokers. No significant differences in abstinence between intervention and control group at any follow up point. Only significant associations in the logistic regression were between quit status and motivation and self efficacy and consumption rate (inversely) for the control, and additionally for the experimental group depression (inversely), white ethnic group, and social support for those with a recent history of depression.</p> <p><u>Author's conclusion of SES impact</u> Conclusion focused on the link between depression and support and cessation, rather than SES or intervention impact.</p>	<p><u>Internal validity</u> No discussion of impact of response bias on the comparison between intervention and control group, or the likely difference between the intervention group and the region's smoking population. Only 7-day abstinence rates. Defined quit at any point as being quit, rather than only at end point. Higher rate of drop out among women with recent history of depression. Likely to have over-estimated the prevalence of depression. May have missed use of external cessation aids among the control group, cessation one year or more after a brief intervention is unlikely to be a result of the brief intervention.</p> <p><u>External validity</u> A relatively large, pro-actively recruited population, but all low educated.</p> <p><u>Validity of author's conclusion</u> Intervention appears to have had no significant impact, therefore no impact on SES.</p> <p><u>Other</u></p>

5.5 Cessation – Quitlines

Details	Method	Result	Comments
<p><u>Author, year & journal</u> An et al, 2006 Addiction</p> <p><u>Study design</u> Prospective cohort</p> <p><u>Objective/RQs</u> Assess changes in cessation rates and programme impact following addition of free NRT to statewide quitline services</p> <p><u>Intervention</u> Making NRT free quitline callers enrolling in multi-cessation counselling</p> <p><u>SES variables used</u> Education</p> <p><u>Author's conclusions</u> Addition of free NRT was followed by increases in participation and abstinence rates. Findings support the addition of access to pharmacotherapy as a part of quitline services.</p>	<p><u>Intervention details</u> Quitplan, Minnesota. Free 8-week supply of NRT mailed to callers registering for State quitline.</p> <p><u>Data sources</u> Registration info from Quitplan, Minnesota from 2002-3.</p> <p><u>Participant selection</u> Cohorts selected pre and post intervention.</p> <p><u>Participant characteristics</u> Representative of the State population by education.</p> <p><u>Outcomes measured</u> Self-reported abstinence for 30 days at 6 months. Seven day abstinence at 6 months. Number of new ex-smokers per month among callers.</p>	<p><u>General population impact</u> Increase in quit attempts. Self-reported 30days quit at 3 months increased significantly from 10% to 18.2% 7 days quit increased significantly from 10.8% to 21/7%. Reach increased significantly by approx. 400% Programme impact, 8-fold increase in number of ex-smokers.</p> <p><u>Impact by SES variable</u> No comment, but tables show that pre and post-NRT the quit OR for college educated was double that of high school and less than high school educated (significant). Not significant when adjusted for baseline and treatment characteristics. No change in reach by education.</p> <p><u>Author's conclusion of SES impact</u> No comment</p>	<p><u>Internal validity</u> Observational study, therefore cannot make definite conclusions about causation.</p> <p><u>External validity</u> NRT already available on prescription. Education not an ideal SES indicator for assessing impact across generations.</p> <p><u>Validity of author's conclusion</u> Equal distribution of callers by educational level. May increase inequalities due to difference in quit rates.</p> <p><u>Other</u></p>

Details	Method	Result	Comments
<p><u>Author , year & journal</u> Czarnecki, 2010 American Journal of Preventive Medicine</p> <p><u>Study design</u> Cross-sectional survey</p> <p><u>Objective/RQs</u> Awareness of New York City's NRT giveaway, socio-demographic differences in interest, perceived barriers to participation, outreach methods for future giveaways.</p> <p><u>Intervention</u> Media campaign to promote an NRT giveaway</p> <p><u>SES variables used</u> Income and education</p> <p><u>Author's conclusions</u> Mass media effective for informing smokers. Enrolment could be improved by addressing barriers as well as expanding outreach to minority groups.</p>	<p><u>Intervention details</u> Nicotine patch giveaway between May 3rd and June 6th 2006. Smokers could enrol via free non-emergency Gov info line. Callers received 4 weeks of patches. Advertised via multimedia campaign (TV/radio/print in Eng & Span) from Jan-Oct-06, including testimonials from dying/sick smokers, and graphic images of smoking's impact.</p> <p><u>Data sources</u> Random telephone survey of adult smokers in NYC (n=1000) conducted in 2006. Survey conducted in English or Spanish only. Responses weighted</p> <p><u>Participant selection</u> Current smokers (10 cigs or more) or those who had quit since beginning of NPP (14% screening rate). 56% of eligible smokers completed the survey (n=602).</p> <p><u>Participant characteristics</u> Hard to assess due to the use of 'population estimates'. Appears sample was dominated by Hispanics, males, and mid-low income groups. High school grads the largest group, followed by college educated, then some college and <high school. No indication of the representativeness of the sample.</p> <p><u>Outcomes measured</u> Program awareness, interest in free NRT (hypothetical), perceived barriers for those who were unaware of the giveaway program.</p>	<p><u>General population impact</u> 35,000 registered for the program. Program awareness high (60% overall), with most awareness coming from TV advertising. Interest among those who hadn't heard of the program fairly high (54%). Most 'barriers' were a lack of interest in quitting/aids.</p> <p><u>Impact by SES variable</u> Low income groups hypothetically more likely to have called than high income. High school grads and less than high school also more likely to have called than college. No SES evaluation of the other RQs.</p> <p><u>Author's conclusion of SES impact</u> Highest untapped interest in the lower SES groups.</p>	<p><u>Internal validity</u> Response and cooperation rates were low. Extrapolate from a very small population to make assertions about a huge, diverse city. No assessment of the representativeness of the sample of either smokers or NYC as a whole. Likely to over-estimate the number of people aware of the programme, and also potential users given the hypothetical question on interest (those reporting interest would significantly outweigh the number of actual users). Doesn't mention the type of TV used: free-to-air, potential demographics.</p> <p><u>External validity</u> Likely to be less cost-effective in less dense populations. Unlikely to be representative of most urban populations.</p> <p><u>Validity of author's conclusion</u> Difficult to make serious judgements given the concerns over validity .</p> <p><u>Other</u></p>

Details	Method	Result	Comments
<p><u>Author , year & journal</u> Ellis, 2008 Health Services Research</p> <p><u>Study design</u> Repeat cross-sectional</p> <p><u>Objective/RQs</u> Study gender differences in smoking declines and enrolment in cessation servies.</p> <p><u>Intervention</u> Free NRT from NYC Dept Health and Mental Hygiene</p> <p><u>SES variables used</u> Neighbourhood income (low = 45-90% of residents below 200% of the federal poverty level, med = 30-44%, high 0-29%)</p> <p><u>Author's conclusions</u> NRT give-aways are effective among young adult females, but more effort needs to be made to target young men.</p>	<p><u>Intervention details</u> Nicotine patches given away to people calling a helpline.</p> <p><u>Data sources</u> Community Health Survey, 2005 and 2006 Nicotine Patch Program.</p> <p><u>Participant selection</u> Helpline callers who were 18 or over, smoking at least 10 cigarettes a day, living in New York City.</p> <p><u>Participant characteristics</u> Predominantly white and Hispanic, with large number of Asian males. Main analysis studied 385 adults, aged 18-24</p> <p><u>Outcomes measured</u> Reduction in smoking prevalence (not among the intervention population however), and adherence to the cessation programme.</p>	<p><u>General population impact</u> Overall smoking prevalence dropped among young adult female smokers during the study period, not among males. Young men less likely to enrol than young women. Adherence to patch use is between 60 and 80% for all groups.</p> <p><u>Impact by SES variable</u> Enrolment in 2005 showed slightly higher enrolment among low-mid income neighbourhoods (5.2% of heavy smokers from low income neighbourhoods, 5.5% mid, 4.2% high). In 2006 enrolment was inversely associated with neighbourhood income (5.0%, 4.6%, and 3.7%). Adherence was fairly uniform, with some or all of the patches used by 73%(low income neighbourhoods), 69%(m),73%(h) in 2005, and 74.8%, 77.4% and 76.1% in 2006.</p> <p><u>Author's conclusion of SES impact</u> No comment made on socio-economic inequalities, focus on age and gender.</p>	<p><u>Internal validity</u> Possible response bias, no CO validation. Low rate of completed calls when assessing Nicotine Patch usage. Small sample size</p> <p><u>External validity</u> Only looking at smokers in NYC. NRT already available on the NHS.</p> <p><u>Validity of author's conclusion</u> No comment is made on the results by neighbourhood income level. However it appears likely that the intervention has been particularly effective in attracting among young women from low and middle income neighbourhoods.</p> <p><u>Other</u></p>

Details	Method	Result	Comments
<p><u>Author, year & journal</u> Maher, 2007 Tobacco Control</p> <p><u>Study design</u> Prospective cohort</p> <p><u>Objective/RQs</u> Assess whether quit rates and satisfaction with Washington Quitline varied by demographic or socio-economic characteristics.</p> <p><u>Intervention</u> Quitline</p> <p><u>SES variables used</u> Education</p> <p><u>Author's conclusions</u> The quitline is effective among, and well received by, the populations studied.</p>	<p><u>Intervention details</u> Washington State Quitline. 18-29yo callers who were a) uninsured, covered by Medicaid or Indian Health Service, or pregnant, and b) willing to set a quit date in the next 30days or having trouble staying quit, were eligible for 'Washington Benefit', 8 weeks of free NRT and 4 additional counselling calls. After Jan-05 this benefit was extended to all young adults regardless of insurance status.</p> <p><u>Data sources</u> 3 month follow up of callers from July 04 to June 05.</p> <p><u>Participant selection</u> Adult quitline callers between July 04 and June 05 who provided a phone number, smoked cigarettes and spoke English. Selected all remaining non-white and unknown ethnicity (n=1365), and selected non-Latino whites from urban (n=646) and non-urban areas (n=627). Total=2328, 1312 replied, RR=49.7%. 41 excluded, had not smoked over 100 cigarettes, did not remember using Quitline or had not received counselling call.</p> <p><u>Participant characteristics</u> 64% female, 20.4% less than HS education, 32.7% high school, 37% some college, 9.5% college graduate. Mean cigarettes per day = 19.2. 55% of participants enrolled in Washington Benefit program, not significantly associated with education.</p> <p><u>Outcomes measured</u> 7 day quit rate at 3 month follow-up, satisfaction with survey.</p>	<p><u>General population impact</u> 31% quit rate at 3 months. No significant difference between urban and non-urban participants or by ethnicity and gender.</p> <p><u>Impact by SES variable</u> 7 day quit rate higher for more highly educated groups (<HS=25%, HS=30%, Some college=33%, college grad=34%), but not significant association (p=0.40). Lower educated smokers significantly more likely to be satisfied with the service (p=0.03), but satisfaction rates very high across all categories (from 85% college to 96% for less than high school).</p> <p><u>Author's conclusion of SES impact</u> Quitline was effective and well-received across all socio-economic and demographic groups.</p>	<p><u>Internal validity</u> Females over-represented. Not representative by ethnicity.</p> <p><u>External validity</u> Success likely to be higher among Washington Quitline callers because quitline staff received greater training than other quitlines, and quitline receives fewer calls from non-English speaking smokers. Intentionally over-sampled minority ethnic groups. However quit rates were uniform across ethnic groups, so this may not have an impact on outcomes.</p> <p><u>Validity of author's conclusion</u> Positive gradient in quit rates by education is not statistically significant, and unlikely to cause a widening in inequalities in smoking due to the relatively low proportion of college-educated smokers using the Quitline. May be attributable to the increased eligibility for the Washington Benefit during the second half of the study, rather than solely the Quitline's impact, see Maher 2007</p> <p><u>Other</u></p>

Details	Method	Result	Comments
<p><u>Author , year & journal</u> Miller & Sedivy, 2009 Tobacco Control</p> <p><u>Study design</u> Pilot RCT</p> <p><u>Objective/RQs</u> Does subsidised NRT motivate low-income smokers to quit?</p> <p><u>Intervention</u> Telephone quitline plus NRT subsidy, compared with just telephone quitline.</p> <p><u>SES variables used</u> Low income (in receipt of Australian Government concession card)</p> <p><u>Author's conclusions</u> Quitline offered acceptable, relevant service which helped disadvantaged smokers to quit. Offering subsidised NRT was a strong incentive for lower-income smokers to call helpline.</p>	<p><u>Data sources</u> Telephone interviews. Sampling frame = electoral roll.</p> <p><u>Participant selection</u> 18+yo, smoke>10 cigs a day. Intervention group n=1000, n=377 in control.</p> <p><u>Participant characteristics</u> Mailed invitation aimed at lowest two quintiles of South Australian electoral roll. Mostly little/no education, smoking av. 30 years. 1% indigenous.</p> <p><u>Outcomes measured</u> Reach and quit rates at 3,6,12 months.</p> <p><u>Intervention details</u> Standard quitline programme, comprising multiple counselling sessions. Intervention group also had access to subsidised NRT. Advertising fliers included in local newspapers, alternating quitline and intervention.</p>	<p><u>General population impact</u> Intervention group more likely to make quit attempt, and had statistically higher quit rates at 3 and 6 months, but not 12. Participation 2.5x higher among those offered NRT, and subsidy made NRT use far more likely.</p> <p><u>Impact by SES variable</u> Not measured specifically, whole group was low income.</p> <p><u>Author's conclusion of SES impact</u> Improved use of the service and made low SES groups more likely to attempt to, and successfully, quit.</p>	<p><u>Internal validity</u> Randomised the invitations to the trial, not the respondents.</p> <p><u>External validity</u> NRT already available free on the NHS. Very low response rate to mail out. Only low-income heavy smokers, generalisability unclear.</p> <p><u>Validity of author's conclusion</u> Contribution to reducing inequalities is unclear. 12 month relapse rate suggests that intervention group struggle to sustain their quit attempt once access to NRT has been lost.</p> <p><u>Other</u></p>

Details	Method	Result	Comments
<p><u>Author , year & journal</u> Murphy, 2010 Journal of Public Health Management and Practice</p> <p><u>Study design</u> Prospective cohort</p> <p><u>Objective/RQs</u> To characterise longitudinal changes in cigarette smoking, purchase and cessation patterns among low-income smokers in New York State</p> <p><u>Intervention</u> Quitline, smokefree workplaces, pharmacotherapy.</p> <p><u>SES variables used</u> Low income</p> <p><u>Author's conclusions</u> State and local tobacco control policies being increasingly effective among low income smokers, but gains are offset by tobacco industry promotions.</p>	<p><u>Intervention details</u> Quitline available to smokers in New York State (introduced in 2000), Clean Indoor Air law passed in 2003.</p> <p><u>Data sources</u> Follow up interviews with low income smokers conducted 3 years after recruitment. 315 of 796 participants successfully located, 274 (87%) agreed to participate, 17 refused, 24 unavailable. Follow up rate of 34%</p> <p><u>Participant selection</u> Participants were volunteers who agreed to be interviewed while waiting for an appointment at Department of Social Services in Erie County, NY.</p> <p><u>Participant characteristics</u> Followed-up respondents were 80% female, 45% white, 46% black, 27.8% had less than a high school education, and 36.3% had a high school diploma, 86% smoked daily.</p> <p><u>Outcomes measured</u> Current smoking status, quit attempts, use of medication and quitline, support for smokefree workplaces legislation.</p>	<p><u>General population impact</u></p> <p><u>Impact by SES variable</u> 37 (14%) reported successfully quitting smoking since the 2002 interview. 51.9% had ever used stop smoking medication, compared to 26.6% at baseline. Awareness of Quitline had doubled from 32.5% to 73.0%, with utilisation rising from 4.2% to 11%. 44.3% said that their exposure to second hand smoke had decreased since the 2003 CIA law was introduced.</p> <p>78% had used any tobacco industry promotion to buy cheaper cigarettes, and 66% bought their cigarettes on from American Indian reservations or out of state to avoid taxes.</p> <p><u>Author's conclusion of SES impact</u> State and local policies are having a positive effect on the behaviours of low income smokers. However these gains are reduced by the ability of smokers to buy cigarettes cheaply on reservations and their frequent exposure to industry promotions.</p>	<p><u>Internal validity</u> Low follow up rate, those followed up smoked a significantly higher number of cigarettes per day. Small sample size.</p> <p><u>External validity</u> Very specific, predominantly low income female population from one section of a state. Cheap tobacco from reservations not relevant to England.</p> <p><u>Validity of author's conclusion</u> Hard to tell the significance of the findings; it seems natural that far more smokers had heard of a Quitline 5 years after its creation than 2 years after and that more smokers had attempted to use cessation aids.</p> <p><u>Other</u></p>

Details	Method	Result	Comments																					
<p><u>Author , year & journal</u> Tzelepis, 2009 American Journal of Preventive Medicine</p> <p><u>Study design</u> Cross sectional</p> <p><u>Objective/RQs</u> Determine proportion and characteristics of smokers actively recruited to quitline support in New South Wales, and the cost per smoker recruited.</p> <p><u>Intervention</u> Active quitline recruitment</p> <p><u>SES variables used</u> Education</p> <p><u>Author's conclusions</u> Active recruitment has the potential to substantially increase proportion of smokers using a quitline at reasonable cost, and engages smokers currently under-represented among quitline service users.</p>	<p><u>Intervention details</u> Information letters sent to 48014 addresses randomly selected from the telephone directory (Sept 2005- April 2007), and telephoned 2 weeks later.</p> <p><u>Data sources</u> Baseline and follow up questionnaires. Characteristics of NSW smoking population obtained from NSW Population Health Survey (n=1103)</p> <p><u>Participant selection</u> Participants: daily tobacco users, aged 18+, NSW residents, and English speakers (n=1562).</p> <p><u>Participant characteristics</u> Compared to population of NSW smokers, study participants were significantly different re gender (females over-represented), age (slightly older), country of birth (more Australian-born), education (at both ends of the spectrum), private health insurance (more privately insured) and mean household size (had slightly smaller households).</p> <p><u>Outcomes measured</u> Characteristics at baseline.</p>	<p><u>General population impact</u> 3008 of 43710 households contained an eligible smoker who was invited to the Quitline, 1562 (51.9%) were randomised to proactive counselling or self-help materials. Total recruitment cost AU\$110,952, or AU\$71 per smoker.</p> <p><u>Impact by SES variable</u> The study recruited more smokers with less than a high school education and more with a University education compared to the state population.</p> <table border="1"> <thead> <tr> <th>Level of Education</th> <th>Participants</th> <th>NSW smoker population</th> </tr> </thead> <tbody> <tr> <td>Primary</td> <td>1</td> <td>1.7</td> </tr> <tr> <td>Year 7-10</td> <td>32.1</td> <td>27.0</td> </tr> <tr> <td>Higher School Certificate or Technical Education</td> <td>46.4</td> <td>54.7</td> </tr> <tr> <td>University</td> <td>18.7</td> <td>13.9</td> </tr> <tr> <td>Other</td> <td>1.9</td> <td>1.5</td> </tr> <tr> <td>Don't know</td> <td>0</td> <td>1.3</td> </tr> </tbody> </table> <p>Active recruitment also enrolled more smokers with private health insurance than the state population, 38% of enrolees compared to 33.3% of the state population (p=0.04). Compared to a second survey of the NSW smoking population, actively recruited smokers showed a lower rate of employment and a higher rate of being unable to work and 'home duties'.</p> <p><u>Author's conclusion of SES impact</u> Active recruitment engages smokers who are currently under-represented in quitline populations.</p>	Level of Education	Participants	NSW smoker population	Primary	1	1.7	Year 7-10	32.1	27.0	Higher School Certificate or Technical Education	46.4	54.7	University	18.7	13.9	Other	1.9	1.5	Don't know	0	1.3	<p><u>Internal validity</u> Recruitment rate may also have been increased by coincidental tobacco control policies, including mass media, pictorial warnings on packaging and smoking restrictions.</p> <p><u>External validity</u> Use of a telephone directory as sampling frame may miss the lowest SES smokers, and highly mobile populations, as well as those with unlisted numbers. Problem of the recruitment method highlighted by 4304 being uncontactable, and a further 9372 disconnecting their telephone line. Attempts to transfer the study to the UK population may be restricted by the rising use of mobile phones taking the place of landlines.</p> <p><u>Validity of author's conclusion</u> Hard to conclude on the potential equity impact of active quitline recruitment. 68% of those recruited had no intention to quit in the next 30 days, which is far higher than normal quitline user populations, and there is no suggestion that the quitline had changed this intention, or a discussion of whether the intention varied by SES.</p> <p><u>Other</u></p>
Level of Education	Participants	NSW smoker population																						
Primary	1	1.7																						
Year 7-10	32.1	27.0																						
Higher School Certificate or Technical Education	46.4	54.7																						
University	18.7	13.9																						
Other	1.9	1.5																						
Don't know	0	1.3																						

5.6 Internet

Details	Method	Result	Comments
<p><u>Author , year & journal</u> An, 2008 Journal of Medical Internet Research</p> <p><u>Study design</u> Prospective cohort</p> <p><u>Objective/RQs</u> Determine association between use of online resources and abstinence.</p> <p><u>Intervention</u> Web-Assisted Tobacco Intervention</p> <p><u>SES variables used</u> Education, employment, insurance status.</p> <p><u>Author's conclusions</u> Use of interactive quitting tools associated with increased abstinence among Quitplan.com users.</p>	<p><u>Intervention details</u> Minnesota-branded cessation website which features expert services and peer support, as well as interactive tools.</p> <p><u>Data sources</u> Baseline questionnaire, site utilisation data, and 6-month follow-up site-evaluation survey.</p> <p><u>Participant selection</u> New registrants between Feb 2nd and April 13th 2004. Minnesota residents, at least 18yo, current tobacco users. 1006 of 1295 registrants eligible, 60.3% agreed to participate. 77.6% follow up.</p> <p><u>Participant characteristics</u> 66.4% female, 18% less than high school educated, 33.9% college educated. 74.8% employed for wages, 86.5% insured</p> <p><u>Outcomes measured</u> Self-reported abstinence for 30 days prior to 6 month follow up, use and opinion of website aids.</p>	<p><u>General population impact</u> 9.7% recorded 30-day abstinence at 6 months. Active engagement in the online community, use of interactive quit tools and general information all positively associated with abstinence.</p> <p><u>Impact by SES variable</u> Demographic data not a significant predictor of abstinence.</p> <p><u>Author's conclusion of SES impact</u> Not discussed.</p>	<p><u>Internal validity</u> High rate of follow-up. Observational study not randomised control trial, therefore unable to make claims over causality. Selection bias in both participation and adherence.</p> <p><u>External validity</u> Not representative of the population as a whole, but American internet users likely to be relatively similar to the English internet user population socio-economically. Unclear whether tools would be as successful in England. Findings may not be applicable to websites with different designs.</p> <p><u>Validity of author's conclusion</u> SES apparently not a significant indicator of quitting, however the characteristics of users suggest that such services are dominated by higher SES groups. Therefore it is likely that these websites will lead to a widening of health inequalities. Access limited to web users, and frequent access needed to actively engage in the website's community.</p> <p><u>Other</u></p>

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<p><u>Author, year & journal</u> Seidman, 2010 Annals of Behavioral Medicine</p> <p><u>Study design</u> RCT</p> <p><u>Objective/RQs</u> Determine the 13-month effectiveness of an internet cessation program and the role of depressed affectation.</p> <p><u>Intervention</u> Internet cessation program v control site.</p> <p><u>SES variables used</u> Education</p> <p><u>Author's conclusions</u> Supports the long-term efficacy of a specific internet cessation intervention.</p>	<p><u>Intervention details</u> Internet cessation intervention based upon treatments and strategies from cognitive-behavioural theory, tailored based upon responses given to a questionnaire at the start of each session. Randomly assigned to this or control site which was non-interactive, featuring downloadable self-help materials.</p> <p><u>Data sources</u> Baseline survey and follow up surveys at 3, 6, and 12 months after quit date.</p> <p><u>Participant selection</u> English-speaking smokers US-residents. 2153 participants, 1106 used treatment site. Recruited via invitation on cancer.org (75639 saw invitation, 41045 visited page 6451 eligible, 4298 used sites not included in this paper)</p> <p><u>Participant characteristics</u> 87.7% white, 76.7% at least some college education.</p> <p><u>Outcomes measured</u> 30 day point prevalence abstinence at 3, 6, 12 months or prolonged abstinence.</p>	<p><u>General population impact</u> Intervention website more likely to report 12 month 30 day point prevalence abstinence (OR=1.44, 1.06-1.96 p=0.02)</p> <p><u>Impact by SES variable</u> College graduates more likely to complete 12 month follow up (30.6% v 24.3%) College graduates more likely to be abstinent at 12 months: HS Grad OR=0.60 (0.40-0.91) Some college OR= 0.73 (0.54-1.00) College graduate as reference. Both significant at p<0.05). Similar for prolonged abstinence, and for 3 and 6 month follow ups.</p> <p><u>Author's conclusion of SES impact</u> None</p>	<p><u>Internal validity</u> Self-reported abstinence Low response rate at 13 month follow up (38%)</p> <p><u>External validity</u> Highly educated, mostly white, population.</p> <p><u>Validity of author's conclusion</u> Have recruited a very highly educated population, who have shown higher quit rates at each follow up than lower educated participants as well as better follow up rates. Would widen education-related inequalities in smoking.</p> <p><u>Other</u> Sponsored by American Cancer Society Occasionally refer to 4, 7, 13 month follow ups in the text, but this is from randomisation rather than quit date.</p>

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<p><u>Author, year & journal</u> Strecher, 2008 Journal of Medical Internet Research</p> <p><u>Study design</u> RCT</p> <p><u>Objective/RQs</u> Determine: whether level of engagement in a web-based cessation intervention predicts 6-month abstinence. Whether engagement varies by socio-demographic or psychographic groups. Whether particular program components influence engagement.</p> <p><u>Intervention</u> Web-based program for smoking cessation</p> <p><u>SES variables used</u> Education</p> <p><u>Author's conclusions</u> Engagement is an important predictor of the success of Web-based smoking cessation interventions. Message source, tailoring and timing appear to influence engagement.</p>	<p><u>Intervention details</u> Quit date needed to be set within three weeks of baseline assessment. Participants were randomised to high or low depth each branch of the intervention, including: outcome expectations, tailored feedback on efficacy, success stories, and message personalisation. Timing of sections was manipulated, to provide sections sequentially over five weeks or in a single handbook (16 intervention arms)</p> <p><u>Data sources</u> Baseline assessment data questionnaire. Follow up at 6 months.</p> <p><u>Participant selection</u> Recruitment described in McClure et al, 2006, already included in this study. Participants obtained from member lists of two health care organisations, with likely smokers identified through recent medical appointments or data in records. Eligible if current smoker of at least 10 cigarettes per day, 21-70yo, seriously considering quitting, had internet access, and not currently using an alternative method of cessation. 3256 visited site, 2651 screened, 2011 eligible, 1866 randomised, 1415 followed up successfully (76% of randomised participants). No significant differences in response by intervention arms (p=0.75)</p> <p><u>Participant characteristics</u> Mean age 46, 59.5% female, 36% high school education or lower or vocational training. Mean cigarettes per day 22. Mean motivation 8/10.</p> <p><u>Outcomes measured</u> Engagement, defined by number of sections viewed (total 5). Perception of depth of message relevance, and depth of tailored messages received. 7 day point prevalence abstinence at 6 months.</p>	<p><u>General population impact</u> Engagement significantly related to abstinence at 6 month follow up (OR=2.26, CI=1.72-2.97). Each section opened raised likelihood of quitting by 18%. 'Heavy' users (3-5 sections opened) had a significantly higher cessation rate.</p> <p>Engagement predicted by greater depth of message personalisation and more tailored self-efficacy components.</p> <p><u>Impact by SES variable</u> Engagement lower among those with high school or lower education, 2.2 sections a week compared to 2.5 for more than high school education. (p=0.01)</p> <p><u>Author's conclusion of SES impact</u> Lower educated more likely to disengage, could be a need for more specifically targeted cessation programming.</p>	<p><u>Internal validity</u> Many excluded due to not smoking enough (26% of those excluded) Participants not representative of the whole smoking population, sampling frame is unlikely to have been either; e.g. they have some form of health insurance, higher proportion of highly educated smokers, and a very highly motivated and self-efficacious group. Page views not an accurate measure of engagement, i.e. time spent reading the material, or level of understanding. Sample size in each response arm is relatively small; no significant difference in non-response is inevitable.</p> <p><u>External validity</u> Restrictive selection criteria - may have a greater impact if smokers of less than 10 cigarettes a day were included.</p> <p><u>Validity of author's conclusion</u> Ok.</p> <p><u>Other</u></p>

5.7 Cessation – other

Details	Method	Result	Comments
<p><u>Author, year & journal</u> Reid 2007 Patient education and counselling</p> <p><u>Study design</u> Pilot RCT</p> <p><u>Objective/RQs</u> Pilot to determine the feasibility of an interactive voice response (IVR) follow-up system</p> <p><u>Intervention</u> Interactive voice response telephony (v usual care)</p> <p><u>SES variables used</u> Education (up to high school v higher than high school)</p> <p><u>Author's conclusions</u> Promising intervention but requires a larger trial to determine its efficacy</p>	<p><u>Intervention details</u> Patients at a cardiac facility were given bedside counselling and offered NRT before being randomised to either usual care or automated IVR calls at 3, 14 and 30 days after discharge.</p> <p><u>Data sources</u> Baseline questionnaire and follow-up questionnaire at 52 weeks. Completion data on IVR calls.</p> <p><u>Participant selection</u> Smokers being treated for CHD at University of Ottawa Heart Institute in 2004/5 who were 18+, smoked 5+ cigarettes per day and lived within an hour of the hospital. Participation rate 90.1%, 100 recruited, 50 assigned to each group. Only 1 lost to follow up (patient deceased at 52 weeks).</p> <p><u>Participant characteristics</u> Mean age 54, mostly men admitted for acute coronary syndrome. 48% and 57% had no previous quit attempts. 70% of intervention and 59% of control were using NRT in hospital. Significant difference in education levels of group, 9% of intervention had more than a high school education and 30% of control.</p> <p><u>Outcomes measured</u> 52 week point prevalence</p>	<p><u>General population impact</u> IVR calls completed by 70%, 72%, 68% of the intervention group at 3, 14, 30 days respectively. Only 36% of patients received all three calls, 4% received none. 46% (I) and 34.7% (C) respectively were abstinent at 52 weeks (OR=1.60, 0.71-3.60), almost significant after adjusting for baseline differences (OR=2.34, 0.92-5.92). 42% and 35% abstinent at 12 week follow up (p=0.59) Those flagged for additional support had quit rates of 21.7% v 59.3% (IVR group with no additional support) at 12 weeks and 30.4% v 59.3% at 52 weeks.</p> <p><u>Impact by SES variable</u> Having higher than high school education did not predict 52-week point-prevalence abstinence in either univariate or adjusted models.</p> <p><u>Author's conclusion of SES impact</u> No discussion of SES impact.</p>	<p><u>Internal validity</u> Sample is small and inevitably very specific. May have a greater impact on a younger, more highly educated population. Include smokers of 5 or more cigarettes per day, most studies limited to 10 or more. Self-reported abstinence.</p> <p><u>External validity</u> Unclear whether findings could be generalised to a wider population: patients likely to be more highly motivated to quit smoking, however also older and less educated than the general smoking population and therefore may be less likely to quit (age identified as borderline significant in univariate analysis).</p> <p><u>Validity of author's conclusion</u> Only 9% of intervention group and 30% of control group were in the higher educated group, therefore intervention was unlikely to find any equity impact. Intervention group had a higher abstinence rate than the control, despite the lower proportion of higher educated smokers.</p> <p><u>Other</u> Follow-up system as a response to the rise in single day/shorter stays in hospital for treatment of CHD, and the perceived expense of follow-up systems.</p>

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<p><u>Author, year & journal</u> Sorensen 2009 Journal of Occupational and Environmental Medicine</p> <p><u>Study design</u> Cross-sectional</p> <p><u>Objective/RQs</u> Examine the relationship between the work environment and among smoked, intention to quit and participation in a health promotion intervention.</p> <p><u>Intervention</u> Health promotion intervention to promote tobacco use cessation and weight management.</p> <p><u>SES variables used</u> Occupational class</p> <p><u>Author's conclusions</u> Understanding of the influence of the work environment may guide interventions among blue-collar workers.</p>	<p><u>Intervention details</u> "Gear Up For Health Study", health promotion intervention to promote tobacco use cessation and weight management. Details undefined but included counselling calls.</p> <p><u>Data sources</u> Baseline survey conducted on-site</p> <p><u>Participant selection</u> From eight participating trucking terminals, randomly selected from 17 eligible in the Eastern region of the US. Eligible workers worked at last 15hr/wk, permanent employees as truck drivers or dock workers, union members, and not out of work on workers' compensation for more than two weeks at time of survey. (n=542, RR=78%)</p> <p><u>Participant characteristics</u> 41% of the 542 respondents used some for of tobacco, 26% only smoked cigarettes. Characteristics of cigarette smokers mean age 48.6, 24.3% some college or higher, 87.5% satisfied with job, 45.6% work shifts.</p> <p><u>Outcomes measured</u> Program participation (all tobacco users).</p>	<p><u>General population impact</u> Low SES sample</p> <p><u>Impact by SES variable</u> Not working day shifts (OR=0.16, p=0.007), concern about work-related hazard exposure (Not/somewhat v extremely: OR=0.33, p=0.02) and intention to quit (pre/contemplation v preparation/action: OR=0.37, p=0.02) were all associated with lower odds of participation in multivariate analyses. (Program participants defined as completing at least one counselling call.)</p> <p><u>Author's conclusion of SES impact</u> Norms around smoking strongly related to consumption, and intention and action on quitting.</p>	<p><u>Internal validity</u> Small sample of cigarette smokers. Cross-sectional survey, unclear whether smokers participated because of readiness to quit or vice versa. Measures are self-reported and subjective.</p> <p><u>External validity</u> A very specific type of job, unclear whether findings would be similar in other areas. No info re programme or how contacted.</p> <p><u>Validity of author's conclusion</u> Give little useful information.</p> <p><u>Other</u></p>

Details	Method	Result	Comments
<p><u>Author , year & journal</u> Van Osch, 2007 Health Education Research</p> <p><u>Study design</u> Prospective cohort study</p> <p><u>Objective/RQs</u> Explore determinants of successful quitting through a Quit and Win contest.</p> <p><u>Intervention</u> Quit and Win</p> <p><u>SES variables used</u> Education.</p> <p><u>Author's conclusions</u> Contest was effective, and supportive emails and buddy system were particularly effective aids, with radio and internet advertisements most effective recruitment channels.</p>	<p><u>Intervention details</u> Quit and Win contest in The Netherlands.</p> <p><u>Data sources</u> Baseline questionnaires and follow ups at 1 month and 1 year.</p> <p><u>Participant selection</u> Entrants who provided a valid email address were contacted (2887 of 3694), 1551 consented to participate in study, Random sample of 7500 Dutch smokers approached by email to act as control group, 1147 agreed, 244 met selection criteria. 37% and 25% lost to follow up after one month, 56% and 49% at one year.</p> <p><u>Participant characteristics</u> Mean age 36.9, 60% females, 96% Dutch, 29.7% less than high school education, 44.5% high school, 25% higher. Control older and less educated.</p> <p><u>Outcomes measured</u> Goal, abstinence at 1 and 12 months, recruitment method, use of support, and evaluation of the contest.</p>	<p><u>General population impact</u> Abstinence rates at 1 and 12 months: Control: 15.3% and 5.6% Contest: 57.7% and 27.1%</p> <p>Including non-response as still smoking: Control: 10.9% and 2.9% Contest: 35.4% and 11.9%</p> <p>52.3% recruited by radio, 26.2% by friends.</p> <p><u>Impact by SES variable</u> Higher education was a slightly significant predictor of cessation at one month (OR = 1.199 (95%CI 1.032-1.393) p<0.05), and a non-significant predictor of continuous abstinence (OR=1.109 (0.895-1.374). No analysis of recruitment method, use of buddy system or other aids by SES. The random sample of smokers recruited in to the control sample were significantly more likely to be low educated</p> <p><u>Author's conclusion of SES impact</u> Not discussed.</p>	<p><u>Internal validity</u> High rate of loss to follow up, higher in the experimental group than the control. Self-report measure of cessation likely to over-estimate the impact of the contest. Control group less likely to quit based on their sample being older and less educated.</p> <p><u>External validity</u> Sample characteristics not discussed in detail, but appears that they could be easily mapped on to the English population.</p> <p><u>Validity of author's conclusion</u> Impact of intervention at 1 year is probably only non-significant due to the small size of quitters at this point. Would contribute to a slight widening of inequalities by education. Would have been interesting to know whether this is linked to a lower uptake of support among less educated groups.</p> <p><u>Other</u></p>

Details	Method	Result	Comments
<p><u>Author , year & journal</u> Velicer 2007 Health Psychology</p> <p><u>Study design</u> Retrospective data analysis</p> <p><u>Objective/RQs</u> Examine potential influences of several variables on cessation outcomes following treatment with a tailored cessation intervention.</p> <p><u>Intervention</u> Computer-generated expert system</p> <p><u>SES variables used</u> Education</p> <p><u>Author's conclusions</u> Demographic variables are static whereas smoking variables are dynamic – interventions should be tailored to smoking variables.</p>	<p><u>Intervention details</u> Combined five studies of smokers from the US, all using the same intervention on different population groups (random digit dial, HMO members, school parents, patients from health insurer, and worksite. The latter three interventions had a multiple-risk focus). Three assessments at 0, 3, and 6 months or 0, 6 and 12 months which generate a five page feedback report (no significant difference found between the two in pilot). Intervention dates range from Sep/90-Jun/94 until Dec/95-Sep/98</p> <p><u>Data sources</u> Sample and outcome data from the five different studies.</p> <p><u>Participant selection</u></p> <p><u>Participant characteristics</u> 41% male, 96% White, Education: 12% less than 12y, 42.6% 12y, 26.7% 13-15y, 18.6% 16+y. Mean cigarettes per day: 18.79.</p> <p><u>Outcomes measured</u> Main measures: 24 hour and 7 day point prevalence abstinence, prolonged abstinence at 30 days and 6 months. RDD and HMO samples followed up at 6, 12, 18 and 24 months from baseline, others at 12 and 24 months.</p>	<p><u>General population impact</u> Abstinence rate of 17.7% at 12 months and 23.6% at 24 months.</p> <p><u>Impact by SES variable</u> In the univariate analyses a significant difference was observed by education at 12 and 24 month follow up, with moderate effect size. In multivariate analysis those with 16+ years of education were significantly more likely to be abstinent than those with <12 years (30.1% v 21.8% abstinent). No other education groups were significant.</p> <p><u>Author's conclusion of SES impact</u> 'Results with respect to education are not surprising'.</p>	<p><u>Internal validity</u> Measure impact among those followed up, rather than including loss to follow up as still smoking. Size of some sub-groups were very small (i.e. ethnic minorities)</p> <p><u>External validity</u> Recruitment covered a relatively broad range of population groups, but lacks ethnic diversity. Intervention results now over a decade old, strategy may not be effective any more.</p> <p><u>Validity of author's conclusion</u> Equity impact may have been even greater using intent to treat calculations rather than only using data on those with completed follow ups. Follow up rate was worst among the lowest educated group (constituted 11.4% and 10.8% of the 12 and 24 month follow up groups).</p> <p><u>Other</u> Intention to treat abstinence rates: 12 months: 325/2972 = 10.9% 24 months: 378/2972 = 12.7%</p>