PMID	First Author	Title	Year	Study Type	CVD	RF by CQ	Study Origin	Setting	Search Range	Data Sources	Study Eligibility Criteria	Number of Studies	Main Study Objective	Study Pop. (N)	Target Population	Patient Characteristics	Study Characteristics	Interv. Type	Specific Intervention Examined	Observational Relationship Assessed	Outcomes Measured	Treatment Effect and Statistical Significance	Main Reported Findings by Critical Question	Limitations of Studies Reviewed	Quality of MA
8498627	Bruvold WH	A meta-analysis of adolescent smoking prevention programs	1993	MA	None	Q13 (RF10)	USA	Community	NR	NR	Studies must have "exemplary" or "defensible" use of appropriate comparison groups, appropriate pretests, posttests, and follow-up assessments, control of research attrition, validity of dependent variable assessment, and use of statistical procedures appropriate for program evaluation research	48	Determine the efficacy of school-based smoking prevention programs	NR	Pediatric/ Young Adults	NR	NR	Behavioral	Smoking prevention	N/A	Smoking knowledge and behavior	Studies in all orientation classifications had significant impact on knowledge outcome measures. The only exceptions were the 2 vote-count analyses of studies falling in the social reinforcement classification Results for attitude were generally not as positive. Programs classified as primarily social reinforcement-oriented seem to have had the most impact on attitudes, followed by those classified as primarily developmental Behavioral effect sizes for programs with social reinforcement and social norms orientations were consistently positive and significant, those for programs with developmental orientations were mixed in sign but generally positive and significant, and those for programs with rational orientations were mixed in sign and usually not significant For behavior, although larger effect sizes were always associated with higher grade levels, larger effect sizes were associated sometimes with fewer sessions, fewer secondary program elements, and earlier publication and sometimes with more sessions, more secondary program elements, and later publication	Q13: Behavioral effect sizes were found to be largest for interventions with a social reinforcement orientation, moderate for interventions with either a developmental or a social norms orientation, and small for interventions with the traditional rational orientation	NR	
8822401	Rooney BL	A meta-analysis of smoking prevention programs after adjustment for errors in the unit of analysis	1996	MA	None	Q13 (RF10)	USA	Community	1974-1991	Index Medicus MEDLINE Psychological Abstracts Current Contents Bibliography on Smoking and Health Article bibliographies	Studies including some quantitative measure of tobacco use School-based studies Studies with control/comparison groups Intervention taking place in 6th through 12 grade "Social" or "peer-type" programs not focused exclusively on health consequences or alternative strategies	131 interventions (90 studies)	Test the basis for the prevailing view that psychosocial approaches to smoking prevention are effective	NR	Pediatric/ Young Adults	NR	0 mo to posttest measurement: 105 studies 1-12 mo to posttest measurement: 19 studies 13-72 mo to posttest measurement: 7 studies Used random assignment: 96 studies Used nonrandom assignment/unknown: 35 studies Mean percentage of attrition in intervention group (SD): 19.96 (13.45)	Behavioral	Smoking prevention	N/A	Effect size of smoking	The magnitude of the average effect size changed little as a result of the adjustment for the estimated intraclass correlation in those studies that analyzed their data at the wrong unit of analysis. The unadjusted effect size at posttest was 0.1145, after correction, it was 0.1130. In the follow-up analysis, the unadjusted effect size was 0.1094 and average adjusted effect size was 0.1006 At posttest, the adjusted mean effect size was 0.1130 (p<0.001) At a follow-up of about 1 yr, the adjusted mean effect size was 0.1006 (p<0.001) Assuming time to posttest measurement of about 1 yr, random assignment, observation of the program leader with feedback, having the intervention distributed over time, less than 10 treatment sessions, and inclusion of an untrained same-age peer, the best expected effect sizes by treatment subgroup and focus of intervention are estimated as follows: Social influences, tobacco only: 0.5762 Other focus: 0.7593 Resistance skills, tobacco only: 0.6155 Generic social skills, tobacco only: 0.6692 Other focus: 0.6770	Q13: The average effect sizes found in the adjusted meta-analysis were small (on the order of 0.10). While the average effect sizes were modest, the results from this meta-analysis suggest that the impact of the peer or social programs may be improved if they are delivered early during the transition from elementary to middle school, if same-age peer leaders play a substantial role in delivering the intervention program, if they are part of a multicomponent health program	Publication bias Limited to school-based interventions	
10707438	Derzon JH	Predicting tobacco use to age 18: a synthesis of longitudinal research	1999	MA	None	Q8 (RF10)	USA	Don't know/NR	NR	DAI ERIC MEDLINE Mental Health Abstracts NCJRS PsycINFO Social SciSearch	Studies containing data on the relationship of some behavior, characteristic or experience with concurrent or later use of tobacco measured at or before age 18	64 studies (106 publications)	Synthesize the available evidence on predictors of adolescent tobacco use	145,750	Pediatric/ Young Adults	NR	NR	None	N/A	Predictors of tobacco use and smoking	Effect size of predictors of tobacco use	Prior tobacco use Mean effect size: 0.519 P-value: 0.000 Peer tobacco and substance use Mean effect size: 0.397 P-value: 0.000 Marijuana use Mean effect size: 0.378 P-value: 0.000 Alcohol use Mean effect size: 0.351 P-value: 0.000 School commitment/performance Mean effect size: 0.249 P-value: 0.000 Illicit drug use Mean effect size: 0.281 P-value: 0.000 Tobacco attitudes and expectations Mean effect size: 0.290 P-value: 0.000 Criminal behavior Mean effect size: 0.226 P-value: 0.000	Q8: Current use of tobacco and other substances by youths, and use among their peers, showed stronger relationships with later tobacco use than other examined predictors	Majority of studies conducted in US Relationships reported were overwhelmingly cross-sectional Fewer than a third of the studies reported results on the conditional probabilities between risk factors and tobacco use	
10707438	Derzon JH	Predicting tobacco use to age 18: a synthesis of longitudinal research	1999																			Problem behavior Mean effect size: 0.182; P: 0.000 Psychological characteristics Mean effect size: 0.123; P: 0.070 Parent tobacco and substance use Mean effect size: 0.195; P: 0.000 Personal skills and knowledge Mean effect size: 0.101; P: 0.000 Male gender Mean effect size: 0.029; P: 0.000 Family features and experiences Mean effect size: 0.058; P: 0.004 Social ties Mean effect size: 0.080; P: 0.000 SES Mean effect size: 0.034; P: 0.000 Minority race Mean effect size: -0.084; P: 0.416			
15539543	Hwang MS	A meta-analysis of adolescent psychosocial smoking prevention programs published between 1978 and 1997 in the United States	2004	MA	None	Q11 (RF10) Q13 (RF10)	USA	Multiple settings	1978-1997	ERIC MEDLINE PsycINFO Sociological Abstracts Psychological Abstracts Article bibliographies	Studies on school-based or school-community-combined smoking prevention programs available to traditional students (exclude treatment programs for high-risk youths or addicted cigarette users) in the US Programs with psychosocial theory-based approaches toward tobacco use Students from 6th to 12th grade Tobacco-only prevention programs or substance prevention programs including tobacco Studies with at least 1 control or comparison group that have pretest and/or posttest scores Studies that report quantitative measures on self-reported outcomes such as knowledge, attitudes, skills, and/or tobacco use behaviors Studies with a comparison (control) group in the program that did not receive another type of psychosocial program	65 programs (75 articles)	Estimate average effects of adolescent psychosocial smoking prevention programs and investigate the relative efficacy of program types	NR	Pediatric/ Young Adults	Age range: 6-12th grade	NR	Behavioral	Smoking prevention program based on social influence modality Smoking prevention program based on cognitive behavior modality Smoking prevention program based on life skills modality School-based smoking prevention program School-community-incorporated smoking prevention program	N/A	Overall program impact on smoking behavior, knowledge, skill, and attitude Relative efficacy of program modality and setting Effect size variability	Grand mean effect size (ES) of programs was 0.36 for knowledge, 0.16 for attitude, 0.16 for skill, and 0.15 for smoking behavior Knowledge had the highest ES (0.53) at short-term (≤ 1 yr) but rapidly decreased (0.19) at long-term (> 1 yr). Behavioral effect was the most meaningful, being persistent over a 3-yr period (0.19 at ≤ 1 yr; 0.18 at 1-3 yr) For short-term smoking behavior, life skills training was most effective (ES = 0.29), cognitive behavior programs were second (ES = 0.21), and social influence programs were least effective (ES = 0.12). For long-term 1 (3-yr assessment) smoking behavior, cognitive behavior programs resulted in the highest ES of 0.21 School-only programs revealed a medium effect for smoking behavior for 1 yr (ES = 0.22), but the effects gradually disappeared (ES = 0.16 for Long-Term 1, ES = 0.06 for Long-Term 2). School-community-incorporated programs showed a slight increase of effects for 3 yr (ES = 0.16 for short-term, ES = 0.21 for Long-Term 1). Both settings had similar short-term knowledge effects	Q11: This meta-analysis study highlights the maintenance of long-term smoking behavioral effects as well as the dramatic improvement and rapid loss of knowledge effects Q13: There is conclusive evidence that psychosocial smoking prevention programs have been successful in the reduction of adolescent smoking behavior in the US. The best program effects were achieved by programs using cognitive behavior and life skill modalities and/or comprehensive school-community settings	Heterogeneity Publication bias Selection bias Confounding variables Not wholly generalizable (age and nation of origin are limited variables) Study used nonrandom published studies only	
16855966	Thomas R	School-based programmes for preventing smoking	2006	MA	None	Q13 (RF10)	Canada	Community (schools)	MEDLINE: 1966-10/2005 EMBASE: 1974-10/2005 PsycINFO: 1967-10/2005 ERIC: 1982-10/2005 Tobacco Control: 1992-2005 Journal of Smoking Related Disorders: 1990-2005	MEDLINE EMBASE PsycINFO ERIC CINAHL Health Star Cochrane Central Register of Controlled Trials (CENTRAL) and Cochrane Tobacco Addiction Group's Specialized Register Dissertation Abstracts Studies identified in the bibliographies of articles	Types of studies: RCTs in which individual students, classes, schools, or school districts were randomized to the intervention or control groups and followed for at least 6 mo Types of participants: Children (aged 5 to12 yr) or adolescents (aged 13 to18 yr) in school settings Types of interventions: Classroom programs or curricula, including those with associated family and community interventions, intended to deter use of tobacco. Types of outcome measures: Prevalence of non-smoking at follow up among those not smoking at baseline	94 Of the 94 RCTs, 23 were classified as high-quality studies	Review all RCTs of behavioral interventions in schools to prevent children and adolescents starting smoking		Pediatric/ Young Adults	NR	93 single country studies (USA 66; Canada 6; Netherlands 5; Italy 3; Australia, Germany, Norway and the UK 2 each; and Finland, France, India, Mexico and Spain 1 each). The 1 multi-country study included Denmark, Finland, the Netherlands, Portugal, Spain and the UK	Behavioral	Information-giving curricula Social competence interventions Social influence interventions Social competence + social influence interventions	N/A	Prevalence of non-smoking at follow up among those not smoking at baseline	The high quality study on information-giving alone reported a significant effect of the intervention (OR 0.61; 95% CI 0.41 to 0.91). Studies that compared an information curriculum with other models of delivery showed the information curricula to be either less effective or detected no difference. Only 2 studies teaching social competence were deemed to be of high quality. Both showed positive but not statistically significant effects. A pooled effect estimate obtained from these studies provided the same answer (OR 0.77;95% CI 0.49 to 1.22). Of the 13 high quality trials in which social influences were the dominant mode of intervention, 9 showed some positive effect on smoking prevalence while 4 failed to detect an effect. 13 trials (7 of high quality) provided information on short-term effect and 7 (1 of high quality) on long-term effect. Pooled effect estimates showed a beneficial but non-significant (NS) effect in the short term (OR 0.93; 95% CI 0.84 to 1.03), and a negative (NS) effect in the long term (OR 1.19; 95% CI 0.99 to 1.42). Analyses including only high quality trials showed a negative (NS) effect in the short term (OR 1.07; 95% CI 0.87 to 1.30), but a beneficial (NS) effect in the long term (OR 0.86; 95% CI 0.44 to 1.71)	Q13: There is no strong evidence for offering school-based programs that provide information only Q13: The most widely used school interventions draw on social influence models. Although half of the high quality RCTs found positive significant results, there is conflicting evidence about the effects of such programs, and the largest and most rigorous test of a social influences model, the Hutchinson Smoking Prevention Project, found no evidence of a sustained effect on smoking prevalence. Q13: 3 of the 4 high quality multi-modal interventions showed a positive significant effect. It is possible that combining social influences models with other components, such as community interventions and generic social competence training may improve effectiveness. However, these interventions have not been subject to the same rigorous evaluation as the social influences approach.	Design issues of particular importance in this field include sample size calculation that takes account of clustering, completeness and duration of follow up, and analysis that accounts for clustering and for attrition. Other important issues include ensuring faithful implementation of the intervention, and taking account of previous research in defining the intervention	

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17054164	Grimshaw GM	Tobacco cessation interventions for young people	2006	MA	None	Q10 (RF10)	UK	Mult settings	MEDLINE: 1966-2006 EMBASE: 1980-2006 PsycINFO: 1872-2006 CINAHL: 1982-2006 ERIC: 1993-2006	Cochrane Tobacco Group Specialized Register Cochrane Central Register of Controlled Trials MEDLINE EMBASE PsycINFO CINAHL ERIC Unpublished resources and conference proceedings Article bibliographies	Interventions designed to meet the needs of young people aged 20 yr or under (if a study included participants beyond the top threshold of 20 yr, study was included if the majority of participants were aged less than 20, and if the design of the program specifically considered the needs of young people) RCTs, cluster RCTs, CTs, and control interventions; studies that compared 2 different cessation interventions or combinations of interventions were also included Participants must be regular tobacco smokers (at least 1 cigarette/wk) Intervention may also be aimed at the organization to which the young person is attached Exclusions: Interventions specifically targeting young women in pregnancy Any program aimed primarily at the adult population Smoking prevention programs	15	Evaluate the effectiveness of strategies that help young people to stop smoking tobacco	3,605	Pediatric/ Young Adults	NR	RCTs: 6 Cluster RCTs: 7 CTs: 2	Multiple Interventions	Transtheroretical model (stages of change) approach Pharmacological aids to quitting (i.e., nicotine replacement, bupropion) Psychosocial interventions (e.g., motivational enhancement, behavioral management)	N/A	Smoking cessation	3 trials used or tested the transtheoreticalmodel (stages of change) approach. The trials achieved moderate long-term success, with a pooled OR at 1 yr of 1.70 (95% CI: 1.25 to 2.33) persisting at 2-yr follow up with an OR of 1.38 (95% CI: 0.99 to 1.92) 2 trials tested pharmacological aids to quitting (nicotine replacement and bupropion). Neither trial achieved statistically significant results (data not pooled), but both were small-scale, with low power to detect an effect The 3 interventions (5 trials) which used cognitive behavioral therapy interventions did not individually achieve statistically significant results, although when the 3 Not on Tobacco trials were pooled the OR 1.87 (95% CI: 1.00 to 3.50) suggested some measure of effectiveness Although the 3 trials that incorporated motivational interviewing as a component of the intervention achieved a pooled OR of 2.05 (95% CI: 1.10 to 3.80), the impossibility of isolating the effect of the motivational interviewing in these trials meant that we could not draw meaningful inferences from that analysis	Q10: Complex approaches show promise and show some persistence of abstinence, but there is not as yet sufficient evidence to recommend widespread implementation of any 1 model. It appears that the Not on Tobacco program is at least as effective as other interventions, but a major issue for this program is that the meaningfulness of the definition of cessation (1 d or more) must be challenged when compared to the episodic nature of patterns of smoking of young people. There is currently little evidence on effective regimens of pharmacotherapies or incorporation of nicotine replacement therapy into psychosocial programming for this age group. The evidence does not support the use of bupropion as an adjunct to NRT. There is no evidence regarding the use of bupropion alone	An absolute measure of cessation is, in practice, impossible, as it would require life-long follow up of subjects Inconsistent definition of quitting Several studies underpowered (wide CIs)	