## Supplementary table 1: description of the 34 articles retained

| **Article identification** | **Sample** | | | **Study description** | | | **Analyses** | | **Definition of the judgment criteria for smoking cessation** | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **1st author, year of publication, location, time frame** | **Age at baseline** | **Baseline sample size** | **Sample type & source (R=representative; C/P=convenience or purposive)** | **Intervention (Y=yes; N=no)** | **Follow-up period** | **Data collection** | **Analytic sample size** | **Analytical technique** | **Nature of evaluated abstinence\*** | **Minimum abstinence duration** |
| **Bachmann 2012A,** Switzerland, 2003 to 2008 | 16-24 years | 2 844 | C/P  Official registers of the Residents’ Administration Offices of the Swiss cities of Basel, Berne, and Zurich | N | 5 years | computer-assisted telephone interviews | 1 345 | Friedman’s ANOVA and Wilcoxon tests | Point prevalence abstinence | non-smoking = never smoking in the last month **--> 1 month** |
| **Baskerville 2016,** Canada, 2011 to 2012 | 19-29 years | 682 | C/P  On the Internet, through a link to the study registration and through ads placed in the general labor section on an online classified service, in various Canadian cities. | Y | 3 months | online survey, telephone interviews | 238 | Logistic regression models were fitted to examine the associations between the exposure to the programs and the primary outcomes adjusting for possible confounders identified at first step. | Point prevalence abstinence | 30-day point prevalence abstinence rates were measured at 3-month follow-up for both groups **--> 1 month** |
| **Brinker 2015,** Germany, 2012-2013 to 2014 | 11-15 years | 1 689 | C/P  Schools in Gießen and the surrounding area | Y | 6 months | paper questionnaires during school hours | 1 200 | Robust panel logistic regression analysis: covariates not reported | Continuous abstinence | non-smokers = pupils who claimed to smoke less than ‘once a month’ within the survey **--> less than 1/month** |
| **Chenoweth 2013B,** Canada, 1999 to 2004 | 12-17 years | 610 | C/P  Secondary schools in Montreal, Quebec | N | 5 years | questionnaires | 308 | Multiple logistic regression within a generalized estimating equation (GEE) framework | Continuous abstinence | smoking cessation = smoking abstinence for ≥12 months **--> at least 1 year** |
| **Choi 2014C,** USA, 2010-2011 to 2011-2012 | 20-28 years (mean=24 years) | 4 826 | R  US Midwest regional cohort of young adults | N | 1 year | computer-assisted telephone interviews | 2 622 | Logistic regression models adjusted for demographics and peer smoking and intention to quit smoking at baseline | Point prevalence abstinence | baseline current smokers who stopped smoking in the past 30 days were classified as having quit smoking **--> 1 month** |
| **Curry 2012,** USA, 2004 to 2006 | High school age youth | 878 | C/P  Community-based smoking cessation programs | Y | 1 year | surveys for participants, interviews with sponsoring organization leaders, community leaders, and tobacco control ordinances | 857 | Multivariate generalized estimating equation models controlled for participant age, gender, race, proportion of program sessions attended | Point prevalence abstinence | 30-day abstinence at the 12-month follow-up **--> 1 month** |
| **Engels 2012D,** Netherlands, 2004 to 2005 | 13-18 years | 6 750 | C/P  Schools in four regions of the Netherlands | N | 1 year | questionnaires during school hours | 530 | Structural equation models | Point prevalence abstinence | **undefined** |
| **Gmel 2016E,** Switzerland, 2010 to 2013 | 20 years | 5 987 | R  Army recruitment centres, covering twenty-one of the twenty-six Swiss cantons. | N | 15 months | questionnaires at home | 5 128 | Multinomial logistic regressions models, stratified by baseline cigarette smoking status (nonsmokers, occasional smokers, daily smokers) were conducted to test the associations between EC use and cigarette smoking status (non-smokers, occasional smokers, daily smokers) at follow-up. | Prolonged abstinence | participants were asked whether they had smoked cigarettes in the previous twelve months **--> 1 year** |
| **Haas 2014F,** USA, unspecified | Grades 7 to 12 | 2 430 | R  132 middle and high schools from the USA | N | 19 months | at home and in school interviews | 1 329 | Stochastic Actor-Based models | Point prevalence abstinence | at waves 2 and 3, smoking was measured as the number of days students had smoked in the past 30 days **--> 1 month** |
| **Ham 2013,** Korea, 2007 | mean=24.9 years | 60 | C/P  A Korean University | Y | 1 month | questionnaires in the laboratory room | 41 | Bivariate analysis (based on parametric and non-parametric tests) | Continuous abstinence | survey data were collected 1 day before smoking abstinence and 30 days after abstinence. **--> 1 month** |
| **Hoie 2011,** Norway, 2005 to 2006 | 16-19 years | 500 | R  Households | N | 3 months | telephone interviews | 174 | Hierarchical multiple regression analysis controlled for gender | Prolonged abstinence | **undefined** |
| **Kennedy 2011F,** USA, 1995 to 1996 | 12-19 years | Not reported | R  High schools in the United States | N | 1 year | at home interviews for adolescents, and questionnaires at home for parents (data on households and health of their child) | 1 197 | Multivariate logistic regression models controlled for smoking and demographic covariates | Point prevalence abstinence | did not smoke at all in the past month at Wave II **--> 1 month** |
| **Klein 2013C,** USA, 2003 to 2007 | 18-21 years | 4 825 | R  Households | N | 3 years | telephone interviews | 1 022 | Generalized linear mixed modeling adjusted for smoking frequency at baseline, demographic and attitudinal factors that were associated with stopping smoking over time | Point prevalence abstinence | stopping smoking was defined as those who reported 0 days of past month smoking **--> 1 month** |
| **Kvaavik 2014G,** Norway, 1994 to 2005 | Grade 7 to 8 | Not reported | C/P   Norwegian schools | N | 11 years | questionnaires | 942 | Multinomial regression analyses controlled for previous smoking status, gender and age | Point prevalence abstinence | **undefined** |
| **Lakon 2015F,** USA, 1994-1995 to 1996 | Grade 9 to 12 | 3 145 | R  Two schools (both public, one in a rural Midwestern community and one in a suburban Western community) | N | 1 year | at home and in school interviews | 3 145 | Stochastic actor-based model | Point prevalence abstinence | at waves 2 and 3, the question was “During the past 30 days, on how many days did you smoke cigarettes?” **--> 1 month** |
| **Lim 2012,** Korea, 2006 to 2009 | 13-19 years | 870 | C/P  Quitline services among adolescents in Korea | Y | 1 year | telephone interviews | 642 | Cox proportional hazard models adjusted for gender, age, region, body mass index, alcohol consumption, nicotine dependency, quit supporter, concrete reason for quitting, motivation to contact Quitline, self-efficacy, and number of past cessation attempts | Continuous abstinence | About relapses: participants who reported having one puff of a cigarette during the scheduled telephone-based coaching sessions were defined as having relapsed. Cessation outcome: 1 year abstinence of smoking **--> 1 year** |
| **Loprinzi 2014H,** USA, 2003 to 2005 | 18-24 years | 2 214 | R  Households in the 50 U.S. states and the District of Columbia | N | 2 years | telephone interviews | 1 168 | Multivariable linear and logistic regression analysis adjusted for age category, gender, race-ethnicity and education | Point prevalence abstinence | no longer smoking defined as not smoking within the last 30 days **--> 1 month** |
| **Loprinzi 2015H,** USA, 2003 to 2005 | 16-24 years | 2 582 | R  Households in the 50 U.S. states and in the District of Columbia | N | 2 years | telephone interviews | 1 228 | Hayes' mediational analysis adjusted for age category, sex, race–ethnicity, education and nicotine dependence | Point prevalence abstinence | no longer smoking defined as not smoking within the last 30 days **--> 1 month** |
| **Loprinzi 2016H,** USA, 2003 to 2005 | 16-24 years | 2 582 | R  Households in the 50 U.S. states and in the District of Columbia | N | 2 years | telephone interviews | 1 178 | A multivariable logistic regression was used to examine the association between physical activity trajectories and smoking status at the 24-month follow-up period (outcome variable); smoking at 2-year follow-up served as the referent group for the outcome variable. Covariates included baseline nicotine dependence, age group, gender, race-ethnicity, and education. | Point prevalence abstinence | no longer smoking defined as not smoking within the last 30 days **--> 1 month** |
| **Mantey 2017I,** USA, 2014 to 2015 | 18–29 years (mean= 22.2) | 1 018 | C/P  Participants were recruited via email to participate in an online survey. | N | 1 year | online survey | 627 | Multivariable logistic regression | Point prevalence abstinence | **undefined** |
| **Minary 2013,** France, 2007-2008 to 2008-2009 | 15-20 years | 2 197 | C/P  Vocational training centres in Lorraine, Eastern France | Y | 1 year | questionnaires during school hours | 1 814 | Multivariate logistic regression adjusting for predefined characteristics (age, sex, and training course), differing characteristics between the two groups at baseline (i.e., cannabis consumption, Hooked On Nicotine Checklist [HONC] score) and tobacco consumption | Point prevalence abstinence | Abstinence = being a nonsmoker at 12 months and having not smoked for at least one month before that point **--> at least 1 month** |
| **Mukhopadhyay 2011J,** USA, 1996 to unspecified | 12-16 years | 9 022 | R  Households | N | 3 to 8 years | interviews | 7 460 | Probit estimation equation | Continuous abstinence | a smoker quits and then successfully abstains from smoking for a year **--> 1 year** |
| **Nagelhout 2013K,** Netherlands, 2008 to 2010 | 15 years and older with a group 15-24years | Not reported for the 15-24 years group (1 820 smokers in all age groups) | C/P  Web panel members | Y | 2 years | online survey | 198 | Logistic regression analysis controlled on gender, age group, educational level, heaviness of smoking and intention to quit smoking | Point prevalence abstinence | 7-day point prevalence abstinence **--> 7 days** |
| **Schaefer 2013F,** USA, unspecified | high school | Not reported | R  One high school from National Longitudinal Study of Adolescent Health | N | Not applicable (simulation) | - | 509 | Stochastic actor-based model | Point prevalence abstinence | **undefined** |
| **Scherphof 2013L,** Netherlands, 2003 to unspecified | 13-18 years | 6 750 | R  Schools in four regions of the Netherlands | N | 1 year | paper questionnaires during school hours | 535 | Structural equation modeling controlled for gender, education level and age | Point prevalence abstinence | no longer smoking at T2 and had not done so for the past month = successfully quit smoking **--> 1 month** |
| **Schuck 2011D,** Netherlands, 2003 to unspecified | 14-16 years | 1 274 | C/P  25 randomly selected secondary schools | N | 1 year | questionnaires during school hours | 850 | Logistic regression analyses controlled for gender, education, age of initial smoking and number of cigarettes per week | Point prevalence abstinence | prolonged cessation = not smoke during the past month **--> 1 month** |
| **Steinmetz-Wood 2017M,** Canada, 2011 to 2014 | 18-25 years (mean=21.48 years) | 2 093 | R  Young adults living within the 35 health service catchment areas of Montreal | N | 2 years | online survey, paper questionnaires, telephone interviews | 1 457 | Logistic regression was run to model the relationship between the three forms of capital at T1 and changes in smoking status controlling for the covariates age and gender at baseline. | Point prevalence abstinence | **undefined** |
| **Walker 2014H,** USA, 2003 to 2005 | 16-24 years | 2 582 | R  Households in the 50 U.S. states and in the District of Columbia | N | 2 years | telephone interviews | 1 354 | Logistic regression analysis controlled for all antecedent variables | Point prevalence abstinence | smoking cessation = not smoking within a 30-day timeframe **--> 1 month** |
| **Wang 2017N,** China, 2014 to 2015 | 12-25 years (mean=18 years) | 224 | C/P  Toll-free smoking cessation hotline | Y | 6 months | telephone interviews | 189 | Adjusted ORs for self-reported past 7-day PPA and intention to quit, and raw coefficients (b) from a linear regression for quit attempts, level of nicotine dependence, number of cigarettes consumed per day, and perceived self-efficacy on quitting cigarette smoking in relation to e-cig use were calculated, adjusting for baseline respective levels of smoking behaviors and sociodemographic characteristics when applicable. | Point prevalence abstinence | self-reported point prevalence of abstinence for the past 7 days at the 6-month follow-up **--> 7 days** |
| **Wang 2018F,** USA, 1994 to 1996 | Grade 9 to 12 | 3 128 | R  National Longitudinal Study of Adolescent to Adult Health | N | 2 years | in-school and in-home surveys | 667 | Stochastic Actor-Based models | Point prevalence abstinence | **undefined** |
| **Wong 2010N,** China, 2005 to 2007 | 12-25 years | 461 | C/P  Toll-free smoking cessation hotline | Y | 6 months | telephone interviews | 408 | Hierarchical Cox’s proportional odds models with three hierarchical levels of covariates: baseline variables, time-dependent variables and variables related to quit smoking | Continuous abstinence | **undefined** |
| **Wong 2011N,** China, 2005 to 2010 | 12-25 years (mean=18.7 years) | 437 | C/P  Toll-free smoking cessation hotline | Y | 6 months | telephone interviews | 402 | Group-based trajectory modeling and hierarchical multinomial logistic regressions ajusted for confounding variables | Point prevalence abstinence | those who had stopped smoking in the past 30 days were considered to have quit smoking **--> 1 month** |
| **Wong 2016N,** China, 2006 to 2011 | 12-25 years | 578 | C/P  Toll-free smoking cessation hotline | Y | 6 months | telephone interviews | 386 | Cox regression models were applied to examine the effects of notable depressive symptoms on quit attempts and relapses after adjusting for age (in two age groups: 12–17 vs. 18–25), sex, the presence of smoking parents, smoking and quitting history, intention to quit, and the level of nicotine dependence. We included some demographic characteristics (age and sex) and the parents’ smoking status in the analysis to adjust for any social or developmental factors that could influence the outcomes. | Continuous abstinence | **undefined** |
| **Yang 2015O,** Canada, 1994-1195 to 2002-2003 | 10-11 years | 3 434 | C/P  Families with children aged 10 to 11 in 1994/95 | N | 12 years | Not reported | 1 590 | Latent class modeling ajusted for gender, onset of puberty, children living in single-parent families, parental smoking, and friends' smoking Profiling analysis of posterior probabilities | Point prevalence abstinence | **undefined** |

Data from : (A) Risk behaviour and well-being in adolescents study (RIWA); (B) Nicotine Dependence in Teens (NDIT); (C (n=2)) Minnesota Adolescent Community Cohort (MACC); (D (n=2)) Longitudinal study on psychological and environmental processes in tobacco use among Dutch adolescents; (E) Cohort Study on Substance Use Risk Factors (C-SURF); (F (n=5)) National Longitudinal Study of Adolescent to Adult Health (Add Health); (G) Young in Norway Longitudinal Study; (H (n=4)) 2003-2005 National Youth Smoking Cessation Survey (NYSCS); (I) Marketing and Promotions across Colleges in Texas Project (Project M-PACT); (J) 1997 National Longitudinal Survey of Youth (NLSY97); (K) International Tobacco Control Netherlands Survey (ITC); (L) International Study of Asthma and Allergies in Childhood; (M) Interdisciplinary Study of Inequalities in Smoking; (N (n=4)) Toll-free smoking cessation hotline, the Youth Quitline (YQ); (O) National Longitudinal Survey of Children and Youth (NLSCY)

\*As defined by Hughes et al., “*Continuous abstinence refers to abstinence between quit day and a follow-up time; prolonged abstinence refers to sustained abstinence after an initial grace period or to a period of sustained abstinence between two follow-ups (the two are equivalent); point prevalence abstinence refers to the prevalence of abstinence during a time window immediately preceeding follow-up*”[18].