Table S5. Characteristics of the interventions of the 20 included studies.

Author, Year	**Intervention Details**	**Interventionist** **Mode of Intervention**	**Target Population**	**Data Collection Methods** **Duration**
Agaku et al., 2020	Comparisons of states with and without comprehensive clean indoor air laws. Includes laws covering both tobacco cigarettes and e-cigarette or tobacco cigarettes only.	USA state governments NA	Never tobacco users Grades 6 to 12	School-based questionnaire administered 2016 – 2017 NA
Astor et al., 2019	Local tobacco retail licensing regulation restricting access of tobacco products to minors.	Government of California, USA NA	Grades 11 and 12	Self-administered, online questionnaire Baseline: 2014 Follow-up: Jan 2015 – Jun 2016 NA
Boynton et al., 2023	220 vaping prevention messages developed by public health organizations in the USA.	Public health agencies across the USA Online	Ages 13 to 17	Online questionnaire conducted between Oct – Dec 2020 NA
Cai & Zhao, 2023	Receive either gain-or-loss framed text messages regarding harms of vaping on smartphones (8 messages in each frame).	Research group Virtual (text messaging via	Ages 13 to 17 years Youth who had not taken part in any	Pre- and post-online questionnaire Not specified

		smartphone)	research on tobacco in the last 180 days and were considered susceptible to future vaping	
Cartujano-Barrera et al., 2022	Participants received one of four types of graphic messages (health rewards, financial rewards, autonomy, or social norms). Messages were provided in both English and Spanish and were designed using qualitative user-centered design methods.	Research group Online	Ages 12 to 17 Black or Latino adolescents who had never used e-cigarettes	Pre- and post-online questionnaire Not specified
Chaplin et al., 2020	A 50-minute educational presentation developed by pharmacy students. The presentation included: description of change theory, resources to support behaviour change, visual aids, informational videos, and opportunities for the audience to actively participate.	Research group In classrooms (delivered by pharmacy students)	Grades 9 to 12	Pre- and post-intervention paper-based questionnaire 50-minute one time presentation
Choi et al., 2022	Setting the minimum age for sale of tobacco products (including e-cigarettes) to 21, adding excise taxes to the sale of e-cigarettes, and adding e-cigarettes to smoke-free policies.	USA state governments NA	Grades 9 to 12	Online questionnaire (conducted every 2 years) NA
Gaiha et	Based on the Stanford Tobacco Prevention	Research group	Grades 6 to	Pre- and post-intervention paper-

al., 2021	Toolkit, delivery of a 30-minute educational session by a physician or public health professional. The session provided information on e-cigarette types, contents of e-cigarettes, marketing and advertising, health effects of usage, and information on nicotine addiction. Available at: https://med.stanford.edu/tobaccopreventiontoolkit.html	During health education classes	12	based questionnaire 30-minute one time presentation
Grube et al., 2022	Increasing the minimum age to 21 years for the purchase of tobacco (including electronic cigarettes).	Government of California, USA NA	Grades 7, 9, and 11	Successive cross-sectional surveys NA
Hwang & Cho, 2020	Inclusion of health warning labels on tobacco products (including electronic cigarettes). Warning labels included ten themes related to different types of cancers and coronary diseases caused by tobacco usage; dangers of secondhand smoke and smoking during pregnancy; and warnings about impotence, skin aging, and premature death.	Government Printed graphic health warning labels on tobacco products	Grades 7 to 12	Online questionnaire (completed in schools) NA
Kelder et al., 2020	An educational program with four interactive modules completed in the classroom and delivered by teachers (classroom and physical education), student-peer leaders, and social messaging in the schools (e.g., promotional posters). Available at: CATCH.org	Research group Classroom setting and through social messaging (e.g., posters)	Grade 6	Questionnaires administered during physical education class at baseline, 4 months, and 16 months follow-up Four 25-minute classroom lessons

		throughout the school		
Kowitt et al., 2023	In a mock website selling e-cigarettes, participants saw three of six different e-cigarette product label options. Product labels were adjusted to include or exclude the word nicotine, and include the source of the product (i.e., tobacco-free, synthetic, or absent).	Research group Mock shopping website (online)	Ages 13 to 17	Online questionnaire 16-minutes to complete
Li et al., 2023	E-cigarette health warning exposure *at baseline* and rules at home about a smoke-free environment *at baseline*.	Not specified Health warnings printed on e-cigarette packaging and family imposed smoke-free home rules	Ages 12 to 17 Youth who had never used e-cigarettes at baseline	Online questionnaire NA
McCauley et al., 2023	Delivery of a 35-minute vaping-prevention curriculum (including interactive questions and activities) instructed by a community health nurse during students' English class. Available at: https://med.stanford.edu/tobaccopreventiontoolkit.html	Community health nurse During English class	Grades 9 to 12	Online questionnaire before and after intervention (approximately 50 minutes apart) 35-minute one-time prevention curriculum
Merrill & Hanson, 2022	Free, online education program (approximately one-hour to complete) with five modules designed to be used in health	Schools, school boards, and local health unit	Ages 10 to 18	Online pre- and post-test questionnaire

	education classes and to provide age-appropriate information to adolescents about the harmful effects of e-cigarettes. Available at: https://southwest-utah-public-health-department.thinkific.com/courses/copy-of-clearing-the-vapor)	Online		1 hour to complete modules
Moore et al., 2023	The Tobacco Products Directive implemented in the European Union included a mandatory declaration of new products six months prior to their introduction, bans on advertising between countries, the inclusion of health warning labels about nicotine on e-cigarette products, and e-cigarette product strength limitations.	European Parliament and the Council of the European Union NA	Ages 13 to 15	School-based questionnaires (collected regularly) NA
Valentine et al., 2019	Comparison of municipalities with and without smoke-free ordinances. Rules at home about a smoke-free environment.	USA municipal governments NA	Grades 9 to 12	Paper-based questionnaires NA
Walker et al., 2022	Youth were randomly assigned to a control group (that saw no public health advertisement for Electronic Nicotine Delivery Systems [ENDS]) or to a viewing group (which saw a single public health advertisement for ENDS). The advertisement was framed around there being an epidemic that causes negative health effects. Available at: https://www.youtube.com/c/TheRealCost/vi	USA Food and Drug Administration Pre-existing panel database	Ages 12 to 17 Never-triers or experimenters of ENDS	Online questionnaire Not specified

	deos)			
Williams et al., 2022	A range (n=24) of in-person (delivered in classrooms) and online prevention and cessation programs for e-cigarettes were developed. Programs included natural experiments, presentations, interactive displays, and theme weeks.	Schools In-person and online	Grades 9 to 11 Students who reported having never tried e-cigarettes at baseline	Pre- and post-intervention paper-based questionnaires and school policies/programs questionnaires sent to schools Implemented since 2018
Wyman et al., 2021	Peer leaders participated in a four-hour workshop to learn how relationships can prevent usage, why vaping should be avoided, and facts about vaping. Peer leaders then developed and delivered content on youth vaping prevention through four school-wide campaigns and informal peer communication.	Research Group In-person	Grade 8	Web-based assessments and social network analyses Approximately 12 to 16 weeks