Additional File 2. Overview of reviews and scoping review- search strategy

The following is a combination of terms and free text for a search in PubMed. In October 11, 2021, this search produced 2,231 articles on PubMed (2011-2021)

Concept	Search Terms (PubMed)	Search Terms (CINAHL: EBSCOhost)	Search Terms (Scopus)	Search Terms (PsycINFO)-I could not search	Search Terms (Embase) -I could not search	Search Terms (Thaijo-NONE) (ThaiLIS-NONE) (the Center of Alcohol Studies - NONE)
				(MA (adolescent OR youth) OR TI ((adolescent OR youth))) AND (TI ((underage drinking) OR (alcohol)))	**(youth:ab,ti OR adolescent:ab,ti) AND (underage AND drinking:ab,ti OR alcohol)**	
Population: Adolescent	1. "adolescent"[MeSH Terms] 2. "adolescen*"[Title/Abstract] 3. "teen*"[Title/Abstract] 4. "youth*"[Title/Abstract] 5. "student*"[Title/Abstract] 6. OR 1-5	((adolescen*) OR (teen*) OR (youth*) OR (student*)) **(MA (adolescent OR youth OR teen OR student) OR TI (adolescent OR youth OR teen OR student))**	(("adolescen*") OR ("teen*") OR ("youth*") OR ("student*"))	**(MA (adolescent OR youth OR teen OR student) OR TI (adolescent OR youth OR teen OR student))**	**(adolescent:ab,ti OR youth:ab,ti OR teen:ab,ti OR student:ab,it)**	((adolescen*) OR (teen*) OR (youth*) OR (student*))
Concept1: Alcohol	7. "underage drinking"[MeSH Terms] 8. "Alcohol"[Title/Abstract] 9. "alcohol consumption"[Title/Abstract] 10. "alcohol use"[Title/Abstract] 11. "alcohol initiation"[Title/Abstract] 12. "first drinking"[Title/Abstract] 13. "onset drinking"[Title/Abstract]	((underage drinking) OR (alcohol) OR (alcohol consumption) OR (alcohol use) OR (alcohol initiation) OR	(("underage drinking") OR ("alcohol") OR ("alcohol consumption") OR ("alcohol use") OR ("alcohol	**(MA (under drinking) OR alcohol OR TI ((under drinking) OR alcohol OR (alcohol consumption)**	**((under drinking):ab,ti OR alcohol:ab,ti OR (alcohol consumption):ab,ti OR (alcohol use):ab,ti OR (alcohol initiation)**	((underage drinking) OR (alcohol) OR (alcohol consumption) OR (alcohol use) OR (alcohol

Concept	Search Terms (PubMed)	Search Terms (CINAHL: EBSCOhost)	Search Terms (Scopus)	Search Terms (PsycINFO)-I could not search	Search Terms (Embase) -I could not search	Search Terms (Thaijo-NONE) (ThaiLIS-NONE) (the Center of Alcohol Studies - NONE)
				(MA (adolescent OR youth) OR TI ((adolescent OR youth))) AND (TI ((underage drinking) OR (alcohol)))	(youth:ab,ti OR adolescent:ab,ti) AND (underage AND drinking:ab,ti OR alcohol)	
	14."heavy drinking"[Title/Abstract] 15."alcohol misuse"[Title/Abstract] 16."alcohol abuse"[Title/Abstract] 17."substance use"[Title/Abstract] 18."drink*"[Title/Abstract] 19.OR 7-16	(first drinking) OR (heavy drinking) OR (alcohol misuse) OR (alcohol abuse) OR (substance use) OR (drink*)) (MA (under drinking) OR alcohol OR TI ((under drinking) OR alcohol OR (alcohol consumption) OR (alcohol use) OR (alcohol initiation) OR (onset drinking) OR (first drinking) OR (heavy drinking) OR (alcohol misuse) OR (alcohol abuse)	initiation") OR ("first drinking") OR ("onset drinking") OR ("heavy drinking") OR ("alcohol misuse") OR ("alcohol abuse") OR ("substance use") OR ("drink*"))	OR (alcohol use) OR (alcohol initiation) OR (onset drinking) OR (first drinking) OR (heavy drinking) OR (alcohol misuse) OR (alcohol abuse) OR (substance use)))	:ab,ti OR (onset drinking):ab,ti OR (first drinking):ab,ti OR (heavy drinking):ab,ti OR (alcohol misuse):ab,ti OR (alcohol abuse):ab,ti OR (substance use):ab,ti)	initiation) OR (first drinking) OR (heavy drinking) OR (alcohol misuse) OR (alcohol abuse) OR (substance use) OR (drink*))

Concept	Search Terms (PubMed)	Search Terms (CINAHL: EBSCOhost)	Search Terms (Scopus)	Search Terms (PsycINFO)-I could not search	Search Terms (Embase) -I could not search	Search Terms (Thaijo-NONE) (ThaiLIS-NONE) (the Center of Alcohol Studies - NONE)
				(MA (adolescent OR youth) OR TI ((adolescent OR youth)) AND (TI ((underage drinking) OR (alcohol)))	(youth:ab,ti OR adolescent:ab,ti) AND (underage AND drinking:ab,ti OR alcohol)	
		OR (substance use)))				
Concept2: Digital / online intervention	20. "internet based intervention"[MeSH Terms] 21. "mobile applications"[MeSH Terms] 22. "online intervention"[Title/Abstract] 23. "prevent*"[Title/Abstract] 24. "Internet"[Title/Abstract] 25. "Web-based intervention"[Title/Abstract] 26. "text messaging"[Title/Abstract] 27. "E-health intervention "[Title/Abstract] 28. "game"[Title/Abstract] 29. "computer"[Title/Abstract] 30. "mhealth intervention"[Title/Abstract] 31. "mobile app*"[Title/Abstract] 32. "smartphone"[Title/Abstract] 33. OR 19-31	((Internet based intervention) OR (Mobile app*) OR (Web-based intervention) OR (mhealth) OR (game) OR (messag*)) **(MA (**Internet based intervention**) OR (mobile applications) OR (online intervention))** **OR TI ((**Internet based intervention**) OR (mobile applications) OR (online intervention) OR prevent OR internet OR**	(("Internet based intervention") OR ("Mobile app*") OR ("Web-based intervention") OR ("mhealth") OR ("game") OR ("messag*"))	**(MA (**Internet based intervention**) OR (mobile applications) OR (online intervention))** **OR TI ((**Internet based intervention**) OR (mobile applications) OR (online intervention) OR prevent OR internet OR** (Web-based intervention**) OR** (text messaging**) OR (**E-health intervention**) OR game OR computer OR mhealth OR (mobile app)**	**((**Internet based intervention**):ab,ti OR (mobile applications):ab,ti OR (online intervention):ab,ti OR prevent:ab,ti OR internet:ab,ti OR (**Web-based intervention**) :ab,ti OR (text messaging):ab,ti OR (**E-health intervention**):ab,ti OR game:ab,ti OR computer:ab,ti OR mhealth:ab,ti OR (mobile app):ab,ti OR smartphone:ab,ti)**	((Internet based intervention) OR (Mobile app*) OR (Web-based intervention) OR (mhealth) OR (game) OR (messag*))

Concept	Search Terms (PubMed)	Search Terms (CINAHL: EBSCOhost)	Search Terms (Scopus)	Search Terms (PsycINFO)-I could not search	Search Terms (Embase) -I could not search	Search Terms (Thaijo-NONE) (ThaiLIS-NONE) (the Center of Alcohol Studies - NONE)
				==(MA (adolescent OR youth) OR TI ((adolescent OR youth))) AND (TI ((underage drinking) OR (alcohol)))==	==(youth:ab,ti OR adolescent:ab,ti) AND (underage AND drinking:ab,ti OR alcohol)==	
		==(Web-based intervention) OR (text messaging) OR (E-health intervention) OR game OR computer OR mhealth OR (mobile app) OR (smartphone)))==		==OR (smartphone)))==		
Context: School	34. "schools"[MeSH Terms] 35. "school*"[Title/Abstract] 36. "school-based"[Title/Abstract] 37. "high school*"[Title/Abstract] 38. "secondary school*"[Title/Abstract] 39. "middle school*"[Title/Abstract] 40. OR 33-38	((school*) OR (high school*) OR (secondary school*) OR (middle school*)) ==(MA (schools) OR TI ((schools) OR (high school) OR (secondary school) OR (middle school))==	(("school*") OR ("high school*") OR ("secondary school*") OR ("middle school*"))	==(MA (schools) OR TI ((schools) OR (high school) OR (secondary school) OR (middle school)))==	==((schools):ab,ti OR (high school):ab,ti OR (secondary school):ab,ti OR (middle school) :ab,ti)==	((school*) OR (high school*) OR (secondary school*) OR (middle school*))
Final Draft Search Strategy	6 AND 18 AND 32 AND 39					

Concept	Search Terms (PubMed)	Search Terms (CINAHL: EBSCOhost)	Search Terms (Scopus)	Search Terms (PsycINFO)-I could not search	Search Terms (Embase) -I could not search	Search Terms (Thaijo-NONE) (ThaiLIS-NONE) (the Center of Alcohol Studies - NONE)
				(MA (adolescent OR youth) OR TI ((adolescent OR youth))) AND (TI ((underage drinking) OR (alcohol)))	(youth:ab,ti OR adolescent:ab,ti) AND (underage AND drinking:ab,ti OR alcohol)	
/# article	2,267	115	186	33		**Thaijo-NONE ThaiLIS-NONE** the Center of Alcohol Studies - **NONE**