Substance use disorders for NESARC III data

The SUDDSM.SAS uses NESARC III (National Epidemiologic Survey on Alcohol and Related Conditions-III) data to create each substance disorder variables. The NESARC III data can be obtained through procedures at https://www.niaaa.nih.gov/research/nesarc-iii/nesarc-iii-data-access. The program derives the criteria and final DSM-IV and DSM-V diagnostic variables for the following substances (order in program): Cannabis (ma), Opioids (op), Sedatives (sed), Cocaine (coc), Stimulants (sti), Club Drugs (clb), Hallucinogen (hal), Inhalants/Solvents (sol), Heroin (her), Alcohol (xalc), Nicotine (nic), Other Drugs (oth).

The SUDDSM codebook contains definitions of all above substance use disorders.

We compare our final diagnostic variables for the substance disorders with those corresponding diagnostic variables found in the NESARC III data. The following pairs of measures (first from our data, and second from NESARC III) are exactly same:

Our Data	NESARC III Data
x_pothud5	pothud5
x_pnicdep5	pnicdep5
x_lnicdep5	lnicdep5
x_pyaud5	pyaud5
x_ppyaud5	ppyaud5
x_lifeaud5	lifeaud5
x_herud5	herud5
x_pherud5	pherud5
x_lherud5	lherud5
x_solud5	solud5
x_psolud5	psolud5
x_lsolud5	lsolud5
x_halud5	halud5
x_phalud5	phalud5
x_lhalud5	lhalud5
x_clbud5	clbud5
x_pclbud5	pclbud5
x_lclbud5	lclbud5
x_stiud5	stiud5
x_pstiud5	pstiud5
x_lstiud5	lstiud5
x_cocud5	cocud5
x_pcocud5	pcocud5
x_lcocud5	lcocud5
x_sedud5	sedud5
x_psedud5	psedud5
x_lsedud5	lsedud5
x_opud5	opud5
x_popud5	popud5

x_lopud5	lopud5
x_maud5	maud5
x_pmaud5	pmaud5
x_lmaud5	lmaud5

The following pairs had some differences (5 values):

Our Data	NESARC III Data	# of Differences
x_othud5	othud5 *	5
x_lothud5	lothud5 *	5

These differences are due to the derivation of other drugs. Those 5 have a response of 'NO' based on our derivation (no withdrawal) and have a response of 'YES' on NESARC III data (withdrawal included).

For comparison, we calculate the prevalence estimate based on our numbers similar to: "*Nosologic Comparisons of DSM-IV and DSM-5 Alcohol and Drug Use Disorders: Results From the National Epidemiologic Survey on Alcohol and Related Conditions–III*" (Goldstein R. et, J Stud Alcohol Drugs. 2015 May; 76(3): 378–388, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4440296/). We get the same estimates based on our DSM-IV diagnoses. For estimates based on DSM-V diagnoses, as before, there are a few differences when 'other drugs' needs to be included. The differences are colored in red. The source code for the estimates (test cherri to ref.sas) is also included.

Comparison of prevalence (%, *SE*) of substance use disorder diagnoses by **DSM -IV** among NESARC-III respondents (*n* = 36,309) between reference and our numbers								
	Past year				lifetime			
	Dependence		Any use disorder[a]		Dependence		Any use disorder[a]	
	Ref	Ours	Ref	Ours	Ref	Ours	Ref	Ours
Substance								
Any substance (alcohol or any drug)	7.59(0.22)	7.59(0.22)	14.58(0.32)	14.58(0.32)	21.88(0.43)	21.88(0.43)	45.77(0.61)	45.77(0.61)
Alcohol	6.57(0.20)	6.57(0.20)	12.71(0.32)	12.71(0.32)	20.15(0.41)	20.15(0.41)	43.62(0.61)	43.62(0.61)
Any drug[b]	1.74(0.10)	1.74(0.10)	4.11(0.15)	4.11(0.15)	5.71(0.18)	5.71(0.18)	15.59(0.35)	15.59(0.35)
Sedatives or tranquilizers	0.21(0.03)	0.21(0.03)	0.36(0.04)	0.36(0.04)	0.60(0.05)	0.60(0.05)	1.60(0.09)	1.60(0.09)
Opioids other than heroin	0.49(0.05)	0.49(0.05)	0.78(0.05)	0.78(0.05)	1.34(0.08)	1.34(0.08)	2.94(0.12)	2.94(0.12)
Cannabis	0.81(0.06)	0.81(0.06)	2.91(0.13)	2.91(0.13)	2.52(0.12)	2.52(0.12)	11.69(0.30)	11.69(0.30)
Cocaine	0.22(0.03)	0.22(0.03)	0.37(0.04)	0.37(0.04)	1.69(0.08)	1.69(0.08)	3.96(0.15)	3.96(0.15)
Stimulants	0.18(0.03)	0.18(0.03)	0.35(0.03)	0.35(0.03)	1.15(0.09)	1.15(0.09)	2.96(0.12)	2.96(0.12)
Heroin	0.10(0.02)	0.10(0.02)	0.12(0.02)	0.12(0.02)	0.40(0.04)	0.40(0.04)	0.69(0.06)	0.69(0.06)

Notes: NESARC-III = National Epidemiologic Survey on Alcohol and Related Conditions–III; DSM-IV = *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition;* DSM-5 = *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition.* [a]"Any DSM-IV use disorder" includes both dependence and abuse associated with the substance of interest; [b] any of the following: sedatives or tranquilizers, opioids other than heroin, cannabis, cocaine, stimulants, heroin, club drugs, hallucinogens, solvents or inhalants, or any other drug.

Comparison of prevalence (%) of substance use disorder diagnoses by **DSM -V** among NESARC-III respondents (n = 36,309) between reference and our numbers												
	Past year						Lifetime[a]					
	Mild (2-3 criteria)		Moderate to Severe (4+ criteria)		Any(2+criteria)		Mild (2-3 criteria)		Moderate to Severe (4+ criteria)		Any(2+criteria)	
	Ref	Ours	Ref	Ours	Ref	Ours	Ref	Ours	Ref	Ours	Ref	Ours
Substance												
Any substance (alcohol or any drug)	7.96	7.95	7.71	7.71	15.67	15.66	9.16	9.15	22.41	22.41	31.57	31.56
Alcohol	7.27	7.27	6.59	6.59	13.87	13.87	8.58	8.58	20.51	20.51	29.09	29.09
Any drug[b]	1.87	1.86	2.01	2.01	3.88	3.87	3.35	3.34	6.55	6.55	9.9	9.89
Sedatives or tranquilizers	0.18	0.18	0.19	0.19	0.37	0.37	0.45	0.45	0.61	0.61	1.06	1.06
Opioids other than heroin	0.43	0.43	0.46	0.46	0.89	0.89	0.72	0.72	1.33	1.33	2.05	2.05
Cannabis	1.38	1.38	1.16	1.16	2.54	2.54	2.85	2.85	3.42	3.42	6.27	6.27
Cocaine	0.13	0.13	0.22	0.22	0.35	0.35	0.54	0.54	1.85	1.85	2.4	2.4
Stimulants	0.13	0.13	0.19	0.19	0.32	0.32	0.49	0.49	1.23	1.23	1.71	1.71
Heroin	0.03	0.03	0.1	0.1	0.13	0.13	0.07	0.07	0.41	0.41	0.48	0.48

Notes: NESARC-III = National Epidemiologic Survey on Alcohol and Related Conditions–III; DSM-5 = *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition.* [a]highest lifetime severity whether it occurred in the past year or prior to the past year;
[b]any of the following: sedatives or tranquilizers, opioids other than heroin, cannabis, cocaine, stimulants, heroin, club drugs, hallucinogens, solvents or inhalants, or any other drug.