

Attachment 5a

Sample Design Tables 2021-2022

There are two major sample design changes for the 2021-2022 NHANES from the 2019-2020 cycle. The first change is that we made each year's sample nationally representative. This will eliminate the problem that occurred for the 2019-2020 cycle when we had to suspend the data collection in 2020 due to the pandemic. As the result, the data we did collect in 2019-2020 are not nationally representative, because we were unable to complete the collection for all the survey locations in the full two-year sample. This has profound implication in the utility of our data, and the mission it supports. Therefore, for 2021-2022, given the uncertainty of the pandemic status, we will select an annually, nationally representative sample for each year of the data collection. The second change is eliminating our oversample by race, Hispanic origin, and income. In 2021-22, within all selected households, anyone aged 0-19 years and 60 years and older will be eligible. In addition, one or two people aged 20-59, residing in the selected households, will be eligible as well. This elimination of oversampling allows every selected household to have at least one eligible sampled participant (SP), cutting down significantly on screener burden.

Table 1 shows the summary distribution by age for the examination targets in 2019-2020 and 2021-2022. For NHANES 2021-2022, there will be 12 sampling domains defined by gender and age. These domains represent the analytic subpopulations of interest. Table 2 shows the detailed sampling domains for NHANES 2021-2022 with expected total sampled persons, estimated exam response rates and expected number of exams for the 12 sampling domains presented. Attachment 5b contains the NHANES 2019-20 sample design as presented in the NHANES Protocol #2019-01.

Table 1: Examination Target Distribution by Age Category

Age Category	Distribution	
	2019-2020	2021-2022
0-5	16%	11%
6-11	12%	11%
12-19	12%	14%
20-39	19%	20%
40-59	19%	18%
60+	21%	27%
0-19	40%	35%
20+	60%	65%

Table 2: Detailed Sampling Domains, Expected Total Sampled Persons, Estimated Exam Response Rates and Expected Number of Exams by Sex and Age, 2021-2022

Sex	Age	Projected population average over years 2019-2022	Total Sample	Estimated exam response rate²	Target number of exams for 2021-2022
M	0-5 yrs.	12,633,263	1,051	52%	546
	6-11 yrs.	12,461,586	1,036	50%	523
	12-19 yrs.	16,944,665	1,409	51%	714
	20-39 yrs.	44,314,630	2,211	41%	912
	40-59 yrs.	40,223,196	2,007	41%	827
	60+ yrs.	35,298,161	2,936	40%	1,186
F	0-5 yrs.	12,067,654	1,004	52%	522
	6-11 yrs.	11,940,786	993	54%	532
	12-19 yrs.	16,396,197	1,364	52%	702
	20-39 yrs.	44,455,528	2,218	49%	1,087
	40-59 yrs.	41,978,331	2,095	47%	982
	60+ yrs.	41,718,611	3,470	42%	1,468
TOTAL		330,432,608	21,794	46%	10,000