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Linked NCHS - 2019-2021 CMS Medicare Data

Table 1. Sample Sizes and Unweighted Percentages by Survey and Age at Interview: 1999-2021 National Health Interview Survey (NHIS)

			Sample Adult ¹				All NHIS participants age 18 and older ²				
			Eligible for linkage ^{3,4,5}		Linked to Medicare ⁶			Eligible for linkage ^{3,4,5}		Linked to Medicare ⁶	
Survey year	Age at NHIS interview ⁷	Total sample ⁸	n	Percent of total ⁹	n	Percent of eligible ¹⁰	Total sample ⁸	n	Percent of total ⁹	n	Percent of eligible ¹⁰
NHIS 2021	Total	29,482	23,543	79.9	7,681	32.6	29,482	---	---	---	---
	18-64	20,571	16,659	81.0	1,026	6.2	20,571	---	---	---	---
	65 and older	8,908	6,884	77.3	6,655	96.7	8,908	---	---	---	---
	Missing	3	---	---	---	---	3	---	---	---	---
NHIS 2020	Total	31,568	25,877	82.0	9,502	36.7	31,568	---	---	---	---
	18-64	21,509	17,767	82.6	1,673	9.4	21,509	---	---	---	---
	65 and older	10,049	8,109	80.7	7,829	96.6	10,049	---	---	---	---
	Missing	10	1	10.0	---	---	10	---	---	---	---
NHIS 2019	Total	31,997	25,874	80.9	9,365	36.2	31,997	---	---	---	---
	18-64	22,670	18,404	81.2	2,127	11.6	22,670	---	---	---	---
	65 and older	9,317	7,470	80.2	7,238	96.9	9,317	---	---	---	---
	Missing	10	---	---	---	---	10	---	---	---	---
NHIS 2018	Total	25,417	21,869	86.0	8,241	37.7	25,417	---	---	---	---
	18-64	18,120	15,562	85.9	2,195	14.1	18,120	---	---	---	---
	65 and older	7,297	6,307	86.4	6,046	95.9	7,297	---	---	---	---
NHIS 2017	Total	26,742	22,831	85.4	8,273	36.2	26,742	---	---	---	---
	18-64	19,408	16,675	85.9	2,609	15.7	19,408	---	---	---	---
	65 and older	7,334	6,156	83.9	5,664	92.0	7,334	---	---	---	---
NHIS 2016	Total	33,028	28,112	85.1	10,278	36.6	33,028	---	---	---	---
	18-64	24,126	20,617	85.5	3,657	17.7	24,126	---	---	---	---
	65 and older	8,902	7,495	84.2	6,621	88.3	8,902	---	---	---	---

Linked NCHS - 2019-2021 CMS Medicare Data

Table 1. Sample Sizes and Unweighted Percentages by Survey and Age at Interview: 1999-2021 National Health Interview Survey (NHIS)

			Sample Adult ¹				All NHIS participants age 18 and older ²				
			Eligible for linkage ^{3,4,5}		Linked to Medicare ⁶			Eligible for linkage ^{3,4,5}		Linked to Medicare ⁶	
Survey year	Age at NHIS interview ⁷	Total sample ⁸	n	Percent of total ⁹	n	Percent of eligible ¹⁰	Total sample ⁸	n	Percent of total ⁹	n	Percent of eligible ¹⁰
NHIS 2015	Total	33,672	29,008	86.2	10,071	34.7	33,672	---	---	---	---
	18-64	25,294	21,751	86.0	4,075	18.7	25,294	---	---	---	---
	65 and older	8,378	7,257	86.6	5,996	82.6	8,378	---	---	---	---
NHIS 2014	Total	36,697	31,299	85.3	10,461	33.4	36,697	---	---	---	---
	18-64	28,053	23,947	85.4	4,686	19.6	28,053	---	---	---	---
	65 and older	8,644	7,352	85.1	5,775	78.6	8,644	---	---	---	---
NHIS 2013	Total	34,557	29,502	85.4	9,584	32.5	34,557	---	---	---	---
	18-64	26,825	22,911	85.4	4,718	20.6	26,825	---	---	---	---
	65 and older	7,732	6,591	85.2	4,866	73.8	7,732	---	---	---	---
NHIS 2012	Total	34,525	29,929	86.7	9,802	32.8	34,525	---	---	---	---
	18-64	27,143	23,583	86.9	5,398	22.9	27,143	---	---	---	---
	65 and older	7,382	6,346	86.0	4,404	69.4	7,382	---	---	---	---
NHIS 2011	Total	33,014	28,832	87.3	9,084	31.5	33,014	---	---	---	---
	18-64	26,112	22,854	87.5	5,204	22.8	26,112	---	---	---	---
	65 and older	6,902	5,978	86.6	3,880	64.9	6,902	---	---	---	---
NHIS 2010	Total	27,157	23,700	87.3	7,276	30.7	27,157	---	---	---	---
	18-64	21,707	18,987	87.5	4,471	23.6	21,707	---	---	---	---
	65 and older	5,450	4,713	86.5	2,805	59.5	5,450	---	---	---	---
NHIS 2009	Total	27,731	23,260	83.9	7,272	31.3	27,731	---	---	---	---
	18-64	22,238	18,660	83.9	4,697	25.2	22,238	---	---	---	---
	65 and older	5,493	4,600	83.7	2,575	56.0	5,493	---	---	---	---

Linked NCHS - 2019-2021 CMS Medicare Data
Table 1. Sample Sizes and Unweighted Percentages by Survey and Age at Interview: 1999-2021 National Health Interview Survey (NHIS)

			Sample Adult ¹				All NHIS participants age 18 and older ²				
			Eligible for linkage ^{3,4,5}		Linked to Medicare ⁶			Eligible for linkage ^{3,4,5}		Linked to Medicare ⁶	
Survey year	Age at NHIS interview ⁷	Total sample ⁸	n	Percent of total ⁹	n	Percent of eligible ¹⁰	Total sample ⁸	n	Percent of total ⁹	n	Percent of eligible ¹⁰
NHIS 2008	Total	21,781	17,332	79.6	5,446	31.4	21,781	---	---	---	---
	18-64	17,337	13,807	79.6	3,645	26.4	17,337	---	---	---	---
	65 and older	4,444	3,525	79.3	1,801	51.1	4,444	---	---	---	---
NHIS 2007	Total	23,393	15,364	65.7	4,688	30.5	23,393	---	---	---	---
	18-64	18,810	12,424	66.1	3,330	26.8	18,810	---	---	---	---
	65 and older	4,583	2,940	64.2	1,358	46.2	4,583	---	---	---	---
NHIS 2006	Total	24,275	9,972	41.1	2,943	29.5	54,813	28,697	52.4	7,967	27.8
	18-64	19,628	8,090	41.2	2,191	27.1	46,423	24,640	53.1	6,236	25.3
	65 and older	4,647	1,882	40.5	752	40.0	8,390	4,057	48.4	1,731	42.7
NHIS 2005	Total	31,428	14,390	45.8	4,354	30.3	71,835	40,345	56.2	11,497	28.5
	18-64	25,350	11,682	46.1	3,388	29.0	60,605	34,689	57.2	9,358	27.0
	65 and older	6,078	2,708	44.6	966	35.7	11,230	5,656	50.4	2,139	37.8
NHIS 2004	Total	31,326	15,431	49.3	4,745	30.8	68,299	40,466	59.3	11,833	29.2
	18-64	25,307	12,413	49.1	3,731	30.1	57,541	34,412	59.8	9,693	28.2
	65 and older	6,019	3,018	50.1	1,014	33.6	10,758	6,054	56.3	2,140	35.4
NHIS 2003	Total	30,852	19,266	62.5	5,851	30.4	66,611	42,500	63.8	12,479	29.4
	18-64	25,093	15,861	63.2	4,795	30.2	56,338	36,321	64.5	10,510	28.9
	65 and older	5,759	3,405	59.1	1,056	31.0	10,273	6,179	60.2	1,969	31.9
NHIS 2002	Total	31,044	20,571	66.3	6,200	30.1	67,195	45,449	67.6	13,676	30.1
	18-64	25,184	16,865	67.0	5,225	31.0	56,610	38,672	68.3	11,792	30.5
	65 and older	5,860	3,706	63.2	975	26.3	10,585	6,777	64.0	1,884	27.8

Linked NCHS - 2019-2021 CMS Medicare Data

Table 1. Sample Sizes and Unweighted Percentages by Survey and Age at Interview: 1999-2021 National Health Interview Survey (NHIS)

			Sample Adult ¹				All NHIS participants age 18 and older ²				
			Eligible for linkage ^{3,4,5}		Linked to Medicare ⁶			Eligible for linkage ^{3,4,5}		Linked to Medicare ⁶	
Survey year	Age at NHIS interview ⁷	Total sample ⁸	n	Percent of total ⁹	n	Percent of eligible ¹⁰	Total sample ⁸	n	Percent of total ⁹	n	Percent of eligible ¹⁰
NHIS 2001	Total	33,326	19,761	59.3	6,241	31.6	72,188	39,006	54.0	12,179	31.2
	18-64	27,174	16,207	59.6	5,352	33.0	61,171	33,219	54.3	10,675	32.1
	65 and older	6,152	3,554	57.8	889	25.0	11,017	5,787	52.5	1,504	26.0
NHIS 2000	Total	32,374	20,013	61.8	6,179	30.9	72,123	40,828	56.6	12,518	30.7
	18-64	26,194	16,372	62.5	5,454	33.3	60,917	34,816	57.2	11,219	32.2
	65 and older	6,180	3,641	58.9	725	19.9	11,206	6,012	53.7	1,299	21.6
NHIS 1999	Total	30,801	19,679	63.9	6,196	31.5	69,788	40,793	58.5	12,980	31.8
	18-64	24,799	15,944	64.3	5,552	34.8	58,788	34,587	58.8	11,838	34.2
	65 and older	6,002	3,735	62.2	644	17.2	11,000	6,206	56.4	1,142	18.4

— Data not available

¹Data shown are for "sample adults" only. From each family in the NHIS, one "sample adult" age 18 and older is randomly selected (Sample Adult survey component).

²From 1997-2018, the NHIS included a family questionnaire that collected data on "all persons" in a family

³For 1999 to 2006 NHIS, eligibility for linkage is based on not refusing to provide Social Security Number (SSN) or Medicare Health Insurance Claim Number (HICN) and having sufficient personally identifiable information.

⁴For 2007 to 2021 NHIS, eligibility for linkage is based on providing the last four digits of the SSN or HICN or an affirmative response to the follow up question to allow linkage without SSN or HICN and having sufficient personally identifiable information.

⁵Linkage eligibility did not account for vital status and participants may have been eligible for linkage even if they had died prior to the administrative data years.

⁶This group includes linkage-eligible survey participants who linked to Medicare administrative records at any time during the linkage interval (2019-2021).

⁷Age at interview is categorized based on age variables on the public-use survey files. For NHIS 2019-2021, a small number of Sample Adult participants could not be categorized by age.

⁸For 1999-2006 NHIS, linkage was conducted for all linkage-eligible persons in the family (Person level), including Sample Adults. For 2007 to 2021 NHIS, only Sample Adult participants are included in the NCHS-CMS Medicare linkage.

⁹This percentage is calculated by dividing the number of linked survey participants by the number of participants in the total sample.

¹⁰This percentage is calculated by dividing the number of linked survey participants by the total number of linkage-eligible participants.

Linked NCHS – 2019-2021 CMS Medicare Data

Table 2. Sample Sizes and Unweighted Percentages by Survey and Age at Interview: 1999-2020 National Health and Nutrition Examination Survey (NHANES) and NHANES III

			All NHANES participants age 20 and older				MEC participants age 20 and older ¹				
			Eligible for linkage ^{2,3,4}		Linked to Medicare ⁵		Eligible for linkage ^{2,3,4}			Linked to Medicare ⁵	
Survey year	Age at NHANES interview	Total sample	n	Percent of total ⁶	n	Percent of eligible ⁷	Total sample	n	Percent of total ⁶	n	Percent of eligible ⁷
NHANES 2017-March 2020	Total	9,232	8,707	94.3	3,179	36.5	8,544	8,095	94.7	2,931	36.2
	20-64	6,821	6,395	93.8	990	15.5	6,358	5,994	94.3	939	15.7
	65 and older	2,411	2,312	95.9	2,189	94.7	2,186	2,101	96.1	1,992	94.8
NHANES 2017-2018	Total	5,569	5,237	94.0	1,983	37.9	5,265	4,968	94.4	1,867	37.6
	20-64	4,069	3,805	93.5	650	17.1	3,873	3,636	93.9	624	17.2
	65 and older	1,500	1,432	95.5	1,333	93.1	1,392	1,332	95.7	1,243	93.3
NHANES 2015-2016	Total	5,719	5,287	92.5	1,838	34.8	5,474	5,083	92.9	1,774	34.9
	20-64	4,341	3,999	92.1	724	18.1	4,172	3,856	92.4	707	18.3
	65 and older	1,378	1,288	93.5	1,114	86.5	1,302	1,227	94.2	1,067	87.0
NHANES 2013-2014	Total	5,769	5,410	93.8	1,847	34.1	5,588	5,252	94.0	1,804	34.4
	20-64	4,463	4,168	93.4	877	21.0	4,323	4,048	93.6	857	21.2
	65 and older	1,306	1,242	95.1	970	78.1	1,265	1,204	95.2	947	78.7
NHANES 2011-2012	Total	5,560	5,074	91.3	1,689	33.3	5,319	4,879	91.7	1,628	33.4
	20-64	4,310	3,914	90.8	924	23.6	4,153	3,787	91.2	900	23.8
	65 and older	1,250	1,160	92.8	765	66.0	1,166	1,092	93.7	728	66.7
NHANES 2009-2010	Total	6,218	5,698	91.6	1,952	34.3	6,059	5,574	92.0	1,918	34.4
	20-64	4,695	4,306	91.7	1,118	26.0	4,599	4,229	92.0	1,101	26.0
	65 and older	1,523	1,392	91.4	834	59.9	1,460	1,345	92.1	817	60.7

Linked NCHS – 2019-2021 CMS Medicare Data

Table 2. Sample Sizes and Unweighted Percentages by Survey and Age at Interview: 1999-2020 National Health and Nutrition Examination Survey (NHANES) and NHANES III

			All NHANES participants age 20 and older				MEC participants age 20 and older ¹				
			Eligible for linkage ^{2,3,4}		Linked to Medicare ⁵		Eligible for linkage ^{2,3,4}			Linked to Medicare ⁵	
Survey year	Age at NHANES interview	Total sample	n	Percent of total ⁶	n	Percent of eligible ⁷	Total sample	n	Percent of total ⁶	n	Percent of eligible ⁷
NHANES 2007-2008	Total	5,935	4,560	76.8	1,639	35.9	5,707	4,406	77.2	1,603	36.4
	20-64	4,379	3,393	77.5	1,066	31.4	4,239	3,298	77.8	1,044	31.7
	65 and older	1,556	1,167	75.0	573	49.1	1,468	1,108	75.5	559	50.5
NHANES 2005-2006	Total	4,979	4,030	80.9	1,222	30.3	4,773	3,873	81.1	1,198	30.9
	20-64	3,790	3,072	81.1	845	27.5	3,648	2,966	81.3	827	27.9
	65 and older	1,189	958	80.6	377	39.4	1,125	907	80.6	371	40.9
NHANES 2003-2004	Total	5,041	4,507	89.4	1,432	31.8	4,742	4,265	89.9	1,377	32.3
	20-64	3,547	3,197	90.1	1,014	31.7	3,370	3,047	90.4	973	31.9
	65 and older	1,494	1,310	87.7	418	31.9	1,372	1,218	88.8	404	33.2
NHANES 2001-2002	Total	5,411	4,812	88.9	1,485	30.9	5,027	4,516	89.8	1,434	31.8
	20-64	3,948	3,558	90.1	1,183	33.3	3,785	3,423	90.4	1,142	33.4
	65 and older	1,463	1,254	85.7	302	24.1	1,242	1,093	88.0	292	26.7
NHANES 1999-2000	Total	4,880	4,056	83.1	1,251	30.8	4,444	3,737	84.1	1,197	32.0
	20-64	3,488	2,921	83.7	1,038	35.5	3,248	2,738	84.3	992	36.2
	65 and older	1,392	1,135	81.5	213	18.8	1,196	999	83.5	205	20.5
NHANES III (1988-1994)	Total	18,825	18,394	97.7	5,412	29.4	16,573	16,253	98.1	5,027	30.9
	20-64	13,573	13,262	97.7	5,219	39.4	12,481	12,226	98.0	4,850	39.7
	65 and older	5,252	5,132	97.7	193	3.8	4,092	4,027	98.4	177	4.4

¹This group only includes NHANES participants who were examined in the Mobile Examination Center (MEC)

²For NHANES III and 1999 to 2008 NHANES, eligibility for linkage is based on not refusing to provide Social Security Number (SSN) or Medicare Health Insurance Claim Number (HICN) and having sufficient personally identifiable information.

Linked NCHS – 2019-2021 CMS Medicare Data
Table 2. Sample Sizes and Unweighted Percentages by Survey and Age at Interview: 1999-2020 National Health and Nutrition Examination Survey (NHANES) and NHANES III

³For 2009-March 2020 NHANES, eligibility for linkage is defined as providing an affirmative response to the linkage consent question and having sufficient personally identifiable information.
⁴Linkage eligibility did not account for vital status and participants may have been eligible for linkage even if they had died prior to the administrative data years
⁵This group includes linkage-eligible survey participants who linked to Medicare administrative records at any time during the linkage interval (2019-2021).
⁶This percentage is calculated by dividing the number of linked survey participants by the number of participants in the total sample.
⁷This percentage is calculated by dividing the number of linked survey participants by the total number of linkage-eligible participants.