Preliminary Quarterly Microdata Files:
National Health Interview Survey, January–December 2018

A preliminary microdata file for the January–December 2018 National Health Interview Survey (NHIS) will be available starting May 9, 2019 through the National Center for Health Statistics (NCHS) Research Data Centers (RDCs). NHIS data users can analyze this file without having to wait for the final annual NHIS microdata files to be released (expected in or about June, following the end of the data collection year).

NCHS has RDCs located in Hyattsville, Maryland, and Atlanta, Georgia. NCHS data can also be accessed at Federal Statistical RDCs managed by the U.S. Census Bureau and through remote access. Analysts wishing to use the files should follow standard procedures for using the RDC. Visit the RDC website for information on accessing and using the RDCs.

Starting with the 2010 NHIS, the NHIS Early Release Program has been producing preliminary microdata files containing selected NHIS variables for use in the RDC. For the 2018 data collection year (January through December), these files are made available four times: in or about August (with data from the first quarter), in or about November (with data from the first two quarters), in or about February of the next year (with data from the first three quarters) and in or about May of the next year (with data from the full year).

These preliminary microdata files are produced prior to final data editing to provide early access to the most recent information from NHIS. Differences between estimates calculated using preliminary data files and final data files are typically less than 0.1 percentage point. However, preliminary estimates of persons without health insurance coverage are generally 0.1–0.3 percentage points lower than the final estimates due to the editing procedures used for the final data files.

The preliminary microdata file for the January–December 2018 NHIS is derived from the three main components of NHIS: (a) the Family Core, which collects information on all family members in each household; (b) the Sample Child Core, which collects information on one randomly selected child in each family with a child; and (c) the Sample Adult Core, which collects information from one randomly selected adult aged 18 or over in each family. The preliminary January–December 2018 file is based on 73,023 persons in the Family Core, 8,292 children in the Sample Child Core, and 25,537 adults in the Sample Adult Core. Visit the NHIS website for more information on the design, content, and use of NHIS. The NHIS is transitioning to a redesigned questionnaire in 2019. The sample size for the fourth quarter of 2018 was reduced to facilitate this transition.

A new sample design was implemented beginning with the 2016 NHIS. Sample areas were reselected to take into account changes in the distribution of the U.S. population since 2006, when the previous sample design was first implemented; commercial address lists were used as the main source of addresses, rather than field listing; and the oversampling procedures for black, Hispanic, and Asian persons that were a feature of the previous sample design were not implemented in 2016 and onward. Some of the differences between estimates from 2016 onward and estimates for earlier years may be attributable to the new sample design.

Documentation for the preliminary microdata file is limited to a list of the variables on the file (see Table below). More information about the 2018 instrument may be found in the 2018 NHIS questionnaire. In addition, the 2017 NHIS Survey Description document contains information that may be useful in analyzing these preliminary microdata files.

Table. Variables on the Preliminary Quarterly Microdata File, and variables used to calculate recodes on the Preliminary Quarterly Microdata File, for Quarters 1, 2, 3, and 4 (January–December) of the 2018 National Health Interview Survey

Variable	Description	Comment (source file)[1]
AASMEV	Ever been told you have asthma	On data file (SA)
AASMYR	Had an asthma episode/attack in past 12 months	On data file (SA)
AASSTILL	Still have asthma	On data file (SA)
ACPTPER	Processing variable	On data file (SA)
AGE	Age	On data file (F)
AHCAFYR1	In the past 12 months, needed prescription medication but couldn't afford it	On data file (SA)
AHCAFYR2	In the past 12 months, needed mental health care or counseling but couldn't afford it	On data file (SA)
AHCAFYR3	In the past 12 months, needed dental care but couldn't afford it	On data file (SA)
AHCAFYR4	In the past 12 months, needed eyeglasses but couldn't afford them	On data file (SA)
AHCSYR1	Seen or talked to a mental health professional in the past 12 months	On data file (SA)
AHPVAGE	Age when received first HPV shot	On data file (SA)
ALC5UPYR	Number of days had 5+ (for men) or 4+ (for women) drinks in past year	On data file (SA)
ALCLIFE	Had 12+ drinks in entire life	On data file (SA)
AMDLONGR	Time since last seen or talked to a health care professional	On data file (SA)
APLKIND	Place of usual source of medical care	On data file (SA)
ASIEFFRT	How often felt everything was an effort in the past 30 days	On data file (SA)
ASIHIVT	Ever been tested for HIV	On data file (SA)
ASIHOPLS	How often felt hopeless in the past 30 days	On data file (SA)
ASINERV	How often felt nervous in the past 30 days	On data file (SA)
ASIRSTLS	How often felt restless/fidgety in the past 30 days	On data file (SA)
ASISAD	How often felt so sad nothing cheers you up in the past 30 days	On data file (SA)
ASIWTHLS	How often felt worthless in the past 30 days	On data file (SA)
ASTATFLG	Sample adult flag	On data file (SA)
AUSUALPL	Usual source of medical care	On data file (SA)
BMI	Body mass index	On data file (SA)
CANAGE1	Age first diagnosed with bladder cancer	Not on data file (SA), used for recode
CANAGE10	Age first diagnosed with kidney cancer	Not on data file (SA), used for recode
CANAGE11	Age first diagnosed with larynx-windpipe cancer	Not on data file (SA), used for recode
CANAGE13	Age first diagnosed with liver cancer	Not on data file (SA), used for recode
CANAGE14	Age first diagnosed with lung cancer	Not on data file (SA), used for recode
CANAGE16	Age first diagnosed with melanoma	Not on data file (SA), used for recode
CANAGE17	Age first diagnosed with mouth/tongue/lip cancer	Not on data file (SA), used for recode
CANAGE18	Age first diagnosed with ovarian cancer	Not on data file (SA), used for recode
CANAGE19	Age first diagnosed with pancreatic cancer	Not on data file (SA), used for recode
CANAGE20	Age first diagnosed with prostate cancer	Not on data file (SA), used for recode
CANAGE21	Age first diagnosed with rectal cancer	Not on data file (SA), used for recode
CANAGE24	Age first diagnosed with soft-tissue cancer	Not on data file (SA), used for recode
CANAGE25	Age first diagnosed with stomach cancer	Not on data file (SA), used for recode
CANAGE26	Age first diagnosed with testicular cancer	Not on data file (SA), used for recode
CANAGE27	Age first diagnosed with throat/pharynx cancer	Not on data file (SA), used for recode
CANAGE28	Age first diagnosed with thyroid cancer	Not on data file (SA), used for recode

See footnotes at the end of table.

Table. Variables on the Preliminary Quarterly Microdata File, and variables used to calculate recodes on the Preliminary Quarterly Microdata File, for Quarters 1, 2, 3, and 4 (January–December) of the 2018 National Health Interview Survey—Con.

Variable	Description	Comment (source file)[1]
CANAGE29	Age first diagnosed with uterine cancer	Not on data file (SA), used for recode
CANAGE3	Age first diagnosed with bone cancer	Not on data file (SA), used for recode
CANAGE30	Age first diagnosed with other cancer	Not on data file (SA), used for recode
CANAGE4	Age first diagnosed with brain cancer	Not on data file (SA), used for recode
CANAGE5	Age first diagnosed with breast cancer	Not on data file (SA), used for recode
CANAGE6	Age first diagnosed with cervical cancer	Not on data file (SA), used for recode
CANAGE7	Age first diagnosed with colon cancer	Not on data file (SA), used for recode
CANAGE8	Age first diagnosed with esophageal cancer	Not on data file (SA), used for recode
CANAGE9	Age first diagnosed with gallbladder cancer	Not on data file (SA), used for recode
CANEV	Ever told by a doctor you had cancer	Not on data file (SA), used for recode
CASHMEV	Ever been told sample child had asthma	On data file (SC)
CASHYR	Had an asthma episode/attack in past 12 months	On data file (SC)
CASSTILL	Still has asthma	On data file (SC)
CBRCHYR	Told you had chronic bronchitis in past 12 months	Not on data file (SA), used for recode
CCONDR	Any condition (child); used only for Early Release processing	Not on data file (SC), used for recode
CCONDRR2	Ever told sample child had cerebral palsy	Not on data file (SC), used for recode
CCONDRR3	Ever told sample child had muscular dystrophy	Not on data file (SC), used for recode
CCONDRR4	Ever told sample child had cystic fibrosis	Not on data file (SC), used for recode
CCONDRR5	Ever told sample child had sickle cell anemia	Not on data file (SC), used for recode
CCONDRR6	Ever told sample child had diabetes	Not on data file (SC), used for recode
CCONDRR8	Ever told sample child had congenital heart disease	Not on data file (SC), used for recode
CCONDRR9	Ever told sample child had other heart condition	Not on data file (SC), used for recode
CHDEV	Ever been told you had coronary heart disease	Not on data file (SA), used for recode
CIGQTYR	Stopped smoking for more than 1 day in past 12 months, due to quit attempt	On data file (SA)
CNKIND12	What kind of cancer … leukemia	Not on data file (SA), used for recode
CNKIND15	What kind of cancer … lymphoma	Not on data file (SA), used for recode
CNKIND2	What kind of cancer … blood	Not on data file (SA), used for recode
CPLKIND	Place of usual source of medical care—child	On data file (SC)
CSHFLU12	Had flu vaccination in past 12 months	On data file (SC)
CSHFLUM1	Month of most recent flu vaccine	On data file (SC)
CSHFLUM2	Month of next most recent flu vaccine	On data file (SC)
CSHFLUNM	Number of flu vaccines in past 12 months	On data file (SC)
CSHFLUY1	Year of most recent flu vaccine	On data file (SC)
CSHFLUY2	Year of next most recent flu vaccine	On data file (SC)
CSHSPFL1	Flu shot or nasal spray (1st dose)	On data file (SC)
CSHSPFL2	Flu shot or nasal spray (2nd dose)	On data file (SC)
CSTATFLG	Sample child flag	On data file (SC)
CUSUALPL	Usual source of medical care—child	On data file (SC)
DIBEV1	Ever been told that you have diabetes	On data file (SA)
DOB_D	Day of birth	On data file (F)
DOB_M	Month of birth	On data file (F)
DOB_Y	Year of birth	On data file (F)
EDUC3	Recode: Education level (4 groups)	On data file (F) 1 = some high school or less 2 = high school graduate or GED[2] 3 = some post-high school, no degree 4 = 4-year college degree or higher

See footnotes at the end of table.

Table. Variables on the Preliminary Quarterly Microdata File, and variables used to calculate recodes on the Preliminary Quarterly Microdata File, for Quarters 1, 2, 3, and 4 (January–December) of the 2018 National Health Interview Survey—Con.

Variable	Description	Comment (source file)[1]
EDUCATE	Recode: Education level	On data file (F), values for EDUCATE are the same as EDUC1 on the final file
EMPLOY	Recode: Employment status indicator created for Early Release analysis. This variable does not appear on the final files.	On data file (F, SA) 1 = employed 2 = unemployed 3 = not in workforce 4 = unknown employment status
EPHEV	Ever been told you had emphysema	Not on data file (SA), used for recode
EREGION[3]	Recode: Expanded regions. The US is divided into 9 regions. The regions are a modification of the 9 Census divisions.	On data file (F) 1 = New England 2 = Middle Atlantic 3 = East North Central 4 = West North Central 5 = South Atlantic 6 = East South Central 7 = West South Central 8 = Mountain 9 = Pacific
EXCHANGE	Recode: Persons classified as having private health insurance coverage through the Health Insurance Marketplace or state-based exchanges	On data file (F) 1 = Has exchange coverage 2 = Does not have exchange coverage 8 = Not ascertained
FLU2RISK[4]	Recode: Adult at high risk of influenza-related complications	On data file (SA)
FLUVACTP	Flu shot or nasal spray	On data file (SA)
FLUVACYR	Had flu vaccination in past 12 months	On data file (SA)
FLUVAC_M	Month of most recent flu vaccine	On data file (SA)
FLUVAC_Y	Year of most recent flu vaccine	On data file (SA)
FMX	Family serial number	On data file
FPX	Family identifier	On data file
FSA	Flexible spending accounts	On data file (F)
HCSPFYR	Amount family spent for medical care and dental care in the past 12 months	On data file (F)
HDHP1	High deductible health plan (plan 1)	On data file (F)
HDHP2	High deductible health plan (plan 2)	On data file (F)
HDHP3	High deductible health plan (plan 3)	On data file (F)
HDHP4	High deductible health plan (plan 4)	On data file (F)
HHOUSE[5]	Home ownership status	On data file (F) 1 = owned or being bought 2 = rented 3 = other
HHRACRI2	3 race groups with multiple race and ethnicity	On data file (F)
HHRACR_IN_A	6 race groups with multiple race and ethnicity	On data file (F) 1 = Hispanic 2 = Non-Hispanic, white only 3 = Non-Hispanic, black only 4 = Non-Hispanic, Asian only 5 = Non-Hispanic, other, single race 6 = Non-Hispanic, multirace
HHX	Household identifier	On data file

See footnotes at the end of table.

Table. Variables on the Preliminary Quarterly Microdata File, and variables used to calculate recodes on the Preliminary Quarterly Microdata File, for Quarters 1, 2, 3, and 4 (January–December) of the 2018 National Health Interview Survey—Con.

Variable	Description	Comment (source file)[1]
HILAST2	How long since last had health coverage for persons who are currently uninsured	On data file (F) 1=6 months or less 2=More than 6 months, less than 1 year 3=1 year 4=More than 1 year, less than 3 years 5=3 years or more 6=Never
HINOTMYR	Number of months without health coverage during past 12 months for persons who are currently insured	On data file (F)
HINOTYR	No health coverage during past 12 months for persons who are currently insured	On data file (F)
HISPCODE	5 race groups with multiple race and ethnicity	On data file (F) 1=Hispanic 2=Non-Hispanic white only 3=Non-Hispanic black only 4=Non-Hispanic Asian only 5=Non-Hispanic multirace
HRTEV	Ever been told you had a heart condition/disease	Not on data file (SA), used for recode
HSAHRA1	Health Savings Accounts/Health Reimbursement Accounts (plan 1)	On data file (F)
HSAHRA2	Health Savings Accounts/Health Reimbursement Accounts (plan 2)	On data file (F)
HSAHRA3	Health Savings Accounts/Health Reimbursement Accounts (plan 3)	On data file (F)
HSAHRA4	Health Savings Accounts/Health Reimbursement Accounts (plan 4)	On data file (F)
HS_STR2	Recode: Household structure	On data file (F) 1 = Adult living alone 2 = Unrelated adults, no children 3 = Related adults, no children 4 = Adult(s) with children
HYPEV	Ever been told you had hypertension	On data file (SA)
INSURED6	Recode: Insurance coverage status created for Early Release analysis. This variable does not appear on the final files.	On data file (F) 1 = covered 2 = uninsured 7 = refused 9 = not ascertained
INT_DATE	Interview date	On data file (F)
INTV_QRT	Interview quarter	On data file (F)
IPSU	Final in house primary sampling unit (used for state estimates)	On data file
ISTRAT	Final in house stratum (used for state estimates)	On data file
KIDWKYR	Told you had weak/failing kidneys in past 12 months	Not on data file (SA), used for recode
LIVYR	Told you had liver condition in past 12 months	Not on data file (SA), used for recode
MAEXP[6]	Recode: State Medicaid expansion status as of January 1, 2016	On data file (F) 1 = States that had moved forward with Medicaid expansion at this time 2 = States that had not moved forward with Medicaid expansion at this time
MAJR_ACT	Recode: Employment status last week (5 groups)	On data file (F) 1 = working at job/business 2 = keeping house 3 = going to school 4 = other (including unemployed) 5 = unknown
MEDBILL	Family had problems paying medical bills in the past 12 months	On data file (F)
MEDBNOP	Currently has medical bills that family is unable to pay at all	On data file (F)
MEDBPAY	Family currently has medical bills being paid off over time	On data file (F)
MIEV	Ever been told you had a heart attack	Not on data file (SA), used for recode
MODFREQW	Frequency of light/moderate activity (times per week)	On data file (SA)

See footnotes at the end of table.

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Variable	Description	Comment (source file)[1]
MODMIN	Duration of light/moderate activity (in minutes)	On data file (SA)
MODNO	Frequency of light/moderate activity (number of units)	On data file (SA)
MODTP	Frequency of light/moderate activity (time units)	On data file (SA)
MSA[7]	Recode: Metropolitan statistical area (MSA)	On data file (F) 1 = large MSA 2 = small MSA 3 = not in MSA
MSASTAT	Metropolitan statistical area (MSA) status	Not on data file, used for recode
MSASIZE	Metropolitan statistical area (MSA) size	Not on data file, used for recode
NSTATE[8]	Recode: States included in preliminary microdata file	On data file (F) Two letter postal abbreviation for 17 states for which estimates have been reported in 2018. All remaining states are combined into one group and coded with an "OS" abbreviation for "Other States."
PCLASS15	Recode: Phone classification status – 8 categories	On data file (F) 1 = landline & cell phone – some/few wireless 2 = landline & cell phone – all/near all wireless 3 = landline & cell phone – unknown use 4 = landline – no cell phone 5 = landline – unknown cell phone 6 = no landline – unknown cell phone 7 = cell phone only 8 = no phone service
PDMED12M	Delayed medical care due to cost	On data file (F)
PHSTAT	Respondent-assessed health status	On data file (F)
PLAADL	Need help with personal care	On data file (F)
PLNWRK1	How plan was originally obtained (plan 1)	On data file (F)
PLNWRK2	How plan was originally obtained (plan 2)	On data file (F)
PLNWRK3	How plan was originally obtained (plan 3)	On data file (F)
PLNWRK4	How plan was originally obtained (plan 4)	On data file (F)
PNEBOTH[9]	Recode: Adult at high risk of pneumococcal disease	On data file (SA)
PNMED12M	Did not get medical care due to cost	On data file (F)
POVCAT5[10]	Recode: Poverty status created for Early Release analysis – 6 categories. This variable does not appear on the final files.	On data file (F) 1 = less than 100% federal poverty level (FPL) 2 = 100% to less than or equal to 138% FPL 3 = greater than 138% to less than or equal to 250% FPL 4 = greater than 250% to less than or equal to 400% FPL 5 = greater than 400% FPL 6 = unknown FPL
POVERTY[10]	Recode: Poverty status created for Early Release analysis – 4 categories. This variable does not appear on the final files.	On data file (F) 1 = less than 100% FPL 2 = 100% to less than 200% FPL 3 = 200%+ FPL 4 = unknown FPL

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Table. Variables on the Preliminary Quarterly Microdata File, and variables used to calculate recodes on the Preliminary Quarterly Microdata File, for Quarters 1, 2, 3, and 4 (January–December) of the 2018 National Health Interview Survey—Con.

Variable	Description	Comment (source file)[1]
POVERTYH[10]	Recode: Household poverty status indicator created for Early Release analysis. This variable does not appear on the final files.	On data file (F) 1 = less than 100% FPL 2 = 100% to less than 200% FPL 3 = 200%+ FPL 4 = unknown FPL
PREGNOW	Currently pregnant	On data file (SA)
PSU_ER	Primary sampling unit for Early Release analysis	On data file
R_MARITL	Marital status	On data file (F)
REGION	United States divided into four geographic regions	On data file (F)
RISKCHDNEW[4]	Recode: Child at high risk of influenza-related complications	On data file (SC)
SADATE	Sample adult interview date	On data file (SA)
SCDATE	Sample child interview date	On date file (SC)
SEIZE1	Had seizures in past 12 months (sample children 0–2 years)	Not on data file (SC), used for recode
SEIZE2	Had seizures in past 12 months (sample children 3–17 years)	Not on data file (SC), used for recode
SEX	Sex	On data file (F)
SHEPANUM	Number of shots of hepatitis A vaccine received	On data file (SA)
SHEPDOS	Number of doses of hepatitis B vaccine received	On data file (SA)
SHHPVDOS	Number of shots of HPV vaccine received	On data file (SA)
SHINGLE1	Ever had shingles vaccine	On data file (SA)
SHTHEPA	Ever had hepatitis A vaccine	On data file (SA)
SHTHEPB	Ever had hepatitis B vaccine	On data file (SA)
SHTHPV2	Ever received HPV vaccine or shot	On data file (SA)
SHTPNUYR	Pneumonia shot, ever	On data file (SA)
SHTTD	Tetanus shot in past 10 years	On data file (SA)
SHTTDAP	Tdap vaccine included in pertussis/whooping cough vaccine	On data file (SA)
SMARKET[11]	Recode: State Health Insurance Marketplace type as of October 31, 2013	On data file (F) 1 = State-based Marketplace states 2 = Partnership Marketplace states 3 = Federally-facilitated Marketplace states
SMKSTAT2	Recode: Smoking status	On data file (SA)
STRAT_ER	Stratum for Early Release analysis	On data file
STRFREQW	Strength activity frequency (number of units)	On data file (SA)
TRAVEL	Ever traveled outside United States to countries other than Europe, Japan, Australia, New Zealand, or Canada since 1995	On data file (SA)
TYPEPRI	Recode: Private coverage variable created for Early Release analysis. This variable does not appear on the final files.	On data file (F) 1 = yes private 2 = no private 7 = refused 9 = not ascertained
TYPEPUB	Recode: Public coverage variable created for Early Release analysis. This variable does not appear on the final files.	On data file (F) 1 = yes public 2 = no public 7 = refused 9 = not ascertained
VIGFREQW	Frequency of vigorous activity (times per week)	On data file (SA)
VIGMIN	Duration of vigorous activity (in minutes)	On data file (SA)
VIGNO	Frequency of vigorous activity (number of units)	On data file (SA)
VIGTP	Frequency of vigorous activity (time units)	On data file (SA)
WRKDIR	Provide direct patient care	On data file (SA)
WRKHLTH	Volunteer or work in health care facility	On data file (SA)
WTFA	Preliminary Person weight	On data file

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Variable	Description	Comment (source file)[1]
WTFA_F	Final Person weight (used for state estimates)	On data file
WTFA_SA	Preliminary Sample Adult weight	On data file
WTFA_SC	Preliminary Sample Child weight	On data file

[1]"On data file" means the variable is on the preliminary microdata file. "Not on data file" means the variable is used in the creation of a recode but is not on the preliminary microdata file. Source files are coded as follows: F is Family Core, SA is Sample Adult Core, and SC is Sample Child Core.

[2]GED is General Educational Development high school equivalency diploma.

[3]The New England region includes CT, ME, MA, NH, RI, and VT. The Middle Atlantic region includes DE, DC, MD, NJ, NY, and PA. The East North Central region includes IL, IN, MI, OH, and WI. The West North Central region includes IA, KS, MN, MO, NE, ND, and SD. The South Atlantic region includes FL, GA, NC, SC, VA, and WV. The East South Central region includes AL, KY, MS, and TN. The West South Central region includes AR, LA, OK, and TX. The Mountain region includes AZ, CO, ID, MT, NV, NM, UT, and WY. The Pacific region includes AK, CA, HI, OR, and WA.

[4]Adults categorized as being at high risk for influenza-related complications self-reported one or more of the following: (a) ever being told by a physician that they had diabetes, emphysema, coronary heart disease, angina, a heart attack, or other heart condition; (b) having had a diagnosis of cancer during the previous 12 months (excluding nonmelanoma skin cancer), or ever being told by a physician that they have lymphoma, leukemia, or blood cancer during the previous 12 months; (c) having been told by a physician that they had chronic bronchitis or weak or failing kidneys; or (d) having had an asthma episode or attack during the preceding 12 months. For children under age 18 years, high-risk conditions reported by a knowledgeable adult included (a) ever having been told by a physician that the child had diabetes, cystic fibrosis, sickle cell anemia, congenital heart disease, other heart disease, or a neuromuscular condition (seizures, cerebral palsy, or muscular dystrophy), or (b) the child having had an asthma episode or attack during the preceding 12 months. Both recodes (FLU2RISK for adult and RISKCHDNEW for child) for high risk of influenza-related complications are based on source variables indicated in this table by the comment, "Not on data file (SA), used for recode" or "Not on data file (SC), used for recode."

[5]For households with multiple families, home ownership status was determined by considering the reported home ownership status for each family. If any family reported owning the home, then the household-level variable was classified as "Owned or being bought" for all persons living in the household. If one family reported renting the home and another family reported "other arrangement," then the household-level variable was classified as "Other arrangement" for all persons living in the household.

[6]Medicaid expansion status is as of January 1, 2016. States that had moved forward with Medicaid expansion at this time included AK, AZ, AR, CA, CO, CT, DE, DC, HI, IL, IN, IA, KY, LA, MD, MA, MI, MN, MT, NV, NH, NJ, NM, NY, ND, OH, OR, PA, RI, VT, WA, and WV. States that had not moved forward with Medicaid expansion at this time included AL, FL, GA, ID, KS, ME, MS, MO, NE, NC, OK, SC, SD, TN, TX, UT, VA, WI, and WY.

[7]MSA is metropolitan statistical area. Large MSAs have a population size of 1 million or more; small MSAs have a population size of less than 1 million. "Not in MSA" consists of persons not living in an MSA.

[8]NSTATE provides state identifiers for CA, FL, GA, IL, IN, MA, MI, NC, NJ, NY, OH, PA, TN, TX, VA, WA, and WI.

[9]Adults were considered at high risk for pneumococcal disease if they (a) had ever been told by a doctor or other health professional that they had diabetes, emphysema, coronary heart disease, angina, a heart attack, or other heart condition; (b) had a diagnosis of cancer during the previous 12 months (excluding nonmelanoma skin cancer); (c) had ever been told by a doctor or other health professional that they had lymphoma, leukemia, or blood cancer; or (d) had been told by a doctor or other health professional that they had chronic bronchitis or weak or failing kidneys during the preceding 12 months. This recode (PNEBOTH) is based on the source variables indicated in this table by the comment, "Not on data file (SA), used for recode."

[10]POVERTYH is based on household income and household size using the U.S. Census Bureau's poverty thresholds. For households with multiple families, household income and household size were calculated as the sum of the multiple measures of family income and family size. POVCAT5 and POVERTY are based on family income and family size using the U.S. Census Bureau's poverty thresholds.

[11]Marketplace type is as of October 31, 2013. State-based Marketplace states includes CA, CO, CT, DC, HI, ID, KY, MD, MA, MN, NV, NM, NY, OR, RI, VT, and WA. Partnership Marketplace states includes AR, DE, IL, IA, MI, NH, and WV. Federally-facilitated Marketplace states includes AL, AK, AZ, FL, GA, IN, KS, LA, ME, MS, MO, MT, NE, NJ, NC, ND, OH, OK, PA, SC, SD, TN, TX, UT, VA, WI, and WY.