Supplementary Online Content

This supplementary material has been provided by the authors to give readers additional information about their work

eAppendix. Survey Questions and Coding of Outcomes

All study outcomes were coded using survey responses from the National Surveys of Children's Health (years 2003, 2007, and 2011/12).[1-4] Details on outcome coding are provided below.

Reported receiving 1+ preventive medical visit

2003

In 2003, the caregiver was asked if the child saw a doctor, nurse, or other health care professional for any kind of medical care, including sick-child care, well-child checkups, physical exams, and hospitalizations, during the past 12 months (S4Q01). Then, if the caregiver responded "yes," he/she was asked how many times the child saw a doctor, nurse, or other health care professional for preventive medical care such as a physical exam or well-child check-up (S4Q03). In addition, the caregiver was asked if the child visited his or her personal doctor or nurse for preventive care (S5Q08A).

A child was considered to have received 1+ preventive medical visit if his/her caregiver responded with "yes" to S4Q01 and a number greater than or equal to one for S4Q03. A child was also considered to have received 1+ preventive medical visit if his/her caregiver responded "yes" to S5Q08A.

2007

In 2007, the caregiver was asked how many times the child saw a doctor, nurse, or other health care provider for preventive medical care such as a physical exam or well-child checkup during the past 12 months (K4Q20).

A child was considered to have received 1+ preventive medical visit if his/her caregiver responded with a number greater than or equal to one for K4Q20.

2011/12

In 2011/12, the caregiver was asked if the child saw a doctor, nurse, or other health care professional for any kind of medical care, including sick-child care, well-child checkups, physical exams, and hospitalizations, during the past 12 months (S4Q01). Then, if the caregiver responded "yes," he/she was asked how many times the child saw a doctor, nurse, or other health care professional for preventive medical care such as a physical exam or well-child check-up (K4Q20).

A child was considered to have received 1+ preventive medical visit if his/her caregiver responded with "yes" to S4Q01 and a number greater than or equal to one for K4Q20.

Reported having a personal doctor

In all three years, the caregiver was asked if he/she had one or more persons he/she thought of as the child's personal doctor or nurse (S5Q01 in 2003, K4Q04 in years 2007 and 2011/12). If the caregiver responded "yes," the child was considered to have a personal doctor.

Reported receiving 1+ preventive dental visit

2003

In 2003, the caregiver was asked how long it had been since the child last saw a dentist (S2Q56). If the child saw a dentist during the past 12 months, the caregiver was later asked whether the child saw a dentist for any routine preventive dental care during the past 12 months, including check-ups, screenings, and sealants (S4Q09). A child was considered to have received 1+ preventive dental visit if his/her caregiver responded "yes" to S4Q09.

2007

In 2007, the caregiver was asked how many times the child saw a dentist during the past 12 months for preventive dental care, such as check-ups and dental cleanings (K4Q21). A child was considered to have received 1+ preventive dental visit if his/her caregiver responded with a number greater than or equal to one for K4Q21.

2011/12

In 2011/12, the caregiver was asked whether the child saw a dentist for any kind of dental care during the past 12 months, including check-ups, dental cleanings, x-rays, or filling cavities (K4Q30). If the child saw a dentist during the past 12 months, the caregiver was then asked how many times the child saw a dentist for preventive dental care, such as check-ups and dental cleanings (K4Q21). A child was considered to have received 1+ preventive dental visit if his/her caregiver responded with a number greater than or equal to one for K4Q21.

Reported having a usual source of care

This question was not asked in 2003. In 2007 and 2011/12, we used pre-coded indicator variables from the Data Resource Center for Child and Adolescent Health ("usual" and "usual_11," respectively). A child was considered to have a usual source of care if the caregiver reported that the child had a usual source of care. If the place of care was a hospital emergency room, located outside of the U.S., or the child did not go to one place most often, this was not considered a usual source of care. See codebooks from the Child and Adolescent Health Measurement Initiative for more information.[5,6]

Reported a problem seeing a specialist

2003

In 2003, the caregiver was asked if he/she had one or more persons that he/she thought of as the child's personal doctor or nurse (S5Q01). If he/she responded "yes," the caregiver was later asked if he/she or the child's personal doctor or nurse thought that the child needed to see any specialist doctor or doctors (S5Q09). If the caregiver responded "yes," the child was considered to need a specialist and included in the analyses of problems seeing a specialist.

If it was determined that the child needed to see a specialist (response of "yes" to S5Q09), the caregiver was asked how much of a problem it was to get the care from the specialist doctor or doctors (1, a big problem; 2, a moderate problem; 3, a small problem; or 4, no problem at all) (S5Q09A). For our analysis, we recoded this variable as a binary variable. If the caregiver responded with 1-3 to S5Q09A, we coded this as "any problem seeing a specialist." If the caregiver responded with 4 to S5Q09A, we coded this as "no problem seeing a specialist."

2007 and 2011/12

In 2007 and 2011/12, the caregiver was asked if the child saw a specialist (other than a mental health professional) during the past 12 months (K4Q24). If the caregiver did not respond with "yes," he/she was then asked whether he/she or a doctor thought that the child needed to see a specialist (K4Q25). A child was considered to need a specialist if either: 1) the child saw a specialist (K4Q24) or 2) the child did not see a specialist, but it was thought that he/she needed to see one (K4Q25). However, for consistency with the 2003 survey, children were only included in the analyses of problems seeing a specialist if they met one of these criteria and also had a personal doctor (K4Q04).

If it was determined that the child needed to see a specialist and had a personal doctor (see above), the caregiver was then asked how much of a problem it was to get care from the specialists (1, big problem; 2, small problem; or 3, not a problem) (K4Q26). For our analysis, we recoded this variable as a binary

variable. If the caregiver responded with 1-2 to K4Q26, we coded this as "any problem seeing a specialist." If the caregiver responded with 3 to K4Q26, we coded this as "no problem seeing a specialist."

Reported a problem obtaining a referral

This question was not asked in 2003. In 2007 and 2011/12, the caregiver was asked whether the child needed a referral to see any doctors or receive any services during the past 12 months (K5Q10). If the caregiver responded "yes," the child was considered to need a referral and included in the analyses of problems obtaining referrals.

If it was determined that the child needed a referral (response of "yes" to K5Q10), then the caregiver was asked how much of a problem it was to get referrals (1, big problem; 2, small problem; or 3, not a problem) (K5Q11). For our analysis, we recoded this variable as a binary variable. If the caregiver responded with 1-2 to K5Q11, we coded this as "any problem obtaining a referral." If the caregiver responded with 3 to K5Q11, we coded this as "no problem obtaining a referral."

Reported an unmet medical need

2003

In 2003, the caregiver was asked if the child saw a doctor, nurse, or other health care professional for any kind of medical care, including sick-child care, well-child checkups, physical exams, and hospitalizations, during the past 12 months (S4Q01). If the caregiver did not respond with "yes" to S4Q01, he/she was then asked if there was any time when the child needed any medical care during the past 12 months (S4Q02). If the caregiver responded with "yes" to S4Q01, he/she was later asked whether the child received all needed medical care in the past 12 months (S4Q07).

A child was considered to have an unmet medical need if he/she did not see a health care professional for medical care in the past 12 months ("no" to S4Q01) but needed to see one (S4Q02). A child was also considered to have an unmet medical need if he/she did see a health care professional for medical care in the past 12 months ("yes" to S4Q01), but he/she did not receive all of the medical care he/she needed ("no" to S4Q07).

2007 and 2011/12

In 2007 and 2011/12, the caregiver was asked whether there was any time when the child needed health care, but it was delayed or not received (K4Q27). If he/she responded "yes," the caregiver was then asked what type of care was delayed or not received (K4Q28).

A child was considered to have an unmet medical need if his/her caregiver responded "yes" to K4Q27 and "1 – medical care" to K4Q28.

Reported an unmet dental need

2003

In 2003, the caregiver was asked how long it had been since the child last saw a dentist (S2Q56). If the child saw a dentist during the past 12 months, the caregiver was later asked whether the child saw a dentist for any routine preventive dental care during the past 12 months, including check-ups, screenings, and sealants (S4Q09). If the caregiver did not respond "yes" to S4Q09, he/she was asked whether there any time in the past 12 months when the child needed routine preventive dental care (S4Q10). If the caregiver responded "yes" to S4Q09 or "yes" to S4Q10, he/she was asked whether the child received all the routine preventive dental care he/she needed during the past 12 months (S4Q13).

A child was considered to have an unmet dental need if he/she either: 1) did not see a dentist during the past 12 months (S2Q56) OR 2) did not see a dentist for any routine preventive care (S4Q09), AND he/she needed routine preventive care in the past 12 months (S4Q10). The child was also considered to have an unmet dental need if he/she did not receive all of the routine preventive dental care he/she needed (S4Q13).

2007 and 2011/12

In 2007 and 2011/12, the caregiver was asked whether there was any time when the child needed health care, but it was delayed or not received (K4Q27). If he/she responded "yes," the caregiver was then asked what type of care was delayed or not received (K4Q28).

A child was considered to have an unmet dental need if his/her caregiver responded "yes" to K4Q27 and "2 – dental care" to K4Q28.

Reported insurance always meets child's needs

This question was not asked in 2003. Also, this question was only asked if the child was insured (K3Q01). In 2007 and 2011/12, the caregiver was asked whether the child's health insurance offered benefits or covered services that met his/her needs (1, never; 2, sometimes, 3, usually; 4, always) (K3Q20). For our analysis, we recoded this variable as a binary variable. If the caregiver responded with 1-3 to K3Q20, we coded this as "insurance does not always meet needs." If the caregiver responded with 4 to K3Q20, we coded this as "insurance always meets needs."

Reported insurance always allows child to see needed provider(s)

This question was not asked in 2003. Also, this question was only asked if the child was insured (K3Q01). In 2007 and 2011/12, the caregiver was asked whether the child's health insurance allowed him/her to see the health care providers he/she needed (1, never; 2, sometimes, 3, usually; 4, always) (K3Q22). For our analysis, we recoded this variable as a binary variable. If the caregiver responded with 1-3 to K3Q22, we coded this as "insurance does not always allow child to see needed providers." If the caregiver responded with 4 to K3Q22, we coded this as "insurance always allows child to see needed providers."

Reported frustration obtaining health services

This question was only asked in the 2011/12 survey. The caregiver was asked how often he/she had been frustrated in his/her efforts to obtain health care services for the child in the past 12 months (1, never; 2, sometimes, 3, usually; 4, always) (C4Q04). For our analysis, we recoded this variable as a binary variable. If the caregiver responded with 1 to C4Q04, we coded this as "never frustrated." If the caregiver responded with 2-4 for C4Q04, we coded this as "ever frustrated."

Received effective care coordination when needed

This variable was not available in 2003. In 2007 and 2011/12, we used derived, pre-coded variables from the Data Resource Center for Child and Adolescent Health ("carecoor" and "carecoor_11," respectively). Effective care coordination was assessed for children who used multiple services and was derived from items assessing communication between doctors when needed, communication between doctors and schools when needed, and getting needed help coordinating care. See codebooks from the Child and Adolescent Health Measurement Initiative for more information.[5,6]

Received family centered care

This variable was not available in 2003. In 2007 and 2011/12, we used derived, pre-coded variables from the Data Resource Center for Child and Adolescent Health ("famcent"). Family centered care represented one component of the Medical Home. It was derived from several questions related to experiences with care for those children who received care, including: "spends enough time with child," "listens carefully to you," "sensitive to family values/customs," "gives needed information," and "family feels like partner." In addition, in 2007, an item assessing the availability of interpreter services was included, but it was dropped from the survey in 2011/12. See codebooks from the Child and Adolescent Health Measurement Initiative for more information.[5,6]

Reported out-of-pocket costs for child's health care

This question was not asked in 2003. Also, this question was only asked if the child was insured (K3Q01). In 2007 and 2011/12, the caregiver was asked whether he/she paid any money for the child's health care, not including health insurance premiums or costs that were covered by insurance (K3Q21A). A child was considered to have out-of-pocket costs if his/her caregiver responded "yes" to K3Q21A.

eTable 1. Adjusted Probability of Outcomes - Preventive and Specialty Care (With 95% Confidence Interval)[a]

	Uninsured	Medicaid	CHIP	Private
Reported receiving 1+ preventive medical visit				
>100% to 150% of FPL	0.65 (0.61, 0.69)	0.87 (0.85, 0.88)	0.87 (0.85, 0.89)	0.82 (0.80, 0.83)
>150% to 200% of FPL	0.68 (0.64, 0.72)	0.87 (0.85, 0.89)	0.88 (0.86, 0.90)	0.83 (0.82, 0.85)
>200% to 300% of FPL	0.70 (0.67, 0.74)	0.89 (0.84, 0.93)	0.91 (0.88, 0.94)	0.85 (0.84, 0.86)
Reported having a personal doctor				
>100% to 150% of FPL	0.68 (0.64, 0.72)	0.88 (0.86, 0.89)	0.87 (0.85, 0.89)	0.88 (0.86, 0.90)
>150% to 200% of FPL	0.73 (0.70, 0.77)	0.88 (0.85, 0.90)	0.89 (0.88, 0.91)	0.89 (0.88, 0.91)
>200% to 300% of FPL	0.78 (0.75, 0.81)	0.91 (0.87, 0.94)	0.92 (0.90, 0.94)	0.92 (0.91, 0.92)
Reported receiving 1+ preventive dental visit[b]				
>100% to 150% of FPL	0.49 (0.44, 0.53)	0.78 (0.76, 0.80)	0.73 (0.70, 0.77)	0.69 (0.67, 0.72)
>150% to 200% of FPL	0.53 (0.48, 0.57)	0.78 (0.75, 0.80)	0.78 (0.75, 0.80)	0.72 (0.70, 0.74)
>200% to 300% of FPL	0.59 (0.55, 0.63)	0.76 (0.70, 0.82)	0.78 (0.73, 0.84)	0.77 (0.76, 0.78)
Reported having a usual source of care[c]				
>100% to 150% of FPL	0.76 (0.71, 0.81)	0.93 (0.92, 0.94)	0.94 (0.93, 0.96)	0.93 (0.91, 0.95)
>150% to 200% of FPL	0.82 (0.77, 0.87)	0.92 (0.89, 0.96)	0.93 (0.91, 0.95)	0.94 (0.93, 0.96)
>200% to 300% of FPL	0.86 (0.82, 0.90)	0.90 (0.85, 0.96)	0.94 (0.91, 0.97)	0.95 (0.94, 0.96)
Reported a problem seeing a specialist[d]				
>100% to 150% of FPL	0.34 (0.24, 0.45)	0.28 (0.23, 0.32)	0.32 (0.25, 0.39)	0.30 (0.23, 0.36)
>150% to 200% of FPL	0.47 (0.30, 0.64)	0.23 (0.17, 0.28)	0.30 (0.23, 0.36)	0.22 (0.18, 0.25)
>200% to 300% of FPL	0.23 (0.12, 0.34)	0.23 (0.12, 0.34)	0.26 (0.17, 0.36)	0.19 (0.17, 0.21)
Reported a problem obtaining a referral[c,d]				
>100% to 150% of FPL	0.31 (0.17, 0.44)	0.21 (0.16, 0.25)	0.20 (0.13, 0.26)	0.20 (0.12, 0.28)
>150% to 200% of FPL	0.35 (0.06, 0.63)	0.17 (0.11, 0.24)	0.22 (0.15, 0.29)	0.14 (0.10, 0.18)
>200% to 300% of	0.16 (0.08, 0.25)	0.31 (0.13, 0.49)	0.33 (0.17, 0.48)	0.14 (0.11, 0.17)

FPL				

Source: National Surveys of Children's Health data from years 2003, 2007, and 2011/12
CHIP, Children's Health Insurance Program; FPL, federal poverty level

[a]Predicted probabilities were estimated from a logistic regression model with a robust variance estimator and interaction terms between insurance type and household income. All models adjusted for calendar year, child-level demographic and household characteristics (age, sex, race/ethnicity, special health care needs, household education, family structure, urbanicity as measured by metropolitan statistical area), and state-level characteristics (Medicaid-to-Medicare fee index, poverty rate, and unemployment rate). Estimates were weighted to represent the population of non-institutionalized children 0-17 years of age in 48 states and the District of Columbia.
[b]Models for dental health outcomes excluded children below 1 year of age.
[c]These questions were only asked in the 2007 and 2011/12 NSCH Surveys.
[d]These questions were only asked for the subset of children who needed the service (i.e., needed to see a specialist, needed a referral).

eTable 2. Adjusted Probability of Outcomes - Unmet Needs (With 95% Confidence Interval)[a]

	Uninsured	Medicaid	CHIP	Private
Reported an unmet medical need				
>100% to 150% of FPL	0.11 (0.08, 0.14)	0.03 (0.02, 0.04)	0.04 (0.03, 0.05)	0.03 (0.02, 0.05)
>150% to 200% of FPL	0.11 (0.07, 0.14)	0.03 (0.02, 0.04)	0.04 (0.03, 0.06)	0.02 (0.01, 0.02)
>200% to 300% of FPL	0.10 (0.07, 0.13)	0.04 (0.01, 0.06)	0.02 (0.01, 0.02)	0.02 (0.01, 0.02)
Reported an unmet dental need[b]				
>100% to 150% of FPL	0.14 (0.11, 0.18)	0.04 (0.04, 0.05)	0.05 (0.04, 0.07)	0.06 (0.05, 0.08)
>150% to 200% of FPL	0.14 (0.10, 0.17)	0.05 (0.04, 0.06)	0.05 (0.04, 0.07)	0.04 (0.03, 0.05)
>200% to 300% of FPL	0.09 (0.08, 0.11)	0.03 (0.01, 0.06)	0.05 (0.03, 0.07)	0.03 (0.02, 0.03)
Reported insurance always meets child's needs[c]				
>100% to 150% of FPL	-	0.77 (0.74, 0.79)	0.77 (0.73, 0.81)	0.69 (0.66, 0.73)
>150% to 200% of FPL	-	0.75 (0.72, 0.79)	0.78 (0.75, 0.81)	0.70 (0.68, 0.73)
>200% to 300% of FPL	-	0.73 (0.65, 0.80)	0.73 (0.67, 0.79)	0.76 (0.75, 0.77)
Reported insurance always allows child to see needed provider(s)[c]				
>100% to 150% of FPL	-	0.81 (0.78, 0.83)	0.82 (0.78, 0.85)	0.79 (0.76, 0.82)
>150% to 200% of FPL	-	0.77 (0.72, 0.81)	0.83 (0.80, 0.86)	0.80 (0.78, 0.83)
>200% to 300% of FPL	-	0.80 (0.74, 0.86)	0.83 (0.79, 0.88)	0.85 (0.84, 0.86)

Source: National Surveys of Children's Health data from years 2003, 2007, and 2011/12
CHIP, Children's Health Insurance Program; FPL, federal poverty level

[a]Predicted probabilities were estimated from a logistic regression model with a robust variance estimator and interaction terms between insurance type and household income. All models adjusted for calendar year, child-level demographic and household characteristics (age, sex, race/ethnicity, special health care needs, household education, family structure, urbanicity as measured by metropolitan statistical area), and state-level characteristics (Medicaid-to-Medicare fee index, poverty rate, and unemployment rate). Estimates were weighted to represent the population of non-institutionalized children 0-17 years of age in 48 states and the District of Columbia.
[b]Models for dental health outcomes excluded children below 1 year of age.
[c]These questions were only asked in the 2007 and 2011/12 NSCH Surveys.

eTable 3. Adjusted Probability of Outcomes - Care Coordination, Satisfaction, and Out-Of-Pocket Costs (With 95% Confidence Interval)[a]

	Uninsured	Medicaid	CHIP	Private
Reported frustration obtaining health services[b]				
>100% to 150% of FPL	0.67 (0.60, 0.75)	0.24 (0.20, 0.27)	0.28 (0.23, 0.33)	0.26 (0.21, 0.31)
>150% to 200% of FPL	0.58 (0.49, 0.68)	0.19 (0.15, 0.23)	0.24 (0.20, 0.29)	0.24 (0.21, 0.27)
>200% to 300% of FPL	0.58 (0.50, 0.66)	0.22 (0.13, 0.31)	0.27 (0.21, 0.33)	0.20 (0.18, 0.22)
Received effective care coordination when needed[c,d]				
>100% to 150% of FPL	0.39 (0.29, 0.48)	0.70 (0.66, 0.74)	0.69 (0.62, 0.75)	0.65 (0.59, 0.71)
>150% to 200% of FPL	0.43 (0.31, 0.55)	0.70 (0.63, 0.76)	0.67 (0.61, 0.73)	0.71 (0.68, 0.75)
>200% to 300% of FPL	0.57 (0.47, 0.67)	0.69 (0.58, 0.80)	0.65 (0.57, 0.73)	0.73 (0.71, 0.76)
Received family centered care[c]				
>100% to 150% of FPL	0.44 (0.38, 0.51)	0.65 (0.62, 0.67)	0.66 (0.61, 0.70)	0.62 (0.59, 0.66)
>150% to 200% of FPL	0.47 (0.39, 0.55)	0.68 (0.64, 0.73)	0.64 (0.60, 0.68)	0.66 (0.63, 0.69)
>200% to 300% of FPL	0.54 (0.48, 0.60)	0.61 (0.53, 0.69)	0.70 (0.64, 0.76)	0.71 (0.69, 0.72)
Reported out-of-pocket costs for child's health care[c,e]				
>100% to 150% of FPL	-	0.22 (0.20, 0.25)	0.34 (0.30, 0.39)	0.74 (0.71, 0.78)
>150% to 200% of FPL	-	0.25 (0.20, 0.29)	0.38 (0.34, 0.42)	0.77 (0.74, 0.79)
>200% to 300% of FPL	-	0.29 (0.22, 0.37)	0.44 (0.38, 0.50)	0.80 (0.78, 0.81)

Source: National Surveys of Children's Health data from years 2003, 2007, and 2011/12
CHIP, Children's Health Insurance Program; FPL, federal poverty level

[a]Predicted probabilities were estimated from a logistic regression model with a robust variance estimator and interaction terms between insurance type and household income. All models adjusted for calendar year, child-level demographic and household characteristics (age, sex, race/ethnicity, special health care needs, household education, family structure, urbanicity as measured by metropolitan statistical area), and state-level characteristics (Medicaid-to-Medicare fee index, poverty rate, and unemployment rate). Estimates were weighted to represent the population of non-institutionalized children 0-17 years of age in 48 states and the District of Columbia.
[b]This question was only asked in the 2011 NSCH Survey.
[c]These questions were only asked in the 2007 and 2011/12 NSCH Surveys.
[d]This question was only asked for the subset of children who needed care coordination.
[e]Out-of-pocket costs do not include premiums or costs paid by insurance.

eTable 4. Adjusted Probability of Outcomes for Children With Special Health Care Needs – Preventive and Specialty Care (With 95% Confidence Interval)[a]

	Uninsured	Medicaid	CHIP	Private
Reported receiving 1+ preventive medical visit				
>100% to 150% of FPL	0.74 (0.65, 0.83)	0.93 (0.92, 0.95)	0.90 (0.86, 0.94)	0.93 (0.91, 0.95)
>150% to 200% of FPL	0.80 (0.73, 0.88)	0.91 (0.87, 0.94)	0.92 (0.89, 0.95)	0.91 (0.88, 0.94)
>200% to 300% of FPL	0.76 (0.64, 0.89)	0.90 (0.82, 0.98)	0.97 (0.94, 0.99)	0.89 (0.87, 0.92)
Reported having a personal doctor				
>100% to 150% of FPL	0.76 (0.69, 0.83)	0.93 (0.90, 0.95)	0.91 (0.88, 0.95)	0.92 (0.89, 0.96)
>150% to 200% of FPL	0.88 (0.82, 0.94)	0.92 (0.88, 0.96)	0.94 (0.92, 0.97)	0.94 (0.92, 0.96)
>200% to 300% of FPL	0.77 (0.67, 0.86)	0.92 (0.87, 0.98)	0.95 (0.91, 0.99)	0.95 (0.94, 0.96)
Reported receiving 1+ preventive dental visit[b]				
>100% to 150% of FPL	0.56 (0.45, 0.66)	0.87 (0.84, 0.90)	0.80 (0.75, 0.86)	0.78 (0.71, 0.85)
>150% to 200% of FPL	0.70 (0.51, 0.90)	0.82 (0.77, 0.88)	0.84 (0.79, 0.88)	0.77 (0.73, 0.82)
>200% to 300% of FPL	0.64 (0.53, 0.75)	0.78 (0.65, 0.91)	0.82 (0.75, 0.89)	0.84 (0.82, 0.86)
Reported having a usual source of care[c]				
>100% to 150% of FPL	0.83 (0.75, 0.92)	0.97 (0.96, 0.99)	0.95 (0.92, 0.98)	0.98 (0.96, 0.99)
>150% to 200% of FPL	0.90 (0.82, 0.99)	0.95 (0.91, 0.99)	0.95 (0.93, 0.97)	0.96 (0.94, 0.99)
>200% to 300% of FPL	0.78 (0.63, 0.92)	0.99 (0.98, 1.00)	0.92 (0.84, 1.00)	0.97 (0.96, 0.98)
Reported a problem seeing a specialist[d]				
>100% to 150% of FPL	0.60 (0.39, 0.81)	0.27 (0.20, 0.34)	0.33 (0.24, 0.43)	0.43 (0.33, 0.54)
>150% to 200% of FPL	0.79 (0.60, 0.98)	0.23 (0.14, 0.31)	0.27 (0.18, 0.37)	0.23 (0.17, 0.29)
>200% to 300% of FPL	0.25 (0.12, 0.38)	0.11 (0.01, 0.21)	0.19 (0.10, 0.27)	0.24 (0.20, 0.28)
Reported a problem obtaining a referral[c,d]				
>100% to 150% of FPL	0.57 (0.32, 0.82)	0.22 (0.15, 0.30)	0.27 (0.15, 0.38)	0.22 (0.11, 0.33)
>150% to 200% of FPL	0.67 (0.18, 1.15)	0.19 (0.08, 0.30)	0.25 (0.12, 0.37)	0.17 (0.10, 0.23)

>200% to 300% of FPL	0.28 (0.13, 0.43)	0.35 (0.10, 0.61)	0.20 (0.05, 0.34)	0.19 (0.14, 0.25)

Source: National Surveys of Children's Health data from years 2003, 2007, and 2011/12
CHIP, Children's Health Insurance Program; FPL, federal poverty level

[a]Predicted probabilities were estimated from a logistic regression model with a robust variance estimator and interaction terms between insurance type and household income. All models adjusted for calendar year, child-level demographic and household characteristics (age, sex, race/ethnicity, household education, family structure, urbanicity as measured by metropolitan statistical area), and state-level characteristics (Medicaid-to-Medicare fee index, poverty rate, and unemployment rate). Estimates were weighted to represent the population of non-institutionalized children 0-17 years of age in 48 states and the District of Columbia.
[b]Models for dental health outcomes excluded children below 1 year of age.
[c]These questions were only asked in the 2007 and 2011/12 NSCH Surveys.
[d]These questions were only asked for the subset of children who needed the service (i.e., needed to see a specialist, needed a referral).

eTable 5. Adjusted Probability of Outcomes for Children with Special Health Care Needs - Unmet Needs (With 95% Confidence Interval)[a]

	Uninsured	Medicaid	CHIP	Private
Reported an unmet medical need				
>100% to 150% of FPL	0.21 (0.12, 0.30)	0.04 (0.02, 0.06)	0.09 (0.05, 0.12)	0.06 (0.02, 0.09)
>150% to 200% of FPL	0.12 (0.01, 0.22)	0.06 (0.02, 0.09)	0.06 (0.02, 0.09)	0.03 (0.01, 0.04)
>200% to 300% of FPL	0.18 (0.09, 0.27)	0.08 (0.00, 0.17)	0.02 (0.00, 0.03)	0.03 (0.02, 0.04)
Reported an unmet dental need[b]				
>100% to 150% of FPL	0.27 (0.17, 0.36)	0.06 (0.04, 0.09)	0.11 (0.06, 0.16)	0.09 (0.04, 0.13)
>150% to 200% of FPL	0.16 (0.07, 0.26)	0.05 (0.02, 0.08)	0.08 (0.03, 0.12)	0.07 (0.04, 0.09)
>200% to 300% of FPL	0.12 (0.07, 0.18)	0.05 (0.00, 0.10)	0.06 (0.01, 0.10)	0.05 (0.03, 0.06)
Reported insurance always meets child's needs[c]				
>100% to 150% of FPL	-	0.73 (0.67, 0.78)	0.66 (0.58, 0.75)	0.52 (0.42, 0.61)
>150% to 200% of FPL	-	0.66 (0.56, 0.75)	0.73 (0.66, 0.80)	0.61 (0.54, 0.68)
>200% to 300% of FPL	-	0.79 (0.67, 0.90)	0.70 (0.59, 0.81)	0.69 (0.65, 0.73)
Reported insurance always allows child to see needed provider(s)[c]				
>100% to 150% of FPL	-	0.76 (0.70, 0.82)	0.72 (0.64, 0.81)	0.65 (0.55, 0.74)
>150% to 200% of FPL	-	0.75 (0.67, 0.84)	0.75 (0.67, 0.82)	0.74 (0.68, 0.81)
>200% to 300% of FPL	-	0.82 (0.72, 0.93)	0.81 (0.71, 0.92)	0.80 (0.77, 0.83)

Source: National Surveys of Children's Health data from years 2003, 2007, and 2011/12
CHIP, Children's Health Insurance Program; FPL, federal poverty level

[a]Predicted probabilities were estimated from a logistic regression model with a robust variance estimator and interaction terms between insurance type and household income. All models adjusted for calendar year, child-level demographic and household characteristics (age, sex, race/ethnicity, household education, family structure, urbanicity as measured by metropolitan statistical area), and state-level characteristics (Medicaid-to-Medicare fee index, poverty rate, and unemployment rate). Estimates were weighted to represent the population of non-institutionalized children 0-17 years of age in 48 states and the District of Columbia.
[b]Models for dental health outcomes excluded children below 1 year of age.
[c]These questions were only asked in the 2007 and 2011/12 NSCH Surveys.

eTable 6. Adjusted Probability of Outcomes for Children With Special Health Care Needs - Care Coordination, Satisfaction, and Out-Of-Pocket Costs (With 95% Confidence Interval)[a]

	Uninsured	Medicaid	CHIP	Private
Reported frustration obtaining health services[b]				
>100% to 150% of FPL	0.76 (0.55, 0.97)	0.30 (0.23, 0.38)	0.37 (0.27, 0.47)	0.41 (0.27, 0.54)
>150% to 200% of FPL	0.79 (0.60, 0.99)	0.28 (0.16, 0.39)	0.29 (0.20, 0.38)	0.35 (0.27, 0.44)
>200% to 300% of FPL	0.74 (0.57, 0.91)	0.26 (0.06, 0.46)	0.34 (0.23, 0.46)	0.35 (0.30, 0.41)
Received effective care coordination when needed[c,d]				
>100% to 150% of FPL	0.36 (0.17, 0.55)	0.64 (0.57, 0.71)	0.60 (0.50, 0.70)	0.58 (0.47, 0.69)
>150% to 200% of FPL	0.36 (0.06, 0.65)	0.61 (0.50, 0.72)	0.68 (0.60, 0.77)	0.64 (0.57, 0.71)
>200% to 300% of FPL	0.56 (0.42, 0.70)	0.62 (0.44, 0.80)	0.59 (0.46, 0.71)	0.64 (0.59, 0.69)
Received family centered care[c]				
>100% to 150% of FPL	0.47 (0.31, 0.63)	0.71 (0.66, 0.77)	0.64 (0.56, 0.71)	0.60 (0.49, 0.71)
>150% to 200% of FPL	0.40 (0.20, 0.60)	0.73 (0.65, 0.80)	0.69 (0.61, 0.76)	0.68 (0.61, 0.75)
>200% to 300% of FPL	0.59 (0.45, 0.72)	0.69 (0.56, 0.82)	0.67 (0.57, 0.77)	0.71 (0.67, 0.75)
Reported out-of-pocket costs for child's health care[c,e]				
>100% to 150% of FPL	-	0.21 (0.17, 0.26)	0.41 (0.32, 0.49)	0.76 (0.68, 0.84)
>150% to 200% of FPL	-	0.18 (0.13, 0.24)	0.36 (0.29, 0.43)	0.80 (0.74, 0.85)
>200% to 300% of FPL	-	0.23 (0.10, 0.36)	0.47 (0.35, 0.58)	0.84 (0.81, 0.87)

Source: National Surveys of Children's Health data from years 2003, 2007, and 2011/12
CHIP, Children's Health Insurance Program; FPL, federal poverty level

[a]Predicted probabilities were estimated from a logistic regression model with a robust variance estimator and interaction terms between insurance type and household income. All models adjusted for calendar year, child-level demographic and household characteristics (age, sex, race/ethnicity, household education, family structure, urbanicity as measured by metropolitan statistical area), and state-level characteristics (Medicaid-to-Medicare fee index, poverty rate, and unemployment rate). Estimates were weighted to represent the population of non-institutionalized children 0-17 years of age in 48 states and the District of Columbia.
[b]This question was only asked in the 2011 NSCH Survey.
[c]These questions were only asked in the 2007 and 2011/12 NSCH Surveys.
[d]This question was only asked for the subset of children who needed care coordination.
[e]Out-of-pocket costs do not include premiums or costs paid by insurance.

**eTable 7. Adjusted Probability of Outcomes for Children Ages 0-5 -
Preventive And Specialty Care (With 95% Confidence Interval)[a]**

	Uninsured	Medicaid	CHIP	Private
Reported receiving 1+ preventive medical visit				
>100% to 150% of FPL	0.77 (0.71, 0.84)	0.94 (0.93, 0.95)	0.93 (0.89, 0.97)	0.93 (0.91, 0.95)
>150% to 200% of FPL	0.83 (0.78, 0.88)	0.94 (0.92, 0.96)	0.95 (0.93, 0.97)	0.93 (0.92, 0.95)
>200% to 300% of FPL	0.81 (0.75, 0.87)	0.94 (0.89, 1.00)	0.95 (0.93, 0.98)	0.93 (0.92, 0.94)
Reported having a personal doctor				
>100% to 150% of FPL	0.72 (0.65, 0.79)	0.88 (0.86, 0.90)	0.87 (0.82, 0.93)	0.88 (0.85, 0.91)
>150% to 200% of FPL	0.79 (0.74, 0.85)	0.87 (0.82, 0.92)	0.91 (0.89, 0.93)	0.91 (0.89, 0.93)
>200% to 300% of FPL	0.85 (0.81, 0.89)	0.93 (0.89, 0.98)	0.93 (0.90, 0.97)	0.93 (0.92, 0.94)
Reported receiving 1+ preventive dental visit[b]				
>100% to 150% of FPL	0.30 (0.22, 0.37)	0.55 (0.52, 0.59)	0.63 (0.56, 0.71)	0.47 (0.41, 0.52)
>150% to 200% of FPL	0.30 (0.21, 0.40)	0.54 (0.48, 0.60)	0.55 (0.49, 0.61)	0.45 (0.41, 0.49)
>200% to 300% of FPL	0.41 (0.33, 0.49)	0.57 (0.46, 0.68)	0.61 (0.51, 0.72)	0.51 (0.48, 0.53)
Reported having a usual source of care[c]				
>100% to 150% of FPL	0.84 (0.76, 0.92)	0.94 (0.92, 0.96)	0.95 (0.92, 0.99)	0.95 (0.93, 0.98)
>150% to 200% of FPL	0.86 (0.79, 0.93)	0.89 (0.82, 0.96)	0.96 (0.94, 0.98)	0.92 (0.87, 0.97)
>200% to 300% of FPL	0.92 (0.87, 0.96)	0.90 (0.82, 0.98)	0.97 (0.94, 1.00)	0.95 (0.93, 0.97)
Reported a problem seeing a specialist[d]				
>100% to 150% of FPL	0.34 (0.14, 0.54)	0.21 (0.16, 0.27)	0.34 (0.20, 0.49)	0.20 (0.12, 0.27)
>150% to 200% of FPL	0.59 (0.29, 0.90)	0.18 (0.10, 0.25)	0.29 (0.16, 0.42)	0.15 (0.10, 0.20)
>200% to 300% of FPL	0.12 (0.02, 0.22)	0.19 (0.03, 0.35)	0.25 (0.06, 0.44)	0.21 (0.17, 0.24)
Reported a problem obtaining a referral[c,d]				
>100% to 150% of FPL	0.36 (0.15, 0.56)	0.11 (0.06, 0.15)	0.18 (0.04, 0.32)	0.24 (0.13, 0.35)
>150% to 200% of FPL	0.56 (0.14, 0.97)	0.10 (0.03, 0.17)	0.20 (0.10, 0.30)	0.13 (0.06, 0.21)
>200% to 300% of	0.10 (0.00, 0.23)	0.20 (0.00, 0.45)	0.19 (0.07, 0.31)	0.13 (0.09, 0.18)

FPL				

Source: National Surveys of Children's Health data from years 2003, 2007, and 2011/12
CHIP, Children's Health Insurance Program; FPL, federal poverty level

[a]Predicted probabilities were estimated from a logistic regression model with a robust variance estimator and interaction terms between insurance type and household income. All models adjusted for calendar year, child-level demographic and household characteristics (age, sex, race/ethnicity, special health care needs, household education, family structure, urbanicity as measured by metropolitan statistical area), and state-level characteristics (Medicaid-to-Medicare fee index, poverty rate, and unemployment rate). Estimates were weighted to represent the population of non-institutionalized children 0-17 years of age in 48 states and the District of Columbia.
[b]Models for dental health outcomes excluded children below 1 year of age.
[c]These questions were only asked in the 2007 and 2011/12 NSCH Surveys.
[d]These questions were only asked for the subset of children who needed the service (i.e., needed to see a specialist, needed a referral).

eTable 8. Adjusted Probability of Outcomes for Children Ages 0-5 - Unmet Needs (With 95% Confidence Interval)[a]

	Uninsured	Medicaid	CHIP	Private
Reported an unmet medical need				
>100% to 150% of FPL	0.08 (0.04, 0.12)	0.03 (0.02, 0.04)	0.04 (0.01, 0.08)	0.05 (0.01, 0.09)
>150% to 200% of FPL	0.07 (0.03, 0.12)	0.02 (0.01, 0.03)	0.05 (0.02, 0.09)	0.02 (0.01, 0.02)
>200% to 300% of FPL	0.10 (0.04, 0.17)	0.04 (0.00, 0.09)	0.02 (0.01, 0.03)	0.02 (0.01, 0.02)
Reported an unmet dental need[b]				
>100% to 150% of FPL	0.05 (0.02, 0.07)	0.02 (0.01, 0.03)	0.03 (0.01, 0.06)	0.06 (0.03, 0.08)
>150% to 200% of FPL	0.08 (0.04, 0.12)	0.04 (0.02, 0.07)	0.03 (0.01, 0.05)	0.02 (0.01, 0.03)
>200% to 300% of FPL	0.06 (0.03, 0.09)	0.03 (0.00, 0.07)	0.02 (0.00, 0.04)	0.02 (0.01, 0.03)
Reported insurance always meets child's needs[c]				
>100% to 150% of FPL	-	0.81 (0.78, 0.85)	0.83 (0.75, 0.90)	0.78 (0.73, 0.83)
>150% to 200% of FPL	-	0.82 (0.76, 0.87)	0.82 (0.77, 0.87)	0.77 (0.72, 0.81)
>200% to 300% of FPL	-	0.82 (0.73, 0.91)	0.84 (0.76, 0.92)	0.79 (0.76, 0.81)
Reported insurance always allows child to see needed provider(s)[c]				
>100% to 150% of FPL	-	0.85 (0.82, 0.88)	0.86 (0.80, 0.93)	0.85 (0.80, 0.89)
>150% to 200% of FPL	-	0.79 (0.72, 0.87)	0.89 (0.85, 0.92)	0.86 (0.82, 0.90)
>200% to 300% of FPL	-	0.87 (0.79, 0.95)	0.92 (0.88, 0.96)	0.88 (0.87, 0.90)

Source: National Surveys of Children's Health data from years 2003, 2007, and 2011/12
CHIP, Children's Health Insurance Program; FPL, federal poverty level

[a]Predicted probabilities were estimated from a logistic regression model with a robust variance estimator and interaction terms between insurance type and household income. All models adjusted for calendar year, child-level demographic and household characteristics (age, sex, race/ethnicity, special health care needs, household education, family structure, urbanicity as measured by metropolitan statistical area), and state-level characteristics (Medicaid-to-Medicare fee index, poverty rate, and unemployment rate). Estimates were weighted to represent the population of non-institutionalized children 0-17 years of age in 48 states and the District of Columbia.
[b]Models for dental health outcomes excluded children below 1 year of age.
[c]These questions were only asked in the 2007 and 2011/12 NSCH Surveys.

eTable 9. Adjusted Probability of Outcomes for Children Ages 0-5 - Care Coordination, Satisfaction, and Out-Of-Pocket Costs (With 95% Confidence Interval)[a]

	Uninsured	Medicaid	CHIP	Private
Reported frustration obtaining health services[b]				
>100% to 150% of FPL	0.64 (0.49, 0.80)	0.20 (0.16, 0.24)	0.39 (0.26, 0.52)	0.22 (0.15, 0.28)
>150% to 200% of FPL	0.49 (0.31, 0.68)	0.16 (0.10, 0.22)	0.25 (0.18, 0.31)	0.25 (0.20, 0.31)
>200% to 300% of FPL	0.54 (0.36, 0.73)	0.25 (0.10, 0.40)	0.21 (0.13, 0.30)	0.18 (0.15, 0.21)
Received effective care coordination when needed[c,d]				
>100% to 150% of FPL	0.56 (0.36, 0.77)	0.70 (0.64, 0.76)	0.56 (0.39, 0.73)	0.62 (0.53, 0.72)
>150% to 200% of FPL	0.33 (0.08, 0.57)	0.70 (0.59, 0.81)	0.71 (0.62, 0.80)	0.75 (0.68, 0.82)
>200% to 300% of FPL	0.64 (0.42, 0.86)	0.60 (0.40, 0.79)	0.61 (0.46, 0.77)	0.74 (0.70, 0.79)
Received family centered care[c]				
>100% to 150% of FPL	0.60 (0.47, 0.74)	0.70 (0.66, 0.73)	0.66 (0.57, 0.76)	0.68 (0.62, 0.75)
>150% to 200% of FPL	0.61 (0.46, 0.76)	0.71 (0.64, 0.78)	0.70 (0.64, 0.76)	0.71 (0.66, 0.76)
>200% to 300% of FPL	0.65 (0.54, 0.77)	0.62 (0.51, 0.73)	0.70 (0.61, 0.80)	0.77 (0.74, 0.79)
Reported out-of-pocket costs for child's health care[c,e]				
>100% to 150% of FPL	-	0.17 (0.14, 0.20)	0.27 (0.17, 0.37)	0.64 (0.57, 0.71)
>150% to 200% of FPL	-	0.20 (0.12, 0.28)	0.27 (0.20, 0.33)	0.70 (0.65, 0.76)
>200% to 300% of FPL	-	0.23 (0.12, 0.33)	0.29 (0.19, 0.39)	0.76 (0.74, 0.78)

Source: National Surveys of Children's Health data from years 2003, 2007, and 2011/12
CHIP, Children's Health Insurance Program; FPL, federal poverty level

[a]Predicted probabilities were estimated from a logistic regression model with a robust variance estimator and interaction terms between insurance type and household income. All models adjusted for calendar year, child-level demographic and household characteristics (age, sex, race/ethnicity, special health care needs, household education, family structure, urbanicity as measured by metropolitan statistical area), and state-level characteristics (Medicaid-to-Medicare fee index, poverty rate, and unemployment rate). Estimates were weighted to represent the population of non-institutionalized children 0-17 years of age in 48 states and the District of Columbia.
[b]This question was only asked in the 2011 NSCH Survey.
[c]These questions were only asked in the 2007 and 2011/12 NSCH Surveys.
[d]This question was only asked for the subset of children who needed care coordination.
[e]Out-of-pocket costs do not include premiums or costs paid by insurance.

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