HEALTH INSURANCE COVERAGE FOR U.S. CHILDREN BY FAMILY INCOME AND POVERTY STATUS

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Biographical Sketch

Edward J. O'Boyle is a senior research associate affiliated with Mayo Research Institute. He specializes in research that centers attention on persons as economic agents in which he replaces the individual and individualism of mainstream economics which are rooted in the 17-18th century Enlightenment and the script stage of human communication with person and personalism which spring from the electronic stage of human communication. He has published widely in the professional literature over the past 35 years and is a recipient of the Thomas Divine Award which is presented to one person every year by the Association for Social Economics for lifetime contributions to social economics and the social economy.

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Abstract.

Congress and the White House in 2007 failed to reach agreement on legislation to expand the coverage of the State Children's Health Insurance Program (SCHIP) for the purpose of offering protection to large numbers of children currently without health insurance. The disagreement centered not on expansion *per se* but on the scope of that expansion. Congress wanted to extend coverage to include uninsured children in families with incomes above 200 percent of poverty. The White House wanted to increase funding by 20 percent over five years and to concentrate on poor children already eligible for SCHIP protection but not enrolled. A compromise was worked out in December 2007 which continued funding until March 2009 when the same issues likely will re-surface.

In this article, using national data from the Census Bureau and the Department of Health and Human Services we attempt to shed some light on how to forge a longer-standing agreement by taking a much closer look at the number of uninsured children by age, family income and poverty threshold. We conclude with several admonitions and five priorities and recommendations.

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Congress and the White House in 2007 failed to reach agreement on legislation to expand the coverage of the State Children's Health Insurance Program (SCHIP) for the purpose of offering protection to large numbers of children currently without health insurance. In brief, the disagreement centered not on expansion *per se* but on the scope of that expansion. Congress wanted to extend coverage to include uninsured children in families with incomes above 200 percent of poverty. The White House wanted to increase funding by 20 percent over five years and to concentrate on poor children already eligible for SCHIP protection but not enrolled. A compromise was worked out in December which continued funding until March 2009 when the same issues likely will re-surface.

In this article, we attempt to shed some light on how to forge a longer-standing agreement by taking a much closer look at the number of uninsured children by age, family income and poverty threshold.

The U.S. Census Bureau's report on income, poverty and health insurance coverage in 2007 estimates that there are 8,149,000 uninsured children under age 18 not covered by private insurance, Medicaid, state-sponsored or other government-sponsored health plans, or military plans (Census 2008).[1] They account for one of every nine children under age 18 in the population. In 2007 there were even more children under 18 -- an estimated 512,000 -- who had no health-insurance coverage.

The Census Bureau admits that health insurance coverage is underreported and therefore the number of uninsured children is overestimated. The Bureau does not provide

any information on the extent of the suspected overestimate. Nor do we. Additionally, an estimated 97.9 percent of all children under 18 report their health status as excellent, very good, or good, with the rest reported as fair or poor. Here too the reliability of the information is in doubt because it is obtained not from health care providers but from persons selected at random who report their own health status. In what follows, the reader is advised to keep in mind that health insurance is not indicative of health status which in turn is not identical to unmet health need.

There are an estimated 47,630,000 children under age 18 presently covered by private health insurance, 92.7 percent of whom are covered by employment-based insurance. Of the children covered under private plans, 19,113,000 have family incomes below the 300 percent of poverty threshold. Congress agrees with the White House that an unknown number of them would be switched to SCHIP if the qualifying family income threshold is extended from the present 200 percent of poverty to 300 percent of poverty. Estimated annual health expenditures for the 85.9 percent of all children under 18 who had health expenses was $1,333 with 51 percent paid by private insurance (Health and Human Services 2004). If 25 percent of the children in private plans and with family incomes below the 300 percent threshold were switched and 86 percent of them had health expenses, at least $5.5 billion[2] more would be charged to SCHIP.

It is instructive at the outset to note that life events such as marriage, death of an adult wage earner in the family, marriage, birth of a child, divorce, separation, and the transition of adult children out of and back into their parents' household often have significant effects on family income and therefore on the number of children potentially eligible for public programs such as Medicaid and SCHIP which is based on family

financial resources. For example, two children presently ineligible because family income is above 200 percent of poverty would qualify if family income drops below that threshold due to the lost earnings of the divorced parent who no longer lives in the household with the children. Presumably whenever family income rises above that threshold the children exit the program and no longer receive public assistance. Only a careful audit of the family's financial circumstances would tell us if the program administrators are holding fast to the income threshold standards set down in the law.

There is substantial information available regarding all children under age 18 and the 8,149,000 children who are uninsured and that information may suggest the extent to which they are underserved by the health care system. In other words, the extent to which their health care needs are unmet. Unfortunately, we do not have more direct, clinically based, data which indicate the extent of that unmet need for these children.

FAMILY INCOME AND POVERTY STATUS

There is a huge difference in family income between children who are covered by health insurance and those who are not covered. Specifically, the mean family income of children with insurance is $78,014, whereas average family income for the uninsured children is $49,048. This difference – $29,966 – is smaller for younger children and tends to be greater for older children. See Table 1 which displays Census Bureau estimates for all persons under age 18 *including* unrelated children under age 15.

Information on the ages of these children is significant because especially with chronic conditions early intervention often yields better health care outcomes. In any case, even though this information is not definitive and conclusive, it suggests that regardless of age children in families with lower incomes are more likely to be uninsured and therefore

perhaps experiencing unmet health care needs. However, to repeat an earlier warning, health insurance is not indicative of health status which in turn is not identical to unmet health need. For example, a 2 year old with a serious chronic condition in a family with many siblings may be experiencing unmet need even though he/she has insurance coverage whereas an otherwise healthy 2 year old in a family which does not have coverage may not have any unmet need. Much depends on how diligent parents are in addressing that need.

Table 1 supplies much the same information for persons in poverty under age 18 *not including* unrelated children under age 15 which reduces the estimated number of uninsured children from 8,149,000 to 8,069,000. In the remaining tables reference is made to this non-inclusive universe so that we can focus attention on children's health insurance status by their family's poverty status. Unrelated children under age 15 are not included in this universe because no income information is collected for them and therefore their poverty status cannot be determined.

There are 5,724,000 uninsured children, or 71 percent of all uninsured children, living in families above the poverty threshold (nonpoor families). The difference in income between families with insurance for their children and families without that insurance is substantial -- $26,898 – and persists for children in every 2-year age class. SeeTable 2.

Family income does not appear to play the same role in poor families as in nonpoor families. There is, however, an important methodological reason for this difference between poor families and nonpoor families. A family is classified as poor if its income is *below* the poverty threshold or nonpoor if its income is *above* the poverty threshold. In other words, the very same threshold functions as an *upper* income limit for a family to be classified as poor and a *lower* limit for a family to be classified as nonpoor.

DEPTH OF POVERTY

The problem of health insurance coverage for children in poor families warrants closer examination into the so-called depth of poverty issue. Among the 2,346,000 uninsured poor children under 18 years of age, 1,009,000 belong to families with income below the 50 percent of poverty threshold. See Table 3. Even though these children are the poorest of the poor and qualify for Medicaid their non-insurance rate is nearly twice as high as the rate for all American children. Another 583,000 children had family income between 50 percent and 74 percent of the poverty threshold. These uninsured children, especially the 1,009,000 below the 50 percent of poverty threshold, most likely are the neediest when they are sick because their family financial resources are so meager.

Among the 2,652,000 children between 100 percent and 200 percent of poverty who are uninsured, more than one half (1,512,000) children are in families with incomes between 100 percent and 150 percent of the poverty threshold. See Table 4. As in the case of uninsured children below 100 percent of poverty, seemingly there is nothing remarkable about the distribution by age for the uninsured children in families with incomes between 100 and 200 percent of poverty.

A total of 4,998,000 children under the 200 percent threshold are uninsured, representing 87 percent of all uninsured children. The data do not tell us why so many children are uninsured who should qualify for either Medicaid or SCHIP. Perhaps they never have been sick, their parents did not know they were sick, did not access health care when they were sick, paid for health care out-of-pocket, accessed care as no-pays, were too proud to ask for assistance, or did not know that they qualified for Medicaid or SCHIP, and for those reasons did not apply for assistance through those public programs.

For children under age 18 who are not covered by health insurance according to the Census Bureau the highest noncoverage rates are reported by the foreign-born (30.0 percent), Hispanics (19.9 percent), and children living in families headed by a male with no spouse present (18.0 percent). Noncoverage rates for three comparison groups are 10.0 percent for native-born Americans, 8.4 percent for nonHispanics and 9.1 percent for children in married-couple families.

FAMILY INCOME ABOVE 200 PERCENT OF POVERTY

There are a total of 1,498,000 uninsured children in families with incomes 200-299 percent above the poverty threshold, and another 704,000 in families with incomes 300-399 percent above the poverty threshold. The rest of the uninsured – 870,000 – are in families with incomes 400 percent or more above poverty. See Table 4. For a family of four with two children under 18 in 2007, 200 percent of poverty is $42,054, 300 percent of poverty is $63,081, and 400 percent is $84,108.

Public concern today centers on the 1,498,000 uninsured children in families with incomes 200-299 percent of poverty because in general they do not qualify for assistance through Medicaid or SCHIP. As stated already, we do not know if all of them or even a large proportion of them have unmet health care needs. In like manner, we do not know if families with incomes above 400 percent of poverty require public assistance because the health care needs of their children, especially those with chronic conditions or faced with a single catastrophic health event, simply are beyond their means.

Even so, compared to the number of uninsured children in families with incomes 200-299 percent of poverty, there are more than three times as many uninsured children (4,998,000 vs. 1,498,000) who are below the poverty threshold or between 100 percent and

200 percent of poverty and one would think in even greater need of assistance with health care expenses because their meager family incomes no doubt are stretched to meet other reoccurring expenditures.

It is important to note that among families with incomes below 300 percent of poverty, including those below the poverty threshold, there are 2,117,000 children under age 6 who are uninsured. Those children represent 26.2 percent of all uninsured children under 18 years of age.

ADMONITIONS

To repeat, the Census Bureau admits openly that health insurance coverage is underreported in its annual report on income, poverty, and health insurance and therefore the number of children reported as uninsured -- 8,149,000 in 2007 -- is overestimated. Further, due to sampling and nonsampling errors,[3] the numbers of uninsured children in any age category must be handled with great care especially when making comparisons from one category to another. To illustrate, in Table 4 an estimated 62,000 children ages 10-11 were uninsured in families with incomes between 175 percent and 199 percent of the poverty threshold. An estimated 51,000 children of the same age were uninsured with family incomes in the 150 to 174 percent of poverty class. *That difference is not statistically significant.* Health status based on self-reporting presents additional problems regarding the reliability of the data.

Using the basic 100 percent of poverty threshold to identify children most likely to have unmet health needs is reasonable in that it is grounded in the concept of human material need and is widely accepted as a measure of financial hardship. However, this poverty standard has not changed in any essential way since the 1960s when its chief

architect called it a crude measure of financial hardship and ever since has been attacked by others as fundamentally flawed because it defines poverty strictly in terms of the income an average person must have to maintain a minimal living standard (absolute standard) and does not take into account the income that person has relative to the incomes of others (relative standard).

What is more, using multiples of that threshold – 200 percent, 300 percent, 400 percent – breaks the linkage between unmet health needs and financial hardship. These and other multiples are used mainly because they are convenient.[4] While it is obvious that a family with income which is 400 percent above the poverty threshold is financially better circumstanced than one of the same size at a lower multiple, the basic question remains 'what income level clearly differentiates families in financial distress from all others and indicates that those families require public assistance to pay the health care expenses of their children?' There is virtually no conclusive evidence than any of those multiples play that differentiating role.

What we know **from experience is that for years both SCHIP and Medicaid have been under-funded and expense re-imbursement for services rendered by hospitals, clinics, physicians and other health-care providers has been denied or cut drastically below the charges billed for those services. Thus we see reduced access to care because some physicians knowing they will not be reimbursed adequately refuse direct service to SCHIP and Medicaid patients and no longer consult with their professional colleagues, hospitals that increasingly find it difficult to make ends meet because they cannot refuse service to any uninsured no-pay person who comes to the emergency department, and subspecialty physicians who in re-structuring their practices are turning away from Medicaid and**

SCHIP patients toward others who are willing to pay for such aesthetic procedures as botox, restylane, and laser hair removal. *What we do not know* is whether these problems will improve or worsen under higher-income eligibility thresholds for SCHIP assistance.

Problems with health care for children are only the tip of the iceberg of problems besetting a health system which more and more is struggling to provide affordable, quality services without bankrupting the very system that provides those services.

PRIORITIES AND RECOMMENDATIONS

First, the 4,998,000 uninsured children in families under the 200 percent of poverty threshold should be targeted for participation in Medicaid or SCHIP, especially the 1,637,000 who are under age six because early intervention yields the best outcome. See Tables 3 and 4.

Second, there are another 481,000 uninsured children under six years of age in families with incomes between 200 and 300 percent of poverty which in any extension of public assistance for health care needs should be of greater concern than older children in similarly circumstanced families.

Third, SCHIP should provide some assistance to families with incomes which otherwise make them ineligible whenever the health care needs of their children, especially those with chronic conditions or coping with a single catastrophic health event, simply are beyond their means.

Fourth, federal and state legislators are duty-bound to appropriate sufficient funds to support demands on the Medicaid and SCHIP programs made possible by legislative amendments to those programs. Forcing health providers to accept reimbursement which at times is 50 percent or less of their charges is deeply unjust and self-defeating in that

providers will deny health services to Medicaid and SCHIP children for fear that reimbursement will fall short of the cost of providing those services.

Finally, perhaps states should be free to raise the income threshold to 300 percent of poverty or higher provided they use only state funds to support the greater demands on the health care system. Perhaps the threshold to qualify for SCHIP assistance should be raised to 250 percent of poverty for all children under 18 with a trigger to boost it to 300 percent when we know more about the full effects at the lower threshold. Perhaps the threshold should be lifted to 300 percent only for all children under age 6 on grounds that early intervention likely leads to the best outcome. Or perhaps the threshold should remain at 200 percent until the uninsured below that threshold are fully and adequately protected.

Given *what we do not know,* we should proceed with caution lest in ignorance and haste we do more harm than good.

Endnotes

1. Unless otherwise indicated, Census 2008 is the authors' principal source of information.

2. No adjustment was made to take into account inflation in health care costs since the $1,333 estimate was prepared.

3. Sampling errors occur because only relatively small numbers of persons, not the entire population, are interviewed. Nonsampling errors occur because of circumstances created by the interviewer, the respondent, the survey instrument, or the way the data are collected and processed.

4. We use them because that is the way the raw data are tabulated and made available to the public.

References

U.S. Census Bureau 2008. Current Population Survey, ***Annual Social and Economic (ASEC) Supplement.***

U.S. Department of Health and Human Services 2004. Medical Expenditure Panel Survey, ***Total Health Services – Mean and Median Expenses per Person with Expenses and Distribution of Expenses by Source of Payment: United States.***

Table 1. Family Income of Children by Health Insurance Coverage and Age: 2007.

Universe: All Children [1]

Age	Insured Children (n=66,254,000)	Uninsured Children (n=8,149,000)	Difference
All children	$ 78,014	$ 49,048	$ 28,966
Under 2	67,430	53,242	14,188
2-3	72,817	44,339	28,478
4-5	75,694	46,321	29,373
6-7	78,709	52,375	26,334
8-9	80,132	46,272	33,859
10-11	80,823	50,330	30,493
12-13	80,481	51,740	28,741
14-15	82,047	46,491	35,556
16-17	84,071	49,620	34,451

[1] These estimates are based on the universe of all children under age 18 *including* 407,000 children under age 15 who are not related to the household head by birth, marriage, or adoption for whom no income information is collected and whose poverty status therefore cannot be determined.

Universe: All Children except 407,000 under age 15 not related to household head)

Age	Insured Children (n=65,927,000)	Uninsured Children (n=8,069,000)	Difference
All children	$ 78,400	$ 49,534	$ 28,866
Under 2	67,855	53,631	14,224
2-3	73,300	44,716	28,584
4-5	76,116	46,820	29,296
6-7	79,097	53,073	26,024
8-9	80,607	46,983	33,624
10-11	81,391	50,724	30,667
12-13	80,910	52,939	27,971
14-15	82,330	46,838	35,492
16-17	84,071	49,620	34,451

Source: U.S. Census Bureau, Current Population Survey, *Annual Social and Economic Supplement, 2008*. Data generated using the CPS Table Creator.

Table 2. Children by Family Income, Health Insurance Coverage, and Age: 2007.

Children in Nonpoor Families
(universe excludes 407,000 children under age 15 not related to household head)

Age	Insured Children		Uninsured Children	
	income	number (000)	income	number (000)
All children	$ 91,662	54,948	$ 64,764	5,724
Under 2	82,940	5,950	71,826	662
2-3	88,117	5,898	60,543	566
4-5	91,630	5,921	62,248	562
6-7	92,446	6,045	68,441	612
8-9	93,840	5,838	60,919	560
10-11	93,527	5,945	64,207	578
12-13	93,258	6,090	68,262	623
14-15	94,085	6,286	60,164	702
16-17	94,460	6,976	64,632	861

Children in Poor Families
(universe excludes 407,000 children under age 15 not related to household head)

Age	Insured Children		Uninsured Children	
	income	number (000)	income	number (000)
All children	$ 12,028	10,979	$ 12,571	2,345
Under 2	11,186	1,584	11,236	284
2-3	11,236	1,408	11,107	266
4-5	11,805	1,428	12,855	255
6-7	12,416	1,210	13,647	238
8-9	12,653	1,137	14,075	237
10-11	12,965	1,054	13,708	211
12-13	12,960	1,107	13,621	243
14-15	11,692	1,046	12,248	270
16-17	11,951	1,005	11,620	340

Source: U.S. Census Bureau, Current Population Survey, *Annual Social and Economic Supplement, 2008*.
Data generated using the CPS Table Creator.

Table 3. Children in Poor Families by Health Insurance Coverage, Age, and Depth of Poverty: 2007.

(universe excludes 407,000 children under age 15 not related to household head)

Age	Number of Insured Children (000)			Number of Uninsured Children (000)		
	percent of poverty threshold					
	< 50%	50-74%	75-99%	<50%	50-74%	75-99%
All children	4,760	2,970	3,249	1,009	583	754
Under 2	770	407	407	123	77	84
2-3	649	344	414	138	61	67
4-5	651	406	372	107	63	86
6-7	519	322	369	97	63	79
8-9	465	323	349	98	53	86
10-11	414	314	327	89	54	68
12-13	431	307	369	98	49	96
14-15	456	283	307	117	69	84
16-17	404	264	337	141	95	105

Source: U.S. Census Bureau, Current Population Survey, *Annual Social and Economic Supplement, 2008*. Data generated using the CPS Table Creator.

Table 4. Children in Families by Poverty Threshold, Health Insurance Coverage, and Age: 2007.

(universe excludes 407,000 children under age 15 not related to household head)

Age	Number of Insured Children (000)			Number of Uninsured Children (000)		
	percent of poverty threshold					
	100-149%	150-174%	175-199%	100-149%	150-174%	175-199%
All Children	6,854	3,237	2,932	1,512	595	545
Under 2	885	370	331	171	63	41
2-3	780	380	328	190	67	39
4-5	813	357	335	155	57	48
6-7	811	380	320	137	72	65
8-9	770	327	313	156	63	54
10-11	757	350	319	178	51	62
12-13	702	367	339	161	68	77
14-15	682	320	304	146	76	77
16-17	655	387	343	218	77	81

Age	Number of Insured Children (000)			Number of Uninsured Children (000)		
	percent of poverty threshold					
	200-299%	300-399%	400+%	200-299%	300-399%	400+%
All Children	11,892	9,321	20,712	1,498	704	870
Under 2	1,203	992	2,169	162	81	144
2-3	1,292	972	2,146	154	57	58
4-5	1,296	913	2,208	165	68	69
6-7	1,359	975	2,201	144	89	104
8-9	1,264	990	2,174	150	68	69
10-11	1,234	1,065	2,221	154	58	75
12-13	1,398	1,041	2,243	150	54	113
14-15	1,352	1,122	2,505	199	117	87
16-17	1,494	1,252	2,845	222	112	150

Source: U.S. Census Bureau, Current Population Survey, *Annual Social and Economic Supplement, 2008*. Data generated using the CPS Table Creator.