Achieving Family Health Literacy: The Case for Insuring Children

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June 27, 2007

Executive Summary

One aspect of the SCHIP reauthorization debate that has received more limited attention than it deserves is the relationship between children's health insurance coverage and family health literacy. That is, to what extent is children's health insurance associated with higher health literacy, and to what extent is reduced parental health literacy linked to lower rates of health insurance among children? This association is extremely important, since there is strong evidence of a link between health literacy and the appropriate use of health care. Evidence suggests that when previously uninsured children are covered by health insurance, parents at all income levels make significantly more appropriate use of health care. Expanded health insurance coverage has been shown to be associated with improved access to health care and an increased rate in families who report a regular source of health care.

Our findings from the National Assessment of Adult Literacy, a special statistical information system maintained by the National Center for Education Statistics, show that health insurance coverage is associated with significantly higher levels of health literacy. The proportion of parents considered to have proficient health literacy literally doubles among parents of insured children, while the proportion of parents who are able to demonstrate intermediate literacy is more than one-and-a-half times as great when a child is insured. Even more dramatically, the proportion of parents with below-basic literacy is nearly four times as great when children are uninsured. These dramatic findings apply to families who use both public and private health insurance. For example, Medicaid-insured children are nearly 6 times as likely as those without coverage to have a usual source of health care and families whose children are insured through Medicaid are one-fifth as likely as parents whose children are uninsured to report that an emergency room serves as their children's primary source of health care.

These findings provide strong support for improving health insurance coverage among children as a means of improving family health literacy. They suggest that all families should have access to continuous, accessible, and affordable coverage for their children. These findings also suggest that in designing health insurance coverage for children, particular emphasis should be placed on helping families understand and use coverage appropriately by incentivizing states to invest in health literacy and clear communications programs for families. The cost of health education for families with children is already recognized as permissible under both Medicaid and SCHIP. Existing policy could be strengthened by providing enhanced federal payments for health education programs aimed at families whose children are enrolled in Medicaid and SCHIP.

Introduction

The 110th Congress is expected to reauthorize the State Children's Health Insurance Program (SCHIP), which is set to expire at the end of September, 2007. Along with Medicaid, SCHIP has been recognized for its success in reducing the proportion of children without health insurance coverage and in improving access to, and use of, appropriate and effective health care.[1] This evidence regarding the importance and value of health insurance for children has generated broad public support; indeed, insuring all children ranks as the highest health reform priority in public opinion polls.[2]

Background

Health Literacy and Health Insurance Coverage

Healthy People 2010 defines health literacy as "The degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions."[3] The National Library of Medicine notes that "Health literacy is not simply the ability to read. It requires a complex group of reading, listening, analytical, and decision-making skills, and the ability to apply these skills to health situations."[4] Thus, true health literacy is not just a matter of understanding what one is told: health literacy also encompasses the ability to independently formulate questions and to initiate interactions with health care providers and health insurers in order to secure necessary information.

In its 2004 report, *Health Literacy: A Prescription to End Confusion*,[5] the Institute of Medicine reported that some 90 million persons have difficulty understanding and using health information. The IOM documented the link between low health literacy and both inappropriate health care use and avoidable health care costs and underscored the "mismatch" between the demands of the modern health care system and the level of patient health literacy. Evidence of avoidable health care spending in the case of adult health care spending reported by the IOM suggests the high cost of limited literacy, with estimates running as high as $69 billion in avoidable expenditures.[6]

One aspect of the SCHIP reauthorization debate that has received only modest attention to date is the relationship between children's health insurance coverage and family health literacy. That is, to what extent is children's health insurance associated with higher health literacy, and to what extent does reduced literacy among parents tend to be linked to lower rates of health insurance among children? This association is extremely important, since there is strong evidence of a link between health literacy on one hand, and the appropriate use of health care (along with reduced costs) on the other.

The association between health literacy and health insurance coverage among children is also important because of the growing emphasis on health care consumerism, an approach to thinking about the relationship between individuals and the health care system. This philosophical approach to health care has deep roots in the patients' rights movement as well as modern health economics concepts related to the role of health

insurance in the appropriate use of health care. It emphasizes improving patients' ability to comprehend and use information about health and health care in order to make critical decisions about their own care and treatment and (in the case of children) treatment for their families.

Improving Health Literacy in order to Improve Children's Health Care

Experts have noted that health literacy is a skill that can be learned, and furthermore, that this skill can exist independently, regardless of years of education or reading ability. As the health care system has grown increasingly complex and as public and private health policymakers have moved ever more decisively toward principles of consumerism that emphasize both the right to good health information and a corresponding obligation to use it effectively,[7] improving health literacy has grown in importance.

This move toward greater health literacy is not just among employers and private health insurers. Both Congress and United States of Health and Human Services has placed growing emphasis on injecting principles of consumerism into public health insurance for low income persons.[8] For example, in 2006, Congress amended Medicaid to permit states to launch "health opportunity accounts,"[9] a form of consumerism demonstration now being pursued in several states that would permit the use of high-deductible health plans for families with children, linked to consumer accounts. HHS also has placed a growing emphasis on patient health literacy in its guidance to state Medicaid programs.

In the face of this growing emphasis on greater health literacy, the Institute of Medicine has called for social and public policy reforms aimed at ensuring that "everyone has the opportunity to improve . . . health literacy."[10] Experts note that, although improving health literacy may require further research, much is known about interventions that can advance literacy, such as increased health education as well as adoption by the health care system of greater transparency and clearer and more culturally appropriate communication. Underlying both of these reforms, as the IOM has noted, is the assumption that individuals do, in fact, have the opportunity to make effective use of health care. Integral to advancing this opportunity is the removal of external barriers to effective use. Chief among these barriers is inadequate and unstable coverage, a fact that has been shown overwhelmingly.[11]

Much of the health literacy research has focused on health literacy among adults who use health care. There is also evidence that when previously uninsured children are covered by health insurance, parents at all income levels make significantly more appropriate use of health care.[12] For example, asthma is the leading cause of hospitalization among children ages 1-17[13] and is associated with significant increases in health spending when compliance with treatment guidelines is lacking.[14] Expanded health insurance coverage has been shown to be associated with improved access to health care and more effective use of pediatric health care services.[15] Families whose children gain public insurance are nearly universally likely to report a regular source of care, a factor associated with health care quality and the appropriate use of care.[16] Conversely, families who lose public health

insurance coverage for their children, as a result of even a slight rise in income, have been shown to lose their ability to afford appropriate health care.[17]

In light of the association between children's health insurance coverage and the use of appropriate health care by families, this policy brief reviews the evidence regarding association between children's health insurance status and family health literacy. Following this review, the policy brief discusses options that would not only improve coverage among children but also would strengthen and promote family health literacy.

Research Methods in Brief

The adult health literacy data was produced from directly the 2003 National Assessment of Adult Literacy (NAAL) data set. Other sources of data related to health care access and utilization were produced from Centers for Disease Control and Prevention data report, *Health, United States, 2006.*

Administered by the National Center for Education Statistics, the 2003 NAAL includes 19,253 adults of age 16 and older in households and prisons and excludes those with language or mental problems. Although the NAAL had been conducted twice before in 1985 and 1992 to generally assess English reading and comprehension skills, the 2003 health literacy survey is the first and only national assessment of adult health literacy.

The NAAL provides health literacy scores that range from 0 to 500. These scores define four levels of literacy ability.

- *Below basic* (0-184) represents the lowest level of health literacy and involves only the simple ability to identify one piece of simple information.

- *Basic (185-225) and Intermediate (226-309)* reflect the ability to comprehend more complex documents and basic quantitative information.

- *Proficient* (310-500) literacy level involves integrating and analyzing complex documents and quantitative information.

Additional data are drawn from the 2003 and 2005 National Survey of Children's Health, which is administered by the CDC's National Center for Health Statistics using the State and Local Area Integrated Telephone Survey (SLAITS). Although children's health care access data are also drawn from published 2005 National Health Interview Survey tables, the full 2003 NSCH includes more detailed information regarding family-and-child-specific demographic, health status, health care access and utilization.

Findings

Figure 1 presents the central finding to emerge from our review: health insurance coverage is associated with significantly higher levels of health literacy. The proportion of parents with proficient health literacy literally doubles in the case of insured children,

while the proportion of parents who are able to demonstrate intermediate literacy is more than one-and-a-half times as great when insurance is present. Even more dramatically, the proportion of parents with below basic literacy is nearly four times as great when their children are uninsured.

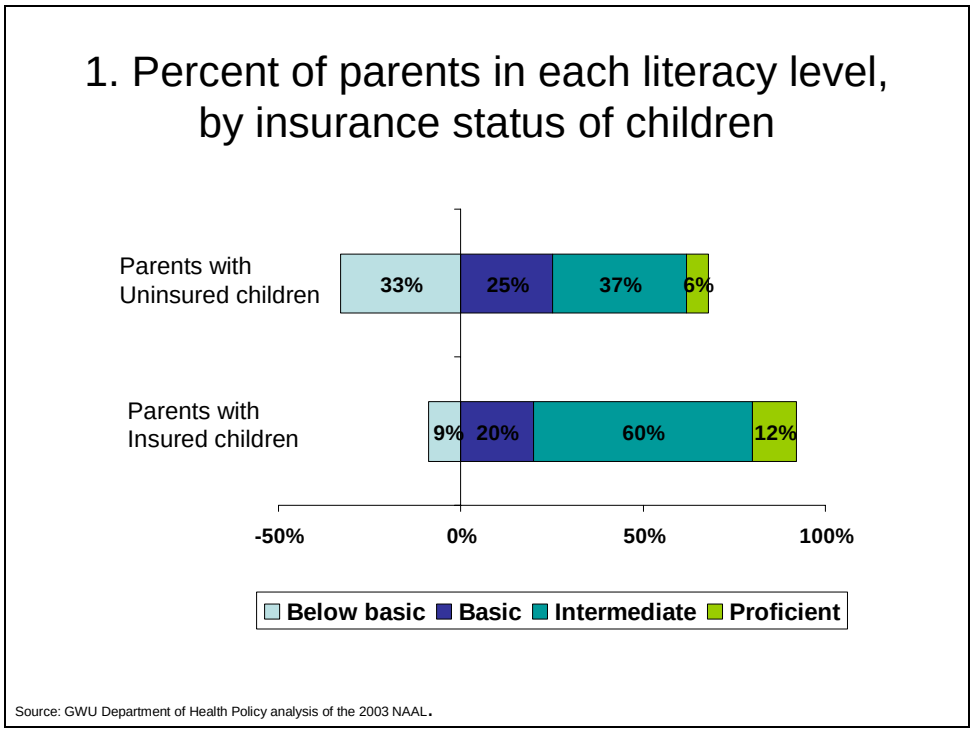
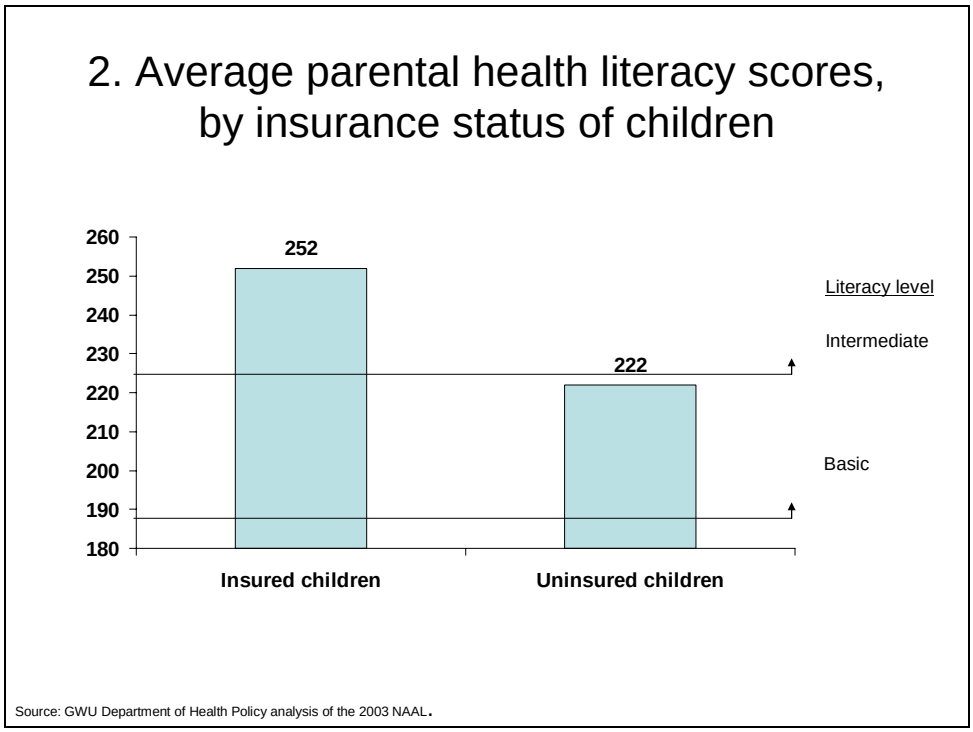
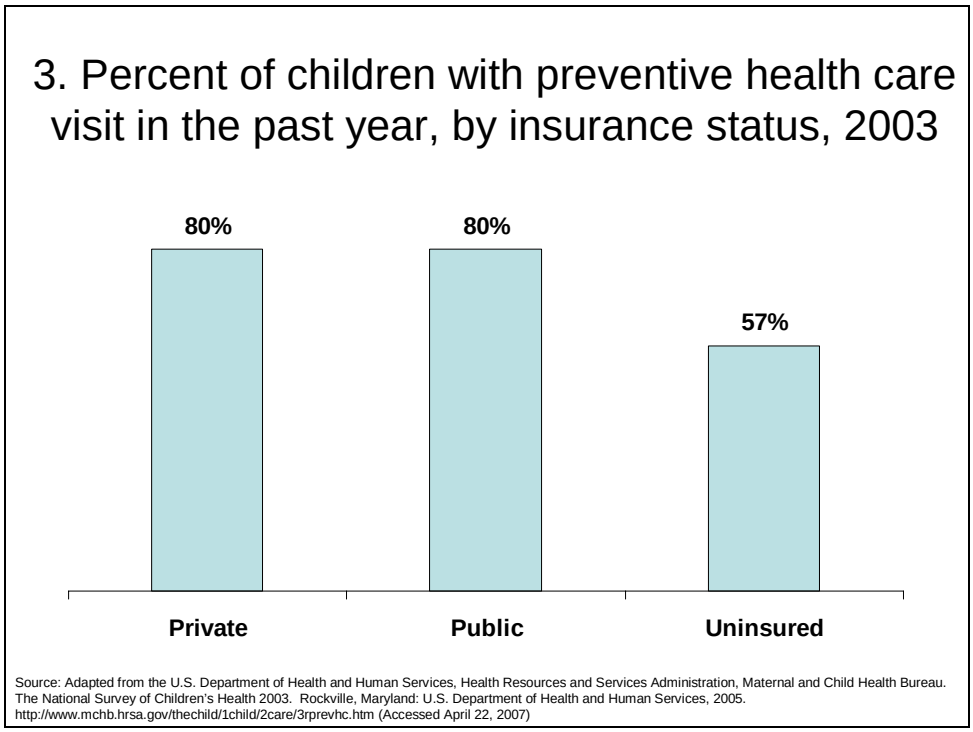


Figure 2 shows that not only is insurance associated with greater literacy levels among parents but that insurance is associated with greater average literacy levels. Among parents of insured children, the average literacy level is 252 on a scale of 500 and falls within the intermediate range. Among parents of children who are uninsured, the average literacy level stands at 222, below intermediate levels.



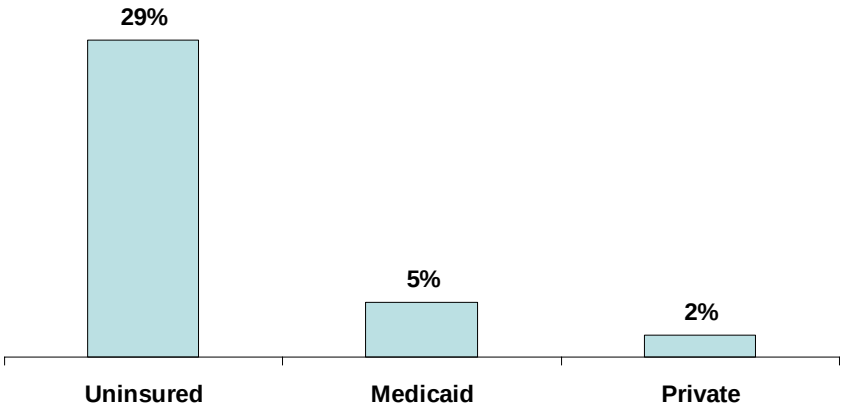
Figures 3 through 8 show that, consistent with the association between child health insurance status and parental literacy, insured children show more appropriate use of health care. Furthermore, this pattern of more appropriate health care use holds among both publicly and privately insured children. Thus, for example, insured children are significantly more likely to have had a preventive office visit within the preceding 12 months (**Figure 3).**



Source: Adapted from the U.S. Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau. The National Survey of Children's Health 2003. Rockville, Maryland: U.S. Department of Health and Human Services, 2005. http://www.mchb.hrsa.gov/thechild/1child/2care/3rprevhc.htm (Accessed April 22, 2007)

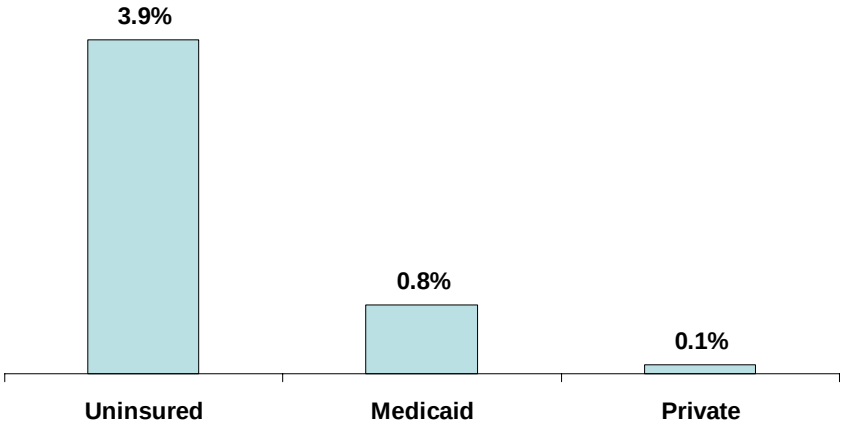
Insured children are far more likely – whether publicly or privately insured – to have a regular source of health care than children who are uninsured (**Figure 4).** Indeed, Medicaid-insured children are nearly 6 times as likely as those without coverage to have a usual source of health care. Conversely, **Figure 5** shows that families whose children are Medicaid-insured one-fifth as likely as parents whose children are uncovered to report that an emergency room serves as their children's primary source of health care.

4. Percent of children with no usual source of care, by insurance status, 2003-04



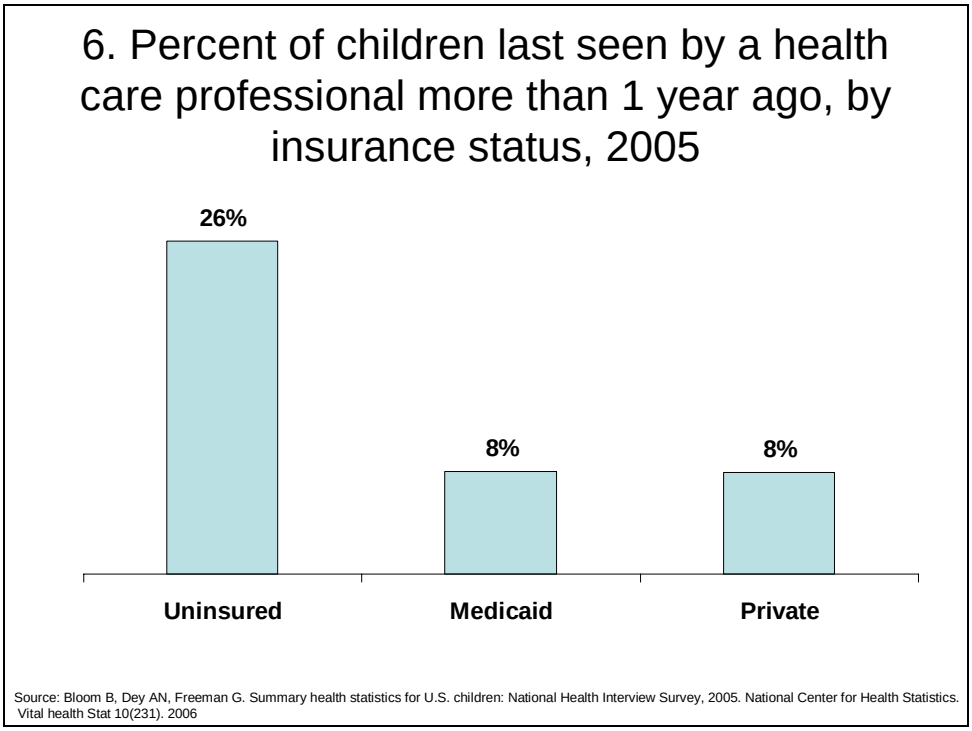
Source: *Health, United States, 2006*, Table 76; CDC, National Center for Health Statistics, National Health Interview Survey.

5. Percent of children using the emergency room as usual source of care, by insurance status, 2005



Source: Bloom B, Dey AN, Freeman G. Summary health statistics for U.S. children: National Health Interview Survey, 2005. National Center for Health Statistics. Vital health Stat 10(231). 2006

Figure 6 shows that parents whose children are insured are less than one third as likely to report that more than a year has elapsed since their children were last seen by a health care professional.



Discussion

The findings from this analysis of government data support three conclusions.

- *First*, health insurance coverage in children is associated with higher levels of health literacy among parents as well as higher health literacy averages. Parents of children who are insured show higher rates of both intermediate and proficient health literacy status, as well as average health literacy scores well into the intermediate range and 30 percentage points higher than parents of uninsured children.

- *Second*, health insurance is associated with more appropriate use of health care and with greater use of health care that is known to be effective. Insured parents nearly universally report having a regular source of health care for their children, are one-fifth as likely to rely on inappropriate sources of health care as their regular source of care. Parents of insured children are more likely to use preventive services and are less likely to have gone over a year without using health care for their children.

- *Third*, the evidence presented in this analysis shows that findings regarding the relationship between appropriate use of effective health care apply, regardless of whether the source of coverage is public financing (Medicaid) or private health insurance. Because Medicaid coverage for children is comprehensive and involves minimal cost-sharing for covered benefits in the case of pediatric care, Medicaid would appear to "level the playing field" in terms of how well it enables low income families to make effective use of health care. Because SCHIP offers reasonably comprehensive coverage and adjusts family cost sharing to family income, the same enabling effect observed in Medicaid presumably would apply to SCHIP. This conclusion is underscored by studies, cited in this analysis, demonstrating the power of SCHIP to eliminate the types of financial barriers that are associated with inappropriate use of care and reduced utilization of effective care.

Our findings and conclusions support three basic sets of recommendations.

First, they underscore the fact that improving health insurance coverage among children is associated with improved health literacy. This means ensuring that all families have access to continuous, accessible, and affordable coverage for their children. Much is known about how to make enrollment rapid and simple, as well as how to retain coverage through the use of techniques such as guaranteed enrollment, "expresslane" enrollment techniques, and "passive redetermination" to promote continuous coverage.[18] The evidence in this analysis suggests that families who lose coverage for their children, or who cannot readily obtain it to begin with, may quickly begin to exhibit the effects through the reduced use of appropriate care.

Second, our findings suggest that to encourage greater opportunity for literacy, coverage should be comprehensive and should utilize cost-sharing that is in line with families' ability to pay for care. A wealth of data underscores the access-inhibiting effects of high cost sharing, whether this cost sharing takes the form of deductibles, copayments and coinsurance, and strict annual spending limits, or coverage exclusions and limitations that can impair appropriate use of care by families whose children experience serious and chronic health conditions. The vast majority of children are healthy and use little health care during a year;[19] as a result, extensive coverage limitations and exclusions, especially when coupled with high levels of patient cost sharing, do little to save money while potentially doing much to discourage families from seeking and using care appropriately. Medicaid is unique in the range and depth of coverage it offers and the cost-sharing controls it employs. SCHIP could be strengthened to offer improved coverage of primary preventive services such as dental care as well as better coverage for treatments for mental illness and emotional disorders, as well as the full range of conditions that may affect long term growth and development.

Finally, these findings suggest that in reforming coverage for children, emphasis also should be placed on helping families understand and use coverage appropriately. The evidence is already strong that families with insurance for their children make good choices about having a regular source of health care and using preventive services. These

choices can be reinforced through emphasis on clear communication, through member and patient education programs aimed at families with children. The cost of health education for families with children is already recognized as a permissible one under both Medicaid and SCHIP. Congress should consider emphasizing these state practices through financial incentives provide enhanced federal payments for health education programs aimed at families whose children are enrolled in Medicaid and SCHIP.

Appendix: Methodology

Health literacy data was produced from the 2003 National Assessment of Adult Literacy (NAAL) public use data file available on the National Center for Education Statistics website. According to the NCES, the overall health literacy scores are based on how well the respondents understood the information to perform *prose*, *document*, and *quantitative* tasks.[20] The NAAL survey involves open-ended health literacy questions developed by the Department of Health and Human Services and the Department of Education to directly measure the respondent's ability to understand and apply information on three health domains: *clinical*, *prevention*, and the *navigation of the health system*. Although health literacy questions inquire about health information the U.S. population are likely to encounter on a regular basis, the calculation of the score excludes questions that asked about specific medical terminology or understanding of only non-print sources. The four performance levels (below basic, basic, intermediate, and proficient) reflect various levels of understanding and performing various tasks.

Other child health measures were gathered from published data reports from the National Survey of Children's Health (NSCH) and National Health Interview Survey (NHIS). Although both the NSCH and the NHIS are administered by the CDC, only the NSCH uses the State and Local Area Integrated Telephone Survey (SLAITS) mechanism to produce not only national rates but also state estimates of family and child-specific demographic, health status, health care access and utilization information.

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[1] See research synthesis examining the role of health insurance in improving health care access and quality at Child Health Insurance Research Initiative (CHIRI), *Access and Quality in SCHIP and Medicaid* http://www.ahrq.gov/chiri/chirifind.htm#access (Accessed April 22, 2007)

[2] See, e.g., Kaiser Family Foundation, 2006. *New Poll Finds Broad Support Among Democrats, Independents, and Republicans for Drug Price Negotiation, Reimportation, and Prioritizing Children for Coverage of the Uninsured*. http://www.kff.org/kaiserpolls/pomr120806nr.cfm (accessed April 22, 2007)

[3] http://nnlm.gov/outreach/consumer/hlthlit.html (accessed April 22, 2007)

[4] Id.

[5] National Academy Press, Washington D.C. 2004.

[6] Id.

[7] See generally, James Robinson, 2005. "Managed Consumerism in Health Care," *Health Affairs* 24:6 (Nov./Dec.) 1478-1489.

[8] See e.g., Statement of Secretary Mike Leavitt regarding HHS priorities. http://www.hhs.gov/secretary/priorities/ (accessed April 22, 2007)

[9] P.L. 109-171 §6082

[10] Id.

[11] Institute of Medicine, *Care Without Coverage* (National Academy Press, Washington D.C. 2002)

[12]Andrew W. Dick, Cindy Brach, R. Andrew Allison, Elizabeth Shenkman, Laura P. Shone, Peter G. Szilagyi, Jonathan D. Klein and Eugene M. Lewit, 2004. SCHIP's Impact In Three States: How Do The Most Vulnerable Children Fare? *Health Affairs* 23(5), pp. 63-75; Peter G. Szilagyi, Andrew W. Dick, Jonathan D. Klein, Laura P. Shone, Jack Zwanziger, Thomas McInerny, 2004. Improved Access and Quality of Care After Enrollment in the New York State Children's Health Insurance Program. *Pediatrics* (May 3, 2004, electronic version).

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[16] Karen VanLandeghem, Jennie Bonney, Cindy Brach, and Lisa KretzWho Enrolls in Oregon's Premium Assistance Program and How Do They Fare? (Child Health Insurance Reform Initiative (CHIRI) Issue Brief #6. http://www.ahrq.gov/chiri/chiribrf6/chiribrf6.htm#learned (accessed April 22, 2007)

[17] Janet B. Mitchell, Susan G. Haber, and Sonja Hoover, 2006. What Happens to Children Who Lose Public Health Insurance Coverage? *Medical Care Research & Review* 63(5), pp. 623-635.

[18] Donna Cohen Ross and Laura Cox, 2006. Resuming the Path to Health Coverage for Children and Parents: A 50-State Update on Eligibility Rules, Enrollment and Renewal Procedures, and Cost-Sharing Practices in Medicaid and SCHIP in 2006. http://www.kff.org/medicaid/7608a.cfm (accessed April 22, 2007).

[19] Sara Rosenbaum and Paul Wise, 2007. Crossing the Divide between Medicaid and Private Health Insurance: the Case of EPSDT. *Health Affairs* 26:2 (March/ April) pp. 382-393.

[20] Kutner, M., Greenberg, E., Jin, Y., and Paulsen, C. (2006). *The Health Literacy of America's Adults: Results From the 2003 National Assessment of Adult Literacy* (NCES 2006–483). U.S.Department of Education.Washington, DC: National Center for Education Statistics.