Technical Appendix B: Kansas Survey Methods

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ABBREVIATIONS. SCHIP, State Children's Health Insurance Program; FPL, federal poverty level.

The Kansas HealthWave Evaluation Study is a multiyear study of newly enrolled children in the Kansas State Children's Health Insurance Program (SCHIP). Families of new enrollees were interviewed near the time of program entry and again ~12 months after enrollment. Telephone interviews were conducted with the adult in each household that was most familiar with the selected new enrollee's health and health care experiences. The results reported in these analyses represent cross-sectional data from the new-enrollee phase of the study.

STUDY SETTING

Kansas' SCHIP was implemented in January 1999 as a stand-alone supplement to the state's preexisting Medicaid program. During the study period that began in September 2000, all children covered by HealthWave were enrolled in a single health plan offering all covered benefits except mental health services and operating on a fully capitated basis. Mental health was covered through a separately capitated carve-out. HealthWave covered otherwise-uninsured children <19 years old living in families with incomes <200% of the federal poverty level (FPL) and above the age-related Medicaid income thresholds: 150% of the FPL for children <1 year old, 133% of the FPL for children between 1 and 6 years old, and 100% of the FPL for children 6 to 18 years old. In an effort to reduce the use of HealthWave as a substitute for private coverage, children were not eligible to enroll in HealthWave unless they had gone without private insurance coverage for at least 6 months unless the termination of that coverage was beyond the family's control. Premiums were charged to families with children in HealthWave at the rate of $10 per family per month for families between 150% and 175% of the FPL and $15 per family per month for families between 175% and 200% of the FPL. By September 2000, when the first of the study cohorts enrolled in HealthWave, there were ~19 100 children enrolled in HealthWave.

INSTRUMENT DEVELOPMENT

The survey instrument was designed to be used both for this baseline assessment as well as for follow-up ~12 months later. To the extent possible, questions were drawn from existing, validated survey instruments used in similar studies. Information was collected on participation in the program, child and family demographics and insurance status, health status, access to care, utilization of services, unmet need for medical care, quality and satisfaction, outreach and program enrollment, and knowledge of program benefits. The instrument was programmed into computer-assisted telephone interview software, pretested, and revised before fielding. Study protocols, including the survey instrument and the use of incentives, were approved by an institutional review board of participating organizations.

SAMPLE DESIGN AND SURVEY ADMINISTRATION

The sample was designed to represent children ≤17 years old at enrollment who were newly enrolled in the HealthWave program during the 4-month period from September to December 2000. Administrative enrollment data were used to determine enrollment history. The sample was selected in 4 monthly replicates. A new enrollee was defined as a child that was enrolled in the HealthWave program for the month of sample selection but not enrolled in the program for any of the previous 6 months. In families where there was more than one newly enrolled child eligible for selection, one child per family was selected by identifying the child with the most recent birthday.

The sample was stratified by age and rural/urban residence. Four age groups were defined for stratification purposes: <1 year old, 1 to 5 years old, 6 to 12 years old, and ≥13 years old. A dichotomous indicator of rural/urban location was defined based on the population density of the county of residence, with counties with <20.0 persons per square mile defined as rural. To ensure sufficient statistical power for analysis of rural-urban differences, children residing in rural areas were oversampled.

Of the 1271 children randomly selected for inclusion in the sample, we were able to contact the families of 789. The remaining families could not be contacted because of no answer or a missing or incorrect telephone number even after the use of directory assistance, postcards sent to the address in the enrollment files, and limited use of online databases. Call attempts were made at varying times of day and

days of the week, and interviews were available in English or Spanish. A minimum of 10 attempts were made to contact the family of each sampled child. Families were offered a $5 gift certificate to Wal-Mart as an incentive to participate in the survey. Of those families contacted, 13 children were determined to be ineligible based on screening questions (eg, denied being enrolled in the program, child deceased, or ineligible based on age) and were excluded from the sample.

Computer-assisted telephone interviews were completed for 751 children, resulting in a cooperation rate of 96.8% (751 of 776) and an overall response rate of 59.7% (751 of 1258). Partial interviews were obtained for an additional 25 children. Telephone interviews were conducted by trained interviewers between October 2000 and April 2001, and the average interview lasted ~20 minutes.

WEIGHTING AND DATA ANALYSIS

Sampling weights were constructed and applied to adjust for unequal sampling probabilities and nonresponse. For descriptive analyses, we used t tests to evaluate differences in continuous variables across subgroups and χ^2 tests for dichotomous and categorical variables. Multivariate relationships were evaluated by using logistic and multinomial logistic regression methods. All analyses were conducted by using SUDAAN 8.01 software (RTI International, Research Triangle Park, NC) to allow for the complex sample design and to apply weights created for the survey.

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