Measuring the Performance of State CSHCN Systems

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I. Introduction

From Neurons to Neighborhoods, the National Research Council's major report on factors that influence child development, articulates seven inter-related social, economic and political challenges facing those who care for children, whether at the level of families or the level of public policy (1). One of the seven identified factors is the "devolution of some important responsibilities for the implementation of child and family policies to the state and local levels" (1, p.36)." In other words, the increasing role of state and local government's responsibility for implementation of child health policies and programs may have important implications for child health and well being.

The Maternal and Child Health Services Block Grant (MCHSBG) provides *core* funding for infrastructure, population-based services, enabling services, and gap-filling for clinical and other services. However, the capacity of MCH agencies to meet the growing needs of the population is a function of multiple unexamined state political and economic characteristics.

The purpose of this study was to analyze the relationship between measures of state capacity and the well-being of CSHCN. There were two specific objectives. First, we examined the relationship between measures of state economic, political and health systems capacity and selected measures of Title V capacity for CSHCN in the MCH Services Block Grant, as reported in the Title V Information System. Second, we investigated the association between state-level economic, political and health systems capacities and the well-being of CSHCN as reported in the National Survey of Children With Special Health Care Needs that provides individual process measures (i.e., intermediate outcomes) of health for nearly 40,000 CSHCN (2,3).

II. Review of the LIterature

Association between State Characteristics and Children's Health Status

There are few studies on the association between state-level characteristics or capacities and children's health status and/or the use of services. Kawachi et al. have undertaken a series of studies to elucidate the relationship between social capital and individual well-being (4). Mayer et al. examined the relationship between state immunization policies and the likelihood that poor children would be up-to-date in their immunization status (5). Bird and Bauman defined a series of structural and health services variables to explore their effects on infant mortality (6). The structural variables accounted for much more variance than did the health services variables.

Perrin et al. identified one state-level economic characteristic (percent of children below the poverty level) and three state-level health characteristics (percent VLBW infants, percent with poor or fair health and percent with

limitations in major activities) as predictors of enrollment in SSI (7). Gold et al. described the relationship between four economic factors—the number of poor children, the fiscal capacity of the local and state governments, the effort to utilize that capacity, share of available revenue allocated to children's programs--that affect state and local spending, but did not link this spending to health processes, much less outcomes (8).

Using the NSCSHCN, Mayer et al. examined unmet need for routine and specialty care (9). Two structural or state-level inputs were included in the analysis; ratios of general pediatricians and pediatric sub-specialists to under-18 population were related to unmet need for routine care. In another analysis of the NSCSHCN, Blumberg and Bramlett characterized each state by creating an index consisting of 15 items, covering, for example, indicators such as percent with any unmet need, percent whose problems caused financial problems, and percent whose families spend 11 or more hours per week providing or coordinating care (10).

Analyses of the Effects of the Maternal and Child Health Services Block Grant

The development of systems of care for Children With Special Health Care Needs (CSHCN) has been a goal of federal policy, since the passage of Title V of the Social Security Act in 1935, under Part 2, Services for Crippled Children (11). Although programs and services evolved under an expanding Crippled Children's Program, it was the creation of the MCHSBG in the Omnibus Reconciliation Act of 1981 (OBRA) that prompted analysts to examine more rigorously the capacity of states to address the needs of the MCH population in general and CSHCN in particular. Nevertheless, analyses of the MCHSBG are uncommon, in part because of the evolutionary nature of the application guidance to the states, since the creation of the grant in 1981.

The General Accounting Office (GAO) used three state-level indicators of need-- (1) the percentage of low birthweight births; (2) the percentage of children living below the poverty level; and, (3) the population of children under 21 (as a general proxy for CSHCN)--to assess the equity of MCHSBG funding among the states (12). Regression analysis suggested that there was no discernible relationship between state needs and federal funding.

In summary, for the most part studies on state variation in MCH outcomes have focused primarily on demographic characteristics with less attention to structural measures of state capacity as reflected in political, economic, health services to Title V program characteristics.

III. Study Design and Methods

This study used state-level and individual-level cross sectional observational analysis. Three sets of inputs: (1) state economic/financial capacity, (2) state governmental structure, (3) state health systems capacities—are hypothesized to affect the capacity of the Title V program and in turn, the well-being of CSHCN as reflected in the National Survey. This analysis was limited to the 50 states, because the inputs for this model are more

standardized as reported by the states in contrast to the District of Columbia and territories/jurisdictions and the federal government. In addition, there is more uniformity in the structural relationship between the states and the federal government than between the territories/jurisdictions and the federal government.

Sources of Data

State economic capacity. Economists have generated numerous indicators of state economic capacity, including gross state product, total taxable resources, per capita income, median income, percentage population below the poverty level and others. Many of these indicators are correlated with each other so for simplicity we have selected the per capita Gross State Product (GSPPC) as a robust measure of economic capacity.

State political capacity. As noted by Gray and Hanson (13), numerous measures of state governance have been developed. In the interests of efficiency for analysis, two measures have been incorporated. Governors' institutional powers refers to the combined score of five different indicators, each measured on a five point scale: (1) separately elected branch officials with the strongest governorships in states where the governor/lieutenant governor team is the only statewide elected official; (2) tenure potential ranging from a four year term to no restriction on re-election to two-year terms with a two-term limit; (3) governor's appointment powers ranging from power in six major areas (corrections, K-12 education, health, highways/transportation, public utilities regulation, welfare) to someone else appoints with no confirmation needed; (4) governor's veto ranging from veto power with special majority vote for override to no item veto with a simple majority override; and, (5) budget power ranging from full responsibility by the governor to sharing budgetary authority with other officials and unrestricted legislative power to change the budget. Legislative professionalism reflects resources and time commitments to the legislature. Legislatures are rather stable with regard to these inputs, so an assessment based on 2002 and earlier data were used to categorize states accordingly.

State health systems capacity. Table 1 shows state measures covering three general areas. The percent of all children within the state who have special health care needs is a general indicator of health needs. Financial aspects of the health system are reflected in six indicators. The percentage of children without insurance and the percentage of children enrolled in Medicaid reflect financial need. The percentage of the state GDP that is accounted for by state health funds and the ratio of the Medicaid fees (state-determined) to Medicare fees (federally-determined) reflect state resources devoted to health. We also use two measures of physician supply: the ratio of general pediatricians to the under 18 population as well as the ratio of pediatric sub-specialists to the under 18 population. Finally, we include the percentage of children in Medicaid who are enrolled in managed care and an indicator of whether the state uses a "categorical" or "functional" definitions of CSHCN (DEFCSHCN), according to Beers et al.(14).

Title V Information System. As described by the MCH Bureau, the Title V Information System (TVIS) electronically captures data from annual Title V Block Grant applications and reports submitted by all 59 U.S. States, Territories, and Jurisdictions (15). TVIS provides information on key measures and indicators of maternal and child health (MCH) in the United States at the national, State, and regional level, including annual expenditures; numbers of people served; state program information; national and state performance and outcome measures; and numbers of calls to state toll-free telephone numbers. *RATIO* is the relationship between state funds and federal MCH Services Block Grant funds. Technically, states are required to provide $3 for every $4 in federal funds. Other than restrictions on the use of other federal funds to achieve this match, states, however, have considerable leeway in defining matching funds. This may explain why, in the TVIS, three states (Idaho, Montana, and North Dakota) show state/federal ratios below the required level, but presumably satisfy the legal match requirement in other reporting. *PERSTATE* is defined as the state contribution to Title V expenditures divided by the population of children in the state. The denominator is "all" children, not just those served by Title V, because the mission of Title V is to enhance the system of care for all children in a state, not just those explicitly served by Title V programs. *PCTCSHCN* refers to the percent of state Title V expenditures spent on CSHCN. States are required to spend 30% of their *federal* dollars on CSHCN, but there is no guidance with regard to combined state and federal expenditures for CSHCN, so the state percentage varies widely. *PERCHILD* refers to the ratio of state expenditures on CSHCN to the number of CSHCN in the state, as estimated by the National Survey of CSHCN.

PARTICIPATION consists of six indicators on which states rate themselves on a scale from zero to three, related to involvement of families in Title V policy and program development. The indicators are: (1) family members participate on advisory committee or task forces and are offering training, mentoring, and reimbursement, when appropriate; (2) financial support(financial grants, technical assistance, travel, and child care) is offered for parent activities or parent groups; (3) family members are involved in the CSHCN elements of the MCH Block Grant Application; (4) family members are involved in service training of CSHCN staff and providers; (5) family members hired as paid staff or consultants to the State CSHCN program (a family member is hired for his or her expertise as a family member); (6) family members of diverse cultures are involved in all of the above activities.

National Survey of Children With Special Health Care Needs.

The National Survey of Children With Special Health Care Needs, part of the State and Local Area Integrated Telephone Survey (SLAITS) Survey program of CDC, was a population-based survey of 5,000 children in more than 2,750 households with 750 detailed interviews for CSHCN in each state (2, 16). As shown in Table 3, the NSCSHCN dataset provides variables that address the use of services, that is, process or outcomes measures that reflect the capacity of

states to assure that the needs of this population are met. For example, this dataset contains variables that cover access to health care and related services, care coordination, and satisfaction with care. Because the survey was fielded from October 2000 to April 2002 and questions solicited information about the experience in the previous year, where possible independent variables were ascertained for the year 2000.

The data (including 13 state capacity measures and five indicators of Title V support) were described univariately using non-parametric (minimum, median, maximum, and inter-quartile range (IQR)) and parametric (mean and standard deviation (sd)) strategies for continuous variables and using frequencies and associated percentages of non-missing data for categorical variables. Next, bivariate associations were computed among the five Title V measures to assess correlations. To account simply and conservatively for the large number of comparisons performed, the Bonferroni correction was used to hold the overall alpha to 0.05.

For each of the five Title V capacity measures separate ordinary least squares (OLS) regression models were fit using the state capacity measures as predictors. Regression diagnostics were performed to check for nonlinearity, heteroskedasticity and multi-collinearity and the final forms for each model were chosen based on minimizing OLS assumption violations while maximizing interpretability of the final models. Full models were fit using the 13 state capacity measures; stepwise regression was then performed to create the most parsimonious models. For each of the eight CSHCN outcomes, we first fit a full logistic regression model taking into account the survey sampling strategy. Next we fit stepwise reduced models using sampling weights and clustering on state (because stepwise is not an option with survey commands in Stata). Finally, we fit a reduced logistic model predicting the outcome using the appropriate socio-demographic variables and the state capacity measures indicated as statistically significant in the stepwise reduced model.

IV. Detailed Findings

Relationship between State Capacity and Title V Capacity

States vary on all state economic, political and health services capacity measures. Across the five Title V capacity measures, states also vary widely (Table 1). The median ratio of state to federal dollars, 1.57, indicates that overall, states are allocating more state funds to the MCHSBG than are required, even including the three states that seem to have satisfied the match requirement in ways that are not reflected in the Title V Information System. In contrast, the per capita expenditure of *state* Title V dollars is as little as $.07 per child.

Five models, one for each of the five Title V measures, were generated and then reduced using step-wise techniques (Table 2). Very few of the 13 state economic, political, and health services capacity measures were associated with the Title V capacity measures of interest. Two variables were associated with the ratio of state to federal dollars. Higher percentages of CSHCN were associated

with lower ratios of state to federal dollars in Title V spending. In contrast, greater pediatric sub-specialists supply is associated with a higher ratio of state to federal dollars.

Per capita state Title V expenditures were positively associated with the per capita Gross State Product and the percentage of state health funds as a percentage of the state GDP, so basically, wealthier states tended to spend more on Title V than less wealthy states. No variables were associated with the percentage of children with special needs in the state. Per child expenditures on CSHCN were positively associated with the percentage of children enrolled in Medicaid. In contrast, higher percentages of children with special needs were associated with lower per child state expenditures on CSHCN.

Finally, three capacity variables were associated with the level of family participation in Title V. Compared to states with "citizen" legislatures, states with "hybrid" legislatures showed lower scores on family participation. States using a functional definition for their CSHCN programs reported more family participation.

Relationship between State Capacity and Service Use by CSHCN

Nearly 30% of participants had heard of the Title V program and nine percent of those reported using a Title V service.

Analysis of variance was performed to determine the relationship between the five state-level Title V capacity measures and eight state-level outcomes from the National Survey. Of 40 different ANOVA models, only one achieved statistical significance, the relationship between per capita state Title V expenditures and exposure to early intervention services ($F=.01$, $p=.03$).

Using individual-level data, forty models were again constructed testing the relationship between each of the five Title V capacity measures and each of the eight outcomes from the National Survey. Of these models, only four produced statistically meaningful results. Family participation was negatively associated with receipt of care coordination (OR=0.79, $p=.009$), as well as having used Title V services (OR=0.70, $p=.041$). In contrast, increasing the percentage of Title V funds allocated to CSHCN increased the likelihood that use of special education services was reported (OR=1.14, $p=.032$), and increasing the per child expenditures increased the likelihood that parents had heard of Title V (OR=1.25, $p<.001$).

Given the lack of meaningful relationships between indicators of Title V capacity and service use by CSHCN, we next examined the role of state political, economic and health services factors, absent any adjustment for Title V capacity. For each of the eight CSHCN outcomes, we first fit a full logistic regression model taking into account the survey sampling strategy. Next we fit stepwise reduced models using sampling weights and clustering on state (because stepwise is not an option with survey commands in Stata). Finally, we fit a reduced logistic model predicting the National Survey outcome using the statistically significant state capacity measures from the reduced stepwise models, adjusting for individual socio-demographic variables.

Overall, few state capacity measures predicted these National Survey outcomes (Table 3). Of those that were associated, most fell within the category of health systems measures. Lack of insurance was associated with decreased odds of early intervention services and receipt of professional care coordination and increased odds of delayed or missed care, but also slightly increased odds of reporting a usual source of care. As per capita Medicaid expenditures on children increased families were more likely to report receipt of special education services, a usual source of care, and receipt of early intervention services, although only special education services achieved statistical significance. Only two of these measures were associated explicitly with Title V. The greater the supply of generalist physicians, the more likely families were to report having heard of Title V and as the per capita gross state product increased, among families that had heard of Title V, they were less likely to report using Title V services. Families in states that used a functional definition of CSHCN reported increased likelihood of delayed care, as well as a decreased likelihood of receiving professional care coordination. The percent of Gross State Product that the state allocates to health was associated with having a usual source of care and weakly, although not significantly, associated with receipt of early intervention services.

The measure of state economic capacity—per capita gross state product—was associated with three intermediate outcomes. Families in wealthier states were more likely to report receipt of special education services, and receipt of professional care coordination, but less likely to report receipt of Title V services.

Table 1: Univariate Distribution of State Title V CSHCN Capacity Measures

Variable	Mean±SD	Median	Range
Ratio of State/Federal Title V spending	3.11±4.09	1.57	.0078-21.51
Per capita State Title V expenditures using state population of children	$19.71±18.92	$11.41	$0.07-$83.70
Percent of State Title V expenditures spent on CSHCN	34.64±20.14	32.64%	0-86.8
State per child expenditures on CSHCN	$93.06±163.31	$33.69	0-930.13
Total score on family participation	13.2±3.13	13.5	5.0-18.0

* While states are required to provide a minimum of $3 state for every $4 federal dollars in the MCH Services Block Grant, the Title V Information System reports three states (Idaho, Montana, and North Dakota) with ratios of less than ¾.

Table 2: Summary of the Models of the Relationship between State Capacities and Title V Capacity

	Coefficient	S.E.	t	P>t
RATIO				
%CSHCN	-116.81	34.93	-3.34	**0.002**
SUBSUPPLY	2.41	0.92	2.62	**0.012**
constant	15.32	4.38	3.5	0.001
PERSTATE				
%HEALTHGDP	8.64	3.26	2.65	**0.011**
GSPPC	10.08	3.25	3.1	**0.003**
constant	-50.43	20.41	-2.47	0.017
PCTCSHCN				
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PERCHILD				
%CSHCN	-33.18	11.02	-3.01	**0.004**
%MEDICAID	0.06	0.02	2.50	**0.016**
SUBSUPPLY	0.62	0.31	2.04	**0.047**
constant	5.76	1.39	4.15	<0.001
PARTICIPATION				
Hybrid legislature	-2.11	0.93	-2.27	**0.028**
Professional legislature	-0.55	1.21	-0.46	0.650
DefCSHCN	2.58	0.84	3.08	**0.004**
constant	10.64	1.27	8.40	0.000

Table 3: Adjusted Odds Ratios for the Association between State Capacity Measures and Children's Use of Services*

Receives Early Intervention Services among Children <2 years old	
Variable	**OR (95% CI)**
Per capita Medicaid expenditures for children	1.60 (.88-2.92)
State health funds as a % of GSP	0.85 (0.60-1.22)
Percent of Medicaid children enrolled in Medicaid managed care	0.92 (0.85-0/99
Percent of children who are	0.94 (0.89-0.99)

uninsured	
Receives Special Education Services among Children ≥ 2 years old	
Variable	**OR (95% CI)**
Per capita gross state product	1.28 (1.19-1.37)
Percent of children who are enrolled in Medicaid	1.01 (1.00-1.02)
Per capita Medicaid expenditures for children	1.28 (1.13-1.44)
Has one or more usual source of care	
Variable	**OR (95% CI)**
Percent of state GDP spent on health	1.20 (1.03-1.40)
Percent of children with special health care needs	1.17 (0.71-1.40)
Percent of children who are uninsured	1.04 (1.01 – 1.06)
Percent of children who are enrolled in Medicaid, %	0.99 (0.97 – 1.00)
Per capita Medicaid expenditures for children	1.17 (0.95 – 1.44)
Number of pediatricians/family practitioners per 10,000 children	0.98 (0.96 – 1.00)
Has a personal doctor or nurse	
Variable	**OR (95% CI)**
Number of pediatric sub-specialists per 10,000 children	1.18 (1.05 – 1.32)
Delayed or went without needed health care for child	
Variable	**OR (95% CI)**
Percent of children who are uninsured	1.02 (1.00 – 1.04)
Number of pediatric sub-specialists per 10,000 children	0.76 (0.67 – 0.87)
Classified definition of CSHCN [Categorical (Referent) vs. Functional]	1.18 (1.02 – 1.36)
Received professional care coordination among those who needed it in the past 12 months	
Variable	**OR (95% CI)**
Per capita gross state product, in $10,000s	1.64 (1.27 – 2.11)

Percent of children who are uninsured, %	0.95 (0.90 – 0.99)
Percent of children who are enrolled in Medicaid, %	1.05 (1.02 – 1.07)
Classified Definition of CSHCN [Categorical (Referent) vs. Functional]	0.72 (0.54 – 0.96)
Has heard of Title V	
Variable	**OR (95% CI)**
Number of pediatricians/family practitioners per 10,000 children	1.04 (1.02 – 1.05)
Receives services from Title V among those who have heard of it	
Variable	**OR (95% CI)**
Per capita gross state product	0.68 (0.56 – 0.82)

* Adjusted for individual socio-demographic characteristics, including: mother's education, child's sex, child's age, race/ethnicity, poverty status, and type of insurance.

V. Discussion and Interpretation of Findings

As reported in the Title V Information System, states vary widely in their financial support for Title V and family participation in Title V policy and program development. It is noteworthy that few measures or indicators of political, economic or health systems capacity are associated with Title V capacity, as defined in this project, nor with measures of well-being as reported in the National Survey.

The percentage of CSHCN was negatively associated with two Title V capacity measures: (1) the state dollars devoted to meeting the required match; and, (2) the state per child expenditures on CSHCN. These relationships suggest, not surprisingly, that there is a finite level of state resources that states are able to allocate for CSHCN.

It is troubling from the perspective of federal monitoring that there were no state capacity measures predictive of the percentage of state Title V dollars (PCTCSHCN) spent on CSHCN, because the percentage is a simple way to standardize among the states for comparison purposes. It is important to note, however, that such a percentage would not take into account differences in health care service costs or the ability to pay for programs, as demonstrated in the GAO analysis of MCH Block Grant funding (12). While state economic capacity, as reflected in GSP per capita was not associated with CSHCN in particular, this measure was associated with overall per child Title V expenditures.

The only non-financial capacity measure that we explored was family participation in Title V policy and program development. The strategy of family participation at the state level is one approach to enhancing the concept of

family-centered care. Interestingly, this was the only measure that was associated with any of the indicators of governmental structure, although in an equivocal way. One might hypothesize that the "professional" legislature, with the availability of staff and other resources, would more effectively seek out the formal participation of family members in a specialized, but politically visible, area, such as CSHCN. At the other end of the spectrum, a "citizen" legislature, with limited resources, might also cultivate family participation as a way to collaborate. Our finding tentatively supports both hypotheses in that the "hybrid" legislatures were less likely to be associated with high scores in family participation. The other capacity measure associated with family participation was the definition of CSHCN used by the state. States using a functional definition showed stronger family participation. This might indeed reflect the political role of families in helping to broaden the traditionally narrow categorical definition of CSHCN.

Turning to the intermediate outcome—the use of services reported by families in the National Survey of Children with Special Health Care Needs, there was virtually no relationship among the indicators of Title V capacity and the state-level use of services by CSHCN; 40 models produced only 1 statistically significant result. A similar individual-level analysis, taking advantage of the large sample size of the National Survey and the ability to adjust for a variety of demographic characteristics, resulted in only four relationships among the 40 possible models. It is noteworthy and unsettling that as family participation in policy and program development increased, the likelihood of families reporting the use of care coordination or the use of Title V services decreased. It is important to emphasize, however, that all of these relationships derive from cross-sectional analysis, so it is not possible to determine the causal direction.

The limited capacity of state economic, political, and health systems capacity measures to predict intermediate outcomes in the National Survey reflects the results in attempting to predict Title V capacity. Most associations fell within the realm of health systems capacity, a not unexpected finding, given the primary focus of Title V on health, its leadership in articulating and carrying out the core functions of public health, and the federal expectations for collaboration among Title V, Medicaid and the community of health professionals within a state. Indeed, individual characteristics of survey participants seemed to be stronger predictors than were state characteristics.

Theoretically, Title V may play a role in each of the intermediate outcomes under study, even though we were able to demonstrate only four associations between Title V capacity measures at the individual level and virtually none at the state level of analysis. Family participation was associated with decreased report of receipt of care coordination and use of Title V services, the percent of Title V funds allocated to CSHCN was positively associated with receipt of special education services, and the state per child expenditures on CSHCN was associated with having heard of Title V. For our analysis, the National Survey includes two measures of Title V—heard of Title V and received services from

Title V. Only two state capacity measures were associated with these measures; families in states with a greater supply of generalist physicians were more likely to have heard of Title V and families in states with higher per capita GSP were less likely to have used Title V services.

Given the fact that Title V is a partnership between state governments and the federal government, it remains important to understand what state factors or characteristics may influence the ability of states to achieve the goals of the MCHB as a lead agency in federal efforts to "improve the health of all mothers and children consistent with the applicable health status goals and national health objectives established by the Secretary (of HHS)" (12). Furthermore, given this purpose of the MCHSBG, it is critical to understand why indicators of Title V capacity bear little relationship to the well-being of CSHCN in the states.

There are several limitations in this analysis. First, the variables derived from the Title V Information System have not previously been validated. While the TVIS represents an effort to standardize reporting, states have considerable flexibility in how they define what constitutes each indicator. For example, other than restrictions on the use of other federal funds to meet the match requirement, states have leeway in defining dollars that are used for their match. This was clearly reflected in the fact that three states reported state Title V matches that were below the federally mandated $3 state for every $4 federal. Similarly, the methods for determining family participation are not standardized among the states. A second limitation stems from the cross-sectional design of this analysis, so it is not possible to determine causality in the relationships that we have described. For example, the positive association between Title V expenditures on CSHCN and the percentage of children enrolled in Medicaid could mean that Title V plays a role in advising or securing enrollment in Medicaid or that enrollment in Medicaid creates or stimulates demand for Title V services and funds. Finally, there are potentially many determinants of Title V capacity that we have not been able to identify for analysis.

Given the fact that Title V is a partnership between state governments and the federal government, it remains important to understand what state factors or characteristics may influence the ability of states to achieve the goals of the MCHB as a lead agency in federal efforts to "improve the health of all mothers and children consistent with the applicable health status goals and national health objectives established by the Secretary (of HHS)" (17). The fact that few state capacity measures are associated with any of the five dimensions of Title V capacity in this investigation raised two important issues for policy and future research. With regard to policy, there should be an understandable and justifiable mechanism for the allocation of federal funds to the states or more generally for providing guidance to the states on their programs. As reflected here, there appears to be little relationship between what the states are capable of doing with regard to Title V and what they are actually doing. Similarly, there should be a relationship between the investment in Title V by the states and the well-being of their children, in this case, CSHCN. Further, one might expect, from

the perspective of policy allocation decisions, that state economic, political and health systems capacity would be somewhat associated with the well-being of children within the state. Future research should examine other, perhaps more refined, measures of state capacity to learn more about how states can more effectively monitor and promote the well-being of CSHCN.

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VI. List of Products

Presentations:

- Margolis, L.H., Mayer, M., Farel, A., & Clark, K. State Capacity and the Well-being of Children and Youth With Special Health Care Needs. Presented at the Annual Meeting of the American Public Health Association, Boston, Massachusetts, 2006.
- Margolis, L.H., Mayer, M., Farel, A., & Clark, K. State Capacity and the Well-being of Children and Youth With Special Health Care Needs. Presented at the Annual Meeting of Academy Health, Seattle, Washington, 2006.
- Margolis, L.H., Mayer, M., Farel, A., & Clark, K. State Capacity and the Well-being of Children and Youth With Special Health Care Needs. Presented at the Annual Meeting of the American Public Health Association, Philadelphia, Pennsylvania, 2005.

Manuscripts in preparation:

- Margolis, L.H., Mayer, M., Farel, A., & Clark, K. The Relationship between State Capacity Measures and Allocations to Children and Youth With Special Needs within the MCH Services Block
- Margolis, L.H., Mayer, M., Farel, A., & Clark, K. State Capacity and the Well-being of Children and Youth With Special Health Care Needs