

# Performance Outcomes Measurement System

## *Preliminary Report on Service Outcomes Related to Health Access*

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### **Introduction**

A study proposed at the first of the year to address the relationship between health access and health is underway. However, as the Commission continues its deliberations on health access, some of the information uncovered in preparation for that report may be beneficial to the Commission sooner than the full report is prepared. This preliminary report contains data focused on health access and related outcomes that have been compiled from the Commission's database. Additionally, in an early phase of the literature review for the full study, one particularly salient article was discovered that shed light on the relationship between health insurance and health. The article is also briefly summarized herein.

### **Data for the report**

*Service outcomes data.* Data for the report come largely from the Service Outcomes data in the Commission's database (these data were formerly called Project Level Questions). The Service Outcomes Questions are directly related to the Commission's Strategic Plan objectives and are completed by a parent or provider as a child “exits” from a program or has completed a particular service with the program. The questions, usually three or four in number, are designed to evaluate the results of the family’s contact with a Commission-funded program. Programs only answer those sets of questions related to the Strategic Plan objectives to which their work is contributing. Therefore, unlike the Core Data Elements (CDE) questionnaire, which is completed by all programs, not all programs answer all sets of Service Outcomes Questions. As a result, there are fewer responses to the Service Outcomes Questions than there are responses to the CDEs, which have been used to develop the POMS Quarterly Reports. In addition, collection of Service Outcomes data only began in July of 2003, allowing for 18 months of data collection before the data for this report was drawn, compared to 3 years of data for the CDEs.

*Data sources.* The data presented in this report come from Commission-funded programs that have had sufficient interaction with the families to foster change. Although the Bridges hospitals piloted some of the Service Outcomes questions, due to changes in the

program model that shortened the length of time the hospitals interact with a family, service outcomes data for the Bridges program are collected only by the Bridges Home Visitation providers, and not by the hospitals. The pilot data from the Bridges hospitals are not included in the analyses presented here because it would overly complicate the interpretation of the results. In addition, to maximize the relevance of the initial interview (CDE) data used for comparison purposes, as described below, the Bridges hospital data was excluded. Therefore, none of the data used for this report comes from the Bridges hospitals.

*Interpretation of the data.* Under ideal circumstances the Service Outcome data would be linked to the CDEs, which are collected when children first enter a program. Unfortunately, it was not possible to link the data and check the accuracy of the link in time for this report. Instead, information from the CDEs will be provided, separately, as a kind of *quasi* baseline against which the Service Outcome results can be more easily compared, even though Service Outcome data for a particular child are not matched to the initial interview. A more precise comparison will be made in a subsequent report on all Service Outcomes for which data are currently available. Because the amount of information available in the Service Outcome data is far less than what is currently available from initial interviews, it is unclear how stable percentages reported for Service Outcomes have become. Therefore, it is extremely important to resist the strong temptation to over-interpret results. More data will provide more stable statistics, but until such time as sufficient Service Outcome data have accumulated, the percentages reported should be considered preliminary. Sample sizes are reported on all charts to help support the interpretation process.

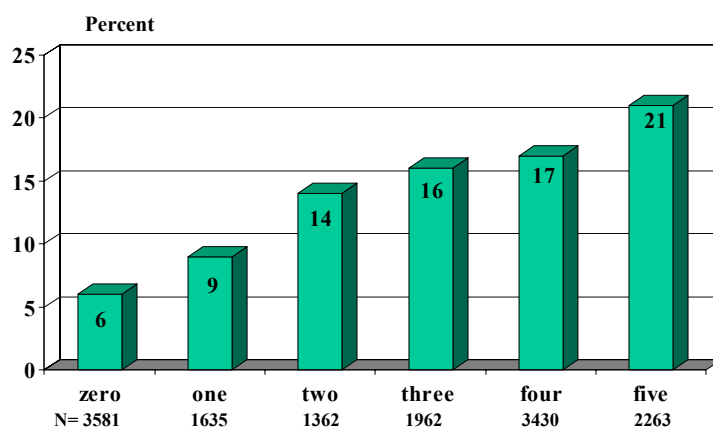
## **Overview of the Report**

The presentation of service outcome results will focus in three areas: Acquisition and retention of health coverage, establishment of a medical home, and completion of immunizations. The presentation of these results will be followed by a summary of an article from the recent literature on health access: “What Do We Really Know about Whether Health Insurance Affects Health?” by Helen Levy and David Meltzer. It appears as a chapter in a recently published (2004) Urban Institute compendium *Health Policy and the Uninsured*.

## **Service Outcomes**

*Health Insurance Coverage.* A review of Service Outcomes for health coverage begins with a review of results from previous POMS Quarterly Reports focused on the status of coverage at the initial interview. Those data have shown that Commission-funded programs encounter an increasing number of children without coverage as the children age. Figure 1 shows the relationship between being uninsured and age for all years for which there are data. By the time children reach five years of age, the number of uninsured has climbed to 21 percent.

**Figure 1. The Number of Uninsured Children by Age as Seen at the Initial Interview (all years, all non-Bridges)**

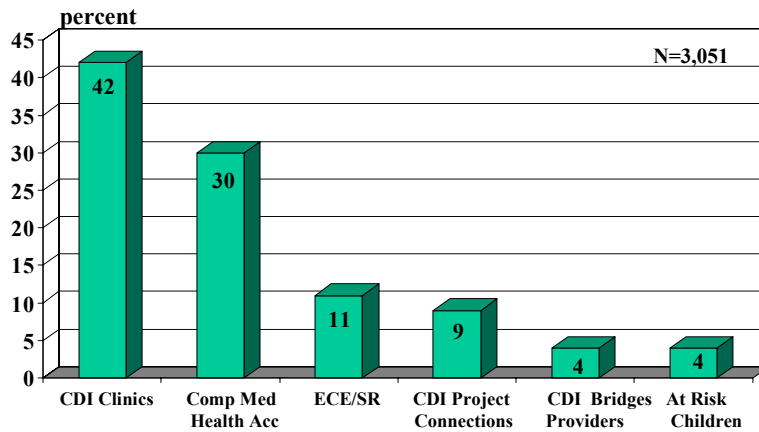


When a child “exits” from a program or completes a service, programs that are contributing toward achievement of the Commission's Strategic Plan Objective to *Increase to 100% the number of children with health coverage*, answer the following questions:

- Did anyone from this program complete an application for medical coverage or health insurance for this child?
- Did you refer this child to another agency to have an application of medical coverage or health insurance completed?
- Is this child now enrolled?
- Has the family selected a medical plan or doctor for this child?

Responses to this series of service outcome questions are currently available for 3,051 children. Figure 2 provides a breakdown of those responses by the Commission’s funding categories. As the figure suggests over 70 percent of the outcome data for this objective are supplied by Commission Directed Initiative (CDI)-clinics (four CHOC/UCI clinics plus the Friends of Children Clinic) or the Comprehensive Medical Services/Health Access program grants. The remainder originates in the Early Childhood Education/School Readiness programs (State School Readiness not included), Project Connections, Bridges Home Visitation Providers or the At-Risk Children/Family Counseling/Parent Education program grants.

**Figure 2. Programs Responding to Service Outcome Questions for Access by Funding Category**



Programs were advised to complete the Service Outcomes questions only on children for whom they had provided a specific service. Therefore, it was not anticipated that a program would complete the Service Outcomes questions for health coverage on children who already had health insurance. However, programs that checked health insurance status appear to have completed the Service Outcomes questions regardless of whether the child had health insurance already or not. As summarized in Figure 3, analysis of the data indicates that only 30 percent (n=915) of the children about whom these questions were answered did not have health insurance when encountered by the program. Of these, applications were completed for 69 percent (634/915), while no application was completed for 27 percent (247/915) and 4 percent (34/915) were lost to follow up. The Service Outcomes questions do not gather information on why no application was completed.

**Figure 3. Number of Children Encountered With and Without Coverage (Bridges Hospitals Excluded)**

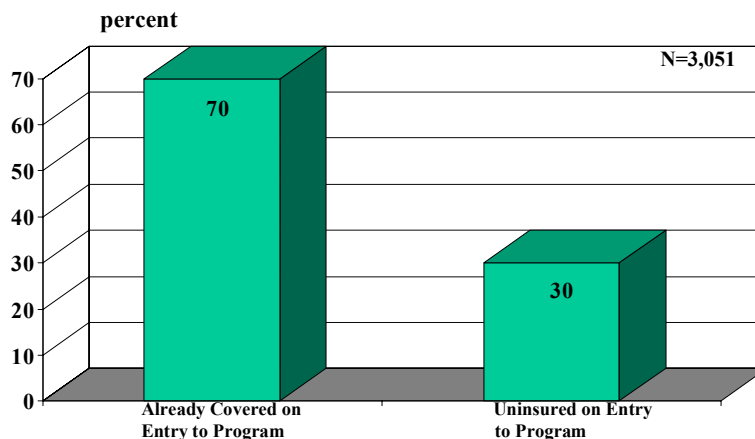
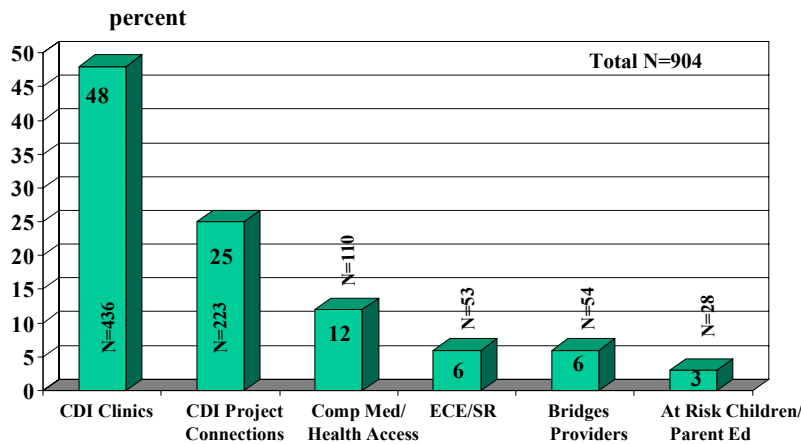


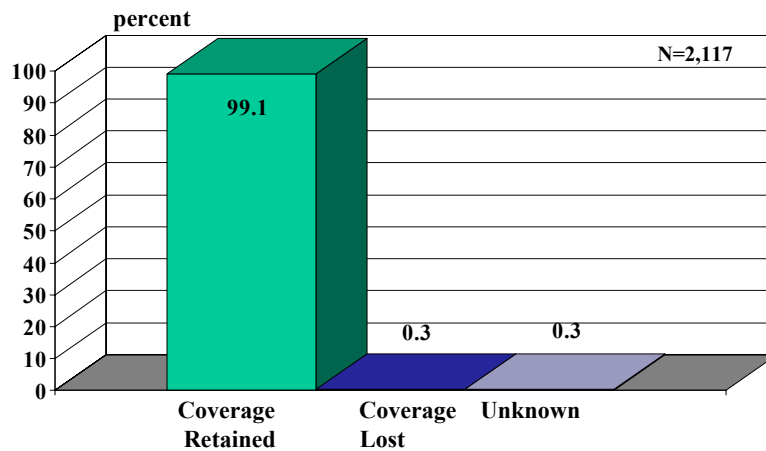
Figure 4 shows the distribution of children needing coverage across funding categories. As seen in the figure, 73 percent of the children without coverage were encountered in the various CDI-clinics or through Project Connections, while the remaining children were encountered in the other funding categories.

**Figure 4. Distribution of Children Arriving in Programs Without Coverage Across Funding Categories (Bridges Hospitals Excluded)**



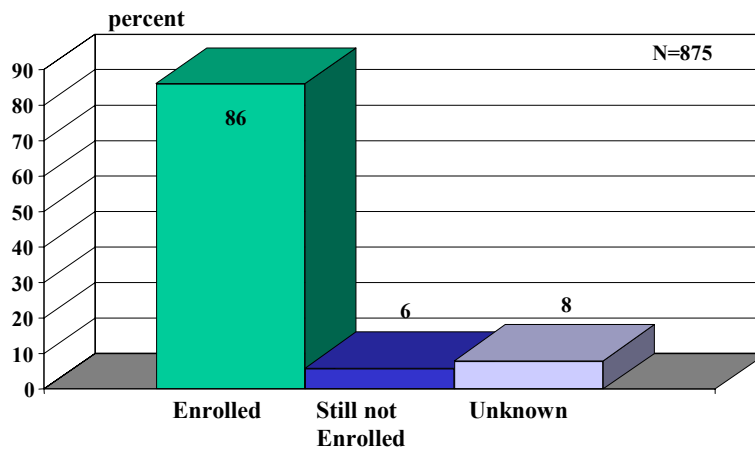
For children who were encountered *with* Health Care Coverage, Figure 5 shows that nearly 100 percent retained their coverage, while only a few lost their coverage or were lost to follow up.

**Figure 5. Outcomes for Children who Entered Program with Coverage (Bridges Excluded)**



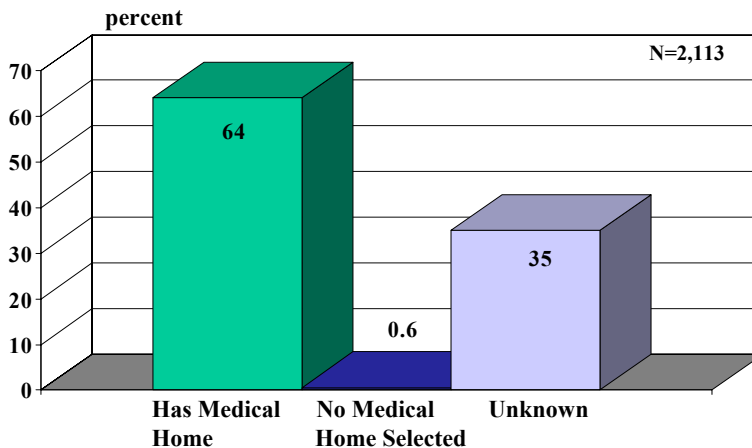
For children who were encountered *without* coverage (see Figure 6), 86 percent (n=753) were enrolled at the time they “exited” the program. Six percent (n=52) were still not enrolled and 8 percent (n=70) were lost to follow up. Data were not available for an additional 40 children. These results, if maintained over time, will substantially advance levels of coverage closer to the Strategic Plan objective for coverage.

**Figure 6. Coverage Outcomes for Children who Entered Without Coverage (Bridges Excluded)**



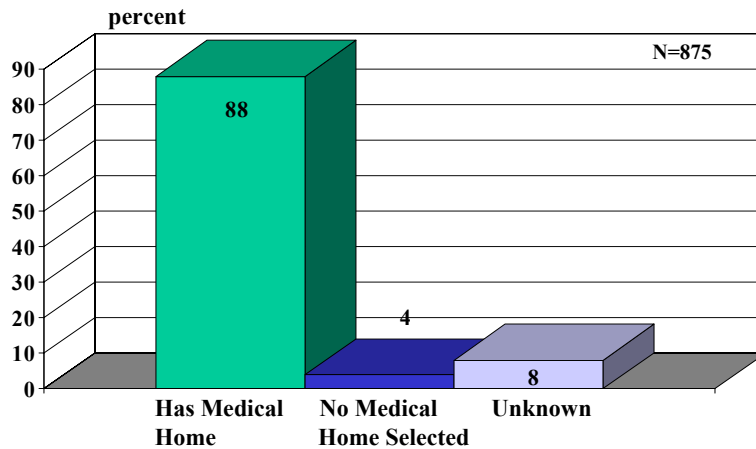
The series of questions focused on health coverage also asked parents and providers whether or not the family had selected a medical plan or doctor for the child. Figure 7 summarizes the responses to that question for children who were encountered in the program initially *with* health care coverage. As seen in the figure, by program “exit” 64 percent of those children were known to be linked to a regular doctor or medical plan, while no medical home had been identified for less than one percent. A larger number of children, some 35 percent, were lost to follow up on this question.

**Figure 7. Medical Home Outcome for Children who Entered with Coverage (Bridges Excluded)**



As seen in Figure 8, 88 percent of children *without* coverage initially had a medical home by the time they “exited” the program. Four percent had not identified a plan or doctor and 8 percent were lost to follow up.

**Figure 8. Medical Home Outcome for Children who Entered without Coverage (Bridges Excluded)**

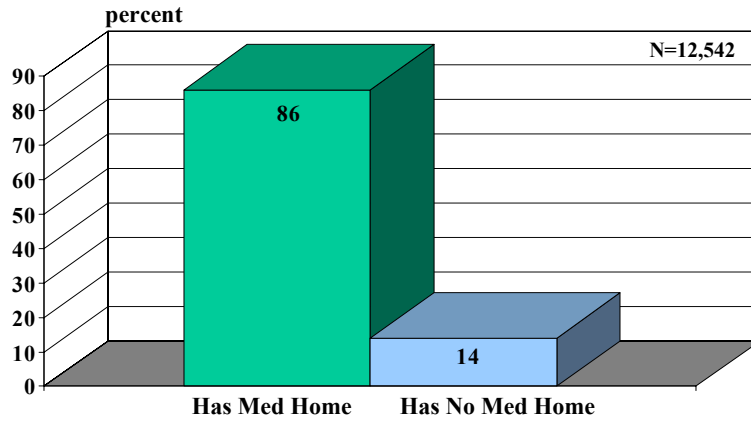


*Medical Home.* In addition to the just-analyzed question about the identification of a medical home, another set of Service Outcome questions addresses the Strategic Plan objective to: *Increase to at least 95% the proportion of children who have a health care home.* In order to evaluate this objective, a series of five questions were asked of parents and/or providers:

- Tell me if you agree with this statement: It is important to take my child to the doctor or clinic even when he/she is not sick.
- My child goes to the same doctor or clinic every time (yes or no).
- If you don't have a regular doctor or clinic for your child, what is the single most important reason?
- Did the program provide instruction to this parent about the importance of preventive health care for children?
- In your professional opinion, was your program instrumental in helping this parent secure a medical home for his/her child?

The medical home status of children at the initial interview is summarized for purposes of baseline reference in Figure 9. As seen in that figure, 14 percent of children served outside of Bridges for Newborns hospitals were observed to have no medical home at the time of their initial interview.

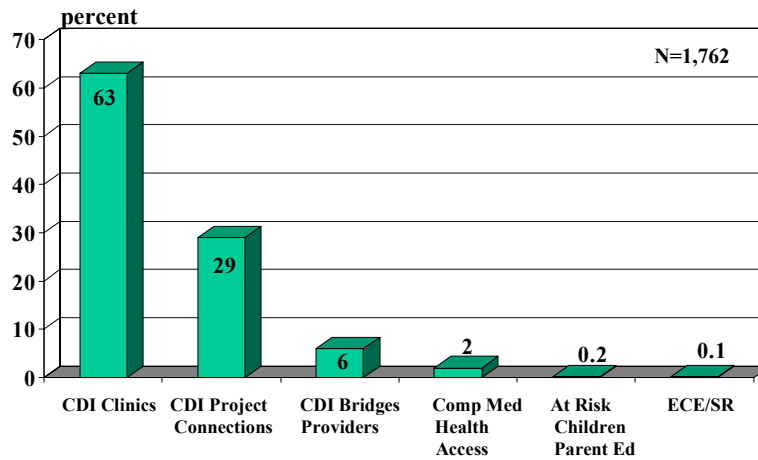
**Figure 9. Medical Home Status of Children at Initial Interview\***



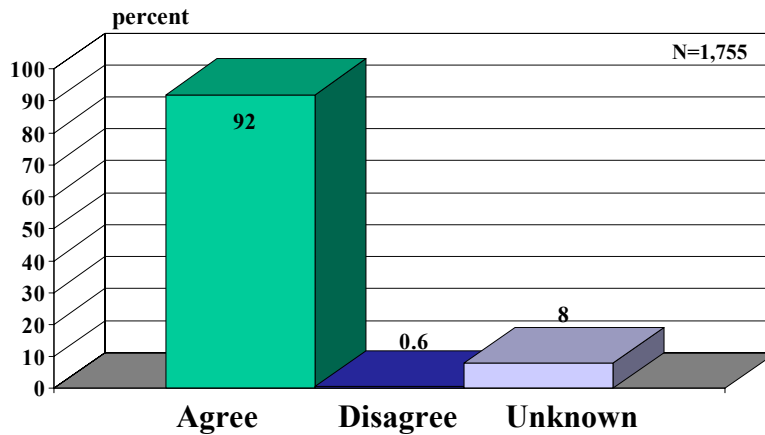
\*Initial interview for CDOM (Bridges Hospitals excluded)

A total of 1,762 parents and providers responded to this series of questions. Figure 10 shows the funding categories that are working to connect children to a medical home and completing this set of questions. As seen in that figure, over 90 percent of the responses to this set of service outcome questions were provided by CDI-clinics and the various grantees in Project Connections.

**Figure 10. Programs Responding to Service Outcome Questions for Establishing a Medical Home by Funding Category**



**Figure 11. Parents who Concur with the Concept of Preventive Care After Education**

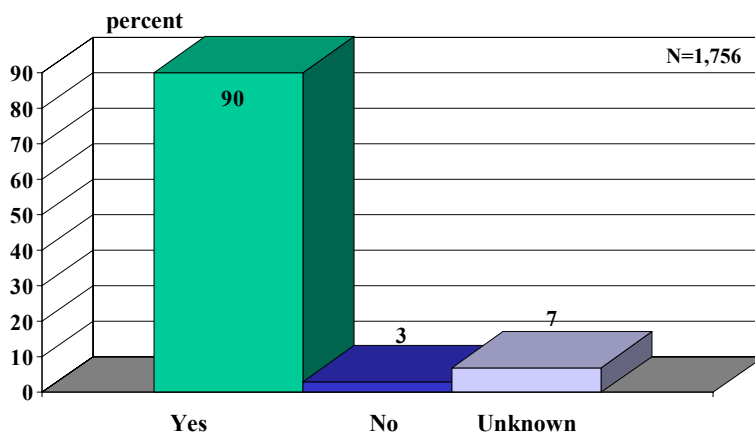


“It is important to take my child to the doctor even if s/he is not sick.”

Figure 11 summarizes the responses of parents to the first question about whether they now believe a child should be seen by a doctor or clinic even when not sick. As the figure suggests, 92 percent of parents agree with the concept of preventive care after having contact with the program providing education about preventive care.

Parents were also asked to report whether or not their child went to the same doctor or clinic every time. Parents’ responses to this question after program education are summarized in Figure 12. As seen there, 90 percent of parents report that their child is seen in the same clinic or by the same doctor on each visit, a value still somewhat short of the strategic plan objective. Among the 97 parents who had not yet established a medical home for the child served by the

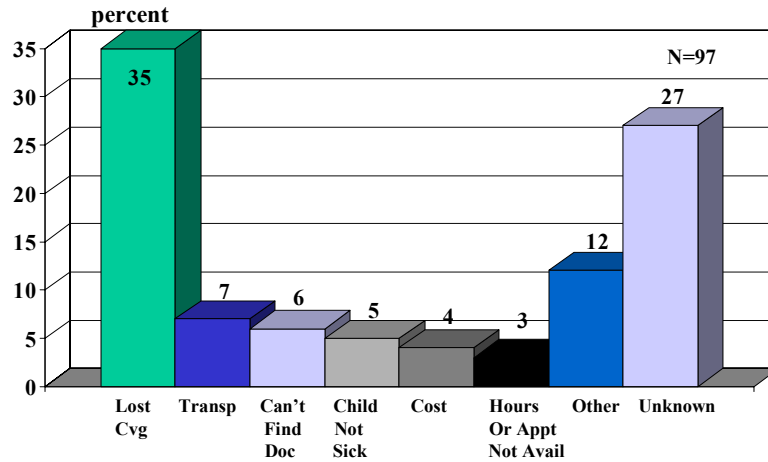
**Figure 12. Parents who Report Having a Medical Home After Program**



“My child goes to the same doctor or clinic every time.”

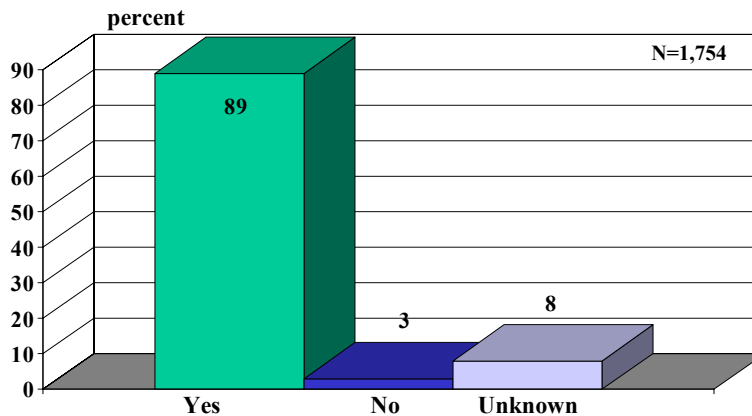
responding program, a number of reasons were named as to why no medical home had been chosen. The reasons are summarized in Figure 13.

**Figure 13. Parents' Most Important Reasons for Not Having Medical Home**



As the figure suggests, when the reasons were known, the most common reason given was lost coverage, followed by issues related to transportation, inability to locate a physician, cost or convenience (clinic hours or lack of appointments prevented access). The small number of responses and the relatively large number of “other” and “unknown” responses suggest more data will be required before these results become reliable.

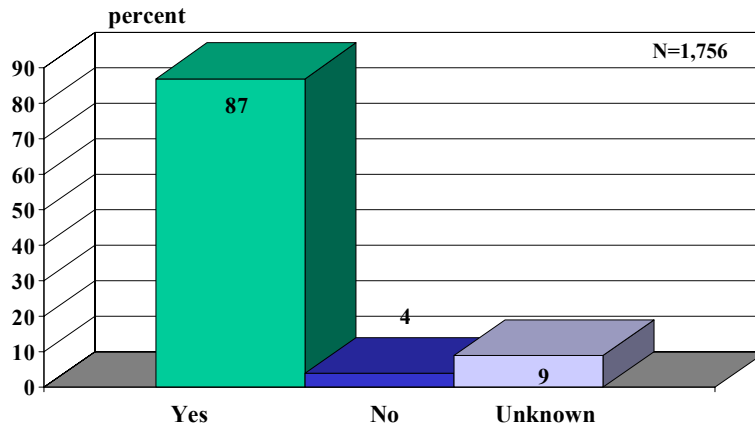
**Figure 14. Provider Report: Did the Program Provide Instruction to Parent about the Need for Preventive Care**



Providers were also asked whether they instructed parents about the importance of preventive health care for children. The responses to this query are summarized in Figure 14. As seen in this figure, providers responded that 89 percent of parents had received instruction regarding

preventive care while only 3 percent did not. In 8 percent of cases providers did not know if instruction was received.

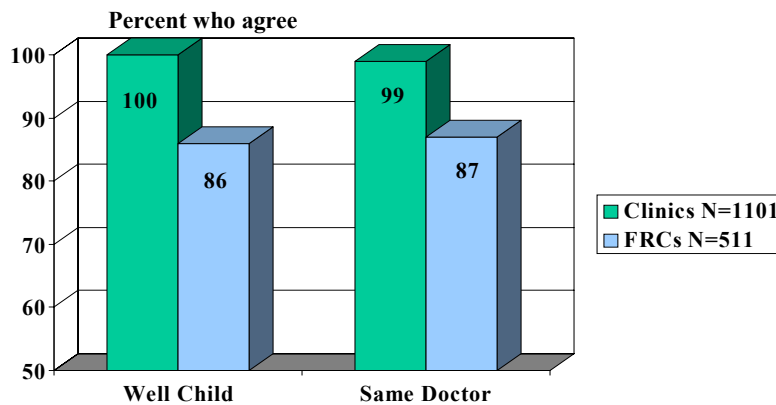
**Figure 15. Providers' Judgment: Was Program Instrumental in Finding Medical Home?**



Providers were also asked to report whether their program had been instrumental in helping parents secure a medical home for their child. Their responses are summarized in Figure 15. This figure indicates that providers responded in the affirmative for 87 percent of the parents who passed through their programs. They also responded that they did not help secure a medical home in 4 percent of cases, while the outcome related to an additional 9 percent remains unknown.

The majority of the responses about identification of a medical home for children came from two funding categories, the CDI-clinics and Project Connections (FRCs) (see Figure 10). Figure 16 displays the service outcome results for identifying a medical home for these two categories.

**Figure 16. Comparison of Outcomes for Clinics and FRCs: Well Child Visits and Medical Home\***



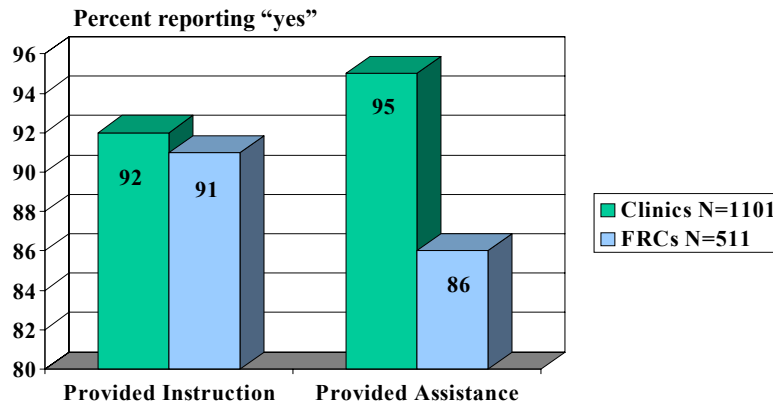
\*It is important to take my child to the doctor even if not sick.  
My child goes to the same doctor or clinic every time.

The clinics' data show that virtually all parents concurred with statements regarding the need for preventive care as well as the need to return to the same setting for health care. It is likely that parents who already are in the clinical setting are there because they understand the value of a medical home. Project Connections (FRCs in the figure), provides health-related services in the home and may be working with families for whom the concept of a medical home is quite foreign.

Although it may be tempting to compare the results shown in Figure 16 with the "baseline" in Figure 9, caution is recommended. The two figures are not comparable because Figure 16 is broken down by funding category and Figure 9 is not. Future analyses will link the initial interview data to the service outcomes data to better understand the relevant baselines and comparative outcomes.

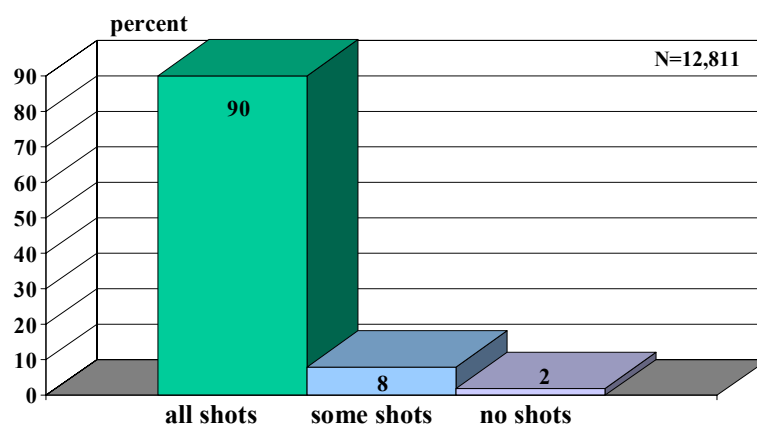
Figure 17 again compares CDI-clinics and Project Connections (FRCs) to learn the percentage of parents who received instruction in preventive care concepts and assistance in identifying a medical home. As seen in the figure, both clinics and FRCs provided instruction to over 90 percent of the clients for whom there is data. Clinics reported providing more assistance with connecting a child to a medical home than the FRCs but were also in a better position to do so.

**Figure 17. Comparison of Medical Home Outcomes for Clinics and FRCs: Instruction and Assistance with Obtaining a Medical Home**



*Immunizations.* The third service outcome area examined for this report was the status of children's immunizations, as related to the Strategic Plan objective to: *Increase age appropriate immunizations to at least 95%*. Figure 18 presents data obtained on immunization status during the initial interviews by all programs (except Bridges hospitals) for children ages zero to five for all three years for which the data are available.

**Figure 18. The Status of Children’s Immunizations at Initial Contact\***



\*Initial interview for CDOM, ages 0 to 5, all years, Bridges hospitals excluded

Both the category “only some of the recommended shots” and “none of the recommended shots” fall outside the range of the objective, thus the figure suggests that immunization status is less than desirable for 10 percent of children at the initial interview. The goal of the grantees, therefore, is to lower that number. The service outcome questions attached to this objective are as follows:

- Does this child have a regular health care provider or clinic who is managing his/her immunizations?
- Has this child received a yellow immunization card/booklet?
- What is the status of the child’s immunizations?

Data are currently available for just over one-thousand clients for the first two questions in the series. The last question, added in July of 2004, has data for only 274 clients.

Programs in four funding categories provided data on immunizations as seen in Figure 19. Nearly half the data (47%) were supplied through Project Connections programs while an additional 31 percent came from the Early Childhood Education/School Readiness (ECE/SR) group. The final 22 percent originated in the At Risk Children/Parent Education Group and the Comprehensive Medical Services/Health Access Funding Category.

**Figure 19. Responses to Service Outcomes for Immunizations by Funding Category**

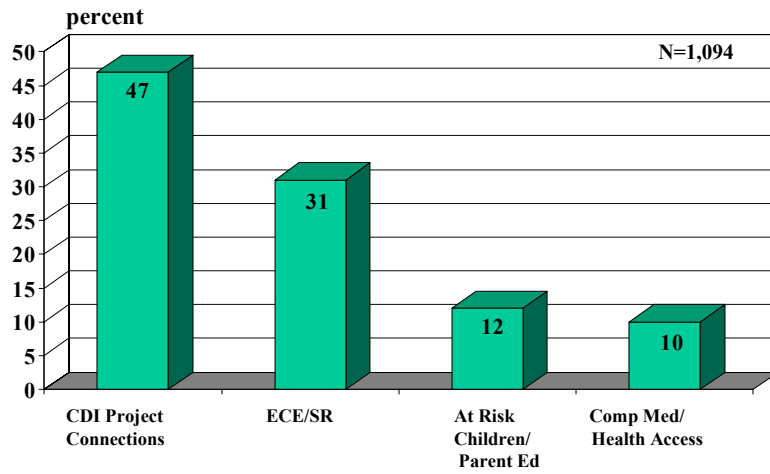
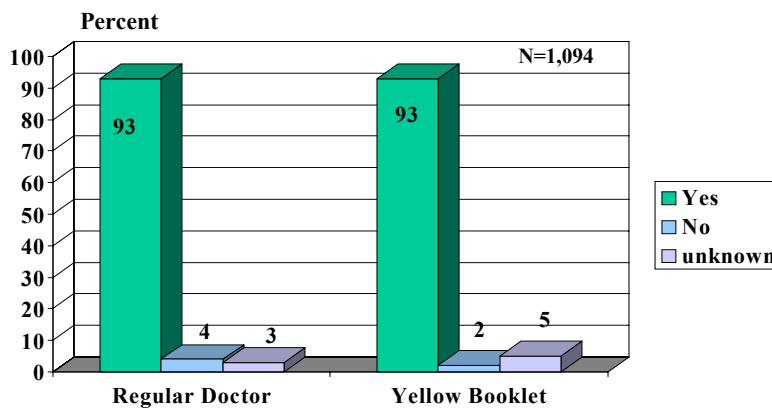


Figure 20 displays responses for all funding categories for the first two questions in the series: *Does this child have a regular doctor who is managing immunizations?* and *Has this child received a yellow immunization booklet?* As seen in the figure the majority of children (93% in both cases) has a regular doctor who manages their immunizations and has a yellow immunization booklet.

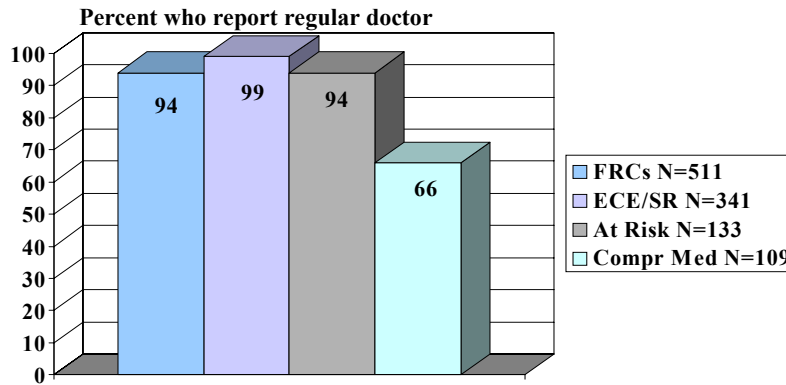
**Figure 20. Immunization Service Outcomes\***



\*Does this child have a regular doctor who is managing immunizations?  
 Has this child received a yellow immunization booklet?

When the comparison is broken down by funding categories, the results are seen to vary. Figure 21 compares the number of children whose immunizations are managed by a regular doctor across the four funding categories that address this objective.

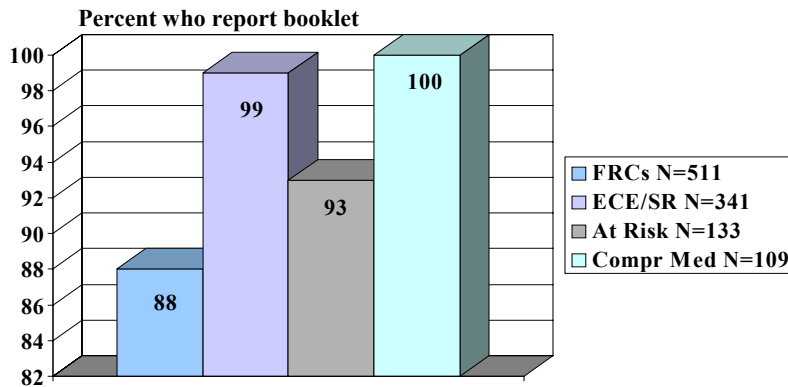
**Figure 21. Comparison of Outcomes Across Funding Categories: Regular Doctor to Manage Immunizations\***



\*Does this child have a regular doctor who is managing immunizations?

To the extent that having a regular doctor to manage immunizations is tantamount to being age appropriately current with immunizations, these results show three of the four funding categories to be reaching or exceeding the strategic plan objective of 95 percent. However, this figure also shows that the breakdowns result in some categories having few responses. Thus the small numbers call the reliability of the data, at least temporarily, into question. In particular, it is unclear whether the 34 percent of children (not shown in the figure but treated by the Comprehensive Medical Services group) who, by implication, do not have a doctor to manage immunizations is a dependable result. As the data accumulate in future analyses, the results should become clearer.

**Figure 22. Comparison of Outcomes Across Funding Categories: Child Issued a Yellow Booklet\***

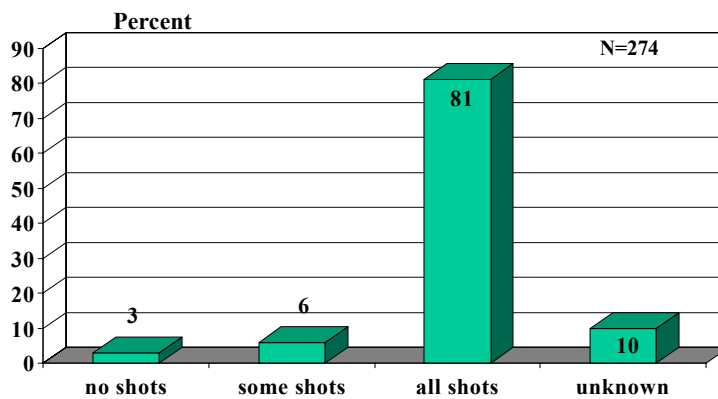


\*Has this child received a yellow immunization booklet?

The same problem arises when funding categories are examined to learn whether a child was issued a yellow immunization booklet. Figure 22 shows again that three out of four categories do well on this service outcome, while the fourth lags behind slightly. However, as suggested above, these data should be considered preliminary.

Finally, the newest question in this service outcome series, added in July 2004, inquires about the current status of the child's immunizations, i.e., after contact with the program. The 274 responses for this item are summarized in Figure 23. As seen in the figure, 81 percent of the families queried reported that their children had received all recommended shots. However, 9 percent had not, some 6 percent receiving some shots and 3 percent receiving none at all. Again, however, although these data suggest little change since initial contact, reliability of the information must await the accumulation of more responses and development of more comparable baselines.

**Figure 23. Status of Immunizations After Program Contact (All Funding Categories)\***



\*Data collected between July 1, 2004 and December 31, 2004.

*Service Outcome Summary.* The objective for **health care coverage** was addressed across six funding categories who, between July 2003 and December 2004, collectively gathered service outcomes data on 915 children who did not have health insurance when they began receiving services from the program. Of those, 86 percent or 787 children were enrolled in an insurance program by the time the program reported on their coverage status and 770 of them had also identified a medical home. Nearly every child (99%) who was found to have coverage on entering a program still had it when the program reported their service outcomes. If the number of initially covered children who retained their coverage and the initially uninsured who left the program enrolled are combined, the results suggest that 93 percent of children encountered were enrolled in an insurance program upon “exiting” from the program that assisted them.

The objective for **establishing a medical home** was addressed across six funding categories, but 92 percent of the responses in the service outcome database to date (total N=1762) originated in CDI-clinics and Project Connections. Providers reported having given instruction about preventive care to a large majority of parents they encountered (89%) and claimed they were instrumental in finding a medical home for a majority of their clients (87%). After contact with these programs 90 percent or more parents concurred with statements about the importance of well child care and establishing a medical home.

The objective for **immunizations** was addressed across four funding categories. After contact with their programs, the majority of parents concurred with statements about having a regular doctor to manage their child's immunizations and having a yellow immunization booklet (both 93%). Very early data suggest that a majority (81%) of children had received all their age-appropriate immunizations.

### **Context for the Service Outcome Results: A Sample of Current Thinking About the Relationship between Access and Health**

In January of this year, and in response to a series of questions raised by the Commission, the POMS team submitted a written proposal to complete a small-scale study to investigate the relationship between Health Care Coverage and Health. The study was to consist of three parts:

- The specification of a theoretical model of the relationship between coverage and health that, based on current thinking in the scientific literature, would include the numerous variables implicated in that relationship
- Other findings from a selective review of the literature on which the model was based, and
- A review of relevant service outcome and other local evaluation data.

As part of the literature review leading up to the study, the POMS team discovered an article that for all intents and purposes completed the first two steps of the proposed study.<sup>1</sup> It provides a model or diagram of the relationship between insurance and health which includes a number of other components that are causally related to health and to insurance itself, for that matter. The article also provides a review of literature that investigates the relationship further and critiques both methodologies and findings. It is briefly summarized here.

The thrust of the article's argument, and the model that grows out of it, is that the main factors to be considered in a clear understanding of the relationship between insurance and health—insurance, medical care and/or utilization, health and health behaviors—are themselves influenced, i.e., caused by, any number of other factors<sup>2</sup>, some easily measured and some not.

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<sup>1</sup> Levy, Helen and David Meltzer. "What Do We Really Know about Whether Health Insurance Affects Health." In *Health Policy and the Uninsured*, Urban Institute, 2004.

<sup>2</sup> Observable characteristics of individuals such as age, race, education level and other, unobservable characteristics such as genetics, beliefs in western medicine or other practices related to ethnicity.

Given this model, observational studies that purport to have uncovered differences in the health status of insured and uninsured individuals are likely to have drawn conclusions about the relationship between coverage and health that are the consequence of the operations of variables not considered in their analyses and not insurance *per se*. That is to say, these studies can show an association between insurance and health but provide no evidence for a *causal* link.

For this reason, Levy and Meltzer focus their review on more scientifically rigorous quasi-experimental studies and one true experiment performed by RAND (The RAND Health Insurance Experiment completed in 1982). In the case of these studies they find “consistent” evidence that insurance improves the health of the insured, and they conclude that “policies to expand health insurance can also promote health”.

They are quick to elaborate upon these conclusions, however, and to draw out distinctions that act as important caveats. The first is to note that the importance of coverage varies with whose health is being considered. While some populations enjoy only small gains, “Vulnerable populations, such as infants and children on the fringes of Medicaid eligibility and low-income individuals in the RAND experiment, have the most to gain from additional resources, and they do appear to benefit from them”. The most important distinction, however, comes in their closing remarks where they finalize their conclusions with the thought that coverage is not the only path to health that policy can affect:

One is left with the conclusion that health insurance can improve health but with no evidence of exactly what interventions related to insurance will do so most effectively. The uncertainty is even greater when one also considers interventions that target health or access to medical care directly. It is clear that expanding insurance is not the only way to improve health. Public spending on health could support community health centers, screening programs for hypertension, or advertising campaigns to encourage good nutrition, to name just a few possibilities. Policies could also be aimed at factors that may fundamentally contribute to poor health, such as poverty and low levels of education. There is no evidence at this time that money aimed at improving health would be better spent on expanding insurance coverage than on any of these other possibilities.