



HEALTHCARE AND HUMAN SERVICES POLICY, RESEARCH, AND CONSULTING—WITH REAL-WORLD PERSPECTIVE.

## Indiana HIP 2.0: Evaluation of Non-Emergency Medical Transportation (NEMT) Waiver

*Prepared for:* Indiana Family and Social Services Administration (FSSA)

*Submitted by:* The Lewin Group, Inc.

*February 26, 2016*

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## Executive Summary

This goal of this report - *Indiana HIP 2.0: Evaluation of Non-Emergency Medical Transportation* - is to evaluate the experiences of the HIP 2.0 members included in Indiana’s federal non-emergency medical transportation (NEMT) waiver, as required by the federal government. The Centers for Medicare & Medicaid Services (CMS) first granted Indiana the authority to waive NEMT in 2007, as part of the original HIP 1115 Waiver Demonstration initiative; CMS subsequently approved the NEMT waiver in 2013 and 2014, and 2015.<sup>1</sup> CMS approved a new 1115 waiver, “HIP 2.0,” which took effect on February 1, 2015 and granted Indiana the authority to waive NEMT for HIP 2.0 members, except pregnant women, medically frail and certain low-income eligibility categories.

The Special Terms and Conditions (STCs) for Indiana’s 1115 Demonstration waive Indiana’s obligation to provide NEMT for one demonstration year. Per the STCs, Indiana must conduct an independent evaluation of NEMT to ‘allow the state and CMS to consider the impact of the State’s NEMT policies on access to care.’<sup>2</sup> CMS approved the State’s plan for this evaluation, which outlined the parameters of the evaluation that Indiana would perform for the NEMT waiver. The results of that evaluation are reported here. The Lewin Group was hired by the State of Indiana to conduct the HIP 2.0 evaluation, including this report on NEMT. While this report focuses only on NEMT, a comprehensive evaluation will follow in the Year One Annual Report.

### A. HIP 2.0 and NEMT Waiver Populations

The NEMT waiver applies to all HIP members, with certain exceptions: pregnant women, medically frail individuals, Transitional Medical Assistance (TMA) participants, low-income parents and caretakers, and low-income 19 and 20 year olds. These categories were not included in the NEMT waiver because per federal law, members in these categories must receive certain benefits, which include NEMT.<sup>3</sup> HIP members not included in one of these eligibility categories do not receive NEMT services from the State. This group is highlighted in *Table ES-1*; throughout this report, we will refer to this population as “members without State-provided NEMT.”

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<sup>1</sup> Enrollment for HIP 1.0 began in January 2008.

<sup>2</sup> Applicable Special Terms and Conditions are included in *Appendix D*.

<sup>3</sup> Medically frail individuals receive ABP coverage equivalent to coverage in the state plan.

**Table ES-1. State-provided NEMT benefits, by population**

Benefit Package	Population	Description	State-provided NEMT Benefits
Regular	Non-pregnant Adults	Regular plan members who are not pregnant (or 60 days post-partum)	None
State	Medically Frail	Members with serious physical, mental, and behavioral health conditions	20 1-way trips annually (<50 miles each)
	Low-income parents and caretaker relatives	Members with income below 19 percent of the federal poverty level (FPL) who assume primary responsibility for a dependent child	20 1-way trips annually (<50 miles each)
	Transitional Medical Assistance participants	Low income parents/caretaker relatives between 19 – 185 percent of the FPL who would lose Medicaid coverage due to increased earnings, but who, under Transitional Medical Assistance, continue to receive Medicaid services for up to 1 year	20 1-way trips annually (<50 miles each)
	Low-income 19 and 20 year olds	Members with income below 19 percent of the FPL who live in the home of a parent or caretaker relative	20 1-way trips annually (<50 miles each)
	Pregnant women	Pregnant women, up to 60 days post-partum	20 1-way trips annually (<50 miles each)

Note: Members can receive more than 20 trips if they receive prior authorization from their MCE.

Second, of the three Managed Care Entities (MCEs) providing services to HIP members, one provides NEMT services to enrolled members that appear to be comparable to those provided by the State for members excluded from the waiver. This MCE provides NEMT as an added benefit to enrollees; the State does not fund the benefit.<sup>4</sup> For the purposes of this report, we will refer to these members as “members with MCE-provided NEMT” and “members without MCE-provided NEMT.” *Table ES-2* compares NEMT benefits provided by MCEs and the State.

<sup>4</sup> Per federal law, specifically 42 CFR §438.6, MCE’s may cover services in addition to those covered under the state plan, but the cost of these services cannot be included when determining payment rates.

**Table ES-2. NEMT benefits: mandated benefits vs MCE-provided benefits, by population**

Benefit Package	State-provided NEMT benefits	MCE-provided NEMT Benefits		
		Anthem	MDWise	MHS (Managed Health Services)
Regular	Do not receive NEMT	20 1-way trips annually (≤50 miles each)	None	None
State	Receive NEMT 20 1-way trips annually (<50 miles each)	Unlimited trips	20 1-way trips annually (≤50 miles each)	Unlimited trips

Note: State-provided NEMT benefits are slightly different from MCE-provided NEMT benefits. The State covers 20 one-way trips of less than 50 miles without prior authorization, whereas Anthem and MDWise cover 20 one-way trips *less than or equal to* 50 miles without prior authorization. Both members with State-provided NEMT and with MCE-provided NEMT can receive more than 20 trips if they receive prior authorization.

Taken together, roughly two thirds of the HIP 2.0 covered population receives NEMT services, either directly from the State or through their MCE.

## B. Data Sources, Analysis, and Limitations

This report implements the evaluation design plan agreed upon by the State and CMS in the Final Evaluation Plan (submitted December 2015). Several data sources were used, including member and provider survey data, eligibility and enrollment data, claims and encounter data, public transportation data, geographic data, and Health Resources and Services Administration’s Area Health Resources Files. Member and provider surveys were developed for this evaluation and are the primary sources of data for this analysis. The surveys covered a broad range of issues including satisfaction with HIP, access to care, awareness of HIP policies, and affordability. This report focuses on the questions related to missed appointments and transportation issues as they pertain directly to the NEMT analysis. The member survey sampling approach was based on a quota-based sample where the number of completed surveys was designed to have similar proportions of respondents to the universe of HIP 2.0 members along the dimensions of State-provided NEMT coverage, as well as participation in the HIP Plus and HIP Basic plans. Survey responses are weighted to reflect statewide demographics of the HIP 2.0 population. It should be noted that at the time of this report, Lewin was examining refinements to the weights used in the statistical analyses. We do not expect these refinements to change the weighted percentages reported by more than one percentage point. In most cases we expect that the impact of the revised weights will not change the estimates reported in this report and hence will have no impact on conclusions.

Sample sizes for the study were determined in order to detect large differences across populations – greater than 10 percentage points – using standard levels of statistical confidence. These differences were deemed substantial from a policy perspective for populations of interest

in aggregate.<sup>5</sup> However, the ability to detect statistically significant differences for subgroup analyses (e.g., by age or county), which would rely on smaller subsets of the overall sample, would be lower.<sup>6</sup> For this reason, we rely primarily on descriptive statistics to develop insights about the evaluation aims.

As this report focuses on the population without State-provided NEMT, another important limitation is the lack of a similar comparison group to understand what care experiences would have been in lieu of waived transportation benefits. These limitations limit the ability to draw statistical and substantive conclusions from the analyses.

### C. Summary of Findings

Transportation was reported as a reason for missing an appointment in the 6 months prior to being surveyed by approximately 6 percent of members *without* State-provided NEMT (*Table ES-3*). Transportation was also reported to be a reason for missing appointments by 11 percent of members *with* State-provided NEMT. For both groups, transportation was identified by the largest proportion of members as the “most common” reason for missing an appointment.

While we provide the rate of missed appointments due to transportation for both populations, this is to provide context rather than to establish a direct comparison. To be clear, it would be inappropriate to conclude from these results that State-provided NEMT causes members to be worse off, in terms of missing appointments for transportation problems. Given the criteria for exclusion from the NEMT waiver, the populations with and without State-provided NEMT are likely to be very different. In fact, our data shows, as expected, that members with State-provided NEMT tend to have more complex health needs and use more health care, which would lead to more opportunities for missing appointments.

*Table ES-3* also shows the proportion of members without State-provided NEMT who report transportation as a reason for missing an appointment for both those with MCE-provided NEMT (6 percent) and those without any NEMT benefits (7 percent). These two groups of members are likely to be more comparable than those with and without State-provided NEMT, as they have similar HIP 2.0 eligibility criteria. Given the similar proportions, having MCE-provided NEMT does not appear to influence whether members missed appointments for transportation-related reasons when compared to members who did not have access to NEMT.

While the populations with and without NEMT, whether provided through the State or an MCE are not directly comparable, which limits the ability to draw any conclusions regarding the impact of not having NEMT coverage, the findings suggest that similar levels of transportation problems can still occur for populations regardless if NEMT benefits are available. Also, very few members surveyed, whether having State-provided NEMT or not, indicated that they rely on medical/insurance-covered transportation to get to medical appointments. For both populations (i.e., those with and without State-provided NEMT) approximately two-thirds

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<sup>5</sup> See *Appendix J*, Lewin’s response to CMS and Mathematica Policy Research, for a detailed explanation of the sample size calculations.

<sup>6</sup> Detectable differences determined using an assumed response proportion of .10. Detectable differences increase greatly as this assumed proportion increases.



report driving themselves with their own car – over 90 percent report using their car or someone else’s (such as a friend’s, neighbor’s, or family member’s) car and either driving themselves or having someone else drive them.

**Table ES-3. Proportion of members who identified transportation as a reason for a missed appointment for HIP 2.0 members without State-provided NEMT**

HIP 2.0 Cohort	Members Surveyed	Proportion Reporting a Missed Appointment and Transportation as a Reason (based on weighted sample sizes)
<b>Members with State-provided NEMT</b>	<b>286</b>	<b>11%</b>
<b>By Federal Poverty Level (for members with State-Provided NEMT)</b>		
Less than 25% FPL	230	12%
Greater than or equal to 25% and less than 100% FPL	30	4%
100% FPL or greater	26	2%
<b>Members without State-provided NEMT</b>	<b>314</b>	<b>6%</b>
<b>By Federal Poverty Level (for members without State-Provided NEMT)</b>		
Less than 25% FPL	123	10%
Greater than or equal to 25% and less than 100% FPL	145	3%
100% FPL or greater	46	6%
<b>By MCE-provided NEMT Coverage (for members without State-Provided NEMT)</b>		
Members with MCE-provided NEMT	123	6%
Members without MCE-provided NEMT	155	7%

Notes: There were 36 surveyed members without State-provided NEMT for which MCE coverage is unavailable at the time of this study; hence, the sum of the MCE members does not add up to the total of members without State-provided NEMT.

*Table ES-3* also reports the proportion of members without State-provided NEMT missing appointments by income level. We classify income levels in terms of the household’s income as a percent of the FPL. There were statistically significant differences in the proportion of members that identified transportation as a reason for missing an appointment across income levels, and this pattern held for both members with and without State-provided NEMT. This is driven by differences between members below 25 percent of the FPL (10 percent and 12 percent in the populations without and with State-provided NEMT) and those with between 25 percent and 100 percent (3 percent and 4 percent, respectively), indicating that those with the fewest resources are generally more likely to face access to care issues. It should also be noted that members with the lowest poverty levels had higher proportions of reporting various reasons, beyond just transportation problems, for missing appointments. Complicating the interpretation though is the similar proportion of members above 100 percent of the FPL (who are predominantly covered by HIP Plus) as those below 25 percent of the FPL that reported missing an appointment regardless of the reason, with or without State-provided NEMT.

There was no evidence of significant differences in the proportion of all members surveyed without State-provided NEMT who missed appointments or reported transportation as a reason for missed appointments by rural/urban location, availability of public transportation, age or gender. However, as discussed above, there is concern that some of the non-significant results may be driven by insufficient sample size to identify statistically significant differences, particularly around geographic location.<sup>7</sup> Also, there are some significant results when looking at the members without both State- and MCE-provided NEMT. Males are two times more likely to report missing an appointment than females; similarly, members who are aged 19 through 35 report missing an appointment twice as frequently as those that are older.

We conducted a provider survey of administrative staff and clinicians at 225 provider locations, including hospitals, federally qualified health centers and physician practices. Their responses also pointed to transportation as the most common perceived reason that members missed appointments. This was a view shared across provider types and regions. Provider survey respondents also viewed missed appointments as impactful on patients' preventive care and overall quality of care, expressing concerns for detrimental effects. However, it should be noted that the provider survey respondents were not asked to limit their views to HIP 2.0 members, and the vast majority of respondents of the provider survey were administrative, rather than clinical staff, raising questions about their ability to evaluate clinical issues.

#### D. Conclusion

In sum, the member survey shows a relatively small number of HIP 2.0 members missed appointments due to transportation related issues. Also, members without NEMT benefits did not appear to be substantially more likely to report transportation problems relative to those with MCE-provided or State-provided NEMT benefits. However, due largely to the limitations of the analysis, particularly the lack of comparable comparison groups, the picture is less clear regarding the extent to which the provision of NEMT coverage affects this issue. Future research could explore the use of a control group. In particular, if the NEMT benefits are similarly operationalized by the MCE and the State, it may be possible to conduct more robust comparisons of members within the population of members without State-provided NEMT based on whether their MCE provided NEMT or not.

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<sup>7</sup> See *Appendix J* for a detailed explanation of the sample size calculations.

## Introduction

The purpose of this report is to provide insight into the experiences of the HIP 2.0 members included in Indiana’s NEMT waiver. This waiver was first granted to Indiana by CMS in 2007 as part of the original HIP 1115 Waiver Demonstration initiative. Enrollment in the first HIP, and the implementation of the NEMT waiver, began in 2008. Following the expiration of HIP 1.0, CMS approved a new waiver, “HIP 2.0,” which took effect on February 1, 2015. As part of the HIP 2.0 waiver, CMS granted Indiana the authority to waive NEMT for HIP 2.0 members, except pregnant women, medically frail and certain low-income eligibility categories. The Lewin Group was hired by Indiana to conduct the HIP 2.0 Evaluation, including this report on NEMT. More detail on the history, renewal, and terms of this waiver is included below.

Even with the NEMT waiver, certain subsets of the HIP 2.0 membership have access to transportation through two mechanisms. First, certain eligibility categories are eligible for state plan benefits, including NEMT, per federal law: pregnant women, medically frail individuals, Transitional Medical Assistance participants, low-income parents and caretakers, and low-income 19 and 20 year olds. These eligibility categories represent a little less than half of the total HIP population.<sup>8</sup> (Note that more recent data provided by the State shows about one-third of the HIP members are eligible from State-provided NEMT as of February 29, 2016).<sup>9</sup> **Table 1** details the eligibility categories and the available State-provided transportation services. For the purposes of this evaluation report, we will refer to this population as “members with State-provided NEMT.” The members not included in one of these eligibility categories (the highlighted row in **Table 1**) are included in the NEMT waiver and therefore do not receive NEMT services from the State. For the purposes of this report, we will refer to this population as “members without State-provided NEMT.”

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<sup>8</sup> Data reflects the universe of HIP 2.0 members as of August 26, 2015.

<sup>9</sup> Communication from the State as of February 29, 2016. According to the State estimates, there are 338,146 receiving services under HIP and 110,319 are in either the pregnancy, medically frail and or low-income caretaker group.

**Table 1. State-provided NEMT benefits, by population**

Benefit Package	Population	Description	State-provided NEMT Benefits
Regular	Non- pregnant	Regular plan members who are not pregnant (or 60 days post-partum)	None
State	Medically Frail	Members with serious physical, mental, and behavioral health conditions	20 1-way trips annually (<50 miles each)
	Low-income parents and caretaker relatives	Members with income below 19 percent of the federal poverty level (FPL) who assume primary responsibility for a dependent child	20 1-way trips annually (<50 miles each)
	Transitional Medical Assistance participants	Low income parents/caretaker relatives between 19 – 185 percent of the FPL who would lose Medicaid coverage due to increased earnings, but who, under Transitional Medical Assistance, continue to receive Medicaid services for up to 1 year	20 1-way trips annually (<50 miles each)
	Low-income 19 and 20 year olds	Members with income below 19 percent of the FPL who live in the home of a parent or caretaker relative	20 1-way trips annually (<50 miles each)
	Pregnant women	Pregnant women, up to 60 days post-partum	20 1-way trips annually (<50 miles each)

Note: Members can receive more than 20 trips if they receive prior authorization.

Second, of the three Indiana Managed Care Entities (MCE) providing services to HIP members, one MCE provides NEMT as an added benefit to non-pregnant Regular Plan members.<sup>10</sup> That is, non-pregnant Regular Plan members do not receive any NEMT services from the State, however one MCE provides NEMT (20 1-way trips annually, less than or equal to 50 miles each) to these members regardless of eligibility category. That MCE’s beneficiaries represent approximately 40 percent of the total HIP population. *Table 2* provides more detail on the provision of transportation services depending on whether they are State mandated or provided by an MCE. For the purposes of this report, we will refer to “members with MCE-provided NEMT” and “members without MCE-provided NEMT.”

<sup>10</sup> Two of the MCEs also provide enhanced NEMT benefits to pregnant women and State plan members; pregnant women and State plan members receive 20 1-way trips annually (<50 miles each) from the State (with additional trips available with prior authorization), but two MCEs provide *unlimited* trips for these members without prior authorization.

**Table 2. NEMT benefits: mandated benefits vs MCE-provided benefits, by population**

Benefit Package	State-provided NEMT benefits	MCE-provided NEMT Benefits		
		Anthem	MDWise	MHS (Managed Health Services)
Regular	Do not receive NEMT	20 1-way trips annually (≤50 miles each)	None	None
State	Receive NEMT 20 1-way trips annually (<50 miles each)	Unlimited trips	20 1-way trips annually (≤50 miles each)	Unlimited trips

Note: State-provided NEMT benefits are slightly different from MCE-provided NEMT benefits. The State covers 20 one-way trips of less than 50 miles without prior authorization, whereas Anthem and MDWise cover 20 one-way trips *less than or equal to* 50 miles without prior authorization. Both members with State-provided NEMT and with MCE-provided NEMT can receive more than 20 trips if they receive prior authorization from their MCE.

Considering both *members with State-provided NEMT* and *members with MCE-provided NEMT*, approximately two-thirds of the total HIP population receives NEMT services.

### A. NEMT Waiver: History, Renewal, and Terms

CMS first granted Indiana the authority to waive NEMT in 2007 under the HIP 1.0 1115 Waiver Demonstration project. Enrollment and implementation of the NEMT waiver began in 2008. CMS subsequently approved the NEMT waiver in 2013, 2014, and 2015.

HIP 1.0 waived NEMT for *all* HIP members; however HIP 1.0 covered different populations from HIP 2.0. HIP 1.0 initially covered uninsured custodial parents and uninsured childless adults up to 200 percent of the FPL who did not have access to employer sponsored insurance and had been uninsured for at least six months.<sup>11</sup> Enrollment for childless adults was capped at 36,500 at any point in time, and all enrollees were required to make POWER account contributions (PAC) to remain enrolled.<sup>12</sup>

Indiana applied and received approval for a continued waiver of NEMT services in HIP 2.0. As part of this waiver submittal and approval, Indiana received public comments regarding the proposed HIP 2.0 program. Only two comments raised a concern regarding exclusion of certain benefits, such as NEMT.<sup>13</sup> Under HIP 2.0, CMS granted Indiana the authority to waive

<sup>11</sup> HIP Caretakers under HIP 1.0 included uninsured custodial parents and caretaker relatives of children eligible for Medicaid through 200 percent of the FPL (no resource limit). HIP Adults included uninsured noncustodial parents and childless adults (ages 19 through 64) who were not otherwise eligible for Medicaid or Medicare with family income up to and including 200 percent of the FPL (no resource limit).

<sup>12</sup> The enrollment cap for non-caretaker adults was originally 34,000 but was changed to 36,500 in 2009 to accommodate long waitlists.

<sup>13</sup> The State received a significant amount of public comments during the 30 day public comment period, including forty-four (44) mailed letters and five hundred sixty two (562) emails, of which approximately one hundred fifty-

NEMT to all individuals enrolled in the new adult group except for the following groups, as described above:

- Pregnant women
- Medically frail individuals
- Transitional Medical Assistance participants
- Low-income parents and caretakers
- Low-income 19-20 year olds

All of these populations *except* medically frail individuals also received State-provided NEMT under HIP 1.0 because they were enrolled through Hoosier Healthwise, not HIP.<sup>14</sup>

## B. NEMT Flow Model

A flow model was developed (*Table 3*) to tie each NEMT Research Question used to investigate the impact of the NEMT waiver on the ability of non-pregnant and non-medically frail population to access care. For each Research Question, the flow model lays out specific measures, data sources and an analytic approach to address them.<sup>15</sup> This model served as the basis for discussion with CMS and its technical assistance contractor, which informed the approach outlined in the flow model.

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five (155) were unique substantive comments while the remaining emails were either duplicates or petitions and form letters. Source: Indiana HIP 2.0 Waiver application, submitted July 22, 2014.

<sup>14</sup> Pregnant women, Section 1931 low-income parents and caretakers, low-income 19- and 20-year-olds, and Transitional Medical Assistance participants all had coverage through Hoosier Healthwise during the HIP 1.0 demonstration. Hoosier Healthwise was *not* included in the NEMT waiver under 1.0 (and is not included in the NEMT waiver under HIP 2.0). Hoosier Healthwise is Indiana’s Medicaid managed care program for children and pregnant women not in HIP 2.0.

<sup>15</sup> This flow model was developed as part of the HIP 2.0 Evaluation Design Plan for all hypotheses. This excerpt includes only the hypothesis and Research Questions related to the NEMT evaluation.

Table 3. Flow model for NEMT evaluation

Hypothesis	Research Questions	Measures	Data Sources	Analytic Approach
Waiver of NEMT to the non-pregnant and non-medically frail population does not pose a barrier to accessing care (STCs, Section XIII, Paragraph 3ix).	1. What is the effect of the NEMT waiver of coverage on missed appointments by income level for individuals who are neither pregnant nor medically frail?	% of respondents reporting challenges in keeping appointments due to lack of transportation, by income level and by county [Outcome]	Member survey data	The evaluation will include a series of descriptive analyses and logistic regressions to analyze the survey data and examine differences in members reporting challenges keeping appointments by characteristics such as region and income level.  The evaluation will include cross-tabulations of survey questions that ask respondents if they have missed any appointments and reasons why appointments were missed by age, gender, region, income level, availability of public transportation and number of physicians per 1000 population.
		Demographic information from eligibility data (member age, gender, income, location) [Covariate]	Eligibility data	
	2. Are there parts of the state that are more affected by no access to NEMT?	Number of physicians per 1,000 population for member’s region of residence [Covariate]	HHS Area Health Resources Files	
		Data on public transportation services for member’s region of residence [Covariate]	Public data on availability of public transport	
	3. How does not having access to NEMT affect preventive care and overall health outcomes?	Provider perceptions about impact of no access to NEMT on preventive care and overall health outcomes [Outcome]	Provider and Member survey data	
	4. What is the impact of no access to NEMT as viewed by the providers and beneficiaries?	% of respondents reporting challenges in keeping appointments due to lack of transportation, by income level and by county [Outcome]	Member survey data	
		Perceptions about impact of access to NEMT [Outcome]	Provider and Member survey data	

This flow model was used as the basis for the analyses described in this report. As the availability of data was explored, limitations were found in what analyses could be conducted at this time. Consequently, other approaches were also examined and are noted in the report. This includes using larger categories, such as rural versus urban distinctions, instead of counties for geographic analyses.

### C. Report Organization

The remainder of this report begins with an overview of the data sources and analytic approach used for the NEMT evaluation. Following this, we cover each of the four Research Questions, including related measures and findings. Finally, an overall review of the findings, their implications, limitations of the analysis and questions for future consideration are included in the Discussion Section.

## Data Sources and Analytic Approach

### A. Data Sources

Several data sources were used for this report, as described in detail below.

#### *Member survey data*

HIP members were surveyed in December 2015 and January 2016. The survey samples were drawn from all HIP 2.0 members, regardless of their eligibility for NEMT. Questions for the survey were identified through an iterative process. First, the member survey questions used in the evaluation of HIP 1.0 were reviewed and tailored to meet the requirements in the current STCs; enabling comparisons with survey data from the HIP 1.0 evaluation conducted previously. Additional questions were developed to answer the Research Questions and Hypotheses set forth in the Evaluation Design Plan. Finally, the State engaged in discussions with CMS to finalize the survey tool.

Member survey data are used to understand the effect of access to NEMT on missed appointments. Therefore, the survey contained several questions asking members whether they missed appointments and the cause of these missed appointments. Additionally, members were asked about the type of transportation most often used to get to medical appointments. These questions were embedded in a longer survey assessing member perceptions of other aspects of HIP 2.0 - in addition to NEMT - to minimize bias in responses. Member survey questions related to this report are listed in *Appendix E*.

The survey design and collection process was based on a quota-based sample where the number of completed surveys was designed to have similar proportions of respondents to the universe of HIP 2.0<sup>16</sup> members along the dimensions of State-provided NEMT coverage, as well as participation in the HIP Plus and HIP Basic plans.

Target sample sizes for the survey were determined in order to detect large differences across populations – greater than 10 percentage points – using standard levels of statistical confidence. These differences were deemed substantial from a policy perspective for populations of interest in aggregate.<sup>17</sup> However, the ability to detect statistically significant differences for subgroup analyses (e.g., by age or county), which would rely on smaller subsets of the overall sample, would be lower.<sup>18</sup> *Appendix J* provides more detail on the sample size determination and the ability to detect meaningful differences between populations.<sup>19</sup>

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<sup>16</sup> The sample was selected based on the HIP 2.0 population at a point in time in August 2015. Reference to universe of HIP 2.0 beneficiaries for any sample projections refer to this point in time population.

<sup>17</sup> Sample sizes determined using a .05 level of significance 80% power.

<sup>18</sup> Detectable differences determined using an assumed response proportion of .10. Detectable differences increase greatly as this assumed proportion increases.

<sup>19</sup> “Response to Recent Communications from CMS (10/29/15) and Mathematica Policy Research (10/27/15)”, Submitted by Lewin Group to Joseph Moser on November 5, 2015.



Lewin also used a survey weight adjustment technique called raking to adjust the sampling weights by age, gender, and FPL, so that responses better reflect the core demographics in the State.<sup>20</sup> Details on the weighting process can be found in *Appendix H*. It should be noted that at the time of this report, Lewin was examining refinements to the weights used in the statistical analyses. We do not expect these refinements to change the weighted percentages reported by more than one percentage point. In most cases we expect that the impact of the revised weights will not change the estimates reported in this report and hence will have no impact on conclusions.

*Table 4* describes the final distribution of survey respondents by NEMT eligibility and by plan (State vs. Regular, and Plus vs. Basic) and compares the distribution to the actual number of members in HIP 2.0. More detail on the sampling and surveying approach are provided in *Appendix B*.

**Table 4. Summary of current member sample sizes**

Surveyed HIP 2.0 Population	Total Number of Members	Number of Completed Responses
<b>Plan Selection – Total</b>	<b>264,018</b>	<b>600</b>
HIP Plus	183,021	420
HIP Basic	80,997	180
<b>Transportation Coverage – Total</b>	<b>264,018</b>	<b>600</b>
Eligible for State-provided NEMT	120,320	286
Not eligible for State-provided NEMT	143,698	314

Note: Data reflects the universe of HIP 2.0 members as of August 26, 2015, when the survey sample was generated. See *Appendix B* for more detail on the survey sampling approach and *Appendix J* for explanation of the sample size calculations.

### *Provider survey data*

HIP providers were also surveyed to get their perspectives on missed appointments. Survey respondents were primarily administrative and financial staff (88.0 percent) while clinicians and auxiliary clinical staff comprised approximately 5.3 percent and 6.7 percent of respondents, respectively. Survey questions were intended to be answered by those most familiar with the office environment and patient issues as a whole, including whether members keep appointments.

Similar to the member survey, questions were identified through an iterative process involving the State, Lewin and CMS. NEMT-related survey questions were embedded in a

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<sup>20</sup> Note that the weight adjustment cannot be done to account for all characteristics of interest. In particular, the weighting and sampling design does not explicitly control for the distribution of members in MCE plans with NEMT provided benefits and without NEMT provided benefits. It should also be noted that certain parts of the population by age, gender, and FPL for specific plan and benefit types are not represented in our sample due to small universe sizes. Hence, the weighted estimates of population sizes in this report will be slightly lower than the total actual HIP 2.0 population.

longer survey evaluating provider perceptions regarding several aspects of HIP 2.0. Provider survey questions relevant to this report are listed in *Appendix F*. Provider survey data is used to estimate the perception of access to NEMT on preventive care and overall health outcomes, and the impact of access to NEMT as viewed by providers.

All 42 Federally Qualified Health Centers (FQHCs) in Indiana were targeted for survey responses, as the FQHC client mix favors Medicaid members, including HIP 2.0. We received responses from 21 FQHCs. For the purpose of analysis, survey responses from FQHCs (n=21) and Rural Health Centers, RHCs, (n=3) were grouped together for analyses by provider type. All other providers were randomly sampled from a dataset provided to us by the State of all providers located in Indiana or surrounding states. Provider regions were identified based on area codes of the telephone numbers used to conduct the survey. For more details on the provider survey methodology, see *Appendix B*. The distribution of respondents by provider type is displayed below in *Table 5*.

**Table 5. Distribution of sampled HIP 2.0 providers by type**

Survey	Detail	Number	Share of Respondents
Provider	FQHC + RHC	24	11%
	Hospitals	45	20%
	Office-Based Practices	156	69%
	<b>Total</b>	<b>225</b>	<b>100%</b>

### *Eligibility and enrollment data*

Member application and enrollment data from State enrollment databases are used as a source for demographic data about enrollees, including member gender, income, county of residence, and categorical eligibility for NEMT. Data used in this report are from enrollment data as of December 2015.

### *Indiana public transportation data*

An indicator for the availability of public transportation at the county level was created based on Lewin’s research of Indiana’s public transit systems conducted in December 2015. This indicator was used to control for whether, based on a member’s location of residence, the member has access to public transportation. See *Appendix C* for additional detail about the sources of transportation data.

### *Health Resources and Services Administration’s Area Health Resources Files*

Data from the Health Resources and Services Administration’s Area Health Resources Files was used to measure the number of physicians per 1,000 residents from the county. This data is derived from the 2013 American Medical Association Physician Masterfile and from US Census data: Annual Resident Population Estimates, Estimated Components of Resident Population Change, and Rates of the Components of Resident Population Change for States

and Counties: April 1, 2010 to July 1, 2013.<sup>21</sup> This data is used to control for differences in the delivery system that could influence access to care.

### *Urban/rural indicator*

Counties are labeled as urban or rural based on a crosswalk list released by CMS for Fiscal Year (FY) 2016 of urban Core-Based Statistical Areas (CBSA) and constituent counties.<sup>22</sup> Core-Based Statistical Areas (CBSAs) are geographic regions specified by the Office of Management and Budget and used for data collected and released by the U.S. Census Bureau. CBSAs consist of Metropolitan and Micropolitan Statistical Areas. In general, counties that fall within a Metropolitan or Micropolitan Statistical Area are considered urban, and counties outside of a Metropolitan or Micropolitan Statistical Area are considered rural. In addition to containing the county where the core urban area is located, each area includes adjacent counties with a “high degree of social and economic integration,” which is measured by the number of people commuting to work in the core urban area.<sup>23</sup> While somewhat broad, the Census Bureau data adapted by CMS allow for a high-level categorization of urban and rural populations.

### *Claims/encounter data*

Utilization metrics were calculated from a claims/encounter file provided by the Indiana Family and Social Services Administration that has the final versions of claims paid between February 2015 and November 2015 for all recipients in HIP Basic or HIP Plus who were enrolled on or before November 29, 2015. Additionally, the plan provider identifiers on the claim records were used to help determine the managed care entity responsible for the recipient’s care (we were able to use this data to determine members’ MCE for 538 of the 600 survey respondents). Claims data was also used to develop the risk scores (methodology for the risk scores is described below).

Health status was proxied by risk scores based on the historical administrative claims and demographic data for the recipients. More specifically, the Symmetry version 9 ERG (episode risk group) retrospective risk scores were used to measure health status, based on claims paid February 2015 through November 2015. Retrospective risk scores are based on a combination of the number of comorbid conditions a member has and the severity of those conditions. A risk score of 2 indicates a member is twice as risky as the average member. Risk scores for some survey respondents are unavailable due to a lack of relevant claims data.

### *Managed Care Entity data*

Anthem, MDwise, and MHS data were also used to help identify survey respondents’ managed care entity. As described above, claims data was primarily used to determine

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<sup>21</sup> See <http://ahrf.hrsa.gov/arfdashboard/ArfMapHelp/AHRF%20Mapping%20Tool%20Sources.pdf> for more information on AHRF data sources.

<sup>22</sup> FY 2016 Proposed Rule Data Files: County to CBSA Crosswalk File and Urban CBSAs and Constituent Counties for Acute Care Hospitals File. Retrieved February 11, 2016 from: <https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/AcuteInpatientPPS/FY2016-IPPS-Proposed-Rule-Home-Page-Items/FY2016-IPPS-Proposed-Rule-Data-Files.html>

<sup>23</sup> Metropolitan and Micropolitan Statistical Areas Main Page. US Census Bureau. Retrieved February 11, 2016 from: <http://www.census.gov/population/metro/>

respondents' managed care entity. However, for respondents without claims, we used individual-level data from managed care entities on Fast Track payments, prior authorizations, and copayments to help determine the MCE. Of the 62 respondents without claims, 10 were found in this MCE data set. This data was from February 2015 through December 2015.

## B. Analysis

### *Member survey*

The member survey is the primary source of data for the NEMT analyses. We largely relied upon descriptive statistics to develop insights regarding the Research Questions of interest, in part due to small sample sizes (see *Appendix B* for more detail on how survey sample sizes were determined). The survey questions of interest are configured so that they could be analyzed as proportions; e.g., the proportion of survey respondents reporting a missing appointment in the last six months. Also, as described above, we weighted the member survey responses to ensure that they are representative of the universe of HIP 2.0 members in terms of age, gender and income distributions, as well as eligibility for State-provided NEMT and plan type.

Chi-square tests and t-tests were conducted to test for differences in survey responses across subgroups; e.g., how responses of survey members to various questions are associated with the FPL categories, rural/urban locations, availability of transportation, age and gender, for members who do not receive State-provided NEMT.<sup>24</sup> Additional tests were also conducted to test for differences in responses to missed appointments between members in Basic and Plus plans to provide insights on whether the different benefit designs and financial requirements have an impact. It is important to note that Plus members have more appointments than Basic members, based on rates of primary care and specialty care office visits billed in the claims data, and this may provide more opportunity for missed appointments among Plus members.<sup>25</sup> Finally, members who do not receive State-provided NEMT, but who receive it through their MCE, are compared to those who do not receive it through their MCE.

After the initial tests of association between the responses of interest and various factors, logistic regressions were used to explore how different characteristics simultaneously influence whether or not a member missed an appointment and whether a member reported transportation as an issue for missing the appointment. Such regressions allow for the ability to look at the potential influence of one variable while controlling for the effects of other

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<sup>24</sup> The Rao-Scott chi-square statistic is the predominant test conducted, which adjusts the Pearson chi-square statistic to take into account the effect of the survey design. Rao, J.N.K., and Scott, A. (1981). "The Analysis of Categorical Data from Complex Sample Surveys: Chi-Squared Tests for Goodness of Fit and Independence in Two-Way Tables," *Journal of the American Statistical Association*, 76, pp. 221 - 230; Rao, J.N.K., and Scott, A. (1984). "On Chi-Squared Tests for Multiway Contingency Tables with Cell Proportions Estimated from Survey Data," *Annals of Statistics*, 12, pp. 46 - 60. One-way t-tests were also conducted for comparisons of two proportions.

<sup>25</sup> The primary care office visit rate for Plus members is 3,077 per 1,000 members compared to 1,805 per 1,000 members in the Basic population. The corresponding specialty care visit rates are 2,994 per 1,000 and 1,497 per 1,000.

variables. Given the Research Questions, we focused on FPL as an explanatory factor, but also explored age, gender, urban/rural location of the member, physician density in the location of the member, enrollment in an MCE that offers transportation benefits, and the health status of the member.

### *Provider survey*

We report descriptive statistics for the provider survey. Unweighted proportions are reported which reflect the distribution of responses of survey participants. The survey covers a broad range of providers, but we cannot assess how representative our respondents are as compared to all health care providers in Indiana. Proportions are reported for various subgroups of providers, including those that work in hospitals, federally qualified health centers and rural health centers, primary care practices, specialty practices, and mixed practices. Practices are also grouped by location based upon the area code used to telephone the provider. No statistical tests were conducted using the provider data because of limits due to sample size and unknown representativeness.

### *Limitations to the survey analysis*

We provide a more comprehensive list of limitations to this analysis later in the report, in the Summary of Observations, Limitations, and Potential Further Research section. However, a significant limitation in the analysis is that we do not have a good comparison group against which we can compare the experiences of HIP 2.0 members included in the NEMT waiver (i.e., who do not receive State-provided NEMT benefits). The best way to isolate the impact of the NEMT policy is to examine a comparison group of members who receive State-provided NEMT coverage who are otherwise very similar to members without NEMT. Such a control group was not available for this study, which stops this analysis short of being able to make definitive conclusions regarding the impact of the NEMT waiver. Below we describe some of the challenges involved in developing a control group with the data available for this analysis.

The main difficulty in constructing a control group is that members who have access to the State-provided NEMT program are different from those that do have access in terms of their health and demographics. As noted above, the State-provided NEMT program, which is comprised of 110,417 members, is limited to certain types of populations. These include those that have historically had different and more complex needs than the general HIP 2.0 population, such as the medically frail members, who qualify as medically-frail because they have one or more of certain serious health conditions.<sup>26</sup> Pregnant women also qualify and typically have more doctor appointments than the average HIP Regular member and may have health complications and mobility concerns due to pregnancy. Other members eligible for State-provided NEMT consist of low-income Parents/Caretakers, low-income 19 and 20 year olds as well as Transitional Medical Assistance individuals. Low-income parents and

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<sup>26</sup> Members qualify as medically-frail because they have one or more of certain serious health conditions, including: a disabling mental disorder (including serious mental illness), a chronic substance use disorder, a serious and complex medical condition, a physical, intellectual or developmental disability that significantly impairs the ability to perform one or more activities of daily living, or a disability determination from the Social Security Administration.

caretakers and Transitional Medical Assistance individuals may have additional and different health care needs compared to the HIP 2.0 population without State provided NEMT because they are caring for children. Low income parents/caretakers and 19 and 20 year olds enrolled in HIP have incomes under 19 percent of the FPL and may have greater issues due to their low incomes relative to the other HIP members.

Given these differences, it is not surprising that the surveyed members with State-provided NEMT have a substantially higher average risk score (1.71) compared to the population without State-provided NEMT (1.31). Members with State-provided NEMT also have higher rates of physician office visits, for both primary and specialty care.<sup>27</sup> There may be a subset of members with State-provided NEMT that are similar to at least a subset of those without State-provided NEMT, and there are statistical methodologies that could be used to select a subset of well-matched members. However, the current sample does not support this kind of analysis. That is, we do not believe there is a large enough sample size of State-provided NEMT respondents to find a viable control group for the population not eligible for State-provided NEMT benefits. Hence, statistical tests are not conducted between the two groups, as they may be biased by selection effects.

Despite the differences in the populations described above, several tables in this report display survey results for HIP 2.0 respondents with NEMT coverage, as well as those without NEMT coverage. While the two populations differ, being able to view their responses together can provide insights into the two group's perceptions of transportation access. However, when viewing their results, it is important to consider that there are many reasons that the results from the two groups are not likely to be similar. Relative to members without State-provided NEMT, the characteristics of the members with State-provided NEMT – e.g., generally having more complex health needs, more visits to the doctor, caretaker responsibilities and lower incomes – would be expected to result in greater challenges faced to get to needed health care appointments.

We can also use the fact that one MCE offers NEMT coverage to its Regular plan enrollees to get some insights into the effect of not allowing NEMT. Having one of the three MCEs offer NEMT coverage could offset the effect of coverage not being offered through the State program. To explore the potential for this, we compared the response between members enrolled in an MCE providing transportation benefits to those members enrolled in other MCEs that do not provide NEMT for the population not receiving State-provided NEMT. There are also limitations to this comparison though. For example, there may be selection bias issues if members who have more need for NEMT may be more likely to select the MCE that provides NEMT.

Another potential control group is the HIP 1.0 demonstration population, specifically results from the 2013 HIP 1.0 member survey. There are some limitations to this comparison due to the differences between the populations covered under HIP 1.0 vs HIP 2.0 and the differences

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<sup>27</sup> The primary care office visit rate for members with State-provided NEMT is 3,414 per 1,000 members compared to 2,043 per 1,000 members without. The corresponding specialty care visit rates are 1,766 per 1,000 and 1,074 per 1,000.

between the populations *receiving* NEMT under HIP 1.0 vs HIP 2.0. There also may have been changes in transportation options, provider locations and other factors between 2013 and 2016 that would limit the usefulness of this comparison.

Regarding the differences in the populations covered under HIP 1.0 vs HIP 2.0, HIP 1.0 had different eligibility criteria to HIP 2.0. As described above, HIP 1.0 initially covered uninsured custodial parents and uninsured childless adults up to 200 percent of the FPL who did not have access to employer-sponsored insurance and had been uninsured for at least six months. Enrollment for childless adults was capped at 36,500 at any point in time, and all enrollees were required to make POWER account contributions (PAC) to remain enrolled. Beginning in 2014, HIP eligibility was reduced to cover individuals with household incomes up to 100 percent of the FPL, recognizing that individuals above 100 percent of the FPL would have access to subsidized coverage via the federal Marketplace. Requirements that an individual be uninsured for at least six months and lack access to employer-sponsored insurance were removed from the HIP 1.0 eligibility criteria effective January 1, 2014. Because HIP 1.0 members were uninsured previously and many had to wait to gain coverage due to enrollment caps, HIP 1.0 members may have had much greater demand for health care compared to HIP 2.0 members.

Also, the medically frail category as it currently exists under HIP 2.0 did not exist under HIP 1.0. Under HIP 2.0, an individual may qualify as “medically-frail” if he/she has one or more of the following conditions: a disabling mental disorder, a chronic substance abuse disorder, a serious and complex medical condition, a physical, intellectual or developmental disability that significantly impairs the individual’s ability to perform one or more activities of daily living, or a disability determination based on Social Security Administration criteria.<sup>28</sup> This definition of medically-frail did not exist under HIP 1.0. HIP 1.0 provided a plan – the Enhanced Services Plan (ESP) – for enrollees with certain high-risk conditions, including internal cancers, HIV/AIDS, hemophilia, aplastic anemia and organ transplants, but individuals with other conditions that currently qualify an individual as “medically-frail,” such as disabling mental disorders, were not eligible. Enhanced Services Plan enrollees did not receive transportation under 1.0.

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<sup>28</sup> For a full list of conditions that qualify an individual as medically-frail, see the HIP 2.0 website here: <http://www.in.gov/fssa/hip/2465.htm>.

## Research Question Findings

This section highlights findings from the analysis. We list each Research Question, followed by its related measures and findings. An overall review of the findings and their implications are included in the Discussion Section below.

### A. Research Question 1: What is the effect of no access to NEMT on missed appointments by income level?

To help provide insights regarding the effect of no access to NEMT on whether members miss appointments and how they view transportation, and other factors, as a reason for missing appointments, the member survey asked a sequence of questions regarding missed appointments. An initial question asked the member: “In the past 6 months, have you missed any healthcare appointments?” Those who indicated that they had missed an appointment were asked two subsequent questions to (1) provide the reasons for missing the appointment and (2) identify the most common reason (see *Appendix E* for relevant member survey questions). We use income data on members to view how their perspectives on transportation, and other factors being a reason for missed appointments, may differ by income levels (as reflected by their FPL category).

#### *Missed Appointments*

Of all HIP 2.0 members, including those with and without NEMT, who responded to the survey, an estimated 19 percent report missing an appointment within 6 months of being surveyed.<sup>29</sup> *Table 6a* displays the proportion of members reporting a missed appointment by FPL. The proportions are also displayed separately for members who receive State-provided NEMT vs members who do not and whether they are covered under the HIP 2.0 Plus or Basic programs.

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<sup>29</sup> The estimated 19 percent is based on weighted sample responses for all 600 members surveyed.



**Table 6a. Proportion of members reporting a missed appointment within 6 months of being surveyed by State-provided NEMT coverage, Plus and Basic coverage, and FPL**

Federal Poverty Level	Plus Members		Basic Members		All Members	
	Members Surveyed	Proportion indicating a Missed Appointment (weighted)	Members Surveyed	Proportion indicating a Missed Appointment (weighted)	Members Surveyed	Proportion indicating a Missed Appointment (weighted)
<b>All HIP 2.0 Members</b>						
All Income Levels	420	18%	180	23%	600	19%
<b>HIP 2.0 Members with State-provided NEMT</b>						
All Income Levels	192	19%	94	28%	286	23%
Less than 25% FPL	151	21%	79	30%	230	25%
Greater than or equal to 25% and less than 100% FPL	17	8%	13	18%	30	11%
100% FPL or greater	24	21%	2	--	26	16%
<b>HIP 2.0 Members without State-provided NEMT</b>						
All Income Levels	228	17%	86	14%	314	16%
Less than 25% FPL	85	20%	38	15%	123	19%
Greater than or equal to 25% and less than 100% FPL	98	12%	47	13%	145	12%
100% FPL or greater	45	22%	1	--	46	21%

Notes: The proportion reporting missing an appointment is based on weighted estimates. Detailed information on the size of adjustments to the reported proportions is provided in *Appendix A.1a*. Note that people with income above 100 percent of the FPL are not eligible for the Basic program, with the exception of Transitional Medical Assistance participants. Also, there are few members above 25 percent of the FPL in the State-provided NEMT group because a majority of these members are parents, caretakers and 19 and 20 year olds below 19 percent of the FPL.

A substantial number of members with and without State-provided NEMT reported missed appointments; 23 and 16 percent, respectively. As discussed above, these two populations are very different; hence a direct comparison of their proportions is not advisable. Given that members with State-provided NEMT use more health care and tend to have lower incomes, one would expect, a priori, higher missed appointments. The majority of HIP 2.0 members with State-provided NEMT have incomes that are less than 25 percent of the FPL. This is not surprising, as a criterion for exclusion from the NEMT waiver includes having income below 19 percent of the FPL for parents, caretakers and 19 and 20 year olds. This cohort appears to have a particularly high rate of respondents reporting a missed appointment below 25 percent of the FPL (which is driving their overall proportion of 23 percent).

Three FPL categories are analyzed: less than 25 percent of the FPL, between 25 and 100 percent, and above 100 percent. Few members above 100 percent of the FPL exist in HIP Basic because individuals above 100 percent of the FPL are not eligible for HIP Basic, with some exceptions.<sup>30</sup>

<sup>30</sup> Most members above 100 percent of the FPL who do not make a POWER Account Contribution (PAC) are locked out of coverage for six months. However, Transitional Medical Assistance (TMA) participants are exempt from lock-

Members below 100 percent of the FPL were split into two groups due to the disproportionate share below 25 percent of the FPL, and the above-mentioned low income thresholds for certain populations. In general, fewer members with 25 to 100 percent of the FPL report missing an appointment relative to those with less than 25 percent of the FPL, regardless of whether the State provides NEMT coverage. However, tests for differences in proportions across FPL categories are not statistically significant.

It should also be noted a relatively high proportion of members above 100 percent of the FPL, whether with or without State-provided NEMT, also reported missing an appointment. As discussed above, these are members largely with Plus coverage.

As discussed above, across all HIP 2.0 members, Plus members generally visit the physician office more frequently than Basic members, which may influence their rates of missed appointments. When looking at the estimates from survey results for Plus and Basic members who do not have State-provided NEMT, a lower proportion of members in the Basic plan report a missed appointment (not considering income); 14 percent compared to 17 percent (this difference is not statistically significant). For the HIP 2.0 members with State-provided NEMT, there is an opposite trend, with Basic members experiencing more missed appointments.

As previously described, some members are enrolled in HIP 2.0 without State-provided NEMT, but receive transportation benefits through their MCE. *Table 2* compares transportation benefits offered by the MCEs and the State. Overall they are similar (there may be different operational and marketing differences, but the MCEs also use the same transportation vendor to administer the benefit for the members with State-provided NEMT and the members without).

For members without State-provided NEMT, *Table 6b* shows the proportion of members both with and without MCE-provided NEMT who report having a missed appointment. For members who have access to an MCE-provided NEMT benefit, an estimated 17 percent report missing an appointment. Eighteen (18) percent of members in MCEs without the transportation benefit report missing an appointment (no statistically significant difference). There are some larger differences when we look within FPL categories; however these differences are also not statistically significant.

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out regardless of income, and are therefore eligible for HIP Basic even if their income is above 100 percent of the FPL. This exception to the 100 percent lock out rule helps explain why some members *above* 100 percent of the FPL are enrolled in HIP Basic.

**Table 6b. Proportion of members without State-provided NEMT reporting a missed appointment within 6 months of being surveyed, by MCE-provided NEMT coverage and FPL**

Federal Poverty Level	Members with MCE-provided NEMT		Members without MCE-provided NEMT		All Members	
	Members Surveyed	Proportion indicating a Missed Appointment (weighted)	Members Surveyed	Proportion indicating a Missed Appointment (weighted)	Members Surveyed	Proportion indicating a Missed Appointment (weighted)
<b>HIP 2.0 Members without State-provided NEMT</b>						
All Income Levels	123	17%	155	18%	278	18%
Less than 25%	45	25%	65	19%	110	21%
Greater than or equal to 25% and less than 100%	58	10%	67	16%	125	13%
100% or greater	20	25%	23	22%	43	23%

Notes: The proportion reporting missing an appointment is based on weighted estimates. Detailed information on the size of adjustments to the reported proportions is provided in *Appendix A.1b*. There were 36 surveyed members without State-provided NEMT for which MCE status is unavailable at the time of this study; hence, the sum of the MCE members does not add up to the total of members without State-provided NEMT.

### *Transportation as a Reason for Missed Appointments*

Survey respondents who said that they had missed an appointment were then asked to identify the reasons they missed the appointment(s). Interviewers read a list of possible responses and also provided an “Other” category for open responses. Respondents were then asked to identify the most common reason they missed the appointment(s). See *Appendix E* for survey questions.

**Table 6c. Proportion of members who identified specified reasons (Any Reason and Most Common Reason) for a missed appointment by State-provided NEMT coverage**

Reason for Missing an Appointment	Members with State-provided NEMT: Proportion of Members Reporting Reason for Missing an Appointment (n = 286, proportions based on weighted estimates)		Members without State-provided NEMT: Proportion of Members Reporting Reason for Missing an Appointment (n = 314, proportions based on weighted estimates)	
	Any Reason	Most Common Reason	Any Reason	Most Common Reason
Transportation Problem	11%	8%	6%	3%
Cost too much	1%	1%	1%	<1%
Couldn't get childcare	5%	3%	1%	1%
Couldn't get time off from work	4%	2%	1%	1%
Didn't get approval from plan	4%	1%	1%	<1%
Didn't want to go	1%	<1%	2%	1%
Hours of operation were not convenient for me	4%	1%	3%	1%
No insurance	2%	<1%	<1%	<1%
Place did not accept insurance coverage	2%	--	1%	1%
Takes too long to get there	<1%	<1%	1%	--
Transportation Problem	11%	8%	6%	3%
Too sick to go	5%	2%	4%	1%
Other Reason <sup>31</sup>	1%	1%	4%	4%
Forgot	2%	1%	1%	1%
Couldn't get through on the phone	1%	--	<1%	--
Couldn't schedule appointment soon enough	3%	1%	1%	--

Notes: The proportions for each reason are based on weighted estimates. Detailed information on the size of adjustments to the reported proportions is provided in *Appendix A.1c*.

*Table 6c* displays the proportion of members who reported missing an appointment that also identified various reasons for missing an appointment “in the past 6 months” by NEMT coverage status. On average, respondents provided more than 2 reasons. Transportation was the main reason identified for both members with and without State-provided NEMT. Of those without State-provided NEMT who reported missing an appointment, over one-third reported transportation as a reason (number not shown in table); this amounts to approximately 6 percent of all members without State NEMT. Of those with State-provided NEMT who reported missing an appointment, almost half reported transportation as a reason (number not shown in table); amounting to approximately 11 percent of all members with State-provided NEMT.

<sup>31</sup> ‘Other’ includes a wide range of responses, for example medical issues (kidney failure, epilepsy episode, leg injury, depression), car trouble, familial obligations (family emergency, sick children), and oversleeping.

Other reasons that were most indicated for missing an appointment by members without State-provided NEMT include being too sick to go, not having time and not having convenient hours of operation – all identified by about 4 percent of the respondents without State-provided NEMT (about 2 percentage points less than transportation). Not surprisingly, the ranking of the reasons (in terms of the proportion of the respondents that identified them) were different for the respondents with State-provided NEMT. For example, as being a caretaker or pregnant is a requirement for certain eligibility categories that qualify for State-provided NEMT, couldn't get childcare was identified more often by survey respondents having State-provided NEMT (5 percent compared to 1 percent).

Transportation was also the most “common reason” cited for missing an appointment for both groups. (Even though the “Other Reason” category was technically higher for members without State-provided NEMT, this category is made up of several reasons, including other medical issues and familial obligations.) Interestingly, “Cost too much” was not highly cited as a reason for missing appointments relative to the others considered (about 1 percent of members in both groups). This may be an indication that the HIP 2.0 program is successfully helping the low-income population to overcome the cost barrier to care.

*Table 6d* breaks the results down by FPL, showing the proportions of respondents enrolled in HIP 2.0 who missed an appointment and identified transportation as a reason for a missed appointment within 6 months of being surveyed, by NEMT coverage and FPL. The proportions reporting transportation as the most common reason is also reported. A greater proportion of members without State-provided NEMT and with less than 25 percent of the FPL (10 percent) identified transportation as a reason for the missed appointment(s) relative to the higher FPL levels (test for independence showed a significant impact of FPL on response, chi-square = 7.41, df=2, p-value = 0.0246). There is a similar trend for members with State-provided NEMT, with 12 percent of those in the lowest poverty level identifying transportation as a reason for a missed appointment (Chi-square=9.00, df=2, p-value=0.0112). (Note that no statistical tests were conducted for the proportions that reported transportation as the most common reason due to small sample sizes).

**Table 6d. Proportion of members who identified transportation as a reason for a missed appointment (Any Reason and Most Common Reason) by State-provided NEMT coverage and FPL**

Federal Poverty Level	Members Surveyed	Proportion Indicating Transportation as a Reason (weighted)	Proportion Indicating Transportation as Most Common Reason (weighted)
<b>HIP 2.0 Members with State-provided NEMT</b>			
All Income Levels	286	11%	8%
Less than 25%	230	12%	9%
Greater than or equal to 25% and less than 100%	30	4%	3%
100% or greater	26	2%	2%
<b>HIP 2.0 Members without State-provided NEMT</b>			
All Income Levels	314	6%	3%
Less than 25%	123	10%	5%
Greater than or equal to 25% and less than 100%	145	3%	2%
100% or greater	46	6%	4%

Notes: Proportions reported are based on weighted estimates. Detailed information on the size of adjustments to the reported proportions is provided in *Appendix A.1d*.

*Table 6e* breaks the results down by MCE-provided NEMT, showing the proportion of respondents enrolled in HIP 2.0 without State-provided NEMT who identified transportation as a reason for a missed appointment within 6 months of being surveyed, by MCE-provided NEMT coverage and FPL. The proportions reporting transportation as the most common reason is also reported. Overall the proportion of members with missed appointments is similar for both the population with MCE-provided NEMT and without (6 percent compared to 7 percent). The proportion of members who missed appointments due to transportation issues is highest (13 percent) for members without MCE-provided NEMT and with less than 25 percent of the FPL. In fact, there is a statistically significant difference in proportions across poverty levels for members without MCE-provided NEMT (chi-square = 6.95, d=2, p-value = 0.0309). There is no statistically significant association between responses and income levels for members with MCE-provided NEMT, although those with less than 25 percent of the FPL are relatively high for this group as well.

**Table 6e. Proportion of members without State-provided NEMT who identified transportation as a reason for a missed appointment by MCE-provided NEMT coverage and FPL**

Federal Poverty Level	Members Surveyed without State-provided NEMT	Proportion Indicating Transportation as a Reason (weighted)	Proportion Indicating Transportation as Most Common Reason (weighted)
<b>HIP 2.0 Members with MCE-provided NEMT</b>			
All Income Levels	123	6%	2%
Less than 25%	45	9%	3%
Greater than or equal to 25% and less than 100%	58	2%	1%
100% or greater	20	11%	6%
<b>HIP 2.0 Members without MCE-provided NEMT</b>			
All Income Levels	155	7%	5%
Less than 25%	65	13%	7%
Greater than or equal to 25% and less than 100%	67	3%	3%
100% or greater	23	3%	3%

Notes: Proportions reported are based on weighted estimates. Detailed information on the size of adjustments to the reported proportions is provided in *Appendix A.1e*. There are 36 surveyed members which do not have State-provided NEMT and for which we could not identify their MCE.

### *Regression Analysis*

We conducted analyses of the reasons why HIP 2.0 members without State-provided NEMT missed appointments using logistic regression models to better understand the associations between members’ FPL status, age, gender, health status, urban/rural location, availability of physician density in local area and MCE-provided NEMT and whether members reported missing an appointment and indicated transportation was a reason for a missed appointment. Sample sizes limit the ability to use all variables together in a model.<sup>32</sup> Moreover, all models tested had low fit statistics. Hence, regression results are not reported.

### **B. Research Question 2: Are there parts of the state that are more affected by no access to NEMT?**

To address this question, the proportions of members missing an appointment and citing transportation as a problem were investigated by urban and rural locations, as well as the availability of public transportation. The availability of public transportation in a member’s geographic area may influence the impact of not having NEMT coverage on a member. For instance, if members have easy, affordable access to public transportation, they may rely less on non-emergency medical transportation to get to the doctor, and therefore may be less likely to

<sup>32</sup> A more complete discussion of sample size calculations can be found in *Appendix J*.

report missed appointments or transportation challenges. To account for this, we created an indicator for the availability of public transportation (see *Appendix C* for more details on the data available), based on research of Indiana’s public transit systems.

Additionally, we explored whether living in a rural versus urban area is associated with different rates of reported missed appointments or transportation challenges. *Table 7a* displays the proportion of surveyed members without State-provided NEMT who reported a missed appointment within the last 6 months of being surveyed, broken down by MCE-provided NEMT coverage, urban/rural location and availability of public transportation. Proportions are also displayed for members with State-provided NEMT. The proportions reporting missed appointments were relatively similar for rural and urban areas for both members with MCE-provided NEMT (15 percent for rural and 18 percent for urban) and those without (18 percent for both rural and urban). The rural/urban proportions were also similar for members with State-provided NEMT (25 percent for rural and 22 percent for urban).

**Table 7a. Proportion of members reporting a missed appointment within 6 months of being surveyed, by State-provided NEMT coverage, MCE-provided NEMT coverage, urban/rural location and availability of public transportation**

Rural/Urban and Public Transportation Status	Members without State-provided NEMT				Members with State-provided NEMT	
	Members with MCE-provided NEMT		Members without MCE-provided NEMT		Members Surveyed	Proportion indicating a Missed Appointment (weighted)
	Members Surveyed	Proportion indicating a Missed Appointment (weighted)	Members Surveyed	Proportion indicating a Missed Appointment (weighted)		
All Members	123	17%	155	18%	286	23%
Rural	43	15%	45	18%	97	25%
Urban	80	18%	110	18%	189	22%
Public Transportation Available	111	18%	145	17%	266	21%
Public Transportation Not Available	12	9%	10	31%	20	60%

Notes: Proportions reported are based on weighted estimates. Detailed information on the size of adjustments to the reported proportions is provided in *Appendix A.2a*. There are 36 surveyed members which do not have State-provided NEMT and for which we could not identify their MCE.

There were very few members surveyed in areas without public transportation. Hence, while there appear to be some differences in the proportion of members that report missing an appointment depending on whether public transportation is available, for both members with and without MCE-provided NEMT, as well as those with State-provided NEMT, none of the differences were statistically significant. Furthermore, as shown in *Table 7b*, very few members that were surveyed indicated that they currently use public transportation as the most frequent mode of transportation to get to health care. Interestingly, it appears that the members with State-provided NEMT rely more on someone else to drive them to medical care than they rely on medical/insurance-covered transportation. The predominant mode of transportation



reported was “driving myself, using my own vehicle” for all groups with or without NEMT coverage (whether State or MCE provided).

**Table 7b. Proportion of members identifying specific types of transportation most often used for medical visits, by State-provided NEMT coverage and MCE-provided NEMT coverage**

Transportation Mode	Members without State-provided NEMT				Members with State-provided NEMT	
	Members with MCE-provided NEMT		Members without MCE-provided NEMT		Members Surveyed	Proportion of Members Indicating Mode (weighted)
	Members Surveyed	Proportion of Members Indicating Mode (weighted)	Members Surveyed	Proportion of Members Indicating Mode (weighted)		
I drive myself, using my own vehicle	87	75%	101	64%	173	59%
Someone else (such as a friend, neighbor, or family) drives me, using my own vehicle	5	3%	8	5%	11	4%
Someone else (such as a friend, neighbor, or family) drives me, using their vehicle	23	16%	34	22%	76	28%
I take a taxi cab/or Uber	0	--	0	--	4	1%
I take the bus	4	3%	6	4%	11	4%
I walk	0	--	2	2%	1	<1%
I drive myself, using another vehicle	2	1%	4	3%	7	2%
Medical/insurance-covered transportation	2	2%	0	--	2	1%
Don't Know	0	--	0	--	1	<1%

Notes: The proportion of members indicating the mode of transportation as the most often used for medical visits is based on weighted estimates. Detailed information on the size of adjustments to the reported proportions is provided in *Appendix A.2b*. There are 36 surveyed members which do not have State-provided NEMT and for which we could not identify their MCE.

*Table 7c* displays the proportion of survey respondents without State-provided NEMT who reported transportation as a reason for a missed appointment by MCE-provided NEMT availability, urban/rural location and availability of public transportation. Small sample sizes limit the ability to compare results across the areas, particularly between members in areas with and without public transportation. None of the differences by rural and urban status for either the population with or without MCE-provided NEMT were statistically significant.

**Table 7c. Proportion of members without State-provided NEMT coverage reporting transportation as a reason for a missed appointment within 6 months of being surveyed, by MCE-provided NEMT coverage, rural/urban location and availability of public transportation**

Rural/Urban and Public Transportation Status	Members Surveyed without State-provided NEMT	Proportion Indicating Transportation as a Reason (weighted)	Proportion Indicating Transportation as Most Common Reason (weighted)
<b>HIP 2.0 Members with MCE-provided NEMT</b>			
All Members	123	6%	2%
Rural	43	5%	--
Urban	80	6%	4%
Public Transportation Available	111	6%	2%
Public Transportation Not Available	12	--	--
<b>HIP 2.0 Members without MCE-provided NEMT</b>			
All Members	155	7%	5%
Rural	45	3%	3%
Urban	110	9%	6%
Public Transportation Available	145	7%	5%
Public Transportation Not Available	10	9%	--

Notes: Proportions reported are based on weighted estimates. Detailed information on the size of adjustments to the reported proportions is provided in *Appendix A.2c*. There are 36 surveyed members which do not have State-provided NEMT and for which we could not identify their MCE.

No statistical tests were run on the proportion of members that report transportation to be the most common reason due to small sample sizes.

### C. Research Question 3: How does not having access to NEMT affect preventive care and overall health outcomes?

Respondents to the Provider survey were asked a series of questions about the reasons that patients missed appointments. The first two questions ask providers for likely reason(s) members missed appointments and the most common reason for missing an appointment (similar to the questions asked in the member survey). The survey then asked two additional questions: whether they feel that, when members missed appointments, if it has an impact on (1) members receiving preventive care, and (2) members’ overall quality of care, with a free response option to describe how missed appointments impact quality of care. These two subsequent questions were asked of all respondents, regardless of whether they cited *transportation* as a cause of missed appointments.

Thus, these responses do not provide direct evidence of the impact of not having NEMT, but they can provide insight into provider perspectives on the potential effects of missed appointments – for any reason – on preventive care and overall quality of care. As noted

previously, the STC’s required the evaluation to assess the impact of no access as viewed by providers.

However, it should also be noted that the respondents were predominantly administrative staff at the provider locations that were contacted, as opposed to clinicians that may be more familiar with the health of patients seen at each location. The administrative staff may be best suited to provide perspectives on patients’ missed appointments, but that is likely not the case regarding the impact on patients’ preventive care and overall quality of care. While we report the results from the provider survey dealing with the potential effects on preventive care and overall quality of care due to missed appointments below, they should be viewed with this limitation in mind.

**Table 8a** below depicts responses to the question on the impact on *preventive* care, with 142 or nearly 63 percent of respondents stating “yes” or “sometimes” that missing an appointment had an impact on preventive care.

**Table 8a. Provider responses regarding the impact of missing an appointment on preventive care**

Does missing an appointment impact preventive care	Number	Proportion
Yes	91	40%
Sometimes	51	23%
No	60	27%
Don't know	23	10%
Total respondents	225	100%

The survey also queried whether missing an appointment had an impact on *overall* quality of care. **Table 8b** shows that about half of respondents felt that missing an appointment had an impact on overall quality of care. Combining those who answered “yes” and “sometimes” reveals that 141 respondents (63 percent) felt that it had an impact on overall quality of care; a similar proportion to the question on the impact of preventive care.

**Table 8b. Provider responses regarding the impact of missing an appointment on overall quality of members’ care**

Does missing an appointment impact overall care quality	Number	Proportion
Yes	111	49%
Sometimes	30	13%
No	70	31%
Don't know	14	6%
Total respondents	225	100%

Finally, providers were asked to describe *how* missing an appointment impacted quality of care. The 111 respondents saying that missed appointments affect care quality were asked an open-ended question as to *how* missing an appointment impacted quality of care. All open-ended responses were reviewed and coded into 25 categories and quantified. Sample sizes for each category were relatively small, with the most frequent category being “We can’t treat or care for them” (n=13), “They end up in the ER” (n=7), and “necessary follow-up is not done”

(n=7). *Appendix A.2d* provides a full list of categories classified. Taken together, the questions show that the respondents feel that missing appointments impacts patients’ preventive care and overall quality of care, with the open ended questions indicating a negative impact.

#### D. Research Question 4: What is the impact of no access to NEMT as viewed by the providers and beneficiaries?

To answer Research Question 4, we rely on provider and member survey responses describing the percentage of respondents reporting transportation as a *cause* of missed appointments and the impact of missed appointments.

##### *Member Perspective*

As described above, approximately 6 percent (*Table 6c*) of all members surveyed without State-provided NEMT have a missed appointment and cite problems with transportation as a reason for missing an appointment. While that is a relatively small percentage, one-third of members without state-provided NEMT who missed an appointment identified transportation problems as one of the reasons for missing an appointment (based on weighted proportions). Transportation was also the reason most identified as the most common reason.

There is little evidence from the member survey that shows that transportation problems vary by rural/urban location or availability of public transportation. However, some findings support the notion that the proportion of members that view transportation as a reason for missing an appointment can vary by income levels; which appears to be largely driven by higher proportions for members with less than 25 percent of the FPL, a trend that appears for both members with and without State-provided NEMT.

In order to investigate reactions by other potentially important cohorts of HIP 2.0 members, *Table 9a* breaks down the experiences of members without State-provided NEMT by MCE-provided NEMT, by gender and by age group (19 to 35 and 36 and older). There are no age or gender-related patterns among members with MCE-provided NEMT. However, there are some statistically significant results when looking at the members without MCE-provided NEMT. Males are two times more likely to report missing an appointment than females ( $t=1.83$ ,  $p=0.0330$ ); similarly, members who are aged 19 through 35 report missing an appointment twice as frequently as those that are older ( $t=1.94$ ,  $p=0.0265$ ).

**Table 9a. Proportion of members without State-provided NEMT that indicate a missed appointment by MCE-provided NEMT coverage, gender and age group**

Member Demographics	Members Surveyed without State-provided NEMT			
	Members with MCE-provided NEMT		Members without MCE-provided NEMT	
	Members Surveyed	Proportion indicating a Missed Appointment (weighted)	Members Surveyed	Proportion indicating a Missed Appointment (weighted)
All Members	123	17%	155	18%
Male	36	16%	47	27%
Female	87	18%	108	13%
Age between 19 and 35	47	19%	56	27%
Age 36 and older	76	16%	99	12%

Notes: Proportions reported are based on weighted estimates. Detailed information on the size of adjustments to the reported proportions is provided in *Appendix A.3a*. There are 36 surveyed members which do not have State-provided NEMT and for which we could not identify their MCE.

*Table 9b* describes the proportion of members without State-provided NEMT that indicated transportation as a reason for a missed appointment by MCE-provided NEMT coverage, gender and age group. No statistically significant differences were found by age or gender for members with or without MCE-provided NEMT.

**Table 9b. Proportion of members without State-provided NEMT indicating transportation as a reason for a missed appointment by MCE-provided NEMT coverage, gender and age group**

Member Demographics	Members Surveyed	Proportion Indicating Transportation as a Reason (weighted)	Proportion Indicating Transportation as Most Common Reason (weighted)
<b>HIP 2.0 Members with MCE-provided NEMT</b>			
All Members	123	6%	2%
Male	36	3%	--
Female	87	7%	4%
Age between 19 and 35	47	5%	1%
Age 36 and older	76	6%	3%
<b>HIP 2.0 Members without MCE-provided NEMT</b>			
All Members	155	7%	5%
Male	47	11%	7%
Female	108	5%	3%
Age between 19 and 35	56	6%	3%
Age 36 and older	99	8%	6%

Notes: Proportions reported are based on weighted estimates. Detailed information on the size of adjustments to the reported proportions is provided in *Appendix A.3b*. There are 36 surveyed members which do not have State-provided NEMT and for which we could not identify their MCE.

***Provider Perspective***

*Table 9c* below describes the Provider Survey responses regarding specified reasons for why their patients missed appointments, both as *any* reason and as the *most common* reason. Providers could make multiple selections; the mean was 3.8 responses per respondent. As with the member survey, transportation was most often identified as *any* reason for missed appointments (over two-thirds of providers) and the most common reason (over one-third).

**Table 9c. Proportion of providers reporting specified reasons for members’ missed appointments**

Reason for Missing an Appointment	Proportion of Providers (n=225) Reporting Reasons Why Patients Missed an Appointment	
	Any Reason	Most Common Reason
Transportation Problem	69%	35%
Didn't want to go	56%	12%
Couldn't get time off from work	48%	4%
Didn't have time	45%	6%
Too sick to go	36%	3%
Couldn't get childcare	28%	2%
Didn't get approval from health plan	25%	4%
Other	24%	15%
Takes too long to get there	11%	1%
Hours of operation were not convenient	10%	1%
Cost too much	9%	3%
Couldn't get through on the phone	6%	--
They don't care	3%	2%

Notes: *Appendix A.3c* provides the frequency counts for each response type. Common responses for “Other” reasons include “Forgot” and “They are feeling better.”

To more closely examine the issue of transportation, we explored survey responses by provider setting, type and location. It is useful to examine provider setting, type, and region as factors, since there may be differences in the type of care being sought across these domains; for example, we might expect more acute care needs at a specialist versus primary care setting and one may be less likely to miss appointments for acute needs. Additionally, as described above, there may be differences in health care access depending on the geographic area as the supply of health care resources varies across areas.

**Table 9d. Proportion of providers reporting transportation as a reason for members’ missed appointments**

	Hospital (n= 45)	FQHC/ RHC (n= 24)	Office-Based Practices (n= 156)
Any Reason	53%	79%	72%
Most Common Reason	18%	50%	37%

Roughly 80 percent of respondents working in FQHCs and RHCs report transportation as a reason why patients miss an appointment, and half reported transportation as the most common reason why patients miss an appointment (*Table 9d*). Transportation was also the most frequently identified reason by respondents in hospital and office-based settings.

**Table 9e. Proportion of office-based providers reporting transportation as a reason for members’ missed appointments by type of services provided**

	Primary Care Only (n= 87)	Primary Care and Specialty Care (n= 21)	Specialty Care Only (n=28)
Any Reason	75%	76%	67%
Most Common Reason	37%	43%	35%

Transportation was also the most cited reason for respondents in office-based providers, regardless if delivering primary care only, specialty care only or both (*Table 9e*). A similar pattern is exhibited for providers across all regions in Indiana (*Table 9f*). Hence, the view of transportation being a main reason for missed appointments is consistent across all providers surveyed.

**Table 9f. Proportion of providers reporting transportation as a reason for members’ missed appointments by location of provider**

	Northwest (n = 39)	North Central (n=30)	Northeast (n = 28)	Central (n = 27)	South (n=58)	Indianapolis Area (n=35)
Any Reason	77%	60%	57%	74%	69%	80%
Most Common Reason	54%	33%	18%	33%	29%	40%

Notes: Eight providers in neighboring states are excluded.



## Summary of Observations, Limitations, and Potential Further Research

This section summarizes our findings regarding the experience of HIP 2.0 members without access to NEMT. In addition, this section will include a discussion of some of the limitations and caveats of the analysis, and suggest some potential areas of future investigation.

Based on the results from the survey, approximately 19 percent of all HIP 2.0 surveyed members reported missing an appointment. A substantial proportion of members with (23 percent) and without (16 percent) State-provided NEMT reported missing an appointment within 6 months of being surveyed. Across all surveyed members without State-provided NEMT, there were no significant differences in the proportion of members that reported a missed appointment by poverty level or by whether the member has NEMT benefits provided through her or his MCE.

Transportation was reported as a reason for missing an appointment in the 6 months prior to being surveyed by approximately 6 percent of members without State-provided NEMT. Transportation was also reported to be a reason for missing an appointment by 11 percent of members with State-provided NEMT. For both groups, transportation was identified by the largest proportion of members as the most common reason for missing an appointment. As discussed throughout the report, it would be inappropriate to draw conclusions regarding the effectiveness of NEMT bases on these reported statistics. Given the eligibility criteria for members to receive State-provided NEMT (i.e., generally lower incomes, caretaker responsibilities and more visits to physician offices), it would be expected such members would face greater challenges getting to needed health care. Also complicating these comparisons are the fact that many members without State-provided NEMT actually receive MCE-provided NEMT.

There were statistically significant differences by poverty levels in the proportion of members that identified transportation as a reason for missing an appointment for both members with and without State-provided NEMT. In both cases, the differences are driven by higher proportions of members citing transportation problems in the cohorts with income less than 25 percent of the FPL (those proportions are 10 percent for those without State-provided NEMT and 12 percent with State-based NEMT). This may not be surprising as people with lower income levels can be expected to have more barriers to needed health care. In fact, for 10 out of the 16 reasons identified in the member survey, the highest proportions of members indicating the reason were from the lowest FPL cohort (see *Appendix A.4a*). However, complicating the interpretation is the similar proportion of members above 100 percent of the FPL (who are predominantly covered by HIP Plus) as those below 25 percent of the FPL that reported missing an appointment regardless of the reason, with or without State-provided NEMT.

There are similar proportions of members reporting transportation as a reason for missing an appointment without State-provided NEMT, based on whether they received NEMT coverage from their MCE (6 percent for those with MCE-provided NEMT and 7 percent for those without). MCE-provided NEMT could offset any potential effects from not having State-provided NEMT. Everything else equal, it would be expected that transportation is less of an issue for members with MCE-provided NEMT, but our analysis cannot account for differences in plan selection--making comparing the two populations inadvisable.

There also did not appear to be evidence supporting major differences in the proportion of members without State-provided NEMT as a whole who missed appointments or reported transportation as a reason for missed appointments by rural/urban location, availability of public transportation, age or gender. However, there were statistically significant differences by gender and age group for the subset of those without State and MCE-provided NEMT.

Respondents to the provider survey also reported transportation as the most common perceived reason that members missed appointments. This was a view shared by respondents surveyed across provider types and regions. The majority of surveyed providers, albeit largely non-clinical (administrative) staff at the provider locations surveyed, also viewed missed appointments as impactful on patients' preventive care and overall quality of care, expressing concerns for detrimental effects.

In sum, the member surveys show a small number of individuals missed appointments due to transportation related issues. However, both members with and without NEMT, whether provided by the State or an MCE, reported transportation issues leading to missed appointments. The rates were similar, particular for those with and without MCE-provided coverage, implying that simply providing NEMT benefits does not eliminate all transportation problems for HIP 2.0 members. In fact, a very small percentage of members (whether with State-provided NEMT, MCE-provided NEMT or no NEMT coverage) reported relying on medical/insurance-covered transportation for medical visits. Approximately two-thirds of members report driving themselves in their own car – over 90 percent report using their car or someone else's (such as a friend's, neighbor's, or family member's) car and either driving themselves or having someone else drive them.

#### A. Study Limitations

As discussed previously, the largest limitation to this analysis is the lack of a comparison group against which we can gauge the impact of the NEMT waiver policy. A good comparison group would be similar to members without State-provided NEMT in all relevant dimensions, except that they do in fact have NEMT coverage. Being able to measure trends in both populations with the only major difference being NEMT coverage status between them would allow for the ability to isolate and measure the impact of not having NEMT coverage.

There are several other key limitations as well. The ability to detect statistically and programmatically meaningful differences is limited by small sample sizes, particularly when evaluating subgroups based on income, age, gender or geography (which as discussed above, the member survey was not designed to do).<sup>33</sup> In many cases throughout this report, differences being reported were not statistically significant. However, there always exists a possibility that one incorrectly concludes no differences exist when, in fact, differences do exist. For example, for members without State-provided NEMT, there was a 6 percentage point difference in the proportion that reported transportation being a reason for a missed appointment between those with and without MCE-provided NEMT. This difference was found to be statistically insignificant ( $t=1.27$ ,  $P=.1024$ ). The power for this test, under the alternative hypothesis that the true difference was 6 percentage points, was 38 percent. This means that we only have a

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<sup>33</sup> See *Appendix J* for a detailed explanation of sample size calculations.

38percent chance of detecting a 6 percent difference when it, in fact, exists. In order to detect a difference of 6 percentage points with 80 percent power for this comparison, the study would require a sample size of 620 respondents, an increase of 465 respondents.

Also, survey data is inherently subject to several limitations, notably including recall bias. This is particularly the case for the NEMT analysis since members and providers were asked to report on missed appointments over the last 6 months. While providers were asked about members' experiences, it may be difficult for them to distinguish between the experiences of their patients who are covered by different types of insurance, which may vary in their coverage for NEMT benefits. Furthermore, since the respondents to the Provider Survey were predominantly administrative staff, it is not clear how well suited they may be to provide perspectives on the impact of missed appointments on patients' preventive care and overall health outcomes.

### *B. Extension to the Study*

Any extension to this work should explore the use of a control group. The most promising option may be to focus on the populations with and without MCE-provided NEMT. If the NEMT benefits are similarly operationalized by MCEs and the State, then it may be possible to compare members within the population of members without State-provided NEMT based on whether their MCE provider NEMT or not. Larger samples sizes will be required to conduct such analyses and ensure comparable populations than were available for this analysis. Larger samples sizes could also better allow for more sophisticated testing, such as logistic regressions that can tease out the marginal effects of various factors, including NEMT coverage, on whether a member misses an appointment.

**Appendices**

Appendix A: Number and distribution estimates

Appendix A.1a

Table 6a. Proportion of members reporting a missed appointment within 6 months of being surveyed by State-provided NEMT coverage, Plus and Basic coverage, and FPL

Federal Poverty Level	Plus Members				Basic Members				All Members			
	Members surveyed	Members surveyed reporting missed appointments	Proportion (unweighted)	Proportion (weighted)	Members surveyed	Members surveyed reporting missed appointments	Proportion (unweighted)	Proportion (weighted)	Members surveyed	Members surveyed reporting missed appointments	Proportion (unweighted)	Proportion (weighted)
<b>Members with State-provided NEMT</b>												
<b>All Income Levels</b>	192	39	20%	19%	94	27	29%	28%	286	66	23%	23%
Less than 25%	151	33	22%	21%	79	23	29%	30%	230	56	24%	25%
Greater than or equal to 25% and less than 100%	17	2	12%	8%	13	4	31%	18%	30	6	20%	11%
100% or greater	24	4	17%	21%	2	0	--	--	26	4	15%	16%
<b>Members without State-provided NEMT</b>												
<b>All Income Levels</b>	228	38	17%	17%	86	13	15%	14%	314	51	16%	16%
Less than 25%	85	16	19%	20%	38	6	16%	15%	123	22	18%	19%
Greater than or equal to 25% and less than 100%	98	12	12%	12%	47	7	15%	13%	145	19	13%	12%
100% or greater	45	10	22%	22%	1	0	--	--	46	10	22%	21%

Appendix A.1b

Table 6b. Proportion of members without State-provided NEMT reporting a missed appointment within 6 months of being surveyed, by MCE-provided NEMT coverage and FPL

Federal Poverty Level	Members without State-provided NEMT											
	Members with MCE-provided NEMT				Members without MCE-provided NEMT				All Members			
	Members surveyed	Members surveyed reporting missed appointments	Proportion (unweighted)	Proportion (weighted)	Members surveyed	Members surveyed reporting missed appointments	Proportion (unweighted)	Proportion (weighted)	Members surveyed	Members surveyed reporting missed appointments	Proportion (unweighted)	Proportion (weighted)
All Income Levels	123	22	18%	17%	155	27	17%	18%	278	49	18%	18%
Less than 25%	45	9	20%	25%	65	13	20%	19%	110	22	20%	21%
Greater than or equal to 25% and less than 100%	58	7	12%	10%	67	10	15%	16%	125	17	14%	13%
100% or greater	20	6	30%	25%	23	4	17%	22%	43	10	23%	23%

Notes: There are 36 surveyed members which do not have State-provided NEMT and for which we could not identify their MCE.

Appendix A.1c

Table 6c. Proportion of members who identified specified reasons (Any Reason and Most Common Reason) for a missed appointment by State-provided NEMT coverage

Reason for Missing an Appointment	Members with State-provided NEMT (n=286)						Members without State-provided NEMT (n=314)					
	Any Reason			Most Common Reason			Any Reason			Most Common Reason		
	Members who missed appointment and indicated reason	Proportion (unweighted)	Proportion (weighted)	Members who missed appointment and selected most common reason	Proportion (unweighted)	Proportion (weighted)	Members who missed appointment and indicated reason	Proportion (unweighted)	Proportion (weighted)	Members who missed appointment and selected most common reason	Proportion (unweighted)	Proportion (weighted)
Transportation Problem	33	12%	11%	24	8%	8%	21	7%	6%	13	4%	3%
Cost too much	4	1%	1%	1	<1%	<1%	4	1%	1%	2	1%	<1%
Couldn't get childcare	14	5%	5%	9	3%	3%	3	1%	1%	2	1%	1%
Couldn't get time off from work	11	4%	4%	5	2%	2%	6	2%	1%	4	1%	1%
Didn't get approval from plan	11	4%	4%	3	1%	1%	3	1%	1%	1	<1%	<1%
Didn't want to go	2	1%	1%	1	<1%	<1%	7	2%	2%	3	1%	1%
Hours of operation were not convenient for me	12	4%	4%	1	<1%	<1%	9	3%	3%	2	1%	1%
No insurance	4	1%	2%	1	<1%	<1%	1	<1%	<1%	1	<1%	<1%
Place did not accept insurance coverage	6	2%	2%	0	--	--	5	2%	1%	2	1%	1%
Takes too long to get there	1	<1%	<1%	1	<1%	<1%	3	1%	1%	0	--	--

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Reason for Missing an Appointment	Members with State-provided NEMT (n=286)						Members without State-provided NEMT (n=314)					
	Any Reason			Most Common Reason			Any Reason			Most Common Reason		
	Members who missed appointment and indicated reason	Proportion (unweighted)	Proportion (weighted)	Members who missed appointment and selected most common reason	Proportion (unweighted)	Proportion (weighted)	Members who missed appointment and indicated reason	Proportion (unweighted)	Proportion (weighted)	Members who missed appointment and selected most common reason	Proportion (unweighted)	Proportion (weighted)
Too sick to go	15	5%	5%	6	2%	2%	13	4%	4%	5	2%	1%
Other Reason	4	1%	1%	3	1%	1%	12	4%	4%	11	4%	4%
Forgot	6	2%	2%	4	1%	1%	4	1%	1%	2	1%	1%
Couldn't get through on the phone	3	1%	1%	0	--	--	1	<1%	<1%	0	--	--
Couldn't schedule appointment soon enough	9	3%	3%	3	1%	1%	4	1%	1%	0	--	--
Didn't have time	14	5%	7%	4	1%	2%	10	3%	4%	2	1%	1%



Appendix A.1d

Table 6d. Proportion of members who identified transportation as a reason for a missed appointment (Any Reason and Most Common Reason) by State-provided NEMT coverage and FPL

Federal Poverty Level	Members Surveyed	Members Indicating Transportation as a Reason	Proportion Indicating Transportation as a Reason (unweighted)	Proportion Indicating Transportation as a Reason (weighted)	Members Indicating Transportation as Most Common Reason	Proportion Indicating Transportation as Most Common Reason (unweighted)	Proportion Indicating Transportation as Most Common Reason (weighted)
<b>HIP 2.0 Members with State-provided NEMT</b>							
<b>All Income Levels</b>	<b>286</b>	<b>33</b>	<b>12%</b>	<b>11%</b>	<b>24</b>	<b>8%</b>	<b>8%</b>
Less than 25%	230	29	13%	12%	21	9%	9%
Greater than or equal to 25% and less than 100%	30	3	10%	4%	2	7%	3%
100% or greater	26	1	4%	2%	1	4%	2%
<b>HIP 2.0 Members without State-provided NEMT</b>							
<b>All Income Levels</b>	<b>314</b>	<b>21</b>	<b>7%</b>	<b>6%</b>	<b>13</b>	<b>4%</b>	<b>3%</b>
Less than 25%	123	12	10%	10%	6	5%	5%
Greater than or equal to 25% and less than 100%	145	6	4%	3%	5	3%	2%
100% or greater	46	3	7%	6%	2	4%	4%

Appendix A.1e

Table 6e. Proportion of members without State-provided NEMT who identified transportation as a reason for a missed appointment by MCE-provided NEMT coverage and FPL

Federal Poverty Level	Members Surveyed	Members Indicating Transportation as a Reason	Proportion Indicating Transportation as a Reason (unweighted)	Proportion Indicating Transportation as a Reason (weighted)	Members Indicating Transportation as Most Common Reason	Proportion Indicating Transportation as Most Common Reason (unweighted)	Proportion Indicating Transportation as Most Common Reason (weighted)
<b>HIP 2.0 Members with MCE-provided NEMT</b>							
<b>All Income Levels</b>	<b>123</b>	<b>8</b>	<b>7%</b>	<b>6%</b>	<b>4</b>	<b>3%</b>	<b>2%</b>
Less than 25%	45	4	9%	9%	2	4%	3%
Greater than or equal to 25% and less than 100%	58	2	3%	2%	1	2%	1%
100% or greater	20	2	10%	11%	1	5%	6%
<b>HIP 2.0 Members without MCE-provided NEMT</b>							
<b>All Income Levels</b>	<b>155</b>	<b>12</b>	<b>8%</b>	<b>7%</b>	<b>8</b>	<b>5%</b>	<b>5%</b>
Less than 25%	65	8	12%	13%	4	6%	7%
Greater than or equal to 25% and less than 100%	67	3	4%	3%	3	4%	3%
100% or greater	23	1	4%	3%	1	4%	3%

Notes: There are 36 surveyed members which do not have State-provided NEMT and for which we could not identify their MCE.

Appendix A.2a

Table 7a. Proportion of members reporting a missed appointment within 6 months of being surveyed, by State-provided NEMT coverage, MCE-provided NEMT coverage, urban/rural location and availability of public transportation

Rural/Urban and Public Transportation Status	Members without State-provided NEMT								Members with State-provided NEMT			
	Members with MCE-provided NEMT				Members without MCE-provided NEMT				Members Surveyed	Members Indicating a Missed Appointment	Proportion Indicating a Missed Appointment	Proportion Indicating a Missed Appointment (weighted)
	Members Surveyed	Members Indicating a Missed Appointment	Proportion Indicating a Missed Appointment (unweighted)	Proportion Indicating a Missed Appointment (weighted)	Members Surveyed	Members Indicating a Missed Appointment	Proportion Indicating a Missed Appointment (unweighted)	Proportion Indicating a Missed Appointment (weighted)				
All Members	123	22	18%	17%	155	27	17%	18%	286	66	23%	23%
Rural	43	6	14%	15%	45	7	16%	18%	97	21	22%	25%
Urban	80	16	20%	18%	110	20	18%	18%	189	45	24%	22%
Public Transportation Available	111	20	18%	18%	145	25	17%	17%	266	56	21%	21%
Public Transportation Not Available	12	2	17%	9%	10	2	20%	31%	20	10	50%	60%

Notes: There are 36 surveyed members which do not have State-provided NEMT and for which we could not identify their MCE.

Appendix A.2b

Table 7b. Proportion of members identifying specific types of transportation most often used for medical visits, by State-provided NEMT coverage and MCE-provided NEMT coverage

	Members without State-provided NEMT						Members with State-provided NEMT (n=286)		
	Members with MCE-provided NEMT (n=123)			Members without MCE-provided NEMT (n=155)					
	Members Indicating a Mode	Proportion of Members Indicating a Mode (unweighted)	Proportion of Members Indicating a Mode (weighted)	Members Indicating a Mode	Proportion of Members Indicating a Mode (unweighted)	Proportion of Members Indicating a Mode (weighted)	Members Indicating a Mode	Proportion of Members Indicating a Mode (unweighted)	Proportion of Members Indicating a Mode (weighted)
I drive myself, using my own vehicle	87	71%	75%	101	65%	64%	173	60%	59%
Someone else (such as a friend, neighbor, or family) drives me, using my own vehicle	5	4%	3%	8	5%	5%	11	4%	4%
Someone else (such as a friend, neighbor, or family) drives me, using their vehicle	23	19%	16%	34	22%	22%	76	27%	28%
I take a taxi cab/or Uber	0	--	--	0	--	--	4	1%	1%
I take the bus	4	3%	3%	6	4%	4%	11	4%	4%
I walk	0	--	--	2	1%	2%	1	<1%	<1%
I drive myself, using another vehicle	2	2%	1%	4	3%	3%	7	2%	2%
Medical/insurance-covered transportation	2	2%	2%	0	--	--	2	1%	1%
Don't Know	0	--	--	0	--	--	1	<1%	<1%

Notes: There are 36 surveyed members which do not have State-provided NEMT and for which we could not identify their MCE.

Appendix A.2c

Table 7c. Proportion of members without State-provided NEMT coverage reporting transportation as a reason for a missed appointment within 6 months of being surveyed, by MCE-provided NEMT coverage, rural/urban location and availability of public transportation

Rural/Urban and Public Transportation Status	Members Surveyed	Members Indicating Transportation as a Reason	Proportion Indicating Transportation as a Reason (unweighted)	Proportion Indicating Transportation as a Reason (weighted)	Members Indicating Transportation as Most Common Reason	Proportion Indicating Transportation as Most Common Reason (unweighted)	Proportion Indicating Transportation as Most Common Reason (weighted)
<b>HIP 2.0 Members with MCE-provided NEMT</b>							
<b>All Members</b>	<b>123</b>	<b>8</b>	<b>7%</b>	<b>6%</b>	<b>4</b>	<b>3%</b>	<b>2%</b>
Rural	43	2	5%	5%	0	--	--
Urban	80	6	8%	6%	4	5%	4%
Public Transportation Available	111	8	7%	6%	4	4%	2%
Public Transportation Not Available	12	0	--	--	0	--	--
<b>HIP 2.0 Members without MCE-provided NEMT</b>							
<b>All Members</b>	<b>155</b>	<b>12</b>	<b>8%</b>	<b>7%</b>	<b>8</b>	<b>5%</b>	<b>5%</b>
Rural	45	2	4%	3%	2	4%	3%
Urban	110	10	9%	9%	6	5%	6%
Public Transportation Available	145	11	8%	7%	8	6%	5%
Public Transportation Not Available	10	1	10%	9%	0	--	--

Notes: There are 36 surveyed members which do not have State-provided NEMT and for which we could not identify their MCE.

Appendix A.2d

Table 8b. Provider open responses regarding the impact of missing an appointment on overall quality of members’ care

How does missing an appointment impact overall care quality?	Number of Providers Indicating Specific Impact (n=111)	Proportion of Providers Indicating Specific Impact
We can't treat or care for them	13	12%
Necessary follow up care is not done	7	6%
They end up in the ER	7	6%
The doctor can't see the progress of treatment	6	5%
Preventive care is not done	6	5%
Diabetes is not properly monitored	6	5%
Needed medications are not received or refilled	5	5%
Disease gets worse/ it can cause problems later on	4	4%
It impacts <i>other</i> members because they were not able to make an appointment	3	3%
It shows that they are non-compliant with their healthcare	3	3%
We have to call them to see why they missed	3	3%
They don't have consistency of care	3	3%
Lab testing is delayed or not done	3	3%
Their pregnancy could be affected	3	3%
They are missing appointments because they cannot afford to pay/don't have insurance	3	3%
Children's immunizations delayed or not done	2	2%
It takes longer to get in the office for an another appointment	2	2%
We cannot educate the patient on his or her disease	2	2%
It could affect their overall health	2	2%
They will be back to where they started in care	2	2%
They experience more pain	2	2%
Problems not caught/ help not provided in time	1	1%
They aren't receiving the therapy they need	1	1%
Treatment is delayed	1	1%
Their blood pressure is not monitored	1	1%
Other	11	10%
Don't Know	9	8%

Appendix A.3a

Table 9a. Proportion of members without State-provided NEMT that indicate a missed appointment by MCE-provided NEMT coverage, gender and age group

Member Demographics	Members Surveyed without State-provided NEMT							
	Members with MCE-provided NEMT				Members without MCE-provided NEMT			
	Members Surveyed	Members Indicating a Missed Appointment	Proportion Indicating a Missed Appointment (unweighted)	Proportion Indicating a Missed Appointment (weighted)	Members Surveyed	Members Indicating a Missed Appointment	Proportion Indicating a Missed Appointment (unweighted)	Proportion Indicating a Missed Appointment (weighted)
All Members	123	22	18%	17%	155	27	17%	18%
Male	36	5	14%	16%	47	12	26%	27%
Female	87	17	20%	18%	108	15	14%	13%
Age between 19 and 35	47	9	19%	19%	56	12	21%	27%
Age 36 and older	76	13	17%	16%	99	15	15%	12%

Notes: There are 36 surveyed members which do not have State-provided NEMT and for which we could not identify their MCE.

Appendix A.3b

Table 9b. Proportion of members without State-provided NEMT indicating transportation as a reason for a missed appointment by MCE-provided NEMT coverage, gender and age group

Member Demographics	Members Surveyed	Members Indicating Transportation as a Reason	Proportion Indicating Transportation as a Reason (unweighted)	Proportion Indicating Transportation as a Reason (weighted)	Members Indicating Transportation as Most Common Reason	Proportion Indicating Transportation as Most Common Reason (unweighted)	Proportion Indicating Transportation as Most Common Reason (weighted)
<b>HIP 2.0 Members with MCE-provided NEMT</b>							
<b>All Members</b>	<b>123</b>	<b>8</b>	<b>7%</b>	<b>6%</b>	<b>4</b>	<b>3%</b>	<b>2%</b>
Male	36	1	3%	3%	0	--	--
Female	87	7	8%	7%	4	5%	4%
Age between 19 and 35	47	3	6%	5%	1	2%	1%
Age 36 and older	76	5	7%	6%	3	4%	3%
<b>HIP 2.0 Members without MCE-provided NEMT</b>							
<b>All Members</b>	<b>155</b>	<b>12</b>	<b>8%</b>	<b>7%</b>	<b>8</b>	<b>5%</b>	<b>5%</b>
Male	47	6	13%	11%	4	9%	7%
Female	108	6	6%	5%	4	4%	3%
Age between 19 and 35	56	3	5%	6%	2	4%	3%
Age 36 and older	99	9	9%	8%	6	6%	6%

Notes: There are 36 surveyed members which do not have State-provided NEMT and for which we could not identify their MCE.



Appendix A.3c

Table 9c. Proportion of providers reporting specified reasons for members’ missed appointments

Reason for Missing an Appointment	Proportion of Providers (n=225) Reporting Reasons Why Patients Missed an Appointment			
	Number of Providers Indicating Any Reason	Proportion of Providers Indicating Any Reason	Number of Providers Indicating Most Common Reason	Proportion of Providers Indicating Most Common Reason
Transportation Problem	156	69%	78	35%
Didn't want to go	127	56%	26	12%
Couldn't get time off from work	108	48%	10	4%
Didn't have time	101	45%	13	6%
Too sick to go	81	36%	7	3%
Couldn't get childcare	63	28%	4	2%
Didn't get approval from health plan	57	25%	10	4%
Other	53	24%	33	15%
Takes too long to get there	24	11%	2	1%
Hours of operation were not convenient	22	10%	2	1%
Cost too much	20	9%	7	3%
Couldn't get through on the phone	14	6%	--	--
They don't care	6	3%	4	2%
Don't know	27	12%	29	13%

Appendix A.4a

Table 10a. Proportion of members who identified specified reasons (any reason), by FPL

Reason for Missing an Appointment (multiple responses allowed)	Weighted proportion with FPL less than 25%	Weighted proportion with FPL greater than or equal to 25% and less than 100%	Weighted proportion with FPL 100% or greater
Transportation Problem	11%	3%	5%
Other Reason	3%	4%	<1%
Too sick to go	5%	4%	2%
Didn't have time	7%	1%	5%
Hours of operation were not convenient for me	4%	2%	4%
Didn't want to go	2%	1%	2%
Couldn't get time off from work	2%	2%	4%
Place did not accept insurance coverage	2%	1%	2%
Couldn't schedule appointment soon enough	3%	<1%	3%
Forgot	2%	<1%	3%
Cost too much	2%	1%	--
Couldn't get childcare	3%	2%	--
Takes too long to get there	1%	<1%	--
Didn't get approval from plan	3%	1%	--
No insurance	1%	--	2%
Couldn't get through on the phone	<1%	<1%	2%

## Appendix B. Survey Sampling Approach

To provide information on individual experiences with the Healthy Indiana Plan (HIP) 2.0, Indiana surveyed HIP 2.0 members and providers. The first round of surveys was administered in December 2015 and January 2016, and additional surveys will be conducted later in the demonstration (scheduled for 2016 and 2017). The surveys cover a range of topics that address aspects such as access to care, affordability, and member and provider understanding of the program.

### *Member Survey Sampling Strategy*

A sample was randomly selected from the total number of HIP 2.0 members. *Table B1*, below, outlines the total number of members, number of members selected into the sample, target number of responses, and number of completed responses for each category.

The total number of members represents the universe of HIP 2.0 members (n=264,018) as of August 26, 2015. A sample of this universe was selected (n=11,000), for whom data was sent to the survey firm, AIRvan Consulting, for data collection. This sample was selected to ensure that the target number of responses were completed based upon expected survey response rates. A target number of completed responses was constructed to maintain the proportion of members in each category in the universe of HIP 2.0 members. That is, the survey design and collection process was based on a quota-based sample where the number of completed surveys was designed to have similar proportions of respondents to the universe of HIP 2.0<sup>34</sup> members along the dimensions of State-provided NEMT coverage, as well as participation in the HIP Plus and HIP Basic plans.

Ultimately, 600 current members comprised the survey sample; this number exceeded our initial target of 550 as AIRvan Consulting oversampled to ensure that quotas for each of the NEMT categories were met. The target sample sizes for the survey were determined in order to detect large differences across populations – greater than 10 percentage points – using standard levels of statistical confidence. These differences were deemed substantial from a policy perspective for populations of interest in aggregate (e.g., all members with Plus coverage verses those with Basic coverage).<sup>35</sup> However, the ability to detect statistically significant differences for subgroup analyses, which would rely on smaller subsets of the overall sample, would be lower.<sup>36</sup>

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<sup>34</sup> The sample was selected based on the HIP 2.0 population at a point in time in August 2015. Reference to universe of HIP 2.0 beneficiaries for any sample projections refer to this point in time population.

<sup>35</sup> “Response to Recent Communications from CMS (10/29/15) and Mathematica Policy Research (10/27/15)”, Submitted by Lewin Group to Joseph Moser on 11/05/2015. Sample sizes determined using a .05 level of significance 80% power.

<sup>36</sup> Detectable differences determined using an assumed response proportion of .10. Detectable differences increase greatly as this assumed proportion increases.

**Table B1. Summary of Current Member Sample Sizes from Survey Analysis Plan**

Survey	Detail	Total Number of Members	Number of Members Selected into Sample	Target Number of Completed Responses	Actual Number of Completed Responses
Current Member	<b>Plan Selection - Total</b>	<b>264,018</b>	<b>11,000</b>	<b>550</b>	<b>600</b>
	<i>HIP Plus</i>	183,021	7,637	385	420
	<i>HIP Basic</i>	80,997	3,363	165	180
	<b>Transportation Coverage – Total</b>	<b>264,018</b>	<b>11,000</b>	<b>550</b>	<b>600</b>
	<i>Receive State-provided NEMT</i>	120,320	5,192	260	286
	<i>Do not receive State-provided NEMT</i>	143,698	5,808	290	314

AIRvan Consulting randomly selected participants in each of the categories to be surveyed (survey protocol detailed below). Once 400 current member surveys were conducted, the number of interviews conducted within each category in relation to target completion numbers was assessed. A two-stage sampling approach was employed in which AIRvan Consulting was then asked to oversample specific categories of members to meet the target number for completed categories.

As discussed above, the Member Survey was targeted at two sets of non-mutually exclusive groups: HIP Basic and HIP Plus members, and those who were eligible and ineligible for transportation benefits (Non-Emergency Medical Transportation or NEMT). **Table B1** illustrates the target completed responses for each group and shows how all four were met given the existing distribution of HIP Plus and HIP Basic members with and without transportation benefits.

### ***Provider Survey Sampling Strategy***

The goal of the Provider Survey was to obtain information from providers who treat HIP 2.0 members. The survey included questions about overall impressions of HIP, missed appointments, the presumptive eligibility process, and collection of copayments. The survey also gauged providers' knowledge of HIP 2.0 reimbursement rates and asked if it affected their decision to participate in HIP 2.0.

**Table B2** outlines the total number of providers and actual number of completed responses by provider type groupings used in the analysis.

**Table B2. Distribution of Sampled HIP 2.0 Providers by Type**

Survey	Detail	Total Number of Providers	Actual Number of Completed Responses
Provider	FQHC + RHC	42 (FQHCs)	24
	Hospitals	848	45
	Office-Based	45,058	156
	Total	45,948	225

The total number of providers represents the universe of providers (n=45,948) as of August 15, 2015, including federally qualified health centers (FQHCs), rural health centers (RHCs), hospitals, and physician practices in Indiana. Indiana sent Lewin a list of all providers in the State. A sample of the provider universe was selected (n=1,750), for whom data was sent to the provider survey firm, Bingle Research, for data collection. The sample selection criteria were restricted to providers whose addresses are in Indiana or surrounding states (i.e. Michigan, Ohio, Kentucky, and Illinois) and treated HIP 2.0 patients. We excluded the following provider types and related specialties:

- Pediatrics
- Mental health
- School corporation
- Pharmacy
- DME/medical supply
- Transportation provider
- Dentist
- Laboratory
- First Step program
- Case Management
- Hearing Aid Dealer
- Waiver Provider
- Non-Billing Waiver Case Manager

Pediatric providers were excluded as HIP 2.0 covers only persons age 19 – 64. The other provider groups were excluded because they would be unlikely to be familiar with missed appointments or the availability of NEMT services. Providers eligible for inclusion into the surveyed sample included: (1) acute care hospitals, (2) psychiatric hospitals, (3) counseling and mental health centers, (4) rural healthcare centers (RHCs), (5) federally-qualified health centers (FQHCs), (6) local health departments, (7) solo/individual practices, (8) single-specialty practices and (9) multi-specialty practices. Due to small numbers for some of the provider types, we did not end up sampling all of these provider types.

To increase participation and alert providers that a survey was going to be conducted, all of the providers received a letter from Joseph Moser, Medicaid Director of Indiana FSSA. A copy of the letter is in *Appendix I*.

Ultimately, 225 providers comprised the survey sample; 96.4 percent were located in Indiana, while a small sample (n=8) came from surrounding states. All FQHCs (n=42) were targeted to be in the sample, as the FQHC client mix favors Medicaid members, including HIP 2.0. Half of the FQHCs in Indiana were ultimately sampled. For the purpose of analysis, survey responses from FQHCs, n=21, and Rural Health Centers (RHCs), n=3, are combined. The other 1,708 records were selected via simple random sample from the remaining pool of providers.

It should also be noted that Bingle Research interviewed primarily administrative<sup>37</sup> and financial staff<sup>38</sup> (88.0 percent), while clinicians<sup>39</sup> and auxiliary clinical staff<sup>40</sup> comprised approximately 5.3 percent and 6.7 percent, respectively. Survey questions were intended to be answered by those most familiar with the office environment and patient issues as a whole.

Respondents were asked in which field they practice and were classified as primary care providers if they responded ‘primary care’; ‘family practice’; or ‘OB/GYN’. All other providers were classified as specialists. Bingle Research approximated a 2:1 ratio of primary care to specialty care providers.

Respondents were also asked to identify their practice setting as either: 1) Solo/Individual Practice; 2) Single-Specialty Group; 3) Multi-Specialty Group; 4) Hospital; 5) Federally Qualified Health Center (FQHC), Rural Health Center (RHC); or 6) Other, and were able to select more than one option. For analysis purposes, mutually exclusive categories of practice setting were created as follows: 1) FQHC /RHC; 2) Hospital, and 3) Office Practice. The ‘Hospital’ category was comprised of all respondents who selected ‘Hospital’ as a response, even if they also selected another response option. Next, if a non-hospital provider said they were a FQHC, even if they also selected another response option, they were categorized as a FQHC. The remaining respondents who identified as an RHC, even if they also selected another response option, were classified as an RHC. All FQHCs and RHCs were combined into one category due to the small number of RHCs in the sample (n=3). Lastly, the ‘Office Practice’ category was comprised of Solo/Individual Practices (n=68), Single-Specialty Groups (n=36), and Multi-Specialty Groups (n=52).

*Table B2* shows the distribution of completed survey responses by the provider settings outlined above. As noted in the Sampling Section, this survey was not designed to be conducted with a representative sample. Rather, the survey focused on provider groups, such as FQHCs, that disproportionately serve HIP and Medicaid members. The majority of respondents (69 percent) practiced in an office-based setting.

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<sup>37</sup>Includes office managers / practice administrators and administrative assistants

<sup>38</sup>Includes financial and insurance staff

<sup>39</sup> Includes physicians and nurses

<sup>40</sup>Includes medical assistants, patient navigators, and community outreach staff

As mentioned above, respondents were also asked to identify if providers in their practice were: 1) primary care providers (inclusive of internal medicine and family practice); 2) OB/GYNs; 3) other specialists (specified in open responses), or 4) none of the above. Respondents were able to select more than one response because some worked at practices with more than one type of provider. Three mutually exclusive categories of providers were developed based upon responses: 1) Primary Care Only, 2) Specialty Care Only, and 3) Primary Care and Specialty Care. For the purpose of analysis, primary care providers and OB/GYNs were combined into one category. Please note that these designations only applied to respondents identified as office practices. **Table B3** shows the distribution of type of care provided among office-based practices. The majority of respondents (56 percent) practiced in primary care.

**Table B3. Provider Survey Respondents in Office-Based Practices, by Type of Care Provided**

Type of Care Provided	Number	Proportion
Primary Care	87	56%
Specialty Care	48	31%
Both Primary Care and Specialty Care	21	13%
<b>Total Number of Respondents</b>	<b>156</b>	<b>100%</b>

**Table B4** shows the distribution of providers by region, with the majority of respondents practicing in the southern region of Indiana (26 percent). Provider regions were identified by the area code of the phone number used to contact the provider.

**Table B4. Provider Survey Respondents, by Region**

Region	Number	Proportion
Northwest	39	17%
North Central	30	13%
Northeast	28	12%
Central	27	12%
South	58	26%
Indianapolis Area	35	16%
Neighboring States	8	4%
<b>Total Number of Respondents</b>	<b>225</b>	<b>100%</b>

### *Member and Provider Survey Protocol*

The survey firms conducting both the *member* and *provider* surveys used computer assisted telephone interviewing (CATI) to collect data. This telephone methodology provides for interviewer assistance with complicated skip patterns, unaided responses, and consistency in evaluation and limitations of sample bias. Additionally, it provides for expedient collection of the data, allows for better sample control, and can provide more in-depth and complete data

than other types of data collection methodologies. Prior to starting the interviewing, a thorough briefing was conducted with all interview and supervisory personnel assigned to the project. During the briefing, interviewers conducted practice interviews and were monitored by supervisory staff.

CATI was used to set quotas for each category of HIP membership or provider type for the respective surveys. The survey firms then randomly identified participants in each of the categories. When the quota (i.e., total number of interviews) was reached in a category, no additional attempts to reach individuals were made in that category. The CATI system pulled a random selection from the sample for each quota group. Any phone numbers found inactive, (i.e., instances where it would not be possible to call again), were flagged and were not included in additional contact attempts during the survey period. Inactive phone numbers include: disconnected numbers, wrong numbers, a response of “no such person lives here”, those who refused to start the survey, and those who started but were “qualified refusals.” Qualified refusals were those who stayed on the phone long enough to answer the qualifying questions, but refused or dropped off at some point and did not complete the survey. All “live” numbers such as those at which a busy signal or answering device was reached would be eligible to be called again until the quota for each membership category was filled.

To maximize response rate, calling took place between 9 am and 9 pm on weekdays, and 10 am to 9 pm on weekends for the member survey; calling took place between 8 am and 5 pm on weekdays during business hours for the provider survey. Any individual who was interested in taking the survey, but who could not participate at the time he or she was initially reached, was given the option of a callback at a specific time. The CATI system would then initiate a call at the scheduled time. If the person was available, the interview would be conducted. If there was no answer, the number would be placed in the “live” category with the potential to be called back.



## Appendix C. Methodology for developing the Public Transportation indicators

As part of exploring the effect of the NEMT waiver on HIP members, the availability of public transportation was considered as a potential variable that may influence the impacts of not having NEMT. To do this, we identified the availability and mode of public transportation in each county.

Most of Indiana residents are served by some form of public transportation. Information about public transportation services in Indiana can be found by using the “Transit-Related Links” in the Resource Library on the APTA (American Public Transportation Association) website and searching in the Indiana Transit Links. When the transit link is inaccurate, an additional online search will provide the correct link, and then the specific transit system website can be viewed to determine the types of public transportation services it provides and the service area that it covers. These include commuter trains in northern Indiana that link those communities with Chicago and bus systems throughout the state. The bus systems are either “fixed route”, “on demand”, or “mixed”. “Fixed route” systems are usually found in larger urban areas like Indianapolis and Fort Wayne and are characterized by buses that pick up and drop off passengers at designated bus stops on a set schedule. Most of these systems operate on a fixed fare basis, too, so a ride from one end of town to the other will usually cost the same amount. Some of these systems offer free rides in a limited area. “On demand” systems are most often available to the general public in less densely populated areas of Indiana and are characterized by passengers reserving a ride with the area’s designated transportation provider and then the passengers are picked up and dropped off at the locations specified in the reservation at the times specified when reserving a ride. These services are offered on a first come, first served basis to the limits of the transit system’s available vehicle and driver capacity. The majority of on demand systems use large shuttle vans and are operated by local councils on aging. While most riders are seniors or disabled, the services are available to anyone and the on demand systems in Lewin’s reference file offer their services to anyone without discrimination. Some of these transit systems specifically promote their services for providing non-emergency medical transportation and the majority of on demand systems charge distance-based fares that are usually categorized by in-city, in-county, and beyond. A mixed system offers both services to the general public, though they do not usually operate in the exact same service area within a county, so as an example, a city may have its own busy system and then the rural outskirts will have an on-demand system. Almost all fixed route systems also offer on-demand paratransit services for the disabled, but these are not available to the general public. The counties identified as “mixed” in Lewin’s reference file have both kinds of systems available to the general public operating within those counties.

We explored the use of all of these dimensions of the different modes of public transportation available in the analyses; however due to small sample sizes, it was decided to focus on the high-level identifier or whether any public transportation is available or not. This is the variable that is used in the analysis.

## Appendix D. Special Terms and Conditions Applicable to NEMT Study

### *Special Terms and Conditions (STC), Section V, Paragraph 2*

**2. Non-Emergency Medical Transportation (NEMT).** In DY 1, the state is not obligated to provide NEMT to individuals enrolled in the new adult group except for pregnant women and individuals determined to be medically frail. This waiver authority will be provided for one year and then evaluated, allowing the state and CMS to consider the impact on access to care.

CMS may only consider a request to amend this STC if the state has submitted an amendment request in conformity with Section III, paragraphs 6 and 7, and an evaluation of NEMT as described in Section XIII, paragraph 4.

### *Special Terms and Conditions (STC), Section XIII, Paragraph 4*

**4. NEMT Evaluation.** Indiana must conduct an independent evaluation of NEMT as described in Section V, paragraph 2. The evaluation must be submitted by November 1, 2015, include hypotheses, and address at a minimum the following questions:

- a. What is the effect of no access to NEMT on missed appointments by income level?
- b. Are there parts of the state that are more affected by no access to NEMT?
- c. How does not having access to NEMT affect preventive care and overall health outcomes?
- d. What is the impact of no access to NEMT as viewed by the providers and beneficiaries?

## Appendix E. NEMT-Related Member Survey Questions

These question numbers correspond to the HIP Basic member survey. In the HIP Plus member survey the identical questions are 17, 17a, 17b and 18.

**Q8. In the past six months, have you missed any healthcare appointments, such as doctor's appointments?**

- YES → GO TO a
- 
- NO
- DON'T KNOW → GO TO Q9
- REFUSED → GO TO Q9

**Q8a. What are the reasons you missed an appointment? (ALLOW MULTIPLE RESPONSE OPTIONS)**

- COST TOO MUCH
- COULDN'T GET CHILDCARE
- COULDN'T GET TIME OFF FROM WORK
- COULDN'T GET THROUGH ON THE PHONE
- COULDN'T SCHEDULE APPOINTMENT SOON ENOUGH
- DIDN'T GET APPROVAL FROM PLAN
- DIDN'T HAVE TIME
- DIDN'T WANT TO GO
- HOURS OF OPERATION WERE NOT CONVENIENT FOR ME
- NO INSURANCE
- PLACE DID NOT ACCEPT THE INSURANCE COVERAGE
- TAKES TOO LONG TO GET THERE
- TRANSPORTATION PROBLEM
- TOO SICK TO GO
- OTHER REASON, NOT LISTED ABOVE: (SPECIFY)

**Q8b. What is the most common reason you missed an appointment?**

- \_\_\_\_\_
- (If respondent chooses more than one option for Q8a above.)

**Q9. In the past six months, was there any time when you contacted a doctor's office or clinic, but couldn't get an appointment soon enough so you went to the emergency room instead?**

- YES
- NO
- DON'T KNOW
- REFUSED

**Q10. When you need to get health care, what is the type of transportation you use most often to get to your visit?**

- I DRIVE MYSELF, USING MY OWN VEHICLE
- SOMEONE ELSE (SUCH AS A FRIEND, NEIGHBOR, OR FAMILY) DRIVES ME, USING MY OWN VEHICLE

- SOMEONE ELSE (SUCH AS A FRIEND, NEIGHBOR, OR FAMILY) DRIVES ME, USING THEIR VEHICLE
- I TAKE A TAXI CAB/OR UBER
- I TAKE THE BUS
- OTHER: \_\_\_\_\_

## Appendix F. NEMT-Related Provider Survey Questions

Q11. If a member misses an appointment, which of the following are some likely reasons that the member missed it, in your opinion? READ LIST.

(CHOOSE ALL THAT APPLY)

- COSTS TOO MUCH
- COULDN'T GET CHILDCARE
- COULDN'T GET TIME OFF FROM WORK
- COULDN'T GET THROUGH ON THE PHONE
- DIDN'T GET APPROVAL FROM HEALTH PLAN
- DIDN'T HAVE TIME
- DIDN'T WANT TO GO
- HOURS OF OPERATION WERE NOT CONVENIENT
- TAKES TOO LONG TO GET THERE
- TRANSPORTATION PROBLEM
- TOO SICK TO GO
- OTHER (PLEASE SPECIFY)
- I DON'T KNOW

Q11a. Which of the reasons that you just mentioned, do you feel is the most common reason for a member to miss an appointment?

- COSTS TOO MUCH
- COULDN'T GET CHILDCARE
- COULDN'T GET TIME OFF FROM WORK
- COULDN'T GET THROUGH ON THE PHONE
- DIDN'T GET APPROVAL FROM HEALTH PLAN
- DIDN'T HAVE TIME
- DIDN'T WANT TO GO
- HOURS OF OPERATION WERE NOT CONVENIENT
- TAKES TOO LONG TO GET THERE
- TRANSPORTATION PROBLEM
- TOO SICK TO GO
- OTHER (PLEASE SPECIFY)
- I DON'T KNOW

Q12. When members missed appointments, do you feel that it had an impact on members receiving preventive care?

- YES
- NO
- SOMETIMES
- DON'T KNOW
- REFUSED

Q13. When members missed appointments, do you feel that it had an impact on members' overall quality of care?

- YES → GO TO Q14
- NO → GO TO Q15
- SOMETIMES → **GO TO Q14**
- DON'T KNOW  → GO TO Q15
- REFUSED  → GO TO Q15

Q14. How has it impacted members' quality of care? [Free response]

## Appendix H. The Member Survey Weighting Methodology

The Indiana HIP program evaluation sampling design is a two phase sampling design that can be treated as a stratified sample. The first phase was a sample of 11,000 members. For the members, the sample was stratified such that the number of claims in each plan and NEMT status was proportional to the universe frequencies. These combinations of plans and NEMT status define the strata for this design. In the second phase, samples were taken from each stratum. Since the sampling in the second phase was nested within each stratum, all members within each stratum had the same probability of being sampled, thus all members in each strata had the same final probability of both being selected in the first phase and second phase of the sample. As such, we can treat the sample as a one stage stratified design.

### Sampling Weights

As described above, all members within a stratum were sampled with the same probability. Hence, all individuals in a given strata had the same raw sampling weights. *Table H1* below shows the universe size, sample size and raw sampling weights for the five strata.

**Table H1. Raw Weights by Stratum**

Description	Total Universe Members	Total Sample Members	Raw Weight
Regular Basic - NEMT	316	2	158.000
Regular Basic - No NEMT	29,220	86	339.767
Regular Plus - No NEMT	114,478	228	502.096
State Basic - NEMT	51,461	92	559.359
State Plus - NEMT	67,690	192	352.552

We should note that utilizing these sampling weights would be a very typical and acceptable approach for purposes of analysis. However, we recognize that the sample is quite small, which exposes the sample to a greater risk of being skewed on key characteristics that might be correlated with differing responses to topics addressed in the survey. As such, we identified three dimensions, or partitions that the sample should be benchmarked to in order to make sure estimates are not skewed due to distribution of the raw sample. This benchmarking, commonly referred to as calibration, modifies weights such that the calibrated weighted totals of a key dimension project to the known universe totals of that dimension. When calibrated weights are constructed such that these constraints are met, the sample is said to be balanced with respect to these dimensions.

*Table H2* below shows the distribution of the universe as well as the distribution for the sample when using the raw sampling weights across the key dimensions of age, gender and federal poverty limit. We conducted t-tests to identify statistically significant differences between the projected and universe distributions of age, gender, and FPL using the raw sampling weights. While significance appeared only a few times when using a multivariate adjusted (Bonferroni)

0.05 level of significance, the point estimates varied enough to warrant calibration to these dimensions.

### **Raking**

The simplest, most straightforward approach to calibration would be to benchmark the sample to every level of age, gender, and FPL combination. However, given the small nature of the sample, clearly many of these calibration universe totals would have no corresponding sample to project to. A possible fix for this would be to subjectively collapse these grouping until the sample size permits for calibration, but as one can see from *Table H2*, such collapsing would likely obscure some of the sampling skew that can only be observed at the more granularly defined grouping of age and FPL. This is a common problem for calibration strategies, and the process of Raking was constructed for this very reason. Raking iteratively calibrates the sample to one dimension at a time, and continues this process until weights converge to point where all desired dimensions project to the universe totals with a singular weight.



## Exhibit H2. Projections by Stratum and Level

	Regular Basic - NEMT			Regular Basic - No NEMT			Regular Plus - No NEMT			State Basic - NEMT			State Plus - NEMT		
	% Universe	% Sample	% Projection	% Universe	% Sample	% Projection	% Universe	% Sample	% Projection	% Universe	% Sample	% Projection	% Universe	% Sample	% Projection
<b>Age</b>															
19-25	55.3%	100.0%	100.0%*	27.8%	25.6%	27.8%*	14.2%	11.0%	14.2%*	29.5%	20.7%	29.7%*	18.1%**	11.5%**	18.1%*
26-35	38.4%	0.0%	.	32.6%	31.4%	32.6%*	24.3%	22.8%	24.3%*	42.4%	42.4%	42.8%*	35.2%	38.5%	35.2%*
36-45	6.3%	0.0%	.	19.5%	15.1%	19.5%*	21.8%	17.1%	21.8%*	21.4%	28.3%	21.6%*	26.7%	24.5%	26.7%*
46-55	0.0%	0.0%	.	14.3%	18.6%	14.3%*	23.9%	24.6%	23.9%*	5.8%	8.7%	5.9%*	14.7%	19.8%	14.7%*
56-64	0.0%	0.0%	.	5.8%	9.3%	5.8%*	15.8%**	24.1%**	15.8%*	0.9%	0.0%	.	5.3%	5.7%	5.3%*
65+	0.0%	0.0%	.	0.0%	0.0%	.	0.0%	0.4%	0.0%	0.0%	0.0%	.	0.0%	0.0%	.
<b>Gender</b>															
Female	100.0%	100.0%	100.0%	60.0%	64.0%	60.0%*	62.6%**	71.9%**	62.6%*	82.4%	84.8%	82.4%	77.1%**	83.9%**	77.1%
Male	0.0%	0.0%	.	40.0%	36.0%	40.0%*	37.4%**	28.1%**	37.4%*	17.6%	15.2%	17.6%	22.9%**	16.1%**	22.9%
<b>% Federal Poverty Level (FPL)</b>															
<25	32.4%	100.0%	100.0%	49.6%	44.2%	49.7%	35.5%	34.6%	35.7%	89.3%	83.7%	89.3%	80.7%	78.6%	80.7%
25-49.9	18.0%	0.0%	.	11.7%	17.4%	11.7%	11.3%	13.2%	11.4%	2.7%	8.7%	2.7%	4.0%	2.1%	4.0%
50-74.9	25.0%	0.0%	.	18.2%	25.6%	18.2%	17.2%	14.9%	17.3%	2.9%	2.2%	2.9%	5.0%	4.2%	5.0%
75-99.9	18.0%	0.0%	.	18.5%	11.6%	18.5%	18.8%	17.5%	18.9%	2.4%	3.3%	2.4%	4.8%	2.6%	4.8%
100-137.9	4.6%	0.0%	.	2.0%	1.2%	2.0%	16.7%	19.7%	16.8%	1.5%	1.1%	1.5%	4.4%**	11.5%**	4.4%
>138	2.1%	0.0%	.	0.1%	0.0%	.	0.6%	0.0%	.	1.1%	1.1%	1.1%	1.2%	1.0%	1.2%

\* Categories where the projected number of members using the final weight is not exactly equal to the total number of members in the universe

\*\* Categories where the T test performed on the difference between the raw weight projected and universe distributions was significant

Notes: "% Universe" refers to projections using calibrated weights. "% Sample" refers to projections using the raw sampling weight derived from the sample.

## Appendix I. Survey Notification Letters Sent to Members and Providers

### A. Letter Sent to Members



[Case ID]

[casename]

[Address Line 1]

[Address Line 2]

Dear [casename],

We are writing to ask for your help with a survey about your experience with the new Healthy Indiana Plan or “HIP 2.0.” Your answers will help us improve the program.

Your point of view is important to us. In the next few weeks you may get a phone call from someone asking about your health care. Our phone call should take less than fifteen minutes.

Your name was picked randomly from a list of all people who receive health care through HIP 2.0. You can choose to answer the questions or not. If you decide not to answer questions, it will NOT affect any HIP 2.0 benefits you receive.

Your answers to the survey will be kept private, and will be used only to help understand experiences with HIP 2.0.

Your opinion matters to us. We hope that you will talk with us. We want to learn more about what you think of your health care in Indiana. If you have any questions regarding the content or purpose of the survey, please contact Shannon Curtis Kellogg at 317-872-0784. If you have questions about HIP 2.0, please call 1-877-GET-HIP-9.

Thank you for your time.

Sincerely,

[Signature Block]

Joseph Moser

Medicaid Director

## B. Letter Sent to Providers



[Date]

[Provider Name and Address]

Dear [Provider Name],

We are writing to encourage you to participate in an important telephone survey for the state of Indiana. As you may know, Indiana has implemented the new Healthy Indiana Plan (or “HIP 2.0”). The state is working with The Lewin Group and Bingle Research to conduct phone interviews with providers across the state in order to understand your experience with HIP 2.0.

Your participation in this interview process is a critical component of Indiana’s evaluation of the HIP 2.0 Initiative. Indiana will use the data collected from these surveys to help understand the impact of the HIP 2.0 program.

In the next few weeks, someone from The Lewin Group or Bingle Research may contact you to conduct the interview or to set up an interview time most convenient for your schedule. Interviews will be conducted over the phone and may be with the practice administrator or office manager. Our phone call should take about ten minutes. Results will be reported in a non identifiable, aggregated form that will ensure your full confidentiality. **Data on your individual practice** will not be shared with anyone besides the evaluation team, and will not be used for any purposes other than the evaluation of this initiative.

If you have any questions regarding the content or purpose of the survey, please contact us at 317-927-7004. If you have questions about HIP 2.0, please call 1-877-GET-HIP-9.

Thank you in advance for your participation in this important process.

Sincerely,

[Signature Block]

Joseph Moser  
Medicaid Director



## Appendix J. Lewin Response to CMS Letter and MPR Memorandum (November 5, 2015)

**Date:** November 5, 2015

**To:** Joseph Moser, Medicaid Director  
Indiana Family and Social Services Administration

**From:** David Hanig, Project Director  
Cindy Gruman, PhD, Project Health Services Researcher  
Brian Simonson, MS, Project Biostatistician  
Jessica Steier, DrPH, Qualitative Evaluation Methods Expert

**Subject:** Response to Recent Communications from CMS (10/29/15) and Mathematica Policy Research (10/27/15)

The Lewin Group is a premier national health and human services consulting firm with 45 years of experience delivering objective analyses and strategic counsel to state and federal agencies, non-profit organizations, and private companies across the United States. Among other research areas, evaluations are an area of expertise for the Lewin Group; we pride ourselves on having a refined evaluation approach, which takes into consideration flexibility, participation, diversity, timeliness/ relevance and capacity building. Lewin has supported both state and federal agencies in evaluating innovative health care programs and we are pleased to be working with the State of Indiana on the Indiana HIP 2.0 evaluation.

We are delighted to bring a very strong team to this effort, including several of Lewin's experts on quantitative and qualitative research. We are working closely with Brian Simonson, MS, our lead statistician, and Cindy Gruman, PhD and Jessica Steier, DrPH, both experts in survey research and other qualitative methods. They have been integral in establishing our survey approach and survey tools and in reviewing and responding to subsequent feedback from the Centers for Medicare and Medicaid Services (CMS) and their partner for this engagement, Mathematica Policy Research (MPR).

Lewin has prepared this memorandum in response to recent feedback from MPR and CMS, received on October 29, 2015. In addition to responding to this feedback, we have outlined how this feedback, and the time we are using to respond to it, is impacting Indiana's self-evaluation more generally. We hope that the information we have provided below will illustrate our concerns. If you have any additional questions, please do not hesitate to get in touch.

### **Revisions and Impacts**

The State first submitted the draft surveys for the HIP 2.0 evaluation to CMS on September 1, 2015. Since that time, CMS has provided ongoing recommendations for changes to the HIP 2.0 surveys, in addition to the evaluation plan, through both conference calls and written communications.

Lewin has worked with Indiana to incorporate this feedback into their self-evaluation, while simultaneously working to stay on track with other requirements outlined in the Standard Terms and Conditions (STC). As it relates to changes to the surveys, the State has agreed to make a total of 74 changes to the wording, format and answers choices within of the surveys, and has added a total of 43 new questions to surveys, including separating the member survey into two separate surveys for members enrolled in HIP Plus and HIP Basic. The following table details the number of changes made in each survey.

<b>Survey Type</b>	<b>Number of Changes Requested by CMS</b>	<b>Number of Changes Made by State</b>	<b>Percent of Changes Made by State</b>
<b>Provider</b>	14	13	93%
<b>Member</b>	26	22	85%
<b>Previous Member</b>	23	21	91%
<b>Non-Member</b>	19	18	95%
<b>Total</b>	<b>82</b>	<b>74</b>	<b>90%</b>

In addition to separating the member survey into two separate surveys for HIP Plus and HIP Basic members, the State also agreed to divide the non-member survey into two separate surveys, including one survey for Presumptive Eligibility (PE) members who did not complete a full application, and one survey for members with household income over 100% FPL who did not make an initial POWER Account Contribution (PAC).

Due to this ongoing work, CMS extended the due date of the report on Non-Emergency Medical Transportation (NEMT) from November 1, 2015 to January 1, 2016. This extension of the NEMT report does not account for the fact that, as of the date of this memo, the surveys are not yet approved. Furthermore, the extension fails to address broader implications from failing to start in September as planned. More specifically, the call-center with which Lewin is subcontracting has remained “on hold” and ready to start the surveys as soon as they are approved; however, with the holiday season approaching, serious complications arise. First, the call-center will lose at least two weeks of time to conduct surveys surrounding the Thanksgiving and Christmas holidays. Second, because telephone surveys are rarely conducted between Thanksgiving and the end of the calendar year, many call center staff will be unavailable (due to annual planned vacations), so the call center will have fewer staff to conduct the surveys, which will extend the amount of time required to complete them.

Given these factors, the report cannot be delivered by January 1, 2016. Lewin estimates that it can deliver the NEMT report to Indiana by February 3, 2016, in preparation for delivery to CMS by February 29, 2016. The timeline for the submission of the NEMT report to CMS is detailed in Table 2.

<b>Estimated Date</b>	<b>Task</b>	<b>Days to Complete</b>
11/15/15	Surveys Approved	N/A
11/20/15	Lewin Reprograms Survey	5 days
11/21/15	Call Center Conducts Surveys	45 days
1/6/16	Lewin Conducts Survey Analysis	15 days
1/20/16	Lewin Drafts NEMT Report	15 days
2/3/16	The State Works with Lewin to Finalize NEMT Report	27 days
02/29/16	The State Submits NEMT Report to CMS	N/A

In the remainder of this memo, we provide responses to the most recent feedback from CMS and MPR received by Indiana. Below, please find:

1. Technical Response to MPR Memorandum, dated 10/27/15
2. Response to Recommendations from CMS (10/29/15) and MPR (10/27/15)

## I. Technical Response to MPR Memorandum, dated 10/27/15

Two basic themes emerge from the comments that ultimately rely on some level of subjective value judgement. First, MPR recommends a level of detectable difference that is beyond what is policy relevant and, more importantly, not cost-effective. That is, the improved detectable differences are marginal considering the large increase in required sample sizes for MPR recommendations. Second, although a greater number of responses always allows for greater ability to stratify results into smaller cells, this is only needed to the degree that stratification can help to address relevant policy questions. The combination of additional stratification and detectable difference leads to large sample size requirements. Third, many comments presume one will compare populations with and without access to NEMT. These two populations are by definition different and a comparison, even with robust statistical adjustment, is fundamentally “apples to oranges” and not recommended or contained in our Survey Analysis Plan.

### Section A: Sample Sizes and Power Calculations

#### 1. Power calculation for descriptive statistics analyzing difference in two means

A key discussion point for this and other issues is whether the comparison between the NEMT and non-NEMT group is a comparison of interest. As described previously in a memorandum to CMS dated October 6, 2015, the NEMT waiver for non-emergency medical transportation does not apply to certain populations, including low-income parents and caretakers, Transitional Medical Assistance, persons who are medically frail, and pregnant women, all of whom historically have more complex needs – due to poorer health status and lower income – than the general HIP 2.0 population.<sup>41</sup> These populations are very different in nature than other HIP-eligible populations; and policy-driven questions for this study do not naturally lead to comparing across these two sub-groups.

However, if the study were to analyze the NEMT and non-NEMT sub-groups within the HIP Member group, then Lewin agrees in principle with the sample sizes set forth in in Table 1 of MPR’s response (excerpted below). Lewin presented similar sample sizes, which are shown in Table 2 below. It is noteworthy to observe the sample sizes in Table 2, where the assumed rate is 50%. When there is little prior knowledge of the observed proportion, researchers might utilize this null proportion because it requires the greatest possible sample size for a given detectable difference. However, Lewin has strongly advocated that an assumed proportion of .10 is more appropriate given the context of this study.

**Table 1 From MPR Memorandum on 10/27/15**

**Table 1: Sample sizes needed for an unadjusted comparison between groups with and without NEMT**

Mean of indicator, respondents with NEMT benefit	Mean of indicator, respondents in NEMT waiver group	Estimated sample size needed to detect this difference
0.05	0.08	1,700
0.05	0.10	600
0.05	0.12	310
0.10	0.13	3,200
0.10	0.15	1,150
0.10	0.17	575

Note: Calculations assume a 95% confidence interval and 80% power to detect differences between two groups. These estimates also assume that respondents in each group have an equal probability of being sampled. However, the sampling frame is not equally balanced; 54 percent do not have the NEMT benefit and 46 percent do have the NEMT benefit.

**Table 2. Required Sample Sizes (Treatment and Control) by Observed Treatment Group Rates and Detectable Differences<sup>42</sup>**

Null Proportion (Treatment Group)	Detectable Difference			
	0.03	0.05	0.1	0.15
0.9	3,009	866	70	N/A
0.6	10,067	3,555	835	340
0.5	10,703	3,833	935	398
0.4	10,479	3,802	958	422
0.1	4,658	1,855	564	289

As discussed above, creating sample sizes tailored to evaluating an observed proportion of .10 is much more practical than proportions of .5. Under this assumption, Table 1 suggests the current design is constructed to evaluate a detectable difference of 7 percentage points. We believe that measuring a detectable difference less than this is not meaningful from a policy perspective. Hence, we believe a 7 percentage point detectable difference is an appropriate specification. The importance of this issue is best described through an example:

**Example:** 10% of the member group reports having trouble accessing care, while 13% of the never member group reports trouble accessing care. Lewin agrees that the proposed design cannot conclude this difference is real. However, is the difference between not accessing care 10% or 13% an important finding? Are there policy ramifications for such a slight difference in

<sup>42</sup> Assumptions for sample size calculations: Type I error .05 (one tail), Type II error of .20 (power=.80), treatment group is larger group with the observed null proportion; the control group observes a higher proportion; and an allocation ratio of 4 to 1 for treatment to control responses.



barriers to care? We contend the value of such findings are minimal, especially in light of the MPR calculations that the sample size must increase over 550%, from 575 to 3,200 responses.

Hence, if costs were not an issue, more narrow detectable differences would always be preferred. The key issue is determining the marginal improvement gained through increased sample sizes. Table 1 from MPR's response illustrates that decreasing the detectable difference by 2 percentage points would require a 100 percent increase in the sample size. This does not appear beneficial from a cost-benefit perspective.

In this section, we have focused on the more rational assumption that the observed proportion would be .10. However, in discussions with MPR, their initial work was focused on the worst case scenario of an observed proportion of .5. We believe it is important to understand the ramifications if such a high rate were observed. Note our analysis focuses on the comparison of the member and never member groups, as opposed to NEMT versus non-NEMT. With sample sizes of 550 and 137 for the member and never member group, respectively, the detectable difference would be 11.6 percentage points.<sup>43</sup> While we would concur that, given the strictest set of assumptions used by MPR, the recommended sample sizes would not attain detectable differences of 10 percentage points, we don't believe that an 11.6 percentage point detectable difference falls far from this this standard.

In fact, in order to meet the 10 percentage point precision requirement suggested by MPR, the total sample size would need to be 937 responses (750 members, 187 never members), or a 36% increase in the overall sample size of the study. Increasing the sample size almost 36% so as to reduce the detectable difference from 11.6 to 10.0 percentage points would not be efficient from a cost-benefit perspective. We assume in these calculations an allocation ratio of 4:1.<sup>44</sup>

This discussion provides a basis theme Lewin utilizes for sampling design. While obtaining detectable differences of 3 percentage points when observing a .10 proportion would be preferable if sampling were relatively free, the cost of obtaining these detectable differences compared to a policy driven detectable difference of, say 7 percentage points, seems excessive. Similarly, when assuming a .5 proportion, Lewin's design would obtain 11.6 percentage point detectable differences between the member and never member groups, and would require a 36% increase in sample size. In both situations, the required increase in sample sizes provides relatively marginal improvements in detectable differences.

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<sup>43</sup> Note the sample of 137 in the never group is greater than the 125 listed in the statistical analysis plan. This is due to using a 4 to 1 allocation ratio of treatment group to never group responses. The allocation ratio is the ratio of treatment group responses over control group responses. For purposes of discussing differences of other major parameters affecting sample size estimation, we have set the allocation ratio equal to 4, as Lewin believes this to be the ratio utilized by MPR. MPR sample size recommendations are anchored from the treatment group size of 750; hence all of Lewin's comparisons follow the same method. Note if we assume a slightly higher response rate for the never group, then the reported detectable differences would be realized.

<sup>44</sup> Note that sample sizes are highly sensitive to the specification of the allocation ratio. The ratio of members to the never sample was determined to be 4.4 in the statistical analysis plan. This slight difference would, for example, increase MPR's recommended sample size from 937 to 991, assuming a .10 detectable difference. Similarly, precision for Lewin's proposed sampling design would widen the detectable difference to 12%. The net effect would be a 50% increase in the sample size in order to narrow the detectable differences by 2 percentage points. Given the elastic nature of allocation ratio on sample size requirements, we recommend considering the impact of observing a ratio closer to those outlined in the statistical analysis plan.

## 2. Power calculation for hypothesis testing in a regression framework

Lewin does not contend with MPR's computed sample size. Lewin again would stress that (1) MPR focus on NEMT/non-NEMT analysis which, as described in Section A1 above, Lewin does not consider comparable, and (2) MPR's choice of .03 or .05 detectable differences would not yield more meaningful conclusions from a policy standpoint than Lewin's proposed sample sizes.

### Section B: HIP 2.0 Analysis Plans

#### 1. Hypothesis 1. HIP will reduce the number of uninsured Indiana residents with income under 138% FPL over the course of the demonstration

Comments in this section center around further need for greater sample sizes for the leaver sample in order to measure effects for different reasons for entering the leaver group. If so, then clearly sample sizes would need to be increased to levels to identify such effects. However, any analysis of the subpopulation of the leaver group was not intended to allow for such detailed statistical precision. While the ability to drill down a sample is always preferred, the costs of such design must be weighed with the benefits of the reporting outcomes. Lewin did not believe the focus of the study was on these specific sub-populations, and hence did not recommend expending resources in this area.

#### 2. Hypotheses 2 and 3. HIP will increase access to health care services among the target population and the POWER account contributions do not create a barrier to health care access

Comments in this section are concerned with the use of a simple random sample, which, if sample sizes are too small, would allow for a distribution that is skewed in key dimensions compared to the universe. However, the first sample of the member survey is a sample of 11,000 cases, and hence the distribution of NEMT/non-NEMT and HIP Basic/HIP plus will certainly mimic universe proportions reasonably well. An area of concern might arise during the phase of obtaining responses from this 11,000 sample. If certain subgroups were to respond at much higher rates than others (e.g. HIP Plus versus HIP Basic), then indeed the final sample would be skewed. Therefore, the process constructed will ensure that combinations of HIP Plus/HIP Basic and NEMT/non-NEMT will be filled so that they correctly represent the universe of the HIP population. Hence, in most forms, this sample is stratified in the sense the study enters into the sampling phase with a predetermined number of responses for each "bucket" of HIP and NEMT classification.

### Further Issues for Discussion

**Differences between the member group and another group (e.g. the "never member" group) are not required for all major hypotheses.**

It is worth noting that many hypotheses in the survey analysis plan do not entail comparison of the member group to another group. For example, as described previously in a memo to CMS dated October 6, 2015, we do not plan to compare members to non-members to address Hypothesis 5: Waiver of non-emergency transportation to the non-pregnant and non-medically frail population does not pose a barrier to accessing care. Instead, we will use a series of descriptive analyses and logistic regressions to analyze the survey data and examine differences in members reporting challenges keeping appointments by characteristics such as region and income level. Therefore, the use of the term "detectable difference," which often denotes the difference between two groups, does not always apply to our survey analysis.

However, even though many research analyses do not have a comparison group, detectable differences are more generally considered the detection of an estimate being different than an alternative hypothesis. That is, all hypothesis tests have an inherent power, or conversely a probability of incorrectly concluding the true effect lies within a stated confidence interval when, in fact, it does not. This is also referred to as a type II error. While Lewin did not state the detectable differences explicitly in the survey analysis plan, its specification is simple enough. Lewin stated that for 125 cases, assuming the observed proportion of .1, then 95% confidence levels would lead to precision of approximately 5 percentage points. The detectable difference for this estimate, assuming .80 power, would be 7.5 percentage points. For policy related effects, this level of detectable difference appears quite reasonable. Effects smaller than 7.5 percentage points could be considered clinically insignificant. For example, even if the study were designed to have detectable difference of 3 percentage points, such a small difference is not considered a large effect in terms of policy ramifications. Further, this raises a cost benefit issue.

### Summary of Sampling Design Expected Sample Sizes

**Table 3. Summary of Member, Never Member and Leaver Sample Sizes from Survey Analysis Plan<sup>45</sup>**

Survey	Detail	Total Number of Members	Members Selected into Sample	Target Completed Responses
Member	<b>Plan Selection - Total</b>	<b>266,435</b>	<b>11,000</b>	<b>550</b>
	<i>HIP Plus</i>	185,184	7,637	385
	<i>HIP Basic</i>	81,251	3,363	165
	<b>Transportation Coverage - Total</b>	<b>266,435</b>	<b>11,000</b>	<b>550</b>
	<i>Non-Emergency Medical Transportation (NEMT)</i>	124,083	5,192	260
	<i>No NEMT</i>	142,352	5,808	290
Never Member	Includes persons who were: 1) conditionally approved, but did not make PAC in the first month, or 2) presumptively eligible, but did not submit the full application	5,311	2,500	125
Leaver	Includes all persons who exited HIP, by eligibility group (e.g., Basic vs. Plus)	8,754	2,500	125
	Persons >100% FPL who went into lock-out	899	899	125

<sup>45</sup> Note: Due to a change in the meaning of an indicator used to generate these counts, some of these numbers may not sum correctly. We generated the master sample using random sampling methods, so members will be represented in the sample based on the distribution described here.

**Table 4. Summary of Provider Sample Sizes from Survey Analysis Plan<sup>46</sup>**

Survey	Detail	Universe Size	Sample Size	Target Completed Responses
Provider	FQHCs	42	42	40
	Hospitals requested to be sampled	3	3	3
	Random Sample	48,361	1,705	1,619

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<sup>46</sup> Lewin achieved a 97% response rate for the provider survey administered as part of the Maine SIM evaluation. While the actual response rate will depend on the level of engagement of Indiana providers and the vigor of outreach efforts, we are assuming a 95% response rate for this evaluation.

II. Responses to Recommendations in Letter from CMS (10/29/15) and Memorandum from Mathematica Policy Research (10/27/15)

Table 1. Recommendations from Letter from CMS and Responses from Indiana

Reference	CMS Recommendation	Indiana's Response
<i>Letter from CMS (10/29/15)</i>		
<b>Paragraph 2, Bullet 1</b>	<b>Identify</b> and/or clarify the key research questions under each hypothesis to assure that the research questions and the selected metrics address the hypothesized outcomes.	<b>Confirmed.</b> Key research questions under each hypothesis are provided in the existing Evaluation Design plan. To help clarify the research questions, the State agreed to outline metrics according to “process” measures and “outcomes” measures in the revised Evaluation Design plan. The State also agreed to revise certain outcome metrics, including outcome metrics concerning presumptive eligibility and fast track payments, to align more closely with the hypotheses.
<b>Paragraph 2, Bullet 1</b>	For each metric the state should provide the following; <ul style="list-style-type: none"> <li>• A proposed baseline/comparison group, where applicable. If randomization is not used, methods to adjust for non-equivalence of the control and comparison must be proposed;</li> <li>• Data sources, collection frequency, and process for demonstrating accuracy and completeness of the data;</li> <li>• Sampling methodology for selecting the population being included in your analysis; and</li> <li>• Analysis plan that describes the statistical methods that will be employed, and demonstrate how the state will analyze the data.</li> </ul>	<ul style="list-style-type: none"> <li>• The evaluation design does not provide for control groups (this was also the case for the HIP 1.0 evaluation performed by Mathematica) but does make some between group comparisons as appropriate. See the Technical Response, earlier in the document, for details.</li> <li>• Members are randomly selected into the survey sample. Regression is used to account for covariates; but again, there is no control group.</li> <li>• Sources of data will be provided in our analysis. ;Accuracy and completeness of survey responses is under the purview of the professional survey subcontractors conducting the surveys and will be provided.</li> <li>• We have validated the administrative data with FSSA.</li> <li>• <i>Sampling methodology, statistical methods, and data analysis goals are included in the previously submitted analysis plan.</i></li> </ul>
<b>Paragraph 2, Bullet 2</b>	Identify which questions and metrics are the key questions needed to assess whether a goal has been achieved.	<b>Confirmed.</b> The State has agreed to incorporate this into the revised Evaluation Design plan.
<b>Paragraph 2, Bullet 3</b>	Consider using a tool such as a logic model or driver diagram to develop a clear understanding of how HIP 2.0 policies are	<b>Confirmed.</b> The report will describe how policies are expected to impact program outcomes and logic and driver diagrams are not

Reference	CMS Recommendation	Indiana's Response
<i>Letter from CMS (10/29/15)</i>		
	expected to affect program outcomes and help focus the research questions, analytic approaches, and metrics.	needed and are not expected to add value to the analysis, as the program policies were drafted in the HIP 2.0 waiver and are reflected in the STCs. Furthermore, it would require additional resources.
<b>Paragraph 2, Bullet 4</b>	Ensure that the sample size that receives the survey is sufficient enough to gather significant results.	A detailed description of the State's sampling methodology is included in the Technical Response, above.
<b>Paragraph 2, Bullet 5</b>	Include outcome measures and data that would capture unintended, but potential harms to beneficiaries, particularly on services that the state is not required to provide, such as non-emergency medical transportation (NEMT)	Lewin will report rates of adherence to national preventative care measures and ambulatory care sensitive conditions. We do not intend to compare rates between populations because these measures often exhibit unexpected relationships with respect to population acuity and social determinants of health. Risk adjustment of quality measures is beyond the scope of this evaluation. We also do not intend to measure harm, which is typically measured by patient safety measures.
<b>Paragraph 2, Bullet 6</b>	Revise the survey so it can be used to explore key research questions about beneficiary understanding of the program incentives and whether they are engaging in cost-conscious purchasing behaviors or using disease prevention and health promotion services.	<b>Confirmed.</b> The State agreed to develop a new set of questions to assess member understanding of program incentives. These questions were included in revised surveys.

Table 2. Recommendations from Memorandum from Mathematica Policy Research (MPR) and Responses from Indiana

Reference	MPR Recommendation	Indiana's Response
<i>Memorandum from Mathematica Policy Research (10/27/15)</i>		
<b>Section A (Page 1)</b>	We developed two different sets of power calculations for the analyses Indiana plans for the survey data. One set is for descriptive statistics when the objective is to conduct a simple comparison of two means that are unadjusted. In this case, a t-test is used to determine whether the two means are statistically significantly different from one another. The second set of power calculations applies when the objective is to test whether the program affected an outcome of interest. In this case, a	A full description can be found in the Technical Response included at the beginning of this document. In summary, we believe a difference of less than 7 percentage points is not meaningful from a policy perspective and that the 7 percentage point difference is an appropriate specification. In addition, to meet the criteria suggested by MPR, we would need to greatly increase the sample size at additional cost, for limited benefit.

Reference	MPR Recommendation	Indiana's Response
<b>Memorandum from Mathematica Policy Research (10/27/15)</b>		
	<p>regression framework is used to control for a range of characteristics that might influence the outcome of interest. Both sets of power calculations suggest that the sample sizes Indiana has proposed (550 for the member survey) will not be adequate to detect differences between groups with statistical significance if the differences are smaller than 7 percentage points.</p>	
<p><b>Section B-1 (Page 4)</b></p>	<p>The analysis plan proposes to use only survey data from leavers to determine what type of insurance coverage a former HIP member has at the time of the interview. It appears that the evaluator is proposing a sample of 250 respondents, including 125 who left the program because they failed to make their monthly contributions and became ineligible for the next 6 months and 125 who left the program for other reasons. The plan suggests the evaluator will conduct a descriptive analysis of factors associated with the type of insurance coverage someone has after leaving the program and it does not appear the evaluator is planning to estimate a program effect or impact. The plan notes that most of the analytical work for this hypothesis will rely on data from the American Community Survey.</p> <p>We think this analysis of leavers could be strengthened if the focus was on determining whether those who failed to make their monthly contributions and were ineligible for HIP for 6 months were more likely to be uninsured at the time of the interview compared to those who left the program for other reasons. This approach would assess the effect of a program feature (6-month lockout) and would require the sample sizes presented in Table 2.</p> <p>In aiming to complete an equal number of survey responses from each group, the evaluator will need to oversample those subject to the 6-month lockout. Oversampling specific groups means the evaluator will need to develop sampling weights that account for</p>	<p>Comments in this section center around further need for greater sample sizes for the leaver sample in order to measure effects for different reasons for entering the leaver group. If this were to be the goal of the study, then sample sizes would need to be increased to levels to identify such effects. For more detail, please see the Technical Response included at the beginning of this document.</p>

Reference	MPR Recommendation	Indiana's Response
<b>Memorandum from Mathematica Policy Research (10/27/15)</b>		
	the probability of selection into the sample. These weights should be subsequently used in the analysis so that the overall results of their work can be generalized to the entire population of leavers.	
<b>Section B-2 (Page 4)</b>	The analysis plan indicates the test of this hypothesis will include non-members. It is not clear from the description whether the non-member group will include both leavers and never members.	The non-member population will include both leavers and never members.
<b>Section B-2 (Page 4)</b>	We would recommend including both types of non-members to increase the sample size, but this type of design then also requires that the leaver and never member surveys include the same access to care information as collected by the member surveys.	Never and leaver groups are each evaluated with regard to POWER accounts being a barrier to access.
<b>Section B-2 (Page 4-5)</b>	There is no indication that the sampling plan for the member survey will ensure adequate numbers of HIP Plus and HIP Basic respondents. For example, if there are far fewer HIP Basic members compared to HIP Plus, the simple random sample of all members may produce an extremely small number of HIP Basic members, making it difficult to compare HIP Plus to HIP Basic or the influence of copayment policies. We recommend the evaluator design a stratified random sample to oversample the smaller benefit group because access may differ between HIP Plus and HIP Basic, and it would be important to understand those differences given the different cost sharing requirements and incentives for each group.	This sample is stratified as the study enters into the sampling phase with a predetermined number of responses for each of the buckets of HIP plan participation (i.e., Plus, Basic). For more detail, please see the Technical Response included prior to this table.
<b>Section B-2 (Page 5)</b>	In addition, the health status of the two benefit groups may differ in important ways, particularly if members tend to sort into HIP Plus or HIP Basic by health status. For example, people who have lower levels of health and need to visit health care providers on a frequent basis may find HIP Plus to be more appealing if they understand or believe that paying a monthly contribution will be less costly than paying co-payments each time they visit a provider. Regardless, health status will likely be an important covariate when testing program effects on access to care and we	We concur that health status is a useful factor to consider in evaluating the differences between those in HIP Basic vs. Plus. For this reason, we are using the Medically Frail indicator as a proxy for that status. Because it is verified and documented in the administrative records, we believe it would be more robust than a self-report of health status. For example, a report of poor health status may reflect a temporary or acute condition.



Reference	MPR Recommendation	Indiana's Response
<b>Memorandum from Mathematica Policy Research (10/27/15)</b>		
	recommend the member and non-member surveys include self-reported health status question at a minimum.	
<b>Section B-3 (Page 5)</b>	To test this hypothesis adequately, the sample plan should ensure sample sizes like those presented in Table 2 above, as well as sufficient numbers of members who do and do not have an NEMT benefit.	A comparison between the NEMT and non-NEMT group is not an appropriate comparison. The populations have different characteristics; policy driven questions for this study do not naturally lead to comparing across these two sub-groups.
<b>Section B-3 (Page 5)</b>	Because the analysis plan indicates HIP membership is relatively balanced between those who do and do not have access to NEMT, we are not particularly concerned about this issue. Nevertheless, to ensure the expected balance of surveys from those with and without NEMT benefits, the evaluator should monitor on a daily basis the number of completed interviews by category while the member surveys are in the field. The evaluator will then know to increase sample recruitment efforts if one group (for example, those who lack NEMT benefits) has a lower response rate that may jeopardize the size of the sample for that group.	The survey collection process will ensure that the combinations of HIP Plus/HIP Basic and NEMT/non-NEMT will be filled such that it correctly represents the universe. This will include frequent monitoring of survey collections.
<b>Section B-3 (Page 5)</b>	Regarding the survey questions themselves, in the following section, we also recommend that Indiana and its evaluator seriously consider using the access to care questions from the 2010 survey of members instead of the missed appointment question currently proposed.	Please see response to recommendations from Section C-1 (Page 9) regarding survey questions <b>Q17 (Plus)/Q8 (Basic)</b> in the Member surveys.
<b>Section B-3 (Page 5)</b>	If this change is not feasible, then the missed appointment question and other survey questions needed to assess the effect of the NEMT waiver (any transportation related questions) should be included in the leaver and never member surveys so that these other samples could be included in the analysis, in part to help increase the power of the estimate of the NEMT waiver effect.	The purpose of the evaluation is to measure the impact of the NEMT waiver on existing HIP members, per the STCs, and whether it has affected the number of missed appointments. Adding these questions to the Leaver and Never Member surveys is outside the scope of evaluation, and would lengthen surveys of a population that is already hard to reach.
<b>Section C (Page 6),</b>	We recommend the non-member surveys include a question about the person's county of residence so that respondents to	<b>Confirmed.</b> We can add a question for the non-member surveys regarding county of residence, understanding that administrative

Reference	MPR Recommendation	Indiana's Response
<b>Memorandum from Mathematica Policy Research (10/27/15)</b>		
	the non-member surveys can be pooled with respondents to the member surveys in some of the analyses relating to access.	data is less complete than for current members.
<b>Section C-1, Bullet 1 (Page 6)</b>	<b>Q14-16a (Plus) and Q5-7a (Basic).</b> The access questions are very close to what is included in CAHPS instruments, but the wording is not exact. In the CAHPS instruments, they first ask about the need for care, such as “In the last 6 months, did you have an illness, injury, or condition that needed care right away in a clinic, emergency room, or doctor’s office?” and response options are yes or no. If yes, the respondent is then asked “In the last 6 months, when you needed care right away, how often did you get care as soon as you needed?” with response options of “Never,” “Sometimes,” “Usually,” and “Always.” We recommend the HIP member surveys adhere to this well-tested approach and set of response options. It helps with the interpretation of the “Never” response to the frequency question and allows the data to be compared to other CAHPS data. This recommendation means adding in the screening question about the need for each type of service and also expanding the response option “Usually” to the question about the frequency of getting care when needed (the current member surveys only have three response options of “Never,” “Sometimes,” and “Always”). If Indiana has concerns about lengthening the survey, then we would recommend dropping the questions about prescription medications or limiting the access to care questions to only the one about getting care for illness, injury, or a condition that need care right away.	<b>Confirmed.</b> We will update the surveys to mirror CAHPS questions.
<b>Section C-1, Bullet 2 (Page 6)</b>	<b>Q17 (Plus) and Q8 (Basic).</b> We recommend Indiana consider replacing the questions about missed appointments with the access to care questions used in the 2010 member survey. “During the past six months, was there any time that you needed to see a doctor or other health care professional because of an illness, accident, or injury but did not go?” That survey also	The 2010 HIP 1.0 questions are more general than what is needed to accurately measure the number of missed appointments, per the STCs. The 2010 questions could be answered by people who did not make an appointment even though they needed one <b>and</b> by people who made appointments but did not keep them. The current questions specifically ask about missed appointments, in

Reference	MPR Recommendation	Indiana's Response
<b>Memorandum from Mathematica Policy Research (10/27/15)</b>		
	<p>included similar questions for preventive care and specialty care (see the bottom of page 2 and page 3 of this memorandum). We think these more general questions, particularly the one about illness or injury, get at broader access issues including whether people may avoid seeking care because of the known cost (either in travel costs or co-payments).</p>	<p>accordance with the STCs (Sec. XIII, Paragraph 4a).</p> <p><b>For reference:</b>  <b><u>Current Questions in HIP Plus (Q17) and HIP Basic (Q8):</u></b>  <i>"In the past six months, have you missed any healthcare appointments, such as doctor's appointments?"</i>  <b><u>HIP 1.0 Questions (included in pages 2-3 of MPR memo):</u></b>  <i>C14) During the past six months, was there any time that you needed to see a doctor or other health care professional for preventive care such as a checkup or physical examination but did not go?</i>  <i>C15b) During the past six months, was there any time that you needed to see a doctor or other health care professional because of an illness, accident, or injury but did not go?</i>  <i>C17) During the past six months, was there any time when you needed to see a specialist but did not go?</i></p>
<p><b>Section C-1, Bullet 3 (Page 7)</b></p>	<p><b>Q17a (Plus) and Q8a (Basic).</b> We recommend the list of reasons for missing (or not going to) an appointment be read in its entirety to respondents. If the respondent picks multiple options, we recommend a follow-up question be asked about which reason is the most common reason they miss an appointment to help judge the relative importance of all the options.</p>	<p>This question is formatted to be consistent with the approach of the HIP 1.0 Survey for comparison purposes.</p> <p><b>For reference:</b>  <i>Q17a (Plus), Q8a (Basic)</i>  <i>What are the reasons you missed an appointment? (ALLOW MULTIPLE RESPONSE OPTIONS)</i></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> <i>COST TOO MUCH</i></li> <li><input type="checkbox"/> <i>COULDN'T GET CHILDCARE</i></li> <li><input type="checkbox"/> <i>COULDN'T GET TIME OFF FROM WORK</i></li> <li><input type="checkbox"/> <i>COULDN'T GET THROUGH ON THE PHONE</i></li> <li><input type="checkbox"/> <i>COULDN'T SCHEDULE APPOINTMENT SOON ENOUGH</i></li> <li><input type="checkbox"/> <i>DIDN'T GET APPROVAL FROM PLAN</i></li> <li><input type="checkbox"/> <i>DIDN'T HAVE TIME</i></li> <li><input type="checkbox"/> <i>DIDN'T WANT TO GO</i></li> <li><input type="checkbox"/> <i>HOURS OF OPERATION WERE NOT CONVENIENT FOR ME</i></li> </ul>

Reference	MPR Recommendation	Indiana's Response
<b>Memorandum from Mathematica Policy Research (10/27/15)</b>		
		<input type="checkbox"/> NO INSURANCE <input type="checkbox"/> PLACE DID NOT ACCEPT THE INSURANCE COVERAGE <input type="checkbox"/> TAKES TOO LONG TO GET THERE <input type="checkbox"/> TRANSPORTATION PROBLEM <input type="checkbox"/> TOO SICK TO GO <input type="checkbox"/> OTHER REASON, NOT LISTED ABOVE: (SPECIFY) _____
<b>Section C-1, Bullet 4 (Page 7)</b>	<b>Q18 (Plus) and Q9 (Basic).</b> As noted on the previous draft of the survey, for this question to provide the information needed to assess whether primary care services are accessible, the survey also needs to collect information about whether the respondent used the ER at all during the last six months. With that piece of information, evaluators can more accurately interpret the “No” answers to the existing question. If respondents did not use the ER, then a “No” means they did not need to go to the ER. Conversely, if they used the ER during the six months, then a “No” would suggest they used the ER for a true emergency.	<p>We will use claims data to determine whether the respondent used the ER in the last 6 months.</p> <p><b>For reference:</b>  <i>Q18 (Plus), Q9 (Basic):</i>  <i>In the past six months, was there any time when you contacted a doctor's office or clinic, but couldn't get an appointment soon enough so you went to the emergency room instead?</i>            YES            NO            DON'T KNOW            REFUSED</p>
<b>Section C-1, Bullet 5 (Page 7)</b>	<b>Q23 (Plus) and Q14 (Basic).</b> As we noted on the previous draft, the state may want to restrict the question to only those respondents who report having a POWER account. Without this restriction, some respondents will be irritated because they'll think/say “but I just told you that I don't have a POWER account.”	<p>All members are assigned both a POWER account and a POWER Account Debit Card. This question measures the respondent's understanding of the program; even if the respondent is not aware of having a POWER account, the respondent may know whether or not he or she has a POWER Account Debit Card.</p> <p><b>For reference:</b>  <b>Q23 (Plus), Q14 (Basic).</b>  <i>Has your health plan given you a HIP POWER account debit card? (IF NEEDED: This is a card that can be used to access the funds in your POWER account.)</i>            YES            NO            DON'T KNOW</p>

Reference	MPR Recommendation	Indiana's Response
<b>Memorandum from Mathematica Policy Research (10/27/15)</b>		
		<p><i>REFUSED</i></p> <p><i>Q23a. How often do you present the card to a health care provider? Is it...</i></p> <p><i>EVERY TIME YOU GET CARE</i></p> <p><i>SOME OF THE TIME</i></p> <p><i>ONLY FOR SPECIFIC SERVICES</i></p> <p><i>NEVER</i></p> <p><i>DON'T KNOW</i></p> <p><i>REFUSED</i></p>
<p><b>Section C-1, Bullet 6 (Page 7)</b></p>	<p><b>Q24-25 (Plus) and Q15-16 (Basic).</b></p> <p>The wording of these questions is improved over the previous versions in that there is less potential for respondents to answer incorrectly because they do not want to admit to ignorance. However, the first question asks about two policies together and both questions together ask essentially the same thing but flip the scenario. This duplication may confuse respondents or lead them to start guessing, potentially introducing biased responses that are inconsistent with one another. We recommend striking the second sentence in the first question (“Also, this could result in lower payments in the next year”) so that it only tests the respondent’s knowledge of the rollover. The second question would then focus on how the rollover might lower the monthly payments in the next year. The next question could then read “If you get preventive services suggested by your plan and have money left over in your POWER account, this could result in lower payments in the next year.” That way, respondents would have a true/false test on two questions that are both stated in the positive but get at different elements of the POWER account policy.</p>	<p><b>Confirmed.</b> We will make the suggested changes.</p>
<p><b>Section C-1, Bullet 7,</b></p>	<p>As mentioned above, health status is an important control variable. These surveys should include some type of question on</p>	<p>Please see response to recommendations from Section B-2 (Page 5).</p>

Reference	MPR Recommendation	Indiana's Response
<b>Memorandum from Mathematica Policy Research (10/27/15)</b>		
<b>Sub-bullet 1 (Page 7)</b>	health status or the evaluator needs to get information on the number or types of chronic conditions from encounter claims records. The proposed approach to measuring this characteristic should be explicit in the analysis plan.	
<b>Section C-1, Bullet 7, Sub-bullet 2 (Page 7-8)</b>	The member surveys do not ask for information on age, gender, location of residence (urban/rural or county code), income, and household size. Indiana may be planning to get this information from administrative data, but this should be discussed explicitly with the state.	The evaluation design considers demographic differences derived from administrative data.
<b>Section C-1, Bullet 7, Sub-bullet 3 (Page 8)</b>	We do not see member questions sufficient to address Hypothesis 7 (graduated co-pays). The single question about emergency rooms is unrelated to graduated co-pays or prior authorization.	The draft Evaluation Plan refers to graduated copayments only in the context of inappropriate use of the Emergency Department. Indiana submitted the Emergency Department Use Protocol to CMS on May 1, 2015 and has not yet received approval. Because the protocol has not been implemented, we cannot include questions about it in the survey.
<b>Section C-2, Bullet 1 (Page 8)</b>	<b>Q1-1b (Plus).</b> The skip pattern is unclear—are respondents answering any of the first three answer choices for Q1a sent to Q2?	We will clarify the skip pattern. Please note that this will be a CATI survey and all skip patterns will be checked and tested by the programmer.
<b>Section C-2, Bullet 2 (Page 8)</b>	<b>Q21 (Plus).</b> The skip pattern here is unclear – looks like a possible formatting error.	We will clarify the skip pattern. Please note that this will be a CATI survey and all skip patterns will be checked and tested by the programmer.
<b>Section C-2, Bullet 3 (Page 8)</b>	<b>Q26-27 (Plus).</b> These are helpful additions, but we recommend making the wording more neutral than asking “are you aware,” which could bias responses toward the positive because respondents may not want to admit to ignorance. One possibility would be to state the policy and then ask the respondent to indicate whether the policy is true or false.	We feel it is preferable to avoid true/false questions so that the survey does not feel like an exam.
<b>Section C-3, Bullet 1 (Page 8)</b>	<b>Q27/28 (Basic).</b> We recommend more neutral wording because asking “did you know” could bias responses toward the positive. One possibility would be to state the policy and then ask the respondent to indicate whether the policy is true or false.	We feel it is preferable to avoid true/false questions so that the survey does not feel like an exam.
<b>Section C-3,</b>	<b>Q29 (Basic).</b> This question seems misplaced in the Basic survey.	We include this question in the HIP Basic Member survey because

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<i>Memorandum from Mathematica Policy Research (10/27/15)</i>		
<b>Bullet 2 (Page 8)</b>		<p>it measures the respondent's understanding of the program.</p> <p><b>For reference:</b>  <b>Q29 (Basic):</b>  <i>Did you know that, if you do not make your monthly or annual POWER account contribution, you will be moved from HIP Plus to HIP Basic?</i></p> <p><input type="checkbox"/> YES  <input type="checkbox"/> NO  <input type="checkbox"/> DON'T KNOW  <input type="checkbox"/> REFUSED</p>
<b>Section C-3, Bullet 3 (Page 8)</b>	<p><b>Q32 (Basic).</b> This question is leading and we recommend it be dropped from the survey. We believe that the evaluation can get the same information with the more neutrally worded Q25 and Q18.</p>	<p>We will reword question to state: "Would you rather remain in HIP Basic or move to HIP Plus, knowing that they are different?"</p> <p><b>For reference:</b>  <b>Q32 (Basic)</b>  <i>"Now that you understand how HIP Plus is different from HIP Basic, if you have an opportunity to move to HIP Plus, would you rather remain in HIP Basic or move to HIP Plus?"</i></p>
<b>Section C-3, Bullet 4 (Page 8)</b>	<p><b>Q33-34 (Basic).</b> The wording for these questions is confusing. HIP Basic members do not make monthly payments. We suggest striking "more" so that these read "pay \$5 each month" and "What about \$10 each month."</p>	<p><b>Confirmed.</b> We will remove the word "more."</p> <p><b>For reference:</b>  <b>Q33.</b> <i>If HIP required you to pay \$5 more each month, would you continue to stay enrolled?</i>  YES GO TO Q34  NO GO TO Q35  DON'T KNOW GO TO Q34  REFUSED GO TO Q35</p> <p><b>Q34.</b> <i>What about \$10 more? Would you continue to stay enrolled if HIP required you to pay \$10 each month?</i></p>

Reference	MPR Recommendation	Indiana's Response
<i>Memorandum from Mathematica Policy Research (10/27/15)</i>		
		YES NO DON'T KNOW REFUSED
<b>Section C-4, Bullet 1 (Page 8)</b>	<b>Q5 and 7 (Leaver).</b> It's not clear why Q7 would be asked of people who answer Q5 by saying "Did not make a monthly or annual payment." Should the skip pattern for Q5 read "Go to Q8"?	We will clarify the skip pattern. Please note that this will be a CATI survey and all skip patterns will be checked and tested by the programmer.
<b>Section C-4, Bullet 2 (Page 8)</b>	<b>Q13 (Leaver).</b> The instructions here seem to conflict. We recommend allowing multiple responses because people can have Medicare and Medicaid together, as well as other combinations of coverage. We suggest deleting the instruction "Stop me when I read the source for your insurance coverage."	<b>Confirmed.</b> We will remove conflicting text from the instructions: "Stop me when I read the source for your insurance coverage."
<b>Section C-4, Bullet 3 (Page 8)</b>	<b>Q13-14 (Leaver).</b> As noted on the previous draft, we recommend including respondents in Q14 who answer "a spouse" for Q13 because the spouse's insurance may be employer-sponsored.	We will clarify the skip pattern. Please note that this will be a CATI survey and all skip patterns will be checked and tested by the programmer.
<b>Section C-4, Bullet 4 (Page 8-9)</b>	<b>Q21-22 (Leaver).</b> For Q22, the response option "never" does not make sense if only those who answered "yes" to the previous question are asked Q22. We suggest changing the previous question, Q21, to "Since you left HIP, have you been given prescriptions for any medicines by your doctor?"	We will reword the first question to state "Since you left HIP, did you need any new prescriptions..."  <b>For reference:</b> <i>Q21. Since you left HIP, did you get any new prescription medicines or refill a prescription?</i> <input type="checkbox"/> YES → GO TO Q22 <input type="checkbox"/> NO → GO TO Q23 [Q23 is the next section of the survey, which includes questions about education level and employment status]  <i>Q22. Since you left HIP, how often did you get the prescription medicine you needed?</i> <input type="checkbox"/> NEVER <input type="checkbox"/> SOMETIMES <input type="checkbox"/> ALWAYS
<b>Section C-4,</b>	We recommend the access to care section be the same as the	This is beyond the scope of the evaluation, which seeks to



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<b>Memorandum from Mathematica Policy Research (10/27/15)</b>		
<b>Bullet 5, Sub-bullet 1 (Page 9)</b>	access to care section in the member surveys so that leavers can be included in analyses of access to care. For this survey, this recommendation means adding in the transportation question.	understand barriers to care for the current HIP members.
<b>Section C-4, Bullet 5, Sub-bullet 2 (Page 9)</b>	The analysis plan indicates the leaver survey would be used to assess access to insurance (hypothesis 1) and this particular analysis would use income as a covariate. However, income is not included in the survey instrument and the analysis plan should be explicit on what type of data source will be used to determine a respondent's income.	Income level for the Leaver population also comes from historical Medicaid administrative data.
<b>Section C-5 (Page 9)</b>	The survey methodology suggests that a target number of 125 completed surveys for the combined population of those who (1) were conditionally approved, but did not make the first POWER account contribution, and (2) were presumptively eligible, but did not submit the full application. These two groups of never-members have different surveys with somewhat different questions, and there is no indication of how the 125 target number will be balanced across the two never-member groups. We suggest that each population be treated as a separate subgroup, with its own sample size target.	For the Never Member sample populations, the underlying universe for "no PAC" is only 121 so the likely number of potential completed surveys will be extremely small if we were to stratify. Additionally, there is no analysis that requires the separation of "no PAC" from "PE". We do not believe stratification is an appropriate approach here.
<b>Section C-5, Bullet 1 (Page 9)</b>	<b>Q6a (Never, No PAC):</b> This new question asks about the reasons why someone did not make the first POWER account contribution. One response option for this question is "don't understand the program/differences." This wording is confusing - is this in reference to the Basic/Plus distinction? We recommend adding a response choice of "Did not know contributions were required" since this is the main subject of Q5, and respondents who note confusion in Q5 still go on to answer Q6a.	This is an open ended question. Responses will not be read, but are included to inform coding.  <b>For reference:</b> <i>Q6a. What is the main reason you did not make your first payment?</i> <b>CAN'T AFFORD/FEES TOO HIGH</b> <b>CHANGED MY MIND ABOUT WANTING HIP COVERAGE</b> <b>GOT OTHER INSURANCE</b> <b>DON'T NEED ADDITIONAL SERVICES</b> <b>DON'T KNOW HOW TO START PAYING ON A MONTHLY BASIS</b> <b>DO NOT WANT HIP PLUS OR ADDED BENEFITS</b>

Reference	MPR Recommendation	Indiana's Response
<i>Memorandum from Mathematica Policy Research (10/27/15)</i>		
		<p><i>DON'T PLAN TO BE IN THE PROGRAM VERY LONG</i>  <i>NOT OFFERED THE OPTION TO PAY ON A MONTHLY BASIS</i>  <i>DON'T UNDERSTAND THE PROGRAM/DIFFERENCES</i>  <i>NOT REQUIRED TO PAY THE CONTRIBUTION</i>  <i>FORGOT</i>  <i>OTHER REASON NOT LISTED ABOVE: (SPECIFY) _____</i>  <i>DON'T KNOW</i>  <i>REFUSED</i></p>
<p><b>Section C-5, Bullet 2 (Page 9)</b></p>	<p><b>Q11-15 (Never, No PAC) and Q14-18 (Never, PE):</b>            We recommend asking these questions of all survey respondents – whether they do or do not report having insurance. By doing so and having the same access questions on this survey as on the member surveys (including the missed appointments and transportation questions), then the access of never members could be compared to HIP members.</p>	<p><b>Confirmed.</b> We will ask questions of all respondents, regardless of their reported insurance status.</p>
<p><b>Section C-5 (Page 10)</b></p>	<p>Health status. If the never members are ever included in any analyses that compares them to HIP members, then the analysis should control for health status. The current draft does not include any type of question that assesses health status and we recommend inclusion of self-reported health status and possibly one or two other questions that would gather the same type of health status information as the evaluator will have for HIP members.</p>	<p>Please see response to recommendations from Section B-2 (Page 5).</p>
<p><b>Section C-6 (Page 10)</b></p>	<p>The provider survey takes a one-size-fits-all approach. The analysis plan states that the survey will be administered to 3 large primary hospitals, all 42 FQHCs, and 1,700 other providers of varying sizes (from solo practitioners to other hospitals), drawn from a pool of about 48,000. We recommend stratifying the random sample of 1,700 to ensure responses from a number of differently sized practices and specialties.</p>	<p>Stratification of provider sample was informed by discussions with program and policy staff in Indiana, leading to a focus on providers serving the HIP 2.0 population, by certain provider types (primary care vs. specialty, FQHC status and large hospital systems).</p>
<p><b>Section C-6 (Page 10)</b></p>	<p>To the extent that some policies, like presumptive eligibility, are relevant only for a subset of providers, we recommend ensuring</p>	<p>The provider survey asks about PE participation and will be analyzed accordingly.</p>

Reference	MPR Recommendation	Indiana's Response
<b>Memorandum from Mathematica Policy Research (10/27/15)</b>		
	sufficient survey responses from providers that experience different policy contexts.	
<b>Section C-6 (Page 10)</b>	The state does not indicate a target number of completed surveys for the provider survey; we recommend setting a target that collects sufficient responses from each relevant subgroup of providers.	Our target is a 95% response rate for the provider survey. Additional details are included in our Technical Response.
<b>Section C-6, Bullet 1 (Page 10)</b>	<b>Q6a and Q7 (Provider).</b> We continue to advise that these questions are phrased in a way that will elicit biased responses from providers. We suggest rephrasing Q6a to read “How does the reimbursement for this program compare to the traditional Medicaid program?” with response choices of (a) reimburses at the same rate, (b) reimburses at a higher rate, (c) reimburses at a lower rate, (d) don’t know, (e) refused. This same comment applies to Question 7. We also note that the reference program has been revised for Question 6a – it previously asked for awareness of the HIP reimbursement rate relative to the Medicare program reimbursement rate. We suggest that the survey designers consider which referent will produce the most valid responses for this question. If the traditional Medicaid program reimbursement rates have also increased – as indicated by question 7 – providers may be confused by which reference price is implied. Medicare may be a more reliable point of reference for interpreting provider responses.	<p><b>Confirmed.</b> We will reword questions to state “How does the program reimburse compared to the traditional Medicaid program?” and “Does the reimbursement rate influence your decision to participate in the program?” We will include the “same” response option.</p> <p><b>For reference:</b></p> <p><i>Q6a. Does the program reimburse at a higher rate than the traditional Medicaid program?</i></p> <p><input type="checkbox"/> REIMBURSES AT HIGHER RATE → GO TO 6B</p> <p><input type="checkbox"/> REIMBURSES AT LOWER RATE</p> <p><input type="checkbox"/> DON'T KNOW</p> <p><input type="checkbox"/> REFUSED</p> <p><i>Q6b. Did the higher reimbursement rate influence your decision to participate in the new HIP program? (ASK ONLY IF RESPONDENT ANSWERS “REIMBURSE AT HIGHER RATE” TO PREVIOUS QUESTION)</i></p> <p><input type="checkbox"/> YES</p> <p><input type="checkbox"/> NO</p> <p><input type="checkbox"/> DON'T KNOW</p> <p><input type="checkbox"/> REFUSED</p>
<b>Section C-6, Bullet 2</b>	<b>Q11 (Provider).</b> The survey continues to ask providers why they think patients most likely miss appointments. We would caution	This question addresses a specific STC requirement (XII.4.d) regarding provider perception on the impact of transportation on

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<b>Memorandum from Mathematica Policy Research (10/27/15)</b>		
<b>(Page 10)</b>	against over-interpreting this survey question when considering the NEMT waiver; providers may believe that transportation is more/less important than it actually is from the beneficiary perspective.	<p>missed appointments.</p> <p><b>For reference:</b>  <i>Q11. If a member misses an appointment, what is the most likely reason that the member missed it, in your opinion?</i>            CHOOSE ALL THAT APPLY  <input type="checkbox"/> COSTS TOO MUCH  <input type="checkbox"/> COULDN'T GET CHILDCARE  <input type="checkbox"/> COULDN'T GET TIME OFF FROM WORK  <input type="checkbox"/> COULDN'T GET THROUGH ON THE PHONE  <input type="checkbox"/> DIDN'T GET APPROVAL FROM HEALTH PLAN  <input type="checkbox"/> DIDN'T HAVE TIME</p>
<b>Section C-6, Bullet 3 (Page 10)</b>	<b>Q12-13 (Provider).</b> In response to a recommendation on the first survey drafts, the designers have added a response option of "sometimes" to the question about whether missed appointments affect receipt of preventive services (Q12), but have not added this response option to the question about quality of care (Q13). We suggest using a parallel set of response options for these two questions.	<p><b>Confirmed.</b> We will add "sometimes" as a response option.</p> <p><b>For reference:</b>  <i>Q12. When members missed appointments, do you feel that it had an impact on members' receiving preventive care?</i>  <input type="checkbox"/> YES  <input type="checkbox"/> NO  <input type="checkbox"/> SOMETIMES  <input type="checkbox"/> DON'T KNOW  <input type="checkbox"/> REFUSED</p> <p><i>Q13. When members missed appointments, do you feel that it had an impact on members' overall quality of care?</i>  <input type="checkbox"/> YES  <input type="checkbox"/> NO  <input type="checkbox"/> DON'T KNOW  <input type="checkbox"/> REFUSED</p> <p><i>Q14. How has it impacted members' quality of care? [Free response]</i></p>

Reference	MPR Recommendation	Indiana's Response
<i>Memorandum from Mathematica Policy Research (10/27/15)</i>		
<b>Section C-6, Bullet 4 (Page 10)</b>	<b>Q15 and 18 (Provider).</b> The skip pattern in Q15 indicates that providers who said that they are not presumptive eligibility providers, or don't know whether they are presumptive eligibility providers will still be asked questions on presumptive eligibility. We recommend that subsequent questions on presumptive eligibility not be asked of these providers.	We will clarify the skip pattern. Please note that this will be a CATI survey and all skip patterns will be checked and tested by the programmer.