

Patient-Centered Medical Homes and the Health of Ohio's Adults and Children

Thomas Wickizer¹
Kenneth Steinman¹
Abigail Shoben²
Deena Chisolm³
Jeff Biehl⁴
Lauren Phelps¹

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¹Center for Health Outcomes, Policy & Evaluation Studies, The Ohio State University College of Public Health

²Division of Biostatistics, The Ohio State University College of Public Health

³Department of Pediatrics, The Ohio State University College of Medicine

⁴Ohio Patient-Centered Primary Care Collaborative



EXECUTIVE SUMMARY

Today in Ohio, local and statewide efforts are seeking to expand access to a model of coordinated, comprehensive care known as the Patient-Centered Medical Home (PCMH). To help guide such work, this study completed extensive analyses of the Ohio Medicaid Assessment Survey – a large telephone survey with data weighted to be representative of all Ohio households. Based on the survey responses we constructed a measure of whether a respondent had care consistent with the PCMH model (CC-PCMH). This chartbook summarizes the following findings:

Who experiences CC-PCMH?

About 40% of Ohio adults – 3.5 million people – have CC-PCMH. Such care is more common among people who are older, white, female and who live in higher income households. Among low income adults, those covered by Medicaid are just as likely as those with employer-sponsored insurance (ESI) to have CC-PCMH.

CC-PCMH is also experienced by 1.1 million children (39%) and is more common for those who are younger, white and who live in higher income households. Low income children covered by Medicaid are less likely as those with employer-sponsored insurance (ESI) to have CC-PCMH.

How is CC-PCMH associated with better health care and health outcomes?

Both adults and children who have CC-PCMH are less likely

to have unmet health need or to make 3+ emergency department visits per year. Moreover, children with CC-PCMH are more likely to have well-child visits and adults with such care are less likely to misuse prescription painkillers. These findings are largely consistent regardless of a person's insurance type or status (e.g., uninsured).

Do these results vary by race/ethnicity?

For both adults and children, CC-PCMH is more common among whites than among African-Americans. Accounting for group differences in income, insurance type/status and other characteristics diminishes, but does not eliminate this disparity. The association of CC-PCMH with better health care and health outcomes largely persisted across racial/ethnic groups in key populations. Among pregnant women, however, CC-PCMH was not associated with better outcomes.

* * *

CC-PCMH has become fairly common in Ohio and holds promise to improve health care and outcomes for different racial/ethnic groups. Please see the chartbook's concluding sections for the policy implications of these findings.

Visit www.grc.osu.edu/OMAS for additional information about OMAS, including the data and electronic version of this chartbook.

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		<i>ESI = employer-sponsored insurance</i>	

BACKGROUND

The Patient-Centered Medical Home (PCMH) is a model of coordinated, comprehensive primary care that has the potential to increase health care quality, reduce costs and improve patient satisfaction. In recent years, local and statewide efforts have sought to expand access to such care for children and adults. For example:

- Seventy-five practices in southwest Ohio participate in the Comprehensive Primary Care Initiative sponsored by the Centers for Medicare and Medicaid Services (CMS).¹
- Ohio Medicaid and the Ohio Department of Mental Health and Addiction Services created “health homes” for individuals with serious and persistent mental illness.²
- In 2014, CMS awarded Ohio a four-year \$75 million State Innovation Model (SIM) grant to develop payment systems that facilitate PCMH development and practice.³

And at the center of such efforts, the Ohio Patient-Centered Primary Care Collaborative (OPCPCC) is a coalition of primary care providers, insurers, employers, consumer advocates, government officials and public health professionals working together to promote the PCMH model across the state.⁴

The Ohio Medicaid Assessment Survey (OMAS) is a valuable source for understanding PCMH and its benefits.⁵ Unlike expert teams that review a medical practice and determine whether it meets certain objective PCMH criteria, OMAS data offer patients’ perspectives by studying how their self-

reported experiences reflect care that is consistent with the PCMH model. As such, this study focuses on “care consistent with a PCMH” (CC-PCMH).

Using OMAS to study CC-PCMH offers several advantages. It provides a broad view, enabling us to estimate how CC-PCMH differs in key subpopulations across Ohio. The approach also enables researchers to examine how CC-PCMH is associated with important variables (e.g., perceived unmet health needs) not available in medical records.

Of course, the approach also has its limitations. One is that patients’ perceptions of their care may not align with actual changes in health care service delivery. In other words, it is uncertain whether self-report survey questions related to CC-PCMH are really measuring the PCMH model, or if they are just another way of measuring patient satisfaction.

Also some people may exhibit patterns of care that do not fit our measure of CC-PCMH, yet nonetheless work well for them. Some children with special health care needs, for example, have their care managed by a specialist rather than a primary care provider. So they may miss the strong relationship to a primary care practice that is at the center of the PCMH model.

We take into account these advantages and limitations when translating research findings into policy considerations.

OBJECTIVES

This chartbook aims to answer three broad questions:

Who experiences CC-PCMH?

PCMH may be a valuable model for all types of patients, but the focus of this chartbook is mostly on low income adults and children covered by Medicaid. To understand the value of CC-PCMH in this population, we compare them to low income individuals (adults and children who have other types of insurance or are uninsured). In addition, some analyses involve important subpopulations such as children with special health care needs or pregnant women.

How is CC-PCMH associated with better health care and better health outcomes?

It is unrealistic to expect that CC-PCMH would be associated with better health outcomes in a cross-sectional study like OMAS. Often people with chronic conditions have more experience navigating health care systems. Over time, many figure out how to communicate well with providers, get timely urgent care and attain other aspects of the PCMH model. Thus, CC-PCMH may be more common among people with worse health outcomes. To test the benefits of CC-PCMH, this study looks at important outcomes *within* populations that have greater health needs. For example: among children with special health care needs, are those with CC-PCMH less likely to have unmet health needs?

Unless otherwise noted, our results also account for the influence of demographic, insurance type/status and health status variables when studying CC-PCMH. For example, a

simple crosstabs indicates that CC-PCMH is most common among adults covered by Medicare. Yet this is misleading because this group is mostly age 65+, and older adults (of all insurance types) are more likely to report CC-PCMH. Therefore, the chartbook presents a more useful chart that compares insurance types while adjusting for any differences in age, along with income, race/ethnicity, education, household composition, marital status and special health care needs status and county type. For adults, analyses also adjust for history of chronic conditions.

Do these results vary by race/ethnicity?

Racial/Ethnic disparities in access to care and health outcomes are well-documented and merit continued attention in order to improve the health of Ohio's adults and children.

Our analyses systematically examined whether findings from the other two sections differ for African-Americans and whites. (Unfortunately, limited sample sizes often restricted our ability to study other racial/ethnic groups like Hispanics.) Doing so will help policy makers consider the potential and limitations of the PCMH model.

How have things changed over time?

Changes in the OMAS survey precludes our comparing CC-PCMH over time. A separate policy brief describes changes in adults' usual source of care since 2012. ⁶

METHODS

OMAS is a telephone survey that samples both landline and cell phones in Ohio. The survey examines access to the health system, health status, and other characteristics of Ohio's Medicaid, Medicaid eligible, and non-Medicaid populations. In 2015, researchers completed 42,876 interviews with adults and 10,122 proxy interviews of children. The 2015 OMAS is the sixth iteration of the survey. For details, please see the OMAS methods report.⁷

To be classified as having CC-PCMH, a respondent had to meet seven criteria:

- (1) Has an appropriate, usual source of care (e.g., a doctor's office or hospital outpatient department);
- (2) Has a personal care provider (PCP; i.e., "a health professional who knows you well and is familiar with your health history");
- (3) Has seen this PCP in the past 12 months;
- (4) Reports that the PCP communicates well with them;
- (5) Got urgent care (if needed) on the same or next day;
- (6) Got after hours care (if needed) without a problem;
- (7) Got specialist care (if needed) without a problem.

For the last 3 criteria, a respondent who did not need a type of care was classified as having CC-PCMH, so long as s/he met the other criteria.⁸ Item wording appears in the [appendix](#).

The results in this chartbook are based on statistical analysis of survey data. This means that we weighted the answers of the respondents in the sample so results would be representative of all non-institutionalized adults (19+) and children (0-18) in Ohio.

Each figure presented is our single-best estimate for all Ohio but the actual figure may be higher or lower. We quantified the precision of each estimate as a range called a *confidence interval*, just as political polls often report a margin of error. Please refer to the tables in the appendix for confidence intervals for each estimate.

To illustrate group differences (e.g., by insurance type/status), many charts present **predicted probabilities** of outcomes that adjust for demographic and other characteristics (see p. 5). These are not observed estimates but are predicted values from our [statistical models](#). They can be interpreted as the estimated percentage of a hypothetical subpopulation predicted to have the outcome, assuming they have otherwise average characteristics. [Table 1a.5](#) has some examples with explanations.

Care should be taken when quoting figures from these charts. **If you wish to quote an estimate for a particular group (e.g., "what percentage of Medicaid adults have CC-PCMH?") we recommend using unadjusted estimates.** For each chart, these can be found in a corresponding table in the appendix.

RESULTS

SECTION 1a: Who experiences CC-PCMH?

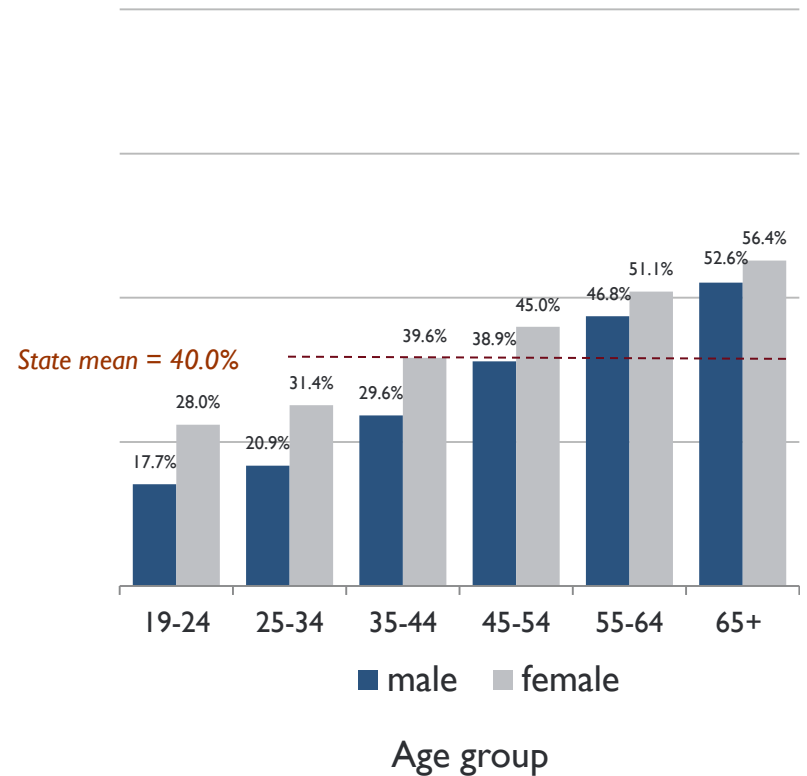
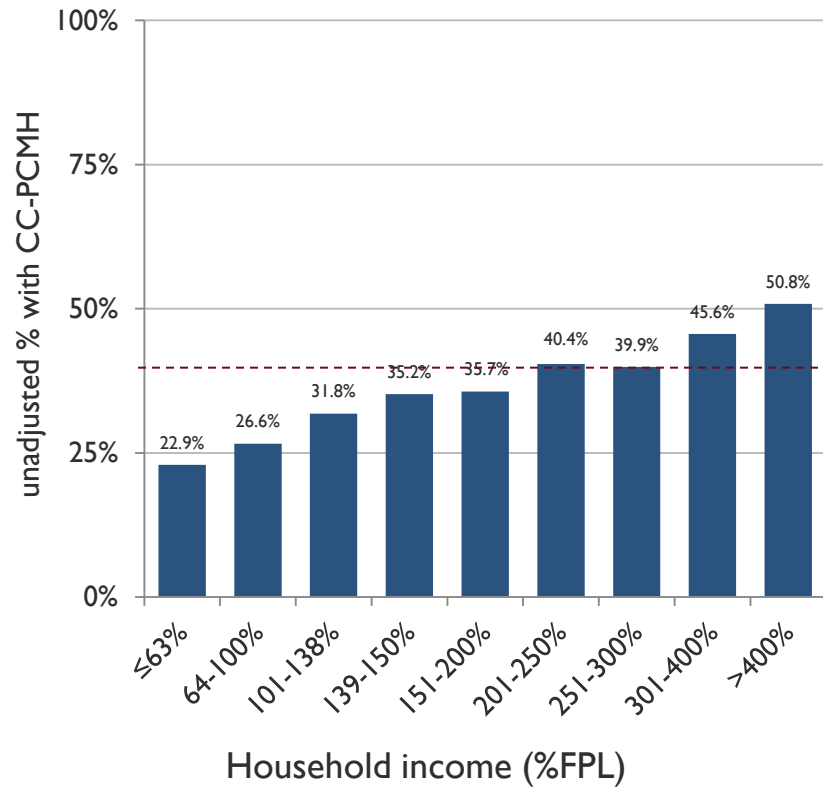
Adults

Most Ohio adults experience individual components of CC-PCMH, and 40% met all the criteria. Such care is more common among older, females who live in higher income households. There are no significant differences by region.

Among low income adults, CC-PCMH is similarly common among those with Medicaid and those with

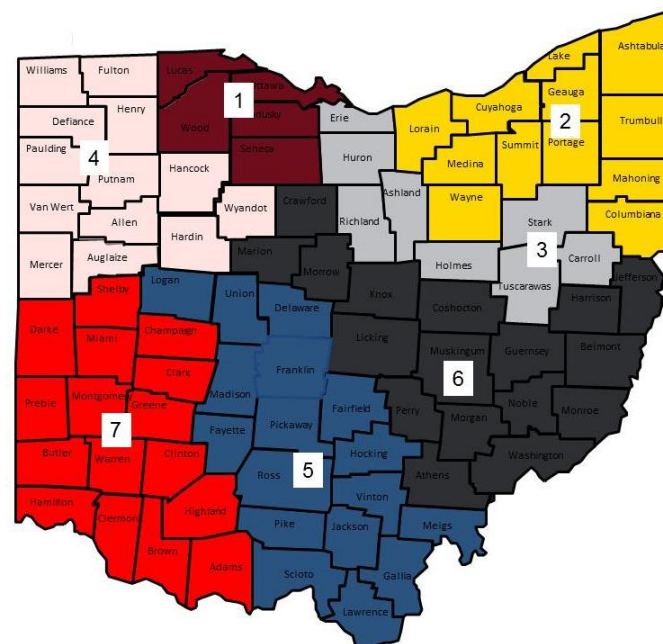
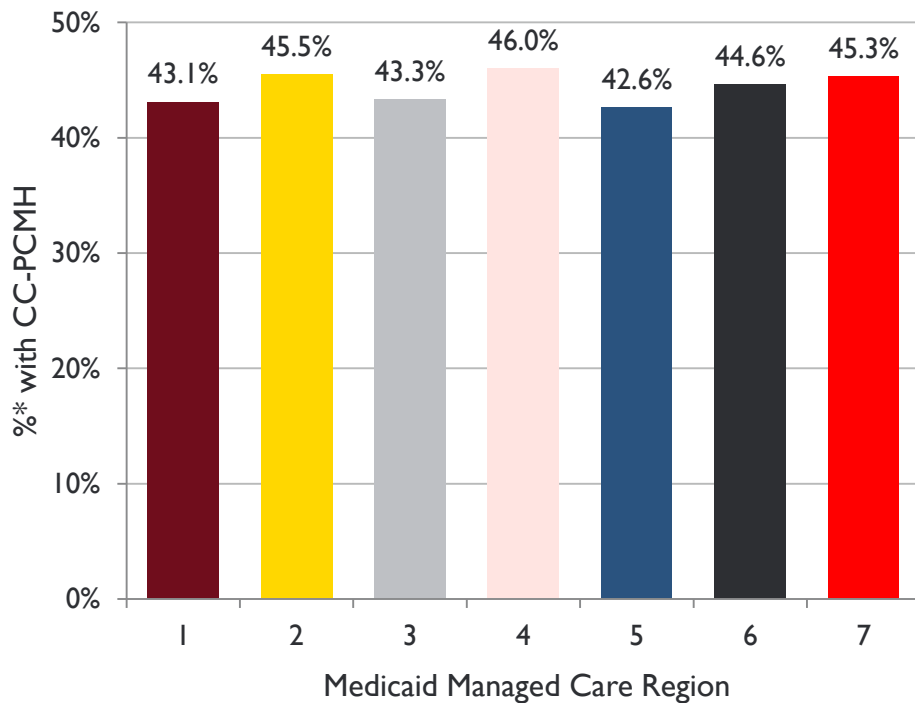
employer-sponsored insurance or other types. The uninsured are much less likely to have CC-PCMH. For adults who potentially became eligible for Medicaid following expansion, CC-PCMH is much more common among those who enrolled compared to those who did not enroll and are uninsured.

Ia. CC-PCMH is more common among adults who are older, female and who live in higher income households



Statewide, 40% of adults experience CC-PCMH. Household income (as a % of the federal poverty level [FPL]) and age are strongly associated with CC-PCMH. Females are more likely to experience CC-PCMH, especially those of child-bearing age (19-44 years). Differences among adults by race/ethnicity appear in [section 3](#). For additional details, please refer to the [appendix](#).

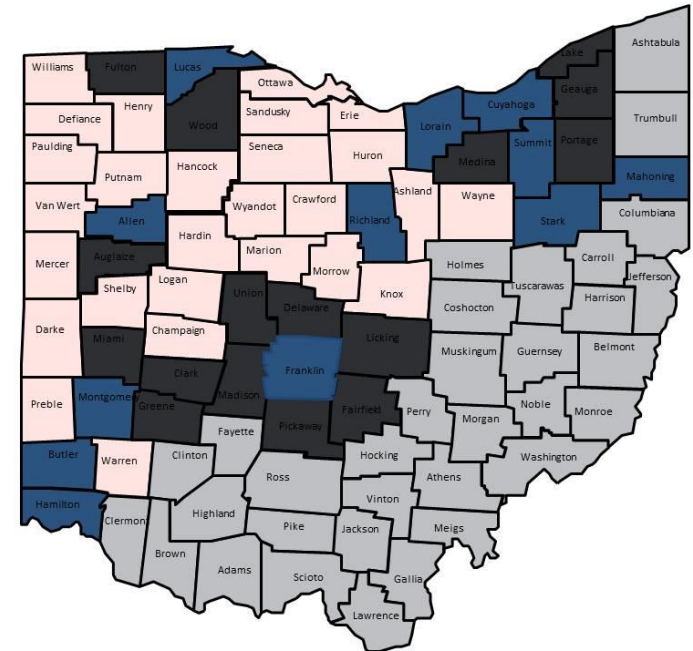
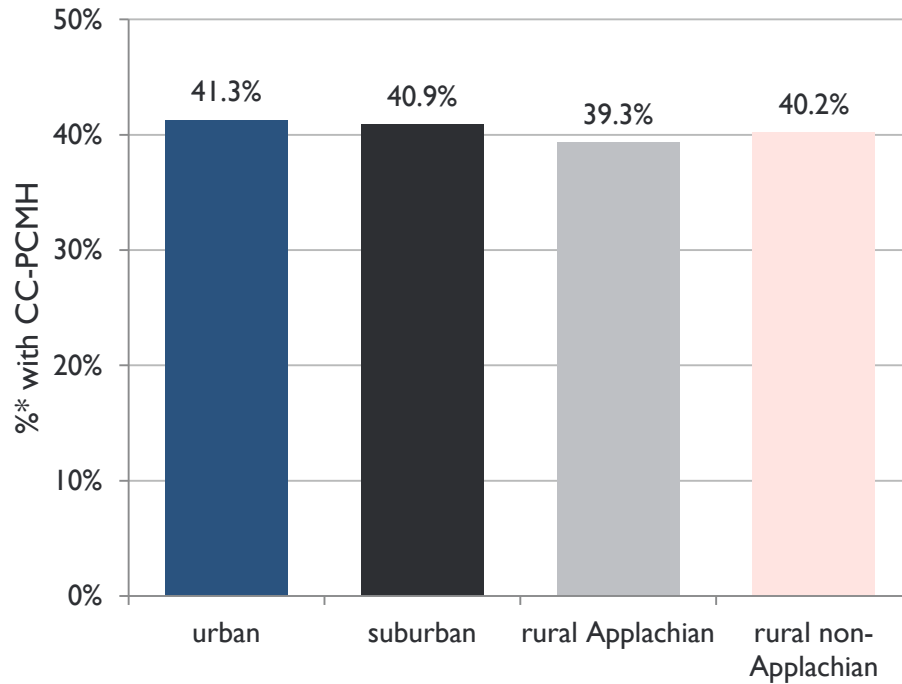
Ia.2 CC-PCMH is similarly common for adults in different Medicaid managed care regions



**Predicted probabilities based on statistical models that adjust for demographic and other characteristics. Please use care when quoting (see p. 6).*

CC-PCMH is similarly common across Ohio's different managed care regions. The differences in the chart above are not statistically significant. Moreover, the prevalence of CC-PCMH for each insurance type/status (e.g., Medicaid, uninsured) do not vary significantly by region. For additional details, please refer to the [appendix](#).

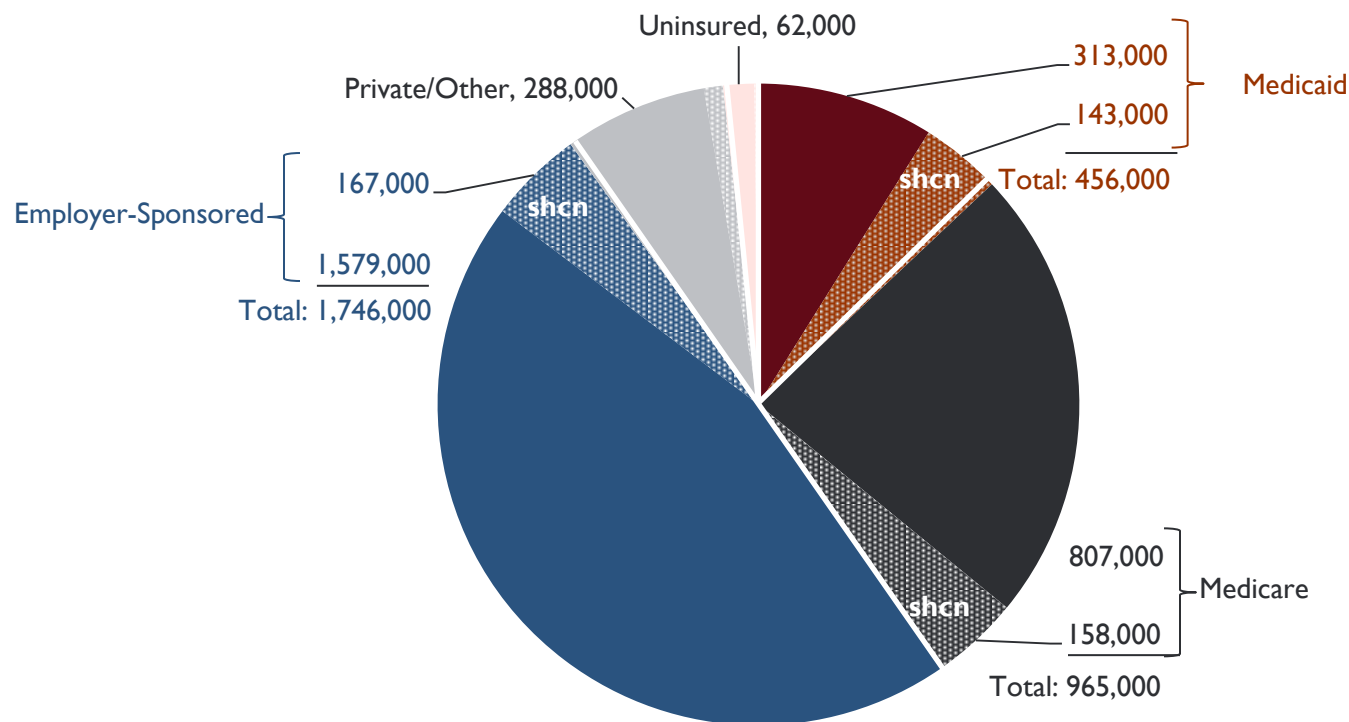
Ia.3 CC-PCMH is similarly common for adults in different types of counties



**Predicted probabilities based on statistical models that adjust for demographic and other characteristics. Please use care when quoting (see p. 6).*

After adjusting for differences in demographic and other characteristics, analyses indicate that there are no significant differences in CC-PCMH across different types of counties. This finding held for adults with different types of insurance (e.g., Medicaid, employer-sponsored). For additional details, please refer to the [appendix](#).

Ia.4 Half of Ohio adults who have CC-PCMH are covered by employer-sponsored insurance

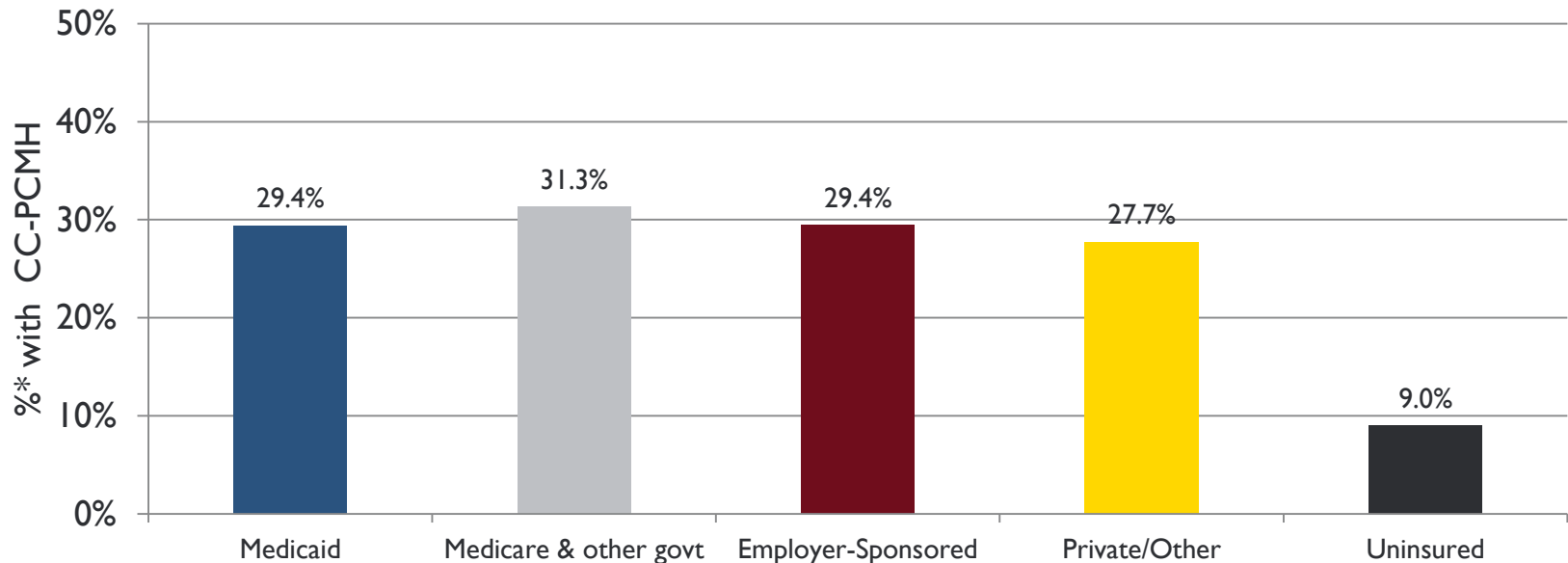


Estimated (unadjusted) number of Ohio adults who have CC-PCMH, by insurance type/status and special health care needs status.

Note: For Private/Other insurance and the Uninsured, the number of adults with special health care needs was too small to list separately.

About 3.5 million adults in Ohio have CC-PCMH. Half are covered by employer-sponsored insurance (ESI), including 167,000 who have special health care needs (shcn) and another 1.58 million who do not. Just over a quarter are covered by Medicare. To see these data in tabular format, please refer to the [appendix](#).

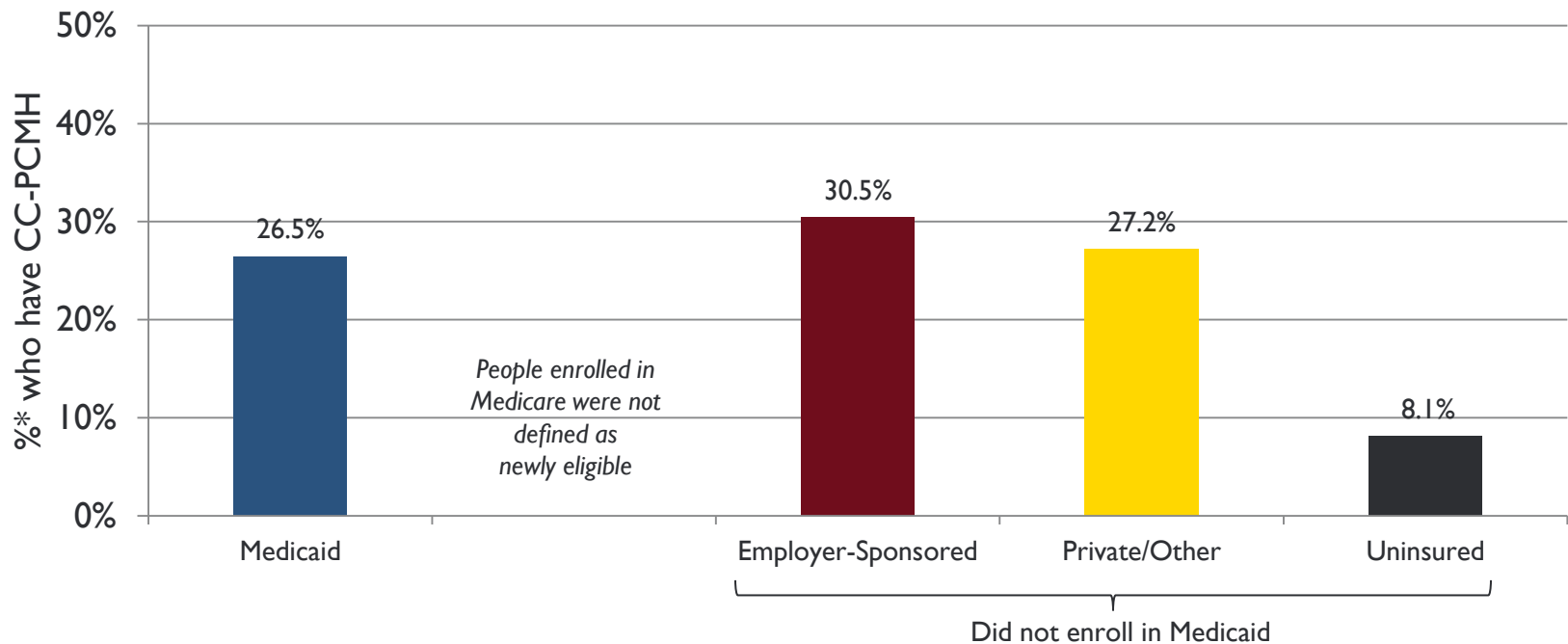
Ia.5 CC-PCMH is similarly common for low income adults whether they are covered by Medicaid or other types of insurance



**Predicted probabilities based on statistical models that adjust for demographic and other characteristics*

Among low income adults ($\leq 138\%$ FPL), CC-PCMH is similarly common for those with Medicaid compared to those with other insurance types, yet is much less common for the uninsured. These findings were largely consistent across different racial/ethnic groups. For the observed, unadjusted percentages, please see the [appendix](#).

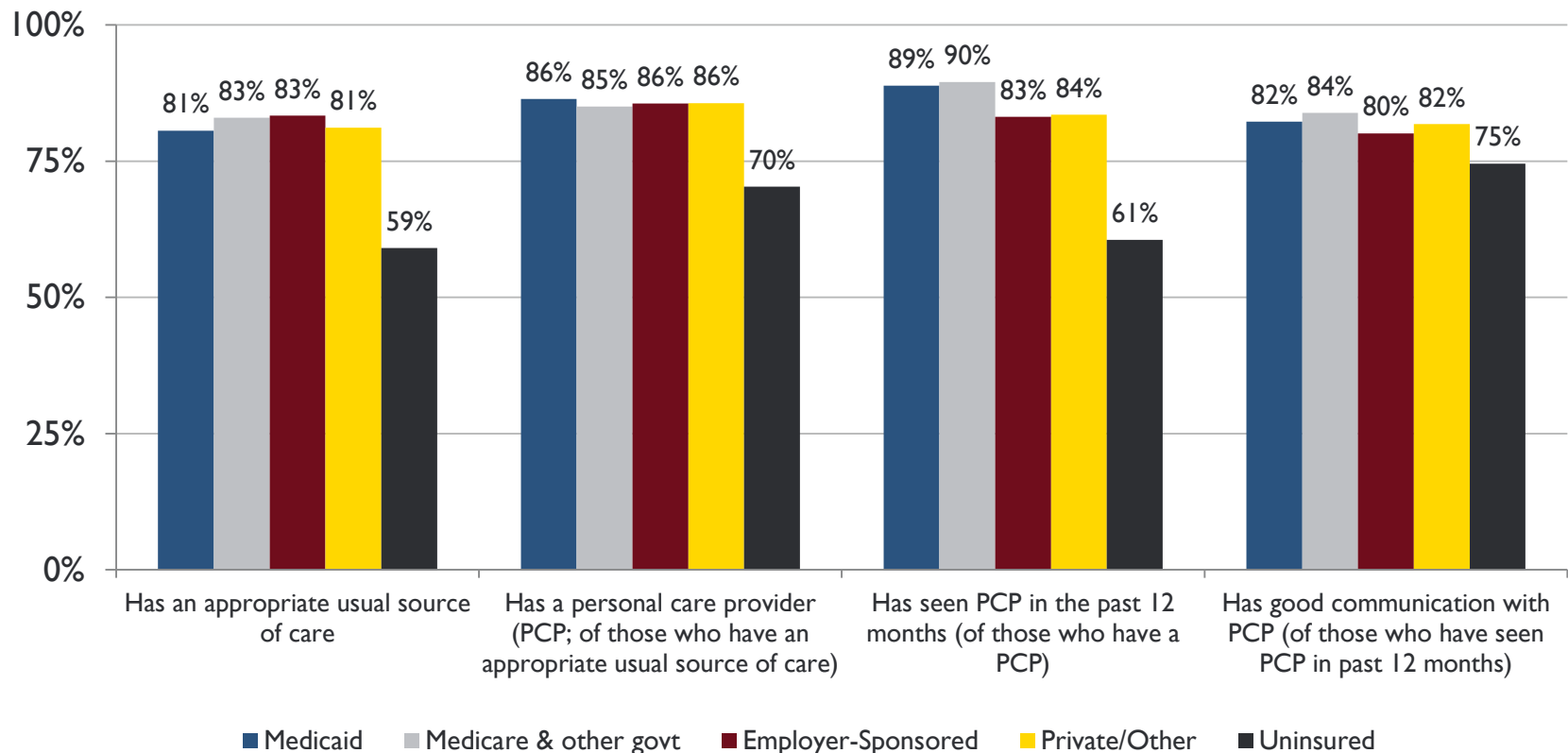
Ia.6 For low income adults newly eligible for Medicaid, CC-PCMH is more common among those who enrolled compared to those who did not and are uninsured



**Predicted probabilities based on statistical models that adjust for demographic and other characteristics. Please use care when quoting (see p. 6).*

With Medicaid expansion in Ohio, many low income adults become eligible for Medicaid. Many enrolled, but others did not, in some cases because they already had health insurance. This chart illustrates that among the newly eligible, CC-PCMH is much more common among those who enrolled in Medicaid compared to those who did not enroll and remained uninsured. Moreover, those newly enrolled in Medicaid have a similar probability of CC-PCMH compared to the those who were eligible but already had another type of health insurance. For the observed, unadjusted percentages, please see the [appendix](#).

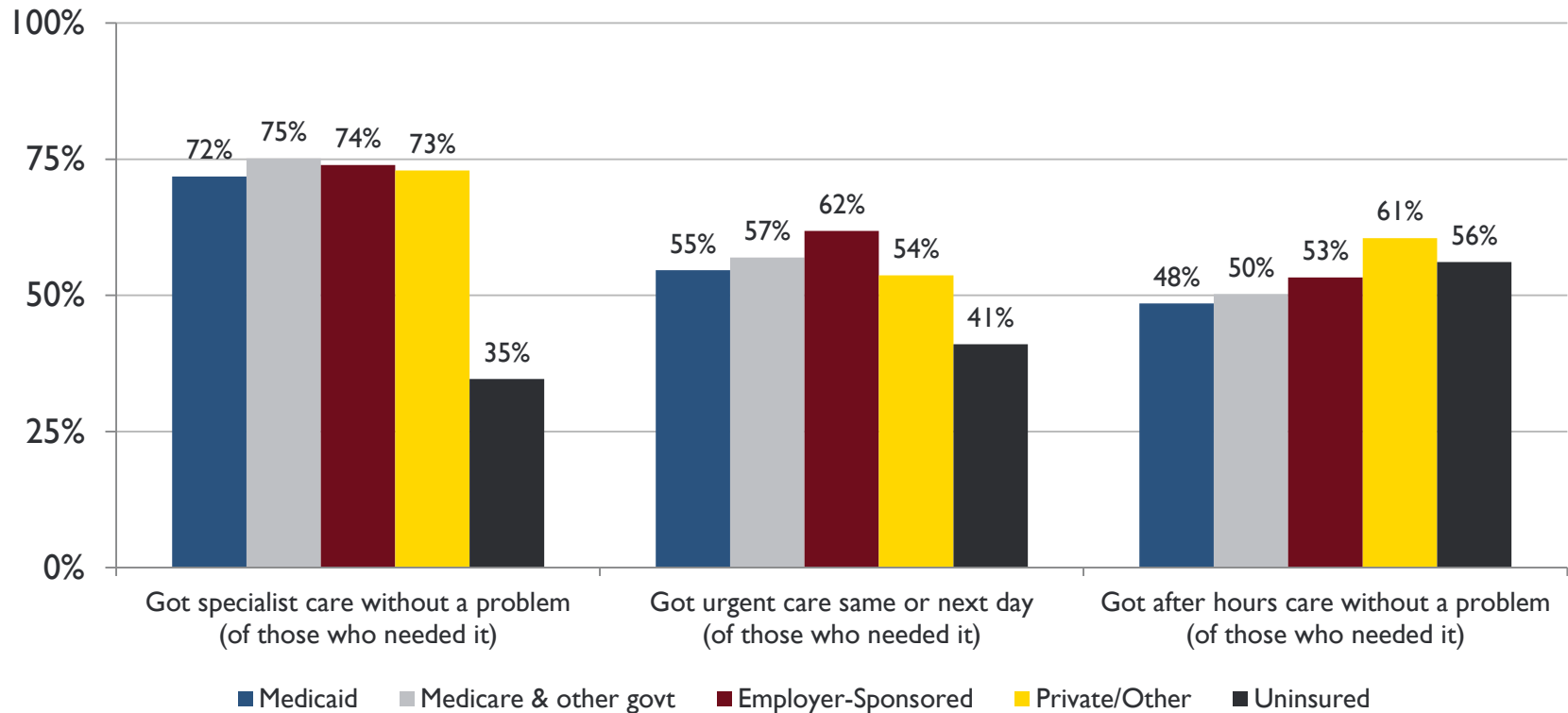
Ia.7 Components of CC-PCMH are similarly common for low income adults who have Medicaid or another type of health insurance



Note: Estimates are predicted probabilities based on statistical models that adjust for demographic and other characteristics. Please use care when quoting (see p. 6).

Low income adults ($\leq 138\%$ FPL) with Medicaid are just as likely as those with ESI to report having different components of CC-PCMH. Uninsured low income adults are less likely to have components of CC-PCMH. For the observed, unadjusted percentages, please see the [appendix](#).

Ia.8 Other components of CC-PCMH are similarly common for low income adults who have Medicaid or another type of health insurance



Note: Estimates are predicted probabilities based on statistical models that adjust for demographic and other characteristics. Please use care when quoting (see p. 6).

Regardless of insurance type, low income adults ($\leq 138\%$ FPL) are equally likely to get specialist care without a problem, whereas the uninsured are much less likely to do so. There are no significant differences for getting urgent care the same or next day, or for getting after hours care without a problem. For the observed, unadjusted percentages, please see the [appendix](#).

RESULTS

SECTION 1b: Who experiences CC-PCMH?

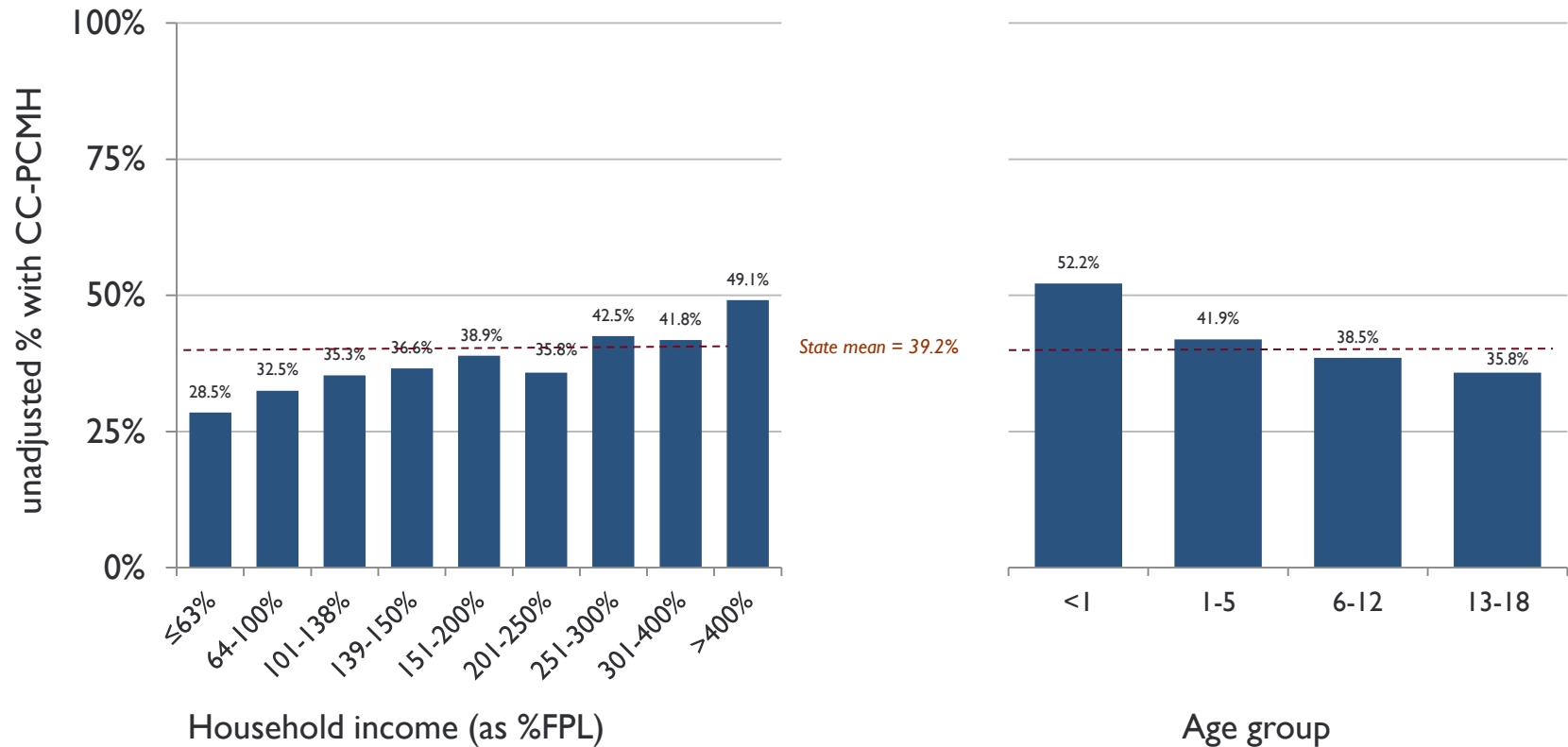
Children

In Ohio, 39% of children meet the overall definition of CC-PCMH. Those experiencing such care tend to be younger and live in higher income households. Children living in Northwest Ohio are somewhat less likely to experience CC-PCMH.

For children from low income households, CC-PCMH is less common among those with Medicaid compared to those with ESI. These differences are driven by the higher percentage of children with ESI who get urgent care the same or next day, or who get after hours care without a problem.

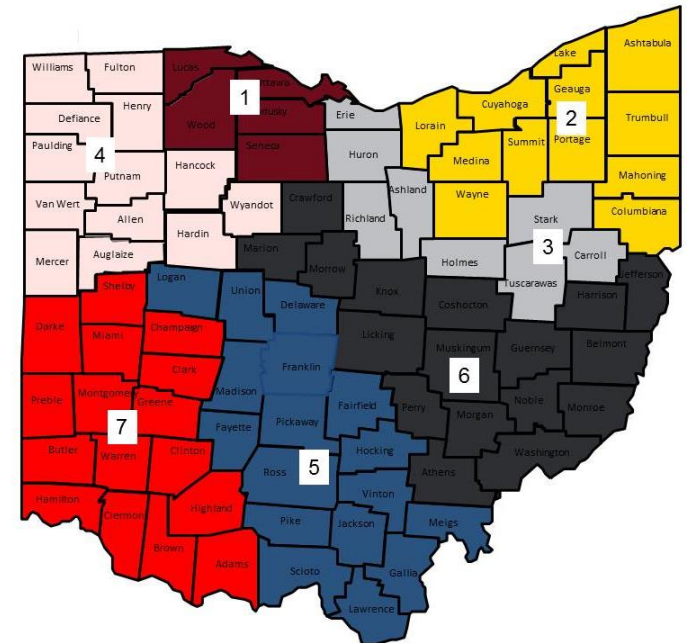
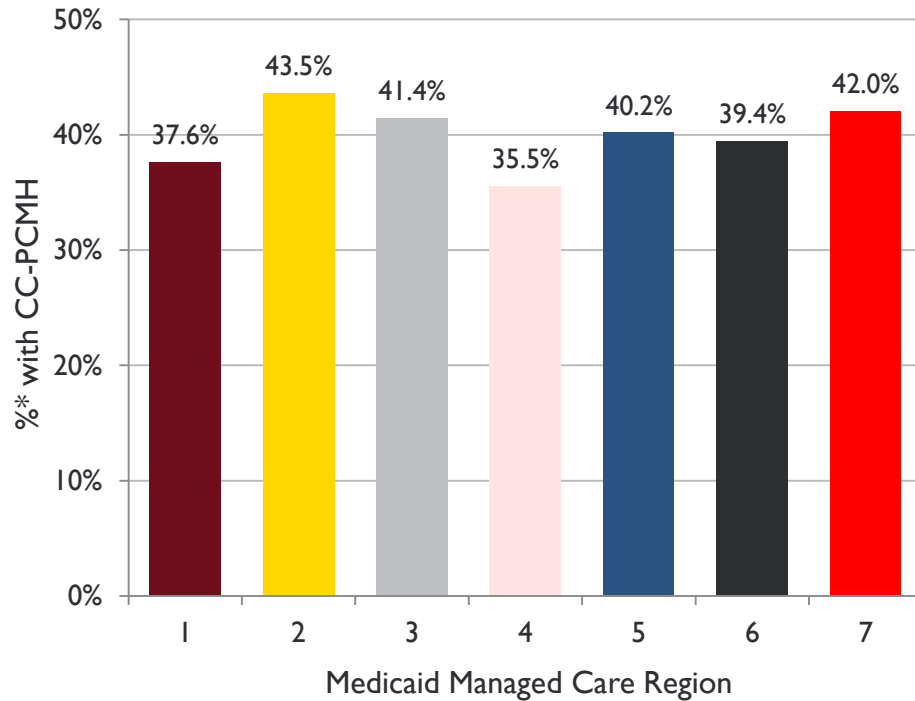
Keep in mind that these findings are based on an adult in the household (typically a parent), reporting on behalf of a child.

Ib.1 CC-PCMH is more common among younger children who live in higher income households



Statewide, 39% of children experience CC-PCMH. Household income (as a % of FPL) is associated with a child getting CC-PCMH. Girls and boys are equally likely to get CC-PCMH. Differences among children by race/ethnicity appear in [section 3](#). For additional details, please refer to the [appendix](#).

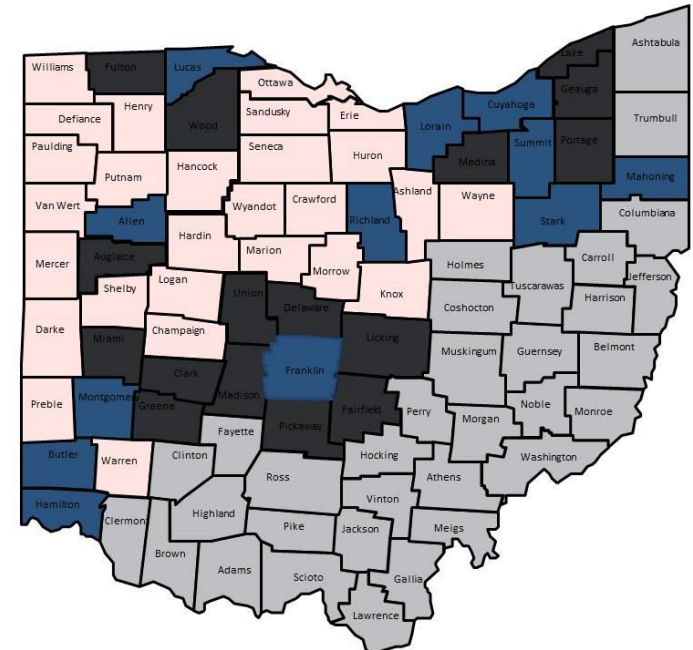
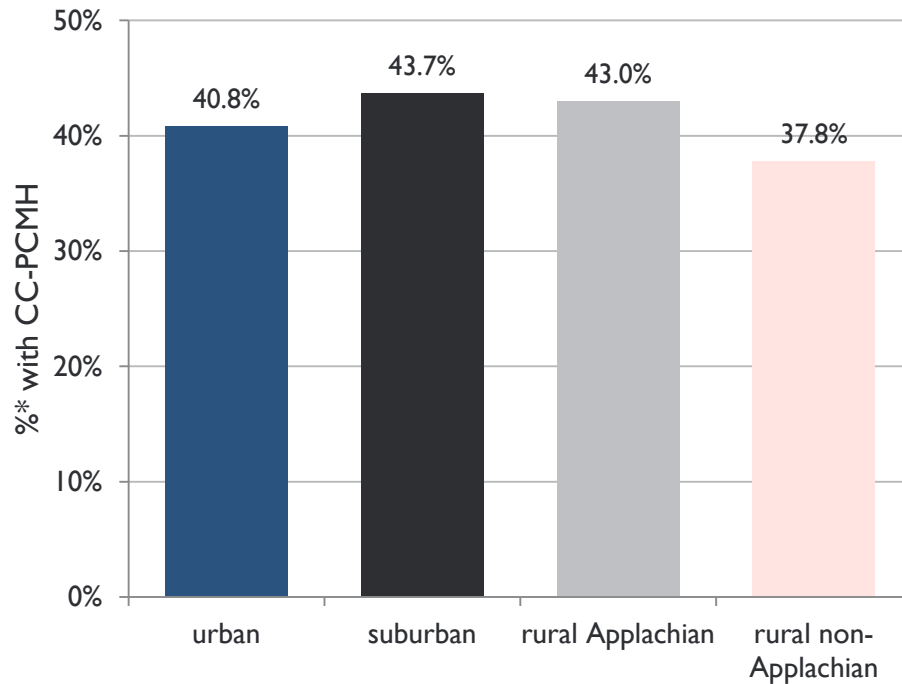
Ib.2 CC-PCMH is less common among children in Northwest Ohio



**Predicted probabilities based on statistical models that adjust for demographic and other characteristics. Please use care when quoting (see p. 6).*

After adjusting for regional differences in demographics and health status, CC-PCMH is somewhat less common among children in Northwest Ohio (Medicaid Managed Care Regions 1 and 4). Among other regions, there were no significant differences. For additional details, please refer to the [appendix](#).

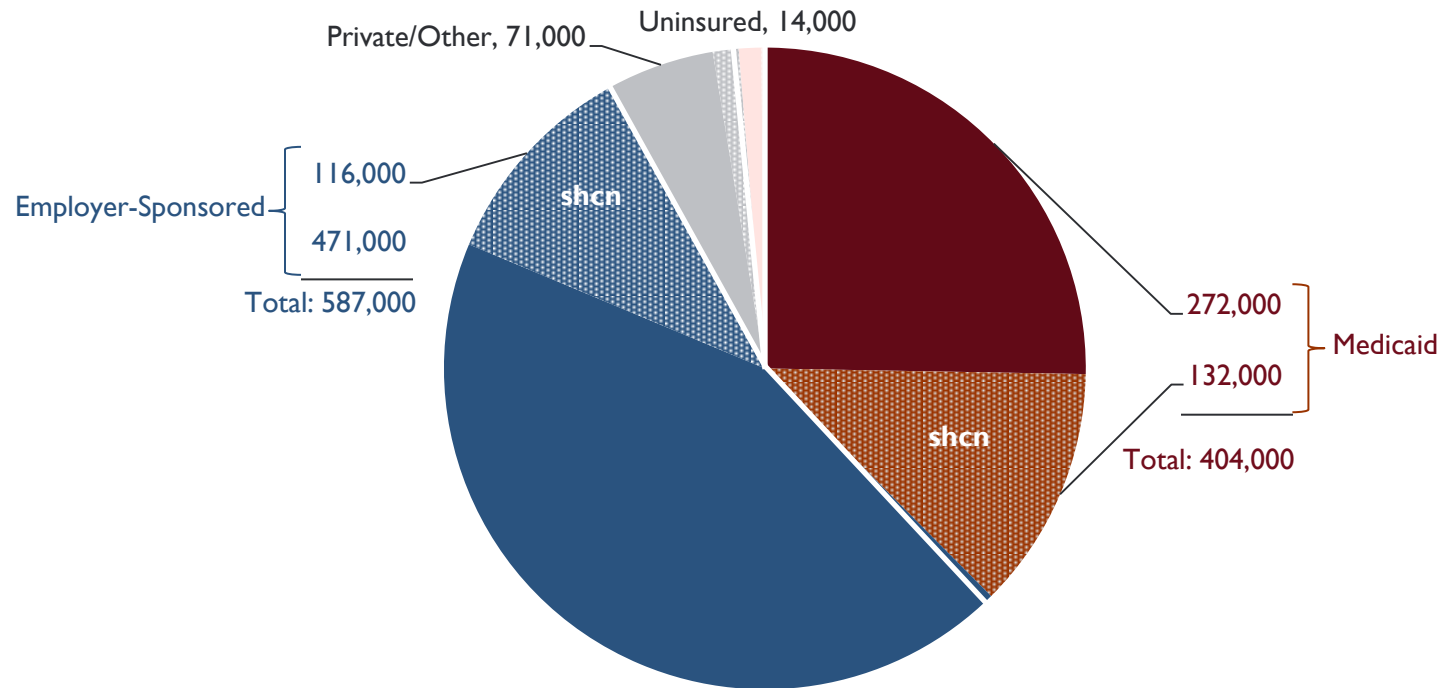
Ib.3 CC-PCMH is somewhat less common for children in rural non-Appalachian counties



**Predicted probabilities based on statistical models that adjust for demographic and other characteristics. Please use care when quoting (see p. 6).*

Even after adjusting for differences in demographic characteristics and health status, children in rural non-Appalachian counties are somewhat less likely than those in suburban or rural Appalachian counties to have CC-PCMH. For additional details, please refer to the [appendix](#).

Ib.4 Over half of Ohio's children who have CC-PCMH are covered by employer-sponsored insurance

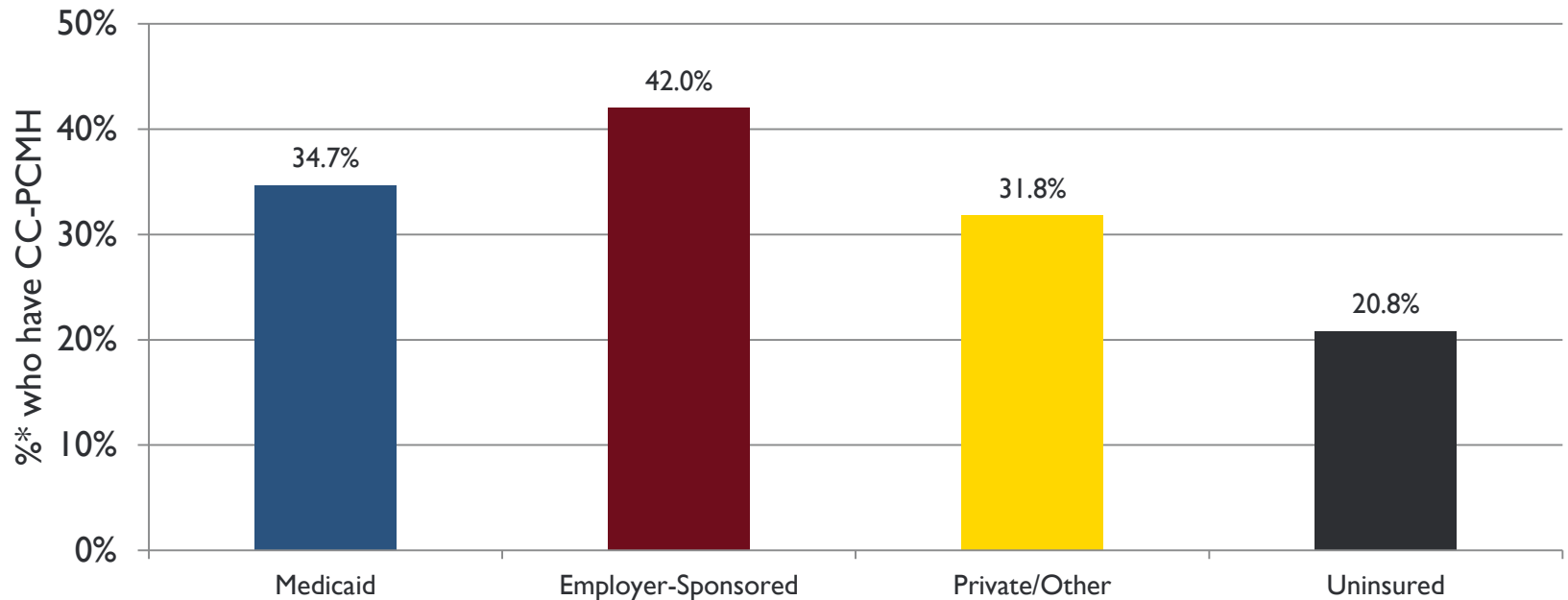


Estimated (unadjusted) number of children who have CC-PCMH, by insurance type/status and special health care needs status.

Note: For Private/Other insurance and the Uninsured, the number of children with special health care needs was too small to list separately.

There are approximately 1.1 million children in Ohio (of all income levels) who have CC-PCMH. Over half are covered by employer-sponsored insurance (ESI), including 116,000 who have special health care needs (shcn) and another 471,000 who do not. Most of the rest are covered by Medicaid. To see these data in tabular format, please refer to the [appendix](#).

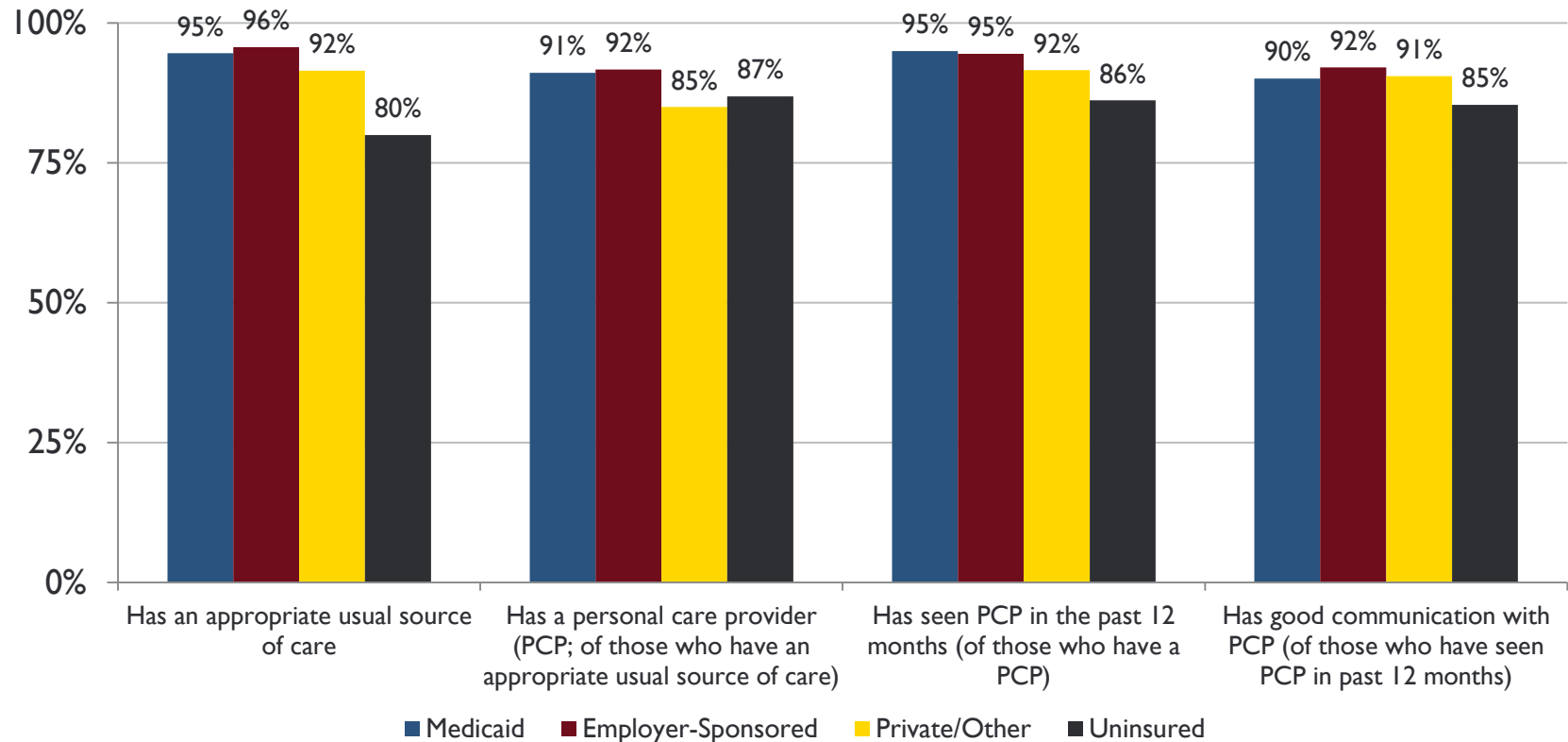
Ib.5 For children from low income households, CC-PCMH is less common among those with Medicaid, compared to those with employer-sponsored insurance



**Predicted probabilities based on statistical models that adjust for demographic and other characteristics. Please use care when quoting (see p. 6).*

Among children from low income households ($\leq 200\%$ FPL), CC-PCMH is less common for those with Medicaid compared to those with ESI, but much more common compared to the uninsured. There are no significant differences between children with Medicaid versus those with privately purchased or other insurance. For observed, unadjusted percentages, see the [appendix](#).

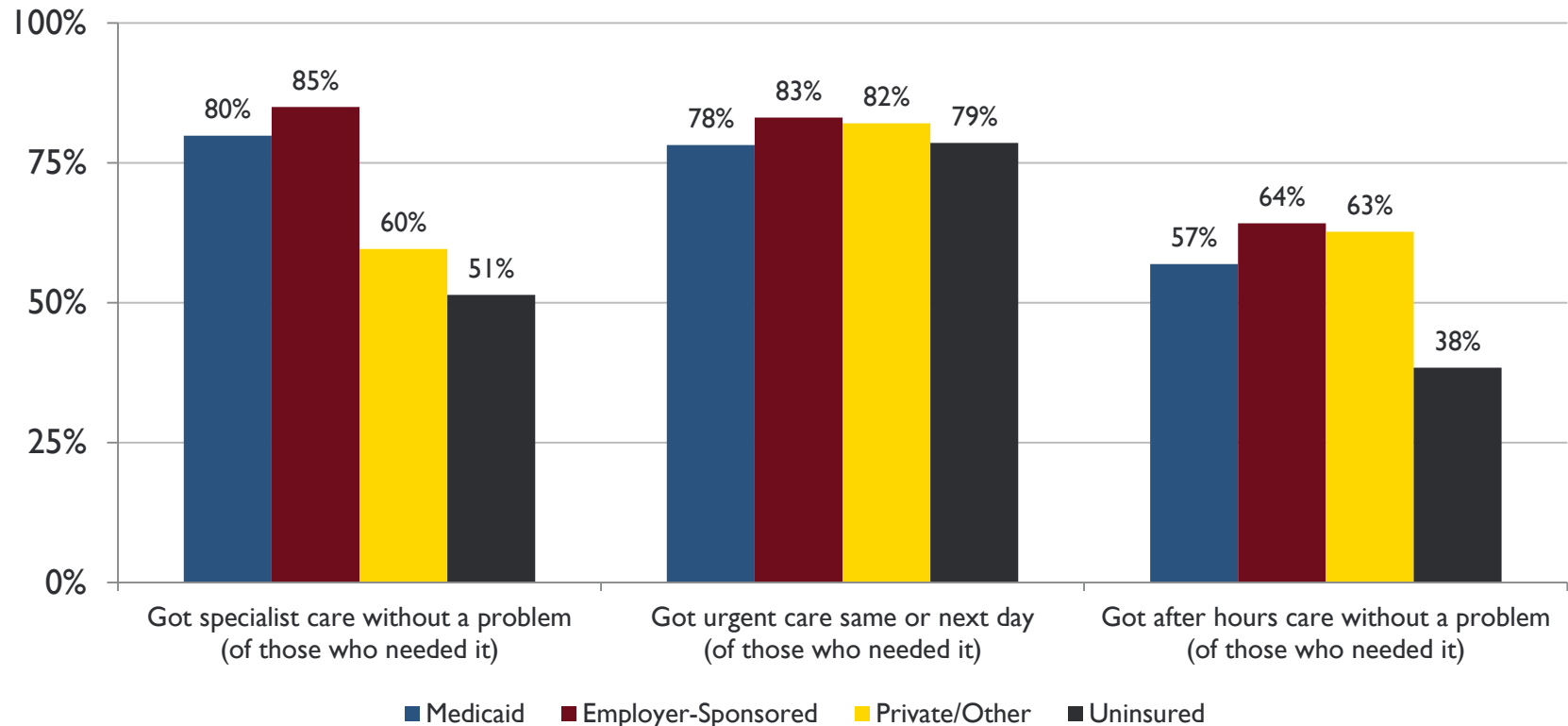
Ib.6 Among children from low income households, those with Medicaid are just as likely as those with employer-sponsored insurance to have selected components of CC-PCMH



Note: Estimates are predicted probabilities based on statistical models that adjust for demographic and other characteristics. Please use care when quoting (see p. 6).

Among children from low income households ($\leq 200\%$ FPL), those with Medicaid are just as likely as those with ESI to have an appropriate usual source of care, a personal care provider (PCP), to have seen that PCP in the past year, and to have good communication with that PCP. Uninsured children were less likely to have many of these components. For observed, unadjusted percentages, please see the [appendix](#).

Ib.7 Children from low income households with Medicaid are less likely than those with employer-sponsored insurance to get needed urgent care or after hours care



Note: Estimates are predicted probabilities based on statistical models that adjust for demographic and other characteristics. Please use care when quoting (see p. 6).

Other components of CC-PCMH help explain the findings from [chart Ib.5](#). Among children from low income households ($\leq 200\%$ FPL), those with Medicaid are somewhat less likely than those with ESI to get (needed) urgent care the same/next day; and to get (needed) after hours care without a problem. Uninsured children were less likely than those with Medicaid to get (needed) specialist care or after hours care without a problem. For observed, unadjusted percentages, please see the [appendix](#).

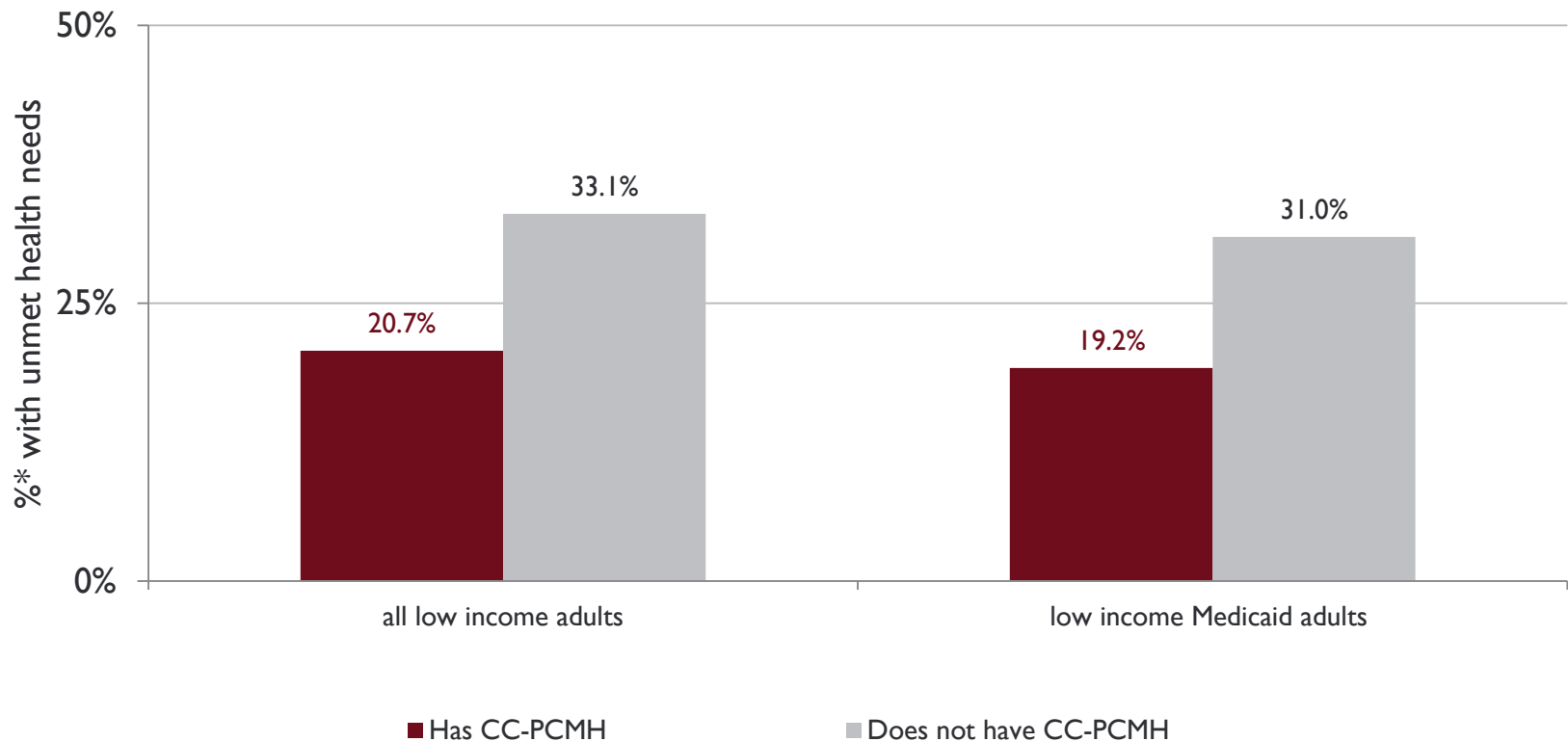
RESULTS

SECTION 2a: CC-PCMH, better health care & outcomes

Adults

CC-PCMH is associated with a range of better health care and outcomes. Adults from low income households who experience this type of care are less likely to report having unmet health needs, frequent emergency department visits and to misuse prescription painkillers. In some cases, the association is limited to adults who have special health care needs or a history of chronic conditions. However, there is no such association for women from low income households who have been pregnant in the past year.

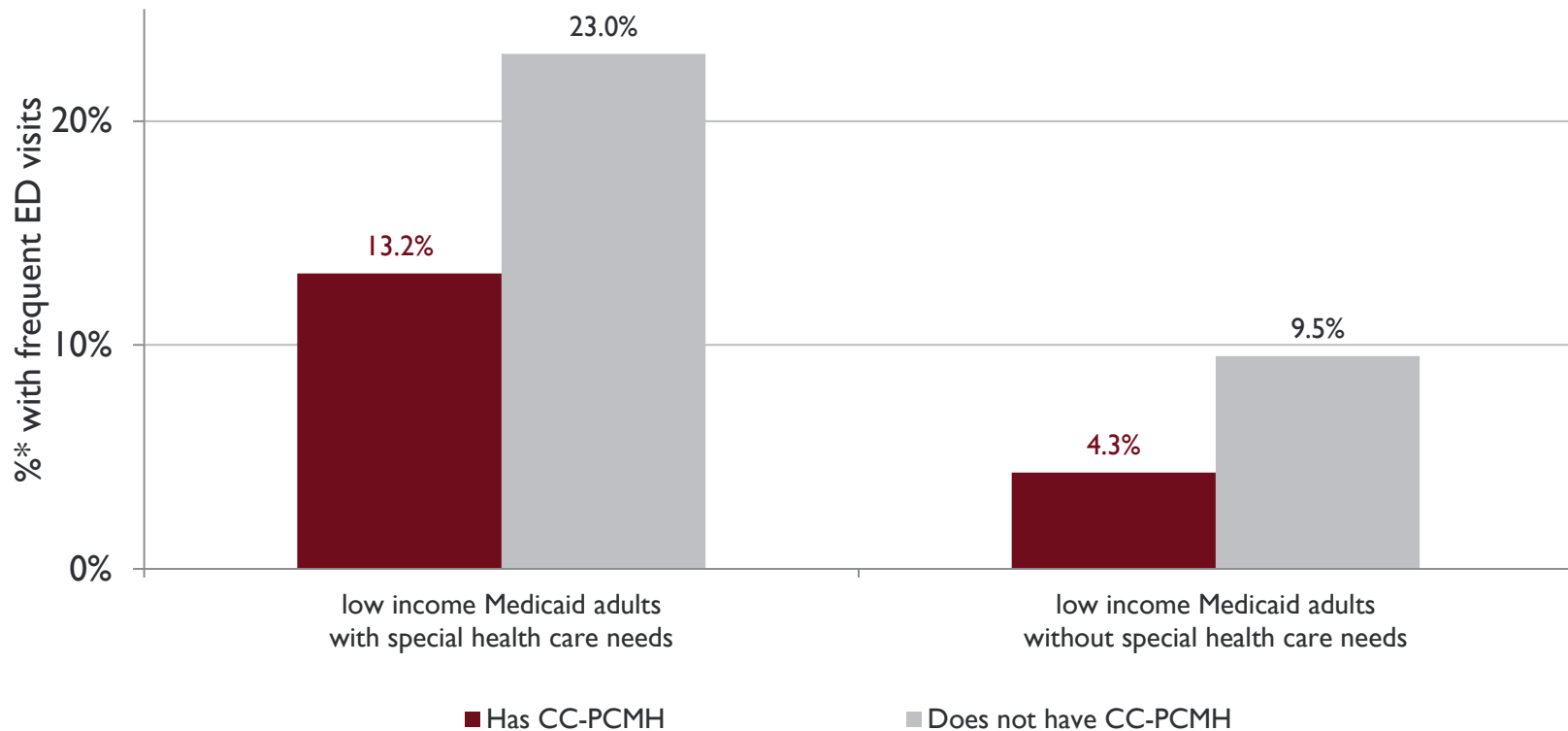
2a.1 Low income adults with CC-PCMH are less likely to have unmet health needs



**Predicted probabilities based on statistical models that adjust for demographic and other characteristics. Please use care when quoting (see p. 6).*

Low income adults ($\leq 138\%$ FPL) with CC-PCMH are less likely to have unmet health needs. For the observed, unadjusted percentages, please see the [appendix](#).

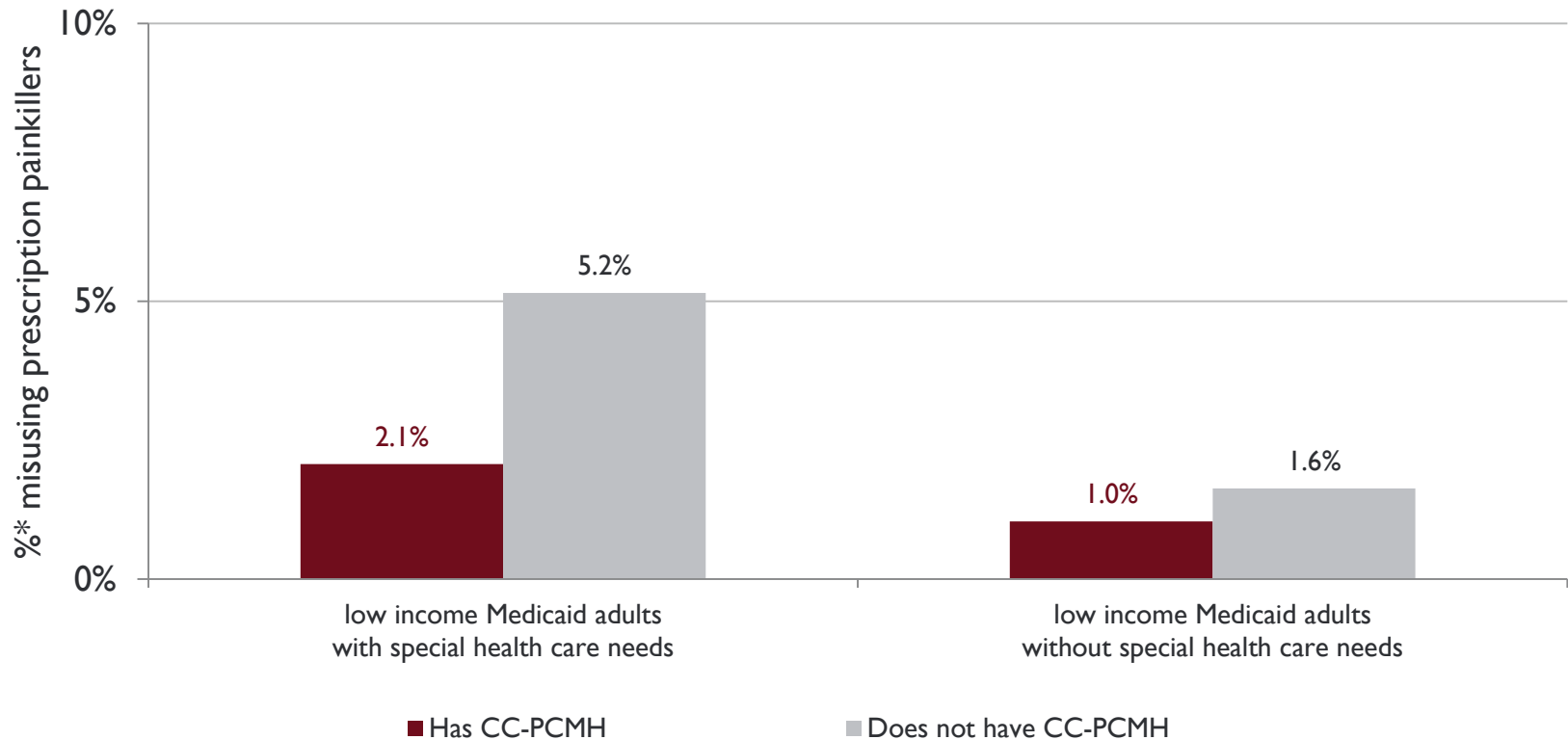
2a.2 Low income adults who have CC-PCMH are less likely to have frequent emergency department visits



**Predicted probabilities based on statistical models that adjust for demographic and other characteristics. Please use care when quoting (see p. 6).*

Among low income adults ($\leq 138\%$ FPL), those with CC-PCMH are less likely to have frequent (3+/year) emergency department visits. The findings persist for low income adults both with and without special health care needs. Moreover, they persist for low income adults covered by Medicaid (see chart) and all low income adults. For more details, please see the [appendix](#).

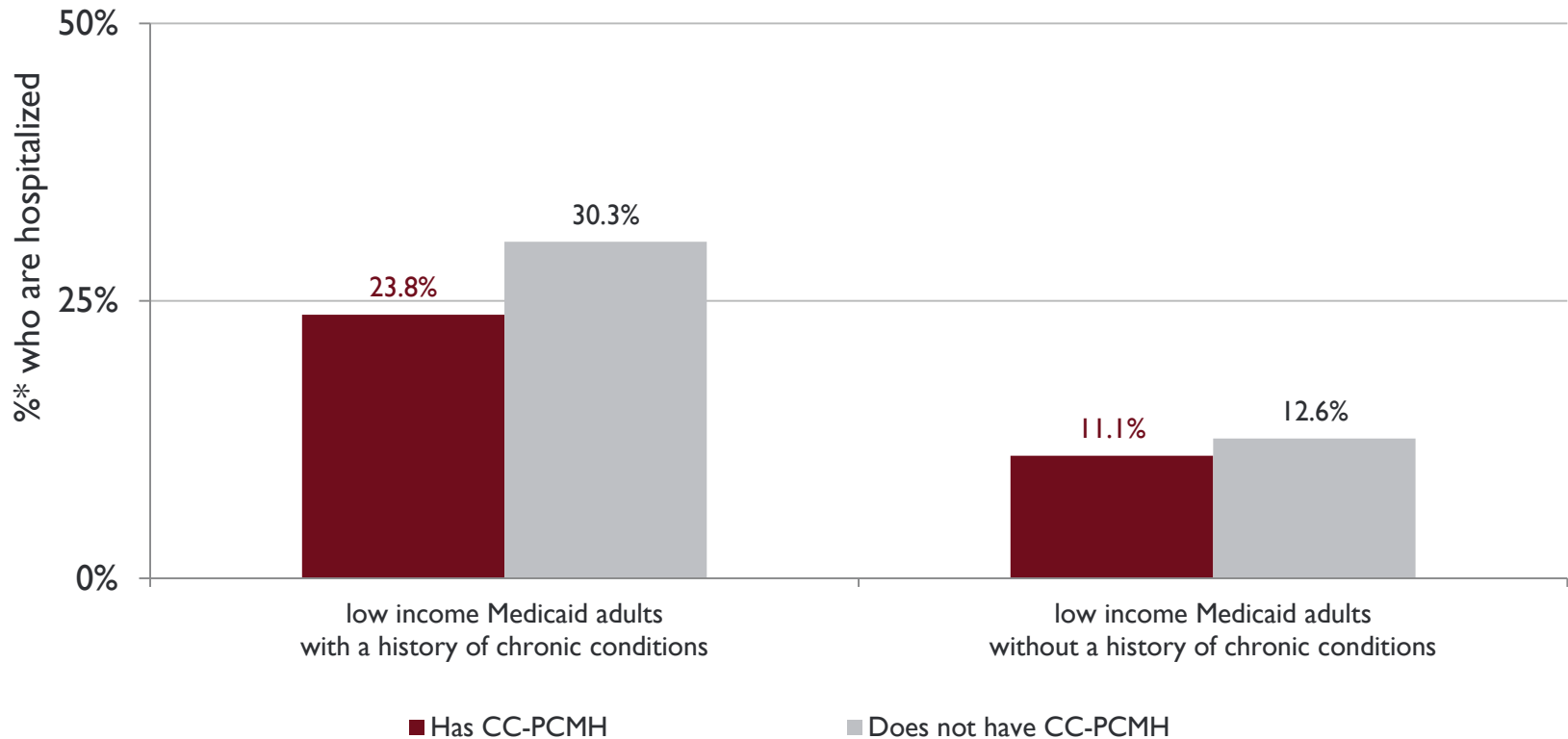
2a.3 Low income adults with special health care needs who have CC-PCMH are less likely to misuse prescription painkillers



**Predicted probabilities based on statistical models that adjust for demographic and other characteristics. Please use care when quoting (see p. 6).*

Among low income adults ($\leq 138\%$ FPL), CC-PCMH is associated with a lower probability of misuse of prescription painkillers during the past year. The adjusted difference, however, is only significant among adults with special health care needs. Findings are consistent for all low income adults, as well as those covered by Medicaid. For the observed, unadjusted percentages, please see the [appendix](#).

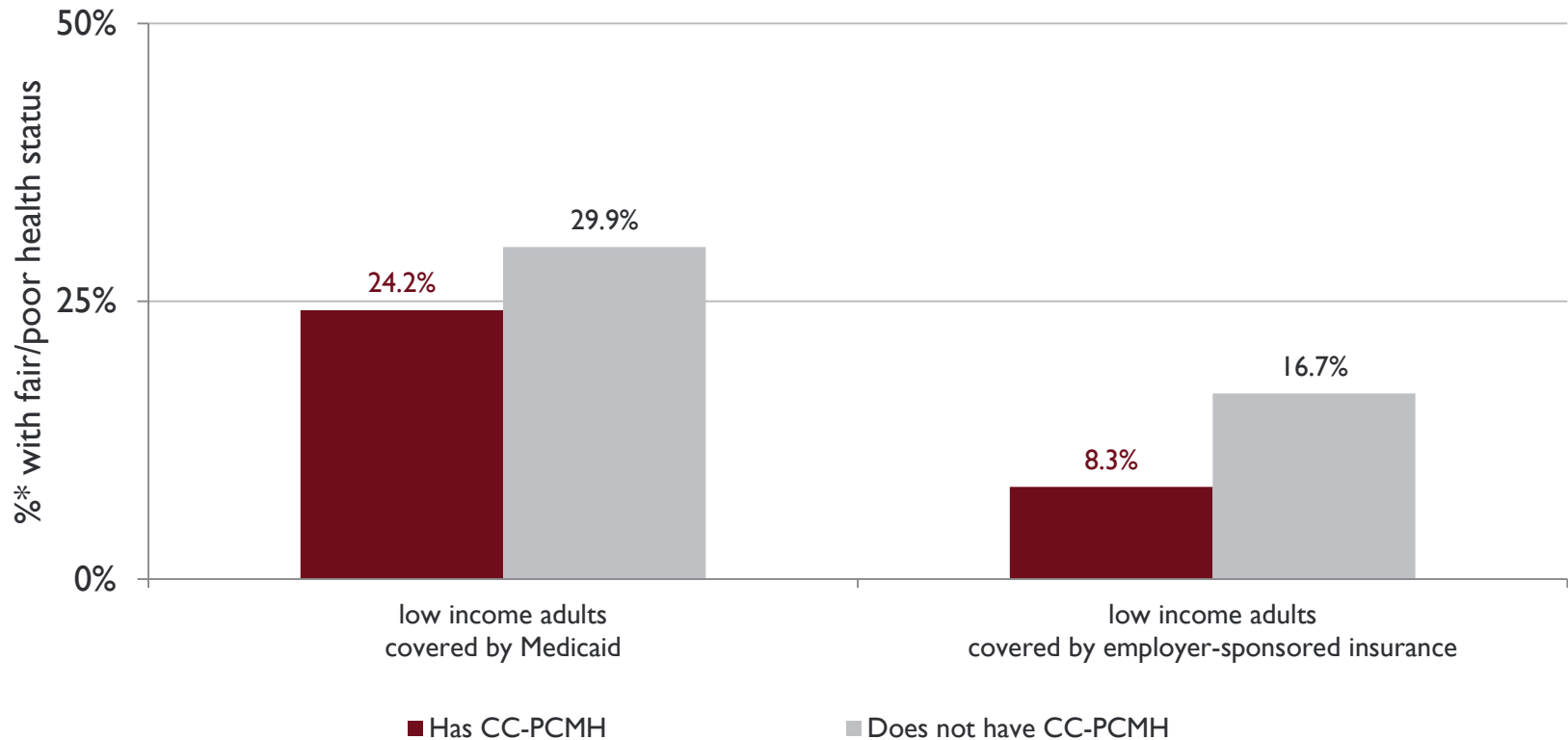
2a.4 Among low income adults with a history of chronic conditions, those with CC-PCMH are less likely to have an overnight hospital stay



**Predicted probabilities based on statistical models that adjust for demographic and other characteristics. Please use care when quoting (see p. 6).*

CC-PCMH is associated with a lower probability of overnight hospital stays, although only for low income adults ($\leq 138\%$ FPL) who have a history of chronic conditions. Differences for low income adults without a history of chronic conditions are not statistically significant. For the observed, unadjusted percentages, please see the [appendix](#).

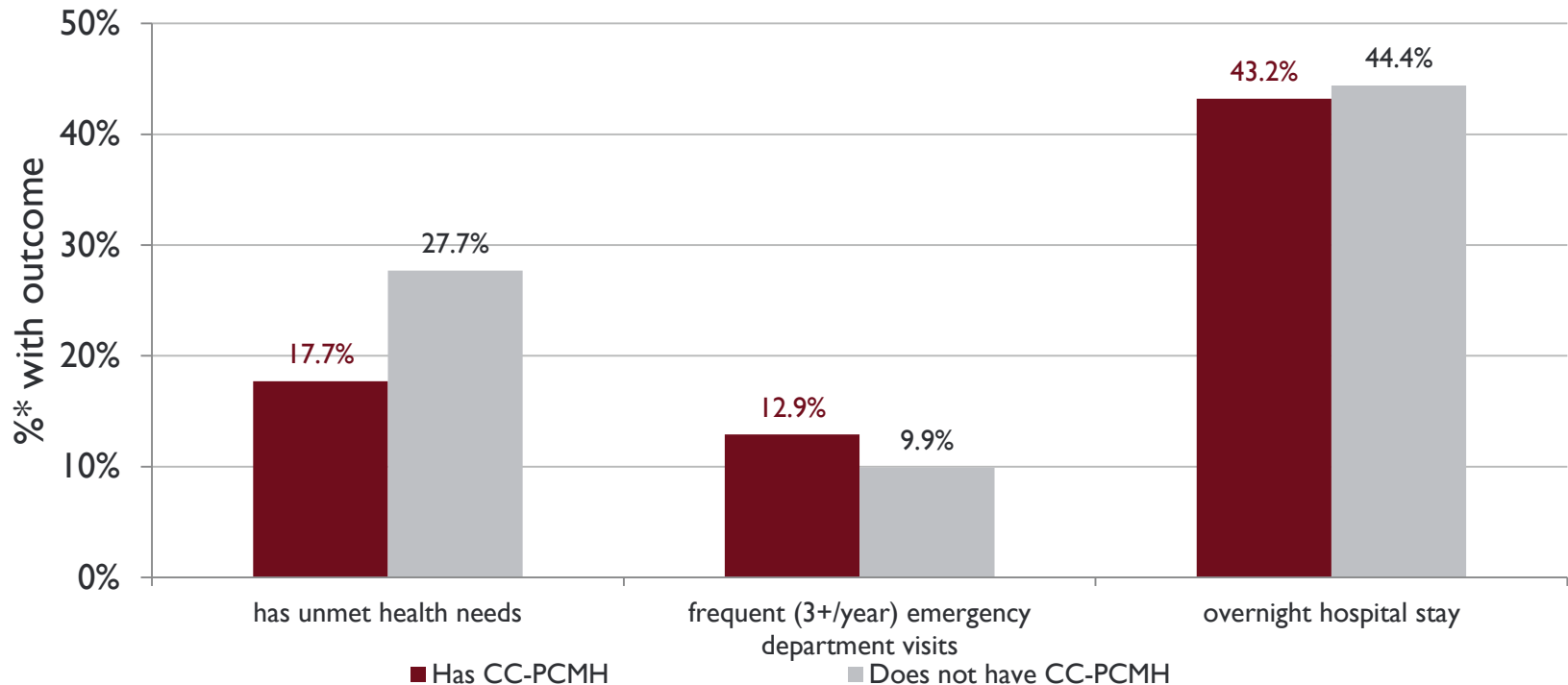
2a.5 For insured low income adults, those with CC-PCMH are less likely to rate their health status as “fair” or “poor”



**Predicted probabilities based on statistical models that adjust for demographic and other characteristics. Please use care when quoting (see p. 6).*

For insured low income adults ($\leq 138\%$ FPL), those with CC-PCMH are less likely to rate their health status as “fair” or “poor.” The difference is greater for people covered by employer-sponsored insurance than for those covered by Medicaid. For the uninsured, the differences were not statistically significant. For the observed, unadjusted percentages, please see the [appendix](#).

2a.6 CC-PCMH is not associated with selected outcomes for pregnant women from low income households



**Predicted probabilities based on statistical models that adjust for demographic and other characteristics. Please use care when quoting (see p. 6).*

To examine the potential for the PCMH model to reduce infant mortality, we tested whether CC-PCMH was associated with health care outcomes among low income ($\leq 200\%$ FPL) women who had been pregnant in the past year. After adjusting for group differences in demographic and other characteristics, analyses found that CC-PCMH was not associated with unmet health needs, frequent emergency department visits nor with overnight hospital stays in this population. For more details, please see the [appendix](#).

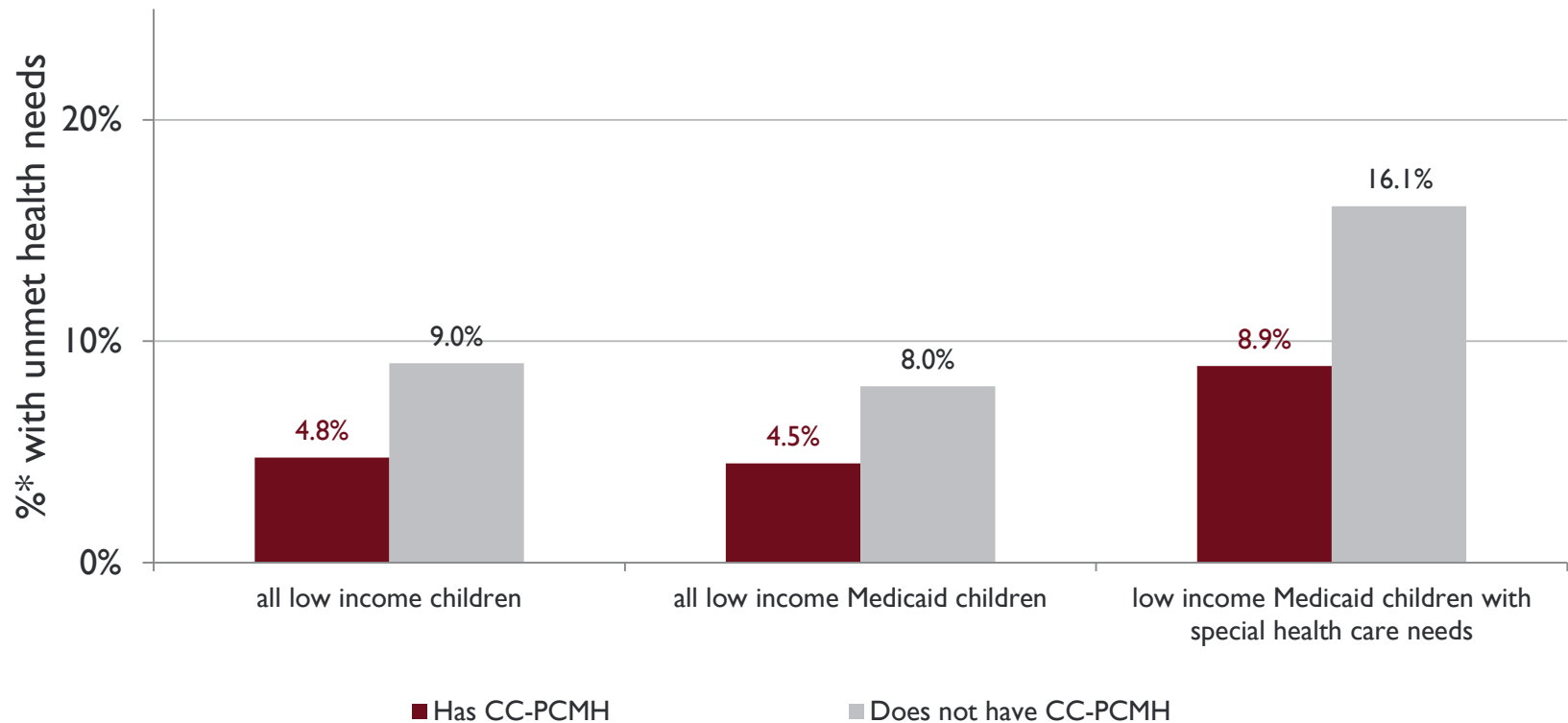
RESULTS

SECTION 2b: CC-PCMH, better health care & outcomes

Children

CC-PCMH is associated with a range of better health care and outcomes for children from low income households. Those who have CC-PCMH are less likely (than those without) to have unmet health needs or frequent emergency department visits and are more likely to have had a well-child visit during the past year. There is no association with hospitalizations. These findings are consistent regardless of the type of insurance. Keep in mind that these findings are based on an adult in the household (typically a parent) reporting on behalf of the child.

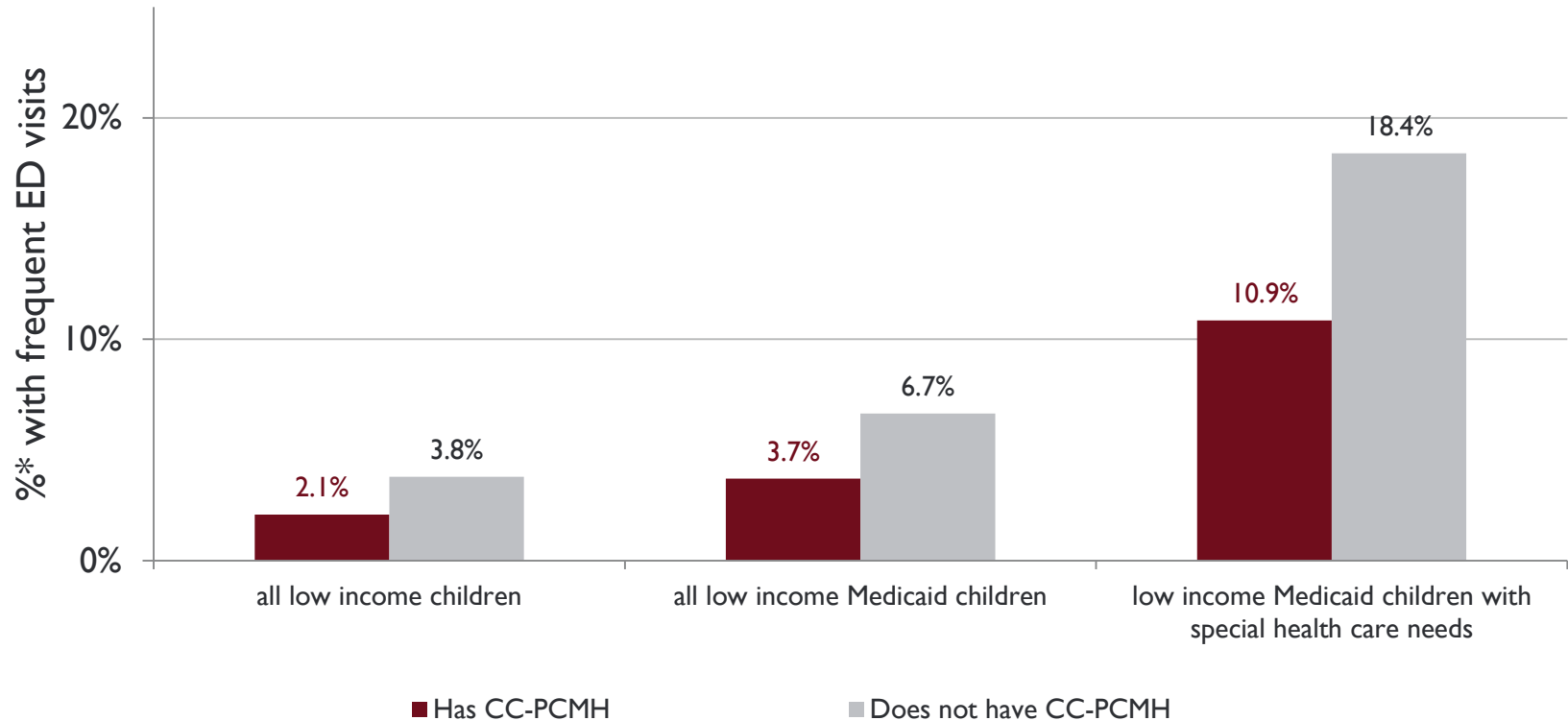
2b.1 For low income children, CC-PCMH is associated with a lower probability of unmet health needs



**Predicted probabilities based on statistical models that adjust for demographic and other characteristics. Please use care when quoting (see p. 6).*

In different subpopulations of low income children ($\leq 200\%$ FPL), having CC-PCMH is associated with a lower probability of unmet health needs. For the observed, unadjusted percentages, please see the [appendix](#).

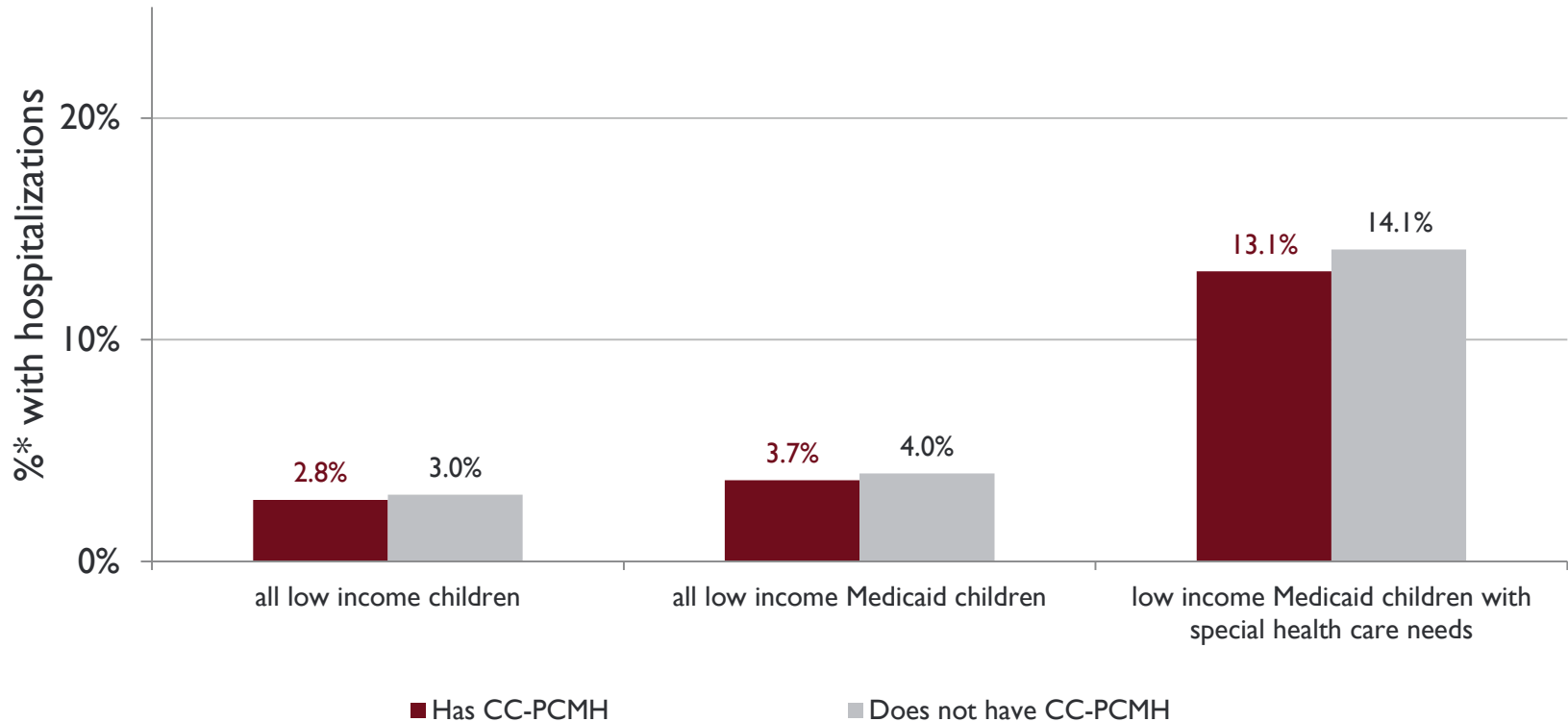
2b.2 For low income children, CC-PCMH is consistently associated with a lower probability of frequent emergency department visits



**Predicted probabilities based on statistical models that adjust for demographic and other characteristics. Please use care when quoting (see p. 6).*

In different subpopulations of low income children ($\leq 200\%$ FPL), having CC-PCMH is consistently associated with a lower probability of frequent emergency department visits. For the observed, unadjusted percentages, please see the [appendix](#).

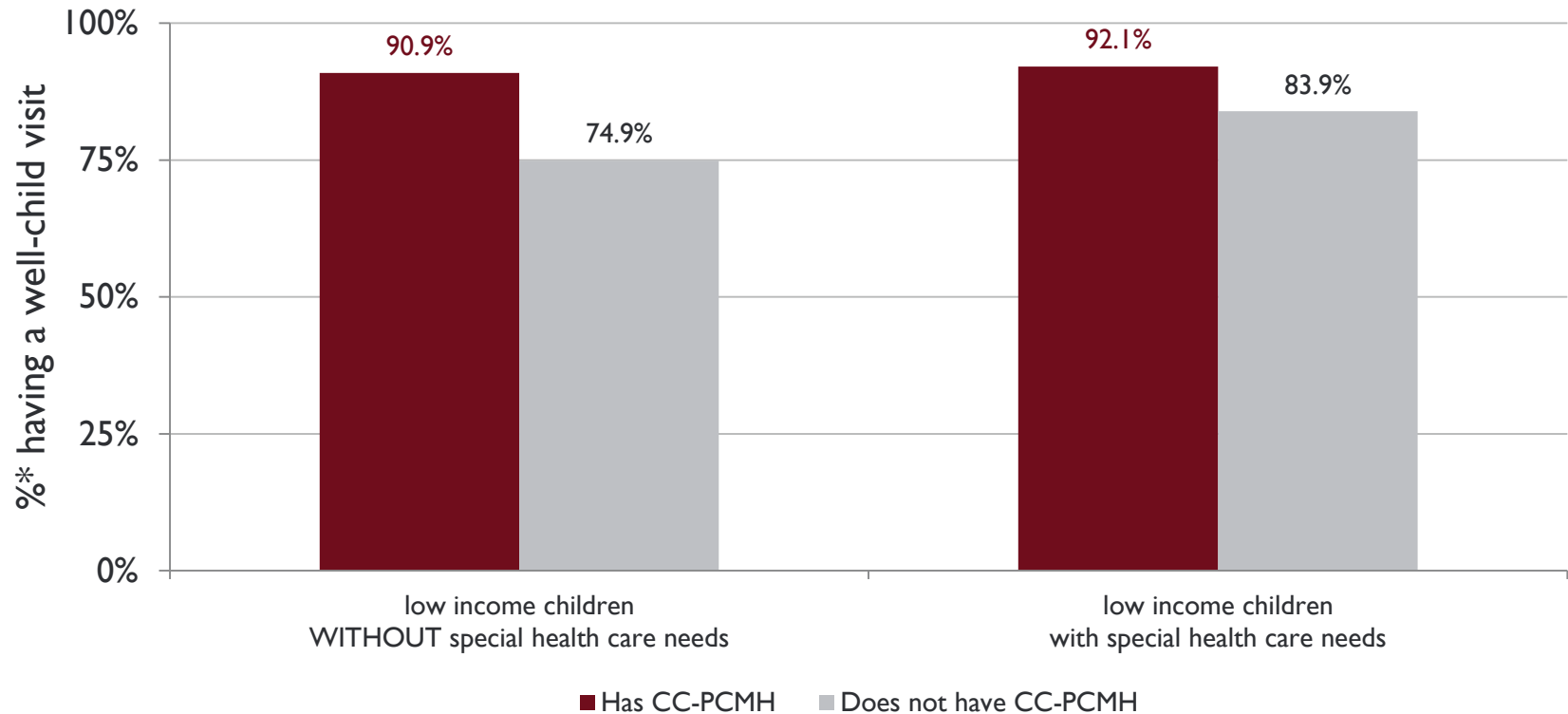
2b.3 For low income children, CC-PCMH is not associated with the probability of hospitalization



**Predicted probabilities based on statistical models that adjust for demographic and other characteristics. Please use care when quoting (see p. 6).*

In different subpopulations of low income children ($\leq 200\%$ FPL), having CC-PCMH is not associated with a lower probability of hospitalization. For the observed, unadjusted percentages, please see the [appendix](#).

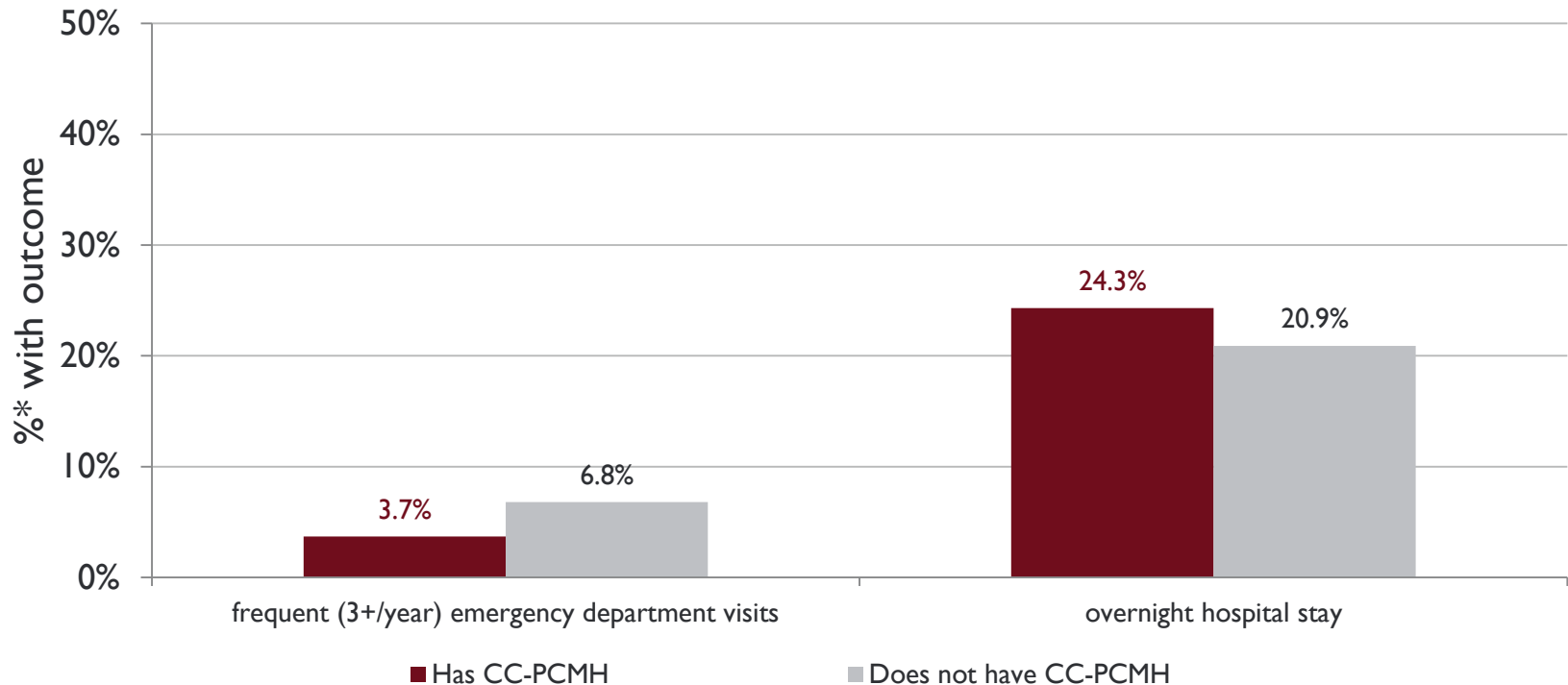
2b.4 Among low income children, CC-PCMH is associated with a greater probability of having a well-child visit



**Predicted probabilities based on statistical models that adjust for demographic and other characteristics. Please use care when quoting (see p. 6).*

For low income children ($\leq 200\%$ FPL), having CC-PCMH is associated with a higher probability of having had a well-child visit during the past year. The difference was greater for children without special health care needs. Analyses are limited to children older than 1 year. For the observed, unadjusted percentages, and other details please see the [appendix](#).

2b.5 Among infants from low income homes, CC-PCMH is associated with a lower probability of frequent emergency department visits, but not hospitalizations



**Predicted probabilities based on statistical models that adjust for demographic and other characteristics. Please use care when quoting (see p. 6).*

To examine the potential for the PCMH model to reduce infant mortality, we tested whether CC-PCMH was associated with health care outcomes among infants from low income homes. After adjusting for group differences in demographic and other characteristics, analyses found that CC-PCMH was associated with a lower probability of frequent emergency department visits but not overnight hospital stays (see chart). For more details, please see the [appendix](#).

RESULTS

SECTION 3: Racial disparities and CC-PCMH

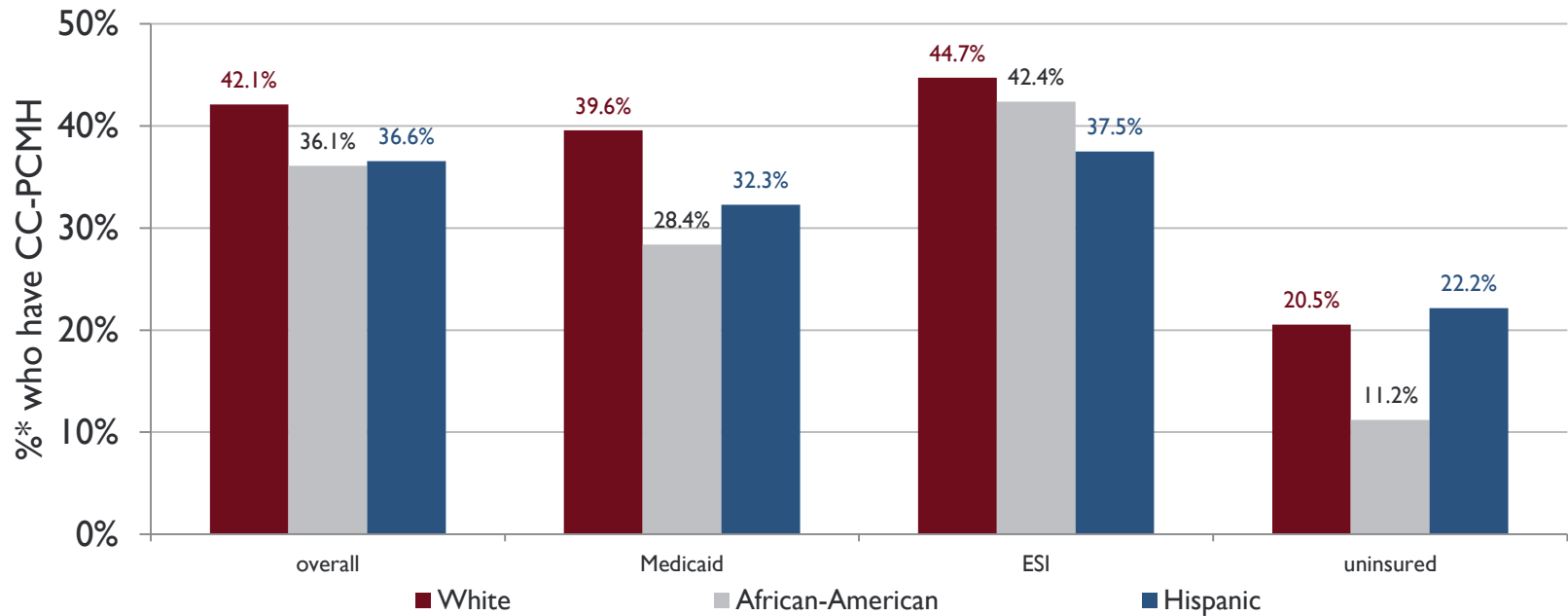
Adults & Children

Among adults and children, whites are more likely than African-Americans to have CC-PCMH. After accounting for group differences in household income, insurance type/status and other characteristics, the differences diminish but are still statistically significant.

The association of CC-PCMH with better health care and outcomes is relatively consistent across different racial/ethnic groups, although the underlying prevalence of worrisome outcomes (e.g., unmet health needs) tends to be greater for African-Americans than for whites.

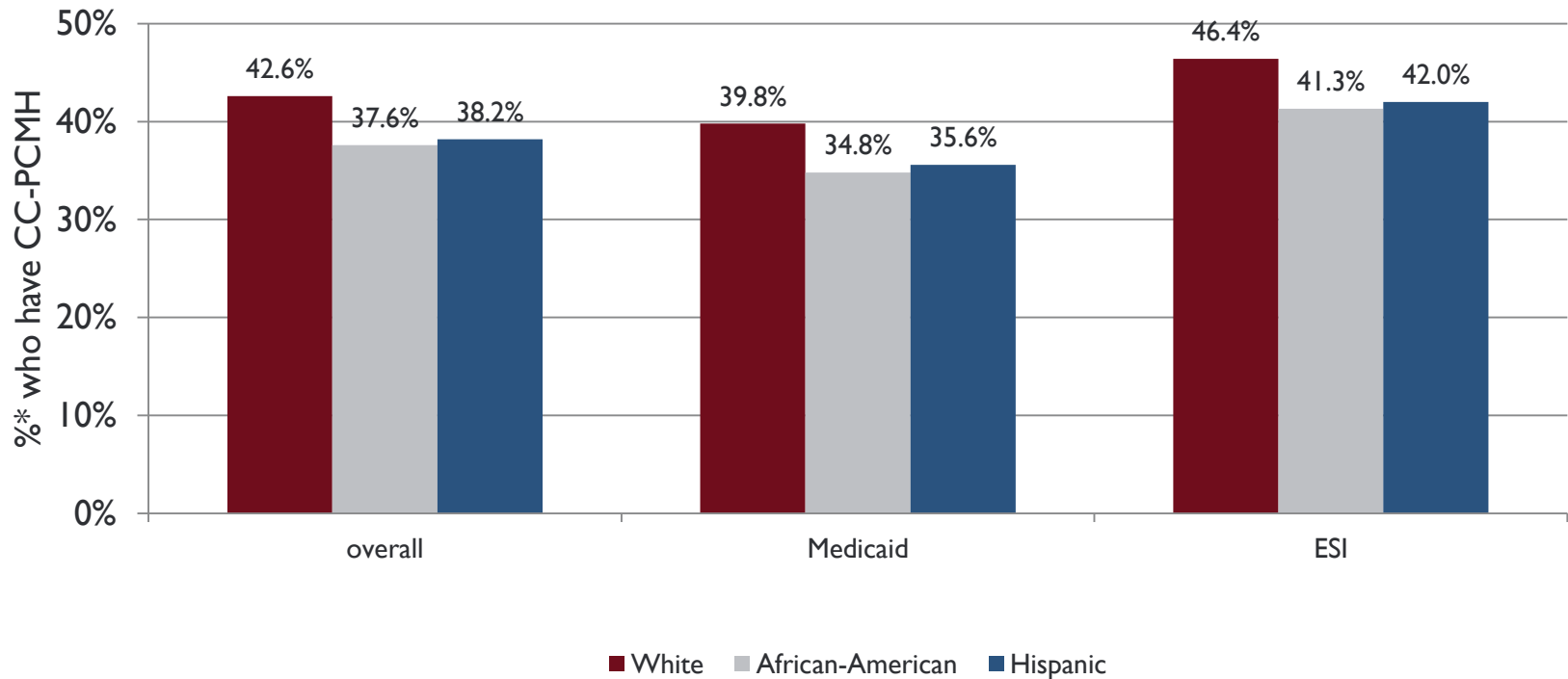
Unfortunately, limited sample size precluded the study's ability to examine other racial/ethnic groups.

3.1 White adults are more likely than other racial/ethnic groups to have CC-PCMH



White adults are more likely than African-American, Hispanic and other adults to have CC-PCMH. The difference persists regardless of insurance type/status and even after adjusting for demographic and other characteristics (see [p. 5](#)). The magnitude of racial/ethnic disparities is lower for adults covered by employer-sponsored insurance (ESI). For more details, please see the [appendix](#).

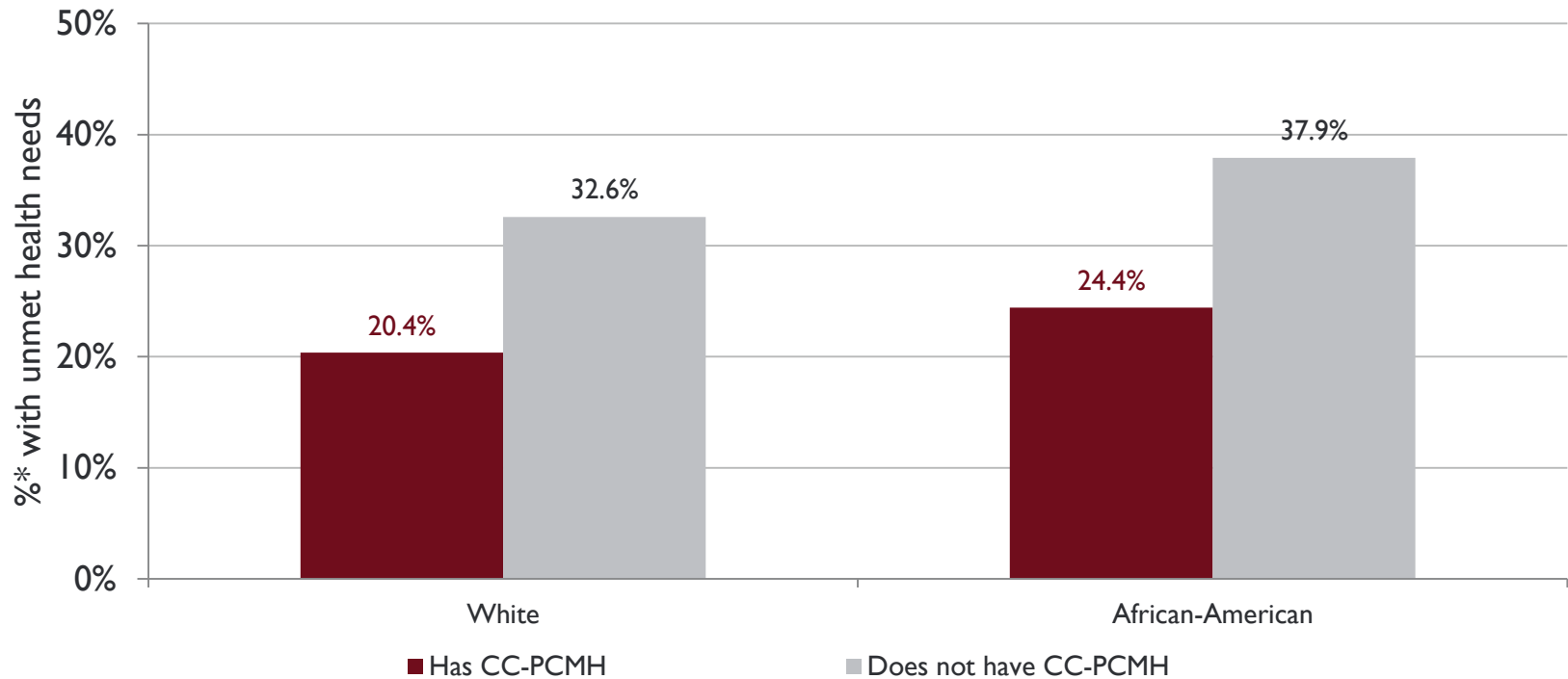
3.2 CC-PCMH is more common among white children compared to African-American children



**Predicted probabilities based on statistical models that adjust for demographic and other characteristics. Please use care when quoting (see p. 6).*

After controlling for group differences in demographic and other characteristics, CC-PCMH is somewhat more common among white children compared to African-American children. Neither group differed significantly from Hispanic children. For the observed, unadjusted percentages, please see the [appendix](#).

3.3 CC-PCMH has a similar association with unmet health needs for both white and African-American low income adults



**Predicted probabilities based on statistical models that adjust for demographic and other characteristics. Please use care when quoting (see p. 6).*

CC-PCMH has a similar association with unmet health needs for both white and African-American low income adults. Even after adjusting for group differences in household income and other characteristics the findings are similar. (Statistical models for other groups were too unstable to estimate.) Note, however, that African-Americans are predicted to be somewhat more likely than whites to report unmet health needs, regardless of their CC-PCMH status. These findings holds true for most of adult and child outcomes we studied: there are few differences by race/ethnicity in the association of CC-PCMH with each outcome, yet African-Americans tend to experience higher levels of worrisome outcomes. For additional details, please see the [appendix](#)).

KEY FINDINGS

Medicaid provides adults with CC-PCMH

Compared to low income adults with ESI, those with Medicaid are just as likely to experience CC-PCMH. For people who had been uninsured, the findings suggest that Medicaid expansion provided access to CC-PCMH for thousands of Ohioans who would not otherwise have had it.

The uninsured have trouble accessing CC-PCMH

The uninsured are consistently less likely to have CC-PCMH or most of its constituent components. In several cases, the positive outcomes associated with the model often do not extend to those who lacked health insurance.

Certain components of CC-PCMH explain why Medicaid is less likely to provide such care to children

Among Ohio's children, Medicaid lags somewhat behind ESI in providing CC-PCMH, especially in two components of the PCMH model: (1) access to urgent care on the same or next day; and (2) access to after hours care without a problem. There are no differences in the other aspects of the model measured by OMAS.

CC-PCMH is strongly associated with a range of better health care measures and outcomes

Before beginning the study, we identified the key outcomes that could help OMAS test the value of CC-PCMH. Even

after controlling for many demographic and health status variables, analyses found that CC-PCMH was strongly associated with nearly all of them. Not only were such positive associations found for both adults and children, but they were also robust across different types of insurance coverage, and held up across many different age groups, income levels, and regions of the state.

The benefits of CC-PCMH may not extend to low income pregnant women

Pregnant women are one key subpopulation that may be less likely to benefit from CC-PCMH. After controlling for group differences in demographic and other characteristics, those who experienced such care were just as likely to report frequent emergency department use or hospitalizations.

CC-PCMH is associated with positive outcomes for both African-Americans and whites

Analyses consistently found that CC-PCMH is equally valuable for African-American and white adults and children. In this manner it may be a useful approach for addressing certain racial/ethnic disparities in health care.

CONCLUSION

Renewed confidence in the PCMH model

Given our robust, encouraging findings, Ohio should have renewed confidence in the PCMH model and an appreciation of its broad value. It is noteworthy, for instance, that adults with special health care needs are less likely to misuse prescription painkillers if they have CC-PCMH. Such a finding may merit exploring the role of the PCMH model in efforts to prevent opioid abuse.

Medicaid provides access to CC-PCMH

Medicaid provides low income adults with CC-PCMH just as effectively as does employer-sponsored insurance. Because uninsured are much less likely to benefit from CC-PCMH, Medicaid expansion may be a critical tool in providing access to such care.

Medicaid might examine improving access to urgent care and after hours care for children

Medicaid lags somewhat behind employer-sponsored insurance in providing CC-PCMH to low income children, largely because of problems accessing urgent and after hours care. Focusing on these components of the model may be an efficient approach to expanding access to a PCMH for children from low income homes.

The PCMH model can help address racial/ethnic disparities in health care

The positive associations of CC-PCMH are similarly strong for African-American and white Ohioans, both adults and children. As such, efforts to reduce racial/ethnic disparities in outcomes like frequent emergency department visits may benefit from expanding the PCMH model.

OMAS can be a useful tool for assessing the value of the PCMH model.

Because the findings from this study parallel those from research conducted elsewhere using other methods, we are optimistic that OMAS may be a useful tool for assessing the PCMH model across Ohio. One possible use would be to evaluate efforts to expand certain aspects of the model, especially if they are focused on certain geographies or subpopulations that can be distinguished by OMAS. However, absent a gold-standard measure of the PCMH model, future research should try to validate OMAS findings with data from other sources.

REFERENCES

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3. Ohio Department of Health. *PCMH Education Pilot Project*. Accessed July 28, 2015 at: <http://www.odh.ohio.gov/landing/medicalhomes/Education%20Pilot%20Project.aspx>
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5. Ashmead R, Seiber E., Sahr T. *Patient-Centered Medical Home Status in Ohio: Final Report*. Columbus, OH: The Ohio Colleges of Medicine Government Resource Center and The Ohio State University; 2013.
6. Steinman, KJ. *Lacking a Usual Source of Care: Findings for Ohio's Medicaid, Medicaid-Eligible and Other Key Subpopulations*. Columbus, OH: Ohio Colleges of Medicine Government Resource Center; 2016.
7. RTI International. *2015 Ohio Medicaid Assessment Survey: Methodology Report*. Research Triangle Park, NC: RTI International; 2015.
8. The “non-CC-PCMH” group includes a very wide range of experiences: including everyone from a person who has no usual source of care to a person who has a personal care provider whom she has seen in the past year and who has had no problems accessing specialist or after hours care, but feels that her provider only “sometimes” explains things well. In order to explore whether our definition CC-PCMH is a useful improvement over simply measuring whether a person has an appropriate usual source of care, we repeated all analyses using a different version of the CC-PCMH variable with three categories: (i) lacks an appropriate usual source of care; (ii) has an appropriate usual source of care, but lacks another aspect of CC-PCMH; and (iii) has CC-PCMH. The findings from these analyses largely paralleled those from the findings presented in this chartbook. For example, compared to low income adults who had an appropriate usual source of care but lacked another aspect of CC-PCMH, those with CC-PCMH were less likely to have unmet health needs or frequent emergency department visits.

APPENDICES

Technical notes on statistical models, [p. 45](#)

Detailed tables corresponding to each chart, pp. [46-75](#)

Relevant OMAS items, [pp. 76-80](#)

Technical Notes

on Statistical Models

For each chart with predicted probabilities, we used a consistent model building procedure.

Each model began with the same set of independent variables. For adults, the independent variables included: insurance type/status, race/ethnicity, age, gender, household income, education, whether children lived in the household, marital status, history of chronic conditions and special health care needs status. For children, the independent variables included insurance type/status, race/ethnicity, age, gender, household income, education (of adult respondent), marital status (of adult respondent), county type (e.g., suburban) and special health care needs status. For the response options for each covariate, please refer to the appendix: [“Relevant OMAS items: Covariates”](#). For the STATA syntax files used to create variables and perform analyses, please refer to the external appendix: “OMAS-PCMH 2016 report: Stata syntax files”

For section one (i.e., “Who experiences CC-PCMH?”), the main effect of interest was the association of insurance type/status with a dichotomous outcome – either CC-PCMH or one of its components (e.g., “has an appropriate usual source of care”). The main contrasts of interest were Medicaid vs. ESI and Medicaid vs. uninsured. For section two (i.e., “CC-PCMH, better health care and outcomes”), CC-PCMH was added as an independent variable and was the main effect of interest. For section three (i.e., “Racial/Ethnic disparities in CC-PCMH”), race/ethnicity was the main effect of interest, as was testing whether the effect of CC-PCMH varied by race/ethnicity.

After running each initial model on the unweighted data, we employed a range of procedures (e.g., testing the link function) to assess the model’s specification, calibration and discrimination, and then revised each model accordingly. These revisions sometimes included dropping covariates that were not statistically significant, collapsing response options to increase the cell size of covariate patterns, and developing multiple models for different subpopulations.

In fitting each model, our main purpose was to calculate adjusted odds ratios for a key individual variable (e.g., CC-PCMH), rather than try to explain all the variation in the outcome. Thus, our efforts to improve a model’s calibration and discrimination were limited by our goal of producing parsimonious findings that most clearly addressed the research questions. In many instances, fitting separate models for different subpopulations (e.g., older vs. younger adults) improved calibration and discrimination, but did not yield appreciably different adjusted odds ratios for the main effects or main contrasts of interest. In such cases, we opted to report results from a single model (e.g., for all adults), rather than present multiple charts with similar results.

Once we determined the final model, we then ran it on the weighted survey data and produced predicted probabilities. The final multivariable model for each chart appears in its corresponding table in the appendix.

Table 1a.1 CC-PCMH is more common among adults who are older, female and who live in higher income households

income as % of federal poverty level	Observed, Unadjusted % [95%LCL, 95%UCL] n		
	Does not have CC-PCMH	Has CC-PCMH	missing
<=63%	70.6% [0.687, 0.724] 2,619	22.9% [0.212, 0.247] 986	6.5% [0.056, 0.075] 544
64-100%	66.4% [0.644, 0.684] 2,282	26.6% [0.248, 0.285] 1,023	7.0% [0.059, 0.082] 444
101-138%	61.4% [0.594, 0.633] 2,380	31.8% [0.300, 0.337] 1,352	6.8% [0.059, 0.078] 476
139-150%	59.9% [0.559, 0.639] 521	35.2% [0.314, 0.392] 350	4.8% [0.035, 0.067] 82
151-200%	57.6% [0.557, 0.594] 2,375	35.7% [0.339, 0.375] 1,668	6.8% [0.059, 0.078] 541
201-250%	52.1% [0.499, 0.542] 1,679	40.4% [0.383, 0.425] 1,470	7.5% [0.065, 0.087] 448
251-300%	54.4% [0.523, 0.564] 1,781	39.9% [0.379, 0.419] 1,557	5.7% [0.048, 0.068] 320
301-400%	48.9% [0.472, 0.506] 2,507	45.6% [0.439, 0.473] 2,491	5.4% [0.047, 0.063] 450
>400%	43.9% [0.427, 0.450] 5,056	50.8% [0.497, 0.520] 6,452	5.3% [0.048, 0.058] 1,022
Total	54.0% [0.534, 0.546] 21,200	40.0% [0.393, 0.406] 17,349	6.1% [0.579, 0.637] 4,327

age group	Males Observed, Unadjusted % [95%LCL, 95%UCL] n		
	Does not have CC-PCMH	Has CC-PCMH	missing
19-24	73.6% [0.708, 0.763] 1,084	17.7% [0.154, 0.202] 246	8.7% [0.072, 0.105] 217
25-34	72.4% [0.702, 0.745] 1,691	20.9% [0.190, 0.229] 478	6.7% [0.056, 0.080] 266
35-44	63.3% [0.608, 0.656] 1,467	29.6% [0.273, 0.319] 651	7.2% [0.059, 0.086] 248
45-54	55.1% [0.530, 0.571] 1,842	38.9% [0.369, 0.410] 1,247	6.0% [0.051, 0.070] 328
55-64	47.8% [0.460, 0.497] 2,054	46.8% [0.450, 0.487] 1,900	5.3% [0.046, 0.062] 407
65+	39.6% [0.378, 0.414] 1,896	52.6% [0.508, 0.545] 2,463	7.8% [0.068, 0.089] 596
Total	57.4% [0.565, 0.583] 10,034	35.8% [0.349, 0.367] 6,985	6.8% [0.064, 0.073] 2,062

age group	Females Observed, Unadjusted % [95%LCL, 95%UCL] n		
	Does not have CC-PCMH	Has CC-PCMH	missing
19-24	65.3% [0.621, 0.683] 992	28.0% [0.251, 0.311] 354	6.7% [0.054, 0.083] 185
25-34	61.6% [0.593, 0.639] 1,521	31.4% [0.293, 0.336] 760	7.0% [0.059, 0.082] 319
35-44	55.4% [0.531, 0.576] 1,540	39.6% [0.374, 0.418] 1,075	5.0% [0.042, 0.060] 265
45-54	50.2% [0.482, 0.521] 2,109	45.0% [0.431, 0.469] 1,801	4.9% [0.041, 0.057] 352
55-64	44.5% [0.429, 0.462] 2,349	51.1% [0.493, 0.528] 2,500	4.4% [0.038, 0.051] 409
65+	38.5% [0.370, 0.401] 2,655	56.4% [0.549, 0.580] 3,874	5.0% [0.044, 0.057] 735
Total	50.8% [0.499, 0.516] 11,166	43.8% [0.430, 0.447] 10,364	5.4% [0.050, 0.057] 2,265

Example: 35.8% of males have CC-PCMH, compared to 43.9% of females.

Click [here](#) to return to chart.

For guidance in interpreting estimates, see [table 1a.5](#).

Table 1a.2 CC-PCMH is similarly common for adults in different Medicaid managed care regions

Observed, Unadjusted % who have CC-PCMH			
Medicaid Managed Care Region	Observed, Unadjusted % [95%LCL, 95%UCL] n		
	Does not have CC-PCMH	Has CC-PCMH	missing
1	57.0% [0.546, 0.594] 1,440	38.1% [0.358, 0.405] 1,056	4.9% [0.039, 0.060] 238
2	53.5% [0.523, 0.546] 5,748	40.6% [0.395, 0.417] 4,794	5.9% [0.054, 0.065] 1,231
3	53.8% [0.517, 0.558] 1,684	40.2% [0.383, 0.423] 1,379	6.0% [0.051, 0.070] 324
4	52.3% [0.499, 0.548] 1,393	42.9% [0.405, 0.453] 1,197	4.8% [0.039, 0.059] 248
5	55.4% [0.54, 0.569] 4,125	37.7% [0.363, 0.391] 3,192	6.9% [0.062, 0.076] 846
6	54.5% [0.525, 0.565] 1,973	38.8% [0.368, 0.407] 1,511	6.7% [0.0581, 0.078] 410
7	52.9% [0.516, 0.541] 4,837	41.0% [0.398, 0.423] 4,220	6.1% [0.055, 0.067] 1,030
Total	54.0% [0.534, 0.546] 21,200	40.0% [0.394, 0.406] 17,349	6.1% [0.058, 0.064] 4,327

Observed, Unadjusted % who have CC-PCMH: By Medicaid Managed Care Region and Insurance Type/Status			
Medicaid Managed Care Region	Observed, Unadjusted % [95%LCL, 95%UCL] n		
	Medicaid	Employer-sponsored	uninsured
1	27.5% [0.230, 0.325] 178	43.1% [0.393, 0.469] 461	13.7% [0.085, 0.213] 21
2	28.2% [0.259, 0.305] 765	45.5% [0.436, 0.473] 1,968	9.0% [0.068, 0.118] 70
3	29.3% [0.253, 0.336] 212	43.3% [0.401, 0.466] 539	8.2% [0.052, 0.127] 26
4	31.8% [0.261, 0.381] 147	46.0% [0.424, 0.497] 549	11.1% [0.067, 0.179] 21
5	26.2% [0.234, 0.292] 474	42.6% [0.405, 0.448] 1,443	7.8% [0.058, 0.105] 55
6	26.9% [0.232, 0.309] 242	44.6% [0.415, 0.478] 660	13.7% [0.092, 0.198] 36
7	26.5% [0.240, 0.291] 604	45.9% [0.440, 0.478] 1,801	12.2% [0.093, 0.159] 72
Total	27.5% [0.262, 0.287] 2,622	44.7% [0.437, 0.456] 7,421	10.2% [0.089, 0.116] 301

Click [here](#) to return to chart.

For guidance in interpreting estimates, see [table 1a.5](#).

Table 1a.3 CC-PCMH is similarly common for adults in different types of counties

Observed, Unadjusted % who have CC-PCMH			
County type	Observed, Unadjusted % [95%LCL, 95%UCL] n		
	Does not have CC-PCMH	Has CC-PCMH	missing
Urban	54.6% [0.538, 0.555] 11,293	39.4% [0.386, 0.403] 9,160	5.9% [0.055, 0.063] 2,259
Suburban	51.3% [0.498, 0.528] 3,240	42.3% [0.408, 0.438] 2,929	6.4% [0.057, 0.071] 701
Rural Appalachian	55.0% [0.535, 0.565] 3,596	38.4% [0.370, 0.398] 2,651	6.6% [0.059, 0.073] 762
Rural Non-Appalachian	52.9% [0.513, 0.545] 3,071	41.4% [0.398, 0.430] 2,609	5.7% [0.050, 0.065] 605
Total	54.0% [0.534, 0.546] 21,200	40.0% [0.394, 0.406] 17,349	6.1% [0.058, 0.064] 4,327

Predicted, Adjusted Probability of having CC-PCMH				
	Predicted Probabilities (%) [95%LCL, 95%UCL]			
	All adults	Medicaid	Employer-Sponsored	Uninsured
Urban	41.3% [0.403, 0.423]	40.2% [0.383, 0.422]	44.6% [0.433, 0.460]	17.1% [0.149, 0.193]
Suburban	40.9% [0.392, 0.425]	39.8% [0.375, 0.422]	44.2% [0.423, 0.461]	16.9% [0.145, 0.192]
Rural Appalachian	39.3% [0.377, 0.409]	38.3% [0.360, 0.405]	42.3% [0.407, 0.445]	15.9% [0.137, 0.182]
Rural Non-Appalachian	40.2% [0.384, 0.420]	39.2% [0.368, 0.416]	43.5% [0.415, 0.455]	16.5% [0.142, 0.188]

Model adjusts for:
 Age
 Gender
 Race/Ethnicity
 Education
 Household income
 Household composition
 Marital status
 History of chronic conditions
 Special health care needs status
 Insurance type/status

Note: Our [model building procedure](#) fit one model and generated predicted probabilities for the Medicaid, ESI and uninsured populations.

Click [here](#) to return to chart.

For guidance in interpreting estimates, see [table 1a.5](#).

Table 1a.4 Half of Ohio adults who have CC-PCMH are covered by employer-sponsored insurance

Estimated number of adults with special health care needs, by CC-PCMH status and insurance type/status			
insurance type/status	Observed, Unadjusted Count [95%LCL, 95%UCL] n		
	Does not have CC-PCMH	Has CC-PCMH	Total
Medicaid	416,991 [393,954,440,029] 2,215	142,636 [129,573,155,699] 859	559,627 [533,437,585,818] 3,074
Medicare & other gov't	204,926 [189,725,220,126] 1,152	158,175 [145,144,171,207] 901	363,101 [343,293,382,910] 2,053
Employer-sponsored	220,591 [202,654,238,527] 885	166,632 [150,970,182,294] 689	387,222 [363,597,410,848] 1,574
private/other	82,584 [70,899,94,269] 321	34,325 [26,961,41,690] 140	116,909 [103,124,130,695] 461
uninsured	92,588 [80,456,104,719] 341	7,135 [4,463,9,808] 43	99,723 [87,305,112,141] 384
Total	1,017,679 [981,885 - 1,053,473] 4,914	508,904 [483,895 - 533,914] 2,632	1,526,583 7,546

Example: Over 1 million Ohio adults with special health care needs do not have CC-PCMH.

Example: About 509,000 Ohio adults with special health care needs have CC-PCMH.

Estimated number of adults WITHOUT special health care needs, by CC-PCMH status and insurance type/status			
insurance type/status	Observed, Unadjusted Count [95%LCL, 95%UCL] n		
	Does not have CC-PCMH	Has CC-PCMH	Total
Medicaid	674,479 [645,020,703,938] 3,289	312,395 [292,659,332,131] 1,762	986,874 [952,130,1,021,618] 5,051
Medicare & other gov't	515,765 [492,917,538,612] 3,050	807,172 [780,295,834,049] 4,898	1,322,937 [1,289,322,1,356,552] 7,948
Employer-sponsored	1,729,477 [1,682,095,1,776,859] 6,821	1,578,997 [1,535,443,1,622,552] 6,730	3,308,474 [3,249,133,3,367,815] 13,551
private/other	388,219 [363,620,412,817] 1,524	254,103 [234,945,273,262] 1,061	642,322 [611,530,673,114] 2,585
uninsured	423,837 [398,221,449,453] 1,586	55,392 [47,064,63,721] 258	479,229 [452,387,506,072] 1,844
Total	3,731,776 [3,670,094 - 3,793,458] 16,270	3,008,060 [2,955,008 - 3,061,111] 14,709	6,739,836 30,979

Note: These

Click [here](#) to return to chart.

For guidance in interpreting estimates, see [table 1a.5](#).

Table 1a.5 CC-PCMH is similarly common among low income adults whether they are covered by Medicaid or other types of insurance

Observed, Unadjusted % of low income adults (≤138%FPL) who have CC-PCMH, by race/ethnicity and insurance type/status					
	Observed, Unadjusted % [95%LCL, 95%UCL]				
	Total	White	African-American	Hispanic	Other
Medicaid	26.2% [0.248, 0.277] 1,642	29.7% [0.278, 0.316] 1,111	19.4% [0.170, 0.221] 346	22.3% [0.159, 0.304] 82	11.2% [0.074, 0.165] 103
Medicare & other gov't	42.5% [0.399, 0.451] 999	43.4% [0.404, 0.464] 745	41.3% [0.349, 0.479] 168	33.0% [0.182, 0.522] 35	19.0% [0.117, 0.293] 51
Employer-sponsored	29.5% [0.265, 0.327] 410	31.5% [0.279, 0.353] 281	26.8% [0.201, 0.349] 73	31.8% [0.172, 0.510] 21	12.0% [0.068, 0.204] 35
Private/Other	24.4% [0.208, 0.284] 209	26.7% [0.224, 0.314] 160	17.5% [0.104, 0.278] 24	43.9% [0.190, 0.723] 12	8.5% [0.025, 0.255] 13
Uninsured	7.3% [0.057, 0.092] 101	8.3% [0.061, 0.113] 58	4.1% [0.024, 0.069] 16	8.2% [0.050, 0.131] 23	4.6% [0.015, 0.139] 4
Total	27.2% [0.261, 0.282] 3,361	30.3% [0.290, 0.317] 2,355	21.1% [0.191, 0.232] 627	19.5% [0.155, 0.241] 173	11.0% [0.082, 0.144] 206

Observed, unadjusted estimates are based on data that are weighted to be representative (of the denoted subpopulation) statewide. They are *not* adjusted for group differences in other characteristics.

For example, we estimate that 7.3% of all uninsured low income adults in Ohio have CC-PCMH, with a 95% [confidence interval](#) ranging from 5.7% to 9.2%. In the sample of people interviewed, researchers found (or in some cases, imputed values for) 101 people in this “cell” – that is, low income adults who were uninsured and had CC-PCMH.

Predicted, Adjusted Probability of low income adults (≤138%FPL) having CC-PCMH, by race/ethnicity and insurance type/status					
	Predicted Probabilities (%) [95%LCL, 95%UCL]				
	Total	White		African-American	Hispanic
		with history of chronic conditions	without history of chronic conditions		
Medicaid	29.4% [0.277, 0.311]	39.1% [0.352, 0.430]	35.2% [0.309, 0.395]	23.7% [0.196, 0.278]	24.7% [0.148, 0.345]
Medicare & other gov't	31.3% [0.281, 0.345]	40.2% [0.350, 0.454]	37.9% [0.303, 0.455]	34.7% [0.268, 0.425]	31.5% [0.127, 0.503]
Employer-sponsored	29.4% [0.259, 0.329]	41.4% [0.340, 0.487]	32.1% [0.270, 0.371]	31.6% [0.226, 0.405]	35.9% [0.182, 0.537]
Private/Other	27.7% [0.232, 0.323]	40.8% [0.317, 0.500]	29.3% [0.223, 0.363]	22.9% [0.115, 0.344]	50.1% [0.176, 0.827]
Uninsured	9.0% [0.068, 0.112]	16.9% [0.106, 0.232]	9.3% [0.049, 0.136]	5.7% [0.026, 0.089]	11.1% [0.051, 0.172]
Model adjusts for:	Age	Age	Age	Age	Age
	Gender	Gender	Gender	Gender	Gender
	Race/Ethnicity				
	Education	Education	Education	Education	Education
	Household income				
	Household composition				Household composition
	Marital status	Marital status	Marital status	Marital status	
	History of chronic conditions			History of chronic conditions	
	Special health care needs status	Special health care needs status		Special health care needs status	

Predicted adjusted estimates are predicted probabilities based on statistical models we developed. A predicted probability represents what the model predicts would be the probability of the outcome in a hypothetical subpopulation who have average scores on the demographic and other characteristics in the model. This estimate is weighted to be representative (of the subpopulation) statewide.

For example, a statistical model predicts that in a hypothetical group of low income Hispanic adults who have “average” age, gender, education and household composition – that 24.7% of those who covered by Medicaid would have CC-PCMH (95% [confidence interval](#) 14.8% - 34.5%).

Note: Our [model building procedure](#) led us to fit separate models for African-American and Hispanic low income adults. In addition, for white low income adults we fit separate models for those with and without a history of chronic conditions.

Our main contrasts of interest are Medicaid vs. ESI and Medicaid vs. Uninsured, and these are similar across the four models. Therefore, the chart presents the predicted probabilities for a single model for all low income adults, including those whose race/ethnicity is classified as “other.”

Click [here](#) to return to chart.

For guidance in interpreting estimates, see [table 1a.5](#).

Table 1a.6 For low income adults newly eligible for Medicaid, CC-PCMH is more common among those who enrolled compared to those who did not and are uninsured

Observed, Unadjusted % of low income adults ($\leq 138\%$ FPL), newly eligible for Medicaid who have CC-PCMH			
	Observed, Unadjusted % [95%LCL, 95%UCL]		
	Does not have CC-PCMH	Has CC-PCMH	missing
Medicaid	72.0% [0.690, 0.748] 1,024	22.8% [0.202, 0.256] 367	5.3% [0.041, 0.068] 134
Employer-sponsored	62.9% [0.580, 0.676] 390	27.4% [0.232, 0.321] 176	9.7% [0.073, 0.127] 151
Private/Other	65.3% [0.596, 0.706] 262	24.0% [0.195, 0.293] 117	10.6% [0.077, 0.145] 101
Uninsured	89.1% [0.861, 0.915] 593	6.1% [0.044, 0.084] 55	4.8% [0.032, 0.072] 59
Total	73.1% [0.711, 0.749] 2,269	20.0% [0.184, 0.218] 715	6.9% [0.059, 0.080] 445

Potentially eligible but did not enroll in Medicaid

Example: Among low income adults who may have become recently eligible for Medicaid, 22.8% of those who enrolled have CC-PCMH. Of those who did not enroll and are uninsured, only 6.1% have CC-PCMH.

Predicted, Adjusted Probability of low income adults ($\leq 138\%$ FPL), newly eligible for Medicaid having CC-PCMH	
	Predicted Probabilities (%) [95%LCL, 95%UCL]
	Medicaid
Employer-sponsored	30.5% [0.249, 0.360]
Private/Other	27.2% [0.214, 0.330]
Uninsured	8.1% [0.056, 0.107]

Potentially eligible but did not enroll in Medicaid

Model adjusts for:

Age
Gender
Race/Ethnicity
Education
Household income

Marital status
History of chronic conditions
Special health care needs status

Click [here](#) to return to chart.

For guidance in interpreting estimates, see [table 1a.5](#).

Table 1a.7 Components of CC-PCMH are similarly common for low income adults who have Medicaid or another type of health insurance

Observed, Unadjusted % of low income adults (≤138%FPL), who have selected components of CC-PCMH				
	Observed, Unadjusted % [95%LCL, 95%UCL]			
	% who have an appropriate usual source of care	% who have a personal care provider (PCP; among those who have an appropriate usual source of care)	% who have seen their PCP in the past year (among those who have a PCP)	% who have good communication with their PCP (among those who have seen their PCP in past year)
Medicaid	76.0% [0.741, 0.707] 4,593	80.0% [0.779, 0.811] 373600	88.7% [0.871, 0.901] 3,354	82.0% [0.799, 0.835] 276700
Medicare & other gov't	86.0% [0.836, 0.876] 1,996	87.0% [0.852, 0.889] 172200	92.3% [0.905, 0.938] 1,585	85.0% [0.822, 0.870] 135600
Employer-sponsored	78.0% [0.748, 0.804] 1,062	78.0% [0.744, 0.808] 83800	78.8% [0.747, 0.823] 684	84.0% [0.797, 0.867] 57100
Private/Other	73.0% [0.684, 0.766] 554	77.0% [0.722, 0.812] 431	79.9% [0.744, 0.844] 354	82.0% [0.760, 0.871] 301
Uninsured	48.0% [0.434, 0.512] 548	58.0% [0.527, 0.634] 323	55.1% [0.479, 0.620] 204	74.0% [0.652, 0.811] 156
Total	74.0% [0.731, 0.752] 8,753	79.0% [0.778, 0.802] 7,050	85.5% [0.843, 0.867] 6,181	82.0% [0.811, 0.837] 5,151

Predicted, Adjusted probabilities of low income adults (≤138%FPL), having selected components of CC-PCMH				
	Predicted Probabilities (%) [95%LCL, 95%UCL]			
	% who have an appropriate usual source of care	% who have a personal care provider (PCP; among those who have an appropriate usual source of care)	% who have seen their PCP in the past year (among those who have a PCP)	% who have good communication with their PCP (among those who have seen their PCP in past year)
Medicaid	80.6% [0.792, 0.820]	86.4% [0.848, 0.881]	88.8% [0.872, 0.905]	82.3% [0.804, 0.841]
Medicare & other gov't	83.0% [0.802, 0.857]	85.0% [0.821, 0.879]	89.6% [0.869, 0.922]	83.8% [0.812, 0.865]
Employer-sponsored	83.3% [0.807, 0.860]	85.6% [0.829, 0.883]	83.1% [0.797, 0.865]	80.1% [0.758, 0.844]
Private/Other	81.2% [0.774, 0.850]	85.7% [0.820, 0.893]	83.5% [0.790, 0.880]	81.8% [0.760, 0.876]
Uninsured	59.1% [0.551, 0.630]	70.3% [0.651, 0.756]	60.6% [0.529, 0.682]	74.6% [0.668, 0.824]
Model adjusts for:	Model adjusts for:	Model adjusts for:	Model adjusts for:	
Age	Age	Age	Age	
Gender	Gender	Gender	Gender	Gender
Education	Race/Ethnicity	Education	Education	Race/Ethnicity
Household income	Education			Education
Marital status	Marital status			Household income
History of chronic conditions	History of chronic conditions	History of chronic conditions	History of chronic conditions	Marital status
	Special health care needs status	Special health care needs status	Special health care needs status	

Click [here](#) to return to chart.

For guidance in interpreting estimates, see [table 1a.5](#).

Table 1a.8 Other components of CC-PCMH are similarly common for low income adults who have Medicaid or another type of health insurance

Observed, Unadjusted % of low income adults (≤138%FPL), who have selected components of CC-PCMH			
	Observed, Unadjusted % [95%LCL, 95%UCL]		
	% who got specialist care without a problem (of those who needed it)	% who got urgent care same or next day (of those who needed it)	% who got after hours care without a problem (of those who needed it)
Medicaid	64.0% [0.619, 0.669] 1,753	54.0% [0.505, 0.568] 90900	48.7% [0.445, 0.530] 461
Medicare & other gov't	75.0% [0.712, 0.782] 773	59.0% [0.541, 0.643] 36500	51.2% [0.432, 0.590] 131
Employer-sponsored	72.0% [0.662, 0.775] 315	66.0% [0.585, 0.729] 188	52.7% [0.416, 0.636] 65
Private/Other	68.0% [0.598, 0.747] 165	56.0% [0.448, 0.658] 75	60.7% [0.459, 0.737] 46
Uninsured	27.0% [0.216, 0.343] 85	43.0% [0.305, 0.565] 34	56.7% [0.405, 0.717] 25
Total	65.0% [0.630, 0.667] 3,091	56.0% [0.535, 0.584] 1,571	50.8% [0.474, 0.542] 728

Predicted, Adjusted probabilities of low income adults (≤138%FPL), having selected components of CC-PCMH			
	Predicted Probabilities (%) [95%LCL, 95%UCL]		
	% who got specialist care without a problem (of those who needed it)	% who got urgent care same or next day (of those who needed it)	% who got after hours care without a problem (of those who needed it)
Medicaid	71.8% [0.689, 0.747]	54.6% [0.510, 0.582]	48.5% [0.438, 0.532]
Medicare & other gov't	75.2% [0.710, 0.794]	56.9% [0.514, 0.624]	50.2% [0.421, 0.583]
Employer-sponsored	73.9% [0.683, 0.796]	61.8% [0.537, 0.699]	53.3% [0.419, 0.647]
Private/Other	72.9% [0.657, 0.802]	53.7% [0.429, 0.644]	60.5% [0.464, 0.747]
Uninsured	34.7% [0.271, 0.422]	41.0% [0.277, 0.544]	56.1% [0.399, 0.723]
	Model adjusts for: Age Gender Race/Ethnicity Education	Model adjusts for: Gender Race/Ethnicity Education Household income	Model adjusts for: Education
	Special health care needs status	Special health care needs status	

Click [here](#) to return to chart.

For guidance in interpreting estimates, see [table 1a.5](#).

Table 1b.1 CC-PCMH is more common among younger children who live in higher income households.

Observed, Unadjusted % of children who have CC-PCMH, by household income (as % of FPL)			
Household income as % of federal poverty level (FPL)	Observed, Unadjusted % [95%LCL, 95%UCL]		
	Does not have CC-PCMH	Has CC-PCMH	missing
< 63%	64.8% [0.616, 0.679] 835	28.5% [0.256, 0.315] 361	6.7% [0.053, 0.085] 90
64-100%	62.5% [0.587, 0.661] 589	32.5% [0.290, 0.362] 293	5.0% [0.038, 0.067] 57
101-138%	58.6% [0.548, 0.622] 565	35.3% [0.318, 0.390] 335	6.1% [0.046, 0.082] 65
139-150%	55.2% [0.481, 0.620] 150	36.6% [0.301, 0.435] 99	8.3% [0.049, 0.135] 20
151-200%	54.9% [0.512, 0.584] 600	38.9% [0.354, 0.425] 400	6.2% [0.047, 0.082] 76
201-250%	57.2% [0.532, 0.611] 476	35.8% [0.321, 0.397] 296	7.0% [0.052, 0.094] 57
251-300%	51.2% [0.474, 0.551] 457	42.5% [0.387, 0.464] 372	6.3% [0.048, 0.081] 67
301-400%	51.6% [0.484, 0.547] 690	41.8% [0.387, 0.450] 563	6.7% [0.053, 0.084] 105
>400%	46.3% [0.440, 0.487] 1,188	49.1% [0.467, 0.514] 1,184	4.6% [0.037, 0.056] 132

Observed, Unadjusted % of children who have CC-PCMH, by age			
age group	Observed, Unadjusted % [95%LCL, 95%UCL]		
	Does not have CC-PCMH	Has CC-PCMH	missing
<1	42.1% [0.375, 0.470] 234	52.2% [0.474, 0.570] 292	5.6% [0.040, 0.080] 39
1-5	52.7% [0.503, 0.551] 1,198	41.9% [0.395, 0.443] 986	5.4% [0.045, 0.065] 146
6-12	55.4% [0.534, 0.574] 1,824	38.5% [0.365, 0.404] 1,236	6.2% [0.053, 0.072] 213
13-18	58.0% [0.562, 0.599] 2,294	35.8% [0.340, 0.376] 1,389	6.2% [0.054, 0.071] 271
Total	54.9% [0.537, 0.560] 5,550	39.2% [0.380, 0.403] 3,903	6.0% [0.054, 0.065] 669

Example: 52.2% of children <1 year old have CC-PCMH.

Click [here](#) to return to chart.

For guidance in interpreting estimates, see [table 1a.5](#).

Table 1b.2 CC-PCMH is less common among children in Northwest Ohio

Observed, Unadjusted % of children who have CC-PCMH, by Medicaid Managed Care Region			
Medicaid Managed Care Region	Observed, Unadjusted % [95%LCL, 95%UCL]		
	Does not have CC-PCMH	Has CC-PCMH	missing
1	59.7% [0.552, 0.641] 366	36.1% [0.319, 0.405] 229	4.2% [0.027, 0.064] 26
2	53.2% [0.509, 0.554] 1,375	40.7% [0.385, 0.430] 1,014	6.1% [0.051, 0.072] 177
3	55.0% [0.512, 0.588] 432	39.5% [0.358, 0.433] 314	5.5% [0.041, 0.073] 52
4	58.5% [0.542, 0.628] 435	34.9% [0.309, 0.392] 258	6.6% [0.046, 0.092] 49
5	55.7% [0.530, 0.585] 1,140	38.2% [0.356, 0.409] 790	6.1% [0.049, 0.075] 138
6	55.7% [0.520, 0.593] 517	37.1% [0.336, 0.407] 350	7.2% [0.056, 0.093] 76
7	53.8% [0.515, 0.562] 1,285	40.4% [0.381, 0.427] 948	5.8% [0.049, 0.069] 151
Total	54.9% [0.537, 0.560] 5550	39.2% [0.380, 0.403] 3903	6.0% [0.054, 0.065] 669

Example: In region 4, 34.9% of children have CC-PCMH, compared to 40.7% in region 2.

Predicted, adjusted probabilities of children having CC-PCMH: By Medicaid Managed Care Region	
Medicaid Managed Care Region	Predicted Probabilities (%) [95%LCL, 95%UCL]
1	37.6% [0.329, 0.422]
2	43.5% [0.411, 0.460]
3	41.4% [0.374, 0.455]
4	35.5% [0.312, 0.399]
5	40.2% [0.373, 0.430]
6	39.4% [0.356, 0.433]
7	42.0% [0.396, 0.444]

Example: A statistical model predicts that in a hypothetical group of children in region 4 who have “average” age, race/ethnicity and who live in homes with “average” education, household income, and marital status – that 35.5% have CC-PCMH.

Model adjusts for:
 Age
 Race/Ethnicity
 Education
 Household income
 Marital status
 Special health care needs status

Click [here](#) to return to chart.

For guidance in interpreting estimates, see [table 1a.5](#).

Table 1b.3 CC-PCMH is somewhat less common for children in rural non-Appalachian counties

Observed, Unadjusted % of children who have CC-PCMH, by county type						
County type	Observed, Unadjusted % [95%LCL, 95%UCL] n					
	All children			Children covered by Medicaid		
	Does not have CC-PCMH	Has CC-PCMH	missing	Does not have CC-PCMH	Has CC-PCMH	missing
Urban	55.6% [0.539, 0.572] 2,862	38.1% [0.365, 0.398] 1,923	6.3% [0.055, 0.071] 338	61.4% [0.589, 0.638] 1,317	31.3% [0.289, 0.337] 631	7.4% [0.062, 0.087] 165
Suburban	49.6% [0.469, 0.523] 875	44.1% [0.414, 0.467] 751	6.4% [0.051, 0.079] 115	56.1% [0.512, 0.609] 300	36.0% [0.315, 0.409] 183	7.8% [0.055, 0.110] 40
Rural Appalachian	54.1% [0.513, 0.568] 924	40.3% [0.376, 0.430] 643	5.7% [0.046, 0.069] 128	57.2% [0.532, 0.612] 437	36.5% [0.327, 0.405] 282	6.3% [0.047, 0.083] 63
Rural Non-Appalachian	58.7% [0.558, 0.616] 889	36.6% [0.338, 0.395] 586	4.7% [0.037, 0.059] 88	62.9% [0.578, 0.676] 319	32.0% [0.274, 0.370] 179	5.1% [0.035, 0.075] 34
Total	54.9% [0.537, 0.560] 5,550	39.2% [0.380, 0.403] 3,903	6.0% [0.054, 0.065] 669	60.2% [0.584, 0.620] 2,373	32.8% [0.311, 0.346] 1,275	7.0% [0.061, 0.079] 302

Predicted, Adjusted Probability of children having CC-PCMH, by county type		
	Predicted Probabilities (%) [95%LCL, 95%UCL]	
	All children	Medicaid
Urban	40.8% [0.390, 0.428]	38.0% [0.354, 0.406]
Suburban	43.7% [0.408, 0.465]	40.8% [0.374, 0.442]
Rural Appalachian	43.0% [0.398, 0.462]	40.1% [0.365, 0.438]
Rural Non-Appalachian	37.8% [0.345, 0.412]	35.1% [0.313, 0.389]

Model adjusts for:
Age
Race/Ethnicity
Education
Household income
Marital status
County type
Insurance type/status

Note: Our [model building procedure](#) fit one model and generated predicted probabilities for all children and for the Medicaid subpopulation

Click [here](#) to return to chart.

For guidance in interpreting estimates, see [table 1a.5](#).

Table 1b.4 Over half of Ohio’s children who have CC-PCMH are covered by employer-sponsored insurance

Children with special health care needs			
insurance type/status	Observed, Unadjusted Count [95%LCL, 95%UCL] n		
	Does not have CC-PCMH	Has CC-PCMH	missing
Medicaid	232,526 [213,166 - 251,885] 735	131,835 [116,921 - 146,750] 408	19,096 [13,237 - 24,954] 56
Employer-sponsored	141,685 [127,948 - 155,423] 555	116,144 [103,145 - 129,144] 428	6,387 [3,890 - 8,885] 33
private/other	19,354 [14,466 - 24,242] 87	14,126 [9,858 - 18,394] 55	2,123 [618 - 3,627] 12
uninsured	7,640 [4,899 - 10,380] 37	2,262 [524 - 4,001] 11	671 [0 - 1,363] 4
Total	401,205 [377,643 - 424,766] 1,414	264,368 [244,489 - 284,247] 902	28,277 [21,708 - 34,846] 105

Children without special health care needs			
insurance type/status	Observed, Unadjusted Count [95%LCL, 95%UCL] n		
	Does not have CC-PCMH	Has CC-PCMH	missing
Medicaid	505,189 [477,670 - 532,707] 1,565	272,360 [251,099,293,622] 836	41,693 [33,472 - 49,913] 142
Employer-sponsored	472,038 [449,119 - 494,957] 1,930	470,947 [447,663 - 494,231] 1,825	32,916 [26,254 - 39,578] 149
private/other	78,975 [68,505 - 89,445] 333	56,847 [48,349 - 65,345] 233	9,204 [6,180 - 12,227] 42
uninsured	37,259 [30,664 - 43,855] 181	9,851 [6,414 - 13,288] 43	2,480 [845 - 4,114] 12
Total	1,093,461 [1,059,829,1,127,093] 4,009	810,005 [779,773 - 840,237] 2,937	86,291 [75,275 - 97,308] 345

Click [here](#) to return to chart.

For guidance in interpreting estimates, see [table 1a.5](#).

Table 1b.5 For children from low income households, CC-PCMH is less common among those with Medicaid, compared to those with employer-sponsored insurance

Observed, Unadjusted % of low income children ($\leq 200\%$ FPL) who have CC-PCMH, by insurance type/status			
	Observed, Unadjusted % [95%LCL, 95%UCL]		
	Does not have CC-PCMH	Has CC-PCMH	missing
Medicaid	61.6% [0.596, 0.637] 1,919	32.4% [0.305, 0.344] 1,001	6.0% [0.051, 0.070] 202
Employer-sponsored	51.9% [0.480, 0.558] 499	42.9% [0.391, 0.467] 366	5.2% [0.037, 0.073] 53
Private/Other	58.5% [0.517, 0.650] 180	28.8% [0.230, 0.353] 86	12.7% [0.091, 0.175] 37
Uninsured	73.3% [0.654, 0.799] 141	19.2% [0.134, 0.268] 35	7.5% [0.045, 0.123] 16
Total	60.1% [0.584, 0.618] 2,739	33.7% [0.320, 0.353] 1,488	6.2% [0.054, 0.071] 308

Example: Among low income children, 32.4% of those covered by Medicaid have CC-PCMH, compared to 42.9% of those covered by ESI and 19.2% of those who are uninsured.

Predicted, Adjusted Probabilities of low income children ($\leq 200\%$ FPL) having CC-PCMH, by insurance type/status	
	Predicted Probabilities (%) [95%LCL, 95%UCL]
Medicaid	34.7% [0.325, 0.368]
Employer-sponsored	42.0% [0.377, 0.464]
Private/Other	31.8% [0.250, 0.387]
Uninsured	20.8% [0.137, 0.279]

Model adjusts for:
Age
Race/Ethnicity
Education
Household income
Marital status
County type

Click [here](#) to return to chart.

For guidance in interpreting estimates, see [table 1a.5](#).

Table 1b.6 Among children from low income households, those with Medicaid are just as likely as those with employer-sponsored insurance to have selected components of CC-PCMH

Observed, Unadjusted % of low income children (≤200%FPL) who have selected components of CC-PCMH				
	Observed, Unadjusted % [95%LCL, 95%UCL]			
	% who have an appropriate usual source of care	% who have a personal care provider (PCP; among those who have an appropriate usual source of care)	% who have seen their PCP in the past year (among those who have a PCP)	% who have good communication with their PCP (among those who have seen their PCP in past year)
Medicaid	90.4% [0.892, 0.915] 2,809	86.1% [0.845, 0.875] 2,414	94.0% [0.928, 0.951] 2,262	85.9% [0.841, 0.876] 1,949
Employer-sponsored	93.0% [0.910, 0.947] 847	89.0% [0.862, 0.914] 753	92.0% [0.898, 0.937] 678	90.6% [0.877, 0.928] 611
Private/Other	82.8% [0.775, 0.871] 252	78.7% [0.707, 0.850] 202	87.5% [0.818, 0.916] 174	85.7% [0.783, 0.909] 151
Uninsured	75.1% [0.678, 0.813] 141	79.2% [0.707, 0.856] 106	80.7% [0.696, 0.884] 86	76.7% [0.651, 0.853] 64
Total	90.1% [0.890, 0.910] 4,049	86.1% [0.848, 0.874] 3,475	93.1% [0.921, 0.940] 3,200	86.6% [0.851, 0.880] 2,775

Predicted, Adjusted % of low income children (≤200%FPL), who have selected components of CC-PCMH				
	Predicted Probabilities (%) [95%LCL, 95%UCL]			
	% who have an appropriate usual source of care	% who have a personal care provider (PCP; among those who have an appropriate usual source of care)	% who have seen their PCP in the past year (among those who have a PCP)	% who have good communication with their PCP (among those who have seen their PCP in past year)
Medicaid	94.6% [0.937, 0.956]	91.1% [0.896, 0.927]	95.0% [0.937, 0.963]	90.1% [0.882, 0.920]
Employer-sponsored	95.7% [0.940, 0.974]	91.7% [0.894, 0.940]	94.5% [0.929, 0.961]	92.1% [0.897, 0.944]
Private/Other	91.5% [0.875, 0.954]	85.0% [0.793, 0.907]	91.6% [0.879, 0.954]	90.5% [0.858, 0.952]
Uninsured	80.0% [0.731, 0.868]	86.9% [0.809, 0.930]	86.2% [0.783, 0.942]	85.4% [0.783, 0.925]
Model adjusts for:	Model adjusts for:	Model adjusts for:	Model adjusts for:	
Gender	Age	Age		
Race/Ethnicity	Race/Ethnicity	Education	Education	
Household income	Education	Education		
Marital status	Marital status	Marital status	Marital status	
	Special health care needs status	Special health care needs status		
				County type

Click [here](#) to return to chart.

For guidance in interpreting estimates, see [table 1a.5](#).



Table 1b.7 Children from low income households with Medicaid are less likely than those with employer-sponsored insurance to get needed urgent care or after hours care.

Observed, Unadjusted % of low income children ($\leq 200\%$FPL), who have selected components of CC-PCMH			
	Observed, Unadjusted % [95%LCL, 95%UCL]		
	% who got specialist care without a problem (of those who needed it)	% who got urgent care same or next day (of those who needed it)	% who got after hours care without a problem (of those who needed it)
Medicaid	77.6% [0.745, 0.804] 794	76.5% [0.743, 0.785] 1,669	60.9% [0.584, 0.634] 1,215
Employer-sponsored	84.5% [0.780, 0.893] 193	84.4% [0.808, 0.874] 544	64.4% [0.596, 0.690] 365
Private/Other	57.0% [0.438, 0.694] 46	83.4% [0.760, 0.889] 132	63.7% [0.542, 0.722] 93
Uninsured	49.7% [0.321, 0.674] 22	77.9% [0.650, 0.870] 66	40.9% [0.285, 0.545] 32
Total	77.4% [0.747, 0.799] 1,055	78.2% [0.764, 0.799] 2,411	61.3% [0.591, 0.634] 1,705

Predicted, Adjusted % of low income children ($\leq 200\%$FPL), who have selected components of CC-PCMH			
	Predicted Probabilities (%) [95%LCL, 95%UCL]		
	% who got specialist care without a problem (of those who needed it)	% who got urgent care same or next day (of those who needed it)	% who got after hours care without a problem (of those who needed it)
Medicaid	79.9% [0.765, 0.834]	78.2% [0.761, 0.804]	56.9% [0.535, 0.603]
Employer-sponsored	85.0% [0.796, 0.905]	83.1% [0.794, 0.869]	64.2% [0.594, 0.691]
Private/Other	59.6% [0.464, 0.728]	82.1% [0.753, 0.890]	62.7% [0.532, 0.722]
Uninsured	51.4% [0.325, 0.703]	78.6% [0.674, 0.898]	38.4% [0.250, 0.518]
	Model adjusts for:	Model adjusts for:	Model adjusts for:
		Age	Age
		Gender	
	Race/Ethnicity	Race/Ethnicity	Race/Ethnicity
		Household income	Education
		Marital status	
	Special health care needs status	Special health care needs status	

Click [here](#) to return to chart.

For guidance in interpreting estimates, see [table 1a.5](#).

Table 2a.1 Low income adults with CC-PCMH are less likely to have unmet health needs

Observed, Unadjusted % of low income adults (≤138°FPL), who have unmet health needs, by CC-PCMH status						
	Observed, Unadjusted row % [95%LCL, 95%UCL]					
	All low income adults			Low income Medicaid adults		
	Does not have unmet health needs	Has unmet health needs	missing	Does not have unmet health needs	Has unmet health needs	missing
Does not have CC-PCMH	57.8% [0.563, 0.593] 4,155	42.1% [0.406, 0.436] 3,073	0.1% [0.001, 0.002] 53	59.3% [0.573, 0.614] 2,242	40.5% [0.385, 0.426] 1,658	0.1% [0.001, 0.002] 32
Has CC-PCMH	74.7% [0.726, 0.766] 2,514	25.2% [0.233, 0.273] 824	0.1% [0.001, 0.002] 23	71.3% [0.681, 0.742] 1,189	28.6% [0.257, 0.318] 442	0.1% [0.000, 0.003] 11
missing	57.7% [0.534, 0.619] 442	24.8% [0.210, 0.289] 192	17.5% [0.154, 0.198] 830	60.0% [0.536, 0.660] 217	24.6% [0.192, 0.310] 98	15.4% [0.125, 0.187] 331
Total	62.4% [0.612, 0.635] 7,111	36.4% [0.352, 0.375] 4,089	1.3% [0.012, 0.014] 906	62.5% [0.608, 0.641] 3,648	36.4% [0.348, 0.381] 2,198	1.1% [0.009, 0.013] 374

Example: Among low income Medicaid adults, 28.6% of those with CC-PCMH have unmet health needs. In comparison, 40.5% of those who do not have CC-PCMH have unmet health needs.

Predicted, Adjusted Probability of low income adults (≤138°FPL) having unmet health needs, by CC-PCMH status		
	Predicted Probabilities (%) [95%LCL, 95%UCL]	
	All low income adults	Low income Medicaid adults
Does not have CC-PCMH	33.1% [0.309, 0.352]	31.0% [0.285, 0.334]
Has CC-PCMH	20.7% [0.185, 0.229]	19.2% [0.169, 0.215]

Model adjusts for:

- Age
- Gender
- Race/Ethnicity
- Education
- Household income
- Household composition
- Marital status
- History of chronic conditions
- Special health care needs status
- Insurance type/status

Model adjusts for:

- Age
- Gender
- Race/Ethnicity
- Education
- Household income
- Household composition
- Marital status
- History of chronic conditions
- Special health care needs status
- Insurance type/status

Example: Adjusting for differences in demographic and health status characteristics, our statistical model predicts that within a hypothetical average subpopulation of low income Medicaid adults who have CC-PCMH, 19.2% will have unmet health needs. In comparison, the model predicts that of a hypothetical average subpopulation who do not have CC-PCMH, 31.0% will have unmet health needs.

Click [here](#) to return to chart.

For guidance in interpreting estimates, see [table 1a.5](#).

Table 2a.2 Low income adults who have CC-PCMH are less likely to have frequent emergency department visits

Observed, Unadjusted % of low income adults (≤138%FPL), who have frequent (3+/year) emergency department visits, by CC-PCMH status						
	Observed, Unadjusted % [95%LCL, 95%UCL]					
	All low income adults			Low income Medicaid adults		
	Total	Those with special health care needs	Those WITHOUT special health care needs	Total	Those with special health care needs	Those WITHOUT special health care needs
Does not have CC-PCMH	14.8% [0.138, 0.159] 1,034	25.8% [0.236, 0.282] 623	9.4% [0.083, 0.105] 410	20.9% [0.192, 0.227] 759	28.4% [0.256, 0.313] 463	15.6% [0.136, 0.178] 295
Has CC-PCMH	7.0% [0.059, 0.083] 219	14.7% [0.119, 0.181] 142	4.0% [0.030, 0.053] 77	10.9% [0.089, 0.133] 152	17.6% [0.138, 0.222] 103	7.1% [0.050, 0.100] 49
missing	9.9% [0.075, 0.129] 77	18.7% [0.127, 0.268] 43	7.6% [0.052, 0.109] 34	16.6% [0.121, 0.222] 59	27.4% [0.179, 0.395] 33	12.9% [0.083, 0.195] 26
Total	12.4% [0.116, 0.132] 1,330	22.7% [0.209, 0.246] 808	7.7% [0.069, 0.086] 521	18.0% [0.167, 0.194] 970	25.7% [0.234, 0.282] 599	13.0% [0.116, 0.147] 370

Predicted, Adjusted Probability of low income adults (≤138%FPL) having frequent (3+/year) emergency department visits, by CC-PCMH status						
	Predicted Probabilities (%) [95%LCL, 95%UCL]					
	All low income adults			Low income Medicaid adults		
	Total	Those with special health care needs	Those WITHOUT special health care needs	Total	Those with special health care needs	Those WITHOUT special health care needs
Does not have CC-PCMH	5.7% [0.047, 0.069]	16.9% [0.128, 0.210]	3.8% [0.028, 0.048]	10.9% [0.093, 0.126]	23.0% [0.196, 0.264]	9.5% [0.076, 0.115]
Has CC-PCMH	2.7% [0.021, 0.035]	9.4% [0.060, 0.127]	1.6% [0.011, 0.022]	5.4% [0.042, 0.066]	13.2% [0.098, 0.166]	4.3% [0.029, 0.057]
Model adjusts for:	Age	Age	Age	Age	Age	Age
Gender	Gender	Gender		Gender	Gender	
Education	Education	Education	Education	Education	Education	Education
Household composition		Household composition	Marital status	Household composition	Household composition	Marital status
History of chronic conditions	History of chronic conditions	History of chronic conditions	History of chronic conditions	History of chronic conditions	History of chronic conditions	History of chronic conditions
Special health care needs status				Special health care needs status		
Insurance type/status	Insurance type/status	Insurance type/status	Insurance type/status	Insurance type/status	Insurance type/status	Insurance type/status

Example: Among low income Medicaid adults with special health care needs, 28.4% of those who do not have CC-PCMH made 3 or more visits to an emergency department during the past year. In comparison, 17.6% of those who have CC-PCMH made 3 or more such visits.

Note: Our [model building procedure](#) led us to fit separate models – one for low income adults with special health care needs, and another model for those without. Because the logit coefficients for CC-PCMH were similar in both models, we also ran a model that combined both. Given anticipated interest in the Medicaid population, we generated predicted probabilities from each of these models for low income adults and for low income adults covered by Medicaid.

Click [here](#) to return to chart.

For guidance in interpreting estimates, see [table 1a.5](#).

Table 2a.3 Low income adults with special health care needs who have CC-PCMH are less likely to misuse prescription painkillers

Observed, Unadjusted % of low income adults (≤138%FPL), who misused prescription painkillers during the past year, by CC-PCMH status						
	Observed, Unadjusted % [95%LCL, 95%UCL]					
	All low income adults			Low income Medicaid adults		
	Total	Those with special health care needs	Those WITHOUT special health care needs	Total	Those with special health care needs	Those WITHOUT special health care needs
Does not have CC-PCMH	4.1% [0.035, 0.048] 260	6.9% [0.056, 0.084] 138	2.7% [0.021, 0.034] 122	3.5% [0.028, 0.044] 127	5.8% [0.044, 0.075] 78	2.0% [0.013, 0.029] 49
Has CC-PCMH	1.6% [0.012, 0.022] 54	2.2% [0.013, 0.038] 22	1.4% [0.009, 0.021] 32	1.6% [0.010, 0.026] 26	1.9% [0.009, 0.041] 14	1.4% [0.007, 0.027] 12
missing	0.7% [0.002, 0.022] 6	2.4% [0.007, 0.077] 5	0.1% [0.000, 0.009] 1	1.2% [0.003, 0.048] 3	3.7% [0.009, 0.142] 3	0.0% 0
Total	3.2% [0.028, 0.037] 320	5.5% [0.045, 0.066] 165	2.2% [0.018, 0.027] 155	2.9% [0.024, 0.035] 156	4.7% [0.037, 0.061] 95	1.7% [0.012, 0.023] 61

Example: About 3.5% of low income Medicaid adults who did not have CC-PCMH reported misusing prescription painkillers during the past year. In comparison, only 1.6% of those who have CC-PCMH reported doing so.

Predicted, Adjusted Probability of low income adults (≤138%FPL) misusing prescription painkillers during the past year, by CC-PCMH status				
	Predicted Probabilities (%) [95%LCL, 95%UCL]			
	All low income adults		Low income Medicaid adults	
	Those with special health care needs	Those WITHOUT special health care needs	Those with special health care needs	Those WITHOUT special health care needs
Does not have CC-PCMH	6.1% [0.037, 0.085]	2.0% [0.015, 0.026]	5.2% [0.036, 0.067]	1.6% [0.010, 0.022]
Has CC-PCMH	2.5% [0.009, 0.040]	1.3% [0.007, 0.019]	2.1% [0.008, 0.033]	1.0% [0.005, 0.016]
Model adjusts for:	Age		Age	
	Race/Ethnicity		Race/Ethnicity	
	Household income		Household income	
	History of chronic conditions		History of chronic conditions	
	Insurance type/status	Insurance type/status	Insurance type/status	Insurance type/status

Note: Our [model building procedure](#) led us to fit separate models – one for low income adults with special health care needs, and another model for those without. Because the logit coefficients for CC-PCMH were similar in both models, we also ran a model that combined both. Given anticipated interest in the Medicaid population, we generated predicted probabilities from each of these models for low income adults and for low income adults covered by Medicaid.

Note: One response option for the outcome was for misusing prescription painkillers more than one year ago (but not during the past year). This response was coded as “missing” for these analyses.

Click [here](#) to return to chart.

For guidance in interpreting estimates, see [table 1a.5](#).

Table 2a.4 Among low income adults with a history of chronic conditions, those who have CC-PCMH are less likely to have an overnight hospital stay

Observed, Unadjusted % of low income adults ($\leq 138\%$ FPL), who had an overnight hospital stay during the past year, by CC-PCMH status						
	Observed, Unadjusted % [95%LCL, 95%UCL]					
	All low income adults			Low income Medicaid adults		
	Total	Those with a history of chronic conditions	Those without a history of chronic conditions	Total	Those with a history of chronic conditions	Those without a history of chronic conditions
Does not have CC-PCMH	20.7% [0.195, 0.219] 1,624	29.3% [0.274, 0.313] 1,138	13.9% [0.125, 0.154] 486	25.5% [0.237, 0.273] 1,056	34.0% [0.313, 0.368] 749	18.2% [0.160, 0.206] 307
Has CC-PCMH	18.7% [0.169, 0.205] 615	22.0% [0.197, 0.245] 467	13.9% [0.114, 0.167] 148	22.8% [0.200, 0.257] 352	27.1% [0.234, 0.312] 260	17.6% [0.138, 0.221] 92
missing	13.3% [0.106, 0.165] 139	24.1% [0.189, 0.303] 103	6.2% [0.038, 0.098] 36	16.0% [0.119, 0.214] 87	30.0% [0.217, 0.399] 61	7.7% [0.041, 0.139] 26
Total	19.6% [0.187, 0.206] 2,378	26.5% [0.251, 0.280] 1,708	13.3% [0.122, 0.145] 670	24.2% [0.227, 0.257] 1,495	31.7% [0.296, 0.340] 1,070	17.3% [0.155, 0.193] 425

Predicted, Adjusted Probability of having had an overnight hospital stay during the past year, by CC-PCMH status				
	Predicted Probabilities (%) [95%LCL, 95%UCL]			
	All low income adults		Low income Medicaid adults	
	Those with a history of chronic conditions	Those without a history of chronic conditions	Those with a history of chronic conditions	Those without a history of chronic conditions
Does not have CC-PCMH	25.2% [0.230, 0.275]	10.0% [0.083, 0.117]	30.3% [0.275, 0.332]	12.6% [0.103, 0.149]
Has CC-PCMH	19.5% [0.170, 0.219]	8.7% [0.067, 0.107]	23.8% [0.206, 0.269]	11.1% [0.084, 0.138]
	Model adjusts for: Age Gender	Model adjusts for: Age Gender	Model adjusts for: Age Gender	Model adjusts for: Age Gender
	Household income	Household income	Household income	Household income
	Marital status	Household composition	Marital status	Household composition
	Special health care needs status	Special health care needs status	Special health care needs status	Special health care needs status
	Insurance type/status	Insurance type/status	Insurance type/status	Insurance type/status

Note: Our [model building procedure](#) led us to fit separate models – one for low income adults with a history of chronic conditions, and another model for those without. Given anticipated interest in the Medicaid population, we generated predicted probabilities from each of these models for low income adults and for low income adults covered by Medicaid.

Click [here](#) to return to chart.

For guidance in interpreting estimates, see [table 1a.5](#).

Table 2a.5 For insured low income adults, those with CC-PCMH are less likely to rate their health status as “fair” or “poor”

Observed, Unadjusted % of low income adults ($\leq 138\%$ FPL), who rate their health status as “fair” or “poor”, by CC-PCMH status				
	Observed, Unadjusted % [95%LCL, 95%UCL]			
	Total n	Medicaid	Employer-Sponsored insurance	uninsured
Does not have CC-PCMH	34.7% [0.333, 0.362] 2,872	39.6% [0.376, 0.416] 1,769	16.2% [0.132, 0.196] 137	26.3% [0.230, 0.299] 264
Has CC-PCMH	31.1% [0.290, 0.331] 1,126	36.4% [0.333, 0.396] 673	9.9% [0.067, 0.144] 46	24.2% [0.159, 0.351] 29
missing	32.4% [0.283, 0.367] 464	35.0% [0.290, 0.415] 228	22.2% [0.149, 0.317] 71	21.4% [0.113, 0.368] 22
Total	33.6% [0.325, 0.347] 4,462	38.4% [0.368, 0.401] 2,670	14.8% [0.126, 0.174] 254	25.9% [0.229, 0.293] 315

Example: Only 9.9% of low income adults covered by employer-sponsored insurance who have CC-PCMH rate their health status as “fair” or “poor.” In comparison, 36.4% of those covered by Medicaid did so.

Predicted, Adjusted Probability of low income adults ($\leq 138\%$ FPL) rating their health status as “fair” or “poor,” by CC-PCMH status			
	Predicted Probabilities (%) [95%LCL, 95%UCL]		
	Medicaid	Employer-Sponsored insurance	uninsured
Does not have CC-PCMH	29.9% [0.271, 0.327]	16.7% [0.128, 0.207]	30.1% [0.254, 0.347]
Has CC-PCMH	24.2% [0.210, 0.275]	8.3% [0.047, 0.119]	21.5% [0.119, 0.311]
Model adjusts for:	Model adjusts for:	Model adjusts for:	
Age	Age	Age	Age
Race/Ethnicity		Gender	Race/Ethnicity
Education	Education	Education	Education
		Household income	
History of chronic conditions	History of chronic conditions	History of chronic conditions	
Special health care needs status	Special health care needs status	Special health care needs status	
Insurance type/status	Insurance type/status	Insurance type/status	

Note: Our [model building procedure](#) led us to fit separate models by insurance type/status. Given anticipated interest in the Medicaid, ESI and uninsured populations, we omitted results for people who described their insurance type as “Medicare or other government” or “privately purchased or other”

Click [here](#) to return to chart.

For guidance in interpreting estimates, see [table 1a.5](#).

Table 2a.6 CC-PCMH is not associated with selected outcomes for pregnant women from low income households

Observed, Unadjusted % of selected outcomes by CC-PCMH status among pregnant women from low income households (≤200% FPL)				
	Observed, Unadjusted % [95%LCL, 95%UCL]			
	n			
	Has unmet health needs	Has 3+ emergency department visits/year	Misused prescription painkillers in the past year	Overnight hospital stay
Does not have CC-PCMH	38.9% [0.327, 0.455]	26.4% [0.209, 0.328]	-	57.1% [0.505, 0.635]
	123	79	7	182
Has CC-PCMH	24.4% [0.163, 0.349]	28.2% [0.192, 0.393]	-	63.4% [0.531, 0.726]
	28	29	1	83
missing	20.5% [0.082, 0.427]	17.1% [0.046, 0.471]	-	54.1% [0.320, 0.748]
	6	6	1	16
Total	33.8% [0.289, 0.392]	26.5% [0.218, 0.319]	1.9% [0.009, 0.043]	58.8% [0.534, 0.640]
	157	114	9	281

Predicted, adjusted probability of having selected outcomes by CC-PCMH status among pregnant women from low income households (≤200% FPL)			
	Predicted, Adjusted Probability (%) [95%LCL, 95%UCL]		
	Has unmet health needs	Has 3+ emergency department visits/year	Overnight hospital stay
Does not have CC-PCMH	27.7% [0.067, 0.487]	9.9% [0.000, 0.201]	44.4% [0.324, 0.564]
Has CC-PCMH	17.7% [0.013, 0.341]	12.9% [0.000, 0.257]	43.2% [0.281, 0.582]
	Model adjusts for: Age	Model adjusts for: Age	Model adjusts for: Race/Ethnicity
	Race/Ethnicity	Household income	Race/Ethnicity
	Special health care needs	History of chronic conditions	
	Insurance type/status	Insurance type/status	Insurance type/status County type

Note: To avoid unreliable estimates, we suppress estimates where a non-missing cell size has an n<10

Example: Among women from low income households who have been pregnant in the past year, 63.4% of those with CC-PCMH had an overnight hospital stay in the past year, compared to 57.1% of those who do not have CC-PCMH.

Note: Our [model building procedure](#) led us to fit a single model for each outcome and then generate predicted probabilities for people with and without CC-PCMH. In the multivariable models for each outcome in this table, the logit coefficient for CC-PCMH was not statistically significant (p<0.05). Because the sample included only 9 low income pregnant women who had misused prescription painkillers in the past year, we omitted a multivariable model for this outcome.

Example: After adjusting for demographic and other characteristics, there was no statistically significant association of CC-PCMH with having an overnight hospital stay (among low income pregnant women). The model predicted that in a hypothetical population of pregnant low income women with “average” race/ethnicity, insurance type/status and county type, that 43.2% of those who have CC-PCMH would have an overnight hospital stay. In comparison, the model predicted that 44.4% of a those who do not have CC-PCMH would have an overnight hospital stay.

Click [here](#) to return to chart.

For guidance in interpreting estimates, see [table 1a.5](#).

Table 2b.1 For low income children, CC-PCMH is associated with a lower probability of unmet health needs

Observed, Unadjusted % of low income children ($\leq 200\%$ FPL), who have unmet health needs, by CC-PCMH status			
	Observed, Unadjusted % [95%LCL, 95%UCL] n		
	All low income children	Low income children covered by Medicaid	Low income children with special health care needs covered by Medicaid
Does not have CC-PCMH	11.2% [0.098, 0.127] 322	10.5% [0.089, 0.123] 203	19.2% [0.156, 0.233] 112
Has CC-PCMH	5.7% [0.044, 0.072] 83	5.0% [0.036, 0.068] 53	8.0% [0.052, 0.121] 29
missing	5.1% [0.028, 0.093] 13	4.7% [0.021, 0.102] 7	13.1% [0.041, 0.344] 3
Total	8.9% [0.080, 0.100] 418	8.4% [0.073, 0.096] 263	15.3% [0.127, 0.182] 144

Example: Among low income Medicaid children, only 5.0% have unmet health needs if they also have CC-PCMH, compared to 10.5% if they do not have CC-PCMH..

Predicted, adjusted probability of low income children ($\leq 200\%$ FPL) having unmet health needs, by CC-PCMH status			
	Predicted Probabilities (%) [95%LCL, 95%UCL]		
	All low income children	Low income children covered by Medicaid	Low income children with special health care needs covered by Medicaid
Does not have CC-PCMH	9.0% [0.075, 0.104]	8.5% [0.069, 0.100]	16.1% [0.129, 0.193]
Has CC-PCMH	4.8% [0.035, 0.060]	4.5% [0.032, 0.057]	8.9% [0.065, 0.112]

Model adjusts for:
Age

Race/Ethnicity

Special health care needs
Insurance type/status

Note: Our [model building procedure](#) led us to fit a single model for children's unmet health needs and generate predicted probabilities for specific subpopulations

Click [here](#) to return to chart.

For guidance in interpreting estimates, see [table 1a.5](#).

Table 2b.2 For low income children, CC-PCMH is consistently associated with a lower probability of frequent emergency room visits

Observed, Unadjusted % of low income children ($\leq 200\%$ FPL), who have frequent emergency department visits, by CC-PCMH status			
	Observed, Unadjusted % [95%LCL, 95%UCL] n		
	All low income children	Low income children covered by Medicaid	Low income children with special health care needs covered by Medicaid
Does not have CC-PCMH	8.5% [0.074, 0.099] 224	10.1% [0.086, 0.118] 197	18.5% [0.151, 0.225] 112
Has CC-PCMH	4.9% [0.038, 0.063] 75	6.3% [0.048, 0.082] 67	12.0% [0.085, 0.167] 41
missing	3.0% [0.016, 0.055] 11	3.5% [0.018, 0.069] 9	9.9% [0.038, 0.238] 5
Total	7.0% [0.061, 0.079] 310	8.5% [0.074, 0.097] 273	16.0% [0.135, 0.190] 158

Predicted, adjusted probability of low income children ($\leq 200\%$ FPL) having frequent emergency department visits, by CC-PCMH status			
	Predicted Probabilities (%) [95%LCL, 95%UCL]		
	All low income children	Low income children covered by Medicaid	Low income children with special health care needs covered by Medicaid
Does not have CC-PCMH	4.0% [0.027, 0.053]	7.2% [0.057, 0.087]	20.6% [0.169, 0.243]
Has CC-PCMH	2.1% [0.013, 0.029]	3.9% [0.027, 0.052]	12.0% [0.086, 0.154]

Model adjusts for:
Age

Race/Ethnicity
Household income
Special health care needs
Insurance type/status

Note: Our [model building procedure](#) led us to fit a single model for children's frequent emergency department visits and generate predicted probabilities for specific subpopulations

Click [here](#) to return to chart.

For guidance in interpreting estimates, see [table 1a.5](#).

Table 2b.3 For low income children, CC-PCMH is not associated with the probability of hospitalization

Observed, unadjusted % of low income children ($\leq 200\%$ FPL), who have an overnight hospital stay, by CC-PCMH status			
	Observed, Unadjusted % [95%LCL, 95%UCL] n		
	All low income children	Low income children covered by Medicaid	Low income children with special health care needs covered by Medicaid
Does not have CC-PCMH	6.9% [0.057, 0.082] 179	8.0% [0.066, 0.096] 150	16.7% [0.131, 0.209] 92
Has CC-PCMH	6.1% [0.049, 0.077] 99	6.9% [0.053, 0.089] 74	11.0% [0.075, 0.159] 34
missing	5.5% [0.028, 0.105] 14	6.4% [0.030, 0.132] 11	16.5% [0.064, 0.364] 6
Total	6.5% [0.057, 0.075] 292	7.6% [0.065, 0.088] 235	14.8% [0.121, 0.179] 132

Predicted, adjusted probability of low income children ($\leq 200\%$ FPL) having an overnight hospital stay, by CC-PCMH status			
	Predicted Probabilities (%) [95%LCL, 95%UCL]		
	All low income children	Low income children covered by Medicaid	Low income children with special health care needs covered by Medicaid
Does not have CC-PCMH	3.2% [0.024, 0.040]	4.6% [0.035, 0.056]	15.9% [0.125, 0.193]
Has CC-PCMH	2.7% [0.019, 0.036]	3.9% [0.027, 0.051]	13.8% [0.103, 0.174]

Model adjusts for:
Age

Education
Household income
Special health care needs
Insurance type/status

Note: Our [model building procedure](#) led us to fit a single model for children having an overnight hospital stay, and generate predicted probabilities for specific subpopulations

Click [here](#) to return to chart.

For guidance in interpreting estimates, see [table 1a.5](#).

Table 2b.4 Among low income children with insurance, CC-PCMH is associated with a greater probability of having a well-child visit

Observed, unadjusted % of low income children ($\leq 200\%$ FPL) ages 1-18, who have had a well child visit in the past year, by CC-PCMH status and whether they have special health care needs				
	Observed, Unadjusted % [95%LCL, 95%UCL]			
	Low income children with special health care needs	Low income children with special health care needs covered by Medicaid	Low income children WITHOUT special health care needs	Low income children WITHOUT special health care needs covered by Medicaid
Does not have CC-PCMH	79.5% [0.758, 0.828] 584	79.8% [0.755, 0.835] 471	71.9% [0.693, 0.743] 1,247	75.2% [0.722, 0.780] 867
Has CC-PCMH	90.5% [0.868, 0.932] 351	92.1% [0.880, 0.949] 278	90.2% [0.877, 0.923] 837	89.3% [0.859, 0.919] 511
missing	66.6% [0.488, 0.807] 30	73.2% [0.527, 0.870] 25	56.0% [0.460, 0.655] 76	52.9% [0.405, 0.648] 49
Total	82.6% [0.799, 0.851] 965	83.5% [0.804, 0.862] 774	77.3% [0.754, 0.791] 2,160	78.6% [0.763, 0.807] 1,427

Predicted, adjusted probability of low income children ($\leq 200\%$ FPL), ages 1-18 having had a well child visit in the past year, by CC-PCMH status and whether they have special health care needs				
	Predicted Probabilities (%) [95%LCL, 95%UCL]			
	Low income children with special health care needs	Low income children with special health care needs covered by Medicaid	Low income children WITHOUT special health care needs	Low income children WITHOUT special health care needs covered by Medicaid
Does not have CC-PCMH	82.2% [0.782, 0.863]	83.9% [0.800, 0.877]	75.0% [0.717, 0.783]	74.9% [0.712, 0.786]
Has CC-PCMH	91.2% [0.877, 0.946]	92.1% [0.890, 0.951]	90.9% [0.885, 0.932]	90.8% [0.883, 0.934]
	Model adjusts for:		Model adjusts for:	
	Gender		Age Gender Race/Ethnicity	
	Education		Education	
	Insurance type/status		Insurance type/status County type	

Example: Among low income Medicaid children without special health care needs, 89.3% of those with CC-PCMH have had a well-child visit in the past year. In comparison, only 75.2% of those without CC-PCMH have had one.

Note: Our [model building procedure](#) led us to fit separate models for children with and without special health care needs. Within each model, we then generated predicted probabilities for the Medicaid subpopulation.

Click [here](#) to return to chart.

For guidance in interpreting estimates, see [table 1a.5](#).

Table 2b.5 For infants from low income households, CC-PCMH is associated with a lower probability of frequent emergency department visits, but not hospitalizations

Observed, Unadjusted % of selected outcomes by CC-PCMH status among infants from low income households (≤200% FPL)			
	Observed, Unadjusted % [95%LCL, 95%UCL]		
	n		
	Has unmet health needs	Has 3+ emergency department visits/year	Overnight hospital stay
Does not have CC-PCMH	1.7% [0.005, 0.057]	11.8% [0.069, 0.194]	16.8% [0.110, 0.247]
	4	15	24
Has CC-PCMH	n/a	n/a	19.0% [0.125, 0.279]
	0	5	25
missing	0.0%	0.0%	6.0% [0.008, 0.326]
	0	0	1
Total	0.8% [0.002, 0.028]	7.3% [0.046, 0.114]	17.1% [0.128, 0.225]
	4	20	50

Predicted, adjusted probability of having selected outcomes by CC-PCMH status among infants from low income households (≤200% FPL)		
	Predicted, Adjusted Probability (%) [95%LCL, 95%UCL]	
	Has 3+ emergency department visits/year	Overnight hospital stay
Does not have CC-PCMH	6.8% [0.029, 0.108]	20.9% [0.110, 0.309]
Has CC-PCMH	3.7% [0.016, 0.058]	24.4% [0.121, 0.366]
	Model adjusts for:	Model adjusts for:
	Race/Ethnicity	
	Special health care needs	Special health care needs
	Insurance type	Insurance type

Note: To avoid unreliable estimates, we suppress estimates where a non-missing cell size has an n<10

Note: Our [model building procedure](#) led us to fit a model for overnight hospital stay and then generate predicted probabilities for infants with and without CC-PCMH. Some covariate patterns resulted in empty cells, so it was necessary to drop many covariates from the model. Because the sample included only 4 infants from low income households who had unmet health needs (none of whom had CC-PCMH), we omitted a multivariable model for this outcome. Only 20 infants from low income households had frequent emergency department visits, so to provide a more reliable model, we used the model for the full child population, confirmed that the effect of CC-PCMH did not vary by age, and then generated predicted probabilities for infants.

Click [here](#) to return to chart.

For guidance in interpreting estimates, see [table 1a.5](#).

Table 3.1 White adults are more likely than other racial/ethnic groups to have CC-PCMH

Observed, Unadjusted % of CC-PCMH status among ADULTS by Race/Ethnicity and Insurance Type/Status						
	Observed, Unadjusted % [95%LCL, 95%UCL]					
	Total			Medicaid	Employer-Sponsored	Uninsured
	Does not have CC-PCMH	Has CC-PCMH	Missing	Has CC-PCMH	Has CC-PCMH	Has CC-PCMH
White	51.9% [0.512, 0.526] 15,546	42.8% [0.422, 0.435] 14,399	5.3% [0.050, 0.056] 1,638	30.9% [0.294, 0.325] 1,862	46.1% [0.451, 0.472] 6,290	12.0% [0.102, 0.139] 212
African American	64.9% [0.632, 0.665] 3,321	29.0% [0.274, 0.306] 1,834	6.1% [0.053, 0.071] 305	20.6% [0.184, 0.229] 514	39.9% [0.368, 0.431] 669	5.9% [0.041, 0.084] 38
Hispanic	71.4% [0.681, 0.746] 1,021	24.0% [0.211, 0.272] 457	4.6% [0.033, 0.063] 80	20.7% [0.154, 0.272] 108	33.9% [0.282, 0.401] 186	7.6% [0.049, 0.115] 32
Other	52.3% [0.489, 0.557] 1,312	20.6% [0.177, 0.238] 659	27.1% [0.247, 0.297] 2,304	10.5% [0.073, 0.149] 138	26.2% [0.215, 0.316] 276	6.8% [0.025, 0.171] 19
Total	54.0% [0.534, 0.546] 21,200	40.0% [0.394, 0.406] 17,349	6.1% [0.058, 0.064] 4,327	27.5% [0.262, 0.287] 2,622	44.7% [0.437, 0.456] 7,421	10.2% [0.089, 0.116] 301

For predicted probabilities of adults having CC-PCMH by race/ethnicity and insurance type/status, please refer to [table 1a.5](#)

Example: Overall, 42.8% of white adults have CC-PCMH, compared to 29.0% of African-American adults and 24.0% of Hispanic adults.

Example: Race/Ethnicity differences in CC-PCMH are less pronounced among adults with ESI, compared to those covered by Medicaid, or the uninsured.

For predicted probabilities of adults having CC-PCMH by race/ethnicity and insurance type/status, please refer to [table 1a.5](#)

Click [here](#) to return to chart.

For guidance in interpreting estimates, see [table 1a.5](#).

Table 3.2 CC-PCMH is somewhat less common among African-American children compared to white children

Observed, Unadjusted % of children with CC-PCMH by race/ethnicity				
	Observed, Unadjusted % [95%LCL, 95%UCL] n	Children from low income (≤200%FPL) households		
		Total	Medicaid	Employer-Sponsored
		All children	42.4%	37.3%
White	[0.411, 0.438] 2,989	[0.352, 0.395] 1,018	[0.329, 0.380] 638	[0.421, 0.509] 294
African American	[0.288, 0.346] 471	[0.269, 0.338] 294	[0.262, 0.339] 229	[0.263, 0.465] 46
Hispanic	[0.293, 0.389] 246	[0.212, 0.319] 117	[0.221, 0.345] 92	[0.168, 0.482] 16
Other	[0.204, 0.284] 197	[0.143, 0.247] 59	[0.136, 0.264] 42	[0.112, 0.365] 10
Total	[0.380, 0.403] 3,903	[0.320, 0.353] 1,488	[0.305, 0.344] 1,001	[0.391, 0.467] 366

Predicted, adjusted probability of children having CC-PCMH by race/ethnicity and insurance type			
	Predicted Probabilities (%) [95%LCL, 95%UCL]		
	Total	Medicaid	Employer-Sponsored
White	42.6% [0.412, 0.441]	39.8% [0.373, 0.422]	46.4% [0.443, 0.486]
African American	37.6% [0.342, 0.409]	34.8% [0.312, 0.385]	41.3% [0.373, 0.451]
Hispanic	38.2% [0.329, 0.435]	35.5% [0.300, 0.409]	42.0% [0.363, 0.47.6]
Other	34.3% [0.286, 0.400]	34.3% [0.259, 0.375]	37.9% [0.317, 0.441]

Model adjusts for:
 Age
 Gender
 Education
 Household income
 Marital status
 Insurance type/status
 Region

Note: Our [model building procedure](#) led us to single to predict children having CC-PCMH; we then generated predicted probabilities for the racial/ethnic subpopulations by insurance type.

Click [here](#) to return to chart.

For guidance in interpreting estimates, see [table 1a.5](#).

Table 3.3 CC-PCMH has a similar association with unmet health needs for both white and African American low income adults

Observed, Unadjusted % of selected outcomes by CC-PCMH status among white and African-American adults from low income households (≤138% FPL)						
	Observed, Unadjusted % [95%LCL, 95%UCL]		Observed, Unadjusted % [95%LCL, 95%UCL]		Observed, Unadjusted % [95%LCL, 95%UCL]	
	White adults	African-American adults	White adults	African-American adults	White adults	African-American adults
Does not have CC-PCMH	41.3%	45.5%	14.4%	16.9%	35.9%	32.2%
	[0.395, 0.431]	[0.424, 0.486]	[0.131, 0.158]	[0.147, 0.194]	[0.342, 0.377]	[0.295, 0.350]
	1,873	786	618	284	1,768	692
Has CC-PCMH	24.8%	26.7%	6.7%	7.5%	30.5%	32.1%
	[0.226, 0.272]	[0.223, 0.316]	[0.055, 0.082]	[0.050, 0.111]	[0.282, 0.329]	[0.275, 0.372]
	544	179	145	42	751	228
missing	29.7%	28.4%	12.4%	10.0%	34.1%	34.8%
	[0.245, 0.354]	[0.195, 0.394]	[0.090, 0.170]	[0.055, 0.174]	[0.286, 0.402]	[0.251, 0.459]
	125	42	47	15	144	57
Total	35.6%	40.6%	12.0%	14.6%	34.2%	32.3%
	[0.342, 0.370]	[0.380, 0.432]	[0.110, 0.130]	[0.128, 0.165]	[0.328, 0.356]	[0.300, 0.347]
	4,719	1,007	810	341	2,663	977
Subpopulation (if any):			Special health care needs		Employer-sponsored insurance	

Example: Among African-American adults from low income households, 26.7% of those with CC-PCMH have unmet health needs, compared to 45.5% of those who do not have CC-PCMH.

Example: After adjusting for demographic and other characteristics, CC-PCMH is associated with a lower probability of self-rating one's health status as "fair" or "poor" among white (8.4% vs. 23.9%) but not African-American (17.8% vs. 19.6%) low income adults

Predicted, adjusted probability of having selected outcomes by CC-PCMH status among white and African-American adults from low income households (≤138% FPL)						
	Observed, Unadjusted % [95%LCL, 95%UCL]		Observed, Unadjusted % [95%LCL, 95%UCL]		Observed, Unadjusted % [95%LCL, 95%UCL]	
	White adults	African-American adults	White adults	African-American adults	White adults	African-American adults
Does not have CC-PCMH	32.6%	37.9%	15.4%	30.2%	23.9%	19.6%
	[0.303, 0.349]	[0.345, 0.413]	[0.111, 0.198]	[0.161, 0.442]	[0.171, 0.308]	[0.107, 0.285]
Has CC-PCMH	20.4%	24.4%	8.1%	18.8%	8.4%	17.8%
	[0.182, 0.226]	[0.212, 0.276]	[0.050, 0.113]	[0.046, 0.330]	[0.033, 0.135]	[0.074, 0.277]
	Model adjusts for: Age Gender		Model adjusts for: Age Gender		Model adjusts for: Age Gender	
	Education		Education		Education Household income	
	Household composition Marital status				Marital status	
	History of chronic conditions Special health care needs Insurance type/status		History of chronic conditions Insurance type/status		History of chronic conditions Special health care needs	
Subpopulation (if any):			Special health care needs		Employer-sponsored insurance	

Note: Our [model building procedure](#) led us to fit a single model for unmet health needs and then generate predicted probabilities for whites and African-Americans.

For frequent emergency department visits, we fit separate models for adults with and without special health care needs. CC-PCMH had a similar association among African-Americans versus whites in both models, so in the interest of brevity, we only present results for the subpopulation of adults with special health care needs.

For fair/poor self-rated health status, we fit separate models for people covered by employer-sponsored insurance and those covered by Medicaid. We found no African-American/white differences on the association of CC-PCMH with the outcome in the Medicaid subpopulation, so we only present results for the subpopulation covered by employer-sponsored insurance.

Click [here](#) to return to chart.

For guidance in interpreting estimates, see [table 1a.5](#).

Table 3.3 (cont'd) CC-PCMH has a similar association with unmet health needs for both white and African American children from low income homes

Observed, Unadjusted % of selected outcomes by CC-PCMH status among white and African-American children from low income households (≤200% FPL)						
	Has unmet health needs		Has 3+ emergency department visits/year		Well child visit during past year	
	White children	African-American children	White children	African-American children	White children	African-American children
Does not have CC-PCMH	10.2% [0.087, 0.121]	11.4% [0.087, 0.147]	8.7% [0.072, 0.105]	8.1% [0.061, 0.106]	69.2% [0.658, 0.724]	80.2% [0.755, 0.842]
Has CC-PCMH	6.2% [0.047, 0.082]	4.4% [0.024, 0.079]	4.0% [0.028, 0.056]	7.2% [0.044, 0.114]	89.3% [0.862, 0.917]	91.5% [0.839, 0.957]
missing	10.7% [0.053, 0.205]	5.3% [0.013, 0.192]	2.2% [0.007, 0.068]	4.5% [0.010, 0.177]	55.8% [0.411, 0.695]	60.2% [0.370, 0.795]
Total	8.8% [0.076, 0.101]	9.0% [0.070, 0.114]	6.7% [0.057, 0.079]	7.6% [0.060, 0.097]	76.2% [0.738, 0.784]	82.7% [0.789, 0.859]

Subpopulation (if any):

Children 1-18 without special health care needs

Example: Among African-American children from low income households, 4.4% of those with CC-PCMH have unmet health needs, compared to 11.4% of those who do not have CC-PCMH.

Predicted, adjusted probability of selected outcomes by CC-PCMH status among white and African-American children from low income households (≤200% FPL)						
	Has unmet health needs		Has 3+ emergency department visits/year		Well child visit during past year	
	White children	African-American children	White children	African-American children	White children	African-American children
Does not have CC-PCMH	8.4% [0.069, 0.100]	9.2% [0.067, 0.116]	4.1% [0.027, 0.055]	4.1% [0.025, 0.056]	73.6% [0.698, 0.775]	80.7% [0.758, 0.858]
Has CC-PCMH	4.5% [0.032, 0.058]	4.9% [0.032, 0.065]	2.2% [0.013, 0.030]	2.2% [0.011, 0.032]	90.3% [0.877, 0.928]	93.3% [0.907, 0.960]

Model adjusts for:
Age

Model adjusts for:
Age

Model adjusts for:
Age
Gender

Household income

Education

Special health care needs
Insurance type/status

Special health care needs
Insurance type/status

Insurance type/status
County type

Subpopulation (if any):

Children 1-18 without special health care needs

Note: Our [model building procedure](#) led us to fit a single model for unmet health needs and then generate predicted probabilities for whites and African-American children. We used the same approach for frequent emergency department visits.

For well child visits, we fit separate models for children with and without special health care needs. CC-PCMH had no association with the outcome among African-Americans versus whites who have special health care needs, so in the interest of brevity, we only present results for the subpopulations of children without special health care needs.

For guidance in interpreting estimates, see [table 1a.5](#).

Relevant OMAS items: CC-PCMH (adults)

Item #	Variable name	Item wording	Response options
1	F67	Is there one place that <YOU_NAME> usually <gogoes> to when <YOUARE_NAME> sick or <YOUHESHE> <NEEDNEEDS> advice about <YOURHISHER> health?(IF NECESSARY: THIS CAN INCLUDE AN ER.We are interested in whether <YOUHESHE> have one place <YOUHESHE> usually go to seek medical care, not whether <YOUHESHE> have been there recently.)	Yes*/No
1	F67_1	Just to be sure, is it that there is no place at all that <YOU_NAME> usually <gogoes> to when <youheshe> <areis> sick or <youheshe> <needneeds> advice about <YOURHISHER> health, or is it that <YOU_NAME> <GOGOES> to more than one place? [only asked if F67=no]	Yes*/No
1	F67_2	<txt_f67_2> What kind of place is it? Is it a clinic or health center, a doctor's office or HMO, a hospital emergency room, a hospital outpatient department, or some other place?	[open-ended]
2	F67A1	A personal doctor or nurse is a health professional who knows <YOU_NAME> well and is familiar with <YOURHISHER> health history. This can be a general doctor, a specialist doctor, a nurse practitioner, or a physician's assistant.<dodoesC> <YOU_NAME> have one or more persons <youheshe> <think_s> of as <YOURHISHER> personal doctor or nurse?	Yes*/No
3	FH11	In the past 12 months, have you seen this health provider?	Yes*/No
4	FH12	In the past 12 months, how often did your health provider spend enough time with you? Would you say...never, sometimes, usually or always?	Never/Sometimes/ Usually*/Always*
4	FH13	In the past 12 months, how often did your health provider explain things in a way that was easy to understand? Would you say...never, sometimes, usually or always?	Never/Sometimes/ Usually*/Always*
5	FH05	In the past 12 months, did you contact this provider's office to get an appointment for an illness, injury, or condition that you needed care for right away?	Yes*/No*
5	FH06	In the past 12 months, how many days did you usually have to wait for an appointment for an illness, injury, or condition that you needed care for right away? Would you say...the same day, 1 day, 2 to 3 days, 4 to 7 days, or more than 7 days?	Same day*/1 day*/ 2-3 days/4-7 days/>7
6	FH03	In the past 12 months, did you need medical assistance for yourself during evenings, weekends, or holidays?	Yes*/No*
6	FH04	In the past 12 months, how often were you able to get the medical assistance you needed from your provider's office during evenings, weekends, or holidays? Would you say...never, sometimes, usually or always?	Never/Sometimes/ Usually*/Always*
7	F67D	During the past 12 months, did <YOU_NAME> need to see a medical specialist?	Yes*/No*
7	F67E	How much of a problem, if any, was it for <YOU_NAME> to see a specialist? Was it a big problem, small problem, or no problem?	Big problem/Small problem/No problem*

Note: missing data/ unusable data codes (e.g., "don't know") are not included; see "OMAS-PCMH 2016 report: Stata syntax files" for more information.. * response necessary to meet CC-PCMH definition.

Relevant OMAS items: CC-PCMH (children)

Item #	Variable name	Item wording	Response options
1	NI36	The next questions are about access to health care for <CH_NAME>. Is there a place that <CH_NAME> usually goes when <FL_HESHE> is sick or you need advice about <FL_HISHER> health?	Yes*/No
1	NI36CHECK	Just to be sure, is it that there is no place at all that <CH_NAME> usually goes to when sick or needing advice about health, or is it that <FL_HESHE> goes to more than one place?	Yes*/No
1	NI36A	What kind of place is it? A clinic or health center, a doctor's office or HMO, a hospital emergency room, a hospital outpatient department, or some other place?	[open-ended]
2	NI37B	A personal doctor or nurse is a health professional who knows your child well and is familiar with your child's health history. This can be a general doctor, a pediatrician, a specialist doctor, a nurse practitioner, or a physician's assistant. Do you have one or more persons you think of as <CH_NAME>'s personal doctor or nurse?	Yes*/No
3	PCMH_6	Has <CH_NAME> seen this health provider <FL_BIRTH>?	Yes*/No
4	PCMH_7	<FL_BIRTHC>, how often did <CH_NAME>'s health provider spend enough time with <FL_HIMHER>? Would you say...never, sometimes, usually or always?	Never/Sometimes/ Usually*/Always*
4	PCMH_8	<FL_BIRTHC>, how often did <CH_NAME>'s health provider explain things in a way that was easy to understand?	Never/Sometimes/ Usually*/Always*
5	PCMH_X	RECALL="Since <FL_HISHER> birth", CONDITION="I90A=00")_ \$Recall (RECALL="During the past 12 months", CONDITION="I90A>00"), how many days did you usually have to wait for an appointment from <CH_NAME>'s provider when <FL_HESHE> needed care right away? Would you say the same day, 1 day, 2 to 3 days, 4 to 7 days, or more than 7 days.	Same day*/1 day*/ 2-3 days/4-7 days/>7/Did not need care*
6	PCMH_3	RECALL="Since <FL_HISHER> birth", CONDITION="I90A=00")_ \$Recall (RECALL="During the past 12 months", CONDITION="I90A>00"), how often were you able to get the care <CH_NAME> needed from <FL_HISHER> provider's office during evenings, weekends, or holidays? Would you say never, sometimes, usually or always?	Never/Sometimes/ Usually*/Always*/Did not need care*
7	K4Q24	<FL_K4Q>, did <CH_NAME> see a specialist? Specialists are doctors like surgeons, heart doctors, allergy doctors, skin doctors, and others who specialize in one area of health care.	Yes*/No*
7	K4Q25	<FL_K4Q>, did you or a doctor think that <CH_NAME> needed to see a specialist?	Yes*/No*
7	K4Q26	<FL_K4Q>, how much of a problem, if any, was it for <CH_NAME> to see a specialist? Was it a big problem, small problem, or no problem?	Big problem/Small problem/No problem*

Note: missing data/ unusable data codes (e.g., "don't know") are not included; see "OMAS-PCMH 2016 report: Stata syntax files" for more information.. * response necessary to meet CC-PCMH definition.

Relevant OMAS items: Outcome variables

Variable name	Description	Response options
unmet	Adult has unmet health needs (composite of F68, F68B_2, F68B_3, F68C)	Yes / No
ervt3a	Adult had frequent emergency department visits (recode of E62)	Yes / No
rxm2	Adult misused prescription painkillers in the past year (recoded from D46C_2 ; I=missing)	Yes / No
hospvt_a	Adult had overnight hospital stay	Yes / No
fphealth	Adult's self-reported health status is "fair" or "poor" (and not "good," "very good," or "excellent": recoded from D130_IMP)	Yes / No
unmetc	Child has unmet health needs (composite of O139, O139B, O141)	Yes / No
ervt3c	Child had frequent emergency department visits (recoded from M134)	Yes / No
hospvt_c	Child had overnight hospital stay	Yes / No
wellkid	Child had well-child visit (recoded from M130)	Yes / No

Note: missing data / unusable data codes (e.g., "don't know") are not included; see "OMAS-PCMH 2016 report: Stata syntax files" for more information..

Relevant OMAS items: Covariates

Variable name	Description	Response options
insur_a*	Child insurance type/status (recoded from i_type_a_imp)	Medicaid / Medicare / ESI / Private or other / Uninsured
S14_IMP*	Adult age	Continuous (range 19-109)
age_a_imp*	Adult age (grouped)	19-24 / 25-34 / 35-44 / 45-54 / 55-64 / 65+
S15_IMP*	Adult gender	Male / Female
race4cat*	Adult race ethnicity (recoded from RACES_A_IMP)	White / African-American / Hispanic / Other
FPL_CAT*	Household income (% of federal poverty level)	≤63% / 64-99% / 100-138% / 139-150% / 151-200% / 201-250% / 251-300% / 301-400% / >400%
educ5*	Adult education (recoded from educ_imp)	Some HS / HS grad or equivalent / some college / 4-year college degree / graduate degree
hhkids*	Does household have any children? (recoded from fam_type_imp)	Yes / No
marital	Adult marital status	Married / divorced or separated / widowed / never married / unmarried couple
Region*	County type	Urban / suburban / rural Appalachian / rural non-Appalachian
chronic	Adult has history of chronic conditions (composite variable created from D41, D43, D43B, D41a, D41B, D41D, D47)	Yes / No
shcn_a	Adult special health care needs (recoded from spechcn_a)	Yes / No
insur_c2*	Child insurance type/status (recoded from i_type_c_imp)	Medicaid / ESI / Private or other / Uninsured
age_c_imp*	Child's age	<1 / 1-5 / 6-12 / 13-18
PI48_IMP*	Child gender	Male / Female
race_c4*	Child's race/ethnicity (recoded from RACES_C_IMP)	White / African-American / Hispanic / Other
shcn_c	Child special health care needs	Yes / No

Note: missing data / unusable data codes (e.g., “don’t know”) are not included; see “OMAS-PCMH 2016 report: Stata syntax files” for more information. *Variables imputing missing data. Please contact GRC for details.