



2014 Ohio's Medicaid Managed Care Program Quality of Life Survey Report

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CONTENTS

1. Executive Summary	1-1
Background	1-1
Findings	1-3
General Conclusions	1-4
Recommendations for Quality Improvement	1-4
Recommendations for Future Study.....	1-5
2. Introduction	2-1
Background	2-1
Purpose of Study.....	2-2
3. Methodology.....	3-1
Survey Instrument	3-1
Study Indicators	3-1
Sampling Procedures.....	3-4
Survey Administration Methods	3-6
Data Analysis	3-7
4. Results	4-1
Survey Dispositions and Response Rates	4-1
Demographics	4-2
Respondent/Non-Respondent Analysis	4-9
ABD MCP-Level Comparative Analysis Results	4-12
ABD and CFC Ohio Medicaid Managed Care Program-Level Comparative Analysis Results	4-33
5. Summary.....	5-1
ABD MCP-level Comparative Analysis Results.....	5-1
ABD and CFC Ohio Medicaid Managed Care Program-Level Comparative Analysis Results	5-2
6. Conclusions and Recommendations	6-1
General Conclusions	6-1
Cautions and Limitations	6-2
Recommendations for Quality Improvement	6-3
Recommendations for Future Study.....	6-6
Quality Improvement References.....	6-7
Appendix A. Survey Questions	A-1
CHQ-PF50	A-1
Supplemental Questions	A-2

1. EXECUTIVE SUMMARY

Background

The Ohio Department of Medicaid (ODM) administered a Quality of Life (QoL) Survey in the summer of 2014 to the Aged, Blind, or Disabled (ABD) and Covered Families and Children (CFC) child populations in all managed care plans (MCPs) in Ohio's Medicaid Managed Care Program.¹⁻¹ The goal of the QoL Survey was to evaluate the health-related QoL experiences of children with chronic or disabling health conditions who were enrolled in the Ohio Medicaid Managed Care Program (the program) in an effort to better understand this population's healthcare needs and identify potential areas to target quality improvement activities. Data were collected by population – ABD child members and CFC child members. ABD child members were surveyed at the MCP-level to provide detailed data for a baseline assessment, while CFC child members were surveyed at the program-level to allow for a comparative analysis of the two populations. A proxy measure (i.e., receipt of Social Security Income [SSI] disability benefits) was used to indicate the presence of a disabling or chronic condition. The study was conducted under a contract with Health Services Advisory Group, Inc. (HSAG).

The QoL Survey instrument chosen by ODM was the Child Health Questionnaire – Parent Form 50 (CHQ-PF50[®]), which was developed by HealthActCHQ, Inc. and measures 14 unique physical and psychosocial concepts.¹⁻² ODM added supplemental questions that addressed disease prevalence and child and respondent demographics.¹⁻³ The survey instrument was comprised of a total of 74 questions (50 CHQ-PF50 questions and 24 supplemental questions). Five MCPs participated in the 2014 QoL Survey, as listed in Table 1-1 below.

Participating MCPs	
MCP Name	MCP Abbreviation
Buckeye Community Health Plan	Buckeye
CareSource	CareSource
Paramount Advantage	Paramount
Molina Healthcare of Ohio, Inc.	Molina
UnitedHealthcare Community Plan of Ohio, Inc.	UnitedHealthcare

Parents or caretakers of child members from each MCP completed the survey from June to September 2014. The survey process allowed parents or caretakers two methods by which they could complete the survey (survey mailings followed by telephone interviewing of non-respondents). The survey results were case-mix adjusted to account for differences in child member demographics and chronic medical conditions. The results summarize member

¹⁻¹ The CFC and ABD populations were limited to child members receiving Supplemental Security Income (SSI).

¹⁻² ©2014 HealthActCHQ, Inc., Boston, MA USA. All rights reserved.

¹⁻³ HSAG received permission from the developers to add supplemental questions after the last question of the CHQ-PF50 survey instrument.

experiences through two global ratings, 11 composite measures, two individual items, and two summary measures.

A total of 3,287 completed surveys were returned. Table 1-2 provides the total number of completed surveys and corresponding response rates for each ABD MCP, the ABD population, and the CFC population.¹⁻⁴

Table 1-2 Total Number of Completed Surveys and Response Rates		
	Number of Completed Surveys	Response Rates
Total	3,287	33.43%
ABD Population	2,658	32.47%
Buckeye	535	32.64%
CareSource	575	35.13%
Paramount	524	32.05%
Molina	535	32.60%
UnitedHealthcare	489	29.93%
CFC Population	629	38.21%

¹⁻⁴ ABD results are reported at the MCP and population levels while CFC results are reported at the population level (only).

Findings

MCP-Level Findings (ABD Only)

The following is an overview of the key ABD MCP findings:

- ◆ Over 85 percent of the parents or caretakers that completed a survey on behalf of their child were Female.
- ◆ Approximately 70 percent of child members were Male.
- ◆ Approximately 70 percent of child members were between the age of 11 and 18.
- ◆ Approximately 21 percent of child members had zero chronic conditions, while approximately 54 percent had three or more (among 14 chronic conditions assessed by the survey).
- ◆ Attention deficit disorder/attention deficit hyperactivity disorder (61.1 percent), allergies (47.2 percent), and depression, anxiety, or other emotional problems (46.7 percent) were the most prevalent chronic conditions.
- ◆ Buckeye scored significantly higher than the ABD population on three composite measures: 1) Role/Social Limitations—Emotional/Behavioral, 2) Self-Esteem, and 3) Parental Impact—Emotional. Also, Buckeye scored significantly higher than the ABD population on the psychosocial (PSY) summary score.
- ◆ CareSource scored significantly lower than the ABD population on the Parental Impact—Emotional composite measure.
- ◆ Paramount scored significantly lower than the ABD population on three composite measures: 1) Role/Social Limitations—Physical, 2) General Health Perceptions, and 3) Parental Impact—Time.

Program-Level Findings (ABD and CFC)

The following is an overview of the key ABD and CFC program-level findings:

- ◆ For all of the measures (i.e., global ratings, composite measures, and individual items), the ABD population mean score was slightly less than the CFC population mean score. In addition, the ABD population mean score was statistically lower than the CFC population mean score for 10 measures.
- ◆ The ABD population mean score was statistically lower than the CFC population mean score for the physical (PHY) and PSY summary scores.
- ◆ Approximately 21 percent of ABD and 18 percent of CFC child members had zero chronic conditions, while approximately 54 percent of ABD and 55 percent of CFC child members had three or more (among 14 chronic conditions assessed by the survey).
- ◆ The top three chronic medical conditions were the same for the ABD and CFC populations: 1) attention deficit disorder/attention deficit hyperactivity disorder; 2) allergies; and 3) depression, anxiety, or other emotional problems. However, the top condition for the ABD population was 6.1 percent lower in the CFC population.

General Conclusions

The ABD MCP-level comparative analysis revealed little variation among MCP results. In addition, few MCP results were statistically different from the overall ABD population results (four Buckeye rates were statistically higher, while one CareSource rate and three Paramount rates were statistically lower). When comparing the CFC and ABD populations, the CFC population scored slightly higher than the ABD population on most measures; however, the scores for the two populations were very similar. For both populations, measures assessing physical health received the highest scores, while measures evaluating behavioral issues received the lowest scores. These results confirm the importance of monitoring QoL in this population of members experiencing significant morbidity due to both physical and mental health conditions.

Caution should be exercised when interpreting the findings presented in the 2014 QoL Survey Report. For example, results presented may show statistically significant differences between the MCPs' rates; however, this does not mean that these differences are clinically significant. The results examine whether parents or caretakers of child members of various MCPs report differences in QoL; these differences may not be directly attributable to the MCP. Furthermore, results and conclusions are based on self-reported data and are limited to those child members whose parents or caretakers completed a survey.

Recommendations for Quality Improvement

The results of the QoL survey suggest an opportunity exists to improve the health-related QoL of child members with chronic or disabling health conditions. Quality improvement (QI) strategies should focus on providing services to child members and their families, and target children with emotional, behavioral, attention, and/or learning difficulties. The recommendations below are provided to MCPs for their consideration in guiding the development of strategies and interventions to improve the health-related QoL of children with chronic or disabling conditions.

Coordination of Behavioral Health Services—MCPs should develop a structured approach to coordinating care for children with chronic conditions who also need behavioral health services. MCPs should consider implementing processes and training care managers to assist consumers and their families with referrals and linkage to behavioral health services and community resources. MCPs should consider strategies to train care managers to encourage coordination between primary care and behavioral health providers.

Patient- and Family-Centered Care—In order to provide integrated and coordinated care, MCPs should focus on patient- and family-centered care strategies. This type of care depends on collaboration and coordination among patients, families, physicians, and care management teams in order to plan, deliver, and evaluate the care of children with chronic conditions. Particularly, MCPs should focus on implementing patient- and family-centered care strategies into the following: 1) care manager training, and 2) parent and family support groups.

Recommendations for Future Study

HSAG recommends a follow-up study in 2016 to further assess the health-related QoL of child members with chronic or disabling health conditions in Ohio's Medicaid Managed Care Program. HSAG recommends the following evaluations for ODM's consideration:

- ◆ **Trend Evaluation:** Repeat a simple random sample of eligible child members from each MCP for the ABD population and the program-level simple random sample for the CFC population. Trend the 2016 results for each MCP and the program to the 2014 results to determine if there are significant changes in parents' or caretakers' perceptions of their child's QoL.
- ◆ **Longitudinal Change Score Evaluation:** Re-administer the survey to respondents from the 2014 survey. Derive physical and psychosocial change scores for each respondent. Determine whether or not MCP-level and program-level differences exist based on a statistical comparison of the change scores.

2. INTRODUCTION

Background

ODM serves as the single state agency responsible for implementation and administration of the Ohio Medicaid program. Ohio Medicaid has incorporated the use of managed care since 1978 to enhance system accountability for access and quality, and manage Medicaid costs. ODM contracts with MCPs to provide medically-necessary Medicaid-covered services to Medicaid managed care members. ODM is responsible for monitoring MCP compliance with state and federal regulations, evaluating MCP performance, and improving the quality of care and services delivered to members enrolled in Medicaid managed care.

Ohio's Medicaid Managed Care Program members belong to either the ABD population, the CFC population, or the Adult Extension population. People who are elderly, blind, or who have a disability are categorized as ABD Medicaid. ABD child members typically have chronic or disabling medical conditions that require expensive healthcare needs. On the other hand, the CFC child population is relatively healthy and typically uses the same health services as the general child population.

Since the inception of Ohio's Medicaid Managed Care Program in 1978, CFC children have been enrolled in MCPs. ABD children, however, are relatively new to the program. Effective July 1, 2013, approximately 37,000 ABD children transitioned from fee-for-service Medicaid to Medicaid Managed Care (ABD children who are eligible for Medicaid on waivers, or reside in institutional settings, or receive both Medicare and Medicaid benefits are excluded from enrollment). As of the fall of 2014, approximately 34,000 ABD child members and roughly 1 million CFC child members were enrolled in a Medicaid managed care plan.²⁻¹ As indicated above, ABD child members typically have chronic or disabling health conditions. Due to the sheer size of the CFC population, a small percentage but significant number of CFC child members does as well.

²⁻¹ These enrollment numbers were derived from October 2014 vendor files using October 22, 2014 as the active enrollment date.



Purpose of Study

The purpose of this study was to evaluate the health-related QoL experiences of children with chronic or disabling health conditions who were enrolled in the Ohio Medicaid Managed Care Program. Study findings are intended to foster a better understanding of this population's healthcare needs and to help identify potential areas to target quality improvement activities.

In conducting this study, ODM chose to focus on the ABD child population because of the relatively recent inclusion of ABD children in Ohio's Medicaid Managed Care Program. The ABD child population was assessed at a granular level (i.e., MCP level) to provide detailed data for a baseline assessment of ABD child members. However, ODM recognized that a small percentage, but significant number, of CFC children enrolled in Medicaid MCPs also have special healthcare needs. For this reason, ODM was interested in a comparison of ABD and CFC child members with chronic or disabling health conditions. The CFC child population was assessed at the program-level, which allowed for a comparison of the two populations. ODM used the "receipt of Social Security Income (SSI) disability benefits" as a proxy for determining chronic or disabling health conditions when selecting members for participation in the study.

3. METHODOLOGY

Survey Instrument

HSAG worked with ODM to select an existing valid and reliable survey instrument that could be used to evaluate the QoL of children with chronic or disabling health conditions in a Medicaid population. HSAG focused on researching QoL surveys that could be completed by parents or caretakers on behalf of the child. ODM selected the CHQ-PF50, which was developed by HealthActCHQ, Inc. for children 5 to 18 years of age, to conduct this baseline study. The CHQ-PF50 was chosen for the following reasons:

- ◆ Includes standardized scoring that consists of two summary component scores (i.e., physical functioning and psychosocial health).
- ◆ Used in large, population-based research efforts.
- ◆ Ability to study the ABD and CFC child populations over a period of time into adulthood. The CHQ can be mapped to the Short Form 36 Health Survey (SF-36), allowing for longitudinal measurement.
- ◆ Addresses key topics to assess QoL for a child population for a baseline study, including physical functioning, social limitations (physical, emotional, and behavioral), limitations in school, behavior, general health perceptions, and change in health.
- ◆ Underwent rigorous assessment of psychometric properties of the module, including the distribution of responses, item convergent and discriminant validity, floor and ceiling effects, reliability, and validity.

ODM added supplemental questions that addressed disease prevalence, and child and respondent demographics.³⁻¹ The final survey instrument was comprised of 74 questions covering the domains described in further detail in the Study Indicators section below. See Appendix A for a list of the survey questions.

Study Indicators

The following study indicators (i.e., domains) are captured within the CHQ-PF50:

- ◆ General Health
- ◆ Behavior
- ◆ Physical Functioning
- ◆ Role/Social Limitations—Physical
- ◆ Role/Social Limitations—Emotional
- ◆ Role/Social Limitations—Behavioral
- ◆ Bodily Pain/Discomfort
- ◆ Parental Impact—Time

³⁻¹ HSAG received permission from the developers to add supplemental questions after the last question of the CHQ-PF50 survey instrument.

- ◆ Parental Impact—Emotional
- ◆ Self-Esteem
- ◆ Mental Health
- ◆ Family Activities
- ◆ Change in Health
- ◆ Family Cohesion

The domains have been broken out into global ratings, composite measures, and individual items. Table 3-1 provides the CHQ-PF50 survey questions used to evaluate each global rating, composite measure, and individual item.³⁻²

Table 3-1
CHQ-PF50 Survey Questions, Domains, and Measure Type

Survey Questions	Domain	Measure Type
In general, how would you rate your child's health?	General Health	Global Rating
Has your child been limited in any of the following activities due to health problems - doing things that take a lot of energy, such as playing soccer or running; doing things that take some energy such as riding a bike or skating; ability (physically) to get around the neighborhood, playground, or school; walking one block or climbing one flight of stairs; bending, lifting/stooping; taking care of him/herself?	Physical Functioning	Composite Measure
Has your child's school work or activities with friends been limited in any of the following ways due to emotional difficulties or problems with his/her behavior - limited in the kind of schoolwork or activities with friends he/she could do; limited in the amount of time he/she could spend on schoolwork or activities with friends; limited in performing schoolwork or activities with friends?	Role/Social Limitations (Emotional)	Composite Measure
Has your child's school work or activities with friends been limited in any of the following ways due to problems with his/her physical health - limited in the kind of schoolwork or activities with friends he/she could do; limited in the amount of time he/she could spend on schoolwork or activities with friends?	Role/Social Limitations (Physical)	Composite Measure
How much bodily pain or discomfort has your child had? How often has your child had bodily pain or discomfort?	Bodily Pain/Discomfort	Composite Measure
How often did each of the following statements describe your child - argued a lot; had difficulty concentrating or paying attention; lied/cheated; stole things; had tantrums?	Behavior	Composite Measure
Compared to other children your child's age, in general how would you rate his/her behavior?	Global Behavior Item	Global Rating
How much of the time do you think your child: felt like crying; felt lonely; acted nervous; bothered or upset; cheerful?	Mental Health	Composite Measure

³⁻² ©2014 HealthActCHQ, Inc., Boston, MA USA. All rights reserved. Reproduced with specific written permission.

Table 3-1
CHQ-PF50 Survey Questions, Domains, and Measure Type

Survey Questions	Domain	Measure Type
How satisfied do you think your child has felt about: his/her school ability; athletic ability; friendships; looks/appearance; family relationships; life overall?	Self-esteem	Composite Measure
My child seems to be less healthy than other children I know; My child has never been seriously ill; When there is something going around my child usually catches it; I expect my child will have a very healthy life; I worry more about my child's health than other people.	General Health	Composite Measure
Compared to one year ago, how would you rate your child's health now?	Change in Health	Individual Item
How much emotional worry or concern did each of the following cause you - your child's physical health; emotional well-being or behavior; attention or learning abilities?	Parental Impact (Emotional)	Composite Measure
Were you limited in the amount of time you had for your own needs because of your child's - physical health; emotional well-being or behavior; attention or learning abilities?	Parental Impact (Time)	Composite Measure
How often has your child's health or behavior - limited the types of activities you could do as a family; interrupted various everyday family activities; limited your ability as a family to "pick up and go"; caused tension or conflict; been a source of disagreements or arguments in your family; caused you to cancel or change plans (personal or work) at the last minute?	Family Activities	Composite Measure
In general, how would you rate your family's ability to get along with one another?	Family Cohesion	Individual Item

Sampling Procedures

The chosen survey instrument (the CHQ-PF50) was developed to assess children 5 to 18 years of age and has not been validated for use with children younger than 5 years of age. For this reason, ODM chose to restrict the members evaluated for this study to those 5 to 18 years of age. Members eligible for participation were further required to have six months of continuous enrollment (to establish sufficient program experience) and to be receiving SSI disability benefits (a proxy for chronic or disabling health conditions).

The child members eligible for sampling for the ABD and CFC populations met the following eligible population criteria at the time the samples were drawn (March 31, 2014):

ABD Population

- ◆ Were between 5 to 18 years of age as of March 31, 2014.
- ◆ Were continuously enrolled as an ABD member in the same MCP from October 1, 2013 to March 31, 2014, with no more than one gap in enrollment up to 45 days.
- ◆ Were currently enrolled in the MCP.
- ◆ Belonged to the ABD category of assistance.
- ◆ Were currently receiving SSI disability benefits.

CFC Population

- ◆ Were between 5 to 18 years of age as of March 31, 2014.
- ◆ Were continuously enrolled in the CFC category of assistance from October 1, 2013 to March 31, 2014, with no more than one gap in enrollment up to 45 days.
- ◆ Belonged to the CFC category of assistance.
- ◆ Were currently receiving SSI disability benefits.

Sampling Assumptions

For the ABD population, sampling occurred at the MCP level (i.e., five separate samples). For the CFC population, sampling occurred at the program level (i.e., one sample).

In preparing the sampling methodology and estimated sample sizes, HSAG made several assumptions based on previous survey experience with the Ohio Medicaid Managed Care Program. Sample sizes were derived with a goal of reaching at least 411 completed surveys per unit of analysis. This is consistent with the goal of achieving data that can be evaluated at a confidence interval of at least 95 percent. Table 3-2 provides an overview of each assumption used to derive the targeted sample size for each unit of analysis, as anticipated by HSAG.

Table 3-2 Sample Size Determination		
Assumption	Unit of Analysis Starting Sample Size – MCP [Statewide Total]	Unit of Analysis Remaining Sample Size - MCP [Statewide Total]
Starting Sample Size (1,650 per unit of analysis)	1,650 [9,900]	1,650 [9,900]
Inaccurate Contact Information (~10% of the original sample)	1,650 [9,900]	1,485 [8,910]
Ineligible (~5% of the remaining sample)	1,485 [8,910]	1,411 [8,465]
Response Rate of ~30% (as a conservative estimate)	1,411 [8,465]	423 [2,539]
<i>Numbers may not tie out due to rounding.</i>		

Sampling Strategy

Simple Random Sampling

A simple random sample of 1,650 child members was selected from each participating MCP (for the ABD population only). The survey samples were randomly selected with no more than one child member being identified per household. A simple random sample of 1,650 child members at the program level was selected for the CFC population. A total of 9,900 QoL Surveys were mailed out. Table 3-3 depicts the sample size for each ABD MCP, the ABD population, and the CFC population.

Table 3-3 Sample Sizes	
	Sample Size
Total	9,900
ABD Population	8,250
Buckeye	1,650
CareSource	1,650
Molina	1,650
Paramount	1,650
UnitedHealthcare	1,650
CFC Population	1,650

Survey Administration Methods

The survey administration protocol was designed to achieve a high response rate from the parents or caretakers of child members, thus minimizing the potential effects of non-response bias. The survey process allowed parents or caretakers two methods by which they could complete the survey. The first phase, or mail phase, consisted of a survey being mailed to the parents or caretakers of sampled child members. All parents or caretakers of sampled child members received an English version of the survey. A reminder postcard was sent to all non-respondents, followed by a second survey mailing and second reminder postcard to all remaining non-respondents. The second phase, or telephone phase, consisted of CATI for sampled child members whose parent or caretaker had not mailed in a completed survey. A series of up to six CATI calls was made to each non-respondent.

Prior to the first mailing, HSAG inspected a sample of records from the sample files to check for any apparent problems with the files, such as missing address elements. All sampled records were passed through the United States Postal Service's National Change of Address (NCOA) system in order to obtain new addresses for child members who had moved (if the parents or caretakers had given the Postal Service a new address). Prior to initiating CATI, HSAG employed the TeleMatch telephone number verification service to locate and/or update telephone numbers for all non-respondents.

This survey was completed using the time frame shown in Table 3-4.

Table 3-4
QoL Survey Time Frame

Basic Tasks for Conducting the Survey	Time Frame
Send first questionnaire with cover letter to parents or caretakers of child members	0 days
Send a postcard reminder to non-respondents 4 to 10 days after mailing the first questionnaire	4 – 10 days
Send a second questionnaire (and letter) to non-respondents approximately 35 days after mailing the first questionnaire	35 days
Send a second postcard reminder to non-respondents four to 10 days after mailing the second questionnaire	39 – 45 days
Initiate CATI interviews for non-respondents approximately 15 days after mailing the second questionnaire	50 days
Initiate systematic contact for all non-respondents such that up to six telephone calls are attempted at different times of the day, on different days of the week, and in different weeks	50 – 70 days
Telephone follow-up sequence completed (i.e., completed interviews obtained or maximum calls reached for all non-respondents) approximately 23 days after initiation	72 days

Data Analysis

A number of different analyses were performed to generate the QoL Survey results. This section provides a detailed discussion of each of the analyses used to generate the results.

Response Rates

The response rate is the total number of completed surveys from the random sample divided by all eligible members of the random sample. A child member's survey was assigned a disposition code of "completed" if any one question was answered within the survey. Eligible members included the entire random sample minus ineligible members. Ineligible members of the sample met at least one of the following criteria: were deceased, were not enrolled in an ABD MCP or the CFC population, or had a language barrier.

$$\text{Response Rate} = \frac{\text{Number of Completed Surveys from Random Sample}}{\text{Random Sample - Ineligibles}}$$

Demographics

Demographic information was used to case-mix adjust results, identify child member and respondent profiles, perform a respondent/non-respondent analysis, and calculate physical and psychosocial summary scores. Child members' demographic characteristics were analyzed with regards to age, gender, race, ethnicity, and general health status. Age, gender, race, and ethnicity were derived from the sample frame files provided by ODM, while general health status was derived from responses to the QoL Survey. The demographic characteristics of respondents that completed the QoL Survey for child members were analyzed by age, gender, and education. Respondent age, gender, and education were derived from responses to the QoL Survey. For both the respondents and child members, ABD data were displayed at the MCP and program levels, and CFC data were displayed at the program level.

Chronic Medical Conditions Prevalence

Data related to chronic medical conditions was used to case-mix adjust results and determine general prevalence information. For each chronic medical condition in the QoL survey listed below, the percentage of respondents who marked "Yes" was calculated to determine the prevalence in the survey population. Additionally, the number of chronic conditions present in the survey population was calculated.

The list of chronic medical conditions was generated by ODM based on an analysis of claims data. Based on the analysis of the claims data, HSAG and ODM collaborated to determine the most appropriate conditions to include in the survey.

- ◆ Attention deficit disorder/attention deficit hyperactivity disorder
- ◆ Depression, anxiety, or other emotional problems

- ◆ Intellectual disability
- ◆ Autism or autism spectrum disorder
- ◆ Allergies
- ◆ Asthma
- ◆ Migraine or frequent headaches
- ◆ Seizure disorder
- ◆ Joint problems
- ◆ Heart problems
- ◆ Diabetes
- ◆ Obesity
- ◆ Hearing impairment or deafness
- ◆ Visual impairment or blindness

A rate was derived for each chronic condition listed above based on the total number of respondents who responded “Yes” to a doctor having ever told them their child has the particular condition divided by the total number of respondents who completed the question (i.e., answered “Yes” or “No”).

$$\text{Condition-Specific Rate} = \frac{\text{Number of “Yes” responses for condition}}{\text{Number of respondents who completed condition question}}$$

The distribution of respondents with multiple chronic conditions also was evaluated (i.e., the total number of chronic conditions for each respondent). The number of chronic conditions was determined by summing the total number of “Yes” responses to the chronic condition questions in the survey. A respondent was assigned a chronic condition category of “None” if he/she did not respond “Yes” to any one of chronic condition questions, but had at least one response of “No” to the chronic conditions questions in the survey. The survey also included an opportunity for respondents to write in additional medical conditions not listed above. The percentage of respondents who marked “Yes” to this question was presented as “Other” for the chronic condition analysis.

Respondent/Non-Respondent Analysis

An analysis of the demographic characteristics of the respondents and non-respondents to the QoL Survey was conducted. The demographic information analyzed was derived from the ODM sample frame file and survey responses. This analysis was used to determine the magnitude of any non-response bias.

Hypothesis Testing

One type of hypothesis test was applied to the results in the Respondent/Non-Respondent section. A t test was performed to determine whether the percentage of respondents within a particular demographic subcategory was significantly different from the percentage of non-respondents. A statistically significant difference between these two populations may indicate that the potential for non-response bias exists.

The t statistic was:

$$t = \frac{\bar{X}_1 - \bar{X}_2}{s_{\bar{X}_1 - \bar{X}_2}}$$

where: $s_{\bar{X}_1 - \bar{X}_2} = \sqrt{\left(\frac{s_1^2(n_1-1) + s_2^2(n_2-1)}{n_1+n_2-2}\right)\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}$

with $n_1 + n_2 - 2$ degrees of freedom.

S_1 = standard deviation of respondents

S_2 = standard deviation of non-respondents

n_1 =number of respondents

n_2 =number of non-respondents

Assignment of Arrows

Arrows were assigned to MCP respondent percentages to indicate whether there were statistically significant differences between the respondent percentages within a particular demographic subcategory and the non-respondent percentages for that MCP. Arrows also were assigned to the program-level (ABD and CFC populations, separately) respondent percentages to indicate whether there were statistically significant differences between the respondent percentages within a particular demographic subcategory and the non-respondent percentages. The difference between the respondent and non-respondent percentages was considered significant if the two-sided p value of the t test was less than 0.05. MCP-level and program-level percentages for the respondent population that were statistically higher than the non-respondent population were noted with upward (\uparrow) arrows. MCP-level and program-level percentages for the respondent population that were statistically lower than the non-respondent population were noted with downward (\downarrow) arrows. MCP-level and program-level percentages for the respondent population that were not statistically different than the non-respondent population were not noted with arrows.

Scoring the CHQ-PF50

Rates were calculated for the global ratings, composite measures, individual items, and PHY and PSY summary measures based on responses to the QoL survey. The following measures were scored according to the CHQ-PF50 Scoring Manual before rates were calculated.³⁻³

- ◆ Global Rating Measures
 - Global Health
 - Global Behavior Item
- ◆ Composite Measures
 - Physical Functioning
 - Role/Social Limitations—Emotional/Behavioral
 - Role/Social Limitations—Physical
 - Bodily Pain/Discomfort
 - General Behavior
 - Mental Health
 - Self-Esteem
 - General Health Perceptions
 - Parental Impact—Emotional
 - Parental Impact—Time
 - Family Activities*
- ◆ Individual Items
 - Change in Health*
 - Family Cohesion*
- ◆ PHY and PSY Summary Measures

Global Ratings and Individual Items Scoring and Rate Calculation

The following is a description of how the global ratings and individual items listed above were scored:

Step 1: Cleaned the data so that scores outside of the allowable response options were set to missing.

Step 2: Recalibrated the scores as outlined in the CHQ Scoring and Interpretation Manual.

Step 3: Transformed the recalibrated scores to a standardized 0 to 100 scale using the following formula:³⁻⁴

³⁻³ HealthActCHQ. The CHQ Scoring and Interpretation Manual. Boston, MA: HealthActCHQ, 2013.

* These items are not included in the calculation of the PHY and PSY Summary Measures.

³⁻⁴ Transformed scores for all scales range from 0 to 100, with a higher score indicating better health; however, the Change in Health Individual Item is not transformed and has a scale of 0 to 5, with a higher score indicating better health.

$$\left[\frac{\text{Recalibrated Score} - 1}{\text{Maximum Response Option} - 1} \right] * 100$$

Composite Measures Scoring and Rate Calculation

The following is a description of how the composite measures were scored:

Step 1: Cleaned the data so that scores outside of the allowable response options were set to missing.

Step 2: Recalibrated the scores as outlined in the CHQ Scoring and Interpretation Manual.

Step 3: If a member was missing responses to more than half of the composite items within the composite measure, a composite measure score was not calculated for that member. For members with responses to at least half of the composite items, a composite measure score was calculated as the mean of all non-missing composite items.

Step 4: Transformed the composite measure score to a standardized 0 to 100 scale using the following formula.³⁻⁵

$$\left[\frac{\text{Composite Measure Score} - 1}{\text{Maximum Response Option} - 1} \right] * 100$$

Physical and Psychosocial Summary Measures Scoring and Rate Calculation

The PHY and PSY summary measures scores consist of combined scores using 10 composite measures, depicted in Figure 3-1, to calculate the PHY and PSY summary measures. The following three steps were performed:

Step 1: If a member has a missing value for any of the composite measures, then PHY and PSY summary measure scores were not calculated for those members.

Step 2: Scores were standardized using the population means and standard deviations provided in the CHQ Scoring and Interpretation Manual.³⁻⁶

Step 3: Calculated aggregate PHY and PSY scores by calculating a weighted sum of the measure scores, using the factor score coefficients provided in the CHQ Scoring and Interpretation Manual.³⁻⁷

Step 4: Transformed the aggregate scores by multiplying the score by 10 and then adding 50.

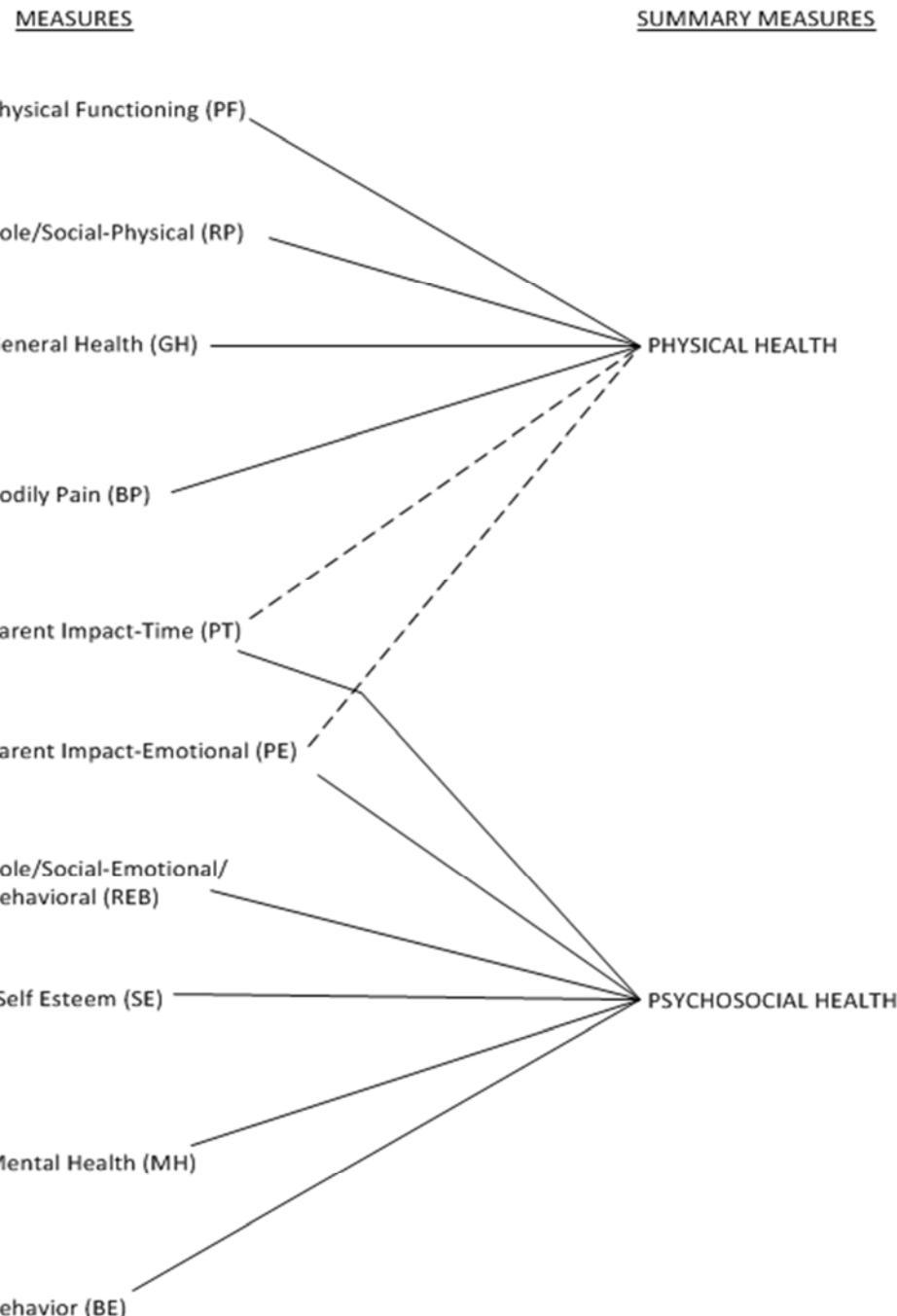
The measures (i.e., domains) listed on page 3-10 are summarized into two categories – Physical Health (i.e., PHY) and Psychosocial Health (i.e., PSY). Figure 3-1, on the following page, provides a visual depiction of the domains that comprise the PHY and PSY summary measures.

³⁻⁵ Transformed scores for all scales range from 0 to 100, with a higher score indicating better health.

³⁻⁶ HealthActCHQ. The CHQ Scoring and Interpretation Manual. Boston, MA: HealthActCHQ, 2013.

³⁻⁷ Ibid.

Figure 3-1 – CHQ-PF50 Measurement Model^{3-8,3-9}



- ³⁻⁸ The dotted lines in the figure indicate that the Parental Impact—Time and Parental Impact—Emotional measures correlate highest with the psychosocial component but also have secondary correlations with the physical component.
- ³⁻⁹ Reproduced with permission from the Child Health Questionnaire (CHQ) Scoring and Interpretation Manual © 2013 HealthActCHQ, Inc., Boston, MA. All rights reserved.

Calculation of Adjusted Scores

Case-mix-adjusted results are reported for all measures in the Results sections (i.e., ABD MCP-Level Comparative Analysis Results, and ABD and CFC Ohio Medicaid Managed Care Program-Level Comparative Analysis Results).

The QoL Survey can be used as a tool to identify differences in the QoL of comparative groups (i.e., the MCPs and the program [both ABD and CFC populations]). However, the characteristics of members can influence the survey results. Certain characteristics have been shown to impact responses to questions. Given that differences in case mix may lead to varied QoL results among the comparative groups, the scores were adjusted to minimize the effect of these child member characteristics on the MCP-level results and the program-level (both ABD and CFC populations) results. By accounting for differences in child member characteristics, case-mix adjustment enhances the comparability of QoL results among the comparative groups.

Case-mix adjustment was performed on the scores for the 15 measures using standard regression techniques (i.e., covariance adjustment). Scores were adjusted to control for differences in child member demographic characteristics, child member chronic medical conditions, and one study design variable:

- ◆ Demographic characteristics (age, gender, race, and ethnicity).
- ◆ Chronic medical conditions (measured using a list of 14 medical conditions).
- ◆ Study design variable (mode of survey administration).

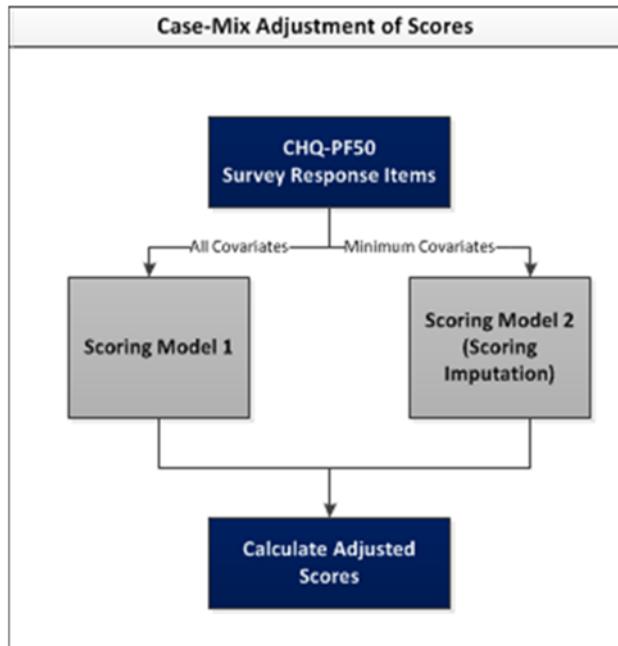
The following two models were used to adjust the scores:

Model One: If a child member has complete data for all of the covariates, then the adjusted scores were calculated using Model One, which contains all variables (i.e., age, gender, race, ethnicity, chronic medical condition prevalence [14 conditions], and mode of survey administration).

Model Two: If a child member does not have complete data for Model One, then Model Two was used. The variables included in Model Two, which were available for all members being sampled, including age, gender, race, ethnicity, and mode of survey administration.

Figure 3-2 provides a high-level overview of the CHQ-PF50 case-mix-adjusted analysis.

Figure 3-2 – CHQ-PF50 Case-Mix-Adjusted Analysis



Only one model, the most comprehensive model, was used for each child member to calculate an adjusted score. Table 3-5, on the following page, describes the covariates that were used to calculate adjusted scores.

Table 3-5
Case-Mix Adjustment Models

Survey Questions	Data Source	Models	
		One ¹	Two
Demographic Covariates			
Age	Administrative	X	X
Gender	Administrative	X	X
Race	Administrative	X	X
Ethnicity	Administrative	X	X
Chronic Medical Conditions			
Attention deficit disorder/attention deficit hyperactivity disorder	Survey	X	
Depression, anxiety, or other emotional problems	Survey	X	
Intellectual disability	Survey	X	
Autism or autism spectrum disorder	Survey	X	
Allergies	Survey	X	
Asthma	Survey	X	
Migraine or frequent headaches	Survey	X	
Seizure disorder	Survey	X	
Joint problems	Survey	X	
Heart problems	Survey	X	
Diabetes	Survey	X	
Obesity	Survey	X	
Hearing impairment or deafness	Survey	X	
Visual impairment or blindness	Survey	X	
Study Design Variable			
Mode of Survey Administration (Mail or Telephone)	Survey Administration	X	X
Notes: Administrative data source comes from ODM administrative data. Mode of Survey Administration is captured during survey administration. Survey data source comes from 2014 QoL Survey.			

¹All covariates in Case-Mix Adjustment Model One were analyzed to determine if they are significant to the model.

The model below illustrates the adjustment of the scores:

$$y_{ipj} = \beta'_i x_{ipj} + \mu_{ip} + \varepsilon_{ipj}$$

In this equation, y_{ipj} represents the score of respondent j , who is a member of MCP or program p , to score i ; β'_i is a regression coefficient vector; x_{ipj} is a covariate vector which consists of the adjuster covariates; μ_{ip} is an intercept parameter for MCP or program p ; and ε_{ipj} is the error term.

The equation below provided the estimates derived from the above model:

$$(\hat{\beta}'_i \hat{\mu}'_i)' = (\mathbf{X}'\mathbf{X})^{-1} \mathbf{X}'\mathbf{y}_i$$

In this equation, $\mu_i = (\mu_{i1}, \mu_{i2}, \dots, \mu_{ip})'$ is the vector of intercepts, \mathbf{y}_i is the vector of the scores i , and \mathbf{x} is the covariate matrix represented by the equation below:

$$\mathbf{X} = (\mathbf{X}_a \ u_1 \ u_2 \ \dots \ u_p)$$

In this equation, the vectors of values for each of the adjuster covariates were represented by the columns of \mathbf{X}_a , and $u_1 \ u_2 \ \dots \ u_p$ is a vector of indicators of membership in MCP or program p , $p = 1, 2, \dots, P$, with values equal to one for respondents in MCP or program p and values of zero for respondents not in MCP or program p .

The estimated intercepts were then shifted by a constant value in order to cause their means to equal the mean of the unadjusted MCP or program means, \bar{y}_{ip} . This facilitated comparability between the adjusted and unadjusted MCP or program means. The adjusted MCP or program means, \hat{a}_{ip} , were computed using the equation below:

$$\hat{a}_{ip} = \hat{\mu}_{ip} + (1/P) \sum_p \bar{y}_{ip} - (1/P) \sum_p \hat{\mu}_{ip}$$

ABD MCP-level Comparative Analysis

Global Ratings, Composite Measures, and Individual Items

An overall mean was calculated for each global rating, composite measure, and individual item in accordance with the instructions and algorithms provided in the CHQ Scoring and Interpretation Manual. Please refer to the steps for scoring the global ratings, composite measures, and individual items starting on page 3-10. The program-level mean for the ABD population was calculated as the average of the MCP-level means weighted by each MCP's sample frame size.

Comparative Hypothesis Testing

A comparative analysis was performed to compare the MCP-level mean adjusted scores to the program-level average score to determine whether there were statistically significant differences between the scores for each MCP and the program-level average for the ABD population. Two types of hypothesis tests were applied to the mean adjusted scores. First, a global F test was calculated, which determined whether the difference between MCP scores was significant.

The F statistic was determined using the formula below:

$$F = (1/(P-1)) \sum_p (\hat{\mu}_p - \hat{\mu})^2 / \hat{V}_p$$

The F statistic, as calculated above, had an F distribution with $(P - 1, q)$ degrees of freedom, where q is equal to n/P (i.e., the average number of respondents in an MCP). For purposes of this analysis, an alpha-level of 0.05 was used. If the F test demonstrates MCP-level differences (i.e., $p < 0.05$), then a t test was performed for each MCP.

A t test was used to determine whether each MCP's mean adjusted score was significantly different from the overall mean scores of the other participating MCPs. For the detailed t test formula, please refer to the Hypothesis Testing section on page 3-9.

Assignment of Arrows

Arrows were assigned to each MCP's mean adjusted scores to indicate whether there were statistically significant differences between the MCP-level mean adjusted scores and the program-level average scores for the ABD population. The difference in MCP-level mean adjusted scores and the program-level average scores for the ABD population was considered significant if the two-sided p value of the t test was less than 0.05. MCP-level mean scores significantly higher than the program-level average mean scores for the ABD population were noted with upward (\uparrow) arrows. MCP-level mean scores significantly lower than the program-level average mean scores for the ABD population were noted with downward (\downarrow) arrows. MCP-level mean scores that are not statistically different from the program-level average mean scores for the ABD population were not noted with arrows.

Physical and Psychosocial Summary Measures

A comparative analysis was performed to compare the MCP-level mean adjusted PHY and PSY scores to the program-level average mean PHY and PSY scores to determine whether there were statistically significant differences between the scores for each MCP and the program-level average for the ABD population. Statistically significant differences between the MCP-level scores and the program-level average scores for the ABD population were noted with arrows.

Furthermore, the PHY and PSY scores were stratified at the MCP- and program-level (for the ABD population) by number of chronic medical conditions and select demographic categories (i.e., age, gender, race, and ethnicity).

ABD and CFC Ohio Medicaid Managed Care Program-Level Comparative Analysis

HSAG conducted a comparative analysis of ABD and CFC results at the Ohio Medicaid Managed Care Program-level. The same measures and t test methodology described above in the ABD MCP-level Comparative Analysis Results section were used to compare case-mix-adjusted program-level results for the ABD and CFC populations

Global Ratings, Composite Measures, Individual Items, and Physical and Psychosocial Summary Measures

A case-mix adjusted overall mean was calculated for each global rating, composite measure, individual item, and PHY and PSY summary measure at the ABD and CFC program-level. The same scoring techniques, described starting on page 3-10, were used to calculate the Program-level



mean for the CFC population. The program-level mean for the ABD population was calculated as the average of the MCP-level means weighted by each MCP's sample frame size.

A comparative analysis was performed to compare the ABD program-level scores to the CFC program-level scores for the measures to determine whether there were statistically significant differences between the scores. A *t* test was performed for this analysis to compare program-level results for the ABD and CFC populations.

Additionally, the ABD program-level and CFC program-level PHY and PSY scores were stratified by number of chronic medical conditions and select demographic categories (i.e., age, gender, race, and ethnicity).

4. RESULTS

Survey Dispositions and Response Rates

The administration of the QoL Survey was comprehensive and designed to achieve the highest possible response rate. The response rate is the total number of completed surveys divided by all eligible members of the sample. A child member's survey was assigned a disposition code of "completed" if any one question was answered within the survey. Eligible members included the entire random sample minus ineligible members. Ineligible members of the sample met at least one of the following criteria: were deceased, were not enrolled in an MCP or the CFC population, or had a language barrier. For additional information on the calculation of a completed survey and response rates, please refer to the Methodology section of this report.

Table 4-1 depicts the response rates for each ABD MCP, the ABD population, and the CFC population.

Table 4-1 Response Rates	
	Response Rates
Total	33.43%
ABD Population	32.47%
Buckeye	32.64%
CareSource	35.13%
Paramount	32.05%
Molina	32.60%
UnitedHealthcare	29.93%
CFC Population	38.21%

Table 4-2 depicts the total number of completed surveys for each ABD MCP, the ABD population, and the CFC population.

Table 4-2 Total Number of Completed Surveys	
	Number of Completed Surveys
Total	3,287
ABD Population	2,658
Buckeye	535
CareSource	575
Paramount	524
Molina	535
UnitedHealthcare	489
CFC Population	629

Demographics

The Demographics section depicts the characteristics of child members for whom a survey was completed and the respondents (parents or caretakers) who completed the QoL Survey. In general, the demographics of a response group may influence the overall results.

Demographic characteristics of a state's population have the ability to impact particular outcomes in survey data. Demographic characteristics refer to the personal characteristics of people in a particular region. Differences among Ohio's Medicaid Managed Care Program child members and/or respondents may influence results.

The demographic results in this section are presented in two subsections. The first subsection consists of two tables, Table 4-3 and Table 4-4. These tables depict child member profiles and respondent profiles. Child members' age, gender, race, and ethnicity were derived from the sample frame file provided by ODM, while general health status was derived from responses to the QoL Survey. Respondent age, gender, and education were derived from responses to the QoL Survey. The second subsection consists of two tables, Table 4-5 and Table 4-6. These tables depict the distribution of child members with chronic conditions and child members' chronic medical condition prevalence as derived from responses to the QoL Survey.

Child Member Profiles

Table 4-3 displays the demographic characteristics of child members by age, gender, race, ethnicity, and general health status. Age, gender, race, and ethnicity were derived from the sample frame file, while general health status was derived from responses to the QoL Survey.

Table 4-3 Child Member Profiles Age, Gender, Race, Ethnicity, and General Health Status							
	ABD Population	Buckeye	CareSource	Molina	Paramount	United-Healthcare	CFC Population
Age							
5 to 7†	11.4%	10.7%	11.1%	12.4%	13.5%	9.0%	15.4%
8 to 10	19.0%	20.2%	18.6%	17.7%	20.4%	17.8%	21.6%
11 to 13	23.4%	22.4%	23.0%	24.4%	23.0%	24.1%	20.3%
14 to 18	46.3%	46.7%	47.3%	45.4%	43.2%	49.1%	42.6%
Gender							
Male	69.5%	65.4%	69.0%	73.9%	70.1%	69.1%	67.1%
Female	30.5%	34.6%	31.0%	26.1%	29.9%	30.9%	32.9%
Race							
White	58.5%	60.6%	57.0%	61.1%	54.4%	59.5%	70.4%
Black	39.4%	38.3%	40.3%	37.6%	42.4%	38.0%	27.3%
Asian	0.2%	0.0%	0.3%	0.2%	0.6%	0.0%	0.6%
Other*	0.2%	0.0%	0.2%	0.0%	0.0%	0.6%	0.2%
Multi-Racial	1.8%	1.1%	2.1%	1.1%	2.6%	1.8%	1.4%
Ethnicity							
Hispanic or Latino	4.1%	2.8%	4.5%	2.5%	6.4%	4.3%	3.3%
Non-Hispanic or Latino	95.9%	97.2%	95.5%	97.5%	93.6%	95.7%	96.7%
General Health Status							
Excellent	14.9%	13.1%	15.3%	16.3%	14.1%	15.6%	16.6%
Very good	22.9%	23.3%	23.1%	22.5%	22.6%	23.4%	28.9%
Good	40.0%	40.8%	42.7%	35.1%	41.1%	40.0%	38.4%
Fair	19.7%	21.2%	17.7%	21.9%	19.7%	18.1%	14.2%
Poor	2.5%	1.7%	1.3%	4.3%	2.5%	2.9%	1.8%

†Only child members 5 to 18 years of age were included in the survey.
*The "Other" race category consists of Unknown, American Indian or Alaska Native, and Native Hawaiian or other Pacific Islander.
Please note, percentages may not total 100% due to rounding.

Table 4-3 shows the following demographic characteristics of child members at the ABD MCP, ABD population, and CFC population levels:

- ◆ CareSource, Molina, and UnitedHealthcare had a higher percentage of child members 11 to 18 years of age than the ABD population average.
- ◆ Buckeye and Paramount had a higher percentage of child members 5 to 10 years of age than the ABD population average.
- ◆ The CFC population had a lower percentage of child members 11 to 18 years of age than the ABD population average; however, the CFC population had a higher percentage of child members 5 to 10 years of age than the ABD population average.
- ◆ Molina and Paramount had more Male child members than the ABD population average.
- ◆ CareSource and Paramount had a higher percentage of child members who were Black and Multi-racial when compared to the ABD population average.
- ◆ The CFC population had a higher percentage of child members who were White when compared to the ABD population average.
- ◆ CareSource, Paramount, and UnitedHealthcare had a higher percentage of child members who were Hispanic than the ABD population average.
- ◆ Buckeye and Molina had a higher percentage of child members whose reported health status was Fair or Poor when compared with the ABD population average.
- ◆ CareSource, Molina, and UnitedHealthcare had a higher percentage of child members whose reported health status was Excellent or Very Good when compared with the ABD population average.
- ◆ The CFC population had a higher percentage of child members whose reported health status was Excellent or Very Good when compared with the ABD population average.

Respondent Profiles

Table 4-4 displays the demographic characteristics of respondents that completed the QoL Survey for each child member. Age, gender, and education were derived from responses to the QoL Survey.

Table 4-4 Respondent Profiles Age, Gender, and Education							
	ABD Population	Buckeye	CareSource	Molina	Paramount	United-Healthcare	CFC Population
Respondent Age							
Under 18	17.3%	16.7%	17.6%	18.5%	14.4%	19.5%	15.3%
18 to 24	3.7%	4.1%	3.8%	4.8%	2.6%	3.4%	3.9%
25 to 34	21.8%	22.7%	21.6%	21.9%	22.5%	20.0%	20.3%
35 to 44	32.0%	30.6%	31.4%	30.1%	34.6%	33.5%	34.7%
45 to 54	15.1%	14.0%	16.1%	13.0%	17.9%	14.5%	16.6%
55 or Older	10.1%	11.9%	9.5%	11.6%	8.1%	9.1%	9.2%
Respondent Gender							
Male	14.5%	14.8%	14.2%	14.3%	14.9%	14.6%	10.8%
Female	85.5%	85.2%	85.8%	85.7%	85.1%	85.4%	89.2%
Respondent Education							
Not a High School Graduate	29.2%	30.2%	25.3%	30.9%	31.5%	28.2%	14.9%
High School Graduate	35.3%	37.3%	34.9%	35.7%	34.5%	34.2%	37.4%
Some College	31.2%	28.9%	33.6%	30.4%	29.8%	33.2%	38.0%
College Graduate	4.3%	3.6%	6.2%	3.0%	4.2%	4.5%	9.7%
Please note, percentages may not total 100% due to rounding.							

Table 4-4 shows the following demographic characteristics of respondents at the ABD MCP, ABD population, and CFC population levels:

- ◆ The CFC population had a higher percentage of respondents 35 to 54 years of age than the ABD population average.
- ◆ The CFC population had a lower percentage of Males than the ABD population.
- ◆ Buckeye, Molina, and Paramount had a higher percentage of respondents whose self-reported education level was Not a High School Graduate than the ABD population average.
- ◆ The CFC population had a lower percentage of respondents whose self-reported education level was Not a High School Graduate than the ABD population average.
- ◆ CareSource and UnitedHealthcare had a higher percentage of respondents whose self-reported education level was College Graduate than the ABD population average.
- ◆ The CFC population had a higher percentage of respondents whose self-reported education level was College Graduate than the ABD population average.

Chronic Medical Condition Prevalence

The QoL Survey allows for the assessment of various chronic medical conditions for Ohio's Medicaid Managed Care Program. Table 4-5 shows the distribution of the number of chronic conditions parents or caretakers of child members reported, at the MCP-level (ABD population only) and program-level (ABD and CFC populations). A child member was considered to have a chronic medical condition if the parent or caretaker positively responded (i.e., answered "Yes") to any one of the 14 chronic condition questions which asked, "Has your child's doctor ever told you that your child had (the specified condition)?"

Table 4-5
Child Demographics
Number of Chronic Medical Conditions

Number of Medical Conditions	ABD Population		Buckeye		CareSource		Molina		Paramount		United-Healthcare		CFC Population	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
None	562	21.2%	109	20.4%	124	21.6%	111	21.2	123	23.0%	95	19.4%	112	17.8%
1 Condition	263	9.9%	57	10.7%	57	9.9%	55	10.5	44	8.2%	50	10.2%	78	12.4%
2 Conditions	390	14.7%	80	15.0%	66	11.5%	69	13.2	83	15.5%	92	18.8%	95	15.1%
3 Conditions	422	15.9%	90	16.8%	99	17.2%	82	15.7	80	15.0%	71	14.5%	110	17.5%
4 Conditions	364	13.7%	83	15.5%	80	13.9%	68	13.0	65	12.2%	68	13.9%	100	15.9%
5 Conditions	284	10.7%	56	10.5%	64	11.1%	56	10.7	62	11.6%	46	9.4%	63	10.0%
6 Conditions	189	7.1%	35	6.5%	48	8.3%	41	7.8%	34	6.4%	31	6.3%	36	5.7%
7 Conditions	96	3.6%	14	2.6%	15	2.6%	28	5.4%	22	4.1%	17	3.5%	24	3.8%
8 or More Conditions	86	3.2%	11	2.1%	22	3.8%	13	2.5%	21	3.9%	19	3.9%	11	1.7%

Table 4-5 reveals that approximately 21 percent of child members for the ABD child population had zero medical conditions, and approximately 54 percent of child members had three or more medical conditions. Approximately 18 percent of child members for the CFC child population had zero medical conditions, and approximately 55 percent of child members had three or more medical conditions. CareSource and Molina had a higher percentage of child members who had three or more medical conditions when compared to the ABD child population.

Table 4-6, on page 4-7, depicts the prevalence of each of the chronic medical conditions, at the MCP-level (ABD population only) and program-level (ABD and CFC populations). The prevalence of each of the chronic medical conditions was based on the total number of parents or caretakers who responded "Yes" to the question, "Has your child's doctor ever told you that your child had (the specified condition)?" divided by the total number of parents or caretakers who completed the question (i.e., answered "Yes" or "No"). Please note, child members may have had more than one chronic condition; therefore, percentages will not total to 100 percent.

Table 4-6
Child Demographics
Chronic Medical Conditions Prevalence

	ABD Population	Buckeye	CareSource	Molina	Paramount	United-Healthcare	CFC Population
Attention deficit disorder/attention deficit hyperactivity disorder	61.1%	58.0%	63.2%	58.8%	61.8%	63.7%	55.0%
Depression, anxiety, or other emotional problems	46.7%	44.9%	48.4%	47.2%	48.6%	44.1%	46.1%
Intellectual disability	38.1%	33.3%	38.5%	39.7%	41.3%	37.9%	34.4%
Autism or autism spectrum disorder	25.8%	22.7%	27.7%	26.2%	23.3%	28.9%	26.2%
Allergies	47.2%	45.2%	49.1%	48.4%	48.9%	43.9%	50.4%
Asthma	34.8%	31.7%	36.6%	34.2%	37.2%	34.2%	29.4%
Migraine or frequent headaches	20.1%	19.6%	20.5%	20.7%	22.6%	16.8%	16.0%
Seizure disorder	11.8%	13.5%	11.7%	10.2%	11.7%	11.7%	10.2%
Joint problems	14.8%	13.7%	15.7%	14.5%	15.7%	14.4%	12.2%
Heart problems	8.8%	9.2%	7.5%	7.7%	10.6%	9.1%	9.2%
Diabetes	2.6%	3.4%	3.0%	2.3%	2.1%	2.2%	2.4%
Obesity	13.7%	12.6%	14.0%	15.6%	12.4%	13.6%	10.6%
Hearing impairment or deafness	9.5%	7.7%	10.3%	11.9%	9.2%	8.4%	8.3%
Visual impairment or blindness	23.9%	25.0%	22.1%	24.4%	25.2%	23.1%	23.4%
Other	39.8%	39.4%	39.9%	39.1%	38.9%	41.8%	44.3%

In evaluating the ABD child population, the most prevalent chronic conditions observed were: 1) attention deficit disorder/attention deficit hyperactivity disorder (61.1 percent); 2) allergies (47.2 percent); and 3) depression, anxiety, or other emotional problems (46.7 percent).

In evaluating the CFC child population, the most prevalent chronic conditions observed were: 1) attention deficit disorder/attention deficit hyperactivity disorder (55.0 percent); 2) allergies (50.4 percent); and 3) depression, anxiety, or other emotional problems (46.1 percent).

The survey also included an opportunity for respondents to write in additional medical conditions not listed in the QoL Survey. Table 4-7 displays a summary of the user-specified conditions. Data in the table are combined for the ABD and CFC populations.

Table 4-7 Child Demographics User-Specified Conditions	
Condition	Frequency
Apraxia	2
Autism	2
Beta Thalassemia	2
Bipolar Disorder	33
Cancer	4
Cerebral Palsy	17
Club Foot	2
Down Syndrome	9
Fetal Alcohol Syndrome	2
High Blood Pressure	4
Lead Poisoning	3
Mood Disorder	6
Oppositional Defiant Disorder (ODD)	16
Pervasive Developmental Disorder	2
Post-Traumatic Stress Disorder (PTSD)	5
Scoliosis	5
Sickle Cell	5
Speech Problems	15
Spina Bifida	2
Thyroid	2

The following were the top responses parents or caretakers included in the survey, followed by the number of occurrences: bipolar disorder (33 times), cerebral palsy (17 times), oppositional defiant disorder (16 times), and speech problems (15 times).

Respondent/Non-Respondent Analysis

The Respondent/Non-Respondent Analysis section compares the demographic characteristics of the QoL Survey respondents to the non-respondents (i.e., child members whose parents or caretakers did or did not respond to the survey). Non-response bias refers to a difference in how respondents answer survey questions compared to how non-respondents would have answered if they had responded. This section identifies whether any statistically significant differences exist between these two populations with respect to age, gender, race, and ethnicity.

It is important to determine the magnitude of non-response bias when interpreting QoL Survey results since the experiences of the non-respondent population may be different than that of respondents. If those who respond to a survey are statistically different from those who do not respond, non-response bias may exist that could compromise the ability to generalize survey results. If statistically significant differences between the respondents and non-respondents are identified, then caution should be exercised when interpreting the QoL Survey results. This section presents the demographic characteristics of respondents and non-respondents to the QoL Survey.

Description

The demographic information analyzed in this section was derived from the sample frame file received from ODM. For the age category, members were categorized as 5 to 7, 8 to 10, 11 to 13, and 14 to 18. For the gender category, members were categorized as Male or Female. For the race category, members were categorized as White, Black, Asian, Multi-racial, or Other. For the ethnicity category, members were categorized as Hispanic or Latino, or Non-Hispanic or Latino.

Analysis

The respondent and non-respondent populations also were analyzed for statistically significant differences at the MCP-level (for the ABD population) and the program-level (for the ABD and CFC populations, separately). Respondents within one MCP (for the ABD population) were compared to non-respondents within the same MCP (for the ABD population) to identify any statistically significant differences within the demographic sub-categories. Also, respondents within the entire program (for the ABD and CFC populations, separately) were compared to non-respondents within the entire program (for the ABD and CFC populations, separately) to identify statistically significant differences. Statistically significant differences are noted with arrows. MCP-level and program-level percentages for the respondent population that were statistically higher than the non-respondent population are noted with upward (\uparrow) arrows. MCP-level and program-level percentages for the respondent population that were statistically lower than the non-respondent population are noted with downward (\downarrow) arrows. MCP-level and program-level percentages for the respondent population that were not statistically different than the non-respondent population are not noted with arrows.

Respondent and Non-Respondent Profiles

Table 4-8 presents the demographic characteristics of the child members whose parents or caretakers did or did not respond to the QoL Survey. Child member age, gender, race, and ethnicity were derived from the sample frame file.

Table 4-8
Respondent and Non-Respondent Profiles

		ABD Population	Buckeye	CareSource	Molina	Paramount	United-Healthcare	CFC Population
Age								
5 to 7†	R	11.4%	10.7%	11.1%	12.4%	13.5%	9.0% ↓	15.4%
	NR	12.0%	10.0%	12.4%	12.2%	12.8%	12.4%	14.0%
8 to 10	R	19.0% ↓	20.2%	18.6%	17.7%	20.4%	17.8%	21.6%
	NR	21.2%	20.4%	20.7%	21.8%	21.9%	21.3%	20.4%
11 to 13	R	23.4%	22.4%	23.0%	24.4%	23.0%	24.1%	20.3% ↓
	NR	23.8%	25.7%	23.7%	22.0%	24.5%	23.0%	24.6%
14 to 18	R	46.3% ↑	46.7%	47.3%	45.4%	43.2%	49.1% ↑	42.6%
	NR	43.0%	43.9%	43.3%	44.0%	40.8%	43.3%	41.0%
Gender								
Male	R	69.5% ↑	65.4%	69.0%	73.9% ↑	70.1%	69.1%	67.1%
	NR	67.0%	66.1%	67.2%	66.6%	67.1%	67.9%	65.0%
Female	R	30.5% ↓	34.6%	31.0%	26.1% ↓	29.9%	30.9%	32.9%
	NR	33.0%	33.9%	32.8%	33.4%	32.9%	32.1%	35.0%
Race								
White	R	58.5% ↑	60.6% ↑	57.0% ↑	61.1% ↑	54.4% ↑	59.5% ↑	70.4% ↑
	NR	45.9%	46.1%	42.1%	50.5%	40.4%	49.8%	64.6%
Black	R	39.4% ↓	38.3% ↓	40.3% ↓	37.6% ↓	42.4% ↓	38.0% ↓	27.3% ↓
	NR	51.6%	50.9%	55.1%	46.4%	57.8%	47.9%	33.6%
Asian	R	0.2%	0.0%	0.3%	0.2%	0.6%	0.0%	0.6%
	NR	0.3%	0.0%	0.3%	0.3%	0.7%	0.2%	0.5%
Other*	R	0.2%	0.0%	0.2%	0.0%	0.0%	0.6% ↑	0.2%
	NR	0.1%	0.1%	0.4%	0.1%	0.1%	0.0%	0.2%
Multi-Racial	R	1.8%	1.1% ↓	2.1%	1.1% ↓	2.6% ↑	1.8%	1.4%
	NR	2.2%	2.9%	2.1%	2.7%	1.1%	2.2%	1.1%

Table 4-8
Respondent and Non-Respondent Profiles

	ABD Population	Buckeye	CareSource	Molina	Paramount	United-Healthcare	CFC Population
Ethnicity							
Hispanic or Latino	R	4.1%	2.8%	4.5%	2.5% ↓	6.4% ↑	4.3%
	NR	4.4%	4.1%	5.0%	5.2%	3.2%	4.6%
Non-Hispanic or Latino	R	95.9%	97.2%	95.5%	97.5% ↑	93.6% ↓	95.7%
	NR	95.6%	95.9%	95.0%	94.8%	96.8%	95.4%

[†]Only child members 5 to 18 years of age were included in the survey.

*The "Other" race category consists of Unknown, American Indian or Alaska Native, and Native Hawaiian or other Pacific Islander.

An 'R' indicates respondent percentages and an 'NR' indicates non-respondent percentages. Respondent population percentages that are statistically higher than percentages for the non-respondent population are noted with upward arrows (↑). Respondent population percentages that are statistically lower than percentages for the non-respondent population are noted with downward arrows (↓). Respondent population percentages that are not statistically different than percentages for the non-respondent population are not noted with arrows.

Please note, respondent-level and non-respondent-level percentages for each demographic category may not total 100% due to rounding.

Summary

Overall, results of the analysis show that statistically significant demographic differences were found. There were significantly more respondents than non-respondents to the survey for child members 14 to 18 years of age, whereas there were significantly fewer respondents than non-respondents for child members 8 to 10 years of age. There were significantly more respondents than non-respondents whose child was Male, whereas there were significantly fewer respondents than non-respondents whose child was Female. There were significantly more respondents than non-respondents whose child was White and statistically fewer respondents than non-respondents whose child was Black.

Since the full effect of non-response on overall results cannot be determined (due to a lack of QoL information from non-respondents), the potential for non-response bias should be considered when evaluating QoL Survey results. However, the demographic differences in and of themselves are not necessarily an indication that significant non-response bias exists. The differences simply indicate that a particular subgroup or population is less likely or more likely to respond to a survey than another subgroup.

ABD MCP-Level Comparative Analysis Results

The ABD MCP-level Comparative Analysis Results section presents the MCP-specific and Ohio Medicaid Managed Care Program level results for the ABD child population. This section presents the findings from the QoL Survey for the global ratings, composite measures, individual items, and PHY and PSY summary measures.

For additional information on the tests for statistical significance used in the comparative analysis, please refer to the Methodology section of this report.

Global Ratings, Composite Measures, and Individual Items

An overall mean was calculated for each global rating, composite measure, and individual item in accordance with the instructions and algorithms provided in the CHQ Scoring and Interpretation Manual.⁴⁻¹

The MCP-level mean adjusted scores were compared to the program-level average score to determine whether there were statistically significant differences between the mean adjusted scores for each MCP and the program-level average for the ABD population. An MCP's mean was case-mix-adjusted to the other MCPs' means. The ABD program-level average was calculated using each MCP's adjusted score. Statistically significant differences between the MCP-level mean adjusted scores and the program-level average scores for the ABD population are noted with arrows. MCP-level mean scores significantly higher than the program-level average mean scores for the ABD population are noted with upward (↑) arrows. MCP-level mean scores significantly lower than the program-level average mean scores for the ABD population are noted with downward (↓) arrows. MCP-level mean scores that are not statistically different from the program-level average mean scores for the ABD population are not noted with arrows when available. Results presented may show statistically significant difference between the MCPs' rates; however, this does not mean that these differences are clinically significant.

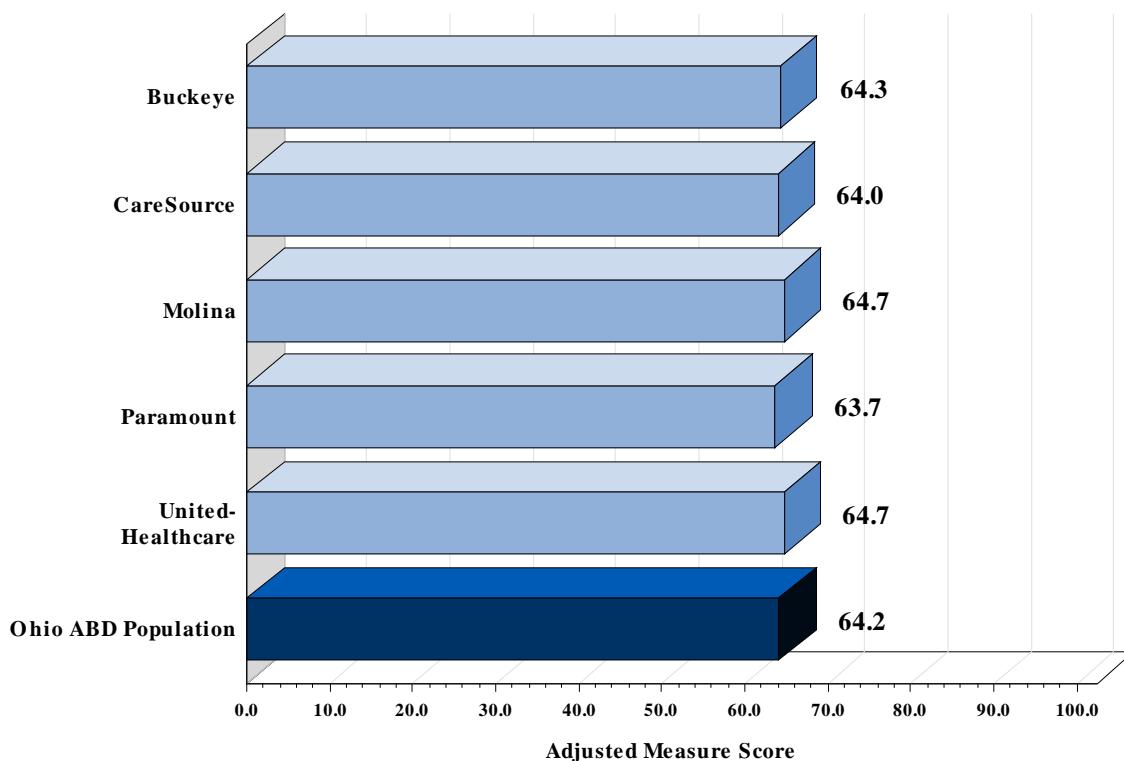
⁴⁻¹ HealthActCHQ. The CHQ Scoring and Interpretation Manual. Boston, MA: HealthActCHQ, 2013.

Global Ratings

Global Health

The Global Health question in the QoL Survey asked parents or caretakers of child members, “In general, how would you rate your child’s health?” An overall mean was calculated on a standardized 0 to 100 scale. Figure 4-1 depicts the overall mean score for each MCP and ABD child population.

Figure 4-1 — Adjusted Global Health Item Means



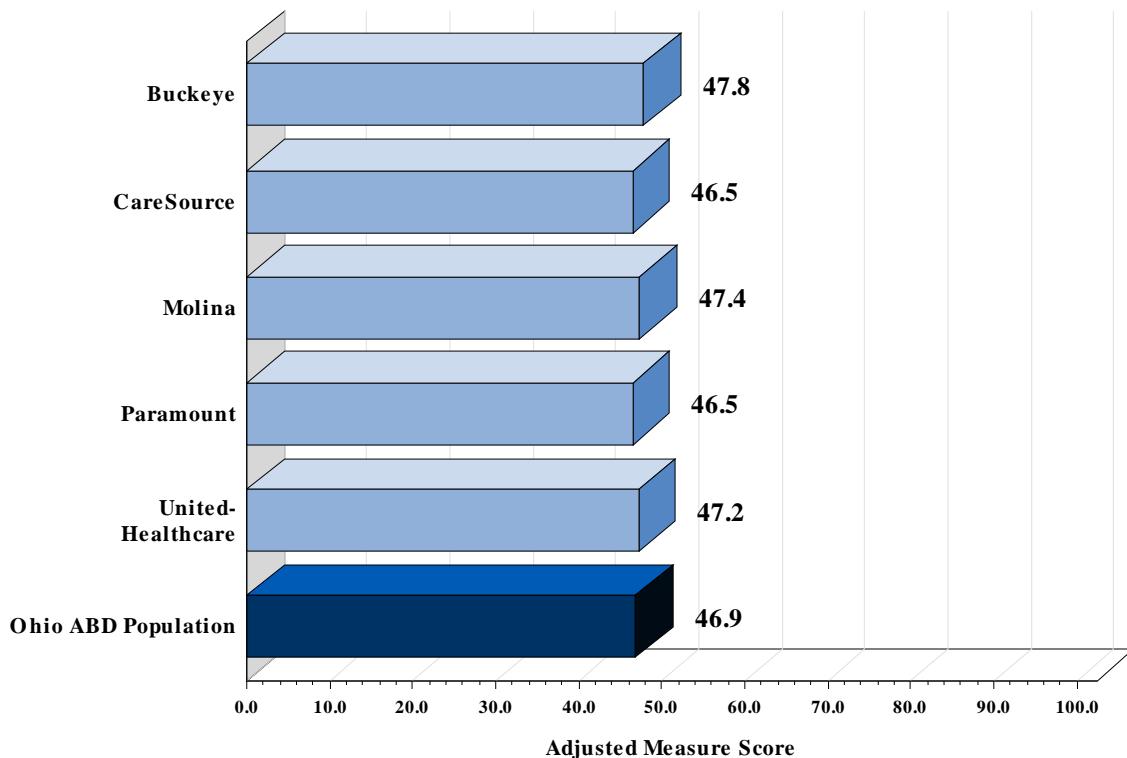
Statistical Significance Note: ↑ indicates the MCP's result is significantly higher than the Ohio ABD population result
 ↓ indicates the MCP's result is significantly lower than the Ohio ABD population result

Overall, there were no statistically significant differences observed for this measure.

Global Behavior Item

Parents or caretakers of child members were asked, "Compared to other children your child's age, in general how would you rate his/her behavior?" An overall mean was calculated on a standardized scale of 0 to 100. Figure 4-2 depicts the overall mean scores for each MCP and the ABD child population.

Figure 4-2 — Adjusted Global Behavior Item Means



Statistical Significance Note: ↑ indicates the MCP's result is significantly higher than the Ohio ABD population result
 ↓ indicates the MCP's result is significantly lower than the Ohio ABD population result

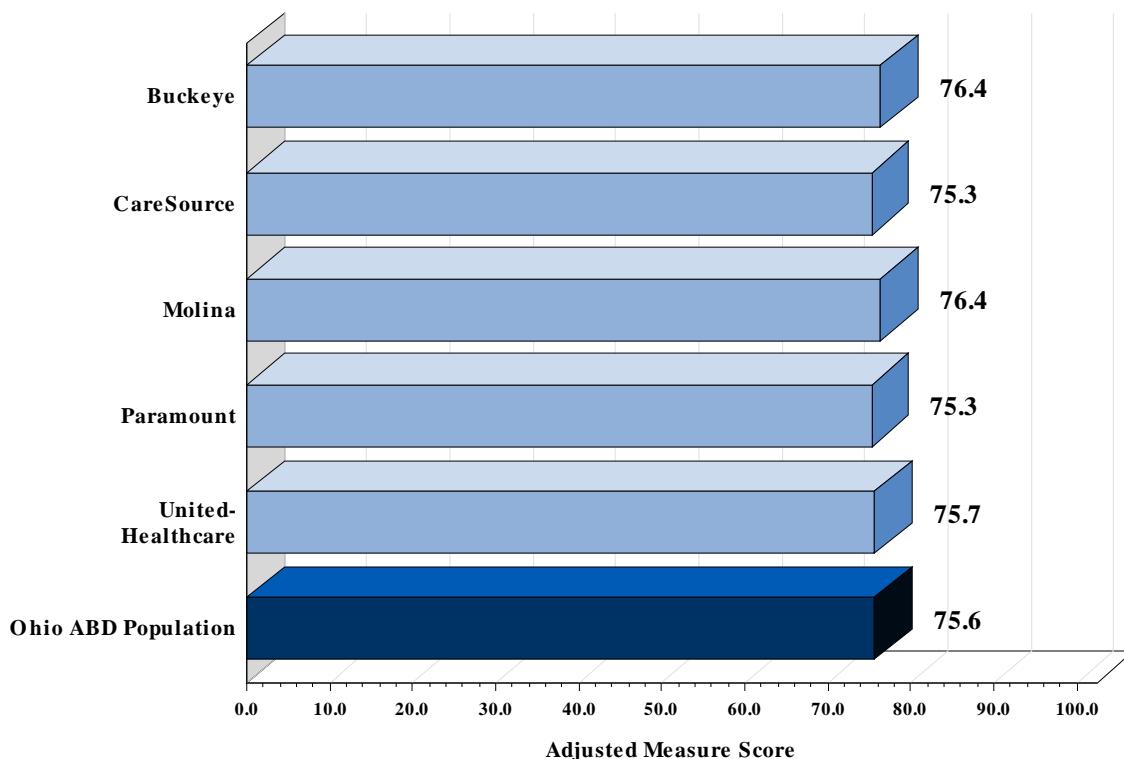
Overall, there were no statistically significant differences observed for this measure.

Composite Measures

Physical Functioning

For the Physical Functioning composite measure in the QoL Survey, parents or caretakers of child members were asked, “Has your child been limited in any of the following activities due to health problems - doing things that take a lot of energy, such as playing soccer or running; doing things that take some energy such as riding a bike or skating; ability (physically) to get around the neighborhood, playground, or school; walking one block or climbing one flight of stairs; bending, lifting/stooping; taking care of him/herself?” For the six-part composite measure regarding the child’s physical functioning, an overall mean was calculated on a standardized scale of 0 to 100. Figure 4-3 depicts the overall mean scores for each MCP and the ABD child population.

Figure 4-3 — Adjusted Physical Functioning Composite Means



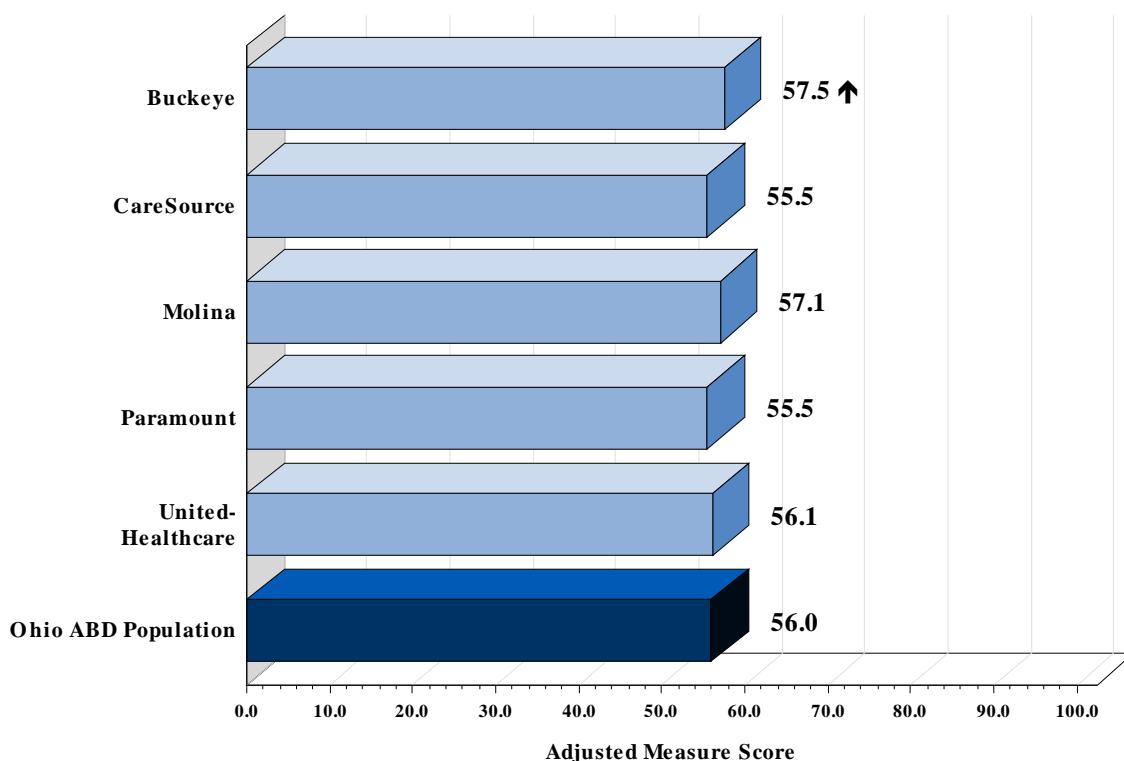
Statistical Significance Note: ↑ indicates the MCP's result is significantly higher than the Ohio ABD population result
 ↓ indicates the MCP's result is significantly lower than the Ohio ABD population result

Overall, there were no statistically significant differences observed for this measure.

Role/Social Limitations—Emotional/Behavioral

Parents or caretakers of child members were asked, “Has your child’s school work or activities with friends been limited in any of the following ways due to emotional difficulties or problems with his/her behavior - limited in the kind of schoolwork or activities with friends he/she could do; limited in the amount of time he/she could spend on schoolwork or activities with friends; limited in performing schoolwork or activities with friends?” For this three-part composite measure regarding the child’s role/social limitations, an overall mean was calculated on a standardized scale of 0 to 100. Figure 4-4 depicts the overall mean scores for each MCP and the ABD child population.

Figure 4-4 — Adjusted Role/Social Limitations-Emotional/Behavioral Composite Means



Statistical Significance Note: ↑ indicates the MCP's result is significantly higher than the Ohio ABD population result
 ↓ indicates the MCP's result is significantly lower than the Ohio ABD population result

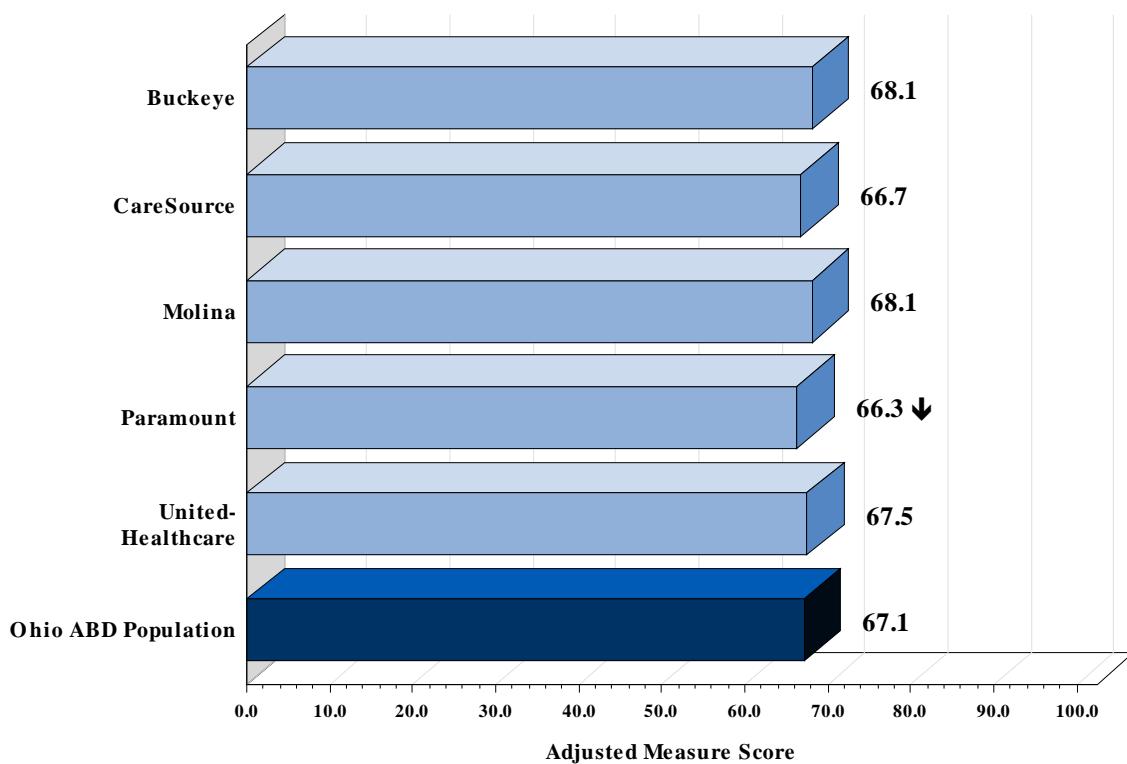
Overall, there was one statistically significant difference observed for this measure.

- Buckeye's result was significantly higher than the Ohio ABD population result.

Role/Social Limitations—Physical

The Role/Social Limitations—Physical composite measure asked parents or caretakers of child members, “Has your child’s school work or activities with friends been limited in any of the following ways due to problems with his/her physical health - limited in the kind of schoolwork or activities with friends he/she could do; limited in the amount of time he/she could spend on schoolwork or activities with friends?” An overall mean was calculated on a standardized scale of 0 to 100. Figure 4-5 depicts the overall mean scores for each MCP and the ABD child population.

Figure 4-5 — Adjusted Role/Social Limitations-Physical Composite Means



Statistical Significance Note: ↑ indicates the MCP's result is significantly higher than the Ohio ABD population result
 ↓ indicates the MCP's result is significantly lower than the Ohio ABD population result

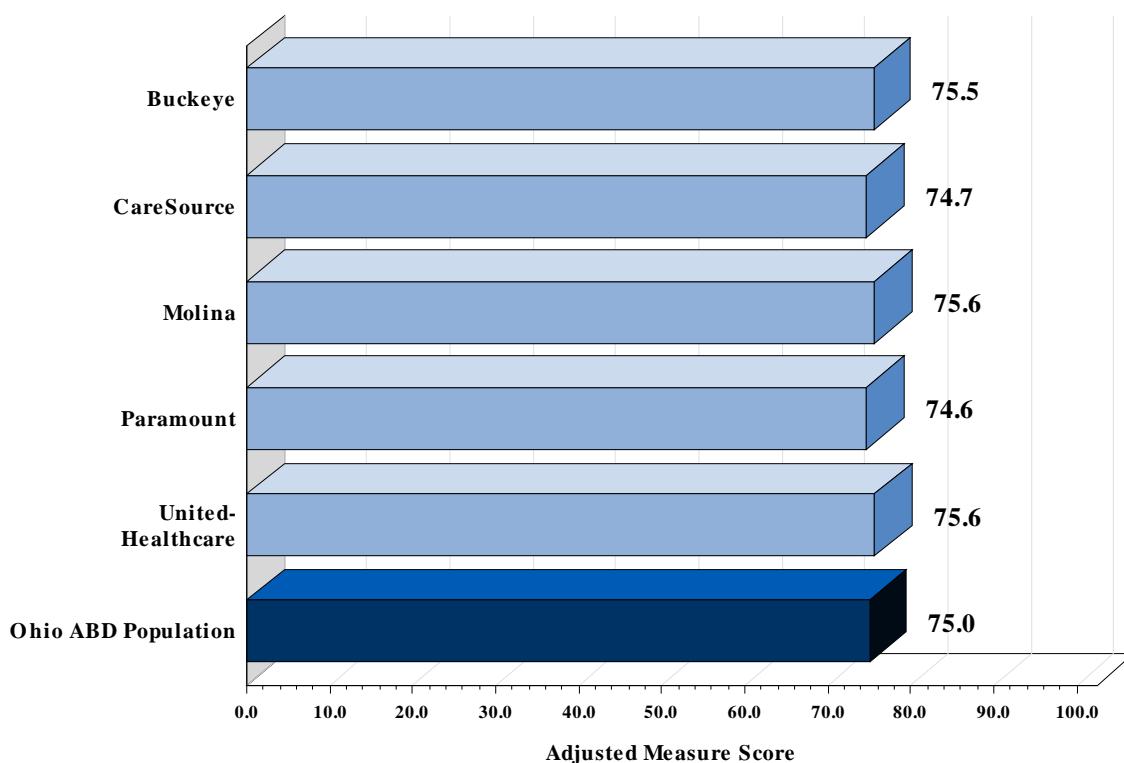
Overall, there was one statistically significant difference observed for this measure.

- Paramount's result was significantly lower than the Ohio ABD population result.

Bodily Pain/Discomfort

Two questions were asked to parents or caretakers of child members to assess their child's level and frequency of bodily pain or discomfort. The Bodily Pain/Discomfort composite measure questions were, "How much bodily pain or discomfort has your child had" and "How often has your child had bodily pain or discomfort?" An overall mean was calculated on a standardized scale of 0 to 100. Figure 4-6 depicts the overall mean scores for each MCP and the ABD child population.

Figure 4-6 — Adjusted Bodily Pain/Discomfort Composite Means



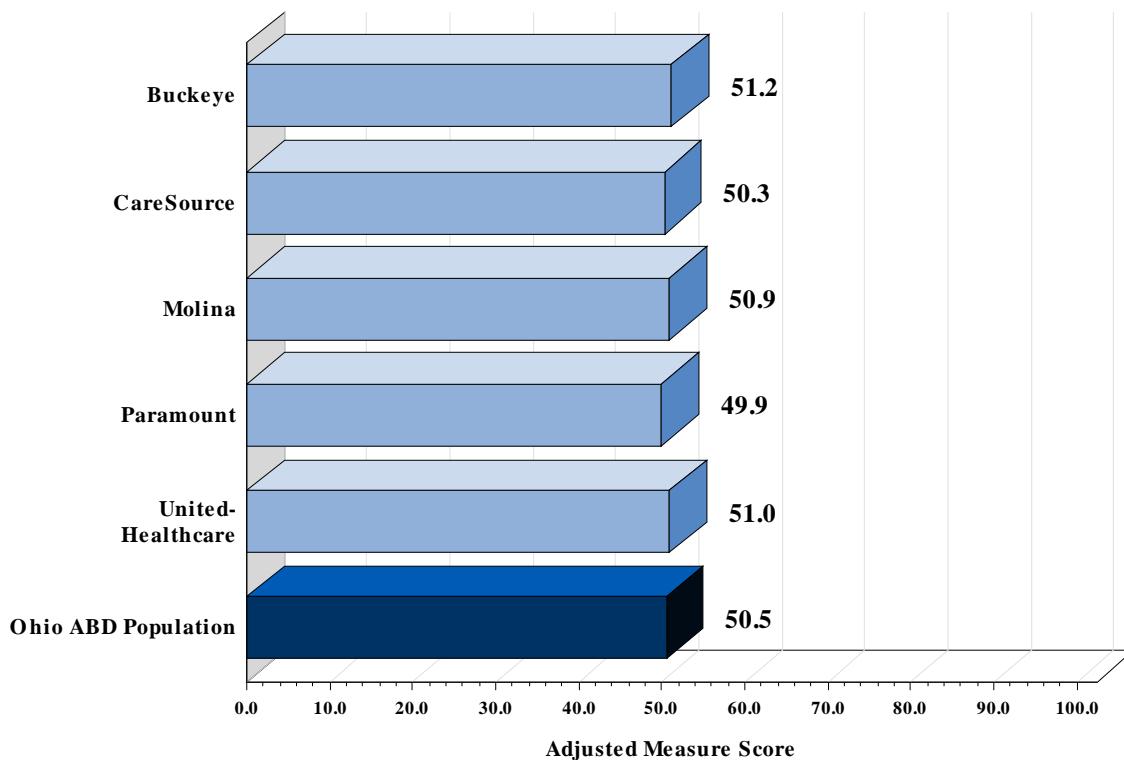
Statistical Significance Note: ↑ indicates the MCP's result is significantly higher than the Ohio ABD population result
 ↓ indicates the MCP's result is significantly lower than the Ohio ABD population result

Overall, there were no statistically significant differences observed for this measure.

General Behavior

Parents or caretakers of child members were asked five questions to assess their child's general behavior in terms of how often their child argued a lot; had difficulty concentrating or paying attention; lied/cheated; stole things; or had tantrums. In addition, the Global Behavior Item question (refer to page 4-14), which is included in the General Behavior composite measure, asked parents or caretakers of child members, "Compared to other children your child's age, in general how would you rate his/her behavior?" For the six questions comprising the General Behavior composite measure, an overall mean was calculated on a standardized scale of 0 to 100. Figure 4-7 depicts the overall mean scores for each MCP and the ABD child population.

Figure 4-7 — Adjusted General Behavior Composite Means



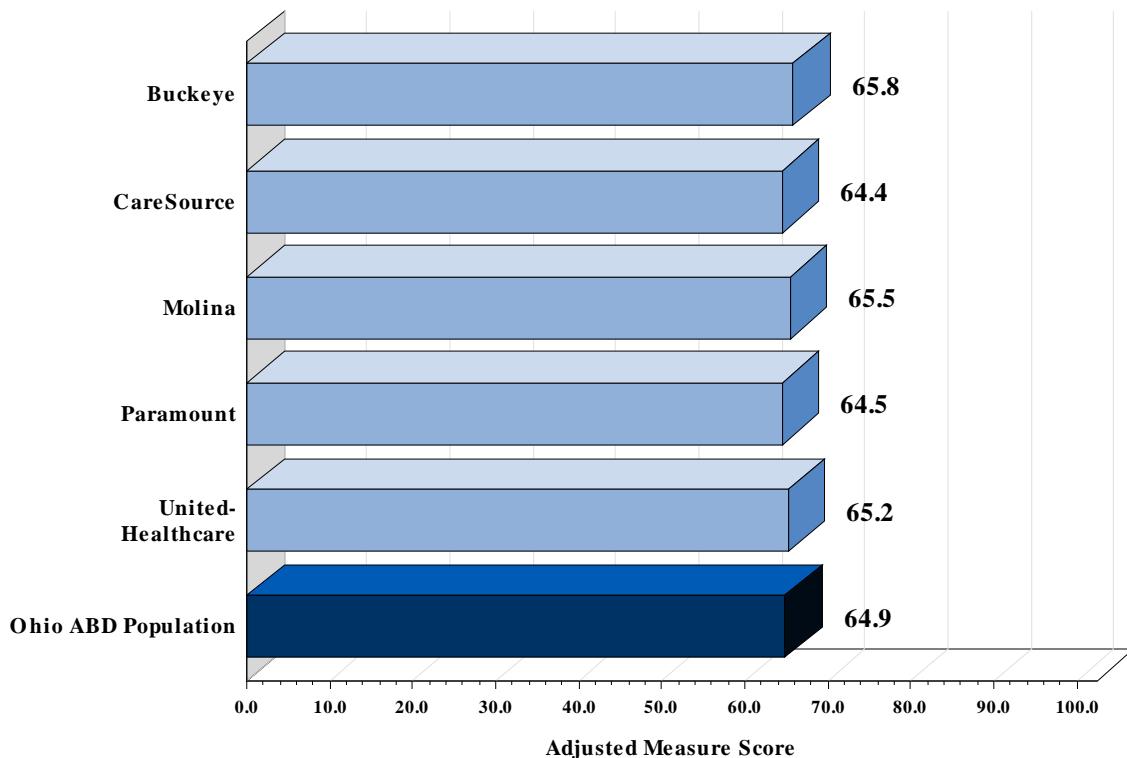
Statistical Significance Note: ↑ indicates the MCP's result is significantly higher than the Ohio ABD population result
 ↓ indicates the MCP's result is significantly lower than the Ohio ABD population result

Overall, there were no statistically significant differences observed for this measure.

Mental Health

The Mental Health composite measure questions asked parents or caretakers of child members, “How much of the time do you think your child: felt like crying; felt lonely; acted nervous; bothered or upset; cheerful?” An overall mean was calculated on a standardized scale of 0 to 100. Figure 4-8 depicts the overall mean scores for each MCP and the ABD child population.

Figure 4-8 — Adjusted Mental Health Composite Means



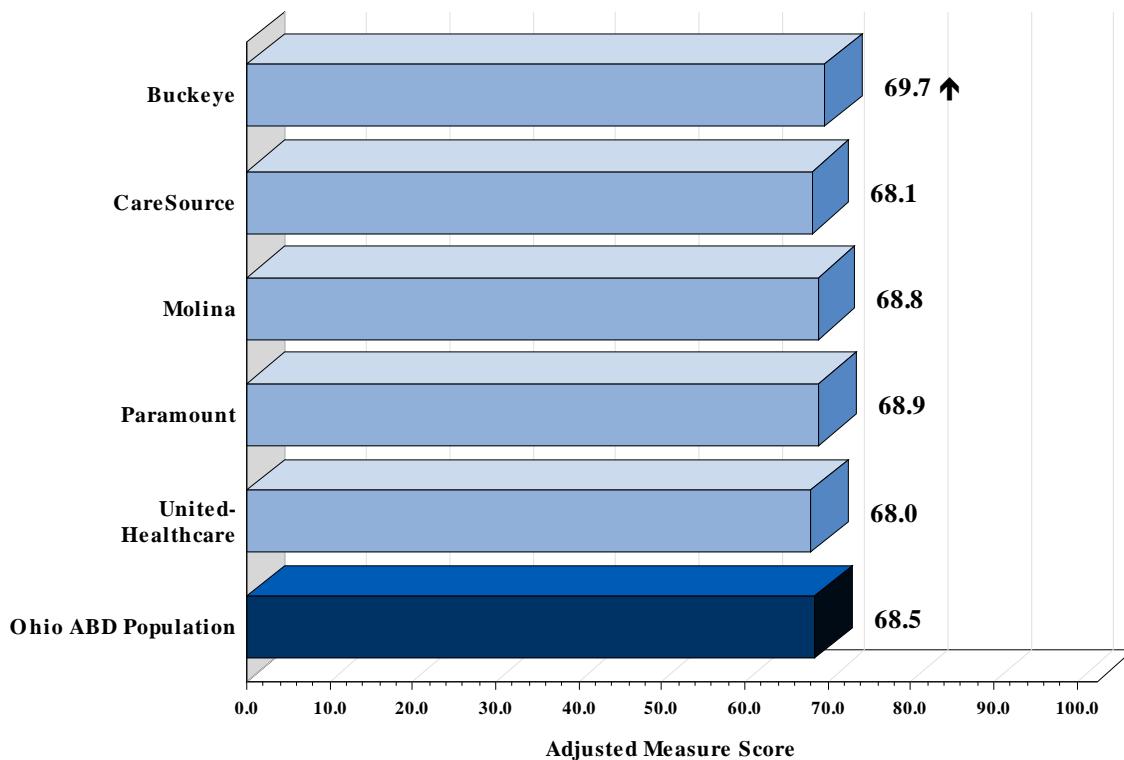
Statistical Significance Note: ↑ indicates the MCP's result is significantly higher than the Ohio ABD population result
 ↓ indicates the MCP's result is significantly lower than the Ohio ABD population result

Overall, there were no statistically significant differences observed for this measure.

Self-Esteem

The Self-Esteem composite measure questions asked parents or caretakers of child members, “How satisfied do you think your child has felt about: his/her school ability; athletic ability; friendships; looks/appearance; family relationships; life overall?” An overall mean was calculated on a standardized scale of 0 to 100. Figure 4-9 depicts the overall mean scores for each MCP and the ABD child population.

Figure 4-9 — Adjusted Self-Esteem Composite Means



Statistical Significance Note: ↑ indicates the MCP's result is significantly higher than the Ohio ABD population result
 ↓ indicates the MCP's result is significantly lower than the Ohio ABD population result

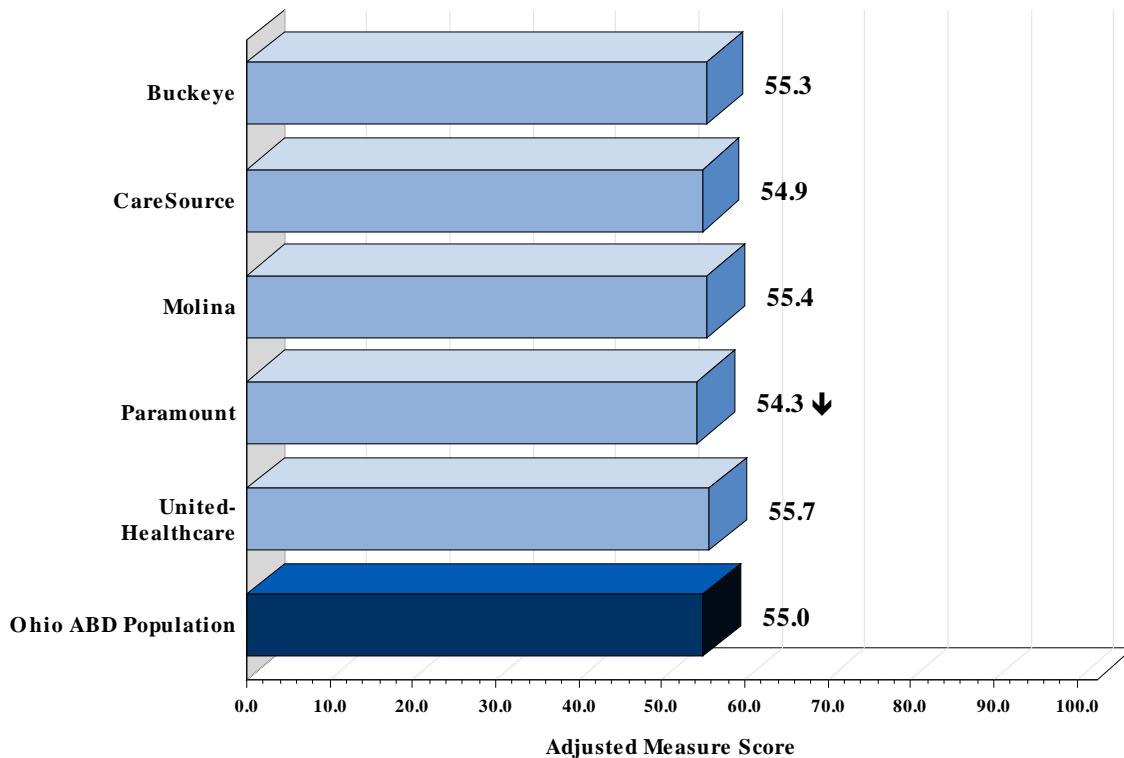
Overall, there was one statistically significant difference observed for this measure.

- Buckeye's result was significantly higher than the Ohio ABD population result.

General Health Perceptions

A total of five true or false statements were asked to parents or caretakers of child members to assess the parent's or caretakers' general health perceptions of their child. The following were used to assess parent's or caretaker's health perceptions: "My child seems to be less healthy than other children I know; My child has never been seriously ill; When there is something going around my child usually catches it; I expect my child will have a very healthy life; I worry more about my child's health than other people." In addition, the Global Health rating measure, described on page 4-13, was included in the General Health Perceptions composite measure. This question asked parents or caretakers of child members, "In general, how would you rate your child's health?" An overall mean was calculated on a standardized scale of 0 to 100. Figure 4-10 depicts the overall mean scores for each MCP and the ABD child population.

Figure 4-10 — Adjusted General Health Perceptions Composite Means



Statistical Significance Note: ↑ indicates the MCP's result is significantly higher than the Ohio ABD population result
 ↓ indicates the MCP's result is significantly lower than the Ohio ABD population result

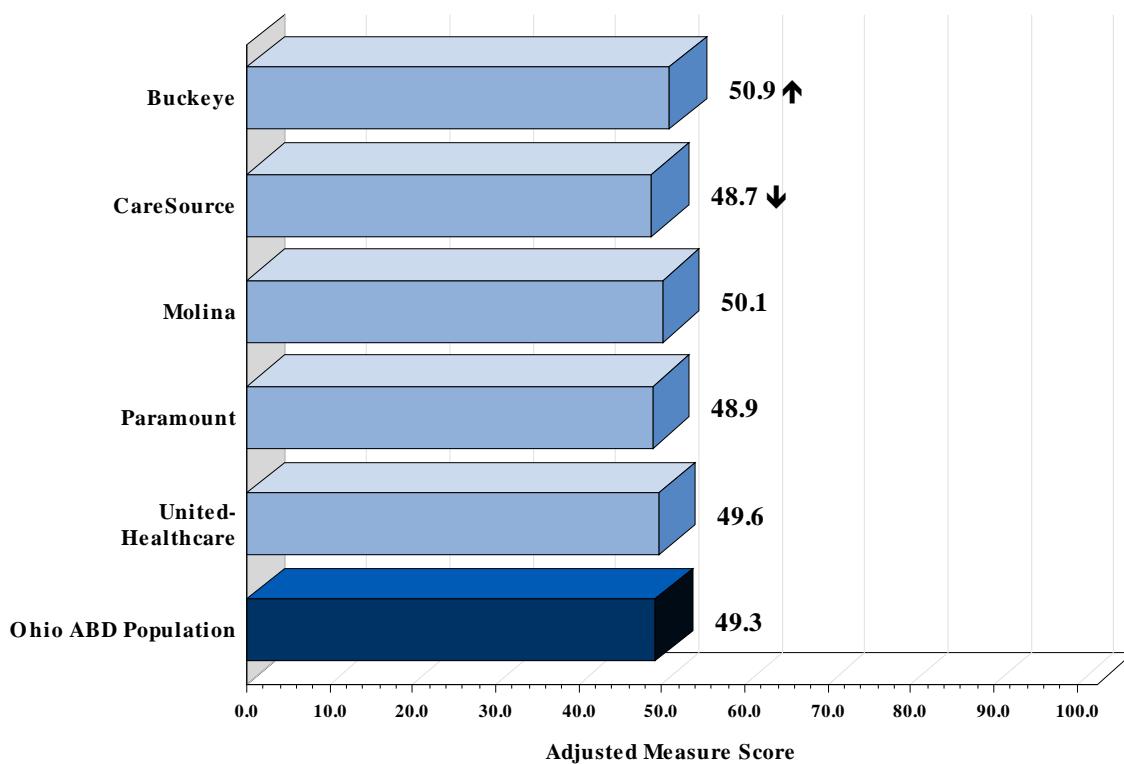
Overall, there was one statistically significant difference observed for this measure.

- Paramount's result was significantly lower than the Ohio ABD population result.

Parental Impact—Emotional

For the Parental Impact—Emotional composite measure questions, parents or caretakers of child members were asked, “How much emotional worry or concern did each of the following cause you - your child’s physical health; emotional well-being or behavior; attention or learning abilities?” For the three questions that asked parents or caretakers about how much of their emotional worry was caused by their child’s condition, an overall mean was calculated on a standardized scale of 0 to 100. Figure 4-11 depicts the overall mean scores for each MCP and the ABD child population.

Figure 4-11 — Adjusted Parental Impact-Emotional Composite Means



Statistical Significance Note: ↑ indicates the MCP’s result is significantly higher than the Ohio ABD population result
 ↓ indicates the MCP’s result is significantly lower than the Ohio ABD population result

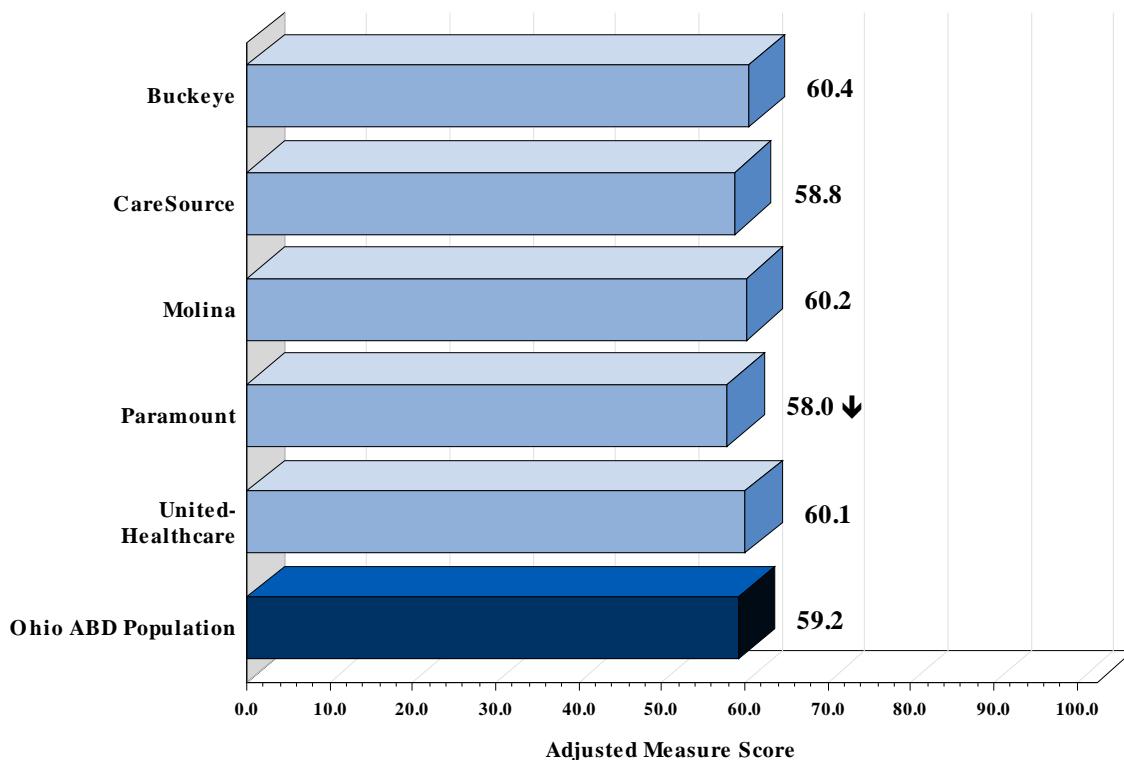
Overall, there were two statistically significant differences observed for this measure.

- Buckeye’s result was significantly higher than the Ohio ABD population result.
- CareSource’s result was significantly lower than the Ohio ABD population result.

Parental Impact—Time

Parents or caretakers of child members were asked, “Were you limited in the amount of time you had for your own needs because of your child’s - physical health; emotional well-being or behavior; attention or learning abilities?” For the three composite measure questions that asked about how their child’s condition(s) limited the amount of time a parent had for their own needs, an overall mean was calculated on a standardized score of 0 to 100. Figure 4-12 depicts the overall mean scores for each MCP and the ABD child population.

Figure 4-12 — Adjusted Parental Impact-Time Composite Means



Statistical Significance Note: ↑ indicates the MCP's result is significantly higher than the Ohio ABD population result
 ↓ indicates the MCP's result is significantly lower than the Ohio ABD population result

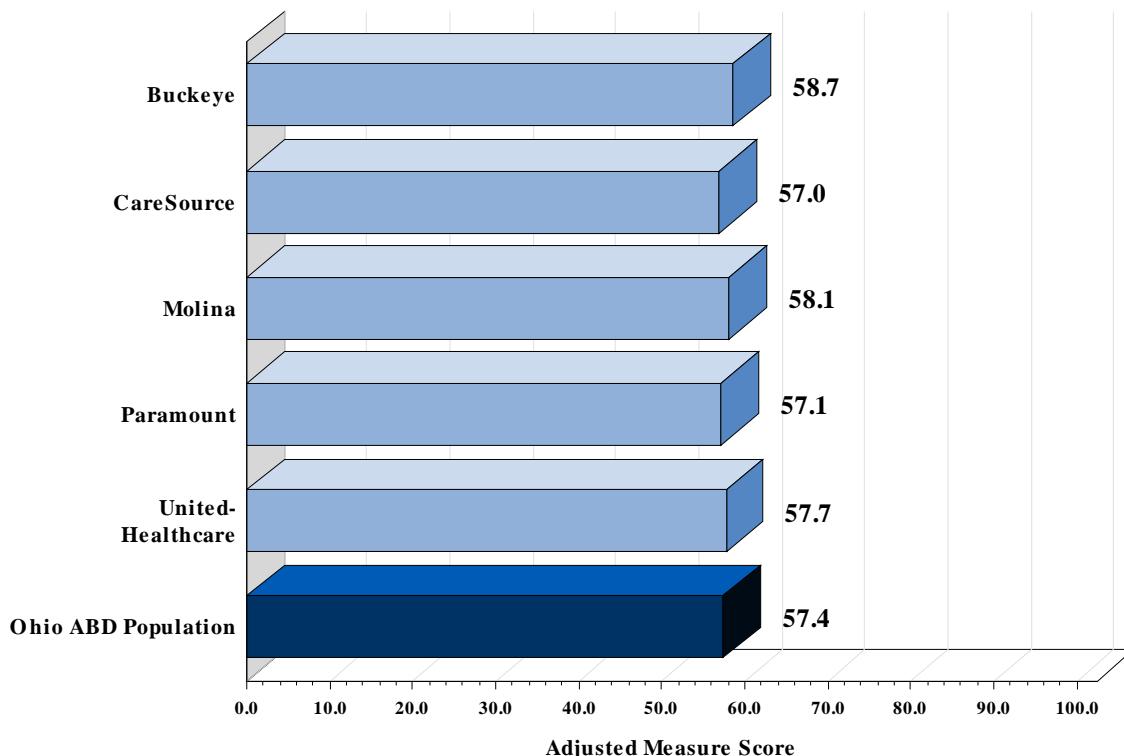
Overall, there was one statistically significant difference observed for this measure.

- Paramount's result was significantly lower than the Ohio ABD population result.

Family Activities

The Family Activities composite measure questions asked parents or caretakers of child members, “How often has your child’s health or behavior - limited the types of activities you could do as a family; interrupted various everyday family activities; limited your ability as a family to ‘pick up and go’; caused tension or conflict; been a source of disagreements or arguments in your family; caused you to cancel or change plans (personal or work) at the last minute?” For the six questions related to family activities, an overall mean was calculated on a standardized scale of 0 to 100. Figure 4-13 depicts the overall mean scores for each MCP and the ABD child population.

Figure 4-13 — Adjusted Family Activities Composite Means



Statistical Significance Note: ↑ indicates the MCP's result is significantly higher than the Ohio ABD population result
 ↓ indicates the MCP's result is significantly lower than the Ohio ABD population result

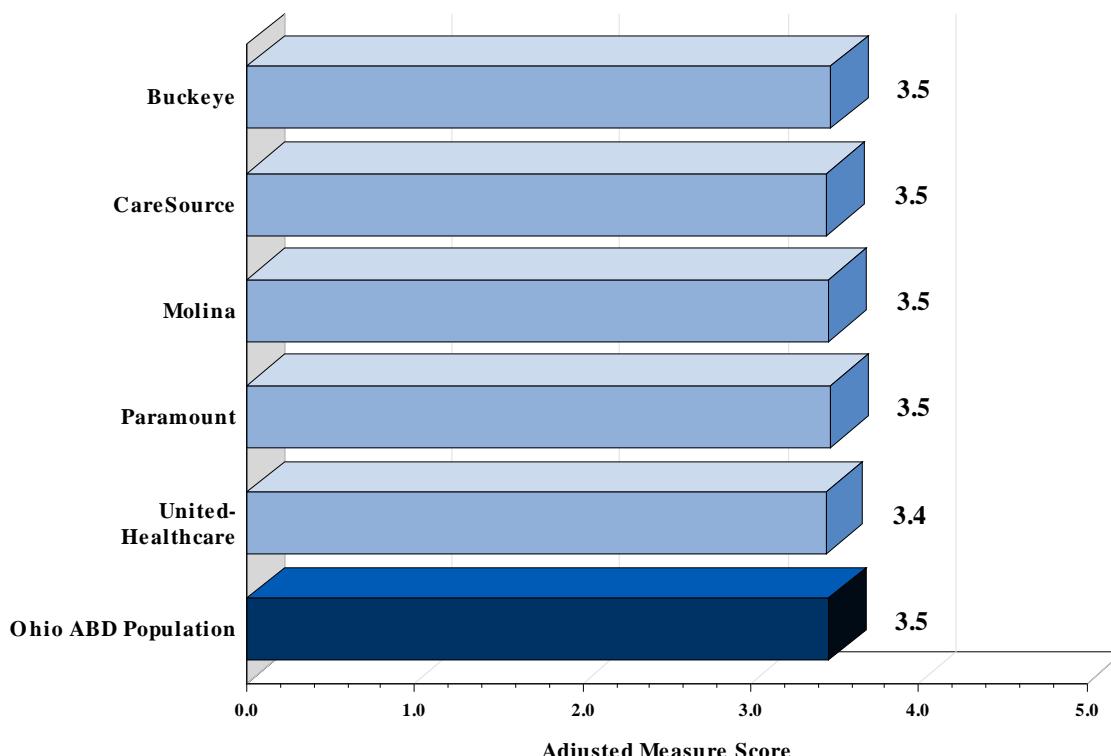
Overall, there were no statistically significant differences observed for this measure.

Individual Items

Change in Health

The Change in Health individual item asked parents or caretakers of child members, “Compared to one year ago, how would you rate your child’s health now?” For this question, an overall mean was calculated on a standardized scale of 0 to 5, where a higher score indicates better health.⁴⁻² Figure 4-14 depicts the overall mean scores for each MCP and the ABD child population.

Figure 4-14 — Adjusted Change in Health Item Means



Statistical Significance Note: ↑ indicates the MCP’s result is significantly higher than the Ohio ABD population result
 ↓ indicates the MCP’s result is significantly lower than the Ohio ABD population result

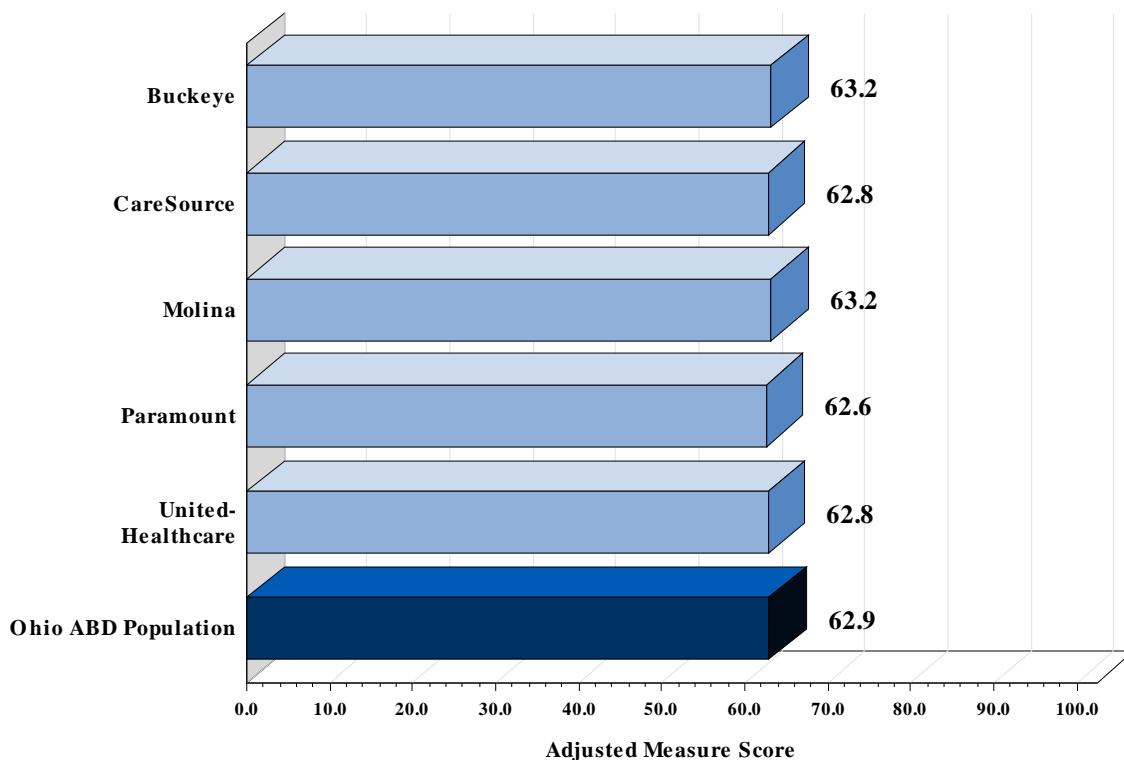
Overall, there were no statistically significant differences observed for this measure.

⁴⁻² According to the CHQ-PF50 Scoring and Interpretation Manual, this measure remains a categorical variable, and is not transformed.

Family Cohesion

The Family Cohesion question asked parents or caretakers of child members, “In general, how would you rate your family’s ability to get along with one another?” For this question, an overall mean was calculated on a standardized scale of 0 to 100. Figure 4-15 depicts the overall mean scores for each MCP and the ABD child population.

Figure 4-15 — Adjusted Family Cohesion Item Means



Statistical Significance Note: ↑ indicates the MCP’s result is significantly higher than the Ohio ABD population result
 ↓ indicates the MCP’s result is significantly lower than the Ohio ABD population result

Overall, there were no statistically significant differences observed for this measure.

Physical and Psychosocial Summary Measures

For the ABD population, the MCP-level mean adjusted PHY and PSY scores were compared to the program-level average mean PHY and PSY scores to determine whether there were statistically significant differences between the scores for each MCP and the program-level average. Statistically significant differences between the MCP-level scores and the program-level average scores for the ABD population are noted with arrows. MCP-level scores significantly higher than the program-level average scores for the ABD population are noted with upward (\uparrow) arrows. MCP-level scores significantly lower than the program-level average scores for the ABD population are noted with downward (\downarrow) arrows. MCP-level scores that are not statistically different from the program-level average scores for the ABD population are not noted with arrows.

Ten domains are used to calculate the PHY and PSY scores. According to the CHQ-PF50 Scoring Manual, the Physical Functioning, Role/Social Limitations—Physical, General Health Perceptions, and Bodily Pain/Discomfort domains are highly correlated and influential to the scoring of the PHY summary measures. On the other hand, the Role/Social Limitations—Emotional/Behavioral, Self-Esteem, Mental Health, and General Behavior domains are highly correlated and influential to the scoring of the PSY summary measures. The Parent Impact domains (both Time and Emotional) are included in the calculation of both the PHY and PSY summary measures; however research has shown these domains are more highly correlated with the PSY summary measure.⁴⁻³ Only three domains (i.e., Change in Health, Family Activities, and Family Cohesion) are not included in the calculation of the PHY and PSY scores.

The following domains contribute the most weight towards the PHY score:

- ◆ Physical Functioning
- ◆ Role/Social Limitations—Physical
- ◆ General Health Perceptions⁴⁻⁴
- ◆ Bodily Pain/Discomfort
- ◆ Parent Impact—Time
- ◆ Parent Impact—Emotional

The following domains contribute the most weight towards the PSY score:

- ◆ Role/Social Limitations—Emotional/Behavioral
- ◆ Self-Esteem
- ◆ Mental Health

⁴⁻³ HealthActCHQ. The CHQ Scoring and Interpretation Manual. Boston, MA: HealthActCHQ, 2013.

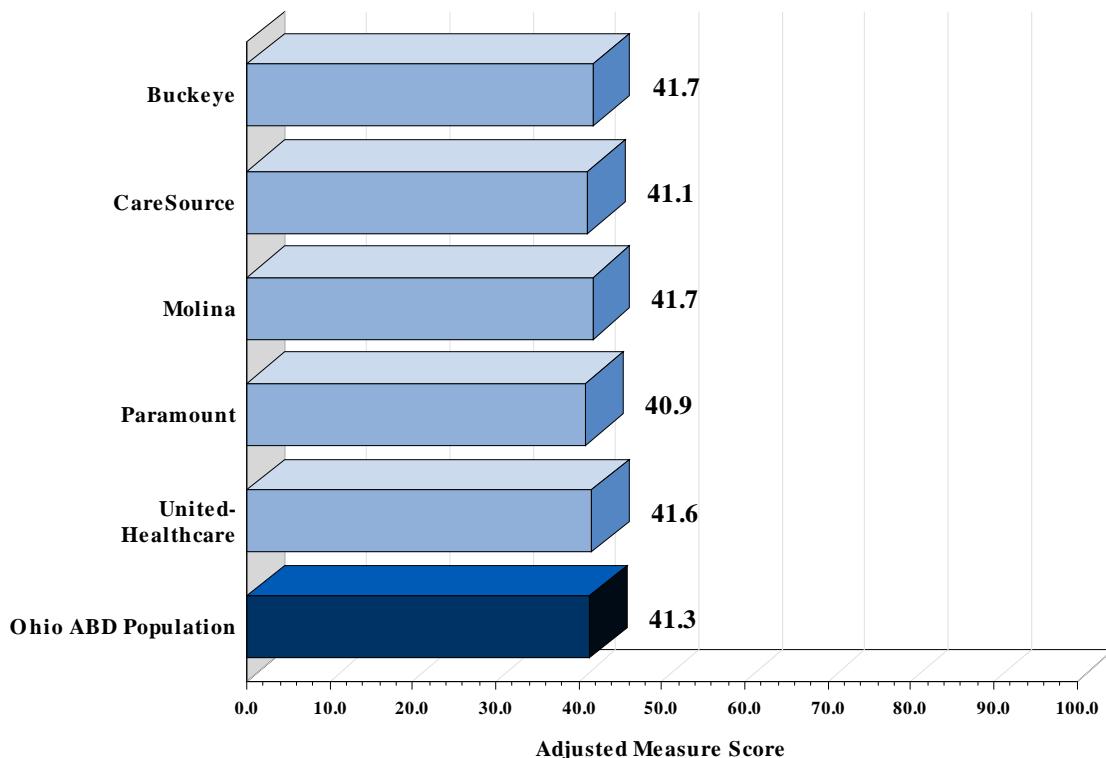
⁴⁻⁴ The General Health Perceptions domain includes the Global Health Rating measure.

- ◆ General Behavior⁴⁻⁵
- ◆ Parent Impact—Time
- ◆ Parent Impact—Emotional

Physical Summary Scores

Figure 4-16 depicts the mean adjusted PHY scores for each ABD MCP and the ABD child population. PHY scores are based on a scale of 0 to 100. A higher PHY score indicates better health status.

Figure 4-16 — Adjusted Physical Summary Measure Means



Statistical Significance Note: ↑ indicates the MCP's result is significantly higher than the Ohio ABD population result
 ↓ indicates the MCP's result is significantly lower than the Ohio ABD population result

Overall, there were no statistically significant differences observed for this measure.

⁴⁻⁵ The General Behavior domain includes the Global Behavior Item measure.

Table 4-9 presents the mean adjusted PHY scores for each ABD MCP and the ABD population stratified by child member age, gender, race, ethnicity, and number of chronic medical conditions. Higher adjusted PHY scores for the ABD population were associated with children ages 8 to 13 years old, being Male, Asian race, being Non-Hispanic or Latino, and having one or two chronic medical conditions. A higher PHY score indicates better health status.

Table 4-9
Adjusted Physical Summary Scores
By Selected Child Demographic Characteristics

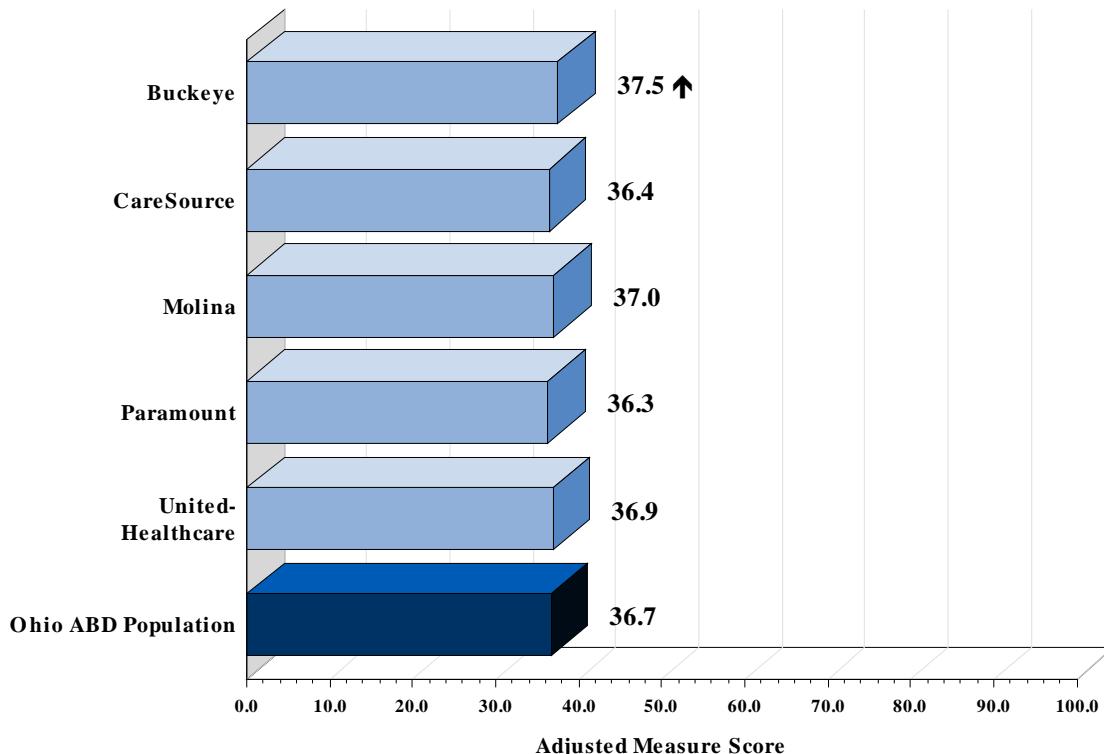
	ABD Population	Buckeye	CareSource	Molina	Paramount	United-Healthcare
Age						
5 to 7†	41.0	41.1	40.2	43.4	41.2	41.4
8 to 10	41.9	43.3	42.1	40.5	40.6	42.0
11 to 13	41.7	41.6	41.5	42.2	41.6	41.9
14 to 18	40.9	41.3	40.7	41.5	40.5	41.2
Gender						
Male	42.2	43.0	41.8	42.4	41.8	42.7
Female	39.3	39.3	39.4	39.6	38.7	39.0
Race						
White	41.3	41.8	41.2	41.1	40.9	41.4
Black	41.5	41.8	41.3	42.8	40.9	41.9
Asian	43.2	NA	44.5	NA	40.7	NA
Other*	36.4	NA	29.9	NA	NA	45.8
Multi-Racial	37.7	39.3	36.0	44.7	39.2	40.0
Ethnicity						
Hispanic or Latino	37.4	37.3	37.2	38.0	38.6	36.1
Non-Hispanic or Latino	41.5	41.9	41.3	41.8	41.0	41.8
Number of Chronic Medical Conditions						
None	44.2	45.2	43.6	45.0	43.5	45.3
One or Two	44.5	43.9	44.6	45.2	43.8	44.8
Three to Five	41.4	41.8	41.3	41.7	41.5	41.1
Six or More	34.5	34.5	34.6	35.4	33.3	34.6

[†]Only child members 5 to 18 years of age were included in the survey.
*The "Other" race category consists of Unknown, American Indian or Alaska Native, and Native Hawaiian or other Pacific Islander.

Psychosocial Summary Scores

Figure 4-17 depicts the mean adjusted PSY scores for each MCP and the ABD child population. PSY scores are based on a scale of 0 to 100. A higher PSY score indicates better health status.

Figure 4-17 — Adjusted Psychosocial Summary Measure Means



Statistical Significance Note: ↑ indicates the MCP's result is significantly higher than the Ohio ABD population result
 ↓ indicates the MCP's result is significantly lower than the Ohio ABD population result

Overall, there was one statistically significant difference observed for this measure.

- Buckeye's result was significantly higher than the Ohio ABD population result.

Table 4-10 presents the mean adjusted PSY scores for each ABD MCP and the ABD population stratified by child member age, gender, race, ethnicity, and number of chronic medical conditions. Higher adjusted PSY scores for the ABD population were associated with children ages 5 to 7 years old, being Female, Asian race, being Non-Hispanic or Latino, and having zero chronic conditions.

Table 4-10
Adjusted Psychosocial Summary Scores
By Selected Child Demographic Characteristics

	ABD Population	Buckeye	CareSource	Molina	Paramount	United-Healthcare
Age						
5 to 7†	39.0	37.8	39.1	39.0	39.7	39.1
8 to 10	37.0	39.0	36.1	38.7	36.3	38.0
11 to 13	36.8	37.0	37.2	37.1	36.0	35.5
14 to 18	35.9	37.0	35.6	35.8	35.5	36.9
Gender						
Male	36.4	37.2	36.2	36.6	35.8	37.1
Female	37.2	38.1	36.8	38.2	37.3	36.5
Race						
White	36.1	37.0	35.7	36.6	36.0	36.3
Black	37.7	38.3	37.7	37.9	37.0	38.0
Asian	41.5	NA	44.4	NA	35.6	NA
Other*	30.9	NA	25.2	NA	NA	38.9
Multi-Racial	35.1	36.1	35.8	35.0	31.7	35.9
Ethnicity						
Hispanic or Latino	32.9	37.9	32.0	33.3	34.1	30.9
Non-Hispanic or Latino	36.8	37.5	36.6	37.1	36.4	37.2
Number of Chronic Medical Conditions						
None	43.6	44.8	43.0	44.1	43.2	44.7
One or Two	41.5	41.1	41.6	42.5	41.1	40.8
Three to Five	35.2	35.9	35.0	35.2	34.8	35.7
Six or More	30.5	30.9	30.7	31.0	29.6	29.2

[†]Only child members 5 to 18 years of age were included in the survey

*The "Other" race category consists of Unknown, American Indian or Alaska Native, and Native Hawaiian or other Pacific Islander.

ABD and CFC Ohio Medicaid Managed Care Program-Level Comparative Analysis Results

The ABD and CFC Ohio Medicaid Managed Care Program-Level Comparative Analysis Results section presents the ABD and CFC population results at the Ohio Medicaid Managed Care program-level.

An overall mean was calculated for each global rating, composite measure, individual item, and PHY and PSY summary measure at the ABD and CFC program-level.⁴⁻⁶ The ABD program-level mean case-mix-adjusted scores were compared to CFC program-level mean case-mix-adjusted scores to determine whether there were statistically significant differences between the scores. The ABD program-level mean was case-mix-adjusted to the CFC population. **The ABD program-level mean may differ from the previous section (i.e., ABD MCP-Level Comparative Analysis Results) due to the inclusion of the CFC population in the case-mix adjustment model.** Statistically significant differences between the ABD program-level mean adjusted scores and CFC program-level mean adjusted scores are noted with arrows. Scores for one population that are statistically higher than scores for the other population are noted with upward (\uparrow) arrows. Conversely, scores for one population that are statistically lower than scores for the other population are noted with downward (\downarrow) arrows. If it is true that one population's mean adjusted score is significantly higher (\uparrow) than that of the other's, then it follows that the other population's mean adjusted score is significantly lower (\downarrow). Mean adjusted scores for one population that are not statistically different from the other population's mean adjusted scores are not noted with arrows. Results presented may show statistically significant differences between the program-levels' rates; however, this does not mean that these differences are clinically significant.

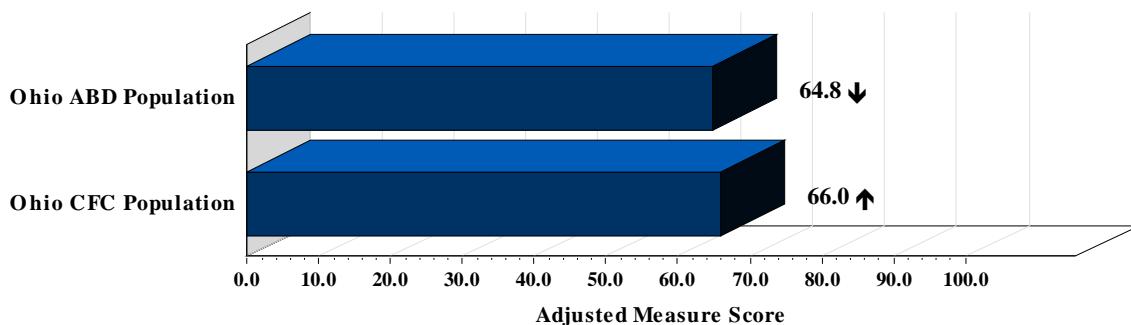
⁴⁻⁶ The Program-level mean for the ABD population was calculated as the average of the MCP-level means weighted by each MCP's sample frame size.

Global Ratings

Global Health

The Global Health question asked parents or caretakers of child members, “In general, how would you rate your child’s health?” An overall mean was calculated on a standardized 0 to 100 scale. Figure 4-18 depicts the overall mean scores at the program-level for the ABD and CFC child populations.

Figure 4-18 — Adjusted Global Health Item Means



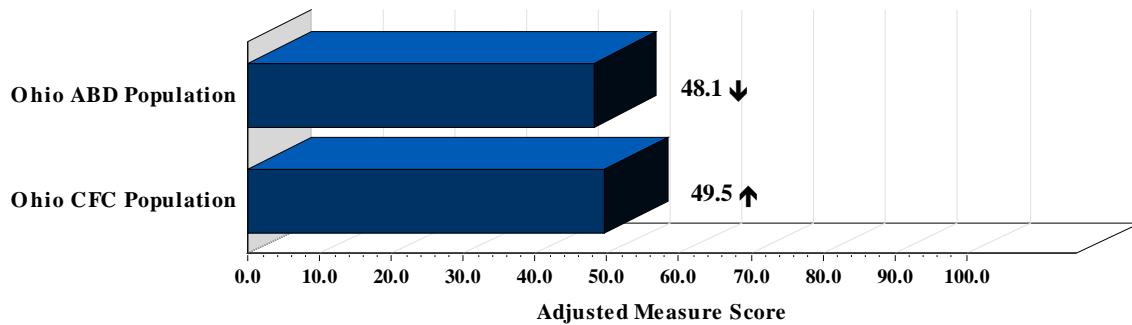
Statistical Significance Note: ↑ indicates the score is significantly higher than the other population
↓ indicates the score is significantly lower than the other population

The Ohio ABD population result was significantly lower than the Ohio CFC population result.

Global Behavior Item

Parents or caretakers of child members were asked, “Compared to other children your child’s age, in general how would you rate his/her behavior?” An overall mean was calculated on a standardized scale of 0 to 100. Figure 4-19 depicts the overall mean scores at the program-level for the ABD and CFC child populations.

Figure 4-19 — Adjusted Global Behavior Item Means



Statistical Significance Note: ↑ indicates the score is significantly higher than the other population
↓ indicates the score is significantly lower than the other population

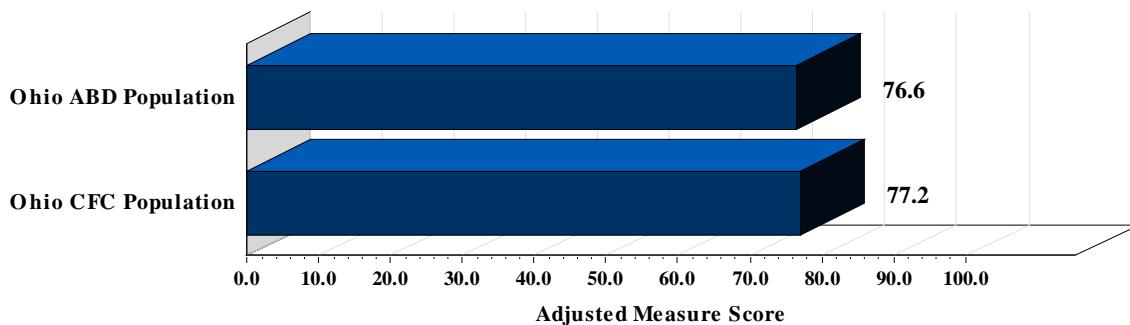
The Ohio ABD population result was significantly lower than the Ohio CFC population result.

Composite Measures

Physical Functioning

For the Physical Functioning composite measure, parents or caretakers of child members were asked, "Has your child been limited in any of the following activities due to health problems - doing things that take a lot of energy, such as playing soccer or running; doing things that take some energy such as riding a bike or skating; ability (physically) to get around the neighborhood, playground, or school; walking one block or climbing one flight of stairs; bending, lifting/stooping; taking care of him/herself? For the six-part composite measure regarding the child's physical functioning, an overall mean was calculated on a standardized scale of 0 to 100. Figure 4-20 depicts the overall mean scores at the program-level for the ABD and CFC child populations.

Figure 4-20 — Adjusted Physical Functioning Composite Means



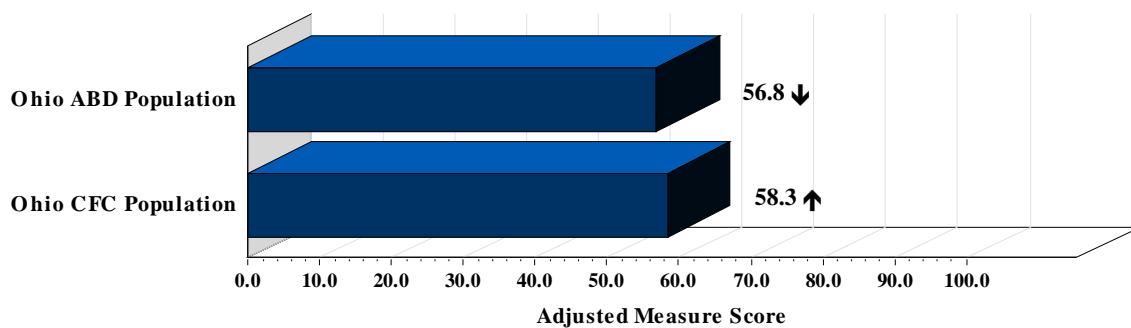
Statistical Significance Note: ↑ indicates the score is significantly higher than the other population
 ↓ indicates the score is significantly lower than the other population

There was no statistically significant difference between the Ohio ABD population result and the Ohio CFC population result.

Role/Social Limitations—Emotional/Behavioral

Parents or caretakers of child members were asked, “Has your child’s school work or activities with friends been limited in any of the following ways due to emotional difficulties or problems with his/her behavior - limited in the kind of schoolwork or activities with friends he/she could do; limited in the amount of time he/she could spend on schoolwork or activities with friends; limited in performing schoolwork or activities with friends?” For this three-part composite measure regarding the child’s role/social limitations, an overall mean was calculated on a standardized scale of 0 to 100. Figure 4-21 depicts the overall mean scores at the program-level for the ABD and CFC child populations.

Figure 4-21 — Adjusted Role/Social Limitations-Emotional/Behavioral Composite Means



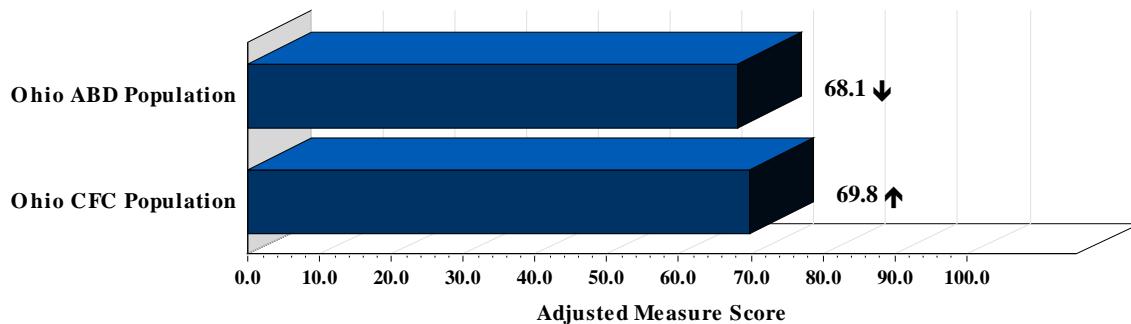
Statistical Significance Note: ↑ indicates the score is significantly higher than the other population
 ↓ indicates the score is significantly lower than the other population

The Ohio ABD population result was significantly lower than the Ohio CFC population result.

Role/Social Limitations—Physical

Parents or caretakers of child members were asked, “Has your child’s school work or activities with friends been limited in any of the following ways due to problems with his/her physical health - limited in the kind of schoolwork or activities with friends he/she could do; limited in the amount of time he/she could spend on schoolwork or activities with friends?” An overall mean was calculated on a standardized scale of 0 to 100. Figure 4-22 depicts the overall mean scores at the program-level for the ABD and CFC child populations.

Figure 4-22 — Adjusted Role/Social Limitations-Physical Composite Means



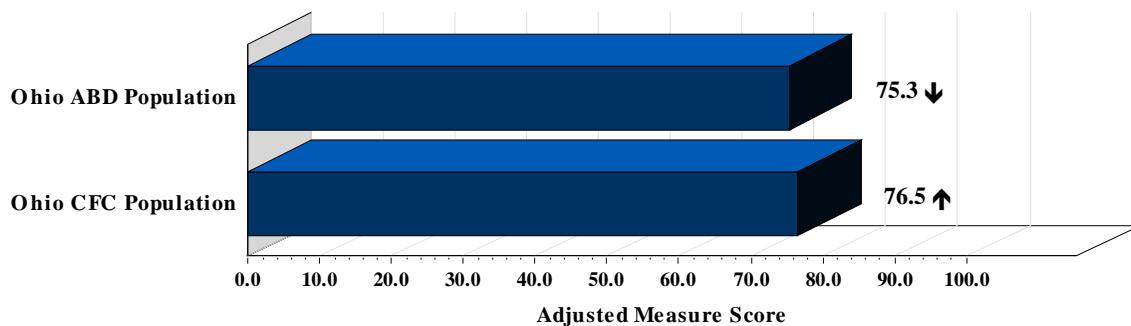
Statistical Significance Note: ↑ indicates the score is significantly higher than the other population
↓ indicates the score is significantly lower than the other population

The Ohio ABD population result was significantly lower than the Ohio CFC population result.

Bodily Pain/Discomfort

Two questions were asked to parents or caretakers of child members to assess their child's level and frequency of bodily pain or discomfort. The Bodily Pain/Discomfort composite measure questions were, "How much bodily pain or discomfort has your child had?" and "How often has your child had bodily pain or discomfort?" An overall mean was calculated on a standardized scale of 0 to 100. Figure 4-23 depicts the overall mean scores at the program-level for the ABD and CFC child populations.

Figure 4-23 — Adjusted Bodily Pain/Discomfort Composite Means



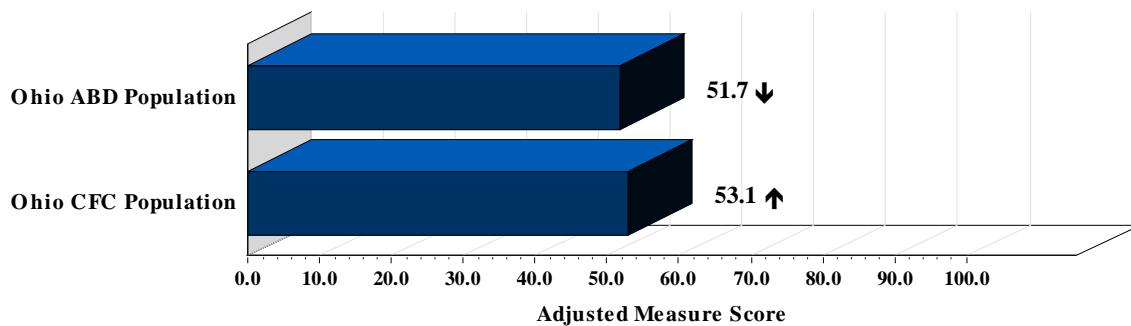
Statistical Significance Note: ↑ indicates the score is significantly higher than the other population
↓ indicates the score is significantly lower than the other population

The Ohio ABD population result was significantly lower than the Ohio CFC population result.

General Behavior

Parents or caretakers of child members were asked five questions to assess their child's general behavior in terms of how often their child argued a lot; had difficulty concentrating or paying attention; lied/cheated; stole things; or had tantrums. In addition, the Global Behavior Item question (refer to page 4-35), which is included in the General Behavior composite measure, asked parents or caretakers of child members, "Compared to other children your child's age, in general how would you rate his/her behavior?" For the six questions comprising the General Behavior composite measure, an overall mean was calculated on a standardized scale of 0 to 100. Figure 4-24 depicts the overall mean scores at the program-level for the ABD and CFC child populations.

Figure 4-24 — Adjusted General Behavior Composite Means



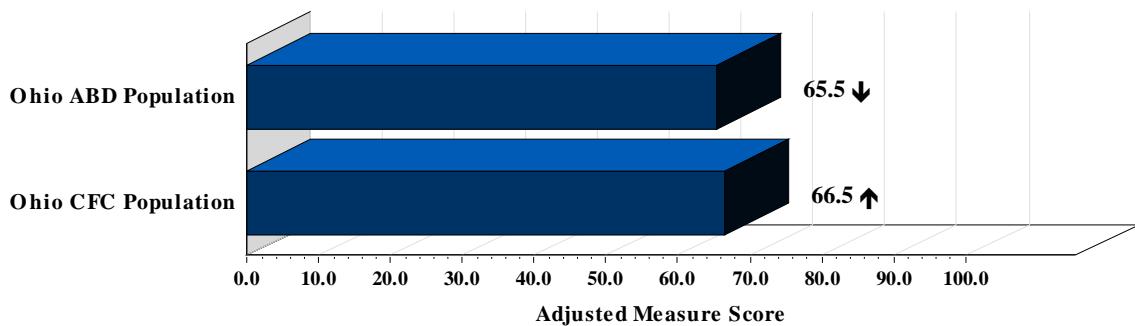
Statistical Significance Note: ↑ indicates the score is significantly higher than the other population
 ↓ indicates the score is significantly lower than the other population

The Ohio ABD population result was significantly lower than the Ohio CFC population result.

Mental Health

The Mental Health composite measure questions asked parents or caretakers of child members, “How much of the time do you think your child: felt like crying; felt lonely; acted nervous; bothered or upset; cheerful?” An overall mean was calculated on a standardized scale of 0 to 100. Figure 4-25 depicts the overall mean scores at the program-level for the ABD and CFC child populations.

Figure 4-25 — Adjusted Mental Health Composite Means



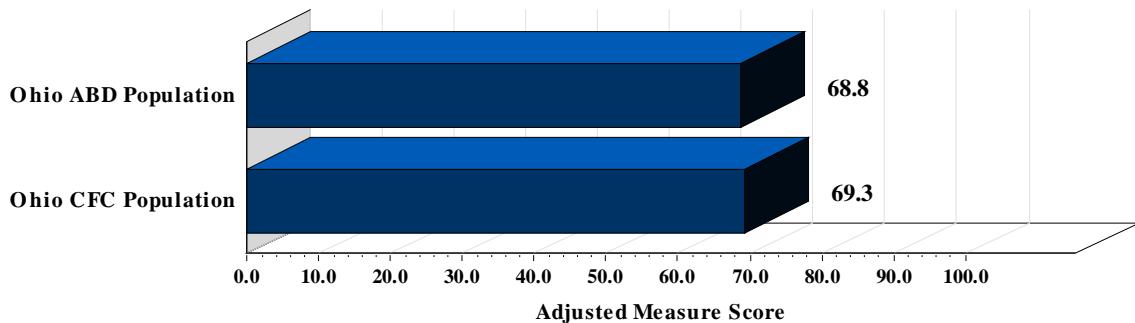
Statistical Significance Note: ↑ indicates the score is significantly higher than the other population
↓ indicates the score is significantly lower than the other population

The Ohio ABD population result was significantly lower than the Ohio CFC population result.

Self-Esteem

Parents or caretakers of child members were asked, "How satisfied do you think your child has felt about: his/her school ability; athletic ability; friendships; looks/appearance; family relationships; life overall?" An overall mean was calculated on a standardized scale of 0 to 100. Figure 4-26 depicts the overall mean scores at the program-level for the ABD and CFC child populations.

Figure 4-26 — Adjusted Self-Esteem Composite Means



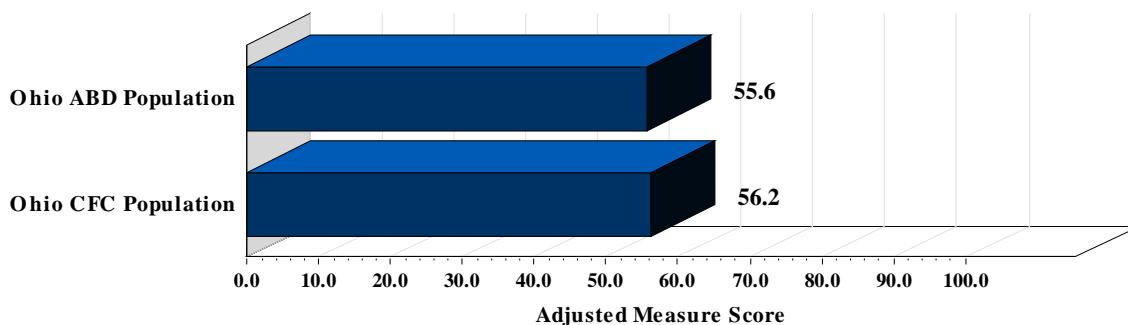
Statistical Significance Note: ↑ indicates the score is significantly higher than the other population
 ↓ indicates the score is significantly lower than the other population

There was no statistically significant difference between the Ohio ABD population result and the Ohio CFC population result.

General Health Perceptions

A total of five true or false statements were asked to parents or caretakers of child members to assess the parent's or caretakers' general health perceptions of their child. The following General Health Perception statements were used to assess parent or caretaker's general health perceptions of their child: "My child seems to be less healthy than other children I know; My child has never been seriously ill; When there is something going around my child usually catches it; I expect my child will have a very healthy life; I worry more about my child's health than other people." In addition, the Global Health rating measure, described on page 4-34, is included in the General Health Perceptions composite measure. This question asked parents or caretakers of child members, "In general, how would you rate your child's health?" For the questions that assessed parents or caretakers general health perceptions of their child, an overall mean was calculated on a standardized scale of 0 to 100. Figure 4-27 depicts the overall mean scores at the program-level for the ABD and CFC child populations.

Figure 4-27 — Adjusted General Health Perceptions Composite Means



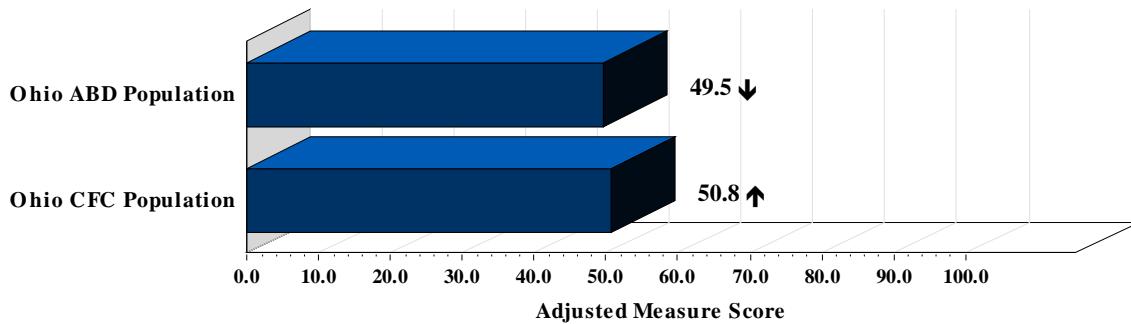
Statistical Significance Note: ↑ indicates the score is significantly higher than the other population
 ↓ indicates the score is significantly lower than the other population

There was no statistically significant difference between the Ohio ABD population result and the Ohio CFC population result.

Parental Impact—Emotional

For the Parental Impact—Emotional composite measure questions, parents or caretakers of child members were asked, “How much emotional worry or concern did each of the following cause you - your child’s physical health; emotional well-being or behavior; attention or learning abilities?” For the three questions that asked parents or caretakers about how much of their emotional worry was caused by their child’s condition, an overall mean was calculated on a standardized scale of 0 to 100. Figure 4-28 depicts the overall mean scores at the program-level for the ABD and CFC child populations.

Figure 4-28 — Adjusted Parental Impact-Emotional Composite Means



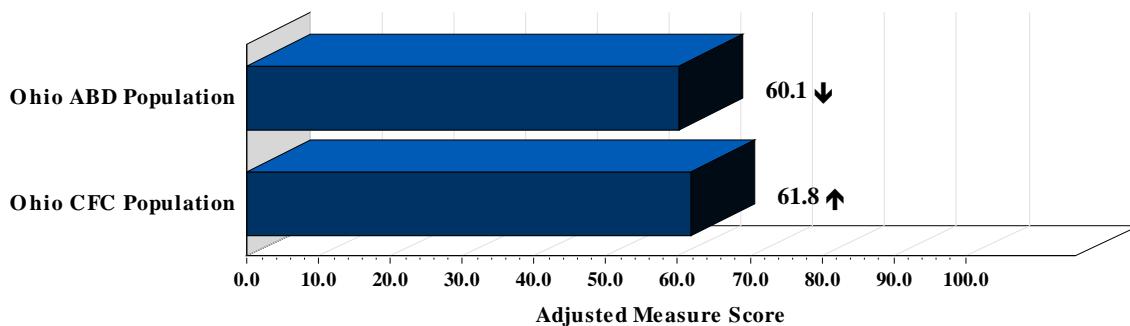
Statistical Significance Note: ↑ indicates the score is significantly higher than the other population
 ↓ indicates the score is significantly lower than the other population

The Ohio ABD population result was significantly lower than the Ohio CFC population result.

Parental Impact—Time

Parents or caretakers of child members were asked, “Were you limited in the amount of time you had for your own needs because of your child’s - physical health; emotional well-being or behavior; attention or learning abilities?” For the three composite measure questions that asked about how their child’s condition(s) limited the amount of time a parent had for their own needs, an overall mean was calculated on a standardized score of 0 to 100. Figure 4-29 depicts the overall mean scores at the program-level for the ABD and CFC child populations.

Figure 4-29 — Adjusted Parental Impact-Time Composite Means



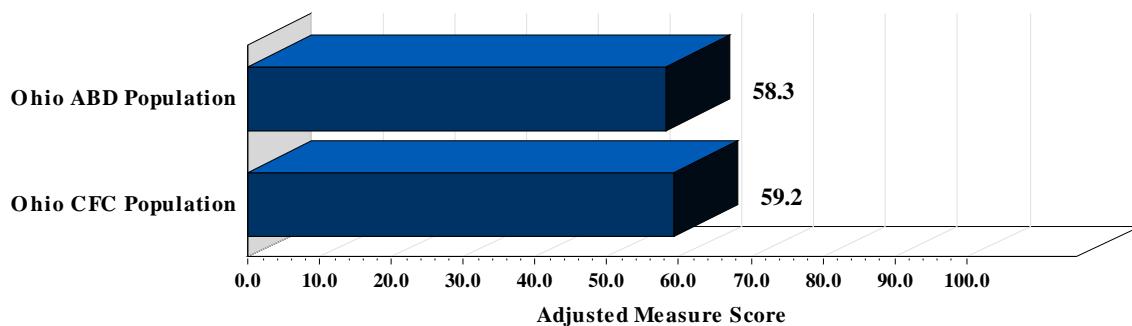
Statistical Significance Note: ↑ indicates the score is significantly higher than the other population
 ↓ indicates the score is significantly lower than the other population

The Ohio ABD population result was significantly lower than the Ohio CFC population result.

Family Activities

Parents or caretakers of child members were asked, “How often has your child’s health or behavior - limited the types of activities you could do as a family; interrupted various everyday family activities; limited your ability as a family to ‘pick up and go’; caused tension or conflict; been a source of disagreements or arguments in your family; caused you to cancel or change plans (personal or work) at the last minute?” For the six composite measure questions related to family activities, an overall mean was calculated on a standardized scale of 0 to 100. Figure 4-30 depicts the overall mean scores at the program-level for the ABD and CFC populations.

Figure 4-30 — Adjusted Family Activities Composite Means



Statistical Significance Note: ↑ indicates the score is significantly higher than the other population
 ↓ indicates the score is significantly lower than the other population

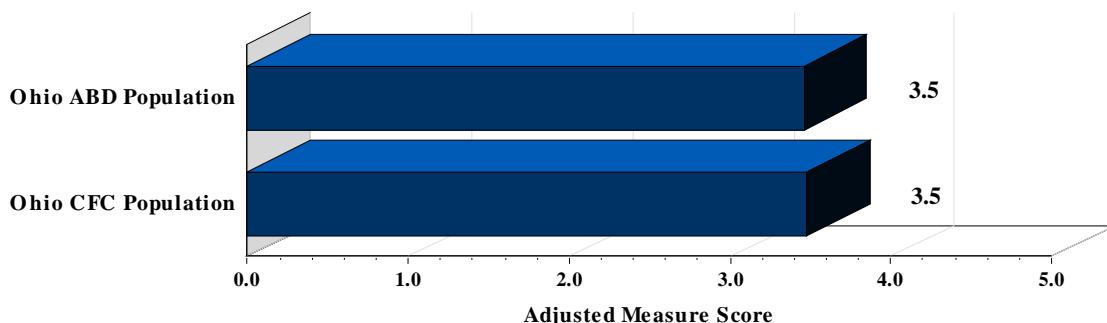
There was no statistically significant difference between the Ohio ABD population result and the Ohio CFC population result.

Individual Items

Change in Health

The Change in Health question asked parents or caretakers of child members, “Compared to one year ago, how would you rate your child’s health now?” For this question, an overall mean was calculated on a standardized scale of 0 to 5, where a higher score indicates better health.⁴⁻⁷ Figure 4-31 depicts the overall mean scores at the program-level for the ABD and CFC child populations.

Figure 4-31 — Adjusted Change in Health Item Means



Statistical Significance Note: ↑ indicates the score is significantly higher than the other population
↓ indicates the score is significantly lower than the other population

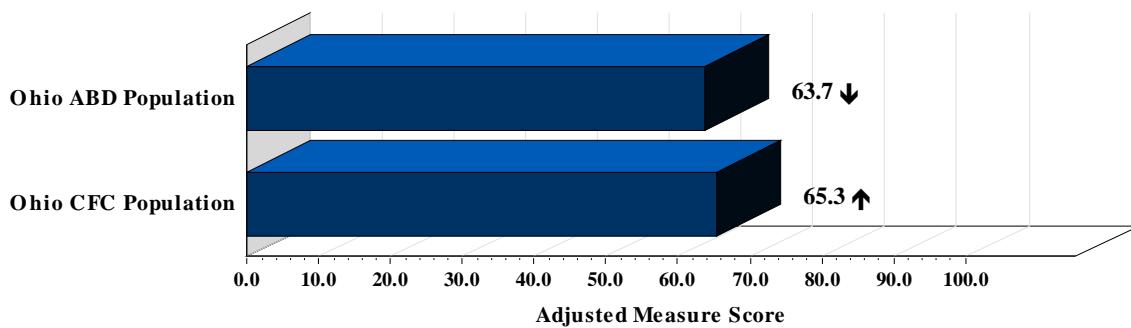
There was no statistically significant difference between the Ohio ABD population result and the Ohio CFC population result.

⁴⁻⁷ According to the CHQ-PF50 Scoring and Interpretation Manual, this measure remains a categorical variable, and is not transformed.

Family Cohesion

The Family Cohesion question asked parents or caretakers of child members, “In general, how would you rate your family’s ability to get along with one another?” For this question, an overall mean was calculated on a standardized scale of 0 to 100. Figure 4-32 depicts the overall mean scores at the program-level for the ABD and CFC child populations.

Figure 4-32 — Adjusted Family Cohesion Item Means



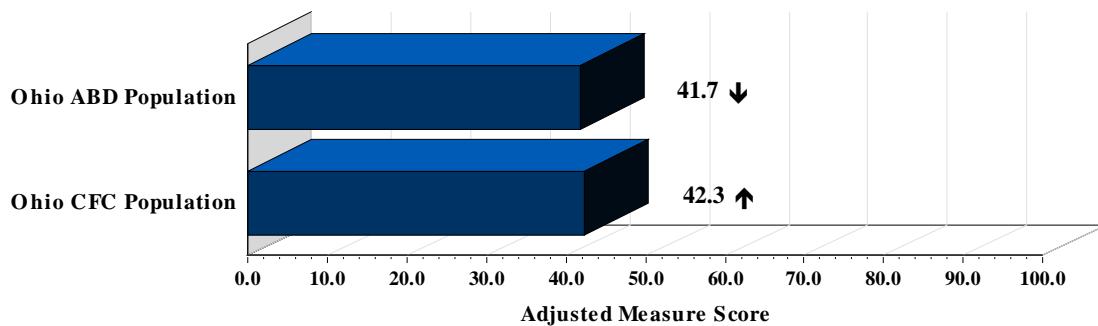
Statistical Significance Note: ↑ indicates the score is significantly higher than the other population
↓ indicates the score is significantly lower than the other population

The Ohio ABD population result was significantly lower than the Ohio CFC population result.

Physical Summary Scores

The PHY score was calculated after scoring the global ratings, composite measures, and individual items. Figure 4-33 depicts the mean adjusted PHY scores for the ABD child population and the CFC child population. PHY scores are based on a scale of 0 to 100. A higher PHY score indicates better health status.

Figure 4-33 — Adjusted Physical Summary Measure Means



Statistical Significance Note: ↑ indicates the score is significantly higher than the other population
↓ indicates the score is significantly lower than the other population

The Ohio ABD population result was significantly lower than the Ohio CFC population result.

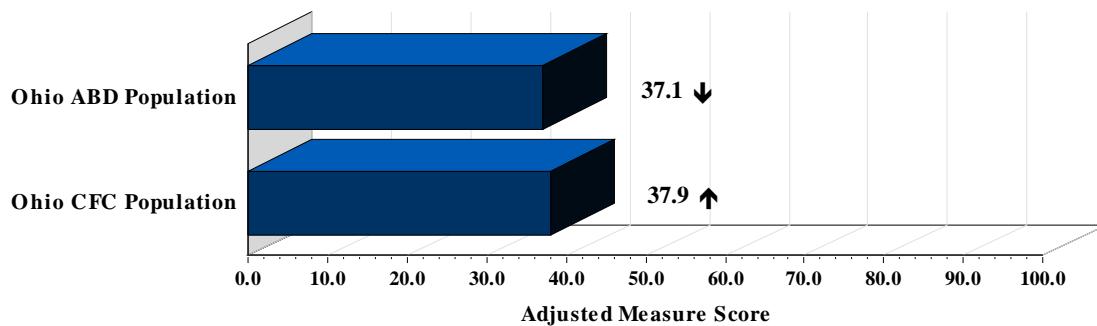
Table 4-11 presents the mean adjusted PHY scores for the ABD and CFC child populations stratified by child member age, gender, race, ethnicity, and number of chronic medical conditions. Higher adjusted PHY scores were calculated for the CFC population than the ABD population for several demographic characteristics. The CFC population had higher PHY scores than the ABD population for the following demographic characteristics: children ages 5 to 7 years old, and 14 to 18 years old; being Male and Female; White, Black, and Multi-Racial races; being Hispanic or Latino and Non-Hispanic or Latino; and having three to five, and six or more chronic medical conditions. On the other hand, the ABD population had higher PHY scores than the CFC population for the following demographic characteristics: children ages 8 to 10 years old, and 11 to 13 years old; Asian and Other races; and having no chronic medical conditions, and one or two chronic medical conditions.

Table 4-11 Adjusted Physical Summary Scores By Selected Child Demographic Characteristics		
	ABD Population	CFC Population
Age		
5 to 7†	41.5	42.5
8 to 10	42.4	42.2
11 to 13	42.1	41.9
14 to 18	41.2	42.5
Gender		
Male	42.6	43.3
Female	39.8	40.5
Race		
White	41.6	42.1
Black	42.0	43.2
Asian	44.2	42.4
Other*	37.7	33.5
Multi-Racial	38.4	41.4
Ethnicity		
Hispanic or Latino	38.4	39.3
Non-Hispanic or Latino	41.9	42.4
Number of Chronic Medical Conditions		
None	44.7	44.2
One or Two	45.0	44.9
Three to Five	41.9	42.2
Six or More	34.7	35.9
†Only child members 5 to 18 years of age were included in the survey.		
*The "Other" race category consists of Unknown, American Indian or Alaska Native, and Native Hawaiian or other Pacific Islander.		

Psychosocial Summary Scores

The PSY score was calculated after scoring the global ratings, composite measures, and individual items. Figure 4-34 depicts the mean adjusted PSY scores for the ABD child population and the CFC child population. PSY scores are based on a scale of 0 to 100. A higher PSY score indicates better health status.

Figure 4-34 — Adjusted Psychosocial Summary Measure Means



Statistical Significance Note: ↑ indicates the score is significantly higher than the other population
 ↓ indicates the score is significantly lower than the other population

The Ohio ABD population result was significantly lower than the Ohio CFC population result.

Table 4-12 presents the mean adjusted PSY scores for the ABD and CFC child populations stratified by child member age, gender, race, ethnicity, and number of chronic medical conditions. The CFC population had higher PSY scores than the ABD population for the following demographic characteristics: children ages 8 to 10 years old, 11 to 13 years old, and 14 to 18 years old; being Male and Female; White, Black, Other, and Multi-Racial races; being Hispanic or Latino and Non-Hispanic or Latino; and having one or two, and three to five chronic medical conditions. On the other hand, the ABD population had higher PSY scores than the CFC population for the following demographic characteristics: children ages 5 to 7 years old; Asian race; and having no chronic medical conditions and six or more chronic medical conditions.

Table 4-12 Adjusted Psychosocial Summary Scores By Selected Child Demographic Characteristics		
	ABD Population	CFC Population
Age		
5 to 7†	39.5	38.9
8 to 10	37.4	39.3
11 to 13	37.2	37.5
14 to 18	36.3	37.1
Gender		
Male	36.8	37.1
Female	37.7	39.6
Race		
White	36.5	37.5
Black	38.2	39.0
Asian	42.1	35.6
Other*	32.1	51.4
Multi-Racial	35.5	37.8
Ethnicity		
Hispanic or Latino	33.2	37.6
Non-Hispanic or Latino	37.3	38.0
Number of Chronic Medical Conditions		
None	44.1	43.6
One or Two	41.9	43.0
Three to Five	35.6	35.9
Six or More	31.0	30.5
†Only child members 5 to 18 years of age were included in the survey.		
*The "Other" race category consists of Unknown, American Indian or Alaska Native, and Native Hawaiian or other Pacific Islander.		

5. SUMMARY

ABD MCP-level Comparative Analysis Results

A summary of the ABD MCP-level comparative analysis is displayed in Table 5-1. Table 5-1 provides specific MCP measure results that were statistically higher or lower than the Ohio ABD population average. Note, the measures not presented in the table did not have any statistically significant differences when compared to the ABD population average.

Table 5-1 MCP Comparison Highlights					
Measures	Buckeye	CareSource	Molina	Paramount	United-Healthcare
Role/Social Limitations—Emotional/Behavioral Composite	↑	—	—	—	—
Role/Social Limitations—Physical Composite	—	—	—	↓	—
Self-Esteem Composite	↑	—	—	—	—
General Health Perceptions Composite	—	—	—	↓	—
Parental Impact—Emotional Composite	↑	↓	—	—	—
Parental Impact—Time Composite	—	—	—	↓	—
Psychosocial Summary Measure	↑	—	—	—	—

↑ Statistically higher than the Ohio ABD population result
↓ Statistically lower than the Ohio ABD population result

- ◆ Buckeye's results were statistically higher than the ABD population results for four measures: Role/Social Limitations—Emotional/Behavioral, Self-Esteem, Parental Impact—Emotional, and Psychosocial Summary.
- ◆ CareSource's results were statistically lower than the ABD population results for one measure: Parental Impact—Emotional.
- ◆ Paramount's results were statistically lower than the ABD population results for three measures: Role/Social Limitations—Physical, General Health Perceptions, and Parental Impact—Time.
- ◆ Molina's and UnitedHealthcare's results were not statistically higher or lower than the ABD population results for any measure.

ABD and CFC Ohio Medicaid Managed Care Program-Level Comparative Analysis Results

A summary of the ABD and CFC Program-level comparative analysis is displayed in Table 5-2. Table 5-2 provides specific population measure results that were statistically higher or lower than the other population (i.e., ABD child population or CFC child population). Note, the measures not presented in the table did not have any statistically significant differences when comparing the populations.

Table 5-2 Population Comparison Highlights		
Measures	ABD Population	CFC Population
Global Health Item	⬇️	⬆️
Global Behavior Item	⬇️	⬆️
Role/Social Limitations—Emotional/Behavioral Composite	⬇️	⬆️
Role/Social Limitations—Physical Composite	⬇️	⬆️
Bodily Pain/Discomfort Composite	⬇️	⬆️
General Behavior Composite	⬇️	⬆️
Mental Health Composite	⬇️	⬆️
Parental Impact—Emotional Composite	⬇️	⬆️
Parental Impact—Time Composite	⬇️	⬆️
Family Cohesion Item	⬇️	⬆️
Physical Summary Measure	⬇️	⬆️
Psychosocial Summary Measure	⬇️	⬆️
⬆️ Statistically higher than the other population ⬇️ Statistically lower than the other population		

- The mean adjusted score for the CFC population was statistically higher than the mean adjusted score for the ABD population for 12 survey measures.

6. CONCLUSIONS AND RECOMMENDATIONS

General Conclusions

The ABD MCP-level comparative analysis revealed little variation among MCP results. In addition, few MCP results were statistically different from the overall ABD population results (four Buckeye rates were statistically higher, while one CareSource rate and three Paramount rates were statistically lower). When comparing the CFC and ABD populations, the CFC population scored slightly higher than the ABD population on most measures; however, the scores for the two populations were very similar. For both populations, measures assessing physical health received the highest scores, while measures evaluating behavioral issues received the lowest scores.

The Physical Functioning and Bodily Pain/Discomfort domains received fairly high scores (i.e., between approximately 75 and 77 percent, on a scale of 0 to 100). In addition, parents and caretakers reported their child's health has improved from the previous year, as indicated by average scores for the Change in Health domain. These findings are consistent with survey data on reported health status. Approximately 78 percent of ABD and 84 percent of CFC child members were reported to be in Good, Very good, or Excellent health.

Conversely, the General Behavior domain received fairly low scores (i.e., approximately 50 percent, on a scale of 0 to 100). The Parental Impact—Emotional domain also received low scores (approximately 50 percent, on a scale of 0 to 100), indicating that child members' physical health, emotional well-being or behavior, attention or learning abilities have a significant impact on parents or caretakers. These findings are consistent with the most prevalent chronic medical conditions reported for the child members surveyed. These conditions were consistent across the ABD and CFC populations and included ADD/ADHD and depression/anxiety/or other emotional problems. In addition, approximately 54 percent of respondents reported their child has three or more chronic medical conditions. Survey findings also revealed that both the ABD and CFC populations scored relatively low on two summary measures that represent physical (PHY) and psychosocial (PSY) health (the scores were 41.7 and 37.1 percent for the ABD population, respectively, and 42.3 and 37.9 percent for the CFC population, respectively, on a scale of 0 to 100).⁶⁻¹

These results confirm the importance of monitoring QoL in this population of members experiencing significant morbidity due to both physical and mental health conditions. Areas of poor performance suggest an opportunity exists to improve this population's health-related QoL. Specific strategies or interventions aligned with these findings would target the family as well as the child, and focus on children with emotional, behavioral, attention, and/or learning difficulties.

⁶⁻¹ PHY and PSY scores have a mean of 50 which is based on a general population. Scores above and below 50 are above and below the average, respectively, in the general U.S. population.

Cautions and Limitations

The findings presented in the 2014 Ohio's Medicaid Managed Care Program QoL Survey Report are subject to some limitations in survey design, analysis, and interpretation. These limitations should be considered carefully when interpreting or generalizing the findings presented. These limitations are discussed below.

Non-Response Bias

The experiences and QoL of the survey respondents may be different than those of non-respondents and may vary by MCP. The respondent/non-respondent analysis within this report highlights differences between the demographic characteristics of the respondent and non-respondent populations. The potential for non-response bias should be considered when interpreting the results.

Case-Mix Adjustment

While the data have been adjusted for some differences in case mix (e.g., age, chronic medical conditions, etc.), it was not possible to adjust for differences in child member characteristics that were not measured. These include any characteristics that may not have been under the MCP's control.

Cross-Sectional Study Design

The QoL survey was cross-sectional, taking into account the responses of parents or caretakers of child members at a single point in time. The results in these analyses should be interpreted with caution given that this survey represents an initial baseline assessment.

Causal Inferences

Although Ohio's Medicaid Managed Care Program QoL Survey Report examines whether respondents of various MCPs report differences in QoL, these differences may not be attributable to the MCP. The analyses identify whether respondents within different MCPs have different QoL. The survey itself does not necessarily reveal the exact cause of these differences.

Medically Handicapped Children Conditions

From April 1, 2013 through July 1, 2014 the Ohio Medicaid Managed Care Program excluded new enrollments of children served by the Program for Medically Handicapped Children who had cystic fibrosis, hemophilia, and/or cancer. Although these three conditions were not listed in the QoL survey, the survey data on chronic medical condition prevalence should be interpreted with this in mind.

Recommendations for Quality Improvement

The results of the QoL survey suggest an opportunity exists to improve the health-related QoL of children with chronic or disabling conditions. Quality improvement strategies should focus on providing services to child members and their families, and target children with emotional, behavioral, attention, and/or learning difficulties. The recommendations below are provided for the MCPs' consideration in guiding the development of strategies and interventions to improve the health-related QoL of children with chronic or disabling conditions.

Coordination of Behavioral Health Services

MCPs should develop a structured approach to coordinating care for children with complex needs. This includes developing strategies for meeting the behavioral health, learning, and/or attention needs of children. Research has identified a planning approach and an implementation approach that can be used to provide a coordinated care system that addresses the medical, behavioral, and social needs of children with chronic conditions.⁶⁻²

The planning approach focuses on the developing aspect of providing care management services to children and their families. Some of the key elements involved in the planning process include a patient- and family-centered system of care that focuses on community-based services that are built on a system of care values (e.g., team-based, individualized, outcomes-based). Research has shown that efforts that focus on moving the child towards community-based services (i.e., informal support) like home-based therapy, mentoring services, and community support groups can promote better outcomes. However, in order for informal support to be effective, families or caretakers must be actively involved in the planning, decision making, and care of the child.⁶⁻³

Parent or caretaker involvement relies heavily on the care manager. As a result, care managers should actively engage with the parent or caretaker by building on the child's and family's strengths in order to incorporate every aspect of their lives into the type of care they receive. In order to promote sustained engagement and involvement of the family with the plan of care for their child, MCPs should emphasize the need for culturally competent care managers.⁶⁻⁴ The MCPs should implement cultural sensitivity training for their care managers, which could include reaching out to a prominent cultural community leader to discuss how cultural differences may influence a plan of care. By doing this, MCPs emphasize the need for a culturally aware care manager that is equipped to handle culturally sensitive situations.

Once the planning process is in place, the care coordination can begin, such as coordinating multiple care services, helping families and children gain access to those services, and advocating

⁶⁻² Simons D, Pires SA, Hendricks T, and Lipper J. Intensive care coordination using high-quality wraparound: state and community profiles. *Center for Health Care Strategies*. July 2014. Available at: <http://www.chcs.org/resource/intensive-care-coordination-using-high-quality-wraparound-children-serious-behavioral-health-needs-state-community-profiles/>. Accessed on: January 15, 2015.

⁶⁻³ Winters NC, and Metz WP. The wraparound approach in systems of care. *Psychiatric Clinics*. Mar 2009; 32 (1): 135-151.

⁶⁻⁴ Ibid.

for children and families.⁶⁻⁵ In order for care to be implemented effectively, MCPs should emphasize the need for coordination between the primary care and behavioral health providers serving children. This type of coordination may involve collaboration between child welfare, Medicaid, and behavioral health systems. A cross-system approach (e.g., data sharing and communication between different healthcare providers) is essential to ensuring the care manager's plan is tailored to the child's needs.⁶⁻⁶ Through planning and implementing coordinated care, MCPs can work toward providing coordinated care to children and their families in order to meet every physical, social, and mental need.

These approaches can be used by MCPs to train care managers to promote coordination between primary care and behavioral health providers.⁶⁻⁷ Care managers should be trained to assess the child, organize a child and family team, and develop a treatment plan based on the needs and goals of the child and family, including those needs related to behavioral health. According to the results of the QoL survey, the lowest performing measures (i.e., the farthest from 100), may have demonstrated the need for integrated services specific to assisting children with behavioral, learning, and/or attention problems. Care managers should work with the child's family and primary care physician to connect the child and family to the resources available for behavioral, learning, and/or attention services. By investing in care coordination training for their care managers, MCPs may improve the coordination of care they provide to children.

Patient- and Family-Centered Care

Patient- and family-centered care is an approach to the planning, delivery, and evaluation of healthcare that is grounded in mutually beneficial partnerships among healthcare providers, patients, and families. It is founded on the understanding that the family plays a vital role in ensuring the health and well-being of patients of all ages.⁶⁻⁸ Research has shown that patient- and family-centered care results in improved care, and more efficient use of resources (e.g., reduced non-urgent emergency department visits in children), ultimately leading to improved QoL for children and their families. By incorporating the strategies listed below, MCPs can provide patient- and family-centered care management services to children with chronic conditions and their families.

⁶⁻⁵ Simons D, Pires SA, Hendricks T, and Lipper J. Intensive care coordination using high-quality wraparound: state and community profiles. *Center for Health Care Strategies*. July 2014. Available at: <http://www.chcs.org/resource/intensive-care-coordination-using-high-quality-wraparound-children-serious-behavioral-health-needs-state-community-profiles/>. Accessed on: January 15, 2015.

⁶⁻⁶ Allen KD, Pires SA, and Mahadevan R. Improving outcomes for children in child welfare: a Medicaid managed care toolkit. *Center for Health Care Strategies*. Feb 2012. Available at: http://www.chcs.org/media/Child_Welfare_Quality_Improvement_Collaborative_Toolkit.pdf. Accessed on January 15, 2015.

⁶⁻⁷ Pires S, Grimes K, Gilmer T, Allen K, Mahadevan R, and Hendricks T. Identifying opportunities to improve children's behavioral health care: an analysis of Medicaid utilization and expenditures. *Center for Health Care Strategies*. Dec 2013. Available at: <http://www.chcs.org/media/Identifying-Opportunities-to-Improve-Childrens-Behavioral-Health-Care2.pdf>. Accessed on January 15, 2015.

⁶⁻⁸ Institute for Patient- and Family-Centered Care. Frequently asked questions. Available at: <http://www.ipfcc.org/faq.html>. Accessed on: March 13, 2015.

Care Manager Training

The results of the QoL survey showed that parents or caretakers of child members with chronic conditions perceive their child's health fairly negatively (i.e., responses to the General Health Perception composite measure). A parent or caretaker's negative perception can have detrimental impacts on the child and family. For example, as a family's stress increases, the likelihood of treatment compliance for the child's chronic condition decreases.⁶⁻⁹ Research has shown that parents or caretakers of children with chronic conditions face two main issues: learning to manage their child's health, and coping with the stress caused by their child's health.⁶⁻¹⁰

In order to relieve family tension and improve the QoL of the child, the MCPs should contemplate training their care managers to consider the medical and emotional needs of both the child and the family. Care managers should be evaluated on several core competencies, such as caring and compassion, communication and listening, job skills and functional knowledge, customer service, leadership, outcome orientation, team orientation, and talent assessment and development. The following principals can be incorporated into training for care managers:⁶⁻¹¹

1. Self-awareness – care managers should know their strengths and weaknesses and the effect of emotions on thoughts and behaviors.
2. Self-management – care managers should have the ability to manage emotions, control impulsive feeling/behaviors, take initiative on commitments, and adapt to circumstances.
3. Social awareness – care managers should understand and pick up on emotions and emotional cues, understand needs/concerns of members, and feel comfortable in social settings.
4. Relationship management – care managers should know how to maintain good relationships, communicate clearly, manage conflict, and work well in a team environment.

By working with care managers who are trained and equipped to consider medical and emotional needs, children with chronic conditions and their families may receive the services and quality care they need, and obtain necessary resources. Trained care managers can encourage and stress the importance of family or caretaker interaction and involvement in their child's health care to obtain needed services. MCPs should consider implementing these strategies into already existing programs (e.g., care management program). MCPs can implement these strategies by ensuring care managers are trained to focus on patient- and family-centered care, especially when working with children with chronic conditions.

⁶⁻⁹ Major DA. Utilizing role theory to help employed parents cope with children's chronic illness. *Health Education Research*. 2003; 18 (1): 45-57

⁶⁻¹⁰ Smith BA, and Kaye DL. Treating parents of children with chronic conditions: the role of the general psychiatrist. *Focus*. 2012; X (3): 255-265.

⁶⁻¹¹ Ridenhour, C. Bringing emotional intelligence to staff training. *LeadingAge Magazine*. LeadingAge, Mar. 2014. Available at: http://www.leadingage.org/Bringing_Emotional_Intelligence_to_Staff_Training_V4N2.aspx. Accessed on January 20, 2015.

Parent and Family Support Groups

MCPs should encourage parents or caretakers of chronically ill children to attend support groups within the local community. Support groups offer a platform of security, and suggestions are provided that can improve the emotional health of parents or caretakers. A parent's or caretaker's emotional health is vital to the continued successful care and support of a child with chronic conditions.

MCPs should encourage children and families to attend community or hospital based parent or family support groups led by clinical specialists. Clinical specialists are able to provide insights and suggestions for coping with specific chronic conditions, while other parents or caretakers are able to offer their own experiences with their children. Often this type of experience allows parents or caretakers of similarly ill children to feel supported and understood.

In order to facilitate children and families attending support groups, MCPs should routinely update their list of referrals for available support groups within a community. By maintaining this referral list, care managers are able to easily connect support group care to families and children with chronic conditions. Furthermore, MCPs should consider offering transportation and/or payment support (e.g., transportation to and from support groups, assist in paying for services) so parents or caretakers can utilize these services.

Care managers should work to identify support services (e.g., behavioral health counseling or therapy) for the child, if a need or interest is expressed by the family or child. Support services, like counseling, that are medically necessary for children may require family or caretaker involvement, which ultimately improves the behavioral or physical functioning of the child by building the family dynamic. When support systems like the family function constructively, the ability to establish strong family cohesion where one individual is not overexerted can exist. By working with a professional to establish a consistent set of expectations that allow behavioral or physical difficulties to be managed, parents or caretakers are able to meet the needs of their child while maintaining their own mental and physical health.⁶⁻¹²

Recommendations for Future Study

HSAG recommends repeating the QoL Survey in 2016 for continued assessment and monitoring of the health-related QoL of child members with chronic or disabling health conditions in Ohio's Medicaid Managed Care Program. HSAG recommends using the same survey instrument in 2016 and performing a standard cross-sectional trend evaluation of the 2014 results at the MCP, ABD population, and CFC population levels. In addition, HSAG recommends performing an MCP-level longitudinal evaluation in 2016 (i.e., evaluate results from respondents who completed the survey in 2014) if there are a sufficient number of respondents for this analysis and it is determined that intervening changes to the Ohio Medicaid Managed Care Program do not preclude this assessment. HSAG would work with ODM to develop the most appropriate methodology for the 2016 study.

⁶⁻¹² Theofanidis D. Chronic illness in childhood: psychosocial adaptation and nursing support for the child and family. *Health Science Journal*. 2007; 2: 1-8.

Quality Improvement References

The QoL Survey was developed to obtain information on health-related QoL experiences relevant to child members with chronic or disabling health conditions. However, the survey also can play an important role as a tool for healthcare organizations, which can use the results to identify relative strengths and weaknesses, determine where they need to improve to help manage members' chronic conditions, and track their progress over time. The following references offer guidance on possible approaches to QoL-related QI activities.

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<http://www.ahrq.gov/research/findings/factsheets/children/index.html>. Accessed on Sep 29, 2014.

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Simons D, Pires SA, Hendricks T, and Lipper J. Intensive care coordination using high-quality wraparound: state and community profiles. *Center for Health Care Strategies*. July 2014. Available at: <http://www.chcs.org/resource/intensive-care-coordination-using-high-quality-wraparound-children-serious-behavioral-health-needs-state-community-profiles/>. Accessed on: Jan 15, 2015.

Smith BA, and Kaye DL. Treating parents of children with chronic conditions: the role of the general psychiatrist. *Focus*. 2012; X (3): 255-265.

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APPENDIX A. SURVEY QUESTIONS

The QoL survey instrument was the Child Health Questionnaire – Parent Form 50 (CHQ-PF50) developed by HealthActCHQ, Inc., with supplemental questions chosen by ODM added to the end of the survey.

CHQ-PF50

The CHQ-PF50 survey questions from the QoL survey are listed below:^{A-1}

- ◆ In general, how would you rate your child's health?
- ◆ Has your child been limited in any of the following activities due to health problems - doing things that take a lot of energy, such as playing soccer or running; doing things that take some energy such as riding a bike or skating; ability (physically) to get around the neighborhood, playground, or school; walking one block or climbing one flight of stairs; bending, lifting/stooping; taking care of him/herself?
- ◆ Has your child's school work or activities with friends been limited in any of the following ways due to emotional difficulties or problems with his/her behavior - limited in the kind of schoolwork or activities with friends he/she could do; limited in the amount of time he/she could spend on schoolwork or activities with friends; limited in performing schoolwork or activities with friends?
- ◆ Has your child's school work or activities with friends been limited in any of the following ways due to problems with his/her physical health - limited in the kind of schoolwork or activities with friends he/she could do; limited in the amount of time he/she could spend on schoolwork or activities with friends?
- ◆ How much bodily pain or discomfort has your child had?
- ◆ How often has your child had bodily pain or discomfort?
- ◆ How often did each of the following statements describe your child - argued a lot; had difficulty concentrating or paying attention; lied/cheated; stole things; had tantrums?
- ◆ Compared to other children your child's age, in general how would you rate his/her behavior?
- ◆ How much of the time do you think your child: felt like crying; felt lonely; acted nervous; bothered or upset; cheerful?
- ◆ How satisfied do you think your child has felt about: his/her school ability; athletic ability; friendships; looks/appearance; family relationships; life overall?

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- ◆ My child seems to be less healthy than other children I know; My child has never been seriously ill; When there is something going around my child usually catches it; I expect my child will have a very healthy life; I worry more about my child's health than other people.
- ◆ Compared to one year ago, how would you rate your child's health now?
- ◆ How much emotional worry or concern did each of the following cause you - your child's physical health; emotional well-being or behavior; attention or learning abilities?
- ◆ Were you limited in the amount of time you had for your own needs because of your child's - physical health; emotional well-being or behavior; attention or learning abilities?
- ◆ How often has your child's health or behavior - limited the types of activities you could do as a family; interrupted various everyday family activities; limited your ability as a family to "pick up and go"; caused tension or conflict; been a source of disagreements or arguments in your family; caused you to cancel or change plans (personal or work) at the last minute?
- ◆ In general, how would you rate your family's ability to get along with one another?

Supplemental Questions

In addition to survey questions from the CHQ-PF50, ODM added supplemental questions to the QoL survey. The following are the supplemental survey questions, and corresponding response options:

- ◆ Has your child's doctor ever told you that your child had (Yes or No response option):
 - Attention deficit disorder/attention deficit hyperactivity disorder
 - Depression, anxiety, or other emotional problems
 - Intellectual disability
 - Autism or autism spectrum disorder
 - Allergies
 - Asthma
 - Migraine or frequent headaches
 - Seizure disorder
 - Joint problems
 - Heart problems
 - Diabetes
 - Obesity
 - Hearing Impairment or deafness
 - Visual Impairment or blindness

- ◆ Has your child's doctor ever told you that your child had any other condition(s)?
 - Yes (Please specify condition (s) below)
 - No
- ◆ What is your child's age?
 - Less than 1 year old
 - ____ years old (write in)
- ◆ Is your child male or female?
 - Male
 - Female
- ◆ Is your child of Hispanic or Latino origin or descent?
 - Yes, Hispanic or Latino
 - No, Not Hispanic or Latino
- ◆ What is your child's race?
 - White
 - Black or African-American
 - Asian
 - Native Hawaiian or other Pacific Islander
 - American Indian or Alaska Native
 - Other
- ◆ What is your age?
 - Under 18
 - 18 to 24
 - 25 to 34
 - 35 to 44
 - 45 to 54
 - 55 to 64
 - 65 to 74
 - 75 or older
- ◆ Are you male or female?
 - Male
 - Female

- ◆ Are you of Hispanic or Latino origin or descent?
 - Yes, Hispanic or Latino
 - No, Not Hispanic or Latino
- ◆ What is the highest grade or level of school that you have completed?
 - 8th grade or less
 - Some high school, but did not graduate
 - High school graduate or GED
 - Some college or 2-year degree
 - 4-year college graduate
 - More than 4-year college graduate
- ◆ Who completed this form?
 - Person to whom the survey was addressed (i.e., the parent or caretaker of the child)
 - Person to whom the survey was addressed (i.e., the parent or caretaker of the child) and the child member
 - Child member
 - Other