Does Race Matter? Access and Service Use for Children by Race during 2002

Supplemental Report on Children with Histories of Involvement with Social Services

Presented by

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AHCI is a contract agency for the Allegheny County Department of Human Services' HealthChoices Program.

About HealthChoices and AHCI

HealthChoices, Pennsylvania's managed care program for Medicaid, provides physical health care and behavioral health care services to both children and adults. The goals of Pennsylvania's HealthChoices program are to improve:

- Access to services;
- Quality of care;
- Continuity of the care provided in a multi-system environment; and
- Coordination and distribution of finite Medical Assistance resources.

Under HealthChoices, Allegheny County contracts with the Commonwealth of Pennsylvania to implement the behavioral health services portion of the program. Allegheny County has delegated responsibilities for managing the behavioral health program to two other organizations:

- The County contracts with Community Care Behavioral Health Organization (Community Care) to manage behavioral health services for the HealthChoices program.
- Allegheny County also contracts with Allegheny HealthChoices, Inc. (AHCI) to carry out the County's oversight and monitoring responsibilities required under the HealthChoices program.

This report is one of a series published by AHCI as part of its oversight and monitoring responsibilities. All AHCI reports can be downloaded from our Web site at www.ahci.org. For more information or additional copies of this report, please visit our Web site, contact us by phone at 412-325-1100, or email eheberlein@ahci.org.

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Executive Summary

Research indicates that approximately 42% of children and adolescents in child welfare programs meet diagnostic criteria for a mental disorder (SGR Supplement 62), a considerably higher rate than the general population. Because children become involved with child welfare programs when abuse or neglect is an issue, children involved with child welfare programs experience higher rates of mental illness (Snowden 265). Similarly, children and adolescents involved with the juvenile justice system also have high rates of behavioral health disorders when compared with the general population.

These high rates of behavioral health needs in children served by the child welfare and juvenile justice populations provide the context for this supplementary report to Allegheny HealthChoices, Inc.'s (AHCI) November 2004 report, "Does Race Matter? Access and Service Use for Children by Race during 2002." While children with histories of involvement with social services were part of the population studied by this report, findings specific to children with social service histories were not reported separately. This supplementary report outlines findings related to access and service use patterns by race for children with histories of social service involvement.

Access and use patterns of behavioral health services were compared for African-Americans and Caucasians with histories of involvement with three social services: the Office of Children, Youth and Families (CYF), substitute care,[1] and the Juvenile Probation Office (JPO) during 2002. Key findings include:

- African-Americans accessed services at lower rates than Caucasians across age and gender groups. The size of the differences between races varied by the type of social service involvement, age and gender.
- When the various behavioral health services were examined, African-Americans consistently accessed individual services at lower rates than Caucasians. Gaps between races varied by the type of behavioral health service.
- African-Americans were somewhat more likely to access just one service type during 2002; Caucasians used multiple services in higher proportions than African-Americans.
- While outpatient mental health services were the most commonly used service type, consumers, regardless of race, often had less than one hour of treatment. For some providers, this may mean that consumers came in for their intake/assessment and did not return for any treatment. Also, consumers could have been referred to another service type as the result of their assessment.
- For each service examined, the range of units used at the individual consumer level varied greatly. A few consumers used very large amounts of specific services.
- African-Americans' use of behavioral health rehabilitation services (BHRS), case management, and family-based services was lower than Caucasians' use of these services. However, African-Americans' use of partial hospitalization services was significantly larger. It should be noted that placement in school-based partial hospitalization programs is usually initiated by the school district. While the size of the differences varied by type of social service involvement, the trends for children with histories with CYF, substitute care, and JPO were similar.

[1] Substitute care placements include CYF placements outside the child's home in foster care, kinship care, and residential placements. Substitute care also includes behavioral health placements at residential treatment facilities and residential drug and alcohol facilities.

- Use of crisis services, inpatient mental health services, outpatient mental health services, and medication checks was similar by race for all three social service-involved groups.
- For all three social service-involved groups, the cost for behavioral health services for Caucasian males was more than twice the cost for African-American males and females of both races. Treatment for African-American females was least costly across the race and gender groups. African-American males and Caucasian females had very similar costs.
- The overall pattern in the diagnostic data suggests that African-Americans were more likely to be diagnosed with ADHD, conduct disorder, or oppositional defiant disorder, and less likely to be diagnosed with a mood disorder or substance abuse disorder.

The children included in this report would have been connected to child welfare or juvenile justice professionals at some point during the years of the HealthChoices program. Because these professionals have the ability to recommend behavioral health evaluations and make referrals, AHCI expected that a higher proportion of these children would receive treatment, regardless of race. In addition, African-Americans with histories of social service involvement were enrolled in HealthChoices for longer periods than Caucasians with histories of social service involvement. Also, African-Americans are not expected to have a lower prevalence for mental disorders or lower need for treatment than Caucasians, based solely on race. Thus, we anticipated higher usage than we found for African-Americans. This indicates that there is more work to be done in equalizing access to quality treatment for racial minorities in Allegheny County who are involved with CYF, substitute care, or JPO.

This is the first report AHCI has written that examines in-depth behavioral health treatment for children who have been involved with the child welfare and juvenile justice systems in Allegheny County. We believe these findings lead to multiple opportunities for barrier analysis and discussion among the behavioral health, education, child welfare, and juvenile probation systems. These findings also suggest that there are possible opportunities for policy initiatives to better coordinate care. We look forward to the opportunity to participate in collaborative discussions with these systems and are more than willing to complete additional analyses on this subject based on stakeholder questions and suggestions.

Introduction

In 2001, the U.S. Department of Health and Human Services released "Mental Health: Culture, Race and Ethnicity," a supplemental report to the 1999 "Mental Health: A Report of the Surgeon General." This supplement illustrates "striking disparities" for minorities in accessing behavioral health care and receiving high quality treatment, even though minorities and Caucasians have similar rates of mental disorders (SGR Supplement 3).[2]

Interest in relating these national findings to the Allegheny County HealthChoices population resulted in AHCI's analysis of behavioral health service access rates for African-American and Caucasian youth. Results published in 2003 indicated that 14% of enrolled Caucasian youth accessed services during 2002, compared to 9% of African-American youth.

The previous AHCI study provoked many additional questions on the issue of racial disparities in behavioral health care for the Allegheny County HealthChoices population. Stakeholders agreed that the report was informative, but more specific information would assist discussion and indicate possible system interventions to address any identified disparities. Specifically, when the report was shared with representatives from the Office of Children, Youth and Families (CYF) and Juvenile Justice (JPO), these stakeholders expressed interest in analyses of behavioral health service access for the children their agencies served.

In November of 2004, AHCI published an in-depth study of access and service utilization by race. While children who had been involved with social services were included in this report, findings specific to these children were not reported separately. This supplementary report outlines findings for children with histories of involvement with social services.

[2] Citations for "Mental Health: A Report of the Surgeon General" are abbreviated as "SGR," followed by the page reference. Citations for "Mental Health: Culture, Race and Ethnicity" are abbreviated as "SGR Supplement," followed by the page reference. Because these reports are cited frequently, these abbreviations were used.

Research Questions

Research indicates that approximately 42% of children and adolescents in child welfare programs meet diagnostic criteria for a mental disorder (SGR Supplement 62), a considerably higher rate than for the general population. Because children become involved with child welfare programs when abuse or neglect is an issue, children involved with child welfare programs experience higher rates of mental illness (Snowden 265). Similarly, children and adolescents involved with the juvenile justice system also have high rates of behavioral health disorders when compared with the general population.

Based on this research, we expect children with histories of involvement with the child welfare or juvenile justice systems in the Allegheny County HealthChoices population to have a higher need for behavioral health services. Also, because these children have been connected at some point in their histories to child welfare or juvenile justice professionals with the capacity to identify behavioral health issues and make referrals, we expect a higher proportion of children will receive treatment, regardless of race.

Behavioral health treatment received by African-Americans and Caucasians with past or current involvement with these systems was analyzed in this context. Two aspects of behavioral health treatment were examined for disparities: access and quality of treatment.

Access

Research has demonstrated that African-Americans access behavioral health care at lower rates than Caucasians (SGR Supplement 3). Many factors are thought to be associated with whether or not individuals who need behavioral health care decide to access treatment from a behavioral health professional (as opposed to other professionals, non-professionals, or not at all). These factors include insurance coverage, mistrust of service providers, and stigma (SGR Supplement 16, 28-30). Different treatment seeking patterns may also play a role; some research has shown African-Americans may seek care in higher proportions than Caucasians from their primary care physician (SGR Supplement 32), or from "informal" care givers, including clergy and family (SGR Supplement 28).

Why don't we report on statistical significance?

Tests for *statistical significance* are used when the data being analyzed is a sample of the population. Often, it is very time-consuming and/or expensive to analyze an entire population, so a representative subgroup of the population, a *sample*, is selected for analysis. If results are *statistically significant,* the differences or trends in the sample can be generalized from the sample to the entire population. This is a very powerful concept in data analysis.

In this report, we did not test for statistical significance. We analyzed the entire HealthChoices population 20 years and younger involved with CYF, substitute care, or JPO, so any differences observed are actual differences in service access and use during 2002. Our interpretation of importance, or significance, is based on thresholds we set to establish *clinical significance* or *important differences*. Any assumptions and thresholds are explained further in the findings sections of the report.

Evaluating differences in access rates must be considered in the context of *how many individuals have a need for treatment*. According to the DSM-IV,[3] the prevalence (the proportion of people out of the population expected to have an illness) of some disorders

[3] The Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV) is the tool used by clinicians to diagnose individuals with mental disorders.

varies by age and gender. However, "epidemiological research on children and youth provides little basis for conclusions about differences between African-Americans and whites" in the overall prevalence of mental illness (SGR Supplement 58). Differences in access rates may have many explanations, but lower prevalence of mental disorders in African-Americans is not one of them.

While overall prevalence rates should be assumed to be similar, several social and cultural factors or circumstances identified in the literature state African-Americans may be expected to have higher rates of some mental disorders than Caucasians. These factors include poverty, physical health problems, involvement with the child welfare system (as mentioned above), and exposure to violence (SGR Supplement 39, 56, 62).

The nature of the available data limited how conclusively access rates could be analyzed in comparison to factors affecting the decision to access treatment and the need in the HealthChoices 0-20 year population for treatment. However, African-American and Caucasian access rates for age, gender, and for past involvement with each of the social service groups could be compared. The role of insurance coverage in access rates was also analyzed; the type of HealthChoices eligibility provides some indication of treatment need and poverty status. The role of coverage length in access rates was also assessed.

Some research has found that African-Americans disproportionately receive emergency care and treatment in psychiatric hospitals (SGR Supplement 64-65). This higher use can be related to findings that indicate African-Americans are also more likely to delay seeking treatment until their symptoms become more severe (SGR Supplement 28, 65). With available data, African-American and Caucasian access rates could be compared for specific services, and what services were first used, to evaluate if African-Americans were more likely to use more intensive or crisis services and fewer community-based services.

Research questions measuring access for children with current or past involvement with CYF, substitute care, and/or JPO:

- How did African-American and Caucasian access rates differ within age and gender groups?
- How did African-American and Caucasian access rates differ when individual behavioral health services were examined?
- Were there differences in how African-Americans and Caucasians started receiving behavioral health services under HealthChoices?

Effective treatment

Once African-Americans access behavioral health services, they are less likely than Caucasians to receive effective treatment for behavioral health problems (SGR Supplement 3). Effective treatment involves accurate diagnosis, receiving the appropriate type of service(s), and remaining in treatment for a sufficient length of time. African-Americans who do access specialty mental health care are more likely to leave treatment early (SGR Supplement 64). As noted above, African-Americans are more likely to receive emergency care or treatment in psychiatric hospitals. They are also more likely to be misdiagnosed in certain settings (SGR Supplement 66).

Thoroughly analyzing effective treatment requires analysis of symptoms, impairment, and accuracy of diagnosis compared to the quality, intensity and duration of services received. Because available data is based on paid claims for services (rather than clinical record reviews), information on symptoms, impairment, and quality of services delivered is not available. However, claims data permitted very valuable comparative analyses. African-American and

Caucasian rates of engagement, number of services used, and types of services used were compared. Comparisons also included dollars spent on treatment.

Because effective treatment is dependent on accurate diagnosis, diagnostic patterns by race were also examined. Research has found that African-Americans are more likely to be misdiagnosed in certain settings (SGR Supplement 64); AHCI has heard concerns that African-American youth may be over-diagnosed with oppositional defiant disorder or conduct disorder and under-diagnosed with depression.

Research questions measuring effective treatment for children with current or past involvement with CYF, substitute care, and/or JPO:

- Were African-Americans more likely than Caucasians to have just one visit to a behavioral health provider?
- Were African-Americans more likely than Caucasians to use just one type of service during the year, rather than multiple types of services?
- Did African-Americans and Caucasians use different amounts of individual services?
- Were the total costs of services used by African-Americans different from Caucasians?
- Were African-Americans diagnosed with specific behavioral health disorders at similar rates to Caucasians?

Description of the Data

This report focuses on children and youth 0-20 years with histories of involvement with CYF, JPO, and/or substitute care. To be included in the analysis, individuals had to be enrolled in the HealthChoices program for at least one month during 2002. Individuals must also have had some level of involvement with one or more of these social services at some point during the HealthChoices program (which has been operating since 1999)[4]. These individuals were defined as *CYF enrollees, JPO enrollees,* and *substitute care enrollees.* It is important to note that individuals can be in more than one enrollee group. Enrollees who used at least one unit of any behavioral health service (measured by paid claims) and had a history of involvement with CYF, JPO, and/or substitute care were counted as *consumers*. These individuals are defined as *CYF consumers, JPO consumers,* and *substitute care consumers*. As with the enrollee groups, individuals can be represented in more than one consumer group if they were involved with more than one social service at some point.

Four categories of variables were used: social service involvement variables, demographic variables, HealthChoices eligibility variables, and service use variables. Both enrollees and consumers had data for the first three variable categories; only consumers had data for the service use variables. The variables, by category, are defined below.

Social Service Variables

This report includes three social service variables. For each variable, enrollees either *had a history of involvement* or *did not have a history of involvement with* the individual social service.

- ***Office of Children, Youth and Families (CYF):*** The mission of CYF is to protect children from abuse and neglect. In Allegheny County, CYF works with children, families, the courts, and service providers to protect children and preserve families. Families become involved with CYF when CYF receives a report of suspected abuse or neglect.
- ***Substitute care:*** Substitute care placements include CYF placements outside the child's home (foster care, kinship care, and residential placements) as well as behavioral health placements at residential treatment facilities and residential drug and alcohol facilities. Because the substitute care category includes some treatment facilities, enrollees could be in substitute care without having been involved with CYF. However, 87.5% of children in substitute care and enrolled in HealthChoices during 2002 also had a history of involvement with CYF.
- ***Juvenile Probation Office (JPO):*** County juvenile probation officers in Pennsylvania are the juvenile court's "foot soldiers." These officers are the primary contact points for youth involved with the courts. JPO's responsibilities include "initial screening, predisposition investigation, probation supervision, and "aftercare" or post-commitment supervision" (Pennsylvania Juvenile Court Judges' Commission 23).

Enrollees were considered to have a history of involvement with CYF or JPO if they had appeared on the roster received from the Office of Children, Youth and Families or the Juvenile Probation Office prior to the writing of this report. Enrollees were considered to have a history of involvement with substitute care if the Department of Public Welfare recorded an out-of-home placement. *The data does not provide any indication of the type or level of involvement with the service.*

[4] Because of limitations in the data, we were not able to restrict social service involvement to 2002, the year considered in this report.

Demographic Variables

- ***Age:*** 0-5 years, 6-12 years, 13-17 years, and 18-20 years.
- ***Gender:*** Male or female.
- ***Race:*** African-American or Caucasian. All other racial and ethnic groups (including Asians, Hispanics, and "Others") represented less than 3% of the 2002 enrollee population. Findings are reported for African-Americans and Caucasians because of the very small size of these other groups, but all enrollees and consumers are included in the totals.

HealthChoices Eligibility Variables

- ***HealthChoices eligibility category:*** Individuals qualify for HealthChoices because they are eligible for Medicaid through one of seven broad categories of aid. Pennsylvania's Department of Public Welfare determines eligibility for these categories of aid through a complex set of criteria that takes into account the individual's income, assets, and disability status. For children, parental income and assets are usually considered in this process, with one important exception explained below. Nearly all children and youth qualify for HealthChoices through three categories of aid:

  1. **Temporary Assistance to Needy Families (TANF):** This federal program provides cash assistance and Medicaid to families with dependent children who do not have the care or support of at least one parent, as a result of the parent's absence, incapacity, or unemployment (OMHSAS 3). Families qualify if their income and assets are below certain thresholds.
  2. **Healthy Beginnings (HB)**: This program provides Medicaid coverage for children and adolescents and women who are pregnant or in the postpartum period. The income and asset limits are higher for Healthy Beginnings than TANF (OMHSAS 3).
  3. **Supplemental Security Income (SSI):** Disabled children whose family's income and assets are below certain thresholds qualify for SSI. The disability can be a physical or mental condition (or a combination of conditions), and documentation of the child's history must show that the condition results in "marked and severe functional limitations" and is expected to last at least 12 months (Social Security Administration 3-5). In Pennsylvania, children who qualify for SSI automatically qualify for Medicaid.

     Pennsylvania law includes a "loophole" where children's eligibility status for Medicaid can be based on disability *and family income is excluded from the eligibility decision* (Pennsylvania Community Providers Association 1). In the social service-involved population, a very small proportion of children were eligible through the loophole so they are not reported on separately.

  Some individuals may change their eligibility category over time, if their income changes or they become disabled by their condition, for example. For individuals who changed their eligibility category during 2002, we used their most recent eligibility category during 2002. Each enrollee therefore had one eligibility category in the dataset.

- ***HealthChoices eligibility length:***

  The number of months during 2002 that each enrollee was eligible for HealthChoices was included. Enrollees who had less than one month of eligibility were excluded.

Variables Derived from Service Use Data (available for consumers only)

- ***Accessed Service:*** This variable, either a Yes or a No for each enrollee, indicates whether or not the enrollee used at least one unit of a behavioral health service during 2002.
- ***Diagnosis:*** Providers must include a primary diagnosis on each claim submitted for payment. Since about 30% of consumers received multiple diagnoses within 2002, the primary diagnosis assigned was based on the diagnosis received most often. Diagnoses were combined into thirteen diagnostic groups. See the Technical Appendix for more details on this methodology.
- ***Service use:*** For each consumer, the numbers of units used for each behavioral health service during 2002 were totaled. Therefore, analysis of service use is based on unit totals used during the year. The dataset did not include dates of service, so the order in which services were used for consumers who used multiple services within the year was not analyzed.

  The amount of time represented by one unit varies by service type. For example, one inpatient mental health unit is equivalent to one day, while one unit of case management is equivalent to fifteen minutes. Please see the Service Description Appendix for descriptions of services.

- ***Cost.*** Unit costs for each service were determined by dividing total approved, paid claims in 2002 by the total number of units delivered. Units for each service for each consumer were then multiplied by the unit cost to get the cost for each service; all costs were added to create a total cost for each consumer. Total mean and median costs per consumer for services were computed on these cost variables.

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What is the difference between the mean and the median?

Throughout the report we present findings that describe different groups in the population. The *mean* and the *median* are measures most commonly used to describe a group's characteristics.

The *mean* is the result of adding up all the observations, then dividing by the number of observations.

The *median* is the middle value in the group. Half of the values in the group fall above the median, and half the values fall below the median.

The decision to use the mean or median is based on the distribution, or spread, of the data. If the data is compact (meaning there are not extremely high or low values in comparison to most values), the mean accurately describes the group.

If the data is skewed (meaning there are a few extremely high or low values, in comparison to most values), the mean will also be skewed. In these instances, the median is a more reliable measure.

When we examined service use and cost data, the distributions were generally highly skewed; a few consumers within a group often had very high usage. Therefore, we relied on the medians when making comparisons and drawing conclusions. Often, we provide the means as additional information.

Report Findings

Overview of African-American and Caucasian enrollees and their history of involvement with social services

Understanding the differences between African-American and Caucasian enrollees in terms of their history of involvement with social services provides an important context for the specific findings. Table 1 describes HealthChoices enrollees' histories of involvement with CYF, substitute care, and/or JPO.

Table 1

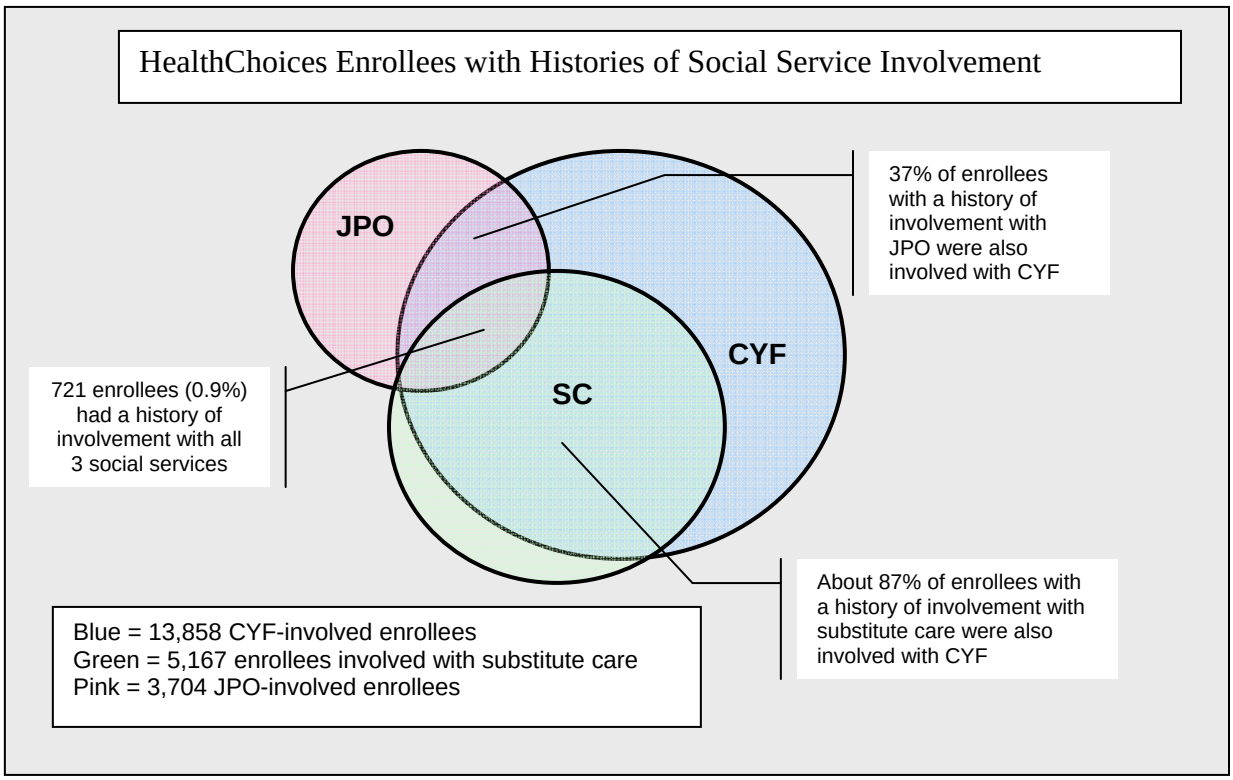
2002 HealthChoices Enrollees and Their Histories of Involvement with Social Services, by Race

Race	Total Enrollees	CYF	Substitute Care	JPO	No Social Service Involvement
African-Americans	39,929	8,715	3,414	2,246	29,682
% of African-Americans		21.8%	8.6%	5.6%	74.3%
Caucasians	37,641	4,874	1,660	1,416	31,754
% of Caucasians		12.9%	4.4%	3.8%	84.3%
Total	79,919	13,858	5,167	3,704	63,478
% of Total		17.3%	6.5%	4.6%	79.4%

Most children and youth enrolled with HealthChoices during 2002, regardless of race, did not have a history of involvement with any of the three social services. The findings presented in this report apply to about 20% of the total HealthChoices enrollee population.

African-Americans are over-represented in child welfare services; they are more likely to be referred to child welfare services, and more likely to be placed in substitute care (Snowden et al. 265). African-Americans are also over-represented in the juvenile justice system (Hurst & Zawacki 1). These findings hold true in Allegheny County for the HealthChoices youth population; African-Americans had current or past involvement with each of the social services at higher proportions than Caucasians.

It should be noted that the same individual can appear in the CYF, substitute care, and JPO columns in Table 1. Findings are reported for each social service separately. The diagram below shows how these populations overlap in more detail. Each circle represents one of the three systems. The areas where the circles overlap indicate the number of consumers who have been involved with multiple systems. Because more African-Americans have been involved in each of the three social services, African-Americans account for a larger proportion of each circle.



Research indicates that age, gender and insurance status are all important factors associated with whether or not individuals have a mental disorder, and whether or not they choose to seek treatment. Table 2 outlines the similarities and differences between African-American and Caucasian enrollees with current or previous involvement with CYF, substitute care, and/or JPO.

Table 2

Characteristics of 2002 Enrollees with Histories of Involvement with Social Services, by Race

		CYF-Involved Enrollees		Enrollees Involved with Substitute Care		JPO-Involved Enrollees	
		% of AA	% of C	% of AA	% of C	% of AA	% of C
Gender	Female	51%	49%	44%	46%	34%	31%
	Male	49%	51%	56%	54%	66%	69%
Age	0-5	20%	21%	21%	23%	0%	0%
	6-12	41%	36%	28%	24%	6%	5%
	13 - 17	30%	33%	44%	45%	58%	54%
	18 - 20	9%	10%	7%	8%	36%	42%
Full Year HC Elig.	Yes	74%	62%	67%	58%	52%	44%
HealthChoices Eligibility Category	HB	10%	22%	5%	12%	13%	21%
	SSI	10%	14%	10%	13%	15%	18%
	TANF	80%	64%	85%	74%	71%	59%
Total # Enrollees	79,919	8,715	4,874	3,414	1,660	2,246	1,416

Within each social service-involved group, African-Americans and Caucasians were different in two respects:

- A larger proportion of African-Americans were eligible for HealthChoices coverage for all of 2002.
- The majority of both races involved with each social service were enrolled in HealthChoices through the TANF category of aid.[5] However, African-Americans involved with at least one of the social services were more likely than Caucasians to be enrolled in HealthChoices through TANF, and less likely to be enrolled through the Healthy Beginnings category of aid. The racial differences between TANF and Healthy Beginnings can be attributed to income and asset differences. African-Americans fall below the poverty line in greater proportions than Caucasians (Bangs et al. 31); poverty for African-Americans is often more chronic and long-term than poverty for Caucasians. African-Americans are therefore more likely to be eligible for TANF, which is a category of aid with a lower income threshold.

Aside from these differences, African-Americans and Caucasians within each social service-involved group were very similar. Some differences in comparison to the overall enrollee population (all children and youth regardless of social service involvement) emerged:

Age: a higher proportion of enrollees with a history of involvement with CYF or substitute care were of school-age than in the general enrollee population; enrollees with a history of involvement with JPO were older (95% were at least 13 years old).

Gender: males and females were equally represented in the overall enrollee population. However, males were slightly over-represented in the substitute care-involved population, and about 67% of the JPO-involved population was male.

HealthChoices eligibility: Children with histories of involvement with CYF or substitute care were eligible for all of 2002 in higher proportions than the overall population. Fewer of those involved with JPO were enrolled for the entire year (52% of African-Americans and 44% of Caucasians).

Because of the similarities by race, it is not expected that any of these characteristics could account for lower African-American access rates to behavioral health services. Because African-Americans were HealthChoices-eligible for all of 2002 in higher proportions, eligibility length, in particular, should not be a factor.

[5] See the description of TANF, Healthy Beginnings, and SSI categories of aid on page 9 for more information on these variables.

How did African-American and Caucasian access rates differ within age and gender groups?

Age and gender are associated with the prevalence rates of behavioral health disorders. For example, boys are more likely than girls to develop autism; adolescents generally do not develop substance abuse disorders until their mid to late teen years. However, the evidence does not support differences in prevalence by race (SGR Supplement 58).

How are access rates calculated?

Access rates, or penetration rates, are used to measure access to services. Access rates are calculated by dividing the number of consumers who *use* behavioral health services by the average number of enrollees *eligible to use* services.

Rates are expressed as a number of consumers per 1,000 enrollees. Access rates increase when a larger proportion of eligible members access services. If the number of consumers increases proportionally with an increase in enrollment, the access rate will not change.

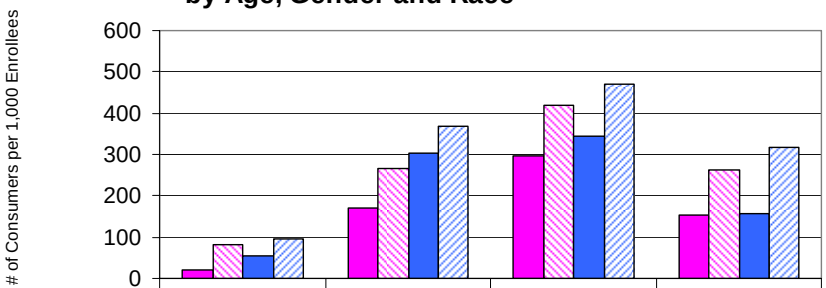
Because prevalence rates vary by age and gender, we expected that rates of service access (penetration rates) would also vary by age and gender. Any differences by race require further investigation, as they indicate possible disparities.

Tables 3-5 show access rates by age, gender and race for each of the three social service-involved groups. The graphs display which age and gender groups accessed services at higher rates: the groups with the tallest bars accessed services at the highest rates. Within age groups, when the bars are close to the same height, access rates for the race and gender groups were similar. Gaps between race and gender groups are indicated when the bars are of different heights. Comparing the access rates (in the tables) illustrates how large the gaps between race and gender groups were in 2002.

For example, in Table 3, the access rate for African-American males 6-12 years (305 consumers per 1,000 enrollees) is about 82% of the 6-12 year Caucasian male rate (370 consumers per 1,000 enrollees). The bars are close to the same height. For the 18-20 year group, the access rate for African-American males (158 consumers per 1,000 enrollees) is about half the Caucasian male rate (317 consumers per 1,000 enrollees). So, the gap between races is larger for the 18-20 year group than the 6-12 year group.

Table 3

Access Rates for Children with Histories of Involvement with CYF, by Age, Gender and Race



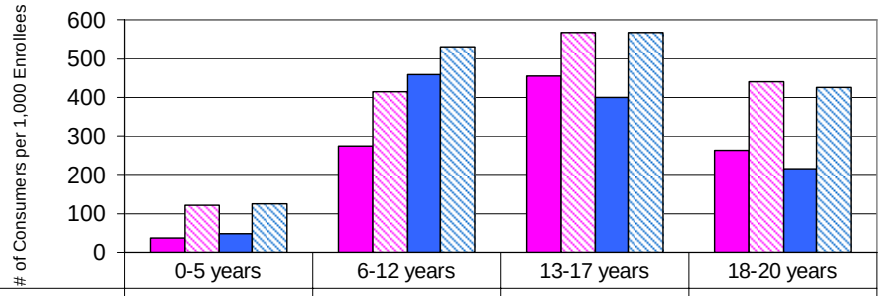
	0-5 years	6-12 years	13-17 years	18-20 years
African-American Females	22	170	296	153
Caucasian Females	83	266	421	263
African-American Males	55	305	344	158
Caucasian Males	96	370	472	317

Observations on Children with a History of Involvement with CYF:

- In each age and gender group, African-Americans accessed behavioral health services at lower rates than Caucasians. The gaps between the race groups varied by age and gender. The gaps between the two racial groups were proportionally smaller for those ages 6-17 years.
- Fewer young children and older teens accessed behavioral health services. For the two oldest age groups, male and female access rates were similar within the two race groups, indicating that race, rather than gender, was a more important factor associated with access.

Table 4

Access Rates for Children with Histories of Involvement in Substitute Care, by Age, Gender and Race



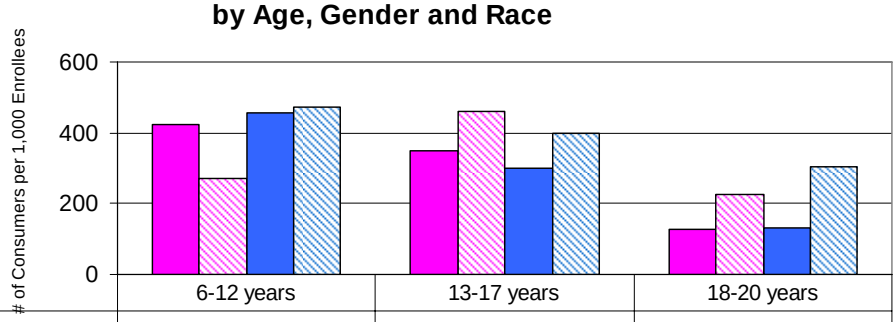
	0-5 years	6-12 years	13-17 years	18-20 years
African-American Females	37.4	274.2	456.5	262.1
Caucasian Females	123.0	415.3	567.6	442.3
African-American Males	49.0	461.1	400.2	213.2
Caucasian Males	126.9	528.8	566.6	425.0

Observations on Children with a History of Involvement with Substitute Care:

- African-Americans accessed behavioral health services at lower rates than Caucasians. The gaps between the race groups varied by age and gender.
    - The African-American access rate for 0-5 year old females (37.4 consumers per 1,000 enrollees) was 30% of the corresponding Caucasian rate (123 consumers per 1,000 enrollees). This was the largest racial gap for children in substitute care.
    - The African-American access rate for 6-12 year old males (461 consumers per 1,000 enrollees) was 87% of the corresponding Caucasian rate (528.8 consumers per 1,000 enrollees). This was the smallest gap between the races for children in substitute care.
- Generally, children with a history of involvement in substitute care accessed services at higher rates than the overall CYF-involved population. This is not surprising, as it is expected that children who need to be placed outside their homes would be more likely to need behavioral health treatment.
- For the two older age groups (13-20 years), females in each racial group accessed services at equal or greater rates than males of their respective racial groups.

Table 5

Access Rates for Children with Histories of Involvement with JPO, by Age, Gender and Race



	6-12 years	13-17 years	18-20 years
African-American Females	424.2	347.7	126.0
Caucasian Females	272.7	460.5	225.4
African-American Males	455.4	298.9	132.6
Caucasian Males	471.7	398.2	302.1

Observations on Children with Histories of Involvement with JPO:

- For males, access rates for African-Americans and Caucasians were nearly identical for 6-12 year olds. For both races, access rates were lower for the two older age groups. Racial gaps were larger for older males.
- For females 6-12 years, African-Americans accessed services at higher rates than Caucasians (note: only 33 African-Americans and 11 Caucasians were in this group). African-American rates were lower than Caucasian rates for the two older groups. The largest proportional gap between the two races in accessing services occurred in the oldest age group.
- In the 13-17 year age group, females had higher access rates when compared to males from the same race.

As expected, HealthChoices enrollees with histories of involvement with CYF, substitute care, and/or JPO accessed behavioral health services at higher rates than the general enrollee population. In the juvenile justice system, youth are referred for a mental health assessment based on their offense, information from family members, or police information; not all youth, therefore, have a formal screening for behavioral health issues when they enter the juvenile justice system.

In the CYF system, the court often requires behavioral health assessments when a child enters the system. CYF case workers also make recommendations for behavioral health services. Subsequent linkages to community-based services based on these assessments or recommendations may not occur if treatment is considered a secondary need to securing the safety of the child. Family choice is also a factor in treatment follow through.

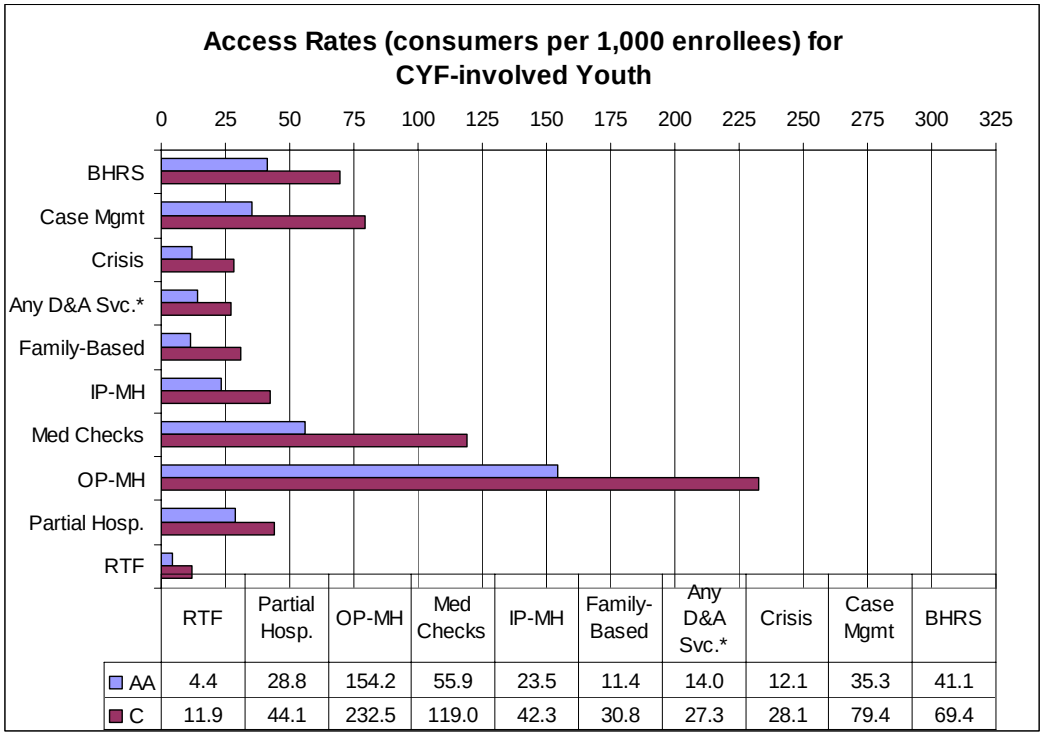
Because both CYF and JPO do provide case management assistance, we expected that the proportion of African-Americans accessing behavioral health treatment would be similar to Caucasians.[6] However, for each of the three social services, African-Americans accessed services at lower rates than Caucasians. The variability by age should be discussed with CYF and JPO, and the data be used to discuss possible barriers accounting for differences in access rates.

[6] Note that the social service involvement could have occurred prior to 2002, as these variables capture historical involvement. Therefore, the case management assistance provided by CYF or JPO linking children to behavioral health services could have occurred prior to 2002. Services related to that interaction would not appear in this report. See page 8 for a more detailed explanation of these variables.

How did African-American and Caucasian access rates differ when individual behavioral health services were examined?

As discussed in Tables 3-5 above, African-Americans accessed services at lower rates than Caucasians within each age and gender group. The following analysis compares access rates for specific services, to see if African-Americans were more likely to use more intensive or crisis services and fewer community-based services. Service descriptions can be found in the Service Description Appendix.

Table 6



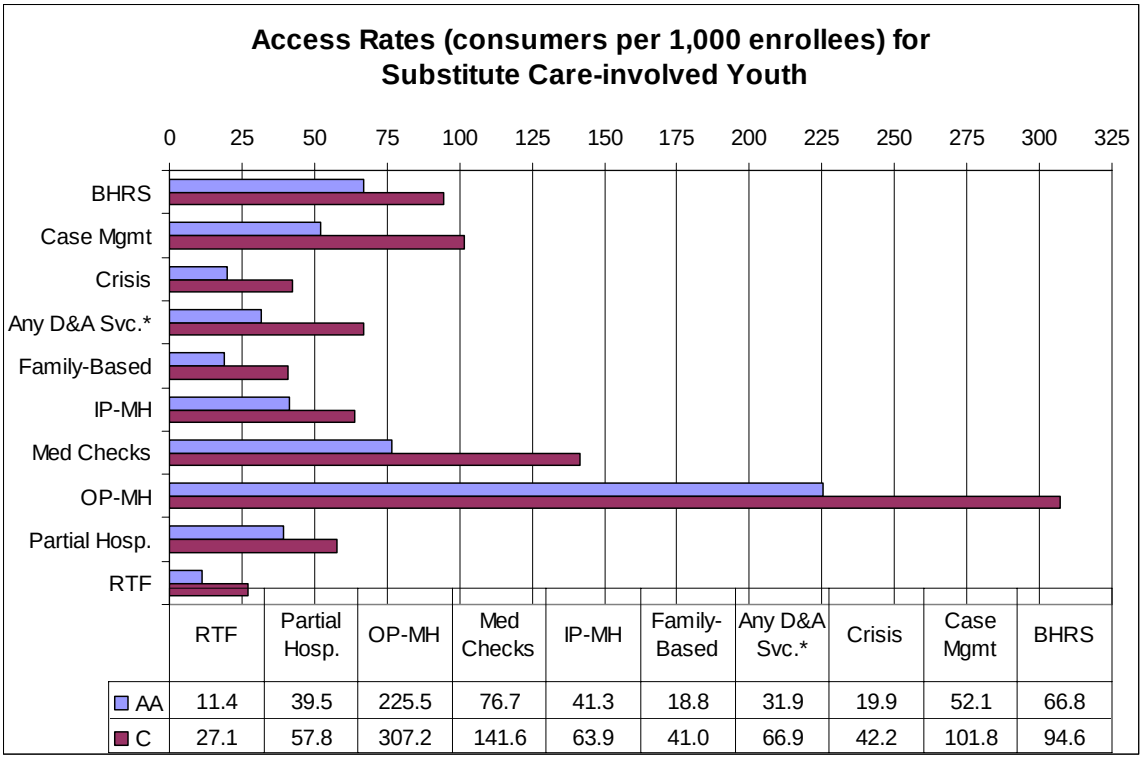
	RTF	Partial Hosp.	OP-MH	Med Checks	IP-MH	Family-Based	Any D&A Svc.*	Crisis	Case Mgmt	BHRS
AA	4.4	28.8	154.2	55.9	23.5	11.4	14.0	12.1	35.3	41.1
C	11.9	44.1	232.5	119.0	42.3	30.8	27.3	28.1	79.4	69.4

* The "Any D&A Svc." category includes all consumers who used at least one type of drug and alcohol service, including outpatient drug and alcohol services, supplemental drug and alcohol services, halfway house services, non-hospital rehabilitation, and other less commonly used services.

Observations on Children with Histories of Involvement with CYF:

- Access rates for African-Americans were less than Caucasian rates for all services.
- The largest proportional gaps occurred in case management services, family-based services, medication checks, and RTF; African-American rates were less than half the Caucasian rates.
- Outpatient mental health and partial hospitalization access rates were most similar, with about 65% as many African-Americans as Caucasians accessing these services.

Table 7



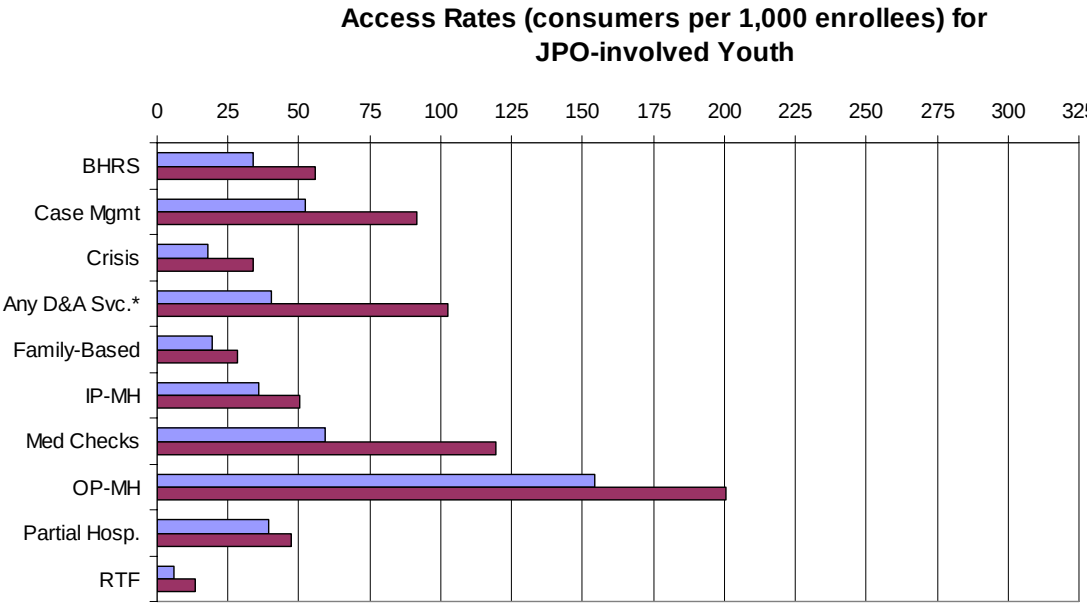
	RTF	Partial Hosp.	OP-MH	Med Checks	IP-MH	Family-Based	Any D&A Svc.*	Crisis	Case Mgmt	BHRS
AA	11.4	39.5	225.5	76.7	41.3	18.8	31.9	19.9	52.1	66.8
C	27.1	57.8	307.2	141.6	63.9	41.0	66.9	42.2	101.8	94.6

* The "Any D&A Svc." category includes all consumers who used at least one type of drug and alcohol service, including outpatient drug and alcohol services, supplemental drug and alcohol services, halfway house services, non-hospital rehabilitation, and other less commonly used services.

Observations on Children with Histories of Involvement with Substitute Care:

- Access rates for African-Americans were less than Caucasian rates for all services. By definition, when children are in substitute care, they have been removed from their home to a safer, supportive environment. Because family factors influencing the decision to seek treatment should be less for children in substitute care, access rates by race were expected to be very similar for children involved with these services.
- When compared to the access rates shown in Table 6, children of both races with a history of involvement with substitute care accessed all services at higher rates than children with past or current CYF involvement. The gaps between races persisted, but for most services, were less pronounced for children with substitute care involvement.
- BHRS, outpatient mental health and partial hospitalization access rates were most similar, with between 68% and 73% as many African-Americans as Caucasians accessing each of these services.

Table 8



	RTF	Partial Hosp.	OP-MH	Med Checks	IP-MH	Family-Based	Any D&A Svc.*	Crisis	Case Mgmt	BHRS
AA	5.8	39.2	154.5	59.2	36.1	19.6	40.5	17.8	52.1	33.8
C	13.4	47.3	200.6	119.4	50.1	28.2	102.4	33.9	91.8	55.8

Observations on Children with Histories of Involvement with JPO:

- When compared to the access rates shown in Tables 6 and 7, children of both races with histories of JPO involvement generally accessed individual services (with the exception of drug and alcohol services) at lower rates than the CYF-involved or substitute care-involved populations.
- Access rates for African-Americans were less than Caucasian rates for all services.
- The largest proportional gaps occurred for drug and alcohol services, followed by medication checks and RTF services. Only 40% as many African-Americans compared to Caucasians accessed drug and alcohol services. While substance addiction/abuse treatment can occur in other services, this gap is still significant.
- Outpatient mental health and partial hospitalization access rates were most similar, with 77% and 83% (respectively) as many African-Americans as Caucasians accessing these services.

For all three social service-involved groups, access rates for outpatient mental health and partial hospitalization services were the most similar by race, although African-Americans still accessed these services at lower rates than Caucasians. Because 80% or more of partial hospitalization services are school-based programs, and placement in these school-based programs is usually initiated by the school district, the role of the educational system in children's access to behavioral health services needs to be further examined. Overall, the data showed that African-Americans were less likely to receive each service, particularly some home-based services. The data did not indicate that African-Americans were more likely to need (or at least use) crisis or inpatient services.

Were there differences in how African-Americans and Caucasians started receiving behavioral health services under HealthChoices?

Some research suggests that minorities may wait to seek mental health treatment until their symptoms are more severe (SGR Supplement 65). Therefore, we might expect to see that African-Americans were more likely to use a more intensive service as their first behavioral health service.

To determine if there were differences in how African-American and Caucasian children with histories of involvement with social services entered treatment, the service record of each child that received a HealthChoices behavioral health service in 2002 (a consumer) was searched to determine what service they received first under HealthChoices (services could have been received as early as 1999).

While this does not precisely capture how the populations sought treatment, it is the only available method to answer this question. For example, consumers may have sought treatment through their primary care physician for several years to treat depression (data for this treatment is not available), while the first service ever received that was paid for by HealthChoices may have been an inpatient mental health stay.

Overall, the patterns by race were very similar across the three social service-involved groups. Outpatient mental health services were the most commonly used first service by consumers with a history of involvement with one or more of the three social services. A few slight differences emerged:

CYF: Outpatient mental health was the first service used by 61% of consumers with histories of involvement with CYF. However, Caucasian males used outpatient mental health as their first service only 52% of the time, primarily because they were more likely to access BHRS first.

Substitute Care: During 2002, outpatient mental health was the first service used by 58% of consumers with a history of involvement with substitute care. However, Caucasians used outpatient mental health as their first service only 54% of the time, because they were slightly more likely to access a number of other services first (including BHRS, case management, drug and alcohol services, and medication checks). On the other hand, twice as many African-American females (10%) than Caucasian males (5%) used inpatient mental health services as their first service.

JPO: Outpatient mental health was the first service used by 44% of consumers with histories of JPO involvement; 47% of African-Americans used outpatient mental health services as their first service, compared to 40% of Caucasians. Drug and alcohol services were the second most commonly used first service; 8.0% of African-Americans used drug and alcohol services as their first service, compared to 15.6% of Caucasians.

Were African-American children and youth more likely than Caucasians to have just one unit of behavioral health services?

Some research has found that African-Americans who do access mental health care are more likely to leave treatment early (SGR Supplement 64). Therefore, African-American and Caucasian rates of having just one unit of a behavioral health service were compared:

CYF: 325 consumers with histories of involvement with CYF used only one unit of HealthChoices behavioral heath services during 2002. Of these, 198 were African-Americans (10.5% of all African-Americans in the CYF-involved population), while 119 were Caucasians (7.8% of all Caucasians involved in the CYF-involved population).

Substitute care: Of the 163 consumers with a history of involvement with substitute care who used only one unit of service during 2002, 108 were African-American (10% of all African-Americans in the substitute care-involved population) while 53 were Caucasian (7.4% of all Caucasians in the substitute care-involved population).

JPO: 96 consumers with a history of involvement with JPO used only one unit of service during 2002. Of these, 58 were African-American (10% of all African-American consumers in the JPO-involved population), while 36 were Caucasian (7% of all Caucasian consumers in the JPO-involved population).

A higher proportion of African-Americans with histories of involvement with one or more of the social services had just one unit of service, suggesting engagement in services may be a slightly greater challenge for African-American youth.

Were African-Americans more likely than Caucasians to use just one type of service during the year, rather than multiple types of services?

Depending on diagnosis, symptom severity and consumer choice, consumers may need, based on clinical indications, or prefer to use multiple types of services within a year. Some services can be used at the same time (for example, case management and partial hospitalization, outpatient mental health and medication checks), while others are used sequentially (for example, inpatient mental health services, followed by partial hospitalization services as the step-down level of care). Examining the number of services used in 2002 by race provides additional information on the type of treatment received.

Table 9

Percentage of Consumers who Used More than One Service Type During 2002, by Race

	African-American	Caucasian
CYF	47%	60%
Substitute Care	51%	59%
JPO	51%	61%

For consumers with histories of involvement with one or more of these social services, Caucasians were more likely than African-Americans to use more than one service type.

Did African-Americans and Caucasians use different amounts of individual services?

Once African-Americans access behavioral health services, they are less likely than Caucasians to receive effective treatment for behavioral health problems (SGR Supplement 3). African-Americans who do access mental health care are more likely to leave treatment early (SGR Supplement 64). As discussed earlier, claims data does not provide an opportunity to analyze the true effectiveness of treatment. *However, comparisons of the amounts of specific services used by African-Americans and Caucasians can show different treatment patterns.*

Table 10 compares the median number of units used for each service by race. For all services, the mean number of units was generally larger than the median number of units. This indicates that a few consumers within a group often had very high usage, which skews the results. Therefore, we relied on the medians to make comparisons. Because one unit equals different amounts of time for different services, comparisons between services cannot be made.

Table 10

Median Number of Units, by Service and Race, for 2002 Consumers with Histories of Involvement with Social Services

	CYF		Substitute Care		JPO	
	AA median	C median	AA median	C median	AA median	C median
BHRS	352	393	242	291	152	403
Case Mgmt.	177	202	157	208	123	194
Crisis	12	12	13	12	7	12
Fam. Bas.	259	298	246	331	262	303
IP-MH	10	11	12	11	9	7
Med Check	3	3	3	3	3	3
OP-MH	6	7	7	7	5	5
PHP-MH	389	162	264	172	317	189
RTF	150	161	150	182	99	90

As shown in Table 10, some services have large medians and some services have small medians. In general, services with low median usage have similar utilization patterns for both races. For services with large median usage, Caucasians had higher median use for BHRS, case management, and family-based services. Partial hospitalization was the only service for which African-American median use was significantly greater than Caucasian use. Findings specific to histories of CYF, substitute care, and/or JPO involvement include:

CYF:

- The median number of units used by Caucasians for BHRS, case management, and family-based services were 12%-15% higher than units used by African-Americans.
- Caucasians and African-Americans used similar amounts of crisis services, inpatient mental health services, medication checks, and outpatient mental health services.
- Based on median use, African-American consumers used almost two and a half times more partial hospitalization than Caucasians (389 units vs. 162 units).
- 22% of African-American consumers used *two or less units* of outpatient mental health services during 2002, compared to 20% of Caucasians.

Substitute Care:

- The median numbers of units used by Caucasians of BHRS, case management, and family-based services were 20%-35% higher than units used by African-Americans. So, trends similar to those of consumers with histories of CYF involvement were observed, but the gaps between the races were larger.
- African-Americans used 54% more units of partial hospitalization than Caucasians (264 units vs. 172 units).
- 22% of African-Americans and 21% of Caucasians used *two or less units* of outpatient mental health services during 2002.

JPO:

- Again, the trends in BHRS, case management, and family-based services that were noted for consumers with histories of involvement with CYF and/or substitute care held for the JPO-involved population, but the gaps between races for the JPO-involved group were larger for BHRS and case management.
- Median usage by African-American consumers of inpatient services was 2 days more than the median usage by Caucasians.

- Based on median use, African-Americans used 68% more partial hospitalization services than Caucasians (317 units vs.189 units).
- 34% of African-Americans and Caucasians used *two or fewer units* of outpatient mental health services. Thus with respect to engagement with outpatient mental health services, there was no difference between the races for consumers with histories of involvement with JPO.

This analysis suggests that, in addition to accessing BHRS, case management, and family-based services in lower proportions, African-Americans generally used fewer units of these services when they did use them. On the other hand, African-Americans used more units of partial hospitalization services. A significant percentage of both races used two or fewer units of outpatient services; this may indicate difficulties in engaging individuals in treatment, or could indicate that individuals had an intake/assessment and were referred to a different service.

It is difficult to assess whether or not these different amounts of treatment result in less effective treatment. The medians represent the *middle values*; within both racial groups, use of services such as case management, family-based, and BHRS varied widely. Furthermore, higher use of RTF and partial hospitalization may be the result of other systemic barriers. For example, consumers may stay for longer periods in RTF if the program has difficulty with setting up post-discharge services. Consumers may use partial hospitalization services for longer periods if their home school district resists accepting them back. Input from families, providers and other stakeholders including the educational system will be helpful in interpreting these differences.

Were the total costs of services different for African-Americans and Caucasians?

Using total costs of services as a summary of the various services used provides an additional perspective on differences in service use by race. Table 11 shows the mean and median costs for all consumers by social service involvement. The mean costs were generally much larger than the median costs, indicating that a few consumers within a group often had very high usage, which skews the results. As a result, comparisons are based on median expenditures.

Table 11

Cost Data by Race and Gender for Consumers with Histories of Social Service Involvement

		African-American		Caucasian		Total
		Female	Male	Female	Male	
CYF	# Consumers	778	1106	674	843	3458
	Mean	$4,660	$6,585	$7,151	$9,151	$6,897
	Median	**$677**	**$1,000**	**$1,026**	**$2,148**	**$1,080**
Substitute Care	# Consumers	442	641	315	403	1825
	Mean	$5,594	$7,410	$8,154	$10,547	$7,808
	Median	**$955**	**$1,132**	**$1,174**	**$2,430**	**$1,264**
JPO	# Consumers	189	383	150	357	1092
	Mean	$4,562	$5,316	$5,921	$7,455	$5,965
	Median	**$753**	**$1026**	**$1037**	**$2,349**	**$1,244**

For all three social service-involved groups, the median cost for behavioral health services for Caucasian males was more than twice the median cost for African-American males and females of both races. Treatment for African-American females was least costly across the race and gender groups. African-American males and Caucasian females had very similar costs.

Similar trends in treatment costs were observed for the entire 2002 consumer population, but the gaps were more pronounced for children with histories of involvement with social services. Also, when median costs were compared, behavioral health treatment for children with histories of involvement with social services was more costly than median costs for all children.

Were African-Americans diagnosed with specific behavioral health disorders at similar rates as Caucasians?

Effective treatment relies on accurate diagnosis. Different studies have found that African-Americans are misdiagnosed more often. Specifically, African-Americans may be less likely than Caucasians to be accurately diagnosed with depression by their primary care physicians or in an emergency room setting (SGR Supplement 66). Research has also shown that African-Americans have been more likely to be over-diagnosed with schizophrenia, and under-diagnosed with bipolar disorder and possibly anxiety disorders (SGR Supplement 32). Anecdotally, AHCI has heard stakeholder concerns that African-American youth may be under-diagnosed with depression and over-diagnosed with oppositional defiant disorder or conduct disorder.

The first column in Table 12 represents all African-American consumers with a history of involvement with CYF by diagnosis, and the second column represents all Caucasian consumers with a history of involvement with CYF by diagnosis. Each column adds up to 100%. For example, the first row represents the percent of African-Americans (21.6%) and Caucasians (19.3%) with a history of involvement with CYF who were diagnosed with ADHD.

Table 12 shows the diagnostic patterns of the 2002 consumer population by race and history of social service involvement. Because the age and gender distributions of African-American and Caucasian enrollees were similar (see Table 2), the diagnostic patterns by race were expected to be very similar.

Table 12

Diagnostic Patterns for 2002 Consumers with Histories of Involvement with Social Services

	CYF		Substitute Care		JPO	
Diagnosis	AA%	C%	AA%	C%	AA%	C%
ADHD	21.6	19.3	***17.7****	***14.3***	***18.2***	***12.2***
Childhood Psychoses	1.2	2.7	0.6	1.7	0.3	0.8
Conduct Disorders	8.5	6.2	9.2	7.1	***10.0***	***5.5***
D&A Dep./Abuse	4.8	6.3	***7.0***	***10.7***	***12.4***	***22.5***
Emotional Disturbances**	***13.6***	***7.7***	***14.1***	***7.7***	11.2	8.9
Major Depression/Affective Psychoses	***7.7***	***11.5***	***8.0***	***12.3***	13.6	14.8
Neurotic/Other Depressive D/O	11.3	13.1	11.8	13.2	***12.6***	***18.1***
Stress and Adj. Reactions	27.2	29.1	27.5	29.2	16.3	13.8
All Other Diagnoses	4.1	4.1	***3.9***	***8.6***	***5.3***	***12.1***
Total	1884	1517	1083	718	572	507

***** Percents in red indicate a difference between African-Americans and Caucasians of 3% or more.
** Oppositional defiant disorder is the most frequently received diagnosis within this category.

CYF: The overall patterns of diagnoses for children with a history of involvement with CYF, by race, were similar, with a few interesting differences:

- Diagnoses of stress and adjustment reactions were most common (27.2% of African-Americans, and 29.1% of Caucasians), followed by ADHD (21.6% of African-Americans, and 19.3% of Caucasians).
- African-Americans more often had emotional disturbance diagnoses (13.6%, compared to 7.7% of Caucasians). Oppositional defiant disorder is the most frequently received diagnosis within this category.
- Caucasians more often had major depression diagnoses (11.5%, compared to 7.7% of African-Americans).

Substitute Care: The overall patterns were similar to the CYF-involved population.

- Stress and adjustment reactions were most common, followed by ADHD diagnoses.
- Proportionally more African-Americans than Caucasians had an ADHD or emotional disturbance diagnosis.
- Proportionally more Caucasians than African-Americans had a drug or alcohol abuse diagnosis or a diagnosis of major depression.

JPO: More differences in diagnostic patterns were observed for children with a history of JPO involvement when compared to the CYF-involved and substitute care-involved populations.

- Proportionally more African-Americans than Caucasians had an ADHD (18.2% vs. 12.3%), conduct disorder (10.0% vs. 5.5%), or emotional disturbance diagnosis (11.2% vs. 8.9%).
- Caucasians were more likely than African-Americans to have a drug and alcohol diagnosis (22.5% vs. 12.4%) or neurotic/depressive disorder diagnosis (18.1% vs. 12.6%).

Some of the differences may be related to the age differences in African-Americans and Caucasians in the JPO-involved population; a higher proportion of Caucasians were 18-20 years, thus perhaps more likely to have substance abuse treatment needs.

Whether or not these differences illustrate inaccurate diagnoses is unclear. First, relying on claims data introduces some inaccuracy in the data (see the Technical Appendix for more detail on this variable). Second, while research has not found racial differences in the overall rate of mental disorders in children and adolescents, conflicting results have been published for some symptoms and disorders (some finding differences between races, some did not) (SGR 58-59).

Despite these challenges, the differences noted above bear further investigation and discussion with stakeholders. The overall pattern in the findings suggests that African-Americans with a history of social service involvement were more likely to be diagnosed with ADHD, conduct disorder, or oppositional defiant disorder, and less likely to be diagnosed with a mood disorder or substance abuse disorder. Because the diagnostic process relies heavily on verbal communication, differences between the clinicians' and consumers' cultural backgrounds can result in misunderstanding and misdiagnosis, and unintentional clinician bias.

Conclusions and Recommendations

This report is AHCI's first in-depth presentation of findings specific for children who have been served by the child welfare and juvenile justice systems. Our goal is to provide these systems with data that can be discussed and used to identify possible barriers to treatment and appropriate interventions.

African-Americans are over-represented in high-need populations and therefore rely more heavily on the government "safety net" of services, a high proportion of which is paid for through Medicaid. Medicaid-funded providers "have been more successful than others in reducing disparities in access to mental health treatment" (SGR Supplement 63). African-Americans are also over-represented in the child welfare and juvenile probation systems, suggesting that addressing any racial disparities in behavioral health treatment is particularly important for children also served by these other systems.

For children with histories of involvement with one or more of the social services, African-Americans were enrolled in HealthChoices for longer periods than Caucasians; African-Americans are not expected to have a lower need for treatment than Caucasians. This indicates that there is more work to be done in equalizing access to quality treatment for minorities in Allegheny County. Specifically:

- African-Americans accessed services at lower rates than Caucasians across age and gender groups, although rates varied by social service group, age and gender.
- When the various behavioral health services were examined, African-Americans consistently accessed individual services at lower rates than Caucasians. Gaps between races varied by service.
- African-Americans' median use of BHRS, case management, and family-based services was lower than Caucasians' median use of these services. African-Americans' median use of partial hospitalization services were significantly larger. The role of the education system in the use of this service requires further investigation.
- The overall pattern in the diagnostic data suggests that African-Americans were more likely to be diagnosed with an ADHD, conduct disorder, or oppositional defiant disorder and less likely to be diagnosed with a mood disorder or substance abuse disorder (results varied by social service group).

These findings lead to multiple opportunities for barrier analysis and discussion among the behavioral health, education, child welfare, and juvenile probation systems. AHCI plans to collaborate with Allegheny County and Community Care in organizing discussions of the findings with these other systems, and identifying next steps for addressing these issues. Specifically, discussions should include:

- Assessment and referral processes for behavioral health treatment by professionals working in the child welfare and juvenile probation systems;
- Case management aspects of child welfare and juvenile probation; and
- Behavioral health service access rates, utilization and diagnostic information of youth involved with the child welfare and juvenile justice systems.

We anticipate that these discussions may indicate training needs regarding best practices in addressing disparities. The expertise of the child welfare, juvenile probation, and education professionals will be of great assistance in interpreting results presented in this report. We look forward to the opportunity to participate in collaborative discussions and are more than willing to complete additional analyses on this subject based on stakeholder questions and suggestions.

Technical Appendix

The methodology used to assign consumers to one primary diagnostic category using claims data follows the methodology developed by the Substance Abuse and Mental Health Services Administration (SAMHSA) in a study of Medicaid claims paid for mental health and substance abuse services (Buck 1).

Service providers are required to submit a primary diagnosis on each claim submitted for payment, using the ICD-9 diagnostic coding system. Consumers were assigned to a diagnostic category based on the ICD-9 diagnostic code used on their claims.

- For consumers who had more than one diagnostic code used on their claims within 2002, the diagnosis used most frequently (i.e. for the largest number of units billed) was used to assign the consumer to a diagnostic category. 30% of consumers had more than one diagnostic code used within 2002.
- For consumers who had multiple diagnoses each with the same number of units, diagnoses received for inpatient services took precedence over diagnoses received for outpatient services. In these cases, the first diagnosis received for an inpatient service within the year was used. Non-inpatient services were then organized from most restrictive/intensive to least restrictive/intensive, and consumers were assigned to a diagnostic category based on the first diagnosis used in 2002 for the most intensive/restrictive service. This methodology was used for 0.6% of consumers.

Because the ICD-9 coding system includes a large number of possible diagnoses, individual diagnostic codes were grouped into diagnostic categories. The categories are also based on categories used by SAMHSA in similar analyses. Twelve mental illness categories and one substance use disorder category were used (see table below).

A number of limitations to the diagnostic data should be clarified. First, because claims data uses the primary diagnosis, other relevant diagnostic information that would be present in a medical chart is not accessed. Because a substance use disorder may not be the primary diagnosis, co-occurring disorders are underreported when relying on claims diagnosis information. Second, because diagnosis is assigned based on the largest number of units of service received, services with shorter units (15 minute units vs. day units, for example) have a larger influence on the diagnosis assigned. Third, a large number of consumers received more than one diagnosis within the year. This could suggest some level of inaccuracy in the information submitted on the claims or actual changes in a consumer's diagnosis within the year. Diagnoses will often change with the development of the child and changes in the child's environment; therefore, it is reasonable to expect that primary diagnoses may change within a year or less.

ICD-9 Codes Used in Diagnostic Categories
Attention-Deficit and Disruptive Behavior Disorders (314 ICD-9 codes)
Childhood psychoses (299 ICD-9 codes) Includes autistic disorder, Asperger's disorder, and pervasive development disorder.
Conduct disorders (312 ICD-9 codes)
Drug and Alcohol related disorders • Includes drug psychoses, (292 ICD-9 codes), drug dependence and nondependent drug abuse (304, 305.2 - 305.9 ICD-9 codes), alcoholic psychoses (291 ICD-9 codes), alcoholic dependence and nondependent alcohol abuse (303, 305.0 ICD-9 codes)
Emotional disturbances (313 ICD-9 codes) • Includes oppositional defiant disorder and other less common disorders

Major depression and affective psychoses (all 296 ICD-9 codes) • Includes manic disorders (single and recurrent episodes), major depressive disorder (single and recurrent episodes), bipolar affective disorder, manic-depressive psychosis, and other/unspecified psychosis
Neurotic & other depressive disorders (300, 311 ICD-9 codes) • Includes panic disorder, generalized anxiety disorder, obsessive-compulsive disorder, depressive disorder (not otherwise classified), dysthymic disorder, and conversion disorder
Other mental disorders (302, 306, 310 ICD-9 codes)
Other psychoses (297, 298 ICD-9 codes) • Includes paranoia and paranoid states, depressive and excitative type psychoses, unspecified psychoses.
Personality disorders (301 ICD-9 codes)
Schizophrenic Disorders (all 295 ICD-9 codes)
Special symptoms or syndromes (307 ICD-9 codes) • Includes eating disorders and sleep disorders.
Stress & adjustment reactions (308, 309 ICD-9 codes) • Includes posttraumatic stress disorder, acute stress disorder, separation anxiety disorder, and adjustment disorders

Service Description Appendix

Behavioral health rehabilitation services (BHRS): Treatment and therapeutic interventions prescribed by a psychologist or psychiatrist provided on an individual basis in the person's own environment such as the home, school and community. These services include Therapeutic Support Staff (TSS), Behavioral Specialist Consultants (BSC), Mobile Therapy (MT) and specialized services, as approved. [*] Units vary in length, depending on whether they are BSC, MT or TSS.

Case management services: Services provided to assist children, adolescents and adults with serious mental illness or emotional disturbance to obtain treatment and supports necessary to maintain a healthy and stable life in the community. Caseload sizes are limited to ensure adequate attention to the person's needs as they change. Emphasis is given to housing, food, treatment services, use of time, employment and education. Intensive case management services are available 24 hours a day, 7 days per week.* Units were 15 minutes in 2002.

Family-based services: Evaluation and treatment services provided to a specific child in a family, but focuses on strengthening the whole family system to increase their ability to successfully manage their child's behavioral and emotional issues. Services are provided by licensed agencies employing a mental health professional and a mental health worker as a team to provide treatment and case management interventions. Services are provided in the home of the family.* Units were 15 minutes in 2002.

Halfway House: A residential program to assist people in their recovery from drug and alcohol addictions. Halfway Houses are transitional programs to support people in their re-integration in the community. One unit is equivalent to one day of service.

Inpatient mental health services: Evaluation and treatment services provided in a licensed psychiatric unit of a community hospital or a community psychiatric hospital that is not part of a medical hospital. Services are provided to persons with acute illness where safety for self or others is an issue. Services are provided by psychiatrists, nurses and social services staff. Persons may be involuntarily committed for evaluation and treatment.*

Medication check: A service provided for consumers taking medication to treat their mental illnesses or substance abuse disorders. Medication levels are checked, side effects discussed, and adjustments to prescriptions are made as necessary. One unit was equivalent to one medication check visit.

Non-hospital rehabilitation services: Treatment services provided in a licensed community residential program where a full range of treatment and supportive services are provided for the addicted person in acute distress. Interventions include social, psychological and medical services to assist the person whose addiction symptomatology is demonstrated by moderate impairment of social, occupational, and/or school functioning. Rehabilitation is a treatment goal.* One unit is equivalent to one day of service.

Outpatient drug and alcohol services (OP-D&A): Evaluation and treatment services provided at a licensed facility to persons who can benefit from psychotherapy and substance use/abuse education. Services are provided in regularly scheduled treatment sessions for a maximum of 5 hours per week by qualified D&A treatment staff.* This category includes several services and codes; most had a 30-minute unit in 2002.

[*] Service descriptions are quoted from The Office of Mental Health and Substance Abuse Services (OMHSAS), available at http://www.dpw.state.pa.us/omhsas/omhchoices.asp.

Outpatient mental health services (OP-MH): Evaluation and treatment services provided to persons who may benefit from periodic visits that may include psychiatric and psychological evaluation, medication management, individual or group therapy. Services are provided by licensed facilities under the supervision of a psychiatrist or by private credentialed practitioners.* This category includes several services and codes; most had a 30-minute unit in 2002.

Partial hospitalization mental health program (PHP-MH): Treatment services provided from 3 to 6 hours per day up to 5 days per week in a licensed facility. Evaluation, treatment and medication are provided under the supervision of a psychiatrist for persons who need more intensive treatment than psychiatric outpatient. Services are provided for a short duration of time for persons acutely ill and for longer periods for persons experiencing long-term serious mental illness.* For children and adolescents, about 82% of partial hospitalization services were school-based, and 8% acute. School-based services are provided in an approved private school.

Residential treatment facility (RTF): Comprehensive mental health treatment services for children with severe disturbances or mental illness. These services are provided in Residential Treatment Facilities (RTF's) which must be licensed by OCY&F under Chapter 3800. The facility must have a service description approved by OMHSAS, be certified by OMHSAS through annual on-site review, have a utilization review plan in effect and be enrolled in the MA program.* One unit is equivalent to one day of service.

Supplemental drug and alcohol services (Supp Serv DA): This category of services includes drug and alcohol treatment programs that are paid for by Community Care but are not required or covered services under HealthChoices. For the adolescent population in 2002, this primarily included intensive drug and alcohol outpatient services.

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