

State of Georgia



Department of Community Health

**FY 2010 ENCOUNTER DATA VALIDATION STUDY  
FINAL REPORT**  
*for*  
**Georgia Families Care Management  
Organizations**

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The Georgia Department of Community Health (DCH) contracted with Health Services Advisory Group, Inc. (HSAG), to conduct an encounter data validation (EDV) study during fiscal year 2010, which evaluated the completeness and accuracy of encounter data submitted by the three care management organizations (CMOs): AMERIGROUP Community Care, Peach State Health Plan, and WellCare of Georgia, Inc. This report presents the study findings and provides an assessment of the quality of Georgia's electronic encounter data.

### Methods

The EDV study was composed of two analytic components: an analysis of electronic encounter data and medical record review.

The first component examined the quality of encounters submitted to DCH with dates of service on or between January 1, 2008, and December 31, 2008. This component sought to answer the following questions:

- ◆ Were required electronic encounter data fields populated with values?
- ◆ If populated, were required electronic encounter data fields properly formatted and did they contain reasonable values?
- ◆ Were age-appropriate and gender-appropriate diagnosis and procedure codes submitted correctly based on a member's age and gender?
- ◆ Were encounters submitted timely and consistently throughout the review period (i.e., January 1, 2008–December 31, 2008)?

The second component of the EDV study assessed the completeness and accuracy of Early and Periodic Screening, Diagnostic, and Treatment (EPSDT) professional encounters through medical record review. Three questions were examined:

- ◆ To what extent were administrative encounters for EPSDT services submitted completely?
- ◆ To what extent were administrative encounters for EPSDT services coded accurately?
- ◆ To what extent were required EPSDT visit components documented in the medical record?

Using random sampling, HSAG selected 411 EPSDT professional encounters from each participating CMO for the medical record review, for a total sample of 1,233 EPSDT visits. Each CMO received a sample list containing the selected members' names and the providers associated with the selected EPSDT visits. The CMOs had the responsibility to procure the medical records for the selected members and identified providers for dates of service in calendar year (CY) 2008.

Upon receiving the medical records from the CMOs, HSAG coders used an electronic abstraction tool to evaluate the sample EPSDT visits. During the review, HSAG coders evaluated the records to determine whether the sampled EPSDT visits were supported by documentation in the medical record. In addition to validating the date of service, diagnosis code, and procedure code for each

visit, HSAG reviewers also evaluated whether the provider performed and documented the required EPSDT visit components (e.g., initial/interval history, physical exam, developmental/behavioral surveillance), based on the 2008 Bright Futures Periodicity Schedule. Once HSAG evaluated the sampled EPSDT visits, one additional EPSDT visit per member was randomly selected from the medical record for evaluation. If there was no additional EPSDT visit within the medical record, a physician office visit within the study period was selected.

## Key Findings

Highlights of the major findings from the EDV study are presented below.

### *Analyses of Electronic Encounters*

- ◆ The majority of the critical electronic encounter data fields (13 of 17) were found to contain accurate and reasonable values in more than 95 percent of the professional and institutional encounters. The results for the remaining four critical data fields showed no discernible patterns, suggesting opportunities for improvement.
- ◆ At least 95 percent of the professional and institutional encounters were submitted with age-specific and gender-specific diagnosis or procedure codes that were appropriate based on the member's age and/or gender.
- ◆ The CMOs submitted their encounters consistently and timely to DCH. Statewide, 55.8 percent of professional encounters, 60.1 percent of institutional encounters, and 70.6 percent of pharmacy encounters were submitted and processed in Georgia's encounter data system within 90 days of their dates of service.
- ◆ Despite variations in the volume of the CMOs' monthly encounter data submissions, Georgia Families members received comparable numbers of services from each CMO during CY 2008.

### *Medical Record Review Findings*

- ◆ Encounters contained in Georgia's electronic encounter data were generally supported by members' medical records (i.e., there was agreement between the encounter data and the medical record). Statewide, 93.9 percent of the dates of service from the electronic encounter data, 86.7 percent of diagnosis codes, and 78.5 percent of procedure codes had supporting evidence in the corresponding medical records.
- ◆ Although most of the encounters in the electronic encounter data were supported by the members' medical records, not all services documented in the medical records were found in the electronic encounter data. Statewide, 20.5 percent of the dates of service, 49.3 percent of the diagnosis codes, and 40.1 percent of the procedure codes that were documented in the members' medical records were omitted from the electronic encounter data (i.e., encounter data omission).
- ◆ Omissions identified in the medical record (services located in the encounter data but not supported in the medical record) and omissions in the encounter data (services located in the medical record but not in the encounter data) illustrate discrepancies in the completeness of Georgia's encounter data.

- ◆ While providers documented many of the required EPSDT components in the medical records, only 10.6 percent of the EPSDT visits had all of the age-required components completed and documented during the selected visit.

## Conclusions and Recommendations

### Conclusions

Findings from the analyses of electronic encounters suggested that the overall quality of the encounter data submitted by the Georgia Families' CMOs was relatively complete and accurate. The CMOs also submitted their encounters in a timely and generally consistent manner. Results from the medical record review indicated that while electronic encounter data were generally supported by medical record documentation, not all services documented in the members' medical records were found in the electronic encounter data. This finding represents an opportunity for improvement in the accuracy and completeness of Georgia's encounter data. With regard to EPSDT component completion, the study findings presented some opportunities for improvement since few medical records contained documentation of all required EPSDT services.

### Recommendations

Based on the study findings, HSAG recommends the following:

- ◆ DCH should continue its current process and approach to ensuring high-quality encounter data submission, including the monthly reconciliation of raw encounter files and establishment of encounter data quality standards.
- ◆ DCH may want to consider requiring the CMOs to develop an encounter-related education program and subsequent audit for their providers.
- ◆ DCH should work with the CMOs to investigate incomplete encounter data submissions based on medical record review results and develop strategies to improve rates, including the expansion of current performance measures and standards.
- ◆ The CMOs should examine reasons behind the low EPSDT component completion rates and develop a performance improvement plan to address any identified barriers. Plan strategies should include educational outreach to providers.

### Overview

Accurate and complete electronic encounter data are important to the success of the Georgia Families Medicaid managed care program. DCH relies on encounter data submissions to monitor and improve the quality of care, establish performance measures, generate accurate reports, and set valid capitation rates. The completeness and accuracy of these data are essential to the overall management and oversight of its managed care program.

DCH contracted with HSAG to conduct the EDV study. The EDV study assessed the completeness and accuracy of Georgia's Medicaid encounter data for CY 2008 and focused on Georgia Families' members enrolled in the following CMOs:

- ◆ AMERIGROUP Community Care (AMERIGROUP)
- ◆ Peach State Health Plan (Peach State)
- ◆ WellCare of Georgia, Inc. (WellCare)

### Methodology

Following the CMS validating encounter data protocol<sup>2-1</sup>, the EDV study used two approaches when evaluating the quality of Georgia Families' encounter data. These approaches included:

- ◆ An analysis of electronic encounter data from Georgia's encounter data system.
- ◆ A medical record review of the accuracy and completeness of EPSDT service encounters.

### *Analyses of Electronic Encounters*

The analyses of electronic encounters examined the extent to which the CMOs submitted encounters with complete and valid values to the State. Since the quality of encounter data is affected by many variables, HSAG's review involved multiple evaluation methods. These methods evaluated the extent to which:

1. Important encounter data fields contained complete and/or valid values.
2. The use of diagnosis and procedure codes was appropriate, given members' age and/or gender.
3. Encounters were submitted on a timely basis.
4. The volume of submitted encounters was reasonable.

<sup>2-1</sup> Department of Health and Human Services, Centers for Medicare & Medicaid Services. *Validating encounter data: A protocol for use in conducting Medicaid external quality review activities. Protocols for External Quality Review of Medicaid Managed Care Organizations and Prepaid Inpatient Health Plans*. Final Protocol, Version 1.0, May 1, 2002.

DCH's data vendor extracted the data needed to complete these analyses based on data requirements prepared by HSAG. In September 2009, the data vendor extracted professional, institutional, and pharmacy encounters with dates of service during CY 2008<sup>2-2</sup>, and also provided other supporting data files related to members and providers associated with these encounters.

### **Data Field Completeness and Reasonableness**

HSAG's initial evaluation focused on evaluating key data fields contained in Georgia's encounter data system, including member ID, provider ID, date of service, primary diagnosis, and member gender. Since these fields are required in the CMOs' submission of encounter data, HSAG analysts examined the percentage of professional and institutional encounters that contained values in these data fields (percentage present). HSAG analysts then assessed whether the submitted values were in the correct format and contained expected values (percentage valid values). For example, an encounter where the member ID field was populated with a value of "0000000" would be considered to have a value present and in correct format, but not with a valid value. Table B-1 in Appendix B shows the acceptable ranges or values for the data fields included in this study.

### **Age/Gender Appropriateness of Diagnoses and Procedures**

Incomplete and/or invalid encounter data may also exist when the diagnosis or procedure code submitted is not appropriate for the age or gender of the member. A male member, for example, should not have an encounter for a pregnancy. Similarly, some procedure codes are age-specific. As an example, providers should use the codes of 99381 or 99391 for comprehensive, preventive medical checkups for infants younger than 1 year. HSAG analysts reviewed numerous diagnosis and procedure codes and evaluated the percentage of encounters in which a less-appropriate code was used given a member's age and/or gender. Table B-2 in Appendix B shows the age and gender requirements for the diagnosis or procedure codes used in this analysis.

### **Encounter Data Submission Timeliness**

Another aspect of incomplete data involves situations in which encounters are not submitted to the State within a reasonable time after a provider conducts the service. To evaluate how timely the CMOs submitted encounters to the State, HSAG analysts calculated the number of days between the date of service and processing dates within Georgia's encounter data system. HSAG analysts categorized the timeliness of encounter submissions into six groups:

- ◆ Fewer than 30 days
- ◆ 30–60 days
- ◆ 61–90 days

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<sup>2-2</sup> Professional encounters selected for analysis included those with a date of service during CY 2008 and the following place-of-service codes: 11-Office, 12-Home, 20-Urgent Care Facility, 21-Inpatient Hospital, 22-Outpatient Hospital, 23-ER-Hospital, 24-Ambulatory Surgical Center, 41-Ambulance, 50-Federally Qualified Health Center, 53-Community Mental Health Center, 71-Public Health Clinic, 72-Rural Health Clinic, and 81-Independent Laboratory. Institutional encounters selected for analysis included those with a date of service during CY 2008 and the following type-of-bill codes: 11X-Inpatient Hospital, 13X-Outpatient Hospital, 2XX-Skilled Nursing Facility, 7XX-Clinic, and 8XX-Special Facility. All pharmacy encounters during CY 2008 were included in the analyses. See Table B-3 and Table B-4 in Appendix B for additional information.

- ◆ 91–120 days
- ◆ 121–180 days
- ◆ More than 180 days

### Utilization Statistics

The volume of encounters submitted by a CMO throughout the year also provides useful information on the completeness of Georgia’s encounter data. This evaluation examined the average number of encounters per member per year, by CMO and by encounter type (i.e., professional, institutional, and pharmacy encounters). HSAG analysts also evaluated monthly variation in the submission of encounter data for professional, institutional, and pharmacy encounters in order to identify any gaps in data submission.

### Medical Record Review

The review of members’ medical records offers another method to examine the completeness and accuracy of Georgia’s Medicaid encounter data. For this study, HSAG collected and reviewed Georgia Families members’ medical records to assess the quality of EPSDT encounter data. Based on the medical records collected for this review, HSAG examined the extent to which services documented in the medical record were not present in the electronic encounter data (known as encounter data omissions) as well as the extent to which services documented in the electronic encounter data were not present in members’ corresponding medical records (known as medical record omissions). HSAG also evaluated the accuracy of diagnosis and procedure codes submitted to Georgia’s encounter data system based on documentation contained in members’ medical records. The information that follows outlines the methods used to conduct this analysis.

### Study Population

The study population for the medical record review analysis consisted of Georgia Families members who:

1. Were younger than 21 years of age as of December 31, 2008.
2. Were enrolled in a CMO as of December 31, 2008.
3. Had at least one EPSDT visit<sup>2-3</sup> during the study period (January 1, 2008, through December 31, 2008).
4. Were continuously enrolled in the same CMO during the study period (January 1, 2008, through December 31, 2008) with no more than a one-month enrollment gap.

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<sup>2-3</sup> In collaboration with DCH, HSAG identified EPSDT visits based on specific procedure codes (i.e., 99381–99385, 99391–99395) and provider type (i.e., physicians, provider type = “200”).



## Sampling

Using the professional encounter data file prepared by DCH's data vendor, HSAG identified all Georgia Families members who met the study population requirements. For each CMO, HSAG analysts used random sampling to select 411 members for medical record review. For each sampled member, HSAG randomly selected one EPSDT visit that took place during CY 2008.<sup>2-4</sup> Each sampled EPSDT visit represented services performed by a single provider on a specific date of service for a specific member.

## Data Collection

To ensure the consistent collection of medical records across the CMOs, HSAG prepared a study introduction letter early in the process. This letter highlighted the study methodology, study population requirements, study period, and the suggested components of members' medical records to be submitted (e.g., progress notes, EPSDT visit forms, growth charts, history, and physicals). HSAG then conducted individual conference calls with each CMO to answer any outstanding questions from the data collection liaison. Finally, HSAG forwarded the sample list with member and provider information to each CMO for processing. Upon receipt of the sample from HSAG, the CMOs worked with their providers to obtain members' complete medical records covering services provided during CY 2008. Only the member's medical record for the provider identified in the sample was required for submission; medical records from other physicians visited by the member during the year were not requested.

## Abstraction

Upon receiving the medical records from the CMOs, HSAG coders abstracted information from the charts to evaluate the completeness and accuracy of encounter data elements. First, HSAG coders verified whether dates of service found in the electronic encounter data were found in the members' medical records. If so, the date of service was determined to be valid; if not, the date of service was listed as a *medical record omission*. HSAG coders also compared the electronic encounter data and the medical record to validate corresponding diagnosis codes and procedure codes associated with the dates of service. All findings were entered into an electronic medical record abstraction tool to ensure data integrity.

Additionally, for each verified date of service in the sample list, HSAG evaluated whether the member's medical record contained documentation of the following EPSDT visit components<sup>2-5</sup>:

- ◆ Initial/interval history
- ◆ Physical exam
- ◆ Developmental/behavioral surveillance

<sup>2-4</sup> HSAG found that in rare instances, providers submitted more than one EPSDT encounter for a member on the same date of service. To ensure that the medical record review included all services provided on the same date of service, encounters with the same date of service and provider were consolidated into one visit for sampling purposes. The number of sample cases was 411 for each CMO, for a total of 1,233 sample cases. HSAG estimated that this sample size would provide 95 percent confidence that the sample results would be within 5 percent of the variance from the true population results.

<sup>2-5</sup> In collaboration with DCH, HSAG selected these components based on the 2008 Bright Futures Periodicity Schedule.

- ◆ Health education and/or anticipatory guidance
- ◆ Measurement of height, weight, head circumference, and body mass index (BMI)<sup>2-6</sup>
- ◆ Vision assessment
- ◆ Hearing assessment
- ◆ Dental inspection/referral (ages 12 months through 20 years)
- ◆ Immunization status addressed

Among the remaining visits documented in the medical record during CY 2008, HSAG randomly selected one additional EPSDT visit. If an additional EPSDT visit was not identified, HSAG selected an additional physician office visit. HSAG then evaluated whether the additional date of service documented in the member's medical record was found in the electronic encounter data. If so, the date of service was determined to be valid; if not, the date of service was listed as an *encounter data omission*. Again, HSAG coders compared the medical record and electronic encounter data to validate corresponding diagnosis codes and procedure codes associated with the dates of service.

### Analyses and Study Indicators

Once data collection was completed, HSAG analysts exported the abstraction data from the electronic tool into analytic files for analysis. HSAG developed five study indicators to report the medical record review results.

1. Medical record agreement rate—the percentage of sampled dates of service identified in the electronic encounter data that were also found in members' medical records. This rate was also calculated for diagnosis and procedure codes.
2. Medical record omission rate—the percentage of sampled dates of service identified in the electronic encounter data that were not found in members' medical records. This rate was also calculated for diagnosis and procedure codes.
3. Encounter data omission rates—the percentage of dates of service from members' medical records that were not found in the electronic encounter data. This rate was also calculated for diagnosis and procedure codes.
4. Accuracy rates of coding—the percentage of diagnosis codes associated with validated dates of service from the electronic encounter data that were correctly coded based on members' medical records. This rate was also calculated for procedure codes.
5. Required EPSDT component completion rate—the percentage of sample EPSDT visits, based on dates of service identified in the electronic encounter data, where all of the required EPSDT components were documented in members' medical records.

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<sup>2-6</sup> Head circumference was only for members who were 24 months old or younger. Body mass index was only for members who were 24 months old or older.

## **Study Limitations**

When evaluating the findings presented in this report, it is important to understand the following limitations associated with this study:

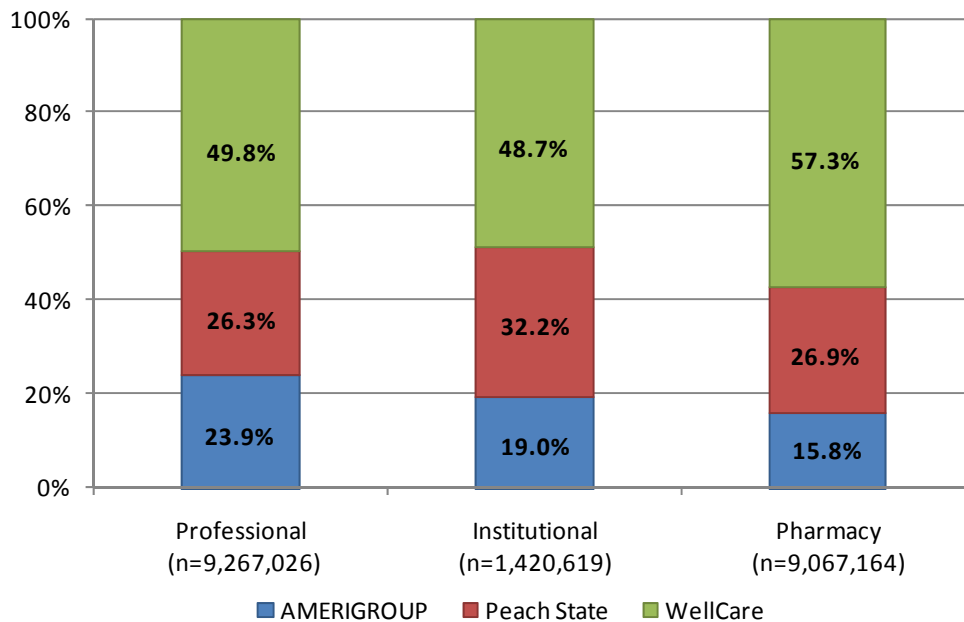
1. The findings from this study are associated with CY 2008 encounters; as such, the results may not reflect the current quality of DCH's encounter data. In fact, during the analyses of electronic encounters, HSAG identified data issues that have since been resolved based on discussions in June 2010 with DCH and another DCH contractor (Myers and Stauffer). The data files prepared for this study appear to have been extracted before DCH addressed and resolved these data quality issues in coordination with Myers and Stauffer's activities.
2. Successful evaluation of members' medical records depends on the ability to locate and collect complete and accurate medical records. Therefore, validation results could have been affected to the extent that the medical records reviewed were incomplete (e.g., missing pages).
3. Since the EPSDT component completion analysis relied solely on the documentation contained in members' medical records, results are dependent on the overall quality of a physician's medical record. For example, a physician may have performed a vision assessment but did not document it in the member's medical record. As such, HSAG would have counted that EPSDT component as a negative finding. This study was unable to distinguish cases in which a service was not performed versus a service that was performed, but not documented in the medical record.

This section describes the major findings from the EDV study. Detailed results including the numbers and percentages related to each figure are located in Appendix C. CMO-specific results and information are available in Appendices D, E, and F.

### Analyses of Electronic Encounters

The analyses of electronic encounters examined the extent to which the CMOs submitted encounters to the State with complete and valid values. For CY 2008, DCH received close to 20 million encounters from the three CMOs. This includes more than 9 million professional encounters, more than 1.4 million institutional encounters, and more than 9 million pharmacy encounters. Figure 3-1 presents the distribution of electronic encounters included in the analyses by CMO and encounter type.

**Figure 3-1—Frequency of Encounters by CMO and Encounter Type**



Source: Table C-1—Encounters Included in the Administrative Analyses, Appendix C

Note: WellCare's membership was approximately two times the size of Peach State's and AMERIGROUP's. As such, it is expected that its overall number of encounters would be higher than the other CMOs.

### Utilization Statistics

The review of utilization statistics provides valuable insight into the completeness of Georgia's electronic encounter data by measuring the volume of electronic encounter data submissions. Table 3-1 provides a general overview of the average utilization per member in CY 2008. As noted earlier, the Georgia Families program had nearly 20 million encounters in CY 2008. Medicaid members had

an average of 20.8 encounters during this time period. Individual CMO rates exhibited minimal differences ranging from 18.8 encounters per member to 22.7 encounters per member.

	Statewide Total	AMERIGROUP	Peach State	WellCare
Average number of members <sup>1</sup>	949,116	202,171	283,333	463,639
Total member months <sup>2</sup>	11,389,386	2,426,047	3,399,998	5,563,666
Total number of encounters	19,754,809	3,914,453	5,328,388	10,511,968
Total encounters PMPY <sup>3</sup>	20.8	19.4	18.8	22.7

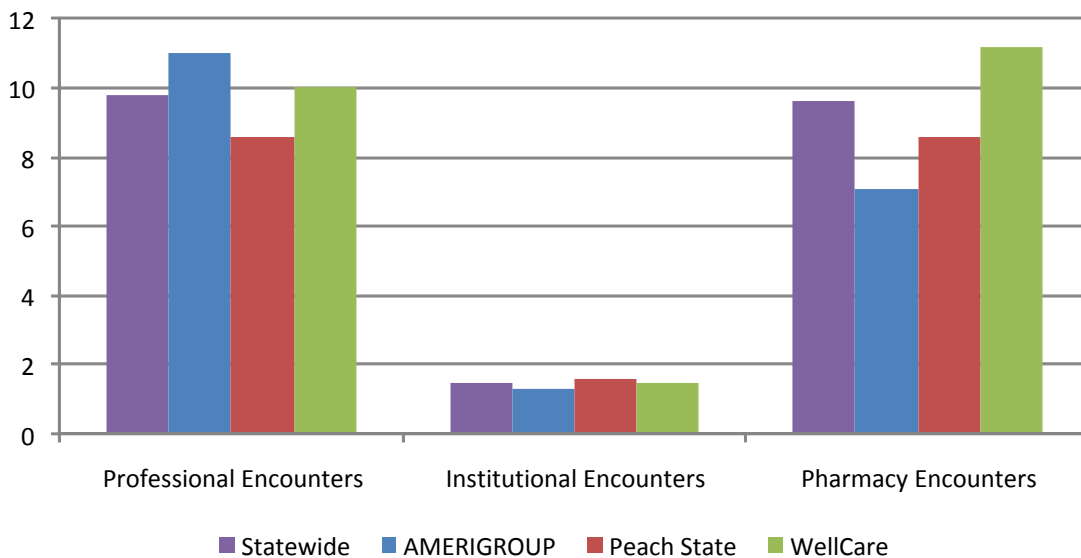
<sup>1</sup> The average number of members was calculated by dividing the total number of member months by 12. This calculation is the basis for reporting per member per year (PMPY) rates.

<sup>2</sup> The total number of member months from each CMO will not sum to those in the Statewide Total column because enrollment segments for some members overlapped with different CMOs.

<sup>3</sup> The total encounters per member per year (PMPY) rate was calculated by dividing the total number of encounters by the average number of members.

As indicated earlier, the highest volume of encounters was associated with professional and pharmacy services; this pattern was consistent across all CMOs (Figure 3-2). However, while the distribution of encounters per member per year (PMPY) was similar across CMOs for institutional encounters, there was considerably more variation among the CMOs for professional and pharmacy encounters. The largest difference in utilization was noted among pharmacy encounters where the number of prescriptions PMPY ranged from 7.1 prescriptions PMPY to 11.2 prescriptions PMPY.

Figure 3-2—CMO Variations in Encounters Per Member Per Year

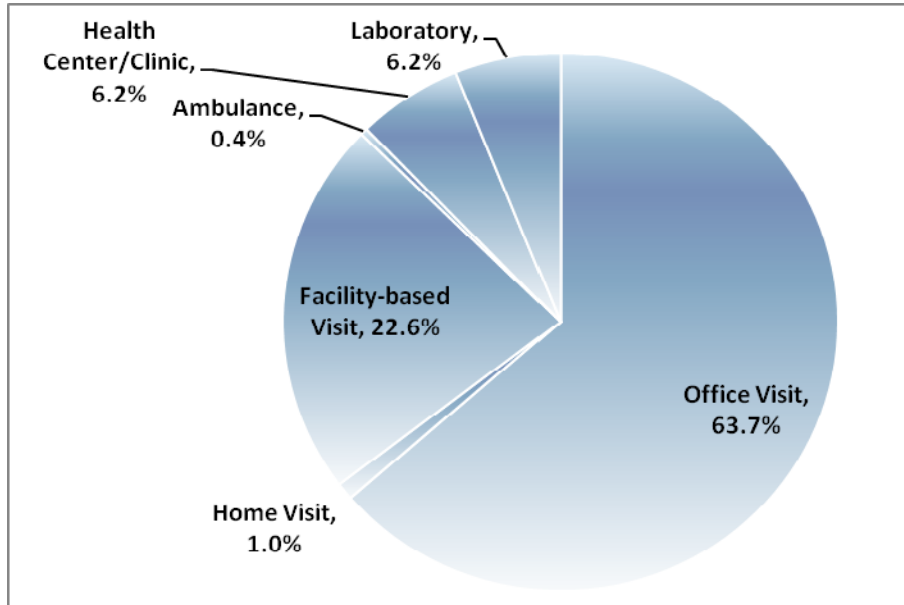


Source: Table C-2—Utilization of Services, Appendix C

Figure 3-3 and Figure 3-4 illustrate the distribution of professional and institutional encounters by place of service and bill type. Among professional encounters, office and facility-based visits (63.9 percent and 22.2 percent, respectively) represented the largest proportion of encounters (Figure

3-3). For institutional encounters, outpatient hospitals accounted for 85.6 percent of the encounters in CY 2008 (Figure 3-4).

**Figure 3-3—Distribution of Professional Encounters Based on Place of Service**

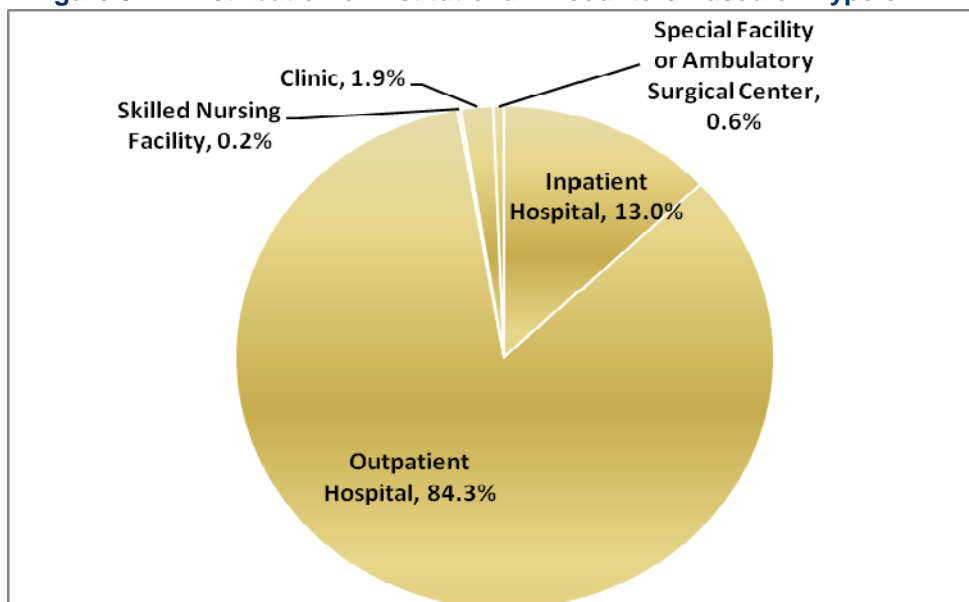


Source: Table C-3—Utilization of Services by Place of Services (for Professional Encounters) or Type of Bill (for Institutional Encounters), Appendix C

^ Includes professional visits provided at urgent care facilities, inpatient hospitals, outpatient hospitals, emergency room at the hospital, and ambulatory surgical centers.

\* Includes professional visits provided at Federally Qualified Health Centers, community mental health centers, public health clinics, and rural health clinics.

**Figure 3-4—Distribution of Institutional Encounters Based on Type of Bill**



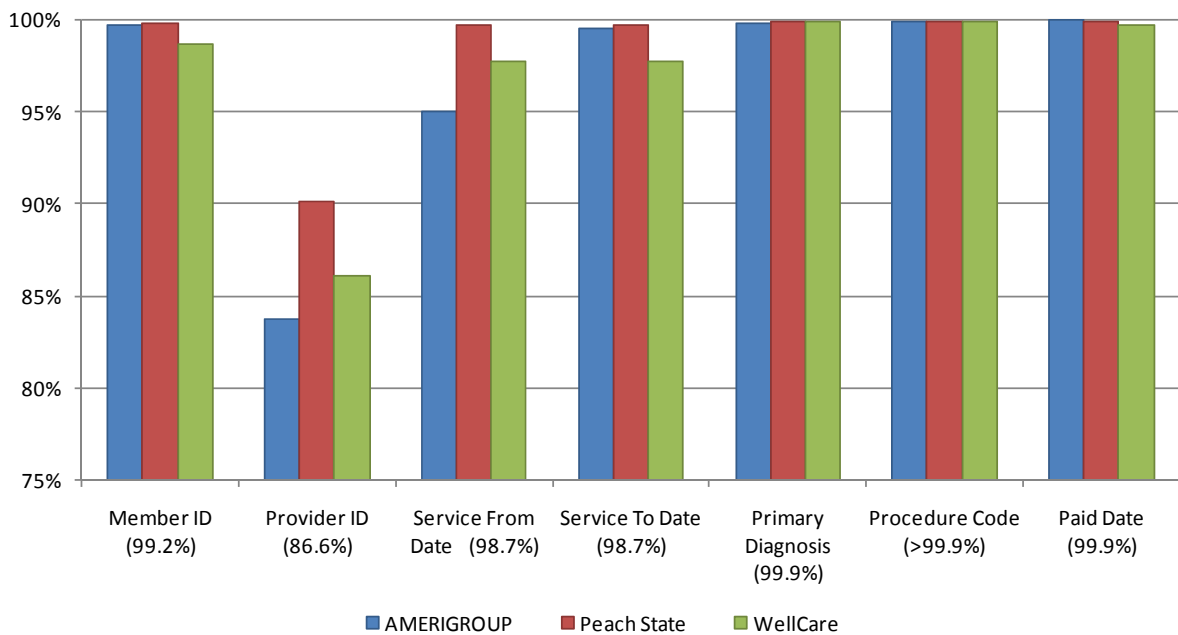
Source: Table C-3—Utilization of Services by Place of Services (for Professional Encounters) or Type of Bill (for Institutional Encounters), Appendix C

^ Includes rural health clinics, hospital-based clinics, independent renal dialysis centers, freestanding clinics, clinics at outpatient rehabilitation facilities, and community mental health centers.

### Encounter Field Completeness and Reasonableness

To determine the completeness and reasonableness of Georgia’s electronic encounter data, HSAG’s analysts examined the percentage of key data fields that contained data and were populated with expected values. Overall, all seven required data fields (Member ID, Provider ID, Service From Date, Service To Date, Primary Diagnosis, Procedure Code, and Paid Date) exhibited a high level of completeness, with nearly 100 percent of encounters containing information (See Table C-4 in Appendix C). Figure 3-5 shows that the CMOs submitted reasonable values in the seven required professional encounter data fields. Except for the provider ID field, more than 95 percent of the submitted professional encounter data contained valid data. For the provider ID field, 86.6 percent of the encounters contained valid values. Performance was consistent across CMOs. For additional information on optional data fields such as additional diagnoses, see Appendix C, Table C-4.

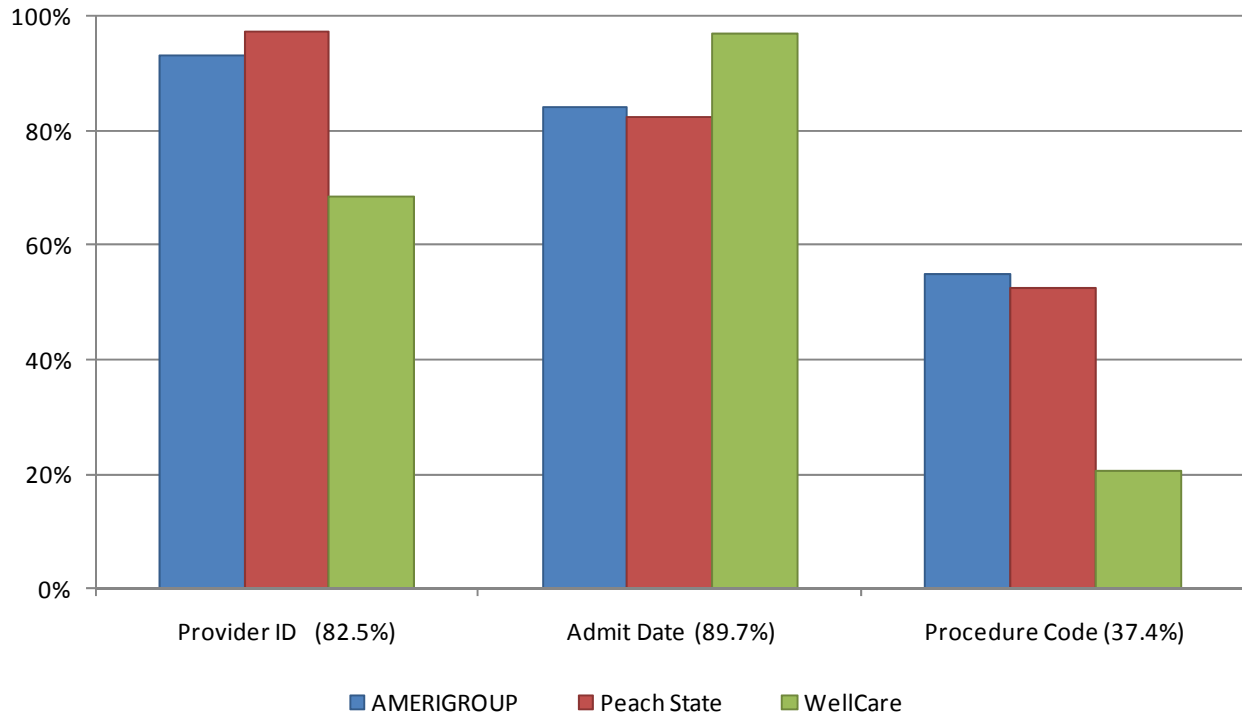
**Figure 3-5—Percentage of Professional Encounters Containing Valid Values in Select Data Fields**



Source: Table C-4—Summary of Professional Encounter File Completeness, Appendix C  
 Note: Statewide percentage is reported in the parentheses for each data field.

Similar to professional encounters, almost all of the submitted institutional encounters contained information in the 10 required institutional encounter data fields (i.e., Member ID, Provider ID, Discharge Date, Admit Date, Paid Date, Service From Date, Service To Date, Primary Diagnosis, Procedure Code, and Revenue Center Code). See Table C-5 in Appendix C for detailed information. Additionally, all CMOs submitted reasonable values with valid formats in seven of the 10 required institutional encounter data fields. All data fields except for Provider ID, Admit Date, and Procedure Code had more than 95 percent of the fields populated with valid data. Figure 3-6 shows that statewide rates for the Provider ID, Admit Date, and Procedure Code fields ranged from 37.4 percent (Procedure Code) to 89.7 percent (Admit Date). For additional information on optional data fields such as additional diagnoses, see Appendix C, Table C-5.

**Figure 3-6—Percentage of Institutional Encounters Containing Valid Values in Select Data Fields**



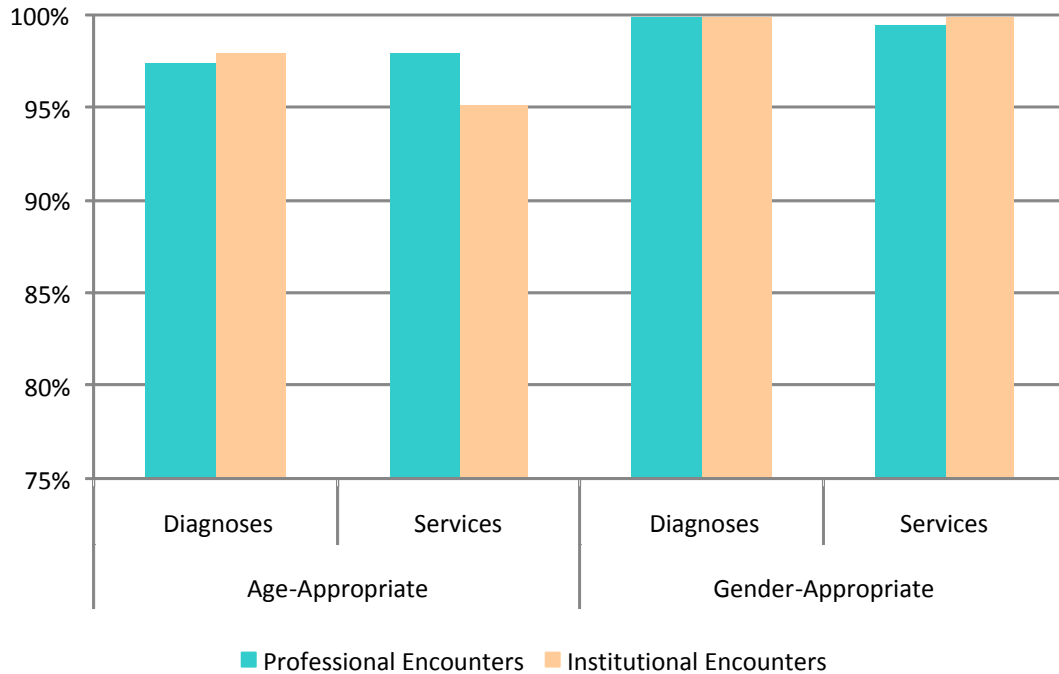
Source: Table C-5—Summary of Institutional Encounter File Completeness, Appendix C  
 Note: Statewide percentage is reported in the parentheses for each data field.

**Age/Gender-Appropriateness of Diagnoses and Procedures**

Another method for evaluating the reasonableness of submitted electronic encounter data is by investigating the age/gender-appropriateness of diagnosis and procedure codes. Figure 3-7 highlights the overall findings from HSAG’s review of age/gender-appropriateness. In general, 95 percent or more of all professional and institutional encounters with age-specific and gender-specific diagnosis or procedure codes were appropriate according to the patient’s age or gender.



**Figure 3-7—Percentage of Professional and Institutional Encounters with Age/Gender-Appropriate Diagnoses or Services**

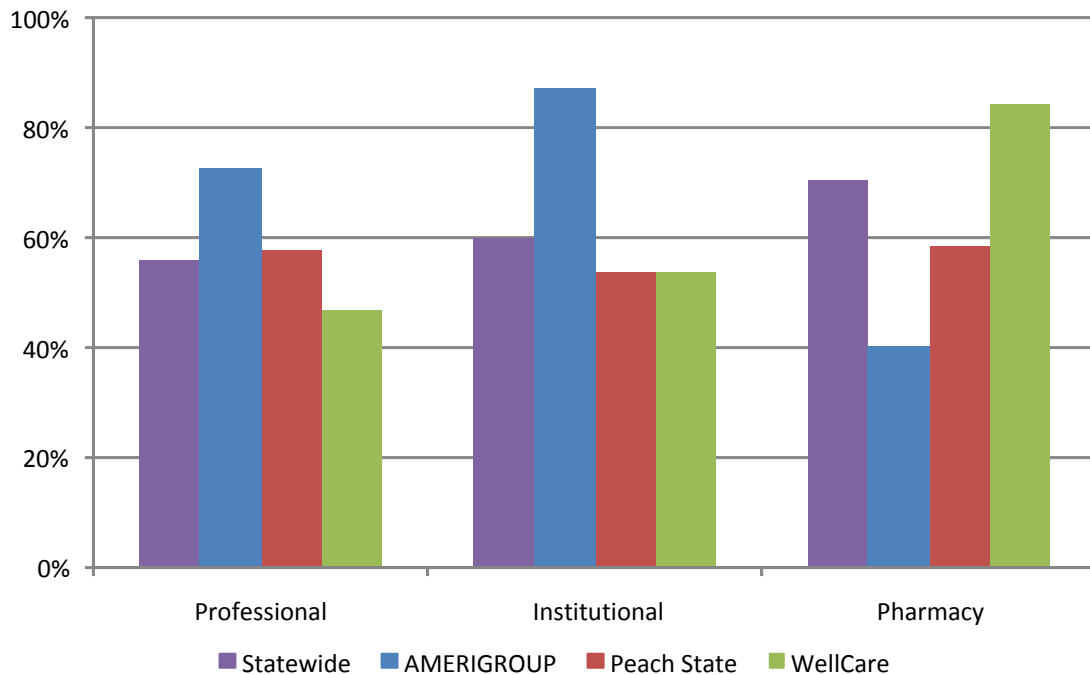


Source: Table C-6—Age- and Gender-Appropriate Professional Encounters, Appendix C  
Table C-7—Age- and Gender-Appropriate Institutional Encounters, Appendix C

### ***Timeliness of Encounter Data Processing***

Encounters that are complete and accurate but are not submitted timely to the State create challenges to monitoring programs and evaluating CMOs’ performance. Figure 3-8 shows that statewide, 55.8 percent of professional encounters, 60.1 percent of institutional encounters, and 70.6 percent of pharmacy encounters were processed into Georgia’s encounter data system within 90 days from the date of service. Across the three encounter types, considerable variation was noted among the CMOs, with differences ranging from 25.8 percentage points for professional encounters to 44.1 percentage points for pharmacy encounters.

**Figure 3-8—Percentage of Encounters Processed in Georgia’s Encounter Data System within 90 Days from the Date of Service**

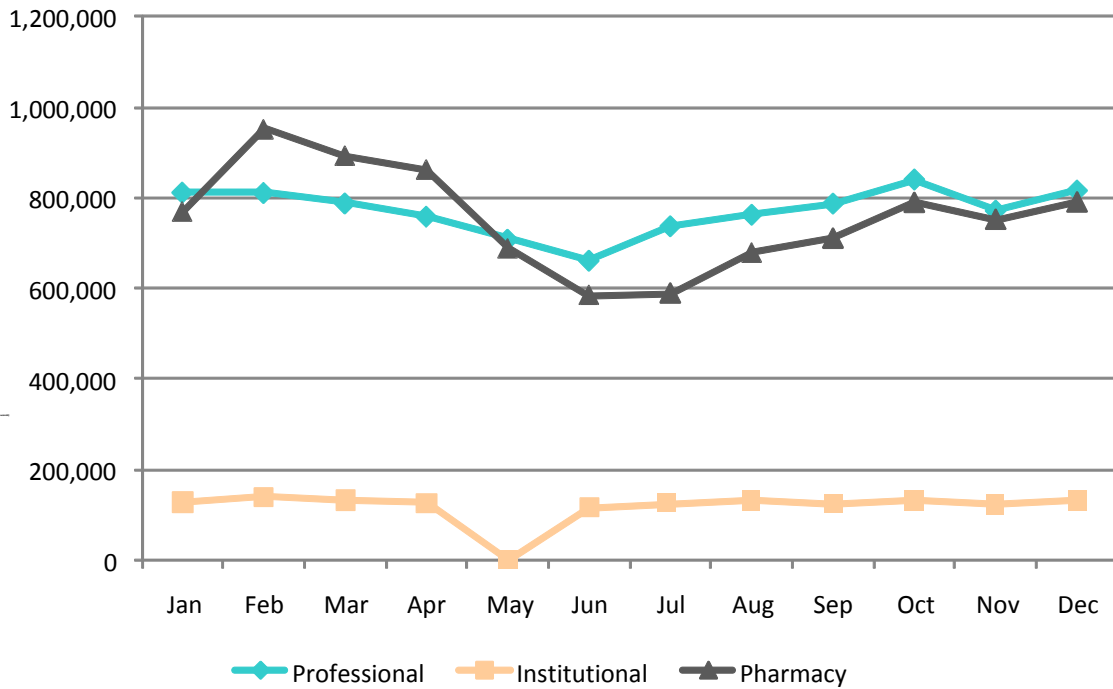


Source: Table C-8—Timeliness of Encounter Data Processing (Statewide), Appendix C  
Table C-9—Comparison of CMO Performance on Encounter Data Processing Timeliness, Appendix C

Further examination of the volume of encounters submitted by month provides additional insight into potential problems with the completeness of data. Figure 3-9 shows that for professional and institutional encounters, minimal variation in encounter data volume was noted at the statewide level during CY 2008. This monthly variation falls within an acceptable range. The drop in the volume of institutional encounters for May 2008 was due to the missing CMO identifiers in these encounters. If the CMO identifiers had been available, the volume for May 2008 would be comparable to that of April 2008. HSAG discussed this topic with DCH and found that this issue was likely related to how the institutional data were prepared for the study and was not reflective of the actual encounter data present in Georgia’s encounter data system.

The monthly variation for pharmacy encounters was more notable than for the professional and institutional encounters. This may be related to two of the CMOs that exhibited more fluctuations in their pharmacy encounter volume between the first and second quarters of CY 2008.

**Figure 3-9—Monthly Variations of Statewide Encounters by Type**



Source: Table C-10—Statewide Monthly Encounter Data Volume by Encounter Type, Appendix C

## Medical Record Review

Although administrative analyses may provide insights on the state of encounter data quality in Georgia’s encounter data system, medical record review remains the only method for a true and comprehensive assessment of encounter data completeness and accuracy. To accomplish the medical record review component of the study, HSAG used the professional encounter data file prepared by Georgia’s data vendor and identified all Georgia Families members who met the study population requirements. For each CMO, HSAG analysts used random sampling to select 411 members for medical record review. Then, for each sampled member, HSAG randomly selected one EPSDT visit that took place during CY 2008. Each sampled EPSDT visit represented services performed by a single provider on a specific date of service for a specific member.

HSAG forwarded the sample list with member and provider information to each CMO for processing. Upon receipt of the sample, the CMOs worked with their providers to obtain a member’s complete medical record that covered services provided during CY 2008. Only the member’s medical record for the provider identified in the sample was required for submission; medical records from other providers visited by the member during the year were not requested. The CMOs requested all medical record components (e.g., progress notes, EPSDT visit forms, growth charts, history, and physicals) from the provider. The entire CY 2008 medical record was collected, thus giving the HSAG coders full access to select a second visit if available.

Out of the original sample of 1,233 cases, 1,221 records were submitted by the CMOs for medical record review. Of the 12 records not submitted by the CMOs:

- ◆ Six were not submitted due to provider refusal to release the records.
- ◆ Four were not submitted due to the provider being unable to locate the record.
- ◆ Two were not submitted due to the provider documenting on the procurement tracking form that the member did not access care even though an electronic encounter was submitted.

All 12 cases remained in the analysis, since the encounter was submitted by the provider and the member met the eligibility requirements. (See Table C-11 in Appendix C.)

### Completeness

HSAG evaluated encounter data completeness by identifying differences between the electronic encounter data and the members' medical records. Medical record omission and encounter data omission represent two aspects of encounter data completeness. Medical record omissions occurred when an encounter data element (i.e., date of service, diagnosis code, or procedure code) was not supported by documentation in a member's medical record. Medical record omissions suggest opportunities for improvement within the provider's internal processes, such as billing processes and record documentation by the providers. As determined during this review, the most common reasons for medical record omissions were:

- ◆ The provider did not document the services performed in the medical record despite submitting a claim/encounter.
- ◆ There was a data entry error for one or more elements (e.g., date of service).
- ◆ The medical record could not be located.
- ◆ The provider did not perform the service.

Encounter data omissions occurred when an encounter data element (i.e., date of service, diagnosis, or procedure) was found in a member's medical record, but was not listed in the electronic encounter data. The most common reasons for encounter data omissions were:

- ◆ The provider's billing office made a coding error.
- ◆ DCH's encounter data systems contained certain restrictions related to encounter submission requirements that affected the processing of some encounters (e.g., number of diagnosis or procedure code fields, requirements regarding resubmission of denied or rejected encounters).
- ◆ Different provider IDs were used when submitting the encounters.
- ◆ There was a lag between the time when the service was performed by the provider and the encounter was submitted to the CMOs and/or DCH.

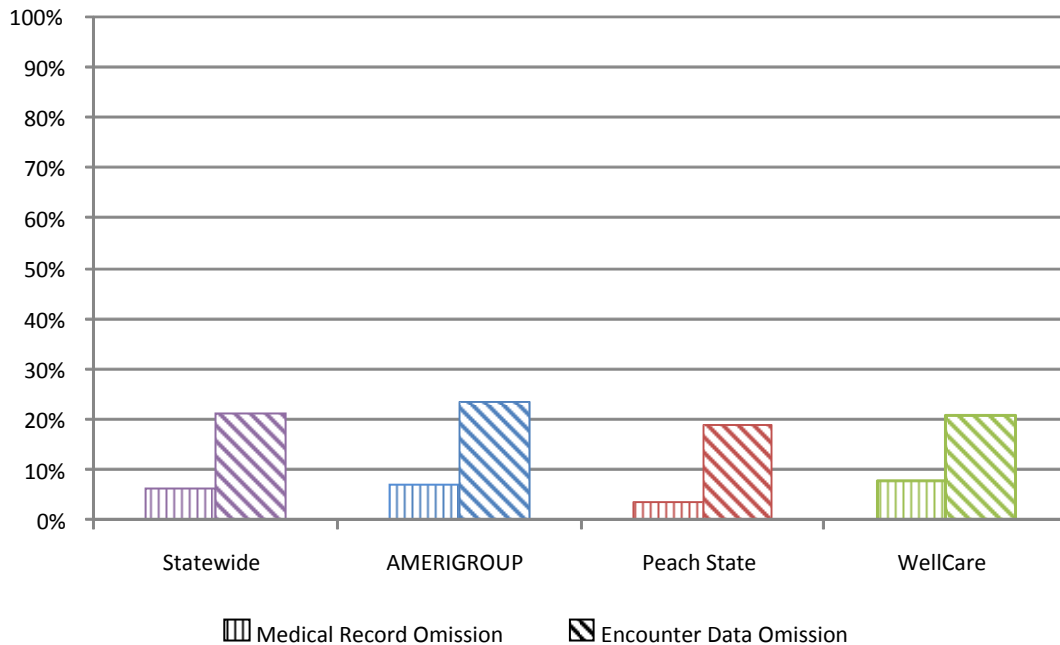
After the coders validated the selected EPSDT date of service they randomly selected one additional EPSDT visit from the submitted medical record. If the HSAG coders did not find an additional EPSDT visit in the medical record, they selected any physician office visit. The coders used the electronic abstraction tool to check whether the documented date of service was also in the State's electronic encounter data file. They then coded the procedures and diagnoses based on the

documentation in the medical record and evaluated whether the diagnoses and procedures documented for this selected date of service were submitted completely and accurately to the State’s encounter data. Additional selected services from the members’ medical records were evaluated against members’ eligibility; services rendered when a member was ineligible for Medicaid were excluded from the analysis.

**Date of Service Omission Rates**

Figure 3-10 shows that statewide, 6.1 percent of the selected dates of service in the electronic encounter data were not found in members’ medical records (i.e., medical record omission). Additionally, 20.5 percent of the dates of service identified in the medical records were not found in the electronic encounter data (i.e., encounter data omission). CMO-specific findings did not show any major variation for either the medical record or encounter data omission rates.

**Figure 3-10—Medical Record and Encounter Data Omission Rates (Date of Service)**



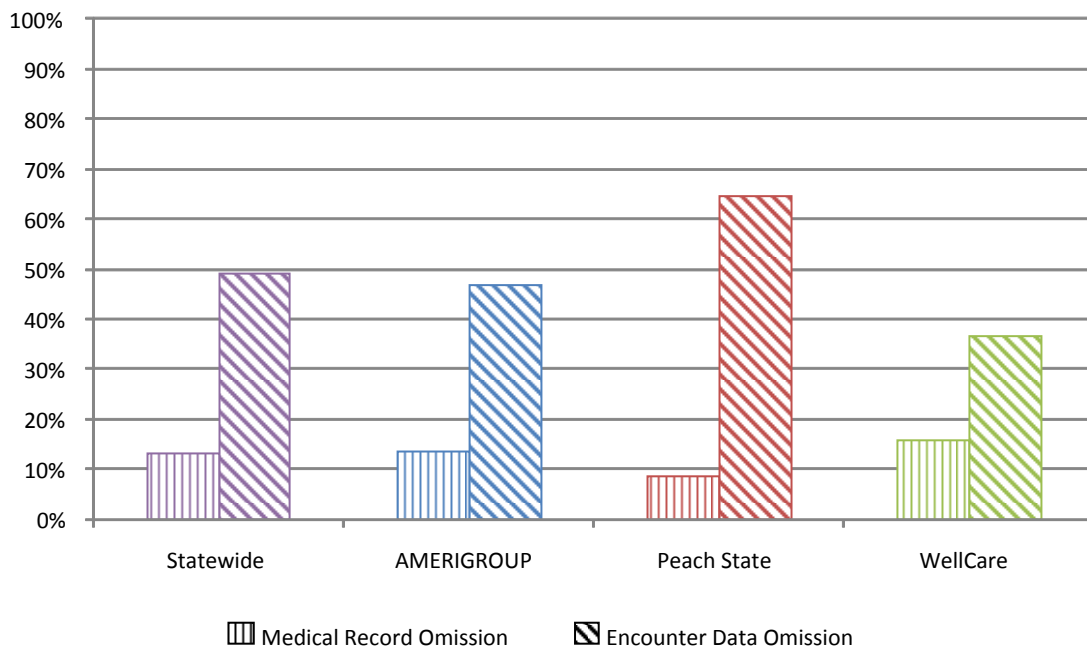
Source: Table C-12—Date of Service Medical Record Agreement and Omission Rates, Appendix C  
Table C-13—Date of Service Encounter Data Omission Rates, Appendix C

**Diagnosis Code (ICD-9-CM) Omission Rates**

Figure 3-11 shows that 13.3 percent of the selected diagnosis codes in the electronic encounter data were not found in members’ medical records (i.e., medical record omission). Individual CMO rates indicated some variation with rates ranging from 8.6 percent (Peach State) to 15.8 percent (WellCare). Diagnosis codes most frequently identified in the electronic encounter data but not found in members’ medical records included:

- ◆ V72.0 (examination of eye and vision).
- ◆ V72.19 (other examination of ears and hearing).
- ◆ V82.5 (screening for chemical poisoning and other contamination).

**Figure 3-11—Medical Record and Encounter Data Omission Rates (Diagnosis Codes)**



Source: Table C-14—Diagnosis Code Medical Record Omission and Encounter Data Omission Rates, Appendix C

Figure 3-11 also shows that the encounter data omission rates for diagnosis codes were much higher than the medical record omission rates for diagnosis codes. Overall, about half of the diagnosis codes (49.3 percent) identified in the medical records were not present in the electronic encounter data, with individual CMO rates ranging from 35.9 percent to 64.3 percent. These findings may have resulted from DCH billing guidelines in place during the measurement period. The diagnosis codes most frequently found in members’ medical records but omitted from the electronic encounter data included:

- ◆ V20.2 (routine infant or child health check).<sup>3-1</sup>
- ◆ V05.3 (need for prophylactic vaccination and inoculation against viral hepatitis).
- ◆ V03.82 (need for prophylactic vaccination and inoculation against streptococcus pneumonia).
- ◆ V06.1 (need for prophylactic vaccination for diphtheria, tetanus, and pertussis [DTP/TDaP]).
- ◆ V05.4 (need for prophylactic vaccination and inoculation against varicella).

<sup>3-1</sup> Based on HSAG’s review of members’ medical records, the diagnosis code V20.2 and V70.0 were used interchangeably. This practice is in agreement with DCH policy and procedures.

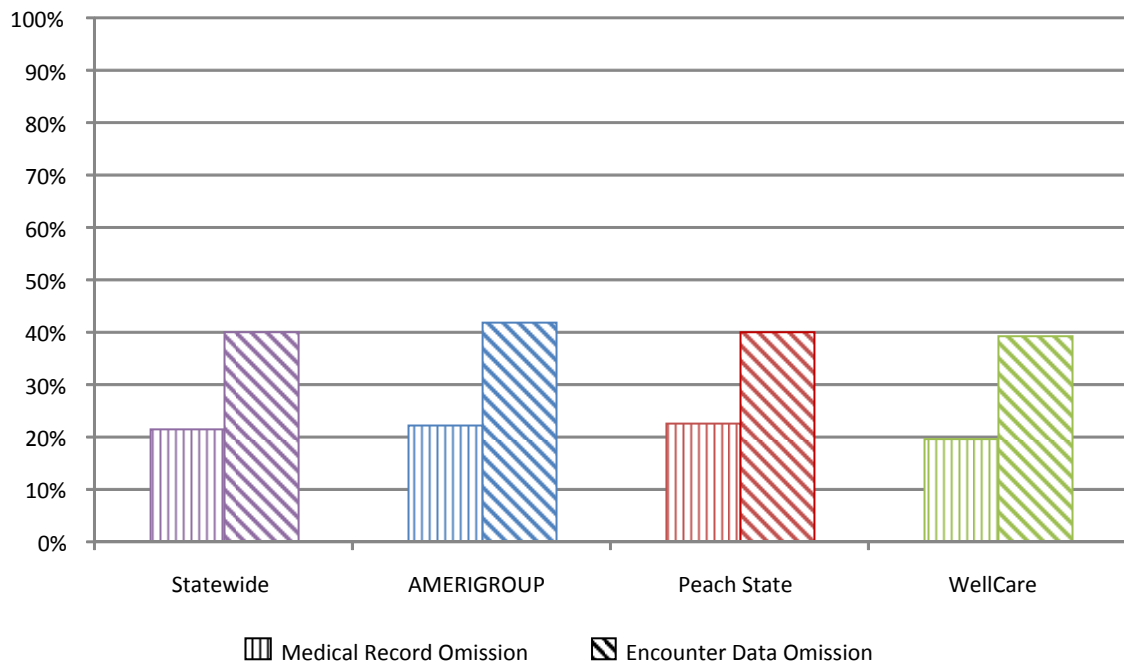
These findings suggested that while data elements identified in the electronic encounter data were generally supported by members’ medical records, the electronic encounter data were missing information on nearly half of the diagnosis codes documented in members’ medical records. These findings may have been related to DCH policy and procedures that did not require providers to submit multiple diagnosis codes for vaccine administration.

**Procedure Code (CPT-4) Omission Rates**

Figure 3-12 shows that statewide, 21.5 percent of the selected procedure codes in the electronic encounter data were not found in members’ medical records (i.e., medical record omission). Individual CMO rates indicated some variation with rates, ranging from 19.5 percent (WellCare) to 22.6 percent (Peach State). Procedure codes most frequently identified in the electronic encounter data but not found in members’ medical records included:

- ◆ 99212 (evaluation/management, established outpatient, 10 minutes).
- ◆ 96110 (developmental testing, limited).
- ◆ 90633 (hepatitis A, adolescent).
- ◆ 99393 (established patient visits, late childhood years 5-11).

**Figure 3-12—Medical Record and Encounter Data Omission Rates (Procedure Codes)**



Source: Table C-15—Procedure Code Medical Record Omission and Encounter Data Omission Rates, Appendix C

Although somewhat lower than exhibited for diagnosis codes, the encounter data omission rates for procedure codes were still higher than the medical record omission rates for procedure codes.

Figure 3-12 shows that statewide, 40.1 percent of the procedure codes identified in the medical records were not present in the electronic encounter data. Encounter data omission rates were similar across the CMOs. The procedure codes most frequently found in members' medical records but omitted from the electronic encounter data included:

- ◆ 90472 (vaccine administration code without counseling > 8 years).
- ◆ 90471 (vaccine administration code without counseling < 8 years).
- ◆ 90473 (administrative services associated with intranasal vaccine).

These findings suggested that while encounter data elements identified in the electronic encounter data were generally supported by members' medical records, the electronic encounter data were missing information on 40.1 percent of the procedure codes documented in members' medical records. However, these rates may have been affected by DCH billing policy and procedures since these codes do not represent billable services.

### **Encounter Data Accuracy**

For encounter data accuracy, HSAG considered the encounter data elements (i.e., diagnosis code and procedure code) correct if documentation in the medical record supported the codes contained in the electronic encounter data. During the medical record review, HSAG coders evaluated diagnosis and procedure codes from the electronic encounter data and identified discrepancies based on documentation in the members' medical records. The three most common reasons for errors in coding were:

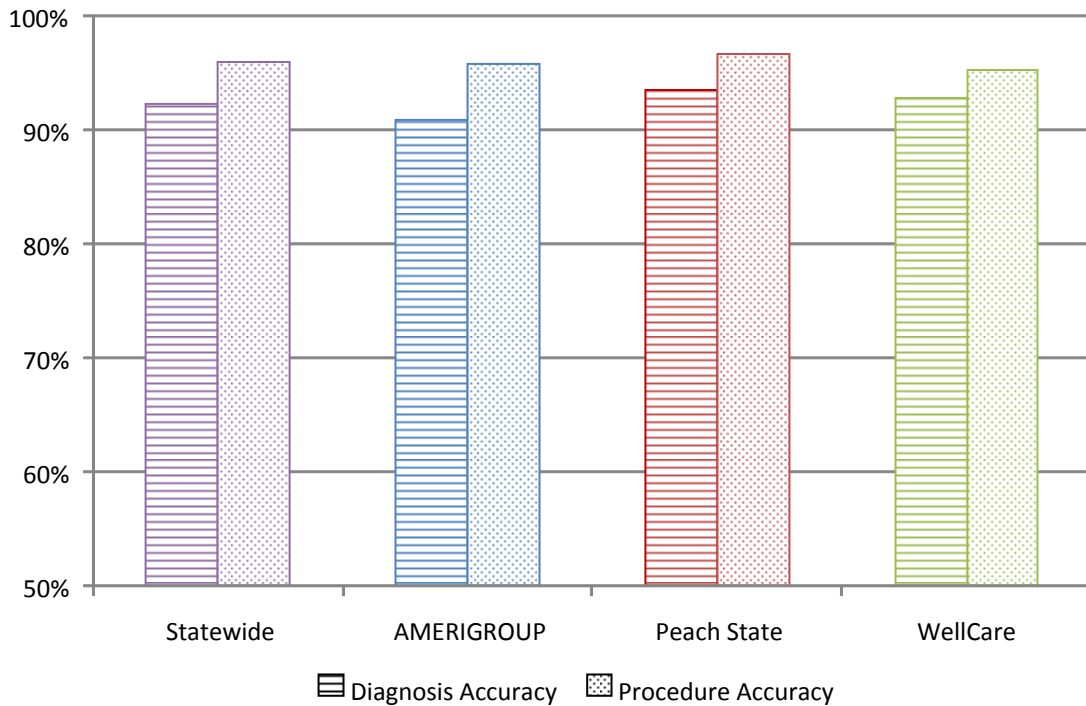
- ◆ Documentation in the medical record did not support the code.
- ◆ There were specificity errors for diagnosis codes.
- ◆ Procedure codes submitted for the selected date of service reflected a higher or lower level of service than the services documented in the medical record.

Specificity errors occur when a provider submits an encounter that has a diagnosis code without the required fourth or fifth digit. For example, a diagnosis code of 410 (heart attack) should include fifth-digit specificity, such as 410.01, to indicate which part of the heart was affected and if the heart attack was the first episode. Providers can prevent specificity errors with updated claims processing software. Health plans and states can prevent specificity errors by requiring providers to submit claims using full specificity, when necessary.

Overall, HSAG found that when the diagnosis and procedure codes were present in both the electronic encounter data and medical record, the submitted codes were accurate. Figure 3-13 shows that the accuracy rates for both diagnosis and procedure codes were above 90 percent.



**Figure 3-13—Diagnosis and Procedure Accuracy Rates**



Source: Table C-16—Diagnosis Coding Accuracy Rates and Types of Error, Appendix C  
Table C-17—Procedure Coding Accuracy Rates and Types of Error, Appendix C

For diagnosis coding, the majority of errors were associated with discrepancies between submitted codes and national coding standards rather than specificity errors. In general, accuracy errors resulted from inadequate documentation in the medical record to support a given diagnosis code.

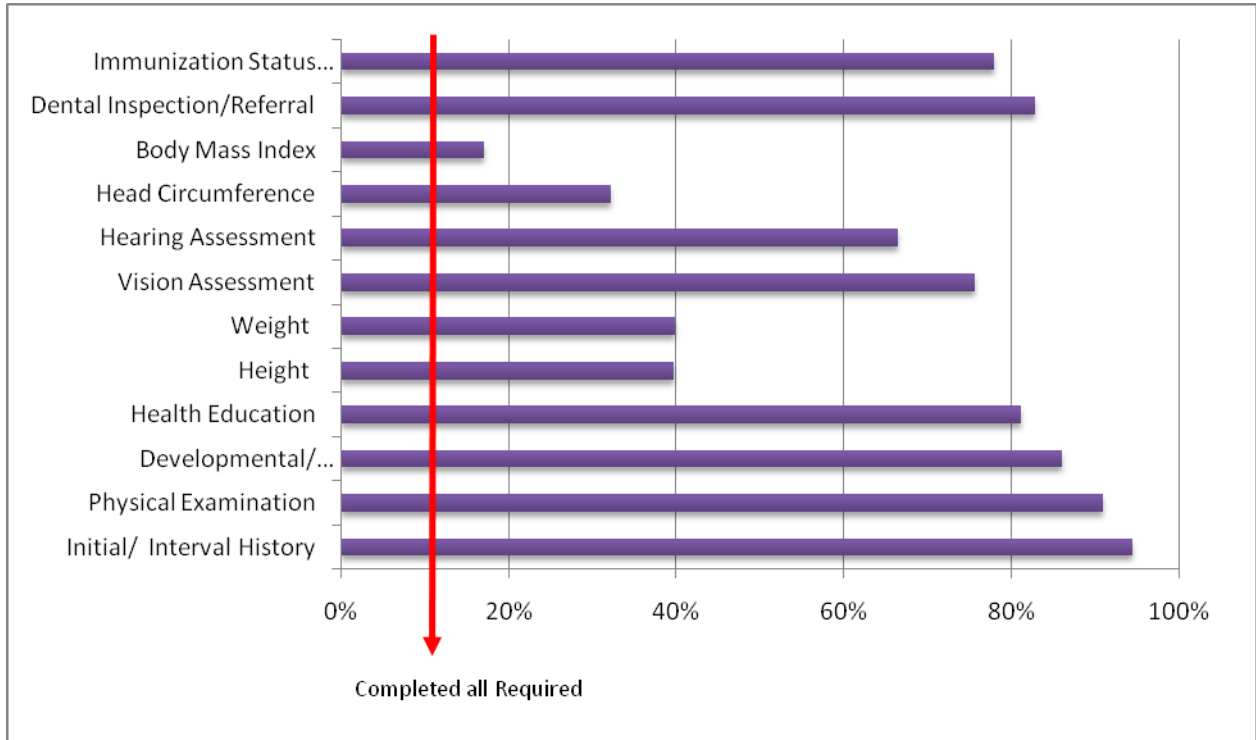
For procedure coding, 54 percent of the identified errors resulted from providers submitting a higher level procedure code for services performed than was supported and documented in the medical records. While these findings suggested some degree of “up-coding” on the part of physicians, the impact was relatively small.

### **EPSDT Component Completion**

In order for providers to submit an encounter with a DCH-approved EPSDT procedure code (i.e., 99381–99385 or 99391–99395), they must perform all required EPSDT components and document the services in the medical record. Figure 3-14 shows that 10.6 percent of the EPSDT visits evaluated had all required components documented in the members’ medical records. Although several individual EPSDT components exhibited very high completion rates (i.e., Initial/Interval History, Physical Examination, and Developmental/Behavioral Surveillance), four had rates below 50 percent. These lower rates, compared to the rates for the other individual EPSDT components, may be due to the requirement that the provider plot the measurements on a height and weight

growth chart for a positive response on the documentation of height and weight. This requirement also applied to the documentation of head circumference and body mass index.

**Figure 3-14—Statewide EPSDT Component Completion Rates**



Source: Table C-18—Statewide EPSDT Component Completion Rates, Appendix C

The Bright Futures guidelines required EPSDT providers to document several EPSDT components (e.g., height, weight, head circumference, and body mass index) on a growth chart. Since its implementation on July 1, 2008, the statewide EPSDT component completion rate has improved from 8.6 percent to 12 percent.<sup>3-2</sup> Following implementation, notable increases in the documentation of height, weight, and head circumference were identified. Although the increases were not substantial, this finding reflected providers' increased adherence to the Bright Future guidelines.

<sup>3-2</sup> Findings of the comparison of the statewide EPSDT Component Completion Rates before and after the Bright Future Guidelines implementation are found in Table C-19 in Appendix C.

## Discussion and Conclusions

### *Analyses of Electronic Encounter Data Findings*

Based on the analyses of electronic encounter data, HSAG found that most encounters submitted to Georgia's encounter data system contained reasonable and accurate values in critical fields. While some fields exhibited minor data issues in four critical data fields (e.g., provider ID), 13 of the 17 critical data fields contained accurate and reasonable values in more than 95 percent of the professional encounters and institutional encounters. Additionally, at least 95 percent of the professional and institutional encounters with age/gender-specific diagnosis or procedure codes were appropriately coded according to the patient's age and/or gender.

CMOs also submitted their encounters timely and consistently to DCH. Although there is no specific timeliness requirement for encounter data submissions<sup>4-1</sup>, 55.8 percent of professional encounters, 60.1 percent of institutional encounters, and 70.6 percent of pharmacy encounters were processed in the State's encounter data system within 90 days of the dates of service. Additionally, the distribution of encounter submissions on a monthly basis was in alignment with general expectations for the time period.

### *Medical Record Review Findings*

Based on the cases sampled for medical record review, HSAG found that the encounters submitted to DCH were generally supported by documentation in members' medical records. Statewide, 93.9 percent of the dates of service identified in the electronic encounter data were found in the medical record. Overall, 86.7 percent of diagnosis codes and 78.5 percent of procedure codes identified in the electronic encounter data were found in members' medical records. These findings suggested a moderately high level of completeness among key encounter data fields when compared to members' medical records.

Although encounters submitted by the providers to DCH generally had supporting documentation in the medical records, not all services documented in the medical records were submitted to DCH (encounter data omission). For instance, 20.5 percent of the dates of service documented in the members' medical records were absent from the electronic encounter data. There is an opportunity to improve the completeness of DCH's electronic encounter data by increasing the percentage of diagnosis and procedure codes submitted to the electronic encounter data system to better align with what is found in the medical records.

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<sup>4-1</sup> Based on a review of the Georgia Families CMO Encounter Data Submission Policies and Procedures document (revised March 2, 2009), timeliness requirements were applied to the resubmission of rejected encounters. There was no explicit timeliness requirement for initial encounter submission.

The results from the medical record omission and encounter data omission analyses illustrate some discrepancies in the completeness of Georgia's electronic data. Although the discrepancies were not extensive, the results suggested that in CY 2008, some services performed were not incorporated into Georgia's encounter data system. A review of the Georgia Families requirements for encounter data submission suggested that although the CMOs were expected to submit encounters denied or unpaid by their systems, they were not required to submit certain denied claims (e.g., those with missing/incomplete data, duplicate procedures on same date of service, and ineligibility of the member). The policies also did not require the CMOs to correct and resubmit denied encounters that received a rejection or denied disposition in the encounter rejection reports. As such, it is possible that some of the omissions noted in this analysis resulted from the CMOs' different practices in submitting encounters that were unpaid or denied by their own systems.

HSAG found that the diagnosis and procedure codes submitted to Georgia's encounter data system were generally accurate. Overall, 92.3 percent of diagnosis codes and 96.1 percent of procedure codes identified in the electronic encounter data were supported by medical record documentation. However, these rates may have been affected by DCH billing policy and procedures. These overall findings showed that less than 10 percent of the diagnosis and procedure codes in Georgia's electronic encounter data were inaccurate. The majority of diagnosis-related errors involved discrepancies in the use of certain codes compared to national coding standards instead of specificity errors. More than half of the incorrect procedure codes involved submitting a higher-level service code than was supported in the members' medical records.

Finally, HSAG found that Georgia providers documented many of the required EPSDT components in medical records, with initial/interval history, physical examination, and developmental/behavioral surveillance exhibiting very high completion rates. Nonetheless, only 10.6 percent of the EPSDT visits had all the age-appropriate components documented. The least-documented components included body mass index, head circumference, and height and weight. With the implementation of the Bright Futures guidelines, the statewide EPSDT component completion rates increased 3.4 percentage points compared to prior time period. However, these results still indicated considerable room for improvement.

## Recommendations

Based on the analyses of electronic encounters, the overall quality of the encounter data submitted by Georgia Families' CMOs was considered complete and accurate. These encounters were also submitted in a timely manner. While HSAG identified a few data concerns, these issues appear to have been the product of the data extraction process used by DCH's data vendor in preparing the data files for this study. More importantly, based on encounter data quality activities undertaken by DCH since 2009, the data issues identified in this study no longer appear to be reflective of the current quality of encounter data.

Results from the medical record review suggested that while submitted encounters (including diagnosis and procedure codes) were generally supported by members' medical records, opportunities for improvement were noted for the submission of complete and accurate encounters to DCH. Additional opportunities for improvement were noted in the documentation of EPSDT

visits, since only 10.6 percent of EPSDT visits contained documentation that all the required components were completed. Based on these findings, HSAG recommends the following:

- ◆ **DCH should continue its efforts to monitor encounter data submissions and address any identified data issues with CMO encounter file submissions.** The few data concerns that emerged from the analyses of encounter data may be related to factors such as possible errors in the data file extracted by the vendor and used for this study, incorrect or infrequent updates of data files within the MMIS system, inconsistent updates and populations of data values across different files within the MMIS, inconsistent implementation of system edits on submitted encounters, and incomplete or inconsistent encounter submission by the CMOs on required fields. In evaluating the nature of these issues, HSAG reviewed several encounter data quality reports compiled by Myers and Stauffer for the State of Georgia. Based on its review and on discussions with DCH and Myers and Stauffer, HSAG found that many of the data issues identified in this study have since been addressed through the State's ongoing efforts to improve the overall quality of submitted encounters. Since January 2009, DCH and its contractor, Myers and Stauffer, have consistently worked with the CMOs to ensure that submitted encounters are complete and accurate. More specifically, DCH requires CMOs to have at least 99 percent of their cumulative encounters submitted monthly to the Medicaid Management Information System. Myers and Stauffer also provide monthly raw encounter data files to the CMOs for review and reconciliation. Recognizing that the current approach appears to provide an effective and efficient process to monitor encounter data quality and identify data issues, HSAG recommends that DCH continue its current process and approach to ensuring high-quality encounter data submission.
- ◆ **DCH should consider requiring the CMOs to audit provider encounter submissions for completeness and accuracy.** DCH should share the EDV findings with the CMOs and require them to develop periodic provider education and training regarding encounter data submission, documentation, and coding practices. These activities should include a review of the EPSDT requirements, especially for new providers contracted with the CMOs. In addition, HSAG recommends that the CMOs consider performing periodic reviews of submitted claims to verify appropriate coding. DCH should consider requiring the CMOs to report this information as part of the Georgia Families contract to maintain good encounter data quality.
- ◆ **DCH should work with the CMOs to explore the reasons for incomplete encounter data submissions based on medical record review results and develop strategies to improve rates.** Since maintaining good encounter data quality is a responsibility involving multiple organizational entities—including the State, the CMOs, and the providers—HSAG recommends that DCH work with the CMOs to explore the reasons for relatively high encounter data omission rates. DCH should ensure that there are no system issues that impact the acceptance of encounter data submitted by the CMOs. DCH may also want to consider revisiting the impact of not requiring the CMOs to submit encounters denied for missing/incomplete data, since this may have contributed to the reported omission rates. Based on monthly encounter submission and rejection reports, DCH also may want to consider expanding current performance goals or standards regarding encounter data submission and quality. Evaluation of CMO compliance with these performance goals can be accomplished either through an independent encounter data validation study or CMO self-reporting of medical record review. Future encounter data validation studies, whether conducted by the State or the CMOs, could involve evaluating the

extent to which the omitted encounters are denied or are unpaid by the CMOs through a review of the CMOs' claim processing and adjudication system.

- ◆ **The CMOs should perform a root-cause analysis to identify barriers affecting the performance or documentation of required EPSDT components during office visits and develop a corrective action plan to address identified deficiencies.** The EPSDT component completion rates showed wide variations in providers' documentation of each EPSDT component. This finding resulted in a low overall component completion rate of 10.6 percent. A root-cause analysis would identify potential barriers from which the CMOs should develop interventions to improve the documentation rate of the EPSDT components. Improvement activities should also consider educational outreach to providers and office staff members on the requirement to plot body mass index, weight, height, and head circumference.

**Georgia Encounter Data Validation 2008** Open File

**Encounter Date of Service**

EncounterDatatoMedical Record | EPSDT Services | MedicalRecordtoEncounterData | Comments

**Encounter Date of Service (DOS) Validation:**

Review period 1/1/2008 - 12/31/2008

1. Is there a matching date of service in review period?  Yes  No

2. Is there an additional date of service in review period?  Yes  No

Electronic Encounter Data File Submitted ICD-9	Is Valid?	Correct Code	Reason Codes	
	<input type="radio"/> Yes <input type="radio"/> No		1 4 5 6	Delete

Electronic Encounter Data File Submitted CPT	Is Valid?	Correct Code	Reason Codes	
	<input type="radio"/> Yes <input type="radio"/> No		1 2 3 4 6	Delete

Cancel and Close Save Save and Close Complete and Close

Form View Num Lock

**Georgia Encounter Data Validation 2008**

Open File | HSAGID | recipientID | FirstName | LastName | Plan | DateOfBirth | status

Encounter Date of Service

EncounterDataToMedical Record | EPSDT Services | MedicalRecordtoEncounterData | Comments

**Comprehensive EPSDT components documented during review period:**

Review period 1/1/2008 - 12/31/2008

1. Initial/updated history	<input type="radio"/> Yes	<input type="radio"/> No	
2. Physical exam	<input type="radio"/> Yes	<input type="radio"/> No	
3. Development/behavioral assessment	<input type="radio"/> Yes	<input type="radio"/> No	
4. Health education and/or anticipatory guidance	<input type="radio"/> Yes	<input type="radio"/> No	
5. Measurement of height	<input type="radio"/> Yes	<input type="radio"/> No	
6. Measurement of weight	<input type="radio"/> Yes	<input type="radio"/> No	
7. Measurement of head circumference	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> NA
8. Measurement of BMI	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> NA
9. Vision procedure	<input type="radio"/> Yes	<input type="radio"/> No	
10. Hearing procedure	<input type="radio"/> Yes	<input type="radio"/> No	
11. Dental inspection/referral	<input type="radio"/> Yes	<input type="radio"/> No	
12. Immunization status	<input type="radio"/> Yes	<input type="radio"/> No	

Cancel and Close | Save | Save and Close | Complete and Close

Form View | Num Lock



The screenshot shows a Microsoft Access window titled 'Abstraction Form - Microsoft Access'. The ribbon includes 'Home', 'Create', 'External Data', and 'Database Tools'. The main form area is titled 'Encounter Date of Service' and contains the following elements:

- Navigation tabs: EncounterDatatoMedical Record, EPSDT Services, MedicalRecordtoEncounterData, Comments.
- Section: Additional Medical Record Date of Service (DDS):
  - Review period: 1/1/2008 - 12/31/2008
  - Date of Service:
- Medical Record ICD-9:
- Medical Record CPT:

At the bottom of the form, there are buttons for 'Cancel and Close', 'Save', 'Save and Close', and 'Complete and Close'. A 'Navigation Pane' is visible on the left side of the window. The status bar at the bottom shows 'Form View' and 'Num Lock'.

The screenshot displays the Microsoft Access interface for the 'Abstraction Form'. The title bar indicates the file name is 'Abstraction Form - Microsoft Access'. The ribbon includes 'Home', 'Create', 'External Data', and 'Database Tools'. The main area is titled 'Georgia Encounter Data Validation 2008' and contains a table with the following columns: **HSAGID**, **recipientID**, **FirstName**, **LastName**, **Plan**, **DateOfBirth**, and **status**. Below the table, there are tabs for 'Encounter Date of Service', 'EncounterData to Medical Record', 'EPSDT Services', 'MedicalRecord to EncounterData', and 'Comments'. A 'Review period' is set to '1/1/2008 - 12/31/2008'. At the bottom of the form, there are buttons for 'Cancel and Close', 'Save', 'Save and Close', and 'Complete and Close', along with a right-pointing arrow button. The status bar at the bottom shows 'Form View' and 'Num Lock'.

## Appendix B. Methodology Specifications Tables

The following tables provide detailed information and analysis specifications outlined in Section 2 (Overview and Methodology) of this report.

<b>Table B-1—Valid Ranges or Values for the Data Field Completeness Analyses</b>				
Field	Format	Valid Ranges or Values	Analyses Applied to	
			Professional Encounters	Institutional Encounters
Member ID	Character	State-supplied eligibility/enrollment file	√	√
Provider ID	Character	State-supplied provider file	√	√
Principal/Primary Diagnosis	Character	ICD-9 Manual	√	√
Additional Diagnoses	Character	ICD-9 Manual	√	√
Procedure Codes	Character	CPT and HCPCS Manual	√	√
Revenue Codes	Character	0001–999X		√
Service From Date	Date	01/01/2008–12/31/2008	√	√
Service To Date	Date	01/01/2008–12/31/2008	√	√
Paid Date	Date	≥ 01/01/2008	√	√
Hospital Admission Date	Character	01/01/2008–12/31/2008		√
Hospital Discharge Date	Character	≥ 01/01/2008		√

<b>Table B-2—Age- and Gender-Specific Diagnoses/Procedures for the EDV Study</b>			
<b>Description</b>	<b>ICD-9</b>	<b>CPT-4</b>	<b>Criteria</b>
Diseases of male genital organs	600–608		Male
Anomalies of male organs	752.5–752.9		Male
Inflammatory disease of female pelvic organs	614–616		Female
Other disorders of female genital tract	617– 629		Female
Complications of pregnancy, childbirth	630–677		Female
Anomalies of female organs	752.0–752.4		Female
Normal pregnancy	V22.0–V22.2		Female
High-risk pregnancy	V23.0–V23.9		Female
Postpartum	V24.0–V24.2		Female
Male genital system		54000–55899	Male
Female genital system		56405–58999	Female
Maternity care and delivery		59000–59899	Female
Child exam	V20–V21		Age < 18
Routine general medical exam	V70.0		Age ≥ 18
Infant		99381/99391	Age < 1
Early childhood 1–4 years		99382/99392	Age 1–4
Late childhood 5–11 years		99383/99393	Age 5–11
Adolescent 12–17 years		99384/99394	Age 12–17
Adult 18–39 years		99385/99395	Age 18–39
Adult 40–64 years		99386/99396	Age 40–64

Table B-3—Place of Service Code for Professional Encounters		
Value	Description	Category
11	Office	Office visits
12	Home	Home visits
20	Urgent Care Facility	Facility-based visits
21	Inpatient Hospital	
22	Outpatient Hospital	
23	ER—Hospital	
24	Ambulatory Surgical Center	
41	Ambulance	Ambulance
50	Federally Qualified Health Center	Health center/clinic
53	Community Mental Health Center	
71	Public Health Clinic	
72	Rural Health Clinic	
81	Independent Laboratory	Laboratory

Table B-4—Type of Bill Codes for Institutional Encounters	
Value	Description
11X	Inpatient Hospital
13X	Outpatient Hospital
2XX	Skilled Nursing Facility
7XX	Clinic (includes rural health clinic, hospital-based clinic, independent renal dialysis center, freestanding clinic, clinic at outpatient rehabilitation facility, and community mental health center)
8XX	Special Facility or Ambulatory Surgical Center

## Appendix C. Detailed Results Tables and Notes

The following tables present detailed results from the electronic encounter data analysis component of the study. Occasionally, HSAG provided notes to describe the background for a particular analysis.

### Analysis of Electronic Encounters

Table C-1—Encounters Included in the Administrative Analyses				
Claim Type	Statewide Total <sup>1</sup>	AMERIGROUP	Peach State	WellCare
Professional <sup>2</sup>	9,267,026 <sup>4</sup>	2,214,245	2,433,228	4,619,553 <sup>4</sup>
Institutional <sup>3</sup>	1,420,619	270,410	457,760	692,449
Pharmacy	9,067,164	1,429,798	2,437,400	5,199,966

<sup>1</sup> Some files received from DCH’s data vendor contained records with no CMO identifier. Therefore, the statewide total reported on the first result panel may not be equal to the sum of the CMO encounter volumes. More specifically, 133,379 institutional encounters and 12,562 pharmacy encounters did not have a CMO identifier.

<sup>2</sup> Professional encounters with the following place-of-service codes were included in the analyses: 11-Office, 12-Home, 20-Urgent Care Facility, 21-Inpatient Hospital, 22-Outpatient Hospital, 23-ER-Hospital, 24-Ambulatory Surgical Center, 41-Ambulance, 50-Federally Qualified Health Center, 53-Community Mental Health Center, 71-Public Health Clinic, 72-Rural Health Clinic, and 81-Independent Laboratory. At the statewide level, the professional encounters included in this study represented 92 percent of all professional encounters during the study period (i.e., with date of service between January 1, 2008, and December 31, 2008). Please note that place of service “99” (Other Unlisted Facility) was not included in these analyses.

<sup>3</sup> Institutional encounters with the following type-of-bill values were included in the analyses: 11X-Inpatient Hospital, 13X-Outpatient Hospital, 2XX-Skilled Nursing Facility, 7XX-Clinic, 8XX-Special Facility. The institutional encounters included in this study represented 87 percent of all institutional encounters.

<sup>4</sup> WellCare had 657 encounters with CLM\_TCN populated with more than one place-of-service code; therefore, the sum total of all encounters, if categorized by place of service, would have been greater than the reported values. For WellCare, the sum total would be 4,620,210 and the statewide total would be 9,267,683.

Note: WellCare’s membership was approximately two times the size of Peach State’s and AMERIGROUP’s. As such, it is expected that its overall number of encounters would be higher than the other CMOs.

Table C-2—Utilization of Services				
	Statewide Total	AMERIGROUP	Peach State	WellCare
<b>Overview</b>				
Average number of members	949,116	202,171	283,333	463,639
Total member months <sup>1</sup>	11,389,386	2,426,047	3,399,998	5,563,666
Total number of all encounters	19,754,809	3,914,453	5,328,388	10,511,968
All encounters PMPY <sup>2</sup>	20.8	19.4	18.8	22.7
<b>Professional Utilization<sup>3</sup></b>				
Total number of professional encounters	9,267,026	2,214,245	2,433,228	4,619,553
Professional encounters PMPY	9.8	11.0	8.6	10.0
<b>Institutional Utilization<sup>4</sup></b>				
Total number of institutional encounters	1,420,619	270,410	457,760	692,449
Institutional encounters PMPY	1.5	1.3	1.6	1.5
<b>Pharmacy Utilization</b>				
Total number of pharmacy encounters	9,067,164	1,429,798	2,437,400	5,199,966
Average prescriptions PMPY	9.6	7.1	8.6	11.2

<sup>1</sup> HSAG identified that some enrollment segments for certain members overlapped with different CMOs. As such, the total number of member months from each CMO will not sum to those in the Statewide Total column.

<sup>2</sup> The measure, all encounters per member per year (PMPY), was calculated by dividing the total number of encounters by the average number of members.

<sup>3</sup> Major place-of-service groups included office, home, facility-based settings, ambulance, health center/clinic, and laboratory. The number of encounters PMPY was reported for each group separately in Table C-3.

<sup>4</sup> Major type-of-bill groups included inpatient hospital, outpatient hospital, skilled nursing facility, clinic, and special facility. The number of encounters PMPY is reported for each group separately in Table C-3.

**Table C-3—Utilization of Services by Place of Services (for Professional Encounters) or Type of Bill (for Institutional Encounters)**

	Statewide Total	AMERIGROUP	Peach State	WellCare
<b>Professional Utilization</b>				
<b>Total number of encounters (Encounters PMPY)<sup>1</sup></b>	<b>9,267,026 (9.8)</b>	<b>2,214,245 (11.0)</b>	<b>2,433,228 (8.6)</b>	<b>4,619,553 (10.0)</b>
Office visits	5,917,355 (6.2)	1,501,941 (7.4)	1,512,260 (5.3)	2,903,154 (6.3)
Home visits	137,517 (0.1)	28,481 (0.1)	42,114 (0.1)	66,922 (0.1)
Facility-based visits <sup>2</sup>	2,052,702 (2.2)	420,333 (2.1)	589,650 (2.1)	1,042,719 (2.2)
Ambulance	36,273 (0.04)	5,755 (0.03)	15,174 (0.05)	15,344 (0.03)
Health center/clinic <sup>3</sup>	569,280 (0.6)	148,441 (0.7)	102,006 (0.4)	318,833 (0.7)
Laboratory	554,556 (0.6)	109,294 (0.5)	172,024 (0.6)	273,238 (0.6)
<b>Institutional Utilization</b>				
<b>Total number of encounters (Encounters PMPY)<sup>1</sup></b>	<b>1,420,619 (1.5)</b>	<b>270,410 (1.3)</b>	<b>457,760 (1.6)</b>	<b>692,449 (1.5)</b>
Inpatient Hospital	160,159 (0.2)	27,545 (0.1)	49,186 (0.2)	83,428 (0.2)
Outpatient Hospital	1,216,192 (1.3)	239,009 (1.2)	385,435 (1.4)	591,748 (1.3)
Skilled Nursing Facility	2,809 (0.003)	9 (0.00004)	5 (0.00002)	2,795 (0.006)
Clinic <sup>4</sup>	28,735 (0.03)	895 (0.004)	20,403(0.07)	7,437 (0.02)
Special Facility or Ambulatory Surgical Center	12,724 (0.01)	2,952 (0.01)	2,731 (0.01)	7,041 (0.02)

<sup>1</sup> The total number of encounters for each category is reported first. The value reported within the parentheses refers to PMPY encounters for the services under the specific category.

<sup>2</sup> This category includes professional visits provided at urgent care facilities, inpatient hospitals, outpatient hospitals, emergency room at the hospital, and ambulatory surgical centers.

<sup>3</sup> This category includes professional visits provided at Federally Qualified Health Centers, community mental health centers, public health clinics, and rural health clinics.

<sup>4</sup> This category includes rural health clinics, hospital-based clinics, independent renal dialysis centers, free standing clinics, clinics at outpatient rehabilitation facilities, and community mental health centers.



Table C-4 shows the results for professional encounter file completeness. Results in the “% Present” column show to what extent a particular data field was submitted with values (field completeness). Results in the “% Valid” column report whether the submitted values were reasonable. The reporting unit for all “% Present” results was based on the number of encounters, unless noted otherwise in the table.

Table C-4—Summary of Professional Encounter File Completeness								
	Statewide Total		AMERIGROUP		Peach State		WellCare	
	% Present	% Valid	% Present	% Valid	% Present	% Valid	% Present	% Valid
<b>Required Fields</b>								
<b>Member ID<sup>1</sup></b>	100%	99.2%	100%	99.7%	100%	99.8%	100%	98.7%
<b>Provider ID<sup>2</sup></b>	99.8%	86.6%	99.4%	83.7%	99.9%	90.1%	99.9%	86.1%
<b>Service From Date<sup>3</sup></b>	100%	98.7%	100%	99.5%	100%	99.7%	100%	97.7%
<b>Service To Date<sup>3</sup></b>	100%	98.7%	100%	99.5%	100%	99.7%	100%	97.7%
<b>Primary Diagnosis<sup>4</sup></b>	88.5%	99.9%	85.2%	99.8%	89.9%	99.9%	89.3%	99.9%
<b>Procedure Code</b>	100%	>99.9%	100%	>99.9%	100%	>99.9%	100%	100%
<b>Paid Date</b>	100%	99.9%	100%	100%	100%	99.9%	100%	99.7%
<b>Optional Fields</b>								
<b>Additional Diagnosis 1<sup>4</sup></b>	6.8%	99.8%	27.1%	99.8%	0%	--	0.6%	99.9%
<b>Additional Diagnosis 2<sup>4</sup></b>	2.7%	99.9%	11.0%	99.9%	0%	--	0.1%	99.9%
<b>Additional Diagnosis 3<sup>4</sup></b>	1.1%	99.9%	4.5%	99.9%	0%	--	<0.1% <sup>5</sup>	99.6%

<sup>1</sup> Results under the “% Valid” columns were based on the total number of encounters in which the submitted member ID in the claims file was also present in the demographic file.

<sup>2</sup> Results under the “% Valid” columns were based on the total number of encounters in which the submitted provider ID in the claims file was also present in the provider file. Although more than 99 percent of the encounters were submitted with a provider ID, the statewide percent-valid rate for this field was 86.6 percent. Based on a review of the Georgia Families encounter data submission policies, the CMOs are required to make sure that provider IDs match the State’s provider files. Further communication with DCH in March 2010 suggested that the slightly lower percent-valid rate was related to the fact that updates in the State’s provider file may not occur as frequently as they do in encounter files. Please note that the last character of the provider ID was removed before matching it with the identifiers in the provider file. If the last character was not removed, the statewide “% Valid” rate would be reduced to 46.6 percent, with CMO variation ranging from 32.6 percent to 56.1 percent.

<sup>3</sup> A total of 1,816 encounters were populated with Member ID “000000000.” Therefore, results under the “% Valid” columns were based on the total number of encounters with valid member IDs.

<sup>4</sup> Results presented were based on the total number of professional encounters, including dental encounters. When dental encounters were excluded, the “% Present” rates for statewide and all CMOs were 99.9 percent.

<sup>5</sup> Actual percentage was 0.024 percent.

**Table C-5—Summary of Institutional Encounter File Completeness**

	Statewide Total		AMERIGROUP		Peach State		WellCare	
	% Present	% Valid	% Present	% Valid	% Present	% Valid	% Present	% Valid
<b>Required Fields</b>								
<b>Member ID</b>	100%	99.2%	100%	99.8%	100%	99.9%	100%	98.5%
<b>Provider ID</b>	100%	82.5%	100%	93.2%	100%	97.3%	100%	68.6%
<b>Admit Date</b>	100%	89.7% <sup>1</sup>	100%	84.0%	100%	82.2%	100%	96.8%
<b>Discharge Date</b>	100%	100% <sup>2</sup>	100%	100%	100%	100%	100%	100%
<b>Paid Date</b>	100%	99.9%	100%	99.9%	100%	100%	100%	99.8%
<b>Service From Date</b> <sup>3</sup>	100%	98.7%	100%	99.8%	100%	99.9%	100%	97.5%
<b>Service To Date</b> <sup>3</sup>	100%	98.6%	100%	99.7%	100%	99.8%	100%	97.4%
<b>Primary Diagnosis</b>	99.9%	>99.9%	100%	>99.9%	100%	>99.9%	99.9%	>99.9%
<b>Procedure Code</b>	53.4%	37.4%	70.9%	54.8%	64.9%	52.6%	40.0%	20.5%
<b>Revenue Center Code</b>	100%	100%	100%	100%	100%	100%	100%	100%
<b>Optional Fields</b>								
<b>Additional Diagnosis 1</b>	54.9%	>99.9%	60.1%	>99.9%	51.9%	>99.9%	54.8%	>99.9%
<b>Additional Diagnosis 2</b>	18.8%	>99.9%	29.3%	>99.9%	0.1%	100%	27.0%	>99.9%
<b>Additional Diagnosis 3</b>	9.4%	>99.9%	14.5%	>99.9%	0.1%	100%	13.6%	>99.9%
<b>Additional Diagnosis 4</b>	4.9%	>99.9%	7.5%	>99.9%	0.04%	100%	7.2%	>99.9%

<sup>1</sup> All but 96 of the approximately 147,000 invalid encounters had a date value of 1/1/0001 in the Admit Date field. Additionally, values reported in the Admit Date field came in different date formats (i.e., dd-mm-yy or dd/mm/yyyy). For the encounters submitted with a dd-mm-yy format, HSAG could not ascertain whether the “01” under the yy portion of the date referred to 2001 or 0001, the latter of which is obviously an invalid value.

<sup>2</sup> Although all the encounters had a valid date format with a reasonable date, 18 percent (n=256,053) had a date value of 01-JAN-2001. For encounters having this value in the Discharge-Date field, only 29.7 percent had a date in the Admit Date field that appeared to occur before or on this date. Since HSAG could not confirm that the validity of the value was related to different date format, the percentages reported for each CMO should be interpreted with caution.

<sup>3</sup> HSAG determined reasonableness for the Service-From-Date and Service-To-Date fields by assessing whether the submitted dates were within the study period.

**Table C-6—Age- and Gender-Appropriate Professional Encounters**

Diagnosis/Service Examined	Number of Professional Encounters Examined	Valid Encounters	
		Number	Percentage
<b>Age-Appropriate Diagnoses</b>	<b>275,085</b>	<b>267,887</b>	<b>97.4%</b>
Child exam	263,132	261,302	99.30%
Routine general medical exam	11,953	6,585	55.1% <sup>1</sup>
<b>Age-Appropriate Services</b>	<b>459,797</b>	<b>450,113</b>	<b>97.9%</b>
Infant	185,354	181,815	98.10%
Early childhood, 1–4 years	141,235	138,581	98.10%
Late childhood, 5–11 years	79,212	77,140	97.40%
Adolescent, 12–17 years	42,104	41,125	97.70%
Adult, 18–39 years	10,495	10,117	96.40%
Adult, 40–64 years	1,397	1,335	95.60%
<b>Gender-Appropriate Diagnoses</b>	<b>642,789</b>	<b>641,587</b>	<b>99.8%</b>
Diseases of male genital organs	24,697	24,219	98.10%
Anomalies of male organs	6,950	6,784	97.60%
Inflammatory disease of female pelvic organs	63,746	63,646	99.80%
Other disorders of female genital tract	138,247	138,077	99.90%
Complications of pregnancy, childbirth	407,956	407,690	99.90%
Anomalies of female organs	1,193	1,171	98.20%
Normal pregnancy	275,277	275,241	100.00%
High-risk pregnancy	19,082	19,072	99.90%
Postpartum	21,550	21,545	100.00%
<b>Gender-Appropriate Services</b>	<b>192,853</b>	<b>191,766</b>	<b>99.4%</b>
Male genital system	27,885	26,854	96.30%
Female genital system	43,911	43,880	99.90%
Maternity care and delivery	121,057	121,032	100.00%
<b>Total</b>	<b>1,886,433</b>	<b>1,867,211</b>	<b>99.00%</b>

<sup>1</sup> Fifty-five percent of encounters submitted with V70.0 were associated with encounters for patients 18 years of age or older. When the age criterion was lowered to 12 years of age or older, the percentage was reported as 85 percent.

**Table C-7—Age- and Gender-Appropriate Institutional Encounters**

Diagnosis/Service Examined	Number of Institutional Encounters Examined	Valid Encounters	
		Number	Percentage
<b>Age-Appropriate Diagnoses</b>	<b>19,445</b>	<b>19,033</b>	<b>97.9%</b>
Child exam	18,675	18,619	99.70%
Routine general medical exam	770	414	53.8% <sup>1</sup>
<b>Age-Appropriate Services<sup>2</sup></b>	<b>41</b>	<b>39</b>	<b>95.1%</b>
Infant	9	9	100.00%
Early childhood 1-4 years	4	4	100.00%
Late childhood 5-11 years	3	2	66.70%
Adolescent 12-17 years	2	1	50.00%
Adult 18-39 years	14	14	100.00%
Adult 40-64 years	9†	9	100.00%
<b>Gender-Appropriate Diagnoses</b>	<b>277,711</b>	<b>277,513</b>	<b>99.9%</b>
Diseases of male genital organs	5,052	5,010	99.20%
Anomalies of male organs	1,939	1,904	98.20%
Inflammatory disease of female pelvic organs	11,703	11,689	99.90%
Other disorders of female genital tract	30,583	30,546	99.90%
Complications of pregnancy, childbirth	184,935	184,882	100.00%
Anomalies of female organs	222	221	99.50%
Normal pregnancy	34,761	34,750	100.00%
High-risk pregnancy	6,013	6,012	100.00%
Postpartum	2,503	2,499	99.80%
<b>Gender-Appropriate Services</b>	<b>3,280</b>	<b>3,275</b>	<b>99.8%</b>
Male genital system	251†	248	98.80%
Female genital system	726†	725	99.90%
Maternity care and delivery	2,303†	2,302	100.00%
<b>Total</b>	<b>300,477</b>	<b>299,860</b>	<b>99.80%</b>

† A certain number of claims/encounters in these categories contained more than one date in the Service From Date field. Therefore, separate episodes were counted for these claims.

<sup>1</sup> It was reported that 53.8 percent of encounters submitted with V70.0 were associated with encounters for patients 18 years of age or older. When the age criterion was lowered to 12 years of age or older, the percentage was reported as 74 percent.

<sup>2</sup> Since the number of encounters reported for services under this category was fewer than 30, any interpretation of the identified patterns would lack scientific rigor. There are not enough observations to confidently draw reliable conclusions.

Table C-8—Timeliness of Encounter Data Processing (Statewide)						
	Professional		Institutional		Pharmacy	
	Number	Percentage of Total	Number	Percentage of Total	Number	Percentage of Total
Less Than 30 Days	1,697,332	18.3%	239,669	16.9%	348,775	3.9%
31–60 Days	2,125,964	22.9%	390,707	27.5%	4,302,051	47.5%
61–90 Days	1,355,646	14.6%	222,701	15.7%	1,742,332	19.2%
91–120 Days	978,441	10.6%	169,044	11.9%	521,097	5.8%
121–180 Days	1,175,427	12.7%	165,670	11.7%	715,565	7.9%
Greater Than 180 Days	1,934,216	20.9%	232,828	16.4%	1,437,344	15.9%
<b>Total</b>	<b>9,267,026</b>	<b>100.0%</b>	<b>1,420,619</b>	<b>100.0%</b>	<b>9,067,164</b>	<b>100.0%</b>

<b>Table C-9—Comparison of CMO Performance on Encounter Data Processing Timeliness</b>			
	<b>AMERIGROUP</b>	<b>Peach State</b>	<b>WellCare</b>
	<b>% of Total</b>	<b>% of Total</b>	<b>% of Total</b>
<b>Professional Encounters</b>			
30 Days or Less	42.9%	15.1%	8.3%
31–60 Days	21.0%	29.1%	20.6%
61–90 Days	8.8%	13.5%	18.0%
91–120 Days	5.2%	11.3%	12.8%
121–180 Days	8.2%	16.0%	13.1%
Greater Than 180 Days	13.9%	15.1%	27.3%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
<b>Institutional Encounters</b>			
30 Days or Less	52.3%	13.7%	5.1%
31–60 Days	29.8%	26.7%	27.2%
61–90 Days	5.1%	13.4%	21.3%
91–120 Days	2.7%	11.4%	15.8%
121–180 Days	3.4%	17.1%	11.3%
Greater Than 180 Days	6.7%	17.7%	19.3%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
<b>Pharmacy Encounters</b>			
Less Than 30 Days	5.2%	2.1%	4.3%
31–60 Days	25.1%	38.1%	58.0%
61–90 Days	10.1%	18.2%	22.2%
91–120 Days	5.0%	7.4%	5.2%
121–180 Days	30.3%	3.8%	3.6%
Greater Than 180 Days	24.3%	30.3%	6.8%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

**Table C-10—Statewide Monthly Encounter Data Volume by Encounter Type**

Month	Professional	Institutional	Pharmacy
Jan 2008	812,316	128,256	770,060
Feb 2008	811,504	140,406	952,979
Mar 2008	788,712	132,317	894,457
Apr 2008	759,860	126,798	863,528
May 2008	709,371	1,972	688,044
Jun 2008	663,393	116,213	584,827
Jul 2008	738,702	124,919	588,727
Aug 2008	763,881	133,453	678,789
Sep 2008	788,444	125,865	710,939
Oct 2008	841,042	132,625	790,522
Nov 2008	772,755	124,570	752,814
Dec 2008	817,046	133,225	791,478

The following section presents detailed results tables from the medical record review component of the study.

### Medical Record Review

Table C-11—Record Submission Rates					
CMO	Initial Sample Size (n)	Valid Exclusions	Adjusted Sample Size	Number of Records Submitted	Percentage of Records Submitted
AMERIGROUP	411	0	411	409	99.5%
Peach State	411	0	411	411	100.0%
WellCare	411	0	411	401	97.6%
<b>Statewide</b>	<b>1,233</b>	<b>0</b>	<b>1,233</b>	<b>1,221</b>	<b>99.0%</b>

Table C-12—Date of Service Medical Record Agreement and Omission Rates					
CMO	Date of Service Identified in Electronic Encounter Data <sup>1</sup>	Medical Record Agreement		Medical Record Omission	
		Number With Supporting Documentation in Medical Records	Percentage	Number Without any Supporting Documentation in Medical Records	Percentage
AMERIGROUP	570	530	93.0%	40	7.0%
Peach State	600	578	96.3%	22	3.7%
WellCare	596	550	92.3%	46	7.7%
<b>Statewide</b>	<b>1,766</b>	<b>1,658</b>	<b>93.9%</b>	<b>108</b>	<b>6.1%</b>

<sup>1</sup> The number reported here includes the original sample records that HSAG coders selected for validation and 533 additional dates of service randomly selected from the submitted medical record that were also validated and found to be present in the electronic encounter data.



Table C-13—Date of Service Encounter Data Omission Rates			
		Encounter Data Omission	
CMO	Date of Service Identified in Medical Records <sup>1</sup>	Number With No Evidence of Submission in the Electronic Encounter Data	Percentage
AMERIGROUP	691	161	23.3%
Peach State	707	129	18.2%
WellCare	688	138	20.1%
<b>Statewide</b>	<b>2,086</b>	<b>428</b>	<b>20.5%</b>

<sup>1</sup> To evaluate encounter data omission, after the coders validated the selected EPSDT date of service, they randomly selected one additional EPSDT visit from the submitted medical record. If the HSAG coders did not find an additional EPSDT visit in the medical record, they selected any physician office visit.

Table C-14—Diagnosis Code Medical Record Omission and Encounter Data Omission Rates						
CMO	Medical Record Omission			Encounter Data Omission		
	Number of Diagnoses Identified in Electronic Encounter Data	Number Without Any Supporting Documentation in Medical Records	Percent	Number of Diagnoses Identified in Medical Records	Number With No Evidence of Submission in the Electronic Encounter Data	Percent
AMERIGROUP	1,183	159	13.4%	1,928	904	46.9%
Peach State	789	68	8.6%	2,018	1,297	64.3%
WellCare	1,449	229	15.8%	1,903	683	35.9%
<b>Statewide</b>	<b>3,421</b>	<b>456</b>	<b>13.3%</b>	<b>5,849</b>	<b>2,884</b>	<b>49.3%</b>

Table C-15—Procedure Code Medical Record Omission and Encounter Data Omission Rates						
CMO	Medical Record Omission			Encounter Data Omission		
	Number of Procedures Identified in Electronic Encounter Data	Number Without Any Supporting Documentation in Medical Records	Percent	Number of Procedures Identified in Medical Records	Number With No Evidence of Submission in the Electronic Encounter Data	Percent
AMERIGROUP	1,871	415	22.2%	2,499	1,043	41.7%
Peach State	2,269	513	22.6%	2,916	1,160	39.8%
WellCare	1,985	387	19.5%	2,611	1,013	38.8%
<b>Statewide</b>	<b>6,125</b>	<b>1,315</b>	<b>21.5%</b>	<b>8,026</b>	<b>3,216</b>	<b>40.1%</b>

Table C-16—Diagnosis Coding Accuracy Rates and Types of Error								
CMO	Accuracy Results			Number of Invalid Diagnoses	Inaccurate Code		Specificity Error	
	Number of Diagnoses From Validated Date of Service in Electronic Encounter Data	Validated by Medical Records	Percent		Number	Percent	Number	Percent
AMERIGROUP	1,024	932	91.0%	92	80	87.0%	12	13.0%
Peach State	721	674	93.5%	47	41	87.2%	6	12.8%
WellCare	1,220	1,132	92.8%	88	80	90.9%	8	9.1%
<b>Statewide</b>	<b>2,965</b>	<b>2,738</b>	<b>92.3%</b>	<b>227</b>	<b>201</b>	<b>88.5%</b>	<b>26</b>	<b>11.5%</b>

CMO	Accuracy Results			Total Number of Invalid Codes	Inaccurate Code		Higher Level of Service in Medical Record <sup>1</sup>		Lower Level of Service in Medical Record <sup>2</sup>	
	Number of Procedures From Validated Date of Service in Electronic Encounter Data	Validated by Medical Records	%		N	%	N	%	N	%
AMERIGROUP	1,456	1,397	95.9%	59	31	52.5%	0	0.0%	28	47.5%
Peach State	1,756	1,699	96.8%	57	19	33.3%	0	0.0%	38	66.7%
WellCare	1,598	1,525	95.4%	73	36	49.3%	1	1.4%	36	49.3%
<b>Statewide</b>	<b>4,810</b>	<b>4,621</b>	<b>96.1%</b>	<b>189</b>	<b>86</b>	<b>45.5%</b>	<b>1</b>	<b>0.5%</b>	<b>102</b>	<b>54.0%</b>

<sup>1</sup> Results showed that the number and percentage of procedures documented in the medical records reflected a higher level of service than the procedure code submitted in the encounter.

<sup>2</sup> Results showed that the number and percentage of procedures documented in the medical records reflected a lower level of service than the procedure code submitted in the encounter.

EPSDT Component	Validated Date of Service	Number With Component Documented	Percent
Initial/Interval History	1,125	1,063	94.5%
Physical Examination	1,125	1,024	91.0%
Developmental/Behavioral Surveillance	1,125	968	86.0%
Health Education	1,125	913	81.2%
Height Plotted on a Growth Chart	1,125	447	39.7%
Weight Plotted on a Growth Chart	1,125	448	39.8%
Vision Assessment	1,125	850	75.6%
Hearing Assessment	1,125	748	66.5%
Head Circumference Plotted on a Growth Chart <sup>1</sup>	395	127	32.2%
BMI Plotted on a Growth Chart <sup>2</sup>	730	125	17.1%
Dental Inspection/Referral	1,125	931	82.8%
Immunization Status Addressed	1,125	878	78.0%
<b>Completed All Required Components</b>	<b>1,125</b>	<b>119</b>	<b>10.6%</b>

<sup>1</sup> Head circumference was evaluated only for members who were 24 months of age or younger.

<sup>2</sup> Body mass index was evaluated only for members who were 24 months of age or older.

**Table C-19—Statewide EPSDT Component Completion Rates, Before and After the Bright Futures Guidelines Implementation**

EPSDT Component	Before Implementation (< July 1, 2008)			After Implementation (> July 1, 2008)		
	Validated Date of Service	Number With Component Documented	Percent	Validated Date of Service	Number With Component Documented	Percent
Initial/Interval History	467	447	95.7%	658	616	93.6%
Physical Examination	467	422	90.4%	658	602	91.5%
Developmental/Behavioral Surveillance	467	400	85.7%	658	568	86.3%
Health Education	467	374	80.1%	658	539	81.9%
Height Plotted on a Growth Chart	467	179	38.3%	658	268	40.7%
Weight Plotted on a Growth Chart	467	181	38.8%	658	267	40.6%
Vision Assessment	467	353	75.6%	658	497	75.5%
Hearing Assessment	467	314	67.2%	658	434	66.0%
Head Circumference Plotted on a Growth Chart <sup>1</sup>	164	50	30.5%	231	77	33.3%
BMI Plotted on a Growth Chart <sup>2</sup>	303	51	16.8%	427	74	17.3%
Dental Inspection/Referral	467	389	83.3%	658	542	82.4%
Immunization Status Addressed	467	364	77.9%	658	514	78.1%
<b>Completed All Required Components</b>	<b>467</b>	<b>40</b>	<b>8.6%</b>	<b>658</b>	<b>79</b>	<b>12.0%</b>

<sup>1</sup> Head circumference was evaluated only for members who were 24 months of age or younger.

<sup>2</sup> Body mass index was evaluated only for members who were 24 months of age or older.

Table C-20—CMO EPSDT Component Completion Rates						
EPSDT Component	AMERIGROUP		Peach State		WellCare	
	Validated Date of Service	Percent	Validated Date of Service	Percent	Validated Date of Service	Percent
Initial/Interval History	350	94.3%	367	94.3%	346	94.8%
Physical Examination	336	90.6%	353	90.7%	335	91.8%
Developmental/Behavioral Surveillance	318	85.7%	331	85.1%	319	87.4%
Health Education	300	80.9%	321	82.5%	292	80.0%
Height Plotted on a Growth Chart	147	39.6%	165	42.4%	135	37.0%
Weight Plotted on a Growth Chart	149	40.2%	167	42.9%	132	36.2%
Vision Assessment	275	74.1%	296	76.1%	279	76.4%
Hearing Assessment	243	65.5%	264	67.9%	241	66.0%
Head Circumference Plotted on a Growth Chart <sup>1</sup>	41	35.7%	52	33.3%	34	27.4%
BMI Plotted on a Growth Chart <sup>2</sup>	44	17.2%	37	15.9%	44	18.3%
Dental Inspection/Referral	299	80.6%	331	85.1%	301	82.5%
Immunization Status Addressed	285	76.8%	310	79.7%	283	77.5%
<b>Completed All Required Components<sup>3</sup></b>	<b>43</b>	<b>11.6%</b>	<b>40</b>	<b>10.3%</b>	<b>36</b>	<b>9.9%</b>

<sup>1</sup> Head circumference was evaluated only for members who were 24 months of age or younger.

<sup>2</sup> Body mass index was evaluated only for members who were 24 months of age or older.

<sup>3</sup> The lowest rates across all CMOs were in documenting height, weight, BMI, and head circumference. These lower rates, compared to the rates for the other individual EPSDT components, may relate to the requirement of plotting the measures on a height and weight growth chart in order to qualify as a positive response for the documentation of height and weight. This requirement also applied to the documentation of head circumference and BMI. When the overall calculation excluded these components, the statewide EPSDT component completion rate would increase from 10.6 percent to 39.1 percent, with CMO-specific rates ranging from 36.4 percent to 41.4 percent.

## Appendix D. AMERIGROUP Summary of Findings

**Table D-1—Number and Percentage of Professional Encounters by Place of Service, AMERIGROUP and Statewide**

	Statewide		AMERIGROUP	
	Number	% Total	Number	% Total
Office	5,917,355	63.8%	1,501,941	67.8%
Home	137,517	1.5%	28,481	1.3%
Urgent Care Facility	56,930	0.6%	3,647	0.2%
Inpatient Hospital	598,182	6.5%	114,171	5.2%
Outpatient Hospital	548,907	5.9%	120,842	5.5%
ER-Hospital	829,730	9.0%	177,169	8.0%
Ambulatory Surgical Center	18,953	0.2%	4,504	0.2%
Ambulance	36,273	0.4%	5,755	0.3%
Federally Qualified Health Center	9,616	0.1%	3,124	0.1%
Community Mental Health Center	198,131	2.1%	51,157	2.3%
Public Health Clinic	273,879	3.0%	71,852	3.2%
Rural Health Clinic	87,654	0.9%	22,308	1.0%
Independent Laboratory	554,556	6.0%	109,294	4.9%
<b>Total</b>	<b>9,267,683</b>	<b>100.0%</b>	<b>2,214,245</b>	<b>100.0%</b>

**Table D-2—Number and Percentage of Institutional Encounters by Type of Bill, AMERIGROUP and Statewide**

	Statewide		AMERIGROUP	
	Number	% Total	Number	% Total
Clinic	28,735	2.0%	895	0.3%
Inpatient Hospital	160,159	11.3%	27,545	10.2%
Outpatient Hospital	1,216,192	85.6%	239,009	88.4%
Skilled Nursing Facility	2,809	0.2%	9	0.0%
Special Facility	12,724	0.9%	2,952	1.1%
<b>Total</b>	<b>1,420,619</b>	<b>100.0%</b>	<b>270,410</b>	<b>100.0%</b>

<b>Table D-3—Age- and Gender-Appropriate Professional Encounters, AMERIGROUP</b>			
		<b>Valid Encounters</b>	
<b>Diagnosis/Service Examined</b>	<b>Number of Professional Encounters Examined</b>	<b>Number</b>	<b>Percent</b>
<b>Age-Appropriate Diagnoses</b>			
Child exam	120,454	119,710	99.4%
Routine general medical exam	4,263	2,294	53.8% <sup>1</sup>
<b>Age-Appropriate Services</b>			
Infant	63,742	62,239	97.6%
Early childhood, 1–4 years	55,275	54,113	97.9%
Late childhood, 5–11 years	32,927	31,971	97.1%
Adolescent, 12–17 years	17,543	17,093	97.4%
Adult, 18–39 years	2,913	2,763	94.9%
Adult, 40–64 years	370	352	95.1%
<b>Gender-Appropriate Diagnoses</b>			
Diseases of male genital organs	5,933	5,761	97.1%
Anomalies of male organs	1,972	1,911	96.9%
Inflammatory disease of female pelvic organs	16,190	16,157	99.8%
Other disorders of female genital tract	33,751	33,688	99.8%
Complications of pregnancy, childbirth	71,781	71,700	99.9%
Anomalies of female organs	356	351	98.6%
Normal pregnancy	57,885	57,871	99.9%
High-risk pregnancy	5,364	5,356	99.9%
Postpartum	4,070	4,069	99.9%
<b>Gender-Appropriate Services</b>			
Male genital system	4,833	4,532	93.8%
Female genital system	8,637	8,635	99.9%
Maternity care and delivery	19,512	19,505	99.9%
<b>Total</b>	<b>527,771</b>	<b>520,071</b>	<b>98.5%</b>

<sup>1</sup> The 53.8 percent of encounters submitted with V70.0 were associated with patients 18 years of age or older. When the age criterion was lowered to 12 years of age or older, the percentage was reported as 83.7 percent.

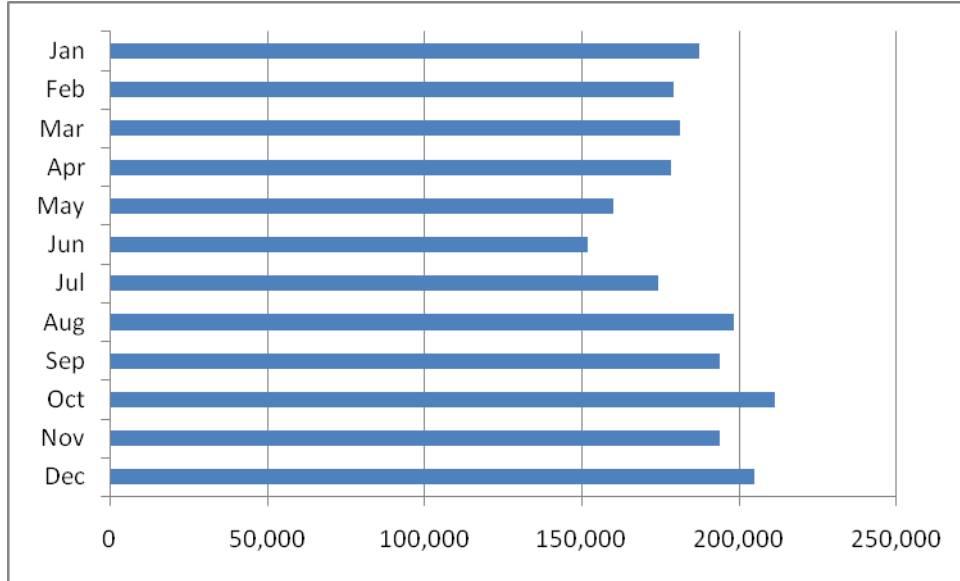
Table D-4—Age- and Gender-Appropriate Institutional Encounters, AMERIGROUP			
Diagnosis/Service Examined	Number of Institutional Encounters Examined	Valid Encounters	
		Number	Percent
<b>Age-Appropriate Diagnoses</b>			
Child exam	4,452	4,431	99.5%
Routine general medical exam	194	111	57.2% <sup>1</sup>
<b>Age-Appropriate Services<sup>2</sup></b>			
Infant	0	-	-
Early childhood, 1–4 years	0	-	-
Late childhood, 5–11 years	1	1	100%
Adolescent, 12–17 years	1	0	0%
Adult, 18–39 years	9	9	100%
Adult, 40–64 years	5	5	100%
<b>Gender-Appropriate Diagnoses</b>			
Diseases of male genital organs	1,069	1,058	99.0%
Anomalies of male organs	462	453	98.1%
Inflammatory disease of female pelvic organs	2,285	2,282	99.9%
Other disorders of female genital tract	6,057	6,048	99.9%
Complications of pregnancy, childbirth	30,338	30,325	99.9%
Anomalies of female organs	40	40	100%
Normal pregnancy	6,327	6,325	99.9%
High-risk pregnancy	1,266	1,266	100%
Postpartum	475	475	100%
<b>Gender-Appropriate Services</b>			
Male genital system	86	85	98.8%
Female genital system	308	307	99.7%
Maternity care and delivery	451	450	99.8%
<b>Total</b>	<b>53,826</b>	<b>53,671</b>	<b>99.7%</b>

<sup>1</sup> The 57.2 percent of encounters submitted with V70.0 were associated with patients 18 years of age or older. When the age criterion was lowered to 12 years of age or older, the percentage was reported as 80.9 percent.

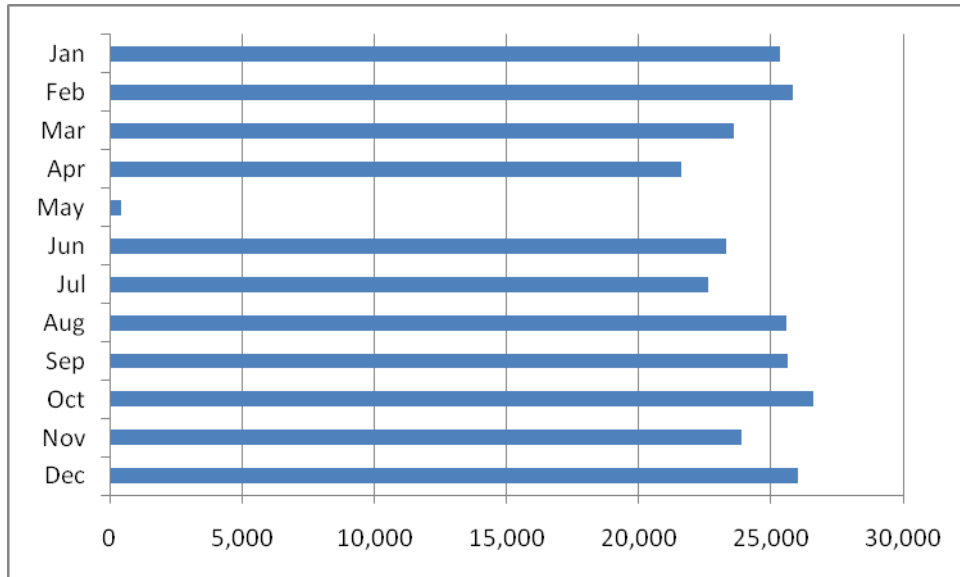
<sup>2</sup> Since the number of encounters reported for services under this category was less than 30, any interpretation of the identified patterns would lack scientific rigor. There are not enough observations to confidently draw reliable conclusions.



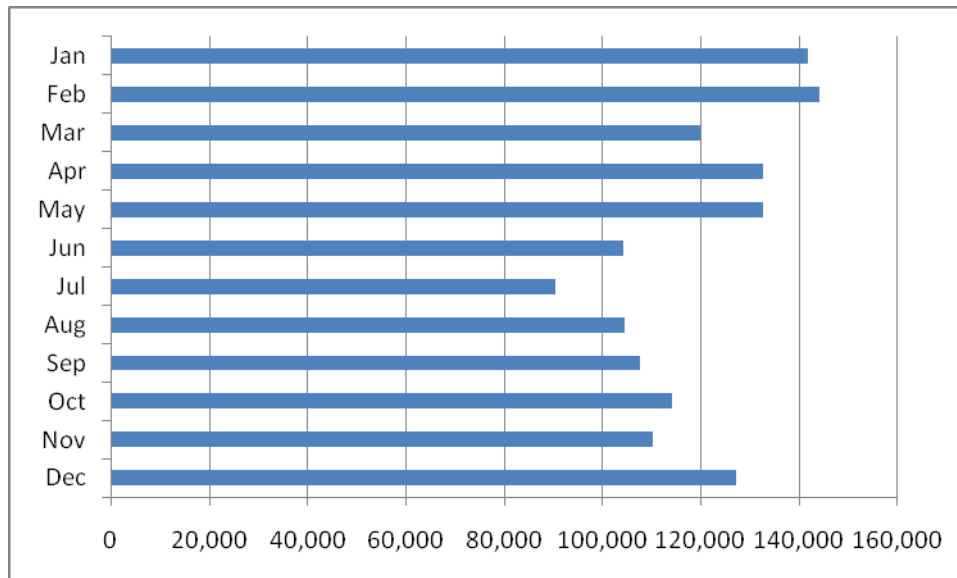
**Figure D-1—Number of AMERIGROUP Professional Encounters by Month of Service**



**Figure D-2—Number of AMERIGROUP Institutional Encounters by Month of Service**



**Figure D-3—Number of AMERIGROUP Pharmacy Encounters by Month of Service**



## Appendix E. Peach State Summary of Findings

**Table E-1—Number and Percentage of Professional Encounters by Place of Service, Peach State and Statewide**

	Statewide		Peach State	
	Number	% Total	Number	% Total
Office	5,917,355	63.8%	1,512,260	62.2%
Home	137,517	1.5%	42,114	1.7%
Urgent Care Facility	56,930	0.6%	3,585	0.1%
Inpatient Hospital	598,182	6.5%	189,308	7.8%
Outpatient Hospital	548,907	5.9%	166,662	6.8%
ER-Hospital	829,730	9.0%	225,883	9.3%
Ambulatory Surgical Center	18,953	0.2%	4,212	0.2%
Ambulance	36,273	0.4%	15,174	0.6%
Federally Qualified Health Center	9,616	0.1%	85	0.0%
Community Mental Health Center	198,131	2.1%	46,835	1.9%
Public Health Clinic	273,879	3.0%	30,571	1.3%
Rural Health Clinic	87,654	0.9%	24,515	1.0%
Independent Laboratory	554,556	6.0%	172,024	7.1%
<b>Total</b>	<b>9,267,683</b>	<b>100.0%</b>	<b>2,433,228</b>	<b>100.0%</b>

**Table E-2—Number and Percentage of Institutional Encounters by Type of Bill, Peach State and Statewide**

	Statewide		Peach State	
	Number	% Total	Number	% Total
Clinic	28,735	2.0%	20,403	4.5%
Inpatient Hospital	160,159	11.3%	49,186	10.7%
Outpatient Hospital	1,216,192	85.6%	385,435	84.2%
Skilled Nursing Facility	2,809	0.2%	5	0.0%
Special Facility	12,724	0.9%	2,731	0.6%
<b>Total</b>	<b>1,420,619</b>	<b>100.0%</b>	<b>457,760</b>	<b>100.0%</b>

**Table E-3—Age- and Gender-Appropriate Professional Encounters, Peach State**

Diagnosis/Service Examined	Number of Professional Encounters Examined	Valid Encounters	
		Number	Percent
<b>Age-Appropriate Diagnoses</b>			
Child exam	24,974	24,780	99.2%
Routine general medical exam	2,287	1,420	62.1% <sup>1</sup>
<b>Age-Appropriate Services</b>			
Infant	12,422	12,266	98.7%
Early childhood, 1–4 years	8,189	8,083	98.7%
Late childhood, 5–11 years	4,946	4,883	98.7%
Adolescent, 12–17 years	3,491	3,445	98.7%
Adult, 18–39 years	2,214	2,186	98.7%
Adult, 40–64 years	322	318	98.8%
<b>Gender-Appropriate Diagnoses</b>			
Diseases of male genital organs	6,876	6,820	99.2%
Anomalies of male organs	1,955	1,920	98.2%
Inflammatory disease of female pelvic organs	20,077	20,074	99.9%
Other disorders of female genital tract	39,908	39,904	99.9%
Complications of pregnancy, childbirth	135,703	135,685	99.9%
Anomalies of female organs	292	292	100.0%
Normal pregnancy	80,518	80,515	99.9%
High-risk pregnancy	4,992	4,992	100.0%
Postpartum	6,909	6,909	100.0%
<b>Gender-Appropriate Services</b>			
Male genital system	8,556	8,437	98.6%
Female genital system	11,523	11,520	99.9%
Maternity care and delivery	39,629	39,628	99.9%
<b>Total</b>	<b>415,783</b>	<b>414,077</b>	<b>99.6%</b>

<sup>1</sup> The 62.1 percent of encounters submitted with V70.0 were associated with patients 18 years of age or older. When the age criterion was lowered to 12 years of age or older, the percentage was reported as 88.4 percent.

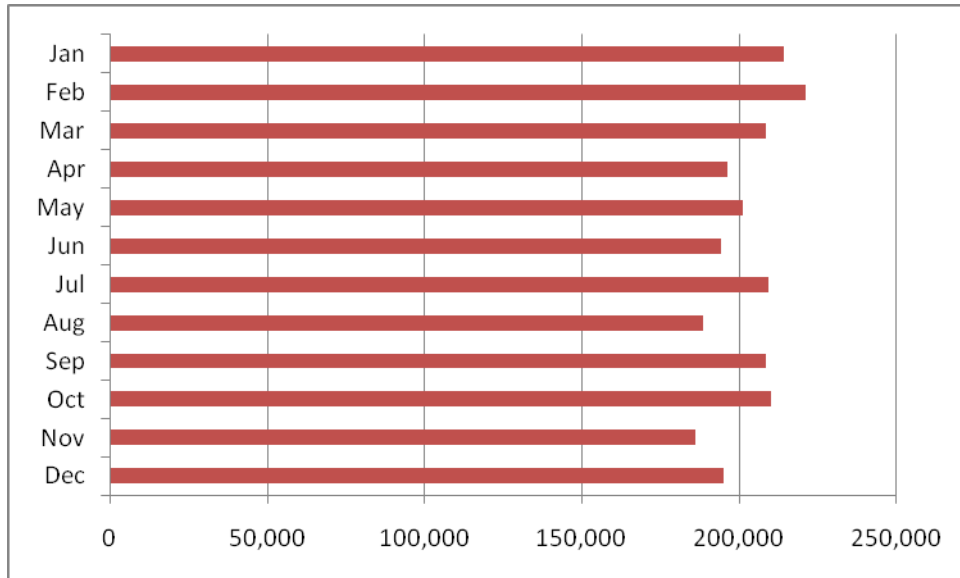
**Table E-4—Age- and Gender-Appropriate Institutional Encounters, Peach State**

Diagnosis/Service Examined	Number of Institutional Encounters Examined	Valid Encounters	
		Number	Percent
<b>Age-Appropriate Diagnoses</b>			
Child exam	5,662	5,654	99.9%
Routine general medical exam	183	106	57.9% <sup>1</sup>
<b>Age-Appropriate Services<sup>2</sup></b>			
Infant	8	8	100.0%
Early childhood, 1–4 years	2	2	100.0%
Late childhood, 5–11 years	0	-	-
Adolescent, 12–17 years	1	1	100.0%
Adult, 18–39 years	1	1	100.0%
Adult, 40–64 years	3	3	100.0%
<b>Gender-Appropriate Diagnoses</b>			
Diseases of male genital organs	1,436	1,426	99.3%
Anomalies of male organs	516	513	99.4%
Inflammatory disease of female pelvic organs	3,089	3,089	100.0%
Other disorders of female genital tract	8,582	8,579	99.9%
Complications of pregnancy, childbirth	60,605	60,598	99.9%
Anomalies of female organs	56	56	100.0%
Normal pregnancy	10,812	10,812	100.0%
High-risk pregnancy	1,255	1,255	100.0%
Postpartum	785	785	100.0%
<b>Gender-Appropriate Services</b>			
Male genital system	126	126	100.0%
Female genital system	352	352	100.0%
Maternity care and delivery	1,788	1,788	100.0%
<b>Total</b>	<b>95,262</b>	<b>95,154</b>	<b>99.9%</b>

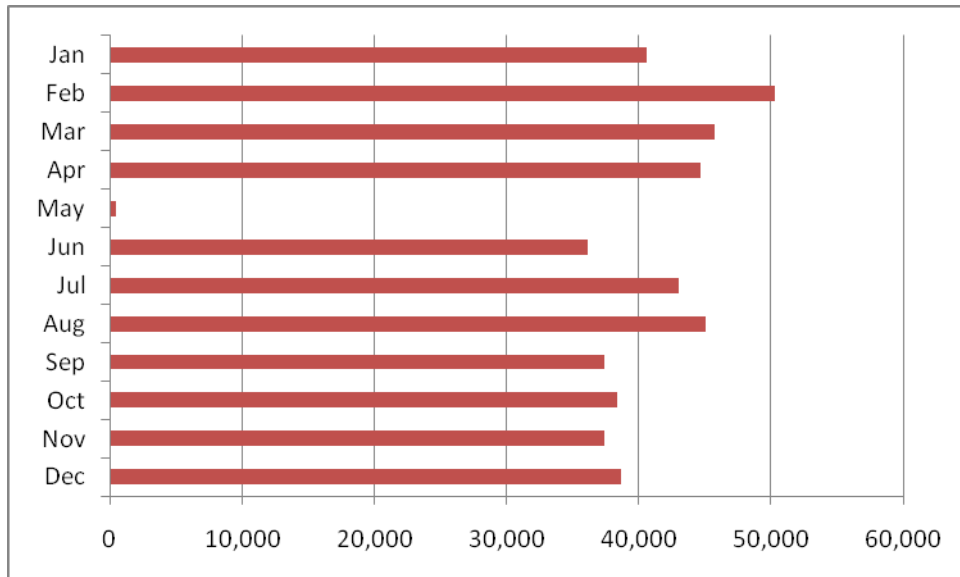
<sup>1</sup> The 57.9 percent of encounters submitted with V70.0 were associated with patients 18 years of age or older. When the age criterion was lowered to 12 years of age or older, the percentage was reported as 69.9 percent.

<sup>2</sup> Since the number of encounters reported for services under this category was less than 30, any interpretation of the identified patterns would lack scientific rigor. There are not enough observations to confidently draw reliable conclusions.

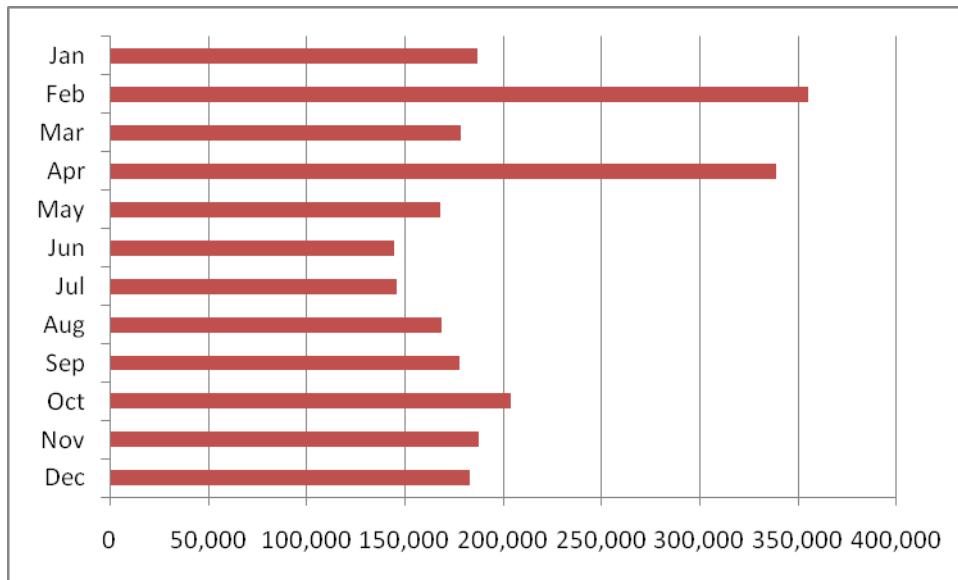
**Figure E-1—Number of Peach State Professional Encounters by Month of Service**



**Figure E-2—Number of Peach State Institutional Encounters by Month of Service**



**Figure E-3—Number of Peach State Pharmacy Encounters by Month of Service**



## Appendix F. WellCare Summary of Findings

Table F-1—Number and Percentage of Professional Encounters by Place of Service, WellCare and Statewide				
	Statewide		WellCare	
	Number	% Total	Number	% Total
Office	5,917,355	63.8%	2,903,154	62.8%
Home	137,517	1.5%	66,922	1.4%
Urgent Care Facility	56,930	0.6%	49,698	1.1%
Inpatient Hospital	598,182	6.5%	294,703	6.4%
Outpatient Hospital	548,907	5.9%	261,403	5.7%
ER-Hospital	829,730	9.0%	426,678	9.2%
Ambulatory Surgical Center	18,953	0.2%	10,237	0.2%
Ambulance	36,273	0.4%	15,344	0.3%
Federally Qualified Health Center	9,616	0.1%	6,407	0.1%
Community Mental Health Center	198,131	2.1%	100,139	2.2%
Public Health Clinic	273,879	3.0%	171,456	3.7%
Rural Health Clinic	87,654	0.9%	40,831	0.9%
Independent Laboratory	554,556	6.0%	273,238	5.9%
<b>Total</b>	<b>9,267,683</b>	<b>100.0%</b>	<b>4,620,210</b>	<b>100.0%</b>

Note: WellCare had 657 encounters containing more than one place of service in the detail files. The most common places of service shared within an encounter were office, home, and community mental health center.

Table F-2—Number and Percentage of Institutional Encounters by Type of Bill, WellCare and Statewide				
	Statewide		WellCare	
	Number	% Total	Number	% Total
Inpatient Hospital	28,735	2.0%	7,437	1.1%
Outpatient Hospital	160,159	11.3%	83,428	12.0%
Skilled Nursing Facility	1,216,192	85.6%	591,748	85.5%
Clinic	2,809	0.2%	2,795	0.4%
Special Facility	12,724	0.9%	7,041	1.0%
<b>Total</b>	<b>1,420,619</b>	<b>100.0%</b>	<b>692,449</b>	<b>100.0%</b>



**Table F-3—Age- and Gender-Appropriate Professional Encounters, WellCare**

Diagnosis/Service Examined	Number of Professional Encounters Examined	Valid Encounters	
		Number	Percent
<b>Age-Appropriate Diagnoses</b>			
Child exam	117,704	116,812	99.2%
Routine general medical exam	5,403	2,871	53.1% <sup>1</sup>
<b>Age-Appropriate Services</b>			
Infant	109,190	107,310	98.3%
Early childhood, 1–4 years	77,771	76,385	98.2%
Late childhood, 5–11 years	41,339	40,286	97.5%
Adolescent, 12–17 years	21,070	20,587	97.7%
Adult, 18–39 years	5,368	5,168	96.3%
Adult, 40–64 years	705	665	94.3%
<b>Gender-Appropriate Diagnoses</b>			
Diseases of male genital organs	11,888	11,638	97.9%
Anomalies of male organs	3,023	2,953	97.7%
Inflammatory disease of female pelvic organs	27,479	27,415	99.8%
Other disorders of female genital tract	64,588	64,485	99.8%
Complications of pregnancy, childbirth	200,472	200,305	99.9%
Anomalies of female organs	545	528	96.9%
Normal pregnancy	136,874	136,855	99.9%
High-risk pregnancy	8,726	8,724	99.9%
Postpartum	10,571	10,567	99.9%
<b>Gender-Appropriate Services</b>			
Male genital system	14,496	13,885	95.8%
Female genital system	23,751	23,725	99.9%
Maternity care and delivery	61,916	61,899	99.9%
<b>Total</b>	<b>942,879</b>	<b>933,063</b>	<b>99.0%</b>

<sup>1</sup> The 53.1 percent of encounters submitted with V70.0 were associated with patients 18 years of age or older. When the age criterion was lowered to 12 years of age or older, the percentage was reported as 84.4 percent.

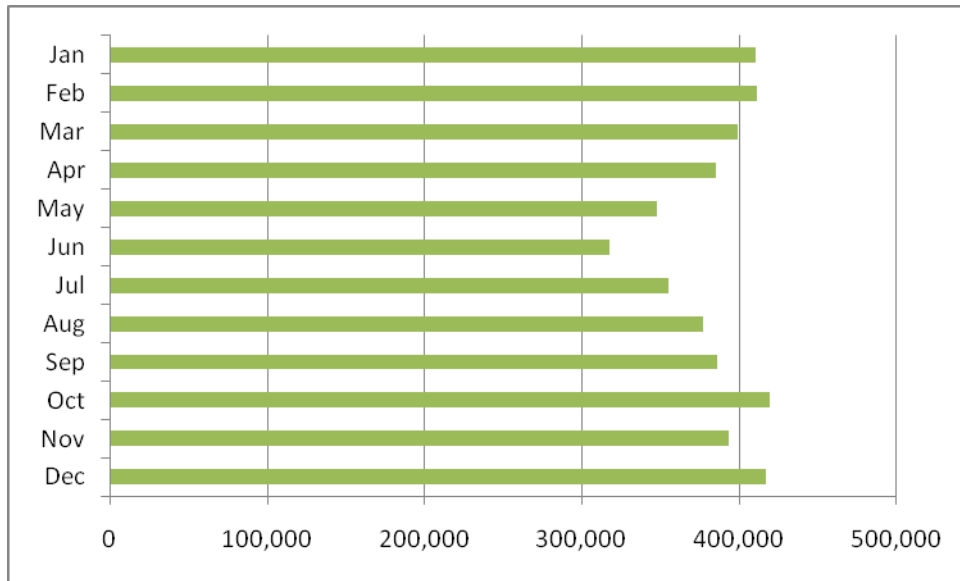
**Table F-4—Age- and Gender-Appropriate Institutional Encounters, WellCare**

Diagnosis/Service Examined	Number of Institutional Encounters Examined	Valid Encounters	
		Number	Percent
<b>Age-Appropriate Diagnoses</b>			
Child exam	8,561	8,534	99.7%
Routine general medical exam	393	197	50.1% <sup>1</sup>
<b>Age-Appropriate Services<sup>2</sup></b>			
Infant	1	1	100.0%
Early childhood, 1–4 years	2	2	100.0%
Late childhood, 5–11 years	2	1	50.0%
Adolescent, 12–17 years	0	-	-
Adult, 18–39 years	4	4	100.0%
Adult, 40–64 years	1	1	100.0%
<b>Gender-Appropriate Diagnoses</b>			
Diseases of male genital organs	2,547	2,526	99.2%
Anomalies of male organs	961	938	97.6%
Inflammatory disease of female pelvic organs	6,329	6,318	99.8%
Other disorders of female genital tract	15,944	15,919	99.8%
Complications of pregnancy, childbirth	93,992	93,959	99.9%
Anomalies of female organs	126	125	99.2%
Normal pregnancy	17,622	17,613	99.9%
High-risk pregnancy	3,492	3,491	99.9%
Postpartum	1,243	1,239	99.7%
<b>Gender-Appropriate Services</b>			
Male genital system	39	37	94.9%
Female genital system	66	66	100.0%
Maternity care and delivery	64	64	100.0%
<b>Total</b>	<b>151,389</b>	<b>151,119</b>	<b>99.8%</b>

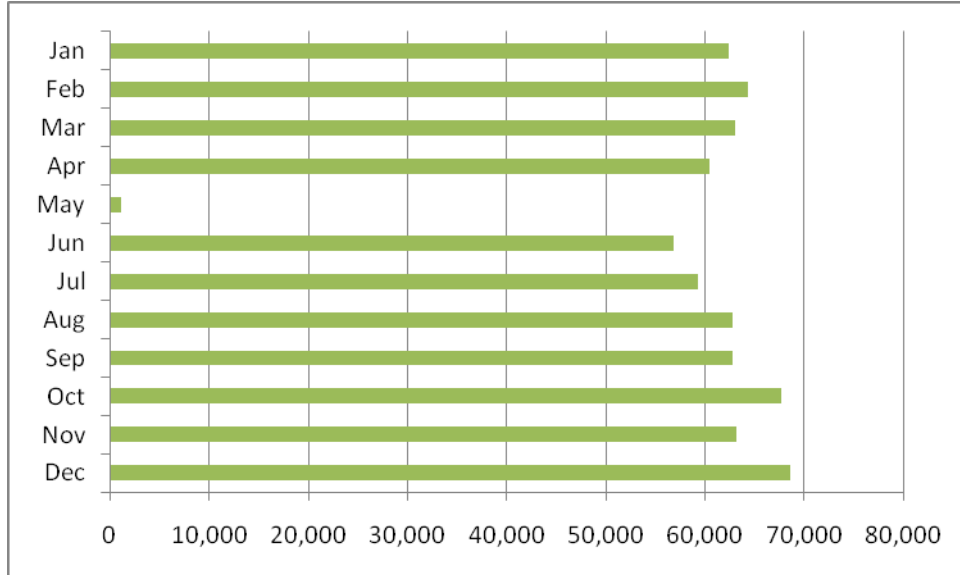
<sup>1</sup> The 50.1 percent of encounters submitted with V70.0 were associated with patients 18 years of age or older. When the age criterion was lowered to 12 years of age or older, the percentage was reported as 71.5 percent.

<sup>2</sup> Since the number of encounters reported for services under this category was less than 30, any interpretation of the identified patterns would lack scientific rigor. There are not enough observations to confidently draw reliable conclusions.

**Figure F-1—Number of WellCare Professional Encounters by Month of Service**



**Figure F-2—Number of WellCare Institutional Encounters by Month of Service**



**Figure F-3—Number of WellCare Pharmacy Encounters by Month of Service**

