Report to the Legislature

Hospital Reimbursement Study

ESSB6090 Section 209(11)

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EXECUTIVE SUMMARY

During the 2005 Washington State legislative session, Senate Bill 6090 mandated the Department of Social and Health Services ("DSHS") to procure a contractor to conduct an independent analysis of the current system for establishing hospital inpatient payment rates for services provided to the Medicaid population, and to submit recommendations for improvements to the current inpatient hospital reimbursement system. The purpose of this study was to inform State policymakers and lawmakers as they seek to identify and evaluate suitable enhancements to the current system.

DSHS awarded a contract to Navigant Consulting, Inc. ("NCI") in August 2005 to conduct this study. Generally, the scope of this project, which is described in more detail later in this report, was to conduct an evaluation of the strengths and weaknesses of the existing fee-for-service ("FFS") Washington Medicaid inpatient reimbursement system, conduct a survey of other states' Medicaid reimbursement systems and make recommendations for potential changes to Washington's system.

Project Overview

Navigant Consulting completed this project in two phases. In Phase 1, NCI consultants conducted a qualitative analysis of the current system based in part on comparisons to current practices of other states' Medicaid Programs, as well as our consultants' expert knowledge of payment systems for these programs and commercial payers. We enhanced our qualitative analysis through a comprehensive quantitative analysis of trends in utilization, payments, charges, estimated costs and acuity data for State Fiscal Years[1] ("SFY") 2002, 2003 and 2004, for all hospitals participating in the Medicaid Program in Washington State. Also, we received input from providers and other stakeholders, and considered this input as part of the evaluation process and formulation of potential recommendations.

In Phase 2 of this project, NCI conducted significant and in-depth financial and impact analyses of the recommendations from Phase 1 for purposes of finalizing those recommendations for implementation by DSHS, and examined other options that came to light as a result of these analyses. We conducted this analysis primarily through a process of applying potential payment methodology and cost assumptions to a single recent year (SFY 2005) of actual Medicaid (Title XIX) in-state FFS inpatient hospital paid claims data[2].

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[1] The Washington State Fiscal Year is the 12-month period ending on June 30th of each year. For example, Washington's SFY 2002 is the period from July 1, 2001 through June 30, 2002.

[2] For purposes of these analyses, we excluded claims from critical access hospitals and long-term acute care hospitals.

Also as part of Phase 2, we reviewed and evaluated the current Certified Public Expenditure ("CPE") program that was implemented in SFY 2005 to replace the previous Intergovernmental Transfer ("IGT") program.

It should be noted that this study focused exclusively on reimbursement methods for Medicaid inpatient hospital services. We did not examine reimbursement methods for outpatient hospital, physician, home health, skilled nursing, hospice or other types of services as part of this study, nor did we examine non-Medicaid service payments.

It is also important to understand that one of the key directives given by DSHS for this project is that any changes to be implemented by DSHS resulting from this study must be budget neutral. In other words, payments in the aggregate resulting from the modified payment methodology must be equal to what payments would have been if the current payment methodology remained in place without change. Changes in the payment methodology may result in some shifting of payments between individual services or individual providers, but in the aggregate, payments must remain the same.

Finally, this study is not intended to evaluate the adequacy of funding for inpatient hospital services under the Medicaid (Title XIX) FFS program. While the analyses described in this report present information regarding payments received by hospitals, and estimates of the costs they have incurred, an evaluation of the adequacy of funding must consider many other factors which are simply outside of the scope of this project. At the same time, it is important to understand that it is not our intent as part of this study to identify ways to reduce payments to hospitals in the State through modifications to the payment methodology.

Our Phase 2 recommendations are based, to a significant extent, on the projected fiscal impacts of potential methodology changes to the State and the hospitals. It should be noted that many, if not all of the recommended methodology changes will be interdependent. In other words, recommendations or methodology changes should not be accepted or rejected individually. Making changes to some of the payment methodology features will be dependent upon other recommended changes. Accepting some, but not all recommended changes may result in unintended consequences, such as not achieving budget neutrality, creating inappropriate incentives for providers and making payments that are not equitable.

Stakeholder Input

We received input for this project from various stakeholder groups, facilitated by DSHS and the Washington State Hospital Association ("WSHA"). During Phase 2, we met numerous times with the WSHA Inpatient Hospital Advisory Committee ("Advisory Committee"), which is made up of representatives from a cross-section of hospital types. This group provided invaluable input into the process, and many of the

recommendations resulting from this project were the direct result of suggestions or other input from that group. We also met separately with the Psychiatric Subcommittee during Phase 2 to discuss the proposed changes to the current psychiatric services payment methodology.

The WSHA also provided us with a document entitled "Principles for Medicaid Payments to Washington Hospitals", which was created by the WSHA Inpatient Task Force. This task force is made up of chief executive officers from member hospitals that provide significant levels of inpatient care to Medicaid eligibles in the State. This document summarizes the providers' guidelines for consideration as the State moves forward with modifying its inpatient payment methodologies. This document was considered by the Project Team as part of this study. A copy of this document is included in the Appendices to this report.

After our final Phase 2 meeting with the WSHA Inpatient Hospital Advisory Committee, the WSHA Medicaid Inpatient Task Force held a meeting to discuss our Phase 2 recommendations. This Committee prepared a formal response to the State regarding our findings and recommendations. A copy of the response is included in the Appendices to this report.

Report Organization

This Phase 2 report is organized into the following sections:

- **Section 1: Recommended Payment Methodology.** In this section, we describe our recommended methodology for payment for all Medicaid FFS inpatient hospital services. This section describes which services should be paid under the DRG-based methodology and other methodologies, and how payments for those services should be made. This section also describes, in general terms, how the related payment rates and rate components should be determined.
- **Section 2: Other Payment Policy Considerations.** In this section, we discuss payment policy issues that should be considered in addition to the payment or pricing methods. Specifically, we discuss how the methodology should be maintained and updated from year-to-year, the potential need for a transition corridor to mitigate anticipated losses resulting from the modified methodology, and payments to hospitals located outside of the State of Washington.
- **Section 3: Basis for Methodology Design and Development of Rates.** In this section, we provide a detailed discussion of how we determined the proposed rates and related rate components, as well as how we estimated the

costs of services to support the rate-determination process and other analyses.

- **Section 4: Data Considerations.** In this section, we describe considerations related to, and assumptions made, relative to the data used during the Phase 2 analysis.
- **Section 5: Review of Certified Public Expenditure Program.** In this section, we describe our evaluation of the CPE program, and make recommendations for the program going forward.

Recommended Payment Methodology

Our proposed methodology changes to the Medicaid inpatient prospective payment system are described below. There are six general payment methods available under the proposed system. These are:

- **Diagnostic Related Group ("DRG")-based payments.** This payment method, which is similar to the method currently used for DRG-based payments, is recommended for all non-specialty services that are classified into AP-DRGs for which sufficient data were available to determine stable relative weights. Differences between the proposed approach for DRG-based payments and the current approach for DRG-based payments relate primarily to the methods used to determine relative weights and conversion factors, and the method used to pay for outlier services for DRG-based claims.
- **Per diem-based payments.** This payment approach is recommended for specialty services and for non-specialty services that are classified into AP-DRGs that have insufficient data available to determine stable relative weights. Specialty services are psychiatric, rehabilitation, detoxification and Chemical Using Pregnant Women ("CUP") program services. The per diem payment methodology is not used under the current payment system, and the majority of the services that are recommended for payment under this methodology are currently reimbursed under the Ratio of Costs-to-Charges ("RCC")-based method.
- **Per case payments.** We recommend per case payments bariatric surgery cases only.
- **RCC-based payments.** We propose eliminating all RCC-based payments except for organ transplant services.
- **Outlier Payments.** We propose implementation of an outlier payment methodology for extraordinarily high cost claims that is based on the estimated cost of claims.

- **Transfer Payments.** We propose changes to the current transfer methodology to take into consideration the higher intensity of costs incurred by providers prior to transfer.

Our full report describes each of these payment methods in significantly greater detail.

Certified Public Expenditure Program

Our evaluation found that the State's net revenue gain from the CPE program is eroding, and will likely continue to erode over time. As such, this is an appropriate time to consider the State's options for funding public hospitals' payments for the future. The available options are limited:

- Eliminate the CPE program for all or a portion of the hospitals currently participating
- Retain a CPE program for DSH only for all or a portion of the hospitals currently participating

With either of these options, if the State continues paying public hospitals at the levels they are currently receiving with the hold harmless provisions of the program in place, DSHS' annual appropriation will have to continue growing. The Legislature could grant an appropriation to DSHS each year to fund such payments. However, to the extent that payments, including hold harmless amounts, exceed hospitals' allowable costs as defined by CMS, the State will receive no federal matching funds.

We recommend the following:

- Assess the impact of eliminating the CPE program for all or a portion of the hospitals currently participating, i.e., DSHS would pay public hospitals under the same methodologies planned for all other hospitals and propose a grant program to maintain the public hospitals' current payments levels
- Assess the impact of retaining the CPE program for DSH payments only for all or a portion of the hospitals currently participating
- Explore ways to streamline the administrative processes associated with the CPE program, if retained

Conclusion

We believe that the proposed system described in this report provides for equitable payments of services across the State, within the constraints set by budget neutrality requirements of the project. It also accomplishes one of the primary objectives identified during Phase 1 of the project, which is to make the system more prospective in nature.

The recommended prospective approaches, where payments for services are determined in advance, will make payments to providers more predictable in future periods. For these reasons, the proposed changes represent significant improvements over the current payment methodology.

Development of the methodology was significantly enhanced through input from providers represented by Advisory Committee in what was a very constructive process. The Project Team and DSHS also considered throughout the process the guiding principles provided by the WSHA Task Force.

INTRODUCTION

During the 2005 Washington State legislative session, Senate Bill 6090 mandated the Department of Social and Health Services ("DSHS") to procure a contractor to conduct an independent analysis of the current system for establishing hospital inpatient payment rates for services provided to the Medicaid population, and to submit recommendations for improvements to the current inpatient hospital reimbursement system. The purpose of this study was to inform State policymakers and lawmakers as they seek to identify and evaluate suitable enhancements to the current system.

DSHS awarded a contract to Navigant Consulting, Inc. ("NCI") in August 2005 to conduct this study. Generally, the scope of this project, which is described in more detail later in this report, was to conduct an evaluation of the strengths and weaknesses of the existing fee-for-service ("FFS") Washington Medicaid inpatient reimbursement system, conduct a survey of other states' Medicaid reimbursement systems and make recommendations for potential changes to Washington's system.

Navigant Consulting completed this project in two phases. In Phase 1, NCI consultants conducted a qualitative analysis of the current system based in part on comparisons to current practices of other states' Medicaid Programs, as well as our consultants' expert knowledge of payment systems for these programs and commercial payers. We enhanced our qualitative analysis through a comprehensive quantitative analysis of trends in utilization, payments, charges, estimated costs and acuity data for State Fiscal Years[3] ("SFY") 2002, 2003 and 2004, for all hospitals participating in the Medicaid Program in Washington State. Also, we received input from providers and other stakeholders, and considered this input as part of the evaluation process and formulation of potential recommendations.

In Phase 1, we examined the following areas and issues:

- The current Diagnosis-Related Group ("DRG")-based[4] payment methodology, including methods used to determine payments and rates under the methodology,

[3] The Washington State Fiscal Year is the 12-month period ending on June 30th of each year. For example, Washington's SFY 2002 is the period from July 1, 2001 through June 30, 2002.
[4] The term "DRG-based" is used generically throughout this report to refer to the prospective payment methodology that relies on a patient classification system, or grouper, to assign a payment to each inpatient discharge. Payment is generally determined by multiplying a fixed base rate, or conversion factor, by a relative weight, which is unique to each patient classification. Washington Medicaid currently uses the All-Patient Diagnosis Related Group, or AP-DRG patient classification system.

- Determining payments for services using a Ratio of Cost-To-Charges ("RCC") methodology[5],
- The potential use of other payment options, such as a fixed per diem amount or fixed per case amount,
- The methodology used to identify outliers and make outlier payments for extraordinarily high cost cases,
- The appropriateness of allowing payments for individual claims under the current DRG-based methodology to exceed allowed billed charges submitted by the hospital for the claim,
- The methodology used to pay for psychiatric services provided in inpatient hospital settings,
- The current selective contracting program,
- The current centers of excellence program,
- The current critical access hospital payment program, and
- The current trauma payment program.

We described our detailed approach to this examination, and our preliminary recommendations in our Phase 1 report dated December 1, 2005.

In Phase 2 of this project, we conducted significant and in-depth financial and impact analyses of the recommendations from Phase 1 for purposes of finalizing those recommendations for implementation by DSHS, and examined other options that came to light as a result of these analyses. We conducted this analysis primarily through a process of applying potential payment methodology and cost assumptions to a single recent year of actual Medicaid (Title XIX) in-state FFS inpatient hospital paid claims data[6]. We selected state fiscal year ("SFY") 2005 Medicaid FFS paid claims for this purpose, which represented the most current and completely adjudicated single year of claims data available to us at the start of the analytical process. We analyzed:

- Methods for determining relative weights and conversion factors for DRG-based payment,

[5] Under an RCC payment methodology, payments are generally determined on a claim-by-claim basis by multiplying a claim's allowed billed charges by the facility's RCC.
[6] For purposes if this analysis, we excluded FFS claims from critical access hospitals ("CAH") and long-term acute care ("LTAC") hospitals.

- Methods for payment of services that are classified into unstable AP-DRG classifications[7],
- Services that should be excluded from DRG-based payment, and alternative payment methods for those services,
- Payment methods to minimize DSHS' reliance on RCC-based payment methods,
- Methods for payment of outlier cases,
- The methodologies used to pay for specialty services, such as psychiatric, rehabilitation, detoxification, and Chemical Using Pregnant ("CUP") women program services provided in inpatient hospital settings, and
- The impacts of discontinuing the current selective contracting and centers of excellence programs.

Also as part of Phase 2, we reviewed and evaluated the current Certified Public Expenditure ("CPE") program that was implemented in SFY 2005 to replace the previous Intergovernmental Transfer ("IGT") program.

As with Phase 1, we received significant input from providers and other stakeholders during Phase 2, and considered this input as part of the evaluation process and formulation of potential recommendations.

It should be noted that this study focused exclusively on reimbursement methods for Medicaid inpatient hospital services. We did not examine reimbursement methods for outpatient hospital, physician, home health, skilled nursing, hospice or other types of services as part of this study, nor did we examine methods of payment for non-Medicaid services.

It is also important to understand that one of the key directives given by DSHS for this project is that any changes to be implemented by DSHS resulting from this study must be budget neutral. In other words, payments in the aggregate resulting from the modified payment methodology must be equal to what payments would have been if the current payment methodology remained in place without change. Changes in the payment methodology may result in some shifting of payments between individual services or individual providers, but in the aggregate, payments must remain the same. This was accomplished through a process of estimating payments under the proposed methodology using the SFY 2005 Medicaid FFS inpatient hospital paid claims data[8], and

[7] For purposes of this report, the term "unstable" is used generically to describe AP-DRG or other classifications that have fewer than 10 occurrences, or that are unstable based on the statistical stability test, which is described in detail later in this report.
[8] Excluding CAH and LTAC hospital claims data.

comparing those payments to actual payments reflected in the SFY 2005 data adjusted to reflect projected changes in payments under the current system from SFY 2005 to SFY 2008.

Finally, this study is not intended to evaluate the adequacy of funding for inpatient hospital services under the Medicaid (Title XIX) FFS program. While the analyses described in this report present information regarding payments received by hospitals, and estimates of the costs they have incurred, an evaluation of the adequacy of funding must consider many other factors which are simply outside of the scope of this project. At the same time, it is important to understand that it is not our intent as part of this study to identify ways to reduce payments to hospitals in the State through modifications to the payment methodology.

Our Phase 2 recommendations are based, to a significant extent, on the projected fiscal impacts of potential methodology changes to the State and the hospitals. It should be noted that many, if not all of the recommended methodology changes will be interdependent. In other words, recommendations or methodology changes should not be accepted or rejected individually. Making changes to some of the payment methodology features will be dependent upon other recommended changes. Accepting some, but not all recommended changes may result in unintended consequences, such as not achieving budget neutrality, creating inappropriate incentives for providers and making payments that are not equitable.

Project Team

Navigant Consulting's project team comprises three of the nation's leading Medicaid prospective payment system experts. Catherine Sreckovich, who has been assisting Medicaid programs with hospital payment systems for more than 20 years, is the Project Director. As project director, Ms. Sreckovich has ultimate responsibility for supervision of all tasks, and generation of all project deliverables.

Jim Pettersson, from our Seattle office, is serving as the Project Manager. Mr. Pettersson has been assisting Medicaid programs with hospital payment systems for 15 years. He has responsibility for managing all project tasks on a daily basis. He has also coordinated and supervised the preparation of all deliverables. Mr. Pettersson is serving as the main point of contact for the State.

Dr. Henry Miller, who has been assisting the Medicare program, Medicaid programs and commercial payers with hospital reimbursement systems for more than 25 years, is serving as the leader of the project's Policy Analysis Team. Dr. Miller is also serving as a Technical Advisor for all project components.

All three of these consultants have extensive experience with the design, implementation, evaluation and modification of inpatient hospital prospective payment systems, and in particular, DRG-based systems.

Other experienced health care consultants consisting of policy and data analysts, several of whom are also located in our Seattle office, are supporting, and will continue to support this project.[9]

Stakeholder Input

As mentioned previously, we received input for this project from various stakeholder groups, facilitated by DSHS and the Washington State Hospital Association ("WSHA"). During Phase 2, we met numerous times with the WSHA Inpatient Hospital Advisory Committee ("Advisory Committee"), which is made up of representatives from a cross-section of hospital types. This group provided valuable input into the process, and many of the recommendations resulting from this project were the direct result of suggestions or other input from that group. We also met separately with the Psychiatric Subcommittee during Phase 2 to discuss the proposed changes to the current psychiatric services payment methodology.

The WSHA also provided us with a document entitled "Principles for Medicaid Payments to Washington Hospitals", which was created by the WSHA Inpatient Task Force. This task force is made up of chief executive officers from member hospitals that provide significant levels of inpatient care to Medicaid eligibles in the State. This document summarizes the providers' guidelines for consideration as the State moves forward with modifying its inpatient payment methodologies. This document was considered by the Project Team as part of this study. A copy of this document is included in Appendix A to this report.

After our final Phase 2 meeting with the WSHA Inpatient Hospital Advisory Committee, the WSHA Medicaid Inpatient Task Force held a meeting to discuss our Phase 2 recommendations. This Committee prepared a formal response to the State regarding our findings and recommendations. A copy of this response is included in Appendix B of this report.

[9] Navigant Consulting is a publicly owned national consulting firm with more than 35 offices located across the United States and abroad, and with an office in Seattle that serves as a base for 35 consultants. Our professionals have multi-disciplinary backgrounds, including Certified Public Accountants, Certified Management Accountants, Registered Nurses, Certified Fraud Examiners, Public Policy specialists, Information Technology Specialists, and Engineers, among others. Navigant Consulting's healthcare practice professionals have successfully completed healthcare engagements in virtually every state, for Medicaid and other state agencies, as well as numerous providers, provider groups, commercial insurers and managed care organizations.

Report Organization

This Phase 2 report is organized into the following sections:

- **Section 1: Recommended Payment Methodology.** In this section, we describe our recommended methodology for payment for all Medicaid FFS inpatient hospital services. This section describes which services should be paid under the DRG-based methodology and other methodologies, and how payments for those services should be made. This section also describes, in general terms, how the related payment rates and rate components should be determined.
- **Section 2: Other Payment Policy Considerations.** In this section, we discuss payment policy issues that should be considered in addition to the payment or pricing methods. Specifically, we discuss how the methodology should be maintained and updated from year-to-year, the potential need for a transition corridor to mitigate anticipated losses resulting from the modified methodology, and payments to hospitals located outside of the State of Washington.
- **Section 3: Basis for Methodology Design and Development of Rates.** In this section, we provide a detailed discussion of how we determined the proposed rates and related rate components, as well as how we estimated the costs of services to support the rate-determination process and other analyses.
- **Section 4: Data Considerations.** In this section, we describe considerations related to, and assumptions made, relative to the data used during the Phase 2 analysis.
- **Section 5: Review of Certified Public Expenditure Program.** In this section, we describe our evaluation of the CPE program, and make recommendations for the program going forward.

Each of these sections follows.

SECTION 1: RECOMMENDED PAYMENT METHODOLOGY

This section describes our proposed methodology changes to the Medicaid inpatient prospective payment system. There are six general payment methods available under the proposed system. These are:

- **DRG-based payments.** This payment method, which is similar to the method currently used for DRG-based payments, is recommended for all non-specialty services that are classified into AP-DRGs for which sufficient data were available to determine stable relative weights. Differences between the proposed approach for DRG-based payments and the current approach for DRG-based payments relate primarily to the methods used to determine relative weights and conversion factors, and the method used to pay for outlier services for DRG-based claims.
- **Per diem-based payments.** This payment approach is recommended for specialty services and for non-specialty services that are classified into AP-DRGs that have insufficient data available to determine stable relative weights. Specialty services are psychiatric, rehabilitation, detoxification and CUP program services. The per diem payment methodology is not used under the current payment system, and the majority of the services that are recommended for payment under this methodology are currently reimbursed under the RCC-based method.
- **Per case payments.** We recommend per case payments bariatric surgery cases only.
- **RCC-based payments.** We propose eliminating all RCC-based payments except for organ transplant services.
- **Outlier Payments.** We propose implementation of an outlier payment methodology for extraordinarily high cost claims that is based on the estimated cost of claims.
- **Transfer Payments.** We propose changes to the current transfer methodology to take into consideration the higher intensity of costs incurred by providers prior to transfer.

The following sections describe our recommended payment methodology in general terms for each of the above payment approaches. Detailed discussions of the analyses and processes used to determine rates, relative weights and other rate components for each of these approaches are provided later in this report. Also, detailed flowcharts for all of the analytical processes used for this project, including relative weight calculations, conversion factor calculations, per diem rate calculations and the impact model processes are included in Appendix M.

DRG-Based Payments

Our Phase 1 report provided a preliminary recommendation that all non-specialty services that fall into stable AP-DRG classifications should be paid based on the DRG-based payment methodology. Our Phase 2 analyses supported this recommendation.

To analyze this recommendation, we identified stable AP-DRG classifications using statistical methods applied to the costs of the claims within each classification. This process is described in detail later in this report.

Certain specialty services should be excluded from the DRG-based payment method. These services are psychiatric, rehabilitation, detoxification, CUP program, bariatric surgery and organ transplant services. These services should be excluded because the costs associated with these services are generally not predictable on a per discharge basis. Also, non-specialty services that fall into AP-DRG classifications that are unstable should be excluded from the DRG-based payment methodology.

Neonatal services, if they fall into stable AP-DRG classifications, should be included in the DRG-based methodology. The AP-DRG patient classification system was designed to take into consideration the unique characteristics of the neonatal population, and excluding these services from DRG-based payment does not take full advantage of the systems' capabilities. This is a significant change from the current system, which pays for neonatal services under an RCC-based payment method.

Payment under this methodology has several components. The basic payment is calculated by multiplying a hospital's conversion factor by the relative weight applicable to the AP-DRG classification. For purposes of our analysis, we identified stable AP-DRG classifications and calculated relative weights based on the estimated wage adjusted cost of the claims in each stable classification. This is a change from the methodology currently in place, which uses relative weights that are based on claim charges.

To calculate relative weights, we divided the average cost per discharge for each stable AP-DRG classification by the average cost per discharge for all stable AP-DRG classifications combined. For purposes of these calculations, we used two years of Medicaid inpatient hospital paid claims data. We used a combination of Medicaid FFS and Healthy Options ("HO") managed care data from SFYs 2004 and 2005[10], which were the two most current years of fully adjudicated paid claims data available to us at the

[10] HO data for SFY 2004 and 2005 were identified from the Washington State Comprehensive Hospital Abstract Reporting System ("CHARS"), which is a dataset of all payer claims data maintained by the Washington State Department of Health. A complete discussion of how HO claims were identified is provided later in this report. Also, this dataset excluded all CAH and LTAC hospital claims data.

time of the project. The HO managed care data were included in the analyses based on considerable input from the Advisory Committee. We also removed claims that represented statistical outliers from this dataset prior to calculating relative weights based on the assumption that these claims were likely to be paid under an alternative outlier payment methodology.

We also recommend that DSHS adopt a standardized statewide cost per discharge approach to determine conversion factors for payment purposes. This approach was supported by the Advisory Committee during Phase 1 of the project. This is also a change from the current payment system, which uses conversion factors based on facility-specific costs (subject to peer group caps in some instances).

We calculated conversion factors that were generally based on statewide weighted average cost per discharge amounts, which were then adjusted to reflect the unique characteristic of hospitals in the State for payment purposes. For this calculation, we determined facility-specific costs for each hospital, and adjusted those costs for regional wage differences, differences in graduate medical education program costs, and facility-specific case-mix differences[11]. This calculation was based on the estimated costs of the claims in stable classifications from SFY 2005 only, including both FFS and HO claims data. We then summed the costs and discharges for included hospitals, and calculated a statewide standardized weighted average cost per discharge amount. We calculated a conversion factor for each hospital by adjusting the statewide standardized weighted average cost per discharge amount using the hospital-specific wage index and medical education program costs for each hospital.

DRG-based claims with extraordinarily high cost also qualify for outlier payments under this methodology. The recommended outlier payment policy is described in detail later in this section.

Per Diem-Based Payments

Our Phase 1 report provided a preliminary recommendation that DSHS consider a per diem approach for payment of psychiatric services, rehabilitation services, and non-specialty services that are categorized into AP-DRG classifications that do not have enough claims volume to support the calculation of stable relative weights. Our Phase 2 analyses supported this recommendation. Further, input from the Advisory Committee and other factors supported recommendations to pay for other services under the per diem methodology.

[11] Adjustments for wages and indirect medical education costs were based on the same factors used by the Centers for Medicare and Medicaid Services ("CMS") for payments under the Medicare program.

We recommend per diem-based payments for the following types of services:

- Specialty services, defined as psychiatric, rehabilitation, detoxification and CUP program services, and
- Services comprising unstable AP-DRG classifications, and that do not fall into the specialty services described above, or services defined as organ transplant services or bariatric surgery services described later in this report.

Detoxification services were added as a separate specialty service type for purposes of per diem payments. Also, based on Advisory Committee input, CUP program services were identified as specialty services for per diem payment purposes.

Each of these types of services is described in more detail in the following sections.

Per Diem-Based Payments for Specialty Services

We recommend that specialty services be identified for per diem payment based on the following criteria:

- **Psychiatric Services.** Psychiatric claims are identified as all claims from free-standing psychiatric hospitals, and all claims with a psychiatric diagnosis (i.e., assigned to a psychiatric AP-DRG classifications) at acute care hospitals.
- **Rehabilitation Services.** Rehabilitation claims are identified as all claims from free-standing rehabilitation hospitals, and all claims with a rehabilitation diagnosis (i.e., assigned to a rehabilitation AP-DRG classification) at acute care hospitals.
- **Detoxification Services.** All claims with a detoxification diagnosis (i.e., assigned to a detoxification AP-DRG classification) at acute care hospitals.
- **CUP Program Services.** CUP Program services are identified as any claims with units of service (patient days) submitted under revenue code 129 in the claim record.

Similar to the general statewide standardized approach for DRG-based payments, we recommend that per diem payments for rehabilitation, detoxification and CUP Program services be based on the statewide standardized weighted average cost per day for each of these types of services in acute care hospitals, and for these types of services provided in freestanding facilities (if any exist). For each of these services, we calculated per diem rates that were generally based on statewide weighted average cost per day amounts for each service, which were then adjusted to reflect the unique characteristic of hospitals in the State for payment purposes. For this calculation, we determined facility-specific costs for each hospital, and adjusted those costs for regional wage differences and

differences in graduate medical education program costs[12]. This calculation was based on the estimated costs of the claims for each type of service in SFY 2005 only, including both FFS and HO claims data. We then summed the costs and days by service for included hospitals, and calculated statewide standardized weighted average cost per day amounts for each service. We calculated per diem rates for each service for each hospital by adjusting the statewide standardized weighted average cost per day amounts using the hospital-specific wage index and medical education program costs for each hospital.

Based on considerable input from the Advisory Committee, and from the Psychiatric Subcommittee, we determined that moving toward a statewide standardized per diem approach for psychiatric services could result in significant, and sometimes negative, fiscal impacts to the providers of these services. As such, we recommend that psychiatric per diem rates be based on the facility-specific costs of providing psychiatric services for all free-standing hospitals or hospitals with psychiatric distinct part units, or any other acute care hospital that had more than 200 Medicaid FFS and HO psychiatric patient days in SFY 2005. For hospitals meeting these criteria, we calculated the facility-specific average psychiatric cost per day as the basis for the psychiatric per diem rates.

For psychiatric services provided in all other in-state non-critical access hospitals, we recommend hospitals be paid based on the weighted average of those with facility-specific rates.

For services provided at freestanding rehabilitation hospitals, we recommend per diem payments based on facility-specific costs.

We do not recommend an outlier policy for any of these specialty services. Based on our analyses, we found that the cost per day of these types of claims do not vary significantly from case to case.

Per Diem Payments for Claims in Unstable AP-DRG Classifications

For claims that are classified into AP-DRG classifications that do not have enough claims volume to establish stable relative weights, and that are not specialty claims as previously described, we also recommend a per diem payment approach. This is a significant change from the current payment methodology where these types of claims are paid under an RCC-based methodology.

[12] Adjustments for wages and indirect medical education costs were based on the same factors used by the Centers for Medicare and Medicaid Services ("CMS") for payments under the Medicare program.

Understanding that these types of claims are less homogeneous than the specialty claims described earlier, and that by definition the costs of these claims are more variable than the costs of those that are included under the DRG-based payment approach, we conducted significant analyses to establish per diem rates based on groupings that would distinguish between higher cost per day claims and lower cost per day claims. As part of this analysis, and at the request of the Advisory Committee, we analyzed costs per day based on the following groupings, which are not mutually exclusive:

- Neonatal claims, based on assignment to Major Diagnostic Category ("MDC") 15,
- Burn claims based on assignment to MDC 22,
- AP-DRG assignments that include primarily medical procedures[13],
- AP-DRG assignments that include primarily surgical procedures[14],
- Cranial procedure claims, based on specific cranial procedure AP-DRG classifications, and
- MDC assignment.

Based on our analyses of cost per day amounts for each of these groupings, and based on input from the Advisory Committee, we identified four service groupings as appropriate for purposes of establishing per diem payments. These are:

- Neonatal claims, based on assignment to MDC 15,
- Burn claims based on assignment to MDC 22,
- AP-DRG assignments that include primarily medical procedures, excluding any neonatal or burn classifications identified above, and
- AP-DRG assignments that include primarily surgical procedures, excluding any neonatal or burn classifications identified above.

For each service group except for burn cases, we calculated a per diem rate for each hospital based on the aggregate statewide weighted average cost per day for the service after adjusting costs for regional wage differences and differences in graduate medical education program costs[15]. This calculation was based on the estimated costs of the claims for each service group in SFY 2005 only, including both FFS and HO claims data. After determining the statewide weighted average cost per day after these adjustments,

[13] The AP-DRG grouper documentation designates each classification as either Medical or Surgical. We adopted these designations for purposes of theses analyses.
[14] Ibid.
[15] Unstable burn claim per diem rates were based on the average cost per day of unstable burn claims at Harborview Medical Center, which treats the vast majority of burn cases in the State.

we calculated the per diem rate for each hospital for each service group by adjusting the statewide weighted average cost per day amount for each hospital based on its hospital-specific wage index and medical education program costs.

Because of the variability of the cost of claims in unstable AP-DRG classifications, we determined that it would be appropriate to recommend an outlier policy for these per diem payments, similar to the outlier methodology recommended for DRG-based payments. Our recommended outlier payment approach is described later in this section.

Per Case Payments for Bariatric Surgery Services

We recommend that bariatric surgery cases be paid under a per case payment methodology that is based on the average costs of providing these services. Under the current methodology, these services are paid under a case rate that is based on Medicare program payment amounts.

Bariatric surgery cases cannot be defined by existing AP-DRG classifications. They are defined by specific procedure codes, which may be present in various AP-DRG classifications[16]. Further, based on current DSHS policy, they are Medicaid covered services only if provided at University of Washington Medical Center, Sacred Heart Medical Center or Oregon Health & Science University.

We conducted analysis of claims meeting the above criteria. Our analysis showed that the cost per case of these claims did not vary significantly. As such, a per case payment approach, which is similar to a DRG-based payment approach, is appropriate in this instance. We do not recommend outlier payments for bariatric surgery cases.

RCC-Based Payments for Organ Transplant Services

Organ transplant services are the only services for which we recommend continuation of the current RCC-based payment approach. These services are identified based on AP-DRG classification. They are:

- 103-HEART TRANSPLANT
- 302-KIDNEY TRANSPLANT
- 480-LIVER TRANSPLANT
- 795-LUNG TRANSPLANT
- 803-ALLOGENEIC BONE MARROW TRANSPLANT
- 804-AUTOLOGOUS BONE MARROW TRANSPLANT
- 805-SIMULTANEOUS KIDNEY AND PANCREAS TRANSPLANT

[16] DSHS identifies bariatric surgery claims using procedure codes 4431, 4438, 4439, 4468, or 4495.

- 829-PANCREAS TRANSPLANT

We conducted analysis of the costs for organ transplant claims, and found there to be significant variation in the cost per discharge amounts for these services. As such, applying a DRG-based payment methodology would result in significant under or overpayment on a case-by-case basis for these services relative to the costs of those services. Appendix C shows our analysis of the costs of these claims for the three most frequent organ transplant services included in our SFY 2005 claims dataset, which were liver, heart and allogeneic bone marrow transplants.

Also, understanding the nature of these procedures, the cost per day for these services is likely to vary significantly from day to day, which does not support a per diem payment approach. As such, the Project Team and DSHS agreed that these services should be paid under the RCC approach.

Outlier Payments

Our Phase 1 report made a number of recommendations related to the current outlier payment methodology. Our analysis in Phase 2 generally supports implementation of those recommendations, however with some modification.

Most significantly, our Phase 1 report recommended adoption of a methodology similar to Medicare, which establishes an outlier threshold by adding the calculated DRG-based payment to a "fixed stop-loss threshold", which is approximately $26,000[17] for Washington hospitals. Under Medicare's approach, estimated costs that exceed the outlier threshold are paid based on a "marginal cost factor", which is 90 percent for burn cases, and 80 percent for all other cases. In other words, hospitals receive outlier payments equal to 80 or 90 percent of the estimated costs that exceed the sum of the calculated DRG payment and the "fixed stop-loss threshold". This approach was consistent with the objective of identifying only the extraordinarily high cost cases as outliers, and making the hospitals at risk for managing the costs of these types of claims.

As part of Phase 2, we conducted significant analysis of projected payments under this type of methodology. We analyzed numerous variations of "fixed stop-loss thresholds" and "marginal cost factors". However, no matter how we varied the components related to this Medicare outlier approach, we found that those hospitals that had the highest occurrences of outlier claims tended to incur significantly greater losses related to outlier claims than other hospitals. For each outlier claim, they were required to absorb not only the shortfall related to the "marginal cost factor" (which we set at 95 percent for neonatal and pediatric services, 90 percent for burn cases and 85 percent for all other cases), but also the "fixed stop-loss threshold" amount for each outlier case,

[17] Under Medicare policy, this amount varies from region to region.

which ranged between $20,000 and $35,000 per case depending on version being analyzed. These outlier shortfalls tended to have a significant impact on certain hospitals, specifically those for which outlier claims represented a significant proportion of their Medicaid claims.

The Project Team identified an alternative approach which still met the objectives of identifying only the extraordinarily high cost cases as outliers, and still keeping the hospitals at risk for managing the costs of these types of claims. Under this alternative method, to qualify for outlier payment, the claim must meet two criteria. First, the estimated costs of the claim must exceed an outlier threshold which is equal to 175 percent of the calculated DRG-based payment. Second, the estimated cost of the claim must exceed $50,000. If the claim meets both of these criteria, it qualifies for an outlier payment.

The outlier payment is equal to the difference between the estimated cost of the claim and the outlier threshold (175 percent of the calculated DRG-based payment), multiplied by a marginal cost factor. The marginal cost factor is 95 percent for outlier claims that fall into one of the pediatric or neonatal AP-DRG classifications[18], 90 percent of outlier claims that fall into burn-related AP-DRG classifications, and 85 percent for all other AP-DRG classifications. The outlier payment is added to the calculated DRG-based payment for purposes of determining the total claim payment.

Estimated costs used for outlier qualification and payment are determined by multiplying the hospitals current published inpatient RCC by the claim's covered charges.

Under this proposed methodology, the hospitals are at risk for any payment shortfall for claims with costs under $50,000. However, for most claims that meet the outlier criteria, this methodology tends to provide more funding to cover the shortfall than the Medicare approach. This has a significant impact on the potential outcomes, especially for those hospitals that care for most of the outlier cases in the State.

We recommend that this outlier approach be applied to all DRG-based claims, and to per diem claims that fall into the unstable AP-DRG classifications. Our analysis showed that virtually no claims paid under the per diem approach for specialty services (psychiatric, rehabilitation, detoxification and CUP Program) would qualify for outlier payment, and as such we recommend no outlier payments for these services.

It should be noted that under this methodology, we have projected that total outlier payments will be approximately 12.8 percent of total payments. This is a higher

[18] For a list of AP-DRG classifications, see Appendix F. All outlier claims at children's hospitals receive a 95% marginal cost factor, regardless of AP-DRG assignment.

percentage than we targeted at the outset of the project, but given the volume and magnitude of the outlier claims in the SFY 2005 data, we believe that modifying the methodology to reduce this percentage would result in higher outlier case losses for those hospitals that care for the majority of the outlier cases in the State. It should also be noted that CMS' target for the Medicare program ranges between five and six percent.

Transfer Payments

For DRG-based claims, services provided to patients admitted as inpatients to an acute care hospital who are then transferred to another acute care hospital are paid by Washington Medicaid using a transfer payment policy. Payments in these instances are based on a pro-rata allocation of the DRG-based payment, based on the number of days the patient is in the transferring hospital.

The State calculates the per diem rate for this purpose by dividing the DRG-based payment amount by the statewide average length-of-stay for the AP-DRG classification. The State pays the transferring hospital this per diem rate for the number of allowed days the patient is in the transferring hospital, not to exceed the full DRG payment amount. This policy does not apply to services provided in an outpatient or emergency department setting where the patient is not admitted as an inpatient.

While this approach recognizes some of the costs incurred by transferring hospitals, it does not recognize the higher intensity of services typically incurred in the early stages of a case required to stabilize a patient before transfer. Medicare addresses this issue by paying for an extra day in addition to the actual length-of-stay, and by using a geometric mean length-of-stay for the per diem calculation, which results in a larger per diem amount.

We recommend that Washington Medicaid modify its approach for transfer payments, and add a day to the calculated length-of-stay used for transfer payment purposes. Resulting transfer payments should not exceed the total calculated DRG-based payment, including any outlier payment amount.

SECTION 2: OTHER PAYMENT POLICY CONSIDERATIONS

In this section, we present recommendations in the following areas:

- Updating rates in future periods
- Potential transition methodology
- Payments to hospitals located outside of the State of Washington

Each of these topics is discussed separately below.

Updating Rates in Future Periods

In our Phase 1 report, we recommended that the State consider establishing a regular schedule for updating the AP-DRG grouper version, along with relative weights, conversion factors and other payment system components. Consistent with our Phase 1 recommendation, we make the following recommendations related to annual updates and periodic rebasing.

We recommend that the State update conversion factors, per diem rates and case rates on an annual basis using the CMS Prospective Payment System Input Price Index. This index, which is based on a predetermined set of variables considered by CMS to be appropriate proxies for cost increases incurred by hospitals, is used by CMS when determining similar annual updates to the Medicare Prospective Payment System. We also recommend, however, that such increases be subject to legislative approval and take into consideration State budgetary constraints.

Washington Medicaid should also review outlier payments on an annual basis to evaluate if outlier payments are increasing at an unacceptable rate, and whether outlier thresholds or marginal cost factors should be adjusted to curb the rate of increase for outlier payments. Also understanding that 12.8 percent outliers is higher than desired, it may be appropriate to modify the methodology to reduce this percentage in future periods.

We recommend that Washington Medicaid rebase the system every three years. This process would involve incorporating the most currently available version of the AP-DRG grouper. In addition, Washington Medicaid should recalculate new relative weights, conversion factors, per diem rates and case rates using the most current and complete cost report and paid claims data available at the time of the rebasing. As part of this periodic rebasing, the State should also consider the effectiveness of the new system, and determined if any additional modifications can be implemented to enhance its performance.

Potential Transition Methodology

As expected, our fiscal impact analyses (which are described later in this report) show that payments will shift between providers under this new methodology. In other words, given that we were directed to develop a methodology that was budget neutral, aggregate payments to hospitals under the proposed methodology will not exceed what projected aggregate payments would be to those same hospitals if the current methodology remained in place. As such, when payments increase for some providers, they must also go down for other providers so that the total pool of funding remains constant.

Our impact analyses showed that, in some instances, these shifts were significant. As such, we recommend that the State establish a transition adjustment to payments for a one-year period that will reduce both the increases and decreases in payments for the first year following implementation.

There are many ways for the State to accomplish this transition. We recommend that the State provide for transitional adjustments, but only provide adjustments to hospitals with significant increases or decreases, requiring for example that changes in payments be more than five percent before consideration. For those hospitals with increases or decreases exceeding five percent, the state can estimate the average adjustment per discharge that would be necessary for payments to be the same as under the current system. This amount could then be multiplied by factor (for example 50 percent) to establish an amount that would either be added or deducted from the calculated payments in the first year.

We have not prepared any models of potential transitional approaches as of this time. However, the State may consider developing an approach that takes into consideration more recent claims payment history, or even establish transition payments based on actual payment differences in the first year after implementation.

Payments to Hospitals Outside of the State of Washington

Under current policy, Washington Medicaid pays for Medicaid services provided by out-of-state hospitals using different methods, depending on their location. If they are located in designated border areas, the State pays for their services using the same methodology used to pay for the same services to in-state hospitals. If out-of-state hospitals are outside of these designated border areas, the State pays for their services using a weighted average in-state RCC multiplied by billed allowed charges.

The border-area hospital designation was initially intended to ensure that appropriate services were available in all regions of the state, particularly in regions where Washington State Medicaid eligibles might need to cross the state border to receive

necessary or specialized inpatient hospital services. However, the current policy, which designates hospitals as border-area hospitals based on location, does not consider the types of services provided by hospitals with that designation. In other words, there may be hospitals that are designated as border-area hospitals because of their location, but the services they provide are no different than the services provided by in-state hospitals within a reasonable proximity of a Medicaid client.

We recommend that Washington Medicaid identify those out-of-state acute hospitals that are critical to care for Washington residents. DSHS should establish criteria for these hospitals based on specific need capacity by geographic area, and based on historic utilization criteria. We recommend that out-of-state hospitals meeting DSHS' criteria be paid for services under the same methodology applied to instate hospitals, however, payment may not exceed what payment would have been to any in-state hospital for the same service, including medical education components of payments.

We recommend that out-of-state hospitals not meeting this criteria be paid based on lowest of the in-state hospital rates[19], and that these hospitals not be eligible for payment of medical education.

[19] Under the proposed methodology, the lowest in-state rates would be the same rates proposed to all rural hospitals in the State of Washington, excluding critical access hospitals.

SECTION 3: BASIS FOR METHODOLOGY DESIGN AND DEVELOPMENT OF RATES

In this section, we describe how we developed the proposed rates and relative weights, how we estimated costs for developing those rates and relative weights, and the fiscal impact modeling we conducted to evaluate the various payment methodology design components. Virtually all of the analyses we completed in the methodology design phase initially relied on estimates of costs of historical claims data.

Preparation of Claims Data Used in Analyses

As a baseline for all of our analyses, we developed estimates of costs of individual Medicaid claims for two years of paid claims data – SFYs 2004 and 2005. The methodology we used to estimate the costs of these claims is described later in this section. Also where appropriate, we analyzed both FFS and HO claims data[20]. This was a significant issue for the Advisory Committee because of the presumed reliance by the HO managed care plans on the Medicaid payment methodology and rates. Understanding this reliance, the Project Team and DSHS agreed to incorporate the HO data into the process so that the resulting relative weights and rates would be appropriate for payment of both FFS and HO claims. We excluded from this process all claims from critical access hospitals, long-term acute care hospitals and hospitals located outside of the State of Washington[21].

These claims data were used as follows:

- **Relative Weight Calculations.** For relative weight calculations, we used the estimated costs of FFS and HO claims from both SFY 2004 and 2005.
- **Conversion Factors, Per Diem Rates and Per Case Rates.** We based our calculations of these rate components on the estimated FFS and HO claims from a single year – SFY 2005.
- **Fiscal Impact Modeling.** For purposes of analyzing the fiscal impacts to the state and to individual providers resulting from implementation of the recommended payment methodology, we used the estimated costs and payments from FFS only claims from a single year – SFY 2005.

SFY 2004 and 2005 claims data were used for these analyses and calculations because they were the most current and fully adjudicated claims data available to us at the time of the analyses.

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[20] It should be noted that the HO data are extracted from the CHARS dataset, and these data do not represent complete paid claims data. Only limited claims data elements are available through CHARS.

[21] We also excluded all claims from non-Medicaid programs.

These data were provided to us by DSHS. The FFS claims data were extracted from the State's Medicaid Management Information System ("MMIS"). As discussed earlier, the HO data were extracted from the Comprehensive Hospital Abstract Reporting System ("CHARS") dataset, which is a dataset maintained by the Washington State Department of Health made up of inpatient claims from all payers. The State used a multi-step process for purposes of extracting the HO data from the CHARS data. This process included matching claims identifier fields contained in the CHARS dataset with two separate eligibility files maintained by Medicaid. Navigant Consulting also adjusted the data to merge interim bills into single claim records, and removed any duplicate claims between the FFS and HO datasets.

After completing the extracts of the FFS and HO combined dataset for SFYs 2004 and 2005, the State prepared a data file for each hospital, and sent the data file to the hospital with instructions for the hospital to review and validate the data. A number of hospitals responded to the data, and adjustments were made to the data if necessary before moving forward with our analyses.

Estimating the Costs of the Claims

We estimated the costs of each claim in the claims dataset using a methodology that is very similar to Medicare's cost apportionment methodology. This approach, which is a generally accepted standard in the industry, relies on a process of estimating accommodation (also referred to as routine) and ancillary costs for each claim based on information extracted from Medicare cost reports (Form CMS 2552) applied to detailed line items in the claim records. This process is described in detail in the following paragraphs.

We obtained Medicare cost report data for this process through the Healthcare Cost Report Information System ("HCRIS"), a system maintained by CMS that collects cost report data from virtually every hospital in the country. Using this system, we were able to extract 2004 cost report detail for all hospitals in the State of Washington.

In general terms, we estimated the cost of each claim for three separate components: operating, capital and direct medical education. We estimated the costs of the accommodation services separately from ancillary services for each of those three components. The costs of accommodation services, which comprise the room and board and nursing components of hospital care, are calculated by multiplying the average hospital cost per day reported in the Medicare cost report data for each type of accommodation service (adult and pediatric, intensive care unit, psychiatric, nursery, etc.) by the number of patient days reported in the claim record by type of service. We estimated the costs of ancillary services by multiplying the RCC reported in the Medicare cost report for each type of ancillary service (operating room, recovery room,

radiology, lab, pharmacy, clinic, etc.) by the allowed charges reported in the claim record by type of service.[22]

For purposes of estimating costs consistently for all hospitals' claims, we established standard accommodation and ancillary cost categories. We initially adopted the same standard cost categories used by DSHS during the last Medicaid inpatient rebasing process (referred to as PPS 6), but added several classifications to reflect significant new services provided by the hospitals since that last rebasing. The standard cost categories used for estimating costs of claims for this project are shown in Table 1.

[22] For purposes of our analyses, we completed this process separately for operating, capital and medical education components. We extracted separate accommodation cost per day amounts at the cost category line level related to operating, capital and medical education costs. Similarly, we extracted separate operating, capital and medical education-related RCCs for each ancillary cost category.

Table 1: Standard Cost Categories

Cost Category	Cost Category Description	Cost Category	Cost Category Description
Accommodation Cost Categories:		*Ancillary Cost Categories:*	
AC01	ROUTINE CARE	AN01	OPERATING ROOM
AC02	INTENSIVE CARE	AN02	RECOVERY ROOM
AC03	INTENSIVE CARE-PSYCH	AN03	DELIVERY / LABOR ROOM
AC04	CORONARY CARE	AN04	ANESTHESIOLOGY
AC05	NURSERY	AN05	RADIO, DIAG
AC06	NEONATAL ICU	AN06	RADIO, THERAPEUTIC
AC07	ALCOHOL/SUBSTANCE ABUSE	AN07	RADIOISOTOPE
AC08	PSYCHIATRIC	AN08	LABORATORY
AC09	ONCOLOGY	AN09	BLOOD ADMINISTRATION
AC10	REHAB	AN10	INTRAVENOUS THERAPY
		AN11	RESPIRATORY THERAPY
		AN12	PHYSICAL THERAPY
		AN13	OCCUPATIONAL THERAPY
		AN14	SPEECH PATHOLOGY
		AN15	ELECTROCARDIOGRAPHY
		AN16	ELECTROENCEPHALOGRAPHY
		AN17	MEDICAL SUPPLIES
		AN18	DRUGS
		AN19	RENAL DIALYSIS / HOME DIALYSIS
		AN20	ANCILLARY ONCOLOGY
		AN21	CARDIOLOGY
		AN22	AMBULATORY SURGERY
		AN23	CT SCAN/MRI
		AN24	CLINIC
		AN25	EMERGENCY
		AN26	ULTRASOUND
		AN27	NICU TRANSPORTATION
		AN28	GI LAB
		AN29	MISCELLANEOUS
		AN30	OBSERVATION BEDS

It is important to note that hospitals have some flexibility in how they must report their costs in the Medicare cost report. As such, most hospitals do not use all of these standard cost categories. Further, some hospitals have cost categories that are not included in this standard set, for example, some hospitals may add additional lines to report the costs of MRI or CT Scan services. In these instances, we merged non-standard categories reported by hospitals into one of the standard categories by adding the reported amounts together. As part of this process, we prepared cost category roll-up documentation showing how cost categories were combined, and distributed that roll-up documentation to hospitals for review and approval. The cost category roll-ups were

then modified based on hospital input if necessary. Finally, we calculated the average hospital cost per day for each accommodation category and the RCC for each ancillary category. See Appendix D for the final cost category roll-up documentation.

We applied the average cost per day amounts to the days reported in the claim record based on revenue code. For example, if a claim included routine care days and psychiatric days, the accommodation cost of the routine days were estimated based on the average cost per day for the routine care services category, and the accommodation costs for psychiatric days were estimated based on the average cost per day for the psychiatric services category[23]. Similarly, we applied the ancillary RCCs to the charges in the claim record based on revenue code[24].

For purposes of this process, we developed a standard revenue code crosswalk. This crosswalk, which is included in Appendix E, mapped each covered revenue code from the Washington Medicaid billing instructions, to one of the 40 standard cost categories shown in Table 1. For purposes of this process, we distributed this revenue code crosswalk to all hospitals in the State for validation. We made some facility-specific changes to the crosswalk based on feedback resulting from this validation process.

One significant issue resulting from the review of this crosswalk related to revenue codes 172 and 173, which are for neonatal accommodation services that require care beyond standard nursery care, but at the same time do not require neonatal intensive care. Some hospitals cared for these types of neonatal cases in nursery settings while others cared for these types of services in intermediate settings that were part of intensive care settings. Because of these differences, State staff contacted all hospitals that had neonatal intensive care units or had significant numbers of claims with revenue code 172 and 173 to identify the appropriate mapping for these services. Based on this process, we made facility-specific adjustments to the revenue code crosswalk if necessary.

After estimating the costs on a detail line level for each claim, we adjusted the operating, capital and medical education accommodation costs to take into consideration inflation changes between the cost report period and the claim period. To make this adjustment for SFY 2004 claims, we adjusted accommodation costs for the period between the midpoint of the claims dataset (December 31, 2004) and the midpoint of the cost reporting period (which varied by hospital) using CMS PPS Input Price Index data. Similarly, to make this adjustment for SFY 2005 claims, we adjusted accommodation costs for the period between the midpoint of the claims dataset (December 31, 2005) and the midpoint of the cost reporting period. Finally, we summed the costs estimated for

[23] Ibid

[24] Ibid

each line in the claim record to determine the total claim cost for each claim in the claims dataset.

Calculating Relative Weights

We calculated AP-DRG relative weights based on the estimated costs[25] of all Medicaid FFS and HO claims in the SFY 2004 and 2005 claims dataset for all in-state hospitals[26]. Using the AP-DRG grouper program (version 23), we assigned an AP-DRG classification to each claim. We then removed the following types of claims:

- Claims to be paid based on alternative methods (psychiatric, rehabilitation, detoxification, CUP Program, bariatric surgery cases and organ transplants)
- Transfer-out claims
- Same day discharges
- Claims that were either ungroupable or had invalid diagnoses for AP-DRG classification purposes

At the request of the Advisory Committee, we adjusted the estimated costs of the claims for wage differences before calculating relative weights. We made this adjustment by dividing the labor component[27] of the operating costs of the claim by the published Medicare wage index that was in effect for Medicare at the time of the claim. Also, to make the SFY 2004 and 2005 estimated cost per claim amounts comparable, we inflated the estimated costs of all claims from SFY 2004 to SFY 2005 price levels using the CMS PPS Input Price Index[28].

After these adjustments, we removed statistical outliers. We identified statistical outliers as those claims with estimated costs that exceeded three standard deviations of the mean cost of all claims in each AP-DRG classification. We removed these claims because they were likely to qualify for a separate outlier payment methodology under the proposed system.

At the request of the Advisory Committee, we added back some of the transfer-out claims before proceeding with our tests of statistical stability and relative weight calculations. Oftentimes, transfer-out claims can be essentially full term, with transfers

[25] For purposes of these calculations, we excluded the estimated costs related to the direct medical education component of the claim. We based the relative weight calculations only on the operating and capital cost components of the claim.
[26] Excluding CAH and LTAC hospitals.
[27] The labor component is based on a percentage amount published by Medicare, and used for wage adjustments for the Medicare program.
[28] The operating and capital components were inflated separately using the respective published operating and capital indices.

being made to less critical settings as a convenience to the patient. For example, a burn case from Bellingham may treated at Harborview Medical Center because of their burn unit specialty, but for the less critical convalescent stage, that patient may request transfer to another hospital to be closer to home.

To identify these types of cases, we calculated the average length-of-stay for AP-DRGs after the exclusions described earlier. We added back to the dataset any transfer-out cases that had a length-of-stay that was equal to or greater than the average length-of-stay for the AP-DRG classification.

We then conducted analyses to identify those AP-DRG classifications that had sufficient numbers of claims to calculate stable relative weights. We used a statistical sample size calculation formula to determine the minimum number of claims within each AP-DRG classification needed to make the AP-DRG stable. This formula calculates the required size of a sample population of values necessary to estimate a mean cost value with 90 percent confidence and within an acceptable error of plus or minus 20 percent given the populations estimated standard deviation.

Specifically, this formula is:

$N = (Z^2 * S^2) / R^2$, where

- The Z statistic for 90 percent confidence is 1.64
- S = the standard deviation for the AP-DRG classification, and
- R = acceptable error range, per sampling unit

If the actual number of claims within an AP-DRG classification was less than the calculated N size for that classification, we designated the classification as unstable for purposes of calculating relative weights. Further, we designated any classification with less than 10 claims in total for the two-year period as low-volume, and treated those as unstable as well.

Finally, we calculated relative weights for all stable AP-DRG classifications by dividing the average adjusted cost per discharge for each AP-DRG classification by the average adjusted cost per discharge for all stable AP-DRG classifications combined. We included SFY 2004 and 2005 FFS and HO data for purposes of these relative weight calculations. A schedule showing the proposed calculated relative weights is included in Appendix F.

Calculating Conversion Factors

Based on input from the Advisory Committee, we calculated conversion factors that were generally based on statewide standardized average cost per discharge amounts, which were then adjusted to reflect the unique characteristics of hospitals in the State for payment purposes. To determine statewide standardized cost per discharge amounts, we used the estimated operating and capital costs of the SFY 2005 claims used for the relative weight calculations, which were already adjusted for wage differences. We then made adjustments to the cost amounts for each hospital to factor out differences related to approved medical education programs and differences in facility-specific case mix.

For each in-state acute care hospital[29] we estimated operating and capital costs. We adjusted these costs to remove the indirect costs associated with approved medical education programs[30]. We divided the resulting costs by each hospital's facility-specific case-mix index[31]. We then summed the costs and discharges for all included hospitals, and calculated statewide standardized weighted average cost per discharge amounts.[32] These statewide standardized amounts served as the basis for calculating conversion factors for each hospital.

Once we established the statewide standardized amounts, we calculated facility-specific conversion factors. Starting with the statewide standardized operating amount, we multiplied the labor portion of the amount times the most currently available facility-specific wage index, as published by Medicare[33]. This adjustment was made to reflect wage differences incurred by hospitals in different regions of the State. We also adjusted the operating and capital amounts to reflect the indirect costs associated with approved teaching programs. We adjusted for the indirect costs by multiplying the operating and capital amounts by the most currently available indirect medical education factors[34]. We then added to the operating and capital amounts the facility-

[29] Excluding CAH and LTAC hospitals.

[30] We removed indirect costs of medical education programs by dividing the costs by Medicare's published indirect medical education factor in effect in 2004. Medicare publishes separate indirect medical education factors for operating and capital components, so these adjustments were made separately for both of these components. These factors are intended to reflect the indirect costs incurred by hospitals in support of approved graduate medical education programs.

[31] The case mix index was calculated for each hospital by summing all relative weights for all claims in the dataset, and dividing the sum of the relative weights by the number of claims. That amount represents the relative acuity of the claims.

[32] Weighted based on number of discharges.

[33] The wage index used for this purpose was effective for Medicare on October 1, 2006.

[34] For this purpose, we used the indirect medical education factor used by Medicare effective for October 1, 2006.

specific direct medical education cost per discharge (facility-specific direct medical education cost per discharge adjusted for facility-specific case-mix index).

Finally, we adjusted the facility-specific combined operating, capital and direct medical education cost per discharge amounts to reflect increases in inflation between SFY 2005 and 2008 using the CMS PPS Input Price Index[35].

See Appendix G for schedules that show these calculations in detail by hospital.

Calculating Per Diem Rates for Unstable Relative Weight Classifications

We established per diem rates for unstable AP-DRG claims that were generally based on statewide standardized average cost per day amounts, which were then adjusted to reflect the unique characteristic of hospitals in the State for payment purposes. We calculated per diem rates for the four separate groupings described previously, which were:

- Neonatal claims, based on assignment to MDC 15,
- Burn claims based on assignment to MDC 22
- AP-DRG assignments that include primarily medical procedures, excluding any neonatal or burn classifications identified above, and
- AP-DRG assignments that include primarily surgical procedures, excluding any neonatal or burn classifications identified above.

To determine statewide standardized cost per day amounts, we used the estimated costs of the SFY 2005 claims used for the relative weight sample size analysis described earlier.[36] We then made adjustments to the cost amounts for each hospital to factor out differences related to approved medical education programs.

For each in-state acute care hospital[37] we estimated operating and capital costs for each of the four groupings. We adjusted these costs to remove the indirect costs associated with approved medical education programs[38]. We then summed the costs and days for

[35] For purposes of this adjustment, we applied the operating index to the operating and direct medical education components of the conversion factor, and the capital-related index to the capital component of the conversion factor.

[36] As part of this process, we added back the claims that had been initially excluded as statistical outliers for evaluating the stability of relative weights. We then identified and removed claims with cost per day exceeding three standard deviations above the weighted average cost per day of each payment grouping.

[37] Excluding CAH and LTAC hospitals.

[38] We removed indirect costs of medical education programs by dividing the costs by Medicare's published indirect medical education factor in effect in 2004. Medicare publishes separate indirect medical education factors for operating and capital components, so these adjustments

all included hospitals for each grouping except for burn cases, and calculated each grouping's statewide standardized weighted average cost per day amounts.[39] These statewide standardized amounts served as the basis for calculating per diem rates for each hospital for each grouping. For burn cases, the standardized amounts were based on the average operating and capital cost per day for Harborview Medical Center, which had the vast majority of the burn cases in the State.

Once we established the statewide standardized amounts, we calculated facility-specific per diem rates for each grouping. Starting with the statewide standardized operating amount, we multiplied the labor portion of the amount times the most currently available facility-specific wage index, as published by Medicare. This adjustment was made to reflect wage differences incurred by hospitals in different regions of the State. We also adjusted the operating and capital amounts to reflect the indirect costs associated with approved teaching programs. We adjusted for the indirect costs by multiplying the operating and capital amounts by the most currently available indirect medical education factors. We then added to the operating and capital amounts the facility-specific direct medical education cost per day (facility-specific direct medical education cost per day adjusted for facility-specific case-mix index).

Finally, we adjusted the facility-specific combined operating, capital and medical education cost per day amounts to reflect increases in inflation between SFY 2005 and 2008 using the CMS PPS Input Price Index[40].

See Appendix H for schedules that show these calculations for each per diem rate category by hospital.

Calculating Per Diem Rates for Specialty Cases

With the exception of psychiatric services and services provided in freestanding rehabilitation hospitals, we established per diem rates for specialty services that were generally based on statewide standardized average cost per day amounts, which were then adjusted to reflect the unique characteristic of hospitals in the State for payment purposes. We calculated statewide standardized per diem rates for the following categories:

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were made separately for both of these components. These factors are intended to reflect the indirect costs incurred by hospitals in support of approved graduate medical education programs.

[39] Weighted based on number of days.

[40] For purposes of this adjustment, we applied the operating index to the operating and direct medical education components of the per diem rate, and the capital-related index to the capital component of the per diem rate.

- **Rehabilitation Services.** Rehabilitation claims are identified as all claims with a rehabilitation diagnosis (i.e., assigned to a rehabilitation AP-DRG classification) at acute care hospitals.
- **Detoxification Services.** Detoxification claims are identified as all claims from free-standing detoxification hospitals, and all claims with a detoxification diagnosis (i.e., assigned to a detoxification AP-DRG classification) at acute care hospitals.
- **CUP Program Services.** CUP Program services are identified as any claims with units of service (days) submitted to revenue code 129 in the claim record.

We calculated facility-specific per diem rates for all Medicaid services provided by free-standing rehabilitation hospitals, free-standing psychiatric hospitals, and all psychiatric services provided by acute care hospitals, including distinct part units. We describe the process for calculating facility-specific psychiatric and freestanding rehabilitation hospital rates later in this section.

To determine statewide standardized cost per day amounts for rehabilitation, detoxification and CUP Program services, we used the estimated costs of the claims identified for each category based on the above criteria. These claims did not exclude any statistical outliers. We then made adjustments to the cost amounts for each hospital to factor out differences related to approved medical education programs.

For each in-state acute care hospital[41] we estimated operating and capital costs for each of the three specialty services. We then adjusted these costs to remove the indirect costs associated with approved medical education programs[42]. We then summed the costs and days for all included hospitals for each service, and calculated each services' statewide standardized weighted average cost per day amounts.[43] These statewide standardized amounts served as the basis for calculating per diem rates for each hospital for each service.

Once we established the statewide standardized amounts, we calculated facility-specific per diem rates for each specialty service. Starting with the statewide standardized operating amount, we multiplied the labor portion of the amount times the most

[41] Excluding CAH and LTAC hospitals.
[42] We removed indirect costs of medical education programs by dividing the costs by Medicare's published indirect medical education factor in effect in 2004. Medicare publishes separate indirect medical education factors for operating and capital components, so these adjustments were made separately for both of these components. These factors are intended to reflect the indirect costs incurred by hospitals in support of approved graduate medical education programs.
[43] Weighted based on number of days.

currently available facility-specific wage index, as published by Medicare. This adjustment was made to reflect wage differences incurred by hospitals in different regions of the State. We also adjusted the operating and capital amounts to reflect the indirect costs associated with approved teaching programs. We adjusted for the indirect costs by multiplying the operating and capital amounts by the most currently available indirect medical education factors. We then added to the operating and capital amounts the facility-specific direct medical education cost per day (facility-specific direct medical education cost per day adjusted for facility-specific case-mix index).

Finally, we adjusted the facility-specific combined operating, capital and medical education cost per day amounts to reflect increases in inflation between SFY 2005 and 2008 using the CMS PPS Input Price Index[44].

See Appendix I for schedules that show these calculations of the per diem rate for each specialty service by hospital.

As described earlier, we established facility-specific per diem rates for psychiatric services provided by in-state non-critical access hospitals that meet the following criteria:

- Free-standing psychiatric hospitals
- Acute care hospitals with psychiatric distinct part units
- Other acute care hospitals with more than 200 Medicaid FFS and HO psychiatric patient days in SFY 2005

We identified psychiatric claims for hospitals meeting the above criteria as all claims from free-standing psychiatric hospitals, and all claims with a psychiatric diagnosis (i.e., assigned to a psychiatric AP-DRG classification) at the acute care hospitals. We included all claims from freestanding psychiatric hospitals, regardless of AP-DRG assignment.

To determine facility-specific cost per day amounts for psychiatric services, we used the estimated costs of the psychiatric claims in the SFY 2005 claims dataset. These claims did not exclude any statistical outliers. We calculated average cost per day amounts for each hospital and then made adjustments to the average cost per day amounts to reflect changes in the indirect medical education factor and facility-specific wage index between 2004 and the current period. Finally, we adjusted the facility-specific combined

[44] For purposes of this adjustment, we applied the operating index to the operating and direct medical education components of the per diem rate, and the capital-related index to the capital component of the per diem rate.

operating, capital and medical education cost per day amounts to reflect increases in inflation between SFY 2005 and 2008 using the CMS PPS Input Price Index[45].

For hospitals not meeting the above criteria, we calculated per diem rates using the same method used for rehabilitation, detoxification and CUP Program payments described above, except that we used only the psychiatric claims from those facilities identified as qualifying for facility-specific rates, as described above.

For freestanding rehabilitation facilities, we calculated the facility-specific rate using essentially the same method described earlier for freestanding psychiatric facilities.

See Appendix J for schedules that show these calculations of the per diem rate for psychiatric services for each hospital.

Calculating Case Rates for Bariatric Surgery Services

Bariatric surgery services are defined by the State as procedure codes 4431, 4438, 4439, 4468, or 4495. These services are only allowable for University of Washington Medical Center, Sacred Heart Medical Centers or Oregon Health & Science University.

For both qualifying in-state hospitals we estimated operating and capital costs based on the above criteria.[46] We then adjusted these costs to remove the indirect costs associated with approved medical education programs. We then summed the costs and discharges for both hospitals, and calculated statewide standardized weighted average cost per case amounts. These statewide standardized amounts served as the basis for calculating per case rates.

Once we established the statewide standardized amounts, we calculated the operating and capital components of the per case payment rate. Starting with the statewide standardized operating amount, we multiplied the labor portion of the amount times the most currently available facility-specific wage index, as published by Medicare. This adjustment was made to reflect wage differences incurred by hospitals in different regions of the State. We also adjusted the operating and capital amounts to reflect the indirect costs associated with approved teaching programs. We adjusted for the indirect

[45] For purposes of this adjustment, we applied the operating index to the operating and direct medical education components of the per diem rate, and the capital-related index to the capital component of the per diem rate.

[46] Since Oregon Health & Science University is out of state, their claims were not included when calculating the bariatric payment rate.

costs by multiplying the operating and capital amounts by the most currently available indirect medical education factors[47].

We calculated the simple average of the operating and capital amounts between the two providers to determine statewide operating and capital components of the payment rate. We then added to the operating and capital components to the facility-specific direct medical education cost per case. Finally, we adjusted the combined operating, capital and medical education payment components to reflect increases in inflation between SFY 2005 and 2008 using the CMS PPS Input Price Index[48].

See Appendix K for schedules that show these calculations in detail by hospital.

Impact Modeling

We conducted significant impact modeling for this project. The impact modeling process informed the methodology development in a number of ways. First, our modeling process allowed us to compare proposed payments under the new methodology to what payments would have been if the existing methodology were to have remained in place, by hospital and in the aggregate. It also provided information comparing projected payments to estimated costs of claims, by hospital and in the aggregate.

We also used the impact modeling process to adjust the conversion factors and rates described earlier. One of our mandates from the State related to this project was that the proposed methodology and related rates and rate components had to result in projected payments that were budget neutral. In other words, payments under the proposed system must be equal to payment under current system if it were retained.

Through the use of this impact modeling process, we were able identify necessary adjustments to conversion factors, per diem rates, case rates and other rate components so that resulting projected payments achieved the desired budget neutrality.

We designed our fiscal impact model so that, on a claim by claim basis, we could project the payment under the proposed methodology, and compare that payment to estimated costs and estimated payments under the existing system. We conducted all impact analyses using SFY 2005 Medicaid FFS only claims for in-state acute hospitals[49]. We excluded HO data from our fiscal impact model because it was not possible to know

[47] For this purpose, we used the indirect medical education factor used by Medicare effective for October 1, 2006.

[48] For purposes of this adjustment, we applied the operating index to the operating and direct medical education components of the conversion factor, and the capital-related index to the capital component of the conversion factor.

[49] Excluding CAH and LTAC hospitals

what the payments were to hospitals for HO services from the managed care plans[50]. It should also be noted that claims excluded as statistical outliers for rate and relative weight calculation purposes were added back to the claims dataset for purposes of conducting our impact analyses.

For purposes of fiscal impact modeling, the calculated payments under the proposed payment methodology incorporated all of the proposed methodology features, including:

- DRG-based payments for stable AP-DRG classifications
- Per diem-based payments for unstable AP-DRG classifications and specialty cases
- Per case payments for bariatric surgery cases
- RCC-based payments for organ transplant services
- Identification of and payment for outliers for qualifying DRG-based and per diem-based claims
- Transfer-out claims

Our impact model calculated the proposed total allowed Medicaid payment for each claim, using virtually the same claim pricing logic that will be used by DSHS' MMIS for claims processing effective July 1, 2007. In addition to calculating the proposed total allowed Medicaid payment, the impact model also reports the estimated costs for the claim using the cost estimation method described earlier, and also captures the total allowed Medicaid payment under the current payment methodology, which is present in every claim record.

To analyze projected payments, current payments and estimated costs for SFY 2008, which will be the first year for which the proposed system will be effective, we made the following assumptions and adjustments:

- We increased payments under the current methodology, as reported in the impact model claims dataset (SFY 2005 FFS in-state acute hospital claims[51]), by 6.12 percent per year, which represents a compounded increase of 19.5 percent between SFY 2005 and SFY 2008 (a three-year period). This percentage is based on the Project Team and DSHS review of historical increases in Medicaid payments per discharge from prior periods. Adjusting for this increase was necessary because estimated payments under the

[50] The State can identify payments made to the managed care plans, but amounts paid to hospitals by the managed care plans are based on contractual arrangements between the providers and plans, and may differ from payments made under the FFS system.
[51] Excluding CAH and LTAC hospitals.

current system in SFY 2008 are the basis for establishing the total pool of funding available for budget neutrality purposes.

- We increased claim charges in the impact model claims dataset by 8 percent per year, which represents a compounded increase of 26 percent between SFY 2005 and SFY 2008. This percentage is based on the Project Team and DSHS review of historical increases in Medicaid allowed charges per discharge from prior periods. Reflecting this increase was necessary because outlier and organ transplant claim payments are dependent on what charges would be in SFY 2008.
- We increased costs based on projections extracted from the CMS PPS Input Price Index. We increased operating and direct medical education components of costs by 11.2 percent, and capital-related costs by 2.8 percent for the period from SFY 2005 to SFY 2008. This adjustment was necessary to understand the estimated costs of the claims in the impact model dataset at SFY 2008 price levels.

By estimating the payments (under both the proposed and current systems) and costs on at the claim level, we were able to conduct various analyses to understand the fiscal impacts of the proposed changes on specific sets or subsets of services.

Budget Neutrality Adjustments

Finally, we made adjustments to the conversion factors, per diem rates and per case rates so that the proposed methodology met the budget neutrality requirements of the project. Under this requirement, projected payments under the proposed payment methodology were to be equal to estimated payments under the current payment methodology.

To achieve budget neutrality, and to provide for equity of payment across service types, we adjusted the conversion factors, per diem rates and per case rates so that the projected payments as a percentage of estimated costs was approximately the same for each of the major service categories, while at the same time, proposed payments in the aggregate were equal to estimated payments under the current system. This was accomplished through the use of percentage adjustments to the rates in each of the following service categories:

- DRG-based payment conversion factors
- Unstable neonatal per diem rates
- Unstable burn per diem rates
- Unstable medical per diem rates
- Unstable surgical per diem rates

- Psychiatric per diem rates
- Rehabilitation per diem rates
- Detoxification per diem rates
- CUP Program per diem rates
- Bariatric surgery per case rates

We estimated that the percentage of projected payments under the current system to estimated costs, in the aggregate, is approximately 95 percent. As such, we adjusted the calculated conversion factors, per diem rates and per case rates for each category, before any budget neutrality adjustment, using a percentage for each category so that projected payments as a percentage of estimated costs was equal to approximately 95 percent within each category. We applied a separate percentage adjustment to the rates for each category to achieve the 95 percent target, and that percentage for each category was applied to all hospital's rates within that category.

See Appendix L for analyses summarizing the results of our impact modeling process.

SECTION 4: DATA CONSIDERATIONS

It is our understanding that the proposed payment methodology will be implemented for payment of claims effective July 1, 2007. The impact model, which we used to establish proposed rates and develop other rate components, was developed using in-state Medicaid FFS inpatient hospital paid claims data[52]. These data, while we believe to be a reasonable proxy for the characteristics of the claims to be paid during SFY 2008, are three years removed from that period. While we have made numerous assumptions and adjustments to those data (adjustments to estimated costs, charges and projected payments under the current system), actual claims characteristics in SFY 2008 may be different.

It is also important to understand that the adjustments made to the data to reflect expected increases in charges and payments under the current system were based on a review of trends from prior periods. Historical trends are affected by many factors, the effects of which are not possible to predict or project to future periods.

Finally, the inflation factors used to project cost estimates for SFY 2008 are based on input price factors developed for the Medicare program. The Project Team and DSHS believe that these inflation factors are the best available indicators of increases in costs incurred by hospitals, and that they represent the standard for this type of analysis in the industry. At the same time, the Advisory Committee strongly believes that these factors underestimate actual increases in costs. On this issue, the Project Team and DSHS have agreed to disagree with the Advisory Committee.

[52] Excluding CAH and LTAC hospitals.

SECTION 5: REVIEW OF CERTIFIED PUBLIC EXPENDITURE PROGRAM

As part of Phase 2 of this project, DSHS also asked NCI to review the CPE Program that DSHS developed and implemented in 2005. This section describes the results of this review.

DSHS developed and implemented a CPE program in 2005 to replace the State's IGT program that formerly netted $80 million in revenue to the State[53]. The 2005-2007 Biennial Operating Budget that authorizes the State to make hospital payments according to the CPE program methodology includes a hold harmless provision for hospitals participating in the CPE program. Under this hold harmless provision, the State must pay each hospital at least as much as the hospital would have received under the payment methodology in place in SFY 2005. A hospital's total amount of payment from the combination of the RCC-based payment methodology, the DRG-based payment methodology, the selective contracting program, and any other methodologies in place in SFY 2005 (including payments through the former IGT program) is designated as the "baseline".

The State claims federal matching funds on CPE hospitals' costs incurred in providing services to Medicaid recipients as Medicaid Program expenditures, and for uncompensated care costs as Disproportionate Share Hospital ("DSH") payment expenditures. Because the State's claim for federal matching funds is limited to hospitals' available CPEs or costs, any payments the State makes to hospitals in excess of their costs must be funded entirely with State grants, for which no federal matching funds are available.

The CPE program was designed to generate additional net revenue for the State, similar to the former IGT program The CPE program design was based on the assumption that under the combination of payment methodologies in place in SFY 2005, the State was paying each hospital less than its Medicaid and uncompensated care costs, so that the State could make cash payments to CPE hospitals equal to the federal matching funding it received, make hold harmless payments as necessary with state grants, and still realize a net revenue gain.

Preliminary analysis now suggests that some hospitals' baseline payments may comprise a greater proportion of, and perhaps exceed, their costs as defined by the methodology approved by CMS for finally determining hospitals' CPEs eligible for federal matching funds. The likely reason for this is the current prospective RCC-based payment methodology that DSHS uses to pay significant proportions of hospitals'

[53] Washington State Certified Public Expenditures Program, Operations Manual 2005 – 2007 Biennium, Medical Assistance Administration, October 3, 2005.

services. As described in our Phase 1 report, this methodology determines payment by applying an RCC from a prior period's cost report to current period charges in claims submitted by hospitals. Based on recent trends in hospitals' charges and costs, this mismatch in time periods from which RCCs and charges are drawn may result in baseline payments to hospitals for RCC-based services that exceed hospitals' actual current year costs for those services. In other words, the baseline payments for some hospitals are a greater percentage of their costs (and possibly greater than their costs) than projected. This in turn means that the hold harmless payments the State is required to make to hospitals, which are not made from federal matching funds, will continue to grow. As a result, the CPE program is yielding a smaller net revenue gain for the State than was originally projected.

Furthermore, the State's net revenue gain erodes each time DSHS updates its projections of hospitals' CPEs eligible for federal matching funds and the amounts it must pay to hospitals' in hold harmless payments. CMS will require a reconciliation of the CPEs that DSHS is claiming for federal matching for SFY 2006 with hospitals' actual 2006 costs as defined by a CMS-approved methodology when hospitals' 2006 cost report are available. If the amount that DSHS has claimed exceeds hospitals' costs, as analysis now suggests may be the case, the State will have to refund the excess to the federal government. However, there is no corresponding adjustment or reconciliation of hospitals' baseline payments with their actual costs, so an increasing portion of DSHS' payments to hospitals will come from State-only hold harmless dollars.

The factors that may result in a higher than expected final reconciliation refund for SFY 2006 and beyond include the mismatch in time periods for hospitals' RCCs and their charges, as noted earlier, as well as two recent changes in CMS' determination of allowable CPEs. First, CMS is now requiring states with CPE programs to determine hospitals' CPEs eligible for federal matching funding based on a more detailed cost apportionment methodology, which is similar to the methodology used for Critical Access Hospitals. This cost apportionment methodology may result in lower CPEs eligible for federal matching funds for some hospitals than projected by on the State's current cost apportionment methodology.

Second, CMS is now more closely scrutinizing the uninsured costs that states use to determine and make DSH payments. CMS' heightened scrutiny is not limited to states that are using CPE funding mechanisms. CMS published proposed DSH reporting and auditing regulations in August 2005 that will affect all states and hospitals when the regulations are published as final. Some states are already directing hospitals to alter their reporting of uninsured costs consistent with CMS' proposed regulations. In the meantime, CMS is requiring states with CPE programs to adhere to a certain protocol in determining uninsured costs and CPEs eligible for federal matching funds, which may result in a lower amount of available CPEs than the level previously projected.

Regardless of the methodology for determining uninsured CPEs eligible for federal matching funds, if the upward trend in hospitals' uninsured costs continues, those costs will exceed the amount of State's DSH Allotment in the near future. Therefore, if the State is to pay certain safety net hospitals for all of their uninsured care costs, an increasing portion of such payments will have to come from state-only funds.

Certified Public Expenditures as a Funding Mechanism

The benefit of using the CPE mechanism as a replacement for the IGT is that it enables the State to claim federal matching funds on expenditures that involve no cash outlay by the State. This is because the expenditures of another governmental unit are used as the State's share. In this way the CPE mechanism achieves the same results as an IGT.

Setting aside the issue of the hold harmless payments, if the current CPE mechanism is to achieve the same level of net revenue as the former IGT, the relationship between the amount DSHS claims for federal match and the amount it makes in cash payments to participating public hospitals must be similar. If there is no difference between the amount DSHS pays to hospitals and their costs, there is no advantage in using the CPE mechanism because claiming federal match on the basis of the payments would generate the same level of federal matching funds as claiming on the basis of the public hospitals' costs.

The CPE mechanism involves a significant level of administrative burden; accounting for and claiming interim CPEs for federal match, and a two-step process for reconciling them to final CPEs – once based on hospitals' as-filed costs reports and again based on audited cost reports – according to CMS' required cost finding methodology. Thus, DSHS must consider this administrative burden in evaluating the financial benefits of CPE mechanism.

Methodologies for Calculating Hospitals' Baseline and Hold Harmless Payments

As noted above, the CPE mechanism involves a significant level of administrative burden for DSHS and the hold harmless payment provision adds to that administrative burden. DSHS' methodologies for calculating hospitals' baseline and hold harmless payments are complex and as such, the calculations are not readily transparent. We reviewed these methodologies to assess whether they are reasonable and appropriate.

Calculation of Baseline Payments

Based on our review, we think that DSHS' methodology for calculating hospitals' baseline payments is reasonable. The methodology uses SFY 2004 payments for most types of payments as the baseline payments and adjusts them by a forecasted increase that is based on the following factors:

- Projected changes in DSHS' caseload
- Projected changes in hospital utilization per recipient
- Mandated payment increases (vendor rate increases, or VRI)

DSHS' methodology then adds supplemental and some types of DSH payments from SFY 2005 to the above payments to obtain the amount of total payment each hospital would have received under the former payment system.

Calculation of Payments under CPE Program

Likewise, we think that DSHS' methodology for calculating hospitals' projected payments under the CPE program is reasonable. The methodology begins by projecting hospitals' costs using hospitals' Medicaid, State Children's Health Program (Title XXI) and other federal and State program charges from SFY 2004 claims and converting them to costs using the hospitals RCCs from their most recent available cost reports. DSHS adjusts these costs by a factor that is a composite of the following factors:

- Projected changes in DSHS' caseload
- Projected changes in hospital utilization per recipient
- Project changes in the CPI-Hospital Inpatient and Outpatient Services component

DSHS then adds to the above costs, hospital-reported charity care costs and bad debts, adjusted for projected changes in the CPI-Hospital Inpatient and Outpatient Services component to obtain projected total costs or CPEs claimable for federal match.

Finally, DSHS calculates the portion of these projected total costs or CPEs that hospitals receive in cash payments under the CPE program. For example, hospitals receive the federal share of their estimated Medicaid inpatient hospital costs or CPEs.

Calculation of Hold Harmless Payments

DSHS compares each hospital's projected payment under the CPE program with its projected baseline payment. If a hospital's calculated baseline payment is more than its projected payments under the CPE program, the difference is its hold harmless payment.

Issues Related to Baseline and Hold Harmless Payments

There are some payments that were built into the baseline on which the hold harmless payments are calculated that do not represent ongoing payment level amounts. First, built into the baseline are payment levels the hospitals received for one year of a special two-year CMS provision. Under this two-year provision, states' were allowed to pay public hospitals up to 175 percent of their Medicaid and uninsured costs. While the portion of this total payment that the hospitals retained after transferring the remainder to HRSA through the IGT is small, the amount of retention would have been smaller in any year other than SFYs 2004 and 2005, the two years to which the special 175 percent CMS provision applied. Including these enhanced payments in the baseline payment for subsequent years' hold harmless calculations does not take into consideration subsequent changes that were known at the time the CPE program was implemented.

Second, the charity care costs and bad debts that some hospitals reported in the past may have overstated the uninsured costs as defined by the methodology approved by CMS for finally determining hospitals' CPEs eligible for federal matching funds. This means that for some hospitals, the amount of uninsured costs for which the State can claim federal match appears to be lower than the hospital-reported costs that DSHS has used in the past as the basis for DSH payments to hospitals, and is built into the baseline payments.

Changes in Inpatient Payment Methodology for All Other Hospitals – Implications for Baseline Calculation

Our proposed inpatient payment methodology eliminates the use of the RCC-based payment methodology in most instances. If DSHS accepts and implements our recommendations for the current payment system for non-CPE hospitals, it may no longer be appropriate to continue to calculate CPE hospitals' baseline and hold harmless amounts under predecessor system.

Recommendations for the Certified Public Expenditure Program

DSHS will have a better understanding of the impact of continuing or discontinuing the CPE program after it finalizes the modifications to the inpatient prospective payment system and analyzes their impact. Recognizing that that the State's net revenue gain from the CPE program is eroding, this will be the appropriate time to evaluate the State's options for funding public hospitals' payments for the future. The available options are limited:

- Eliminate the CPE program for all or a portion of the hospitals currently participating

- Retain a CPE program for DSH only for all or a portion of the hospitals currently participating

With either of these options, if the State wants to continue paying public hospitals at the levels they are currently receiving, DSHS' annual appropriation will have to continue to grow. The Legislature could grant an appropriation to DSHS each year to fund such payments. To the extent that such payments exceed hospitals' allowable costs as defined by CMS, the State would receive no federal matching funds.

We recommend the following:

- Assess the impact of eliminating the CPE program for all or a portion of the hospitals currently participating, i.e., DSHS would pay public hospitals under the same methodologies planned for all other hospitals and propose a grant program to maintain the public hospitals' current payments levels

- Assess the impact of retaining the CPE program for DSH payments only for all or a portion of the hospitals currently participating

- Explore ways to streamline the administrative processes associated with the CPE program, if retained

CONCLUSION

We believe that the proposed system described in this report provides for equitable payments of services across the State, within the constraints set by budget neutrality requirements of the project. It also accomplishes one of the primary objectives identified during Phase 1 of the project, to make the system more prospective in nature. The recommended prospective approaches, where payments for services are determined in advance, will make payments to providers more predictable in future periods. We believe that the proposed changes represent significant improvements over the current payment methodology.

Development of the methodology was significantly enhanced through input from providers represented by Advisory Committee in what was a very constructive process. The Project Team and DSHS also considered throughout the process the guiding principles provided by the WSHA Task Force.