DEPARTMENT OF HEALTH & HUMAN SERVICES
Centers for Medicare & Medicaid Services
7500 Security Boulevard, Mail Stop S3-13-15
Baltimore, Maryland 21244-1850

CMS
CENTERS for MEDICARE & MEDICAID SERVICES

Center for Medicaid and State Operations

Paul Reinhart, Director
Medical Services Administration
Department of Community Health
400 South Pine
Lansing, MI 48933

SEP 20 2005

RE: Michigan State Plan Amendment (SPA) 05-10

Dear Mr. Reinhart:

We have reviewed the proposed amendment to Attachment 4.19-A of your Medicaid State plan submitted under transmittal number (TN) 05-10. This amendment revises the rate of reimbursement for inpatient hospital services. Specifically, this amendment updates the diagnosis related group (DRG) grouper, adds a budget neutrality factor, and revises the cost adjustor calculation for the direct care component. This amendment results in a $0 Federal budget impact, and payments in the aggregate will not be impacted.

We conducted our review of your submittal according to the statutory requirements at sections 1902(a)(2), 1902(a)(13), 1902(a)(30), 1903(a) and 1923 of the Social Security Act (the Act) and the regulations at 42 CFR 447 Subpart C. We are pleased to inform you that Medicaid State plan amendment TN #05-09 is approved effective April 1, 2005. We are enclosing the HCFA-179 and the amended plan pages.

If you have any questions regarding inpatient hospital reimbursement, please call Jonas Eberly at (410) 786-6232.

Sincerely,

Bill Lawrence

Dennis G. Smith
Director

Enclosures

DEPARTMENT OF HEALTH AND HUMAN SERVICES
HEALTHCARE FINANCING ADMINISTRATION

FORM APPROVED
OMB NO. 0938-0193

TRANSMITTAL AND NOTICE OF APPROVAL OF STATE PLAN MATERIAL

FOR: HEALTH CARE FINANCING ADMINISTRATION

1. TRANSMITTAL NUMBER: 05 - 10

2. STATE: Michigan

3. PROGRAM IDENTIFICATION: TITLE XIX OF THE SOCIAL SECURITY ACT (MEDICAID)

TO: REGIONAL ADMINISTRATOR
HEALTH FINANCING ADMINISTRATION
DEPARTMENT OF HUMAN SERVICES

4. PROPOSED EFFECTIVE DATE
April 1, 2005

5. TYPE OF PLAN MATERIAL *(Check One)*:

☐ NEW STATE PLAN ☐ AMENDMENT TO BE CONSIDERED AS NEW PLAN ☒ AMENDMENT

COMPLETE BLOCKS 6 THRU 10 IF THIS IS AN AMENDMENT *(Separate Transmittal for each amendment)*

6. FEDERAL STATUTE/REGULATION CITATION:
42 CFR 447.252(b)

7. FEDERAL BUDGET IMPACT:
a. FFY 05 $ -0-
b. FFY 06 $ -0-

8. PAGE NUMBER OF THE PLAN SECTION OR ATTACHMENT:
Attachment 4.19-A pages 4 ~~thru 20~~ and Appendix A

9. PAGE NUMBER OF THE SUPERSEDED PLAN SECTION OR ATTACHMENT *(If Applicable)*:
Attachment 4.19-A pages 4 thru 20 and Appendix A

10. SUBJECT OF AMENDMENT:
Hospital DRG Rebasing

11. GOVERNOR'S REVIEW *(Check One)*:

☐ GOVERNOR'S OFFICE REPORTED NO COMMENT
☐ COMMENTS OF GOVERNOR'S OFFICE ENCLOSED
☐ NO REPLY RECEIVED WITHIN 45 DAYS OF SUBMITTAL
☒ OTHER, AS SPECIFIED:
Paul Reinhart, Director
Medical Services Administration

12. SIGNATURE OF STATE AGENCY OFFICIAL:
Paul Reinhart

13. TYPED NAME:
Paul Reinhart

14. TITLE:
Director, Medical Services Administration

15. DATE SUBMITTED:
June 29, 2005

16. RETURN TO:

Medical Services Administration
Program/Eligibility Policy Division - Federal Liaison Unit
Capitol Commons Center - 7th Floor
400 South Pine
Lansing, Michigan 48933

Attn: Nancy Bishop

FOR REGIONAL OFFICE USE ONLY

17. DATE RECEIVED:

18 DATE APPROVED:
9-20-05

PLAN APPROVED – ONE COPY ATTACHED

19. EFFECTIVE DATE OF APPROVED MATERIAL:
APR 1 2005

20. SIGNATURE OF REGIONAL OFFICIAL:
Bill Lasowski FL DS

21. TYPE NAME:
William Lasowski

22. TITLE:
Acting Deputy Director, CMSO

23. REMARKS:

JUN 30 2005

DMCH - IL/IN/OH

FORM HCFA-179(07-92)

Instructions on Back

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(Relative Weight x DRG Price) + Outlier Payment

Each inpatient hospital claim is assigned to a DRG using the same DRG grouper version used to establish the relative weights.

A. Relative Weight:

A state wide relative weight is assigned to each DRG. The statewide relative weights are calculated using Medicaid and Children's Special Health Care Services Program inpatient paid claims for admissions during three consecutive state fiscal years and hospital specific cost report data drawn from three consecutive cost report years used to establish the relative weights.

The claim file was adjusted to:

1. Combine multiple billings for the same episode of service, including:

   a. Invoices from a single episode of service billed as a transfer from a hospital and an admission to the same hospital caused by a change of ownership and issuance of a new Medicaid ID number,

   b. Invoices for a single episode of service billed as a transfer from a hospital and an admission to a hospital created from a merger of two or more hospitals and the assignment of patient bills from multiple hospitals to a single Medicaid ID number.

2. Eliminate episodes with any Medicare charges (For dual Medicare/Medicaid eligible beneficiaries, only claims paid a full Medicaid DRG are included);

3. Eliminate episodes assigned to DRGs reimbursed by multiplying a hospital's inpatient operating cost to charge ration by charges;

4. Eliminate episodes without any charges or days;

5. Assign alternate weights for neonatal services. Two sets of weights are calculated for six (6) DRG classifications representing neonatal services (385-390). One set of weights is identified as "alternate weights" (385.1, 386.1, 387.1, 388.1, 389.1 and 390.1). These alternate weights are calculated from episodes that are assigned to one of these DRGs and include charges for services in an intensive care unit of one of the hospitals designated as having a neonatal intensive care unit (NICU). The remaining claims assigned to these DRGs are used for the other set of weights.

   In order to receive the alternate weights, a hospital must have a Certificate of Need (CON) to operate a NICU or a special newborn nursery unit (SNNU) or the hospital must have previously received alternate weight reimbursement by Medicaid for its SNNU.

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6. Limit episodes to those from Michigan hospitals, including hospitals that are no longer in operation (provided that hospital cost report data are available);

7. Limit episodes to those with a valid patient status (incomplete episodes are excluded as are additional pages of multiple page claims where there is no initial claim containing a valid patient status);

8. Eliminate episodes with a zero dollar Medicaid liability;

9. Eliminate episodes where the beneficiary was enrolled in a Michigan Medicaid clinic plan.

10. Determine the 3rd and 97th percentile length of stays by DRG, the average length of stay, and the maximum length of stay.

    a. Set the low day outlier threshold at the greater of one day or the 3rd percentile length of stay.

    b. Set the high day outlier threshold at the lesser of the average length of stay plus 30 days or the 97th percentile length of stay.

    c. If the DRG has less that an adequate number of episodes (currently 32), the low day threshold will be set at the lesser of the average length of stay plus 30 days, the maximum length of stay, or the Medicare DRG 90th percentile length of stay (from the corresponding Grouper as published in the Federal Register). If the Medicare DRG also has an inadequate number of claims, then the threshold is set based upon the expert advice of the MSA's medical staff.

11. Eliminate low day outliers (Low day outliers are those episodes whose length of stay are less than the published low day threshold for each DRG. Since low day outliers are paid under a percent of charge method using the hospital's cost to charge ratio times charges, and do not receive a DRG payment, they are excluded from the weight calculations);

12. Calculate the arithmetic mean length of stay for each DRG with each episode's length of stay limited to the high day threshold set above. This services as the final published average length of stay.

13. Limit episodes ending in a transfer to another acute setting to those whose length of stay was at least equal to the published average length of stay for the DRG (for DRGs 385 and 385.1 all transfers are included);

14. Bring all charges for admissions in the first and second years of the base period up to third year charges through application of inflation and weighting factors;

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15. Recognize area cost differences by dividing the charges for each hospital by an area cost adjustor factor. Hospitals are grouped by U.S. Census Core Based Statistical Areas (CBSAs) as determined by the Centers for Medicare and Medicaid Services for the Medicare program for wage data. Hospital geographic reclassifications made under Section 508 of the Medicare Prescription Drug Improvement and Modernization Act of 2003 will not be used to calculate the Medicaid area wage index. Each area cost adjustor is calculated as follows:

    a. Cost Adjustor = 0.71066 x Wage Adjustor + 0.28934

        1) the cost formula reflects Medicare estimate of labor-related costs as a portion of total hospital costs as published in the federal register.

        2) Each area wage factor is area wage per F.T.E. divided by the statewide average hospital wage per F.T.E. Medicare audited wage is collected using the source described in state policy for the rate-setting period in question. Contract labor cost, as defined by Medicare are included in determining a hospital's wage costs. Physician Medicare Part B labor costs are excluded.

        3) Each hospital's wage costs are adjusted for different fiscal year ends by multiplying the hospital's wage costs by inflation and weighting factors. All wages are brought to a common point in time.

        4) For hospitals with cost reporting periods ending other than the end of a quarter, the inflation update for the quarter in which the fiscal year ends is used.

        5) The wage adjuster is based on a three-year moving average with the most recent year weighted 60%, the second year weighted 24%, and the initial year weighted 16%

        6) If two or more hospitals merged and are now operating as a single hospital, salary and wages are computed using the combined cost report data from all hospitals involved in the merger. Salary data will be inflated to a common point in time.

    b. Indirect medical education (IME) charges are removed by dividing each hospital's adjusted charges by an IME adjustor. Each hospital's IME adjustor is calculated as follows:

$$1+([(1+\frac{\text{Interns \& Residents}}{\text{Beds}})^{.5795}-1]\times 0.6435)$$

        1) The number of beds for each hospital is the average number of available beds for the hospital. Available licensed beds are limited to beds in the medical/surgical

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portion of the hospital. Interns and residents are only those allocated to the medical/surgical portion of the hospital.

2) Data taken for the hospital's cost report for the three fiscal years is weighted as follows: 60% for the most recent year, 24% for the middle year and 16% for the oldest year.

3) If two or more hospitals merge and are operating as a single hospital, IME data is computed after the merger using the combined cost report data from all hospitals involved in the merger.

c. Adjust charges for high day and/or cost outliers to approximate the charges for the non-outlier portion of the stay.

1) If a claim's length of stay is greater than the high day outlier threshold for the DRG, then it is considered a high day outlier claim. Adjusted charges representing an estimate of the non-outlier portion of charges for high day outliers are used for the relative weight and price calculations as follows:

$$Adj\ Chrg = \frac{Charges \times High\ Day\ Threshold}{High\ Day\ Threshold + [.6 \times (LOS - High\ Day\ Threshold)]}$$

2) A claim is a cost outlier if its costs (i.e. charges times hospital's inpatient operating cost to charge ratio) are greater than the cost threshold for that DRG (the threshold is set at the larger of twice the DRG payment of ~~$50,000~~ 35,000).

a) The cost to charge ration is each hospital's inpatient operating cost to charge ratio, not to exceed 1.0.

b) The adjusted charges for cost outliers use a cost threshold estimate the greater of:

Cost Threshold = 2 x Avg. Cost for DRG

Or $35,000.

c) Adjusted charges are calculated as follows:

$$Adj\ Chrg = Charges - \frac{[(Charges \times Cost\ Ratio) - Cost\ Threshold] \times 0.85}{Cost\ Ratio}$$

d) If an episode is both a high day and a cost outlier, the lesser of the two adjusted charges is used in computing the relative weights and DRG prices.

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d. The adjusted cost for each episode is calculated by multiplying the adjusted charges for the episode by the inpatient operating cost to charge ratio.

   1) Each hospital's Title XIX operating cost to total charge ration is obtained from the hospital's filed cost reports for the fiscal year ending in the second year of the base period. If the cost to charge ratio is greater than 1.0, then 1.0 is used.
   2) If two or more hospitals merge, and are operating as a single hospital, a cost to charge ratio for the period is computed using the combined cost report data from all hospitals involved in the merger. Cost and charge data will be inflated to a common point in time.

e. The average cost for episodes within each DRG is calculated by dividing the sum of the costs for the episodes by the number of episodes within the DRG.
f. The relative weight for each DRG is calculated by dividing the average cost for episodes within each DRG by the average cost per episode for all episodes. A table showing the relative weights, average lengths of stay, and outlier thresholds for each DRG is included in Appendix A.

g. Bring all charges for discharges to the applicable time period through application of inflation and weighting factors.

Data for current wage adjustors are taken from hospital cost reporting periods ending between September 1, 1999 and August 31, 2002. Each hospital's wage costs are adjusted for different fiscal year end dates by multiplying the hospital's wage costs by inflation and weighting factors. All wages are brought to a common point in time. Filed wage data is used for hospitals where audited data is not available. The following adjustment factors derived from the 2nd Quarter 20034 Data Resources, Inc. PPS-Type Hospital Market Basket Index, employee cost component, are use used:

Fiscal Year Ending	Wage Inflation Factors	Weighting Factors
09/30/99	1.1340	0.16
12/31/99	1.1246	0.16
03/31/00	1.1144	0.16
06/30/00	1.1033	0.16
09/30/00	1.0916	0.24
12/31/00	1.0801	0.24
03/31/01	1.0680	0.24
06/30/01	1.0562	0.24
09/30/01	1.0441	0.60
12/31/01	1.0322	0.60
03/31/02	1.0210	0.60

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06/30/02	1.0107	0.60
08/31/02	1.0000	0.60

For hospitals with cost reporting periods ending other than at the end of a quarter, the inflation update for the quarter in which the hospital" fiscal year ends is used.

B. DRG Price:

The episode file used for DRG price calculations is the same as the file used to set the relative weights with the following exceptions:

1. The episode file is limited to those hospitals enrolled as of a specified date.

2. The case mix is calculated using the sum of all relative weights assigned to each hospital's claims during the base period, divided by the total number of episodes for the hospital during the same period.

3. The adjusted cost for each hospital is summed.

4. The hospital specific base price (cost per discharge for a case mix of 1.00) is computed

   a) Divide total adjusted cost by total number of episodes

   b) Divide average costs by the case mix.

   c) Multiply the result by the applicable inflation and weighting factors. Costs are inflated through the rate period. Inflation factors are obtained from the 2nd Quarter 2004 Data Resources, Inc. PPS – Type Hospital Market Basket Index. The following inflation and weighting factors are used:

Fiscal Year Ending	Cost Inflation Factors	Weighting Factors
09/30/00	1.1111	0.16
12/31/00	1.1002	0.16
03/3101	1.0882	0.16
06/30/01	1.0773	0.16
09/30/01	1.0674	0.24
12/31/01	1.0588	0.24
03/31/02	1.0517	0.24
06/30/02	1.0445	0.24
09/30/02	1.0370	0.60
12/31/02	1.0288	0.60

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03/31/03	1.0189	0.60
06/30/03	1.0096	0.60
08/31/03	1.000	0.60

Rates will be adjusted by an inflation factor of 1.0536 for the period from August 31, 2003 to April 1, 2005

5. Determine the DRG base price by:

   a. Calculate each hospital's limited base price. This is the lesser of the hospital specific base price or the mean of all base prices, plus one standard deviation.

   b. Calculate the statewide operating cost limitation. This is a truncated, weighted mean of all hospitals' limited base prices divided by base period discharges.

   c. The lesser of the truncated mean or the hospital specific base price then becomes the DRG base price (before the cost adjustor and incentives are added) for each hospital.

6. Calculate any incentive. For hospitals with base DRG prices below the operating limit (truncated mean), the hospital's base DRG price is increased by adding 10% of the difference between the hospital specific base price and the limit.

   Adjust each hospital's DRG base price, plus any incentive, by the updated cost adjustor. The updated cost adjustor is calculated, to reflect the most current data available, in the same manner as the base cost adjustor, except that:

   1. Wage data is collected using the source described within State policy for the rate-setting period.

   2. The wage and benefit inflation factors are derived from the employee cost component of the Data Resources, Inc. PPS – Type Hospital Market Basket Index relative to the period.

   3. In the event that changes in federal regulations result in incompatible data between the base and update periods, adjustments are made either to the base or the update period to render the data comparable.

   4. A budget neutrality factor is included in the hospital price calculation. Hospital prices are reduced by the percentage necessary so that total aggregate hospital payments using the new hospital prices and DRG relative weights do not exceed the total aggregate hospital payments made using the prior hospital base period data and DRG Grouper relative weights. The calculated DRG prices are deflated by the percentage necessary for the total payments to equate to the amount currently paid.

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To summarize the above, the DRG price for each hospital is calculated using the following procedure:

1. Hospital's adjusted charges.
2. Inpatient cost to charge ratio.
3. Hospital's adjusted costs (line 1* line 2).
4. Hospital's episodes.
5. Cost per discharge (line 3/line 4).
6. Hospital's casemix.
7. Weighted inflation.
8. Hospital's base price (line 5* line 7/line 6).
9. Establish the statewide base limit (mean plus one standard deviation).
10. Hospital's limited base price (lesser of lines 8 or 9).
11. Establish the state wide operating cost limit (truncated, weighted mean of line 10).
12. Hospital's DRG base price (lesser of lines 8 or 11)
13. Calculate the hospital's incentive is applied (if line 12< line 11, 10% of line 12 – line 11, otherwise 0).
14. Hospital's DRG base price plus any incentive (line 12 plus line 13).
15. Hospital's Area Cost Adjustor.
16. Apply budget neutrality factor
17. Hospital's final DRG price (line 14 x line 15 x line 16). The DRG price is rounded to the nearest whole dollar amount.

C. Special Circumstances Under DRG Reimbursement

In some special circumstances, reimbursement for operating costs uses a DRG daily rate. The DRG daily rate is:

$$\frac{DRG\ Price \times Relative\ Weight}{Average\ Length\ of\ Stay\ for\ the\ DRG}$$

The average length of stay, low day and the high day outlier thresholds for each DRG are listed in Appendix A at the end of this section.

1. High Day Outliers:

   The high day outlier for each DRG is set at the lesser of the average length of stay plus 30 days or the 97th percentile length of stay; or 50 days, whichever is greater.

   Reimbursement for high day outliers is:

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$$DRG\ Price \times Rel.\ Wt. + [60\% \times Outlier\ Days \times (\frac{DRG\ Price \times Rel.\ Wt.}{Avg.\ LOS\ for\ the\ DRG})]$$

The multiplier for the daily rate is 60% for all services including those provided in children's hospitals and children's distinct part units of at least 150 beds.

If an episode is both a high day and a cost outlier, reimbursement will be the greater of the two amounts.

2. Low Day Outliers

   For services where the length of stay is less than the published low day threshold, reimbursement is actual charges multiplied by the individual hospital's inpatient operating cost to charge ratio net of IME, not to exceed the full DRG payment. The specific low day outlier threshold for each DRG is listed in Appendix A.

3. Less than Acute Care

   If a claim is a high day outlier and review shows that the beneficiary required less than acute continuous medical care during the outlier day period, Medicaid payment is made at the statewide nursing facility per diem rate for the continuous subacute outlier days, if nursing care was medically necessary.

4. Cost Outliers

   An episode is a cost outlier when costs for the episode (charges times the hospital's inpatient operating cost to charge ratio excluding IME) exceed the computed cost threshold. Claims assigned to DRGs paid a percent of charge cannot be cost outliers.

   Reimbursement for cost outliers will be dependent upon the cost threshold.

   The Cost Threshold is the larger of:

   a) 2 x DRG Price x Rel. Wt. (twice the regular payment for a transfer paid on a per diem basis for episodes getting less than a full DRG), or

   b) $35,000

   Cost Outliers will be reimbursed according to the following formula:

(DRG Price x Rel. Wt.) +(85% x [(Charges x Operating Ratio) - Cost Threshold])

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If an episode is both a high day and a cost outlier, reimbursement is the greater of the two amounts.

5. Transfers

Payment to a hospital that receives a patient as a transfer from another inpatient hospital differs depending on whether the patient is discharged or is subsequently transferred again.

a. Payment to the Transferring Hospital

Except in the cases where the DRG is defined as a transfer of a patient (for which a full DRG payment is made, plus an outlier payment, if appropriate) the transferring hospital is paid a DRG daily rate for each day of the beneficiary's stay, not to exceed the appropriate full DRG payment, plus an outlier payment, if appropriate.

b. Payment to the Receiving Hospital

If the patient is discharged, the receiving hospital is paid the full DRG payment, plus an outlier payment if appropriate.

Reimbursement is based on discharge in the following situations. If the beneficiary:

1) Is formally released from the hospital, or

2) Is transferred to home health services, or

3) Dies while hospitalized, or

4) Leaves the hospital against medical advice, or

5) Is transferred to a long-term care facility.

If the patient is transferred again, the hospital is paid as a transferring hospital.

6. Readmissions

Readmissions within 15 days for a related condition, whether to the same or a different hospital, are considered a part of a single episode for payment purposes.

If the readmission is to a different hospital, full payment is made to the second hospital. The first hospital's payment is reduced by the amount paid t the second hospital. The first hospital's payment is never less than zero for the episode.

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Readmissions for an unrelated condition, whether to the same or a different hospital, are considered separate episodes for payment purposes.

7. Percent of Charge Reimbursement

   The payment amount for claims that fall into DRGs 103, 468, 480, 481, 495, 512 or 513 is total hospital charges times the hospital's inpatient operating cost to charge ratio excluding IME.

   The ratio is the hospital's Title XIX inpatient operating cost to charge ratio as obtained from weighted filed cost reports for fiscal years ending between September 1.1997 and August 31, 2000.

8. Hospitals Outside of Michigan

   Medical/surgical hospitals not located in Michigan are reimbursed under the DRG system. The DRG price is the statewide operating cost limit (truncated mean of base prices located in Michigan).

   Hospitals that have charges that exceed $250,000 during a single fiscal year (using the State of Michigan fiscal year – October 1st through September 30th) may be reimbursed the hospital's inpatient operating cost to charge ratio for those Michigan Medicaid DRGs reimbursed by percentage of charge. The hospitals' chief financial officer must submit and the MSA must accept documentation stating the hospital's Medicaid cost to charge ratio in the state that the hospital is located. Once accepted, the hospital's actual cost to charge ratio is applied prospectively to those DRGs and claims subject to percentage of charge reimbursement using the Michigan DRG payment system.

9. New Hospitals

   A new medical/surgical hospital is one for which no Michigan Medicaid program cost or paid claims data exists during the period used to establish hospital specific base rates or one which was not enrolled in the Medicaid program when hospital specific base prices/rates were last established. Hospitals that experience a change of ownership or that are created as the result of a merger are not considered new hospitals.

   The DRG base price for new general hospitals is the statewide operating limit until new DRG base prices are calculated for all hospitals using data from time periods during which the new hospital provided services to Medicaid beneficiaries.

D. Hospitals and Units Exempt from DRG Reimbursement

1. Calculating Per Diem Rates

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The per diem prices calculated for the Michigan Medicaid system utilize Medicaid and Children's Special Health Care Services inpatient claims for admissions from September 1, 1998 through August 31, 2002 paid by June 30, 2003. Hospital specific cost report data is drawn from cost report years ending between September 1, 1999 and August 31, 2002.

The claim file is limited to those hospitals enrolled as of the specified date.

a) The invoice file is adjusted to:

1) Eliminate episodes with any Medicare charges. (For dual Medicare/Medicaid eligible beneficiaries, only claims paid a full Medicaid DRG are included);

2) Eliminate episodes without any charges or days.

3) Limit episodes to those from Michigan hospitals (provided that hospital cost report data are available).

4) Limit episodes to those with a valid patient status (incomplete episodes were excluded as a re additional pages of a multiple page bills where there is no initial claim containing a valid patient status).

5) Eliminate episodes with a zero dollar Medicaid liability.

Total charges and days paid are summed by hospital.

b) The cost for each hospital is calculated by multiplying the charges for the hospital by the cost to charge ratio for the hospital.

1) Each hospital's operating cost to total charge ratio is obtained from weighted filed cost reports for fiscal years ending between September 1, 1999 and August 31, 2002. If the cost to charge ratio is greater than 1.00 then 1.00 is used. For distinct part rehabilitation units, this ratio is unique to the unit.

2) If two or more hospitals merged and are now operating as a single hospital, a cost to charge ratio is computed using the combined cost report data from all hospitals involved in the merger. Cost and charge data will be inflated to a common point in time.

The cost per day by hospital is calculated by dividing the sum of the costs by the number of days for the hospital.

c) To determine a hospital specific Per Diem base rate:

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1) Multiply the cost per day by the applicable inflation factor. Each hospital's costs are inflated to a common point in time. Inflation factors were obtained from the 2nd Quarter 2003 Data Resources, Inc. PPS-Type Hospital Market Basket Index.

FTE	Cost Inflation Factors	Weighting Factors
09/30/99	1.1093	0.16
12/31/99	1.1017	0.16
03/31/00	1.0924	0.16
06/30/00	1.0822	0.16
09/30/00	1.0714	0.24
12/31/00	1.0609	0.24
03/31/01	1.0494	0.24
06/30/01	1.0389	0.24
09/30/01	1.0294	0.60
12/31/01	1.0210	0.60
03/31/02	1.0142	0.60
06/30/02	1.0072	0.60
08/31/02	1.0000	0.60

The inflation update for the quarter in which the hospital's fiscal year ends is used.

2) Recognize area cost differences by dividing the cost per day for each hospital by an area cost adjustor factor. Hospitals are grouped by U.S. Census Core Based Statistical Area (CBSAs) as determined by the Centers for Medicare and Medicaid Services for the Medicare program for wage data. Hospital geographic reclassifications made under Section 508 of the Medicare Prescription Drug, Improvement and Modernization Act of 2003 will not be used to calculate the Medicaid area wage index. Each area cost adjustor is calculated as follows:

   - COST ADJUSTOR= 0.71066 X WAGE ADJUSTOR + 0.28934

   The cost adjuster formula reflects Medicare estimate of labor-related costs as a portion of total hospital costs as published in the Federal Register.

3) Each area wage factor is area wage per full-time equivalent (F.T.E.) divided by the statewide average hospital wage per F.T.E. Contract labor costs are included in determining a hospital's wage costs.

4) Each hospital's wage costs are adjusted for different fiscal year end dates by multiplying the hospital's wage costs by inflation and weighting factors. All wages are brought to a common point in time. Filed wage data is used where audited

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data is not available. The following adjustment factors, derived from the 2nd Quarter 2004 Data Resources, Inc. PPS-Type Hospital Market Basket Index, employee cost component, are used:

Fiscal Year End	Wage Inflation Factors	Weighting Factors
09/30/99	1.1340	0.16
12/31/99	1.1246	0.16
03/31/00	1.1144	0.16
06/30/00	1.1033	0.16
09/30/00	1.0916	0.24
12/31/00	1.0801	0.24
03/31/01	1.0680	0.24
06/30/01	1.0562	0.24
09/30/01	1.0441	0.60
12/31/01	1.0322	0.60
03/31/02	1.0210	0.60
06/30/02	1.0107	0.60
08/31/02	1.0000	0.60

For hospitals with cost reporting periods ending other than the end of a quarter, the inflation update for the quarter in which the hospital's fiscal year ends is used.

- The wage data for distinct part rehabilitation units is the same as for the inpatient medical/surgical area of the hospital. The cost reports do not differentiate salaries/hours by unit type.
- If two or more hospitals merge and are now operating as a single hospital, salary and wages are computed using the combined cost report data from all hospitals involved in the merger. Salary data will be inflated to a common point in time.

- Remove indirect medical education (IME) costs by dividing by an adjustor for indirect education. Each hospital's IME adjustor is calculated as follows:

$$1+([(1+\frac{\text{Interns \& Residents}}{\text{Beds}})^{.5795}-1]\times 0.6435)$$

  - Distinct part rehabilitation units report this data separately. The IME adjustor is unique to the unit.
  - If two or more hospitals merge and are now operating as a single hospital, indirect medical education data is computed using the combined cost report data from all hospitals involved in the merger.

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To determine the per diem rate:

- Calculate the statewide operating cost limit (by provider type). This is a weighted mean of all hospital' specific base prices weighted by base period days (truncated mean), multiplied by the appropriate percentage.
    - For freestanding rehabilitation hospitals the percentages is 150%
    - The 50th percentile is determined by calculating a standardized rate for each unit. The standardized rate for all enrolled Michigan units are sorted in ascending order. The standardized rate of the first unit after the 50% of the units listed becomes the statewide 50th percentile.
    - For distinct pert rehabilitation units the percentage is 200%
- Calculate the statewide operating cost minimum (by provider type). This is a truncated, weighted mean of all hospitals' specific base prices weighted by base period days multiplied by 70%.
- The per diem base rate is the lesser of:
    - The greater of the hospital specific base price or the statewide operating cost minimum, or
    - The statewide operating cost limit.

  Adjust each hospital's per diem rate by the updated cost adjustor (to reflect a hospital specific per diem rate). The updated cost adjustor is calculated, to reflect the most current data available, in the same manner as the base cost adjustor, except that:

- Medicare audited wage data for hospital fiscal years ending between September 30, 1999 and August 31, 2002 is used.
- The wage inflation and weighting factors are derived from the employee cost component of the 2nd Quarter 2004 Data Resources, Inc. PPS-Type Hospital Market Basket Index. The same inflation and weighting factors were used here as were used for the DRG update found in Section III, B., *DRG Price*.
- In the event that changes in federal regulations result in incompatible data between the base and update periods, adjustments are made either to the base or the update period to render the data comparable.

Calculate the final per diem rate by rounding to the nearest whole dollar.

2. Hospitals Outside of Michigan

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Freestanding rehabilitation hospitals and distinct part rehabilitation units not located in Michigan are reimbursed using a per diem rate. The per diem rate is the statewide weighted average per diem (truncated mean) for this provider type.

3. New Freestanding Hospitals and Distinct Part Units

If a hospital at least doubles the number of licensed beds in its distinct part unit and the number of licensed beds in the units increases by at least 20, the entire unit is treated as a new distinct part unit for determining the per diem rate. In order for this provision to apply, the hospital must request in writing that the unit is treated as a new unit. The new unit rate will become effective on the date that the number of licensed beds doubles and the increase is at least 20 beds, or the date on which the request is received by MSA, whichever is later.

New freestanding hospitals and distinct part units are reimbursed using the statewide average (weighted by days during the base period) per diem rate for the provider type.

A hospital/unit specific per diem rate is established when new rates are calculated using data from time periods during which the new hospital/unit provided services to Medicaid patients.

E. Frequency of Recalibration

The Department will recalibrate hospital prices and ratios according to the following schedule:

1) Relative weights will be recalibrated annually.

2) DRG prices will be rebased every three years and updated annually.

3) Per Diem rates will be rebased every two years and updated annually.

4) Inpatient operating cost to charge ratios will be recalculated with each DRG/Per Diem rebasing.

F. Mergers

1. General Hospitals

In the event of a merger between two or more hospitals between DRG rebasing periods, the DRG rate for the surviving hospital will be computed as follows:

a. Cost to charge ratio, indirect medical education, and wage data will be inflated to a common point in time (for the surviving entity).

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b. No changes will be made to the relative weights.

c. The DRG rate will be computed with the same methodology as described in the section covering the computation of the DRG rates, with the following exceptions:

1) No change will be made to the statewide cost limit.

2) No change will be made to the statewide average used to compute the update base wage adjustor.

3) No change will be made with respect to the statewide average used to compute the update wage adjustor.

d. As part of recalibration or rebasing, all data will be combined prior to adjusting the invoice file, as discussed in the section covering the recalibration/rebasing.

2. Freestanding Psychiatric and Rehabilitation Hospitals/Distinct Part Psychiatric and Rehabilitation Units

In the event of a merger between two or more hospitals between per diem rebasing periods, the resulting per diem rate for the surviving hospital will be computed as follows:

a. Cost to charge ratio, indirect medical education (IME), and wage data will be inflated to a common point in time (for the surviving entity).

b. The per diem rate will be computed using the same methodology as described in the section covering the computation of the DRG rates, with the following exceptions:

1) No change will be made to the statewide operating cost limit.

2) No change will be made to the statewide operating cost minimum.

3) No change will be made to the statewide average used to compute the base wage adjustor.

4) No change will be made to the statewide average used to compute the update wage adjustor.

b. As part of recalibration or rebasing, all data will be combined prior to adjusting the invoice file, as discussed in the section covering the recalibration/rebasing.

G. Other Reimbursement Methods

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1. Sub-Acute Ventilator-dependent Care

   Payment for services provided to patients in sub-acute ventilator-dependent units (SVDUCU) is made using a negotiated prospective per diem rate that includes capital and direct medical education costs.

   The per diem rate is based on cost estimates for the upcoming year. The negotiated per diem rate is not to exceed the average outlier per diem rate that would be paid for outlier days between DRG 541 and DRG 542. The payment rate for patients in subaute ventilator-dependent care units is an all-inclusive facility rate. No additional reimbursement is made for capital or direct medical education costs. These units are not eligible for indigent volume adjustor or indirect medical education adjustor payments.

2. Michigan State-Owned Hospitals

   Reimbursement to Michigan state-owned hospitals is allowable costs under Medicare principles of reimbursement as freestanding psychiatric hospitals exempt from the prospective payment system.

H. Disproportionate Share

Minimum Eligibility Criteria

Indigent volume data is taken from each hospital's cost report and from supplemental forms that each hospital must file with its cost report. Data from the most recent available filed cost report are used to calculate a disproportionate share adjustor. New adjustors are calculated and become effective concurrently with annual inflation updates. Separate indigent volume data is collected for and applied to distinct part psychiatric units.

Indigent volume is measured as the percentage of inpatient indigent charges to a hospital's total inpatient charges. Indigent charges are the annual charges for services rendered to patients eligible for payments under the Medicaid, CSHCS and the State Medical Program plus uncompensated care charges. Uncompensated care is limited by Medicare standards and is offset by any recoveries.

Each hospital must have a Medicaid utilization rate of at least 1%. Medicaid utilization is measured as:

$$\frac{\textit{Medicaid Inpatient Days (Whole Hospital including Subproviders)}}{\textit{Total Hospital Days (Whole Hospital including Subproviders)}}$$

Individual inpatient hospital claims will be paid without DSH adjustments. Inpatient DSH payments will be made annually in a single distribution based on charges converted to cost

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using a cost to charge ratio. The payment will be made normally during the first quarter of the state fiscal year. Each hospital's indigent volume will be taken from hospital cost reporting periods ending during the second previous state fiscal year.

Title XIX charges used to compute DSH payments will be the sum of the Title XIX charges and the Title XIX HMO charges from hospital indigent volume reports for cost periods ending during the second previous state fiscal year. Data for cost period of more or less than one year will be proportionally adjusted to one year.

Hospital operating cost ratios will be taken from hospital cost reporting periods ending during the second previous state fiscal year. For hospitals with more than one cost reporting period ending in this date range will have their data from the two periods added and a single ratio will be computed. If the ratio is greater than 1.0 a ratio of 1.0 will be used.

Reimbursement for inpatient services under Title V will not include DSH payments.