VOLUME II: APPENDICES

The Development of Financing and Reimbursement Strategies for Children with Special Health Care Needs
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Table of Contents

APPENDIX A: Distribution of Expenditures: SCHIP and Medicaid.............................................1
APPENDIX B: Carve-Out Strategies for Skilled Nursing and Therapies.........................................4
  Skilled Nursing Carve-Out........................................................................................................5
  Physical, Occupational and Speech Therapy Carve-Out Strategy.............................................11
APPENDIX C: Reinsurance Strategies at the $50,000 and $100,000 Threshold...............................17

List of Graphs and Tables

Graph A-1. PMPM Charge Distribution – Overall Title XXI (SCHIP)..........................................2
Graph A-2. PMPM Charge Distribution – Overall Title XIX (Medicaid).......................................3
Graph B-1. SCHIP States I & II—Distribution of Capitated PMPM Payments by Risk Group and
  for New Enrollees Using a Skilled Nursing Carve-Out and Health-Based Risk Adjustment........6
Graph B-2. Medicaid States II & III—Distribution of Capitated PMPM Payments by Risk Group and
  for New Enrollees Using a Skilled Nursing Carve-Out and Health-Based Risk Adjustment.....7
Graph B-3. SCHIP States I & II—Overpayments or Underpayments PMPM for Each Risk Group
  and for New Enrollees When Using a Skilled Nursing Carve-Out and Health-Based Risk Adjust
..............................................................6
Graph B-4. Medicaid States II & III—Overpayments or Underpayments PMPM for Each Risk Group
  and for New Enrollees When Using a Skilled Nursing Carve-Out and Health-Based Risk Adjust......8
Graph B-5. Variation in Net PMPM Payments by Program and Skilled Nursing Carve-Out Strategy ..10
Graph B-6. SCHIP States I & II—Distribution of Capitated PMPM Payments by Risk Group and
  for New Enrollees Using a Physical, Occupational, and Speech Therapy Carve-Out and Health-Based Risk Adjust..........................................................12
Graph B-7. Medicaid States II & III—Distribution of Capitated PMPM Payments by Risk Group and
  for New Enrollees Using a Physical, Occupational, and Speech Therapy Carve-Out and Health-Based Risk Adjust..........................................................13
Graph B-8. SCHIP States I & II—Overpayments or Underpayments PMPM for Each Risk Group
  and for New Enrollees When Using a Physical, Occupational, and Speech Therapy Carve-Out and
  Health-Based Risk Adjust..........................................................14
Graph B-9. Medicaid States II & III— Overpayments or Underp ayments PMPM for Each Risk Group
  and for New Enrollees When Using a Skilled Nursing Carve-Out and Health-Based Risk Adjust..15
Graph B-10. Variation in Net PMPM Payments by Program and Physical, Occupational, and
  Speech Therapy Carve-Out Strategy..........................................................16
Graph C-1. SCHIP States I & II—Distribution of Capitated PMPM Payments by Risk Group and for New Enrollees Using Reinsurance at $50,000 and Health-Based Risk Adjustment

Graph C-2. Medicaid States II & III—Distribution of Capitated PMPM Payments by Risk Group and for New Enrollees Using Reinsurance at $50,000 and Health-Based Risk Adjustment

Graph C-3. SCHIP States I & II—Distribution of Capitated PMPM Payments by Risk Group and for New Enrollees Using Reinsurance at $100,000 and Health-Based Risk Adjustment

Graph C-4. Medicaid States II & III—Distribution of Capitated PMPM Payments by Risk Group and for New Enrollees Using Reinsurance at $100,000 and Health-Based Risk Adjustment

Graph C-5. SCHIP States I & II—Overpayments or Underpayments PMPM for Each Risk Group and for New Enrollees When Using Reinsurance at $50,000 and Health-Based Risk Adjustment

Graph C-6. Medicaid States II & III—Overpayments or Underpayments PMPM for Each Risk Group and for New Enrollees When Using Reinsurance at $50,000 and Health-Based Risk Adjustment

Graph C-7. SCHIP States I & II—Overpayments or Underpayments PMPM for Each Risk Group and for New Enrollees When Using Reinsurance at $100,000 and Health-Based Risk Adjustment

Graph C-8. Medicaid States II & III—Overpayments or Underpayments PMPM for Each Risk Group and for New Enrollees When Using Reinsurance at $100,000 and Health-Based Risk Adjustment

Graph C-9. Variation in Net PMPM Payments by Program and Reinsurance at $50,000 Strategy

Graph C-10. Variation in Net PMPM Payments by Program and Reinsurance at $100,000 Strategy
Appendix A. Distribution of Expenditures: SCHIP and Medicaid
Graph A-1.

Note: This graph is presented as an illustration of the extreme skewness of the PMPM charge distribution. One very well known property of the distribution of health care expenditures is the concentration close to zero. As can be seen from these graphs, the concentration of health care expenditures close to zero holds true for the pediatric populations studied in this project. A second characteristic of the health care expenditures is that, while many incur comparatively low expenditures, there is a small group that incurs very high expenditures. This small group with very high expenditures is what causes the graphs to have long right tails. Additional information, including the PMPM charge distribution for the entire enrollee population, is available upon request.

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Financing and Reimbursement Strategies for CSHCN – Volume II
Page 2
Graph A-2.

Note: This graph is presented as an illustration of the extreme skewness of the PMPM charge distribution. One very well known property of the distribution of health care expenditures is the concentration close to zero. As can be seen from these graphs, the concentration of health care expenditures close to zero holds true for the pediatric populations studied in this project. A second characteristic of health care expenditures is that, while many incur comparatively low expenditures, there is a small group that incurs very high expenditures. This small group with very high expenditures is what causes the graphs to have long right tails. Additional information, including the PMPM charge distribution for the entire enrollee population, is available upon request.
Appendix B. Carve-Out Strategies for Skilled Nursing and Therapies
SKILLED NURSING CARVE-OUT

Key Points: Payment Alignment and Improvement Over Unadjusted Models Using Skilled Nursing Carve-Out for SCHP and Medicaid (Graphs B-1 and B-2)

- Removing the expenditures associated with skilled nursing care does not result in better alignment of PMPM payments to health status categories. This finding is consistent for all of the programs.

- Skilled nursing carve-outs when used in combination with health-based risk adjustment do result in better alignment of payments to health status categories.

Key Points: Overpayments or Underpayments: Skilled Nursing Carve-Out for SCHP and Medicaid (Graphs B-3 and B-4)

- When used alone, the skilled nursing carve-out still results in underpayments PMPM, which become more pronounced as the child’s health status worsens.

- Skilled nursing carve-outs when used in combination with health-based risk adjustment substantially reduce underpayments for children in the chronic illness categories.
Graph B-1. SCHIP States I & II—Distribution of Capitated PMPM Payments by Risk Group and for New Enrollees Using a Skilled Nursing Carve-Out and Health-Based Risk Adjustment.

SCHIP State I

SCHIP State II

Institute for Child Health Policy
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Financing and Reimbursement Strategies for CSHCN – Volume II
Page 6
Graph B-2. Medicaid States II & III—Distribution of Capitated PMPM Payments by Risk Group and for New Enrollees Using a Skilled Nursing Carve-Out and Health-Based Risk Adjustment.

Medicaid State II

Medicaid State III
Graph B-3. SCHIP States I & II—Overpayments or Underpayments PMPM for Each Risk Group and for New Enrollees When Using a Skilled Nursing Carve-Out and Health-Based Risk Adjustment.

SCHIP State I

SCHIP State II

Institute for Child Health Policy
University of Florida
Financing and Reimbursement Strategies for CSHCN – Volume II
Page 8
Graph B-4. Medicaid States II & III—Overpayments or Underpayments PMPM for Each Risk Group and for New Enrollees When Using a Skilled Nursing Carve-Out and Health-Based Risk Adjustment.

Medicaid State II

Medicaid State III

Institute for Child Health Policy
University of Florida
Financing and Reimbursement Strategies for CSHCN – Volume II
Page 9
Key Points: The Impact of Skilled Nursing Carve-Out Strategy on Variation in Net PMPM Payments for SCHIP and Medicaid (Graph B-5)

- Variation in net PMPM payments are not reduced when the nursing carve-out is used alone or in combination with health-based risk adjustment. For example, in Medicaid in State II, the variability in the PMPM payments versus health care expenditures could be more than $2,500.

Graph B-5. Variation in Net PMPM Payments by Program and Skilled Nursing Carve-Out Strategy.
PHYSICAL, OCCUPATIONAL AND SPEECH THERAPY CARVE-OUT STRATEGY

Key Points: Payment Alignment and Improvement Over Unadjusted Models Using Physical, Occupational, and Speech Therapy Carve-Outs for SCHP and Medicaid (Graphs B-6 and B-7)

- Removing the expenditures associated with physical, occupational, and speech therapies does not result in better alignment of PMPM payments to health status categories. This finding is consistent for all of the programs.

- The therapy carve-outs when used in combination with health-based risk adjustment do result in better alignment of payments to health status categories.

Key Points: Overpayments or Underpayments: Physical, Occupational, and Speech Therapy Carve-Out for SCHP and Medicaid (Graphs B-8 and B-9)

- When used alone, the therapy carve-outs still result in underpayments PMPM, which become more pronounced as the child’s health status worsens.

- Therapy carve-outs when used in combination with health-based risk adjustment substantially reduce underpayments for children in the chronic illness categories.
Graph B-6. SCHIP States I & II—Distribution of Capitated PMPM Payments by Risk Group and for New Enrollees Using a Physical, Occupational, and Speech Therapy Carve-Out and Health-Based Risk Adjustment.

SCHIP State I

SCHIP State II

Medicaid State II

Medicaid State III

[Bar chart showing distribution of payments by risk group.]
Graph B-8. SCHIP States I & II—Overpayments or Underpayments PMPM for Each Risk Group and for New Enrollees When Using a Physical, Occupational, and Speech Therapy Carve-Out and Health-Based Risk Adjustment.

SCHIP State I

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</table>
Graph B-9. Medicaid States II & III—Overpayments or Underpayments PMPM for Each Risk Group and for New Enrollees When Using a Skilled Nursing Carve-Out and Health-Based Risk Adjustment.

Medicaid State II

Medicaid State III

Institute for Child Health Policy
University of Florida
Financing and Reimbursement Strategies for CSHCN – Volume II
Page 15
Key Points: The Impact of Physical, Occupational, and Speech Therapy Carve-Outs on Variation in Net PMPM Payments for SCHIP and Medicaid (Graph B-10.)

- Variation in net PMPM payments are not reduced when the therapy carve outs are used alone or in combination with health-based risk adjustment. For example, in Medicaid in State II, the variation in the PMPM payments versus health care expenditures could be more than $2,500.

Appendix C. Reinsurance Strategies at the $50,000 and $100,000 Threshold

Key Points: The Impact of Reinsurance at the $50,000 and $100,000 Threshold on Annual Predicted Payments (Graphs C-1 through C-4) and Overpayment or Underpayment PMPM (Graphs C-5 through C-8).

- Graphs C-1 through C-4 show the alignment of payments PMPM to the children’s health status category when reinsurance is used alone at $50,000 and $100,000 attachment points and when it is combined with health-based risk adjustment at the same attachment points. Reinsurance combined with health-based risk adjustment aligns payments to health status but does not do so when used alone as a financing strategy. This finding is consistent for all programs and for the two attachment points.

- When used alone, reinsurance at the $50,000 and $100,000 attachment points result in substantial PMPM underpayments for children in the chronic condition categories. Using reinsurance with health-based risk adjustments minimizes the underpayments.
Graph C-1. SCHIP States I & II—Distribution of Capitated PMPM Payments by Risk Group and for New Enrollees Using Reinsurance at $50,000 and Health-Based Risk Adjustment.
Graph C-2. Medicaid States II & III—Distribution of Capitated PMPM Payments by Risk Group and for New Enrollees Using Reinsurance at $50,000 and Health-Based Risk Adjustment.
Graph C-3. SCHIP States I & II—Distribution of Capitated PMPM Payments by Risk Group and for New Enrollees Using Reinsurance at $100,000 and Health-Based Risk Adjustment.
Graph C-4. Medicaid States II & III—Distribution of Capitated PMPM Payments by Risk Group and for New Enrollees Using Reinsurance at $100,000 and Health-Based Risk Adjustment.

Medicaid State II

Medicaid State III

Institute for Child Health Policy
University of Florida
Financing and Reimbursement Strategies for CSHCN – Volume II
Page 21
Graph C-5. SCHIP States I & II—Overpayments or Underpayments PMPM for Each Risk Group and for New Enrollees When Using Reinsurance at $50,000 and Health-Based Risk Adjustment.

SCHIP State I

SCHIP State II
Graph C-6. Medicaid States II & III—Overpayments or Underpayments PMPM for Each Risk Group and for New Enrollees Using Reinsurance at $50,000 and Health-Based Risk Adjustment.

Medicaid State II

Medicaid State III

Institute for Child Health Policy
University of Florida
Financing and Reimbursement Strategies for CSHCN – Volume II
Page 23
Graph C-7. SCHIP States I & II—Overpayments or Underpayments PMPM for Each Risk Group and for New Enrollees When Using Reinsurance at $100,000 and Health-Based Risk Adjustment.
Graph C-8. Medicaid States II & III—Overpayments or Underpayments PMPM for Each Risk Group and for New Enrollees Using Reinsurance at $100,000 and Health-Based Risk Adjustment.

**Medicaid State II**

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<tr>
<td>New Enrollees</td>
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</table>
Key Points: The Impact of Reinsurance at $50,000 and $100,000 on Variation in Net PMPM Payments (Graphs C-9 and C-10).

- Graphs C-9 and C-10 show the large reductions in the variation of the net PMPM payments with reinsurance. For example, in Medicaid in State II, recall that without reinsurance, the variation in net payment was more than $2,500 PMPM. With reinsurance at a $50,000 attachment point, the variation is reduced to about $1,100 PMPM.

Graph C-9. Variation in Net PMPM Payments by Program and Reinsurance at $50,000 Strategy.
Graph C-10. Variation in Net PMPM Payments by Program and Reinsurance at $100,000 Strategy.