Nursing Services for Colorado's Vulnerable Children

Impacts on Patients and Families, as well as Costs

Today's Presenters

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AGENDA

- Why We Are Here Today
- What is Private Duty Nursing (PDN) & Why is it Critical
- Nursing Workforce in Pediatric Homecare in Colorado
- Medicaid Provider Rates & the Review Process
- Conclusion
- Questions & Answers

Why are We Here

Rate Adjustments - Only Every Three Years

- ➔ Nurses and Families have waited 3 years to have their needs met.
- ➔ This year's rate adjustment must meet needs and demand **<u>for the next three years.</u>**

Our Goal Today

Based on an unbiased, data-driven analysis, and what nurses are demanding...

- ➔ We believe the appropriate rates are: ***$65/hr*** *for an RN and* ***~$50/hr*** *for an LPN*

Cost of Patient Care

DAILY IN-HOME CARE COST $1,017

-VS-

DAILY IN-PATIENT CARE COST $2,369

More than 2x the cost of in-home care

"The cost tabulations indicate that an **annual per person savings of nearly $500,000** will accrue to Colorado's Medicaid program when an individual is served at home in lieu of inpatient care."

Costs and Benefits of Enhancing Private Duty Nursing Payment Rates in Colorado's Medicaid Program, The Menges Group February 2024 (page 14)

The cost of a PDN rate increase would be recouped quickly with the increased capacity to meet patient needs at home, rather than further burdening the hospital systems

Who are These Children?

- Colorado's most vulnerable children
- Kiddos with significant clinical needs
- Many are technology dependent

Private Duty Nursing & Why it is Critical

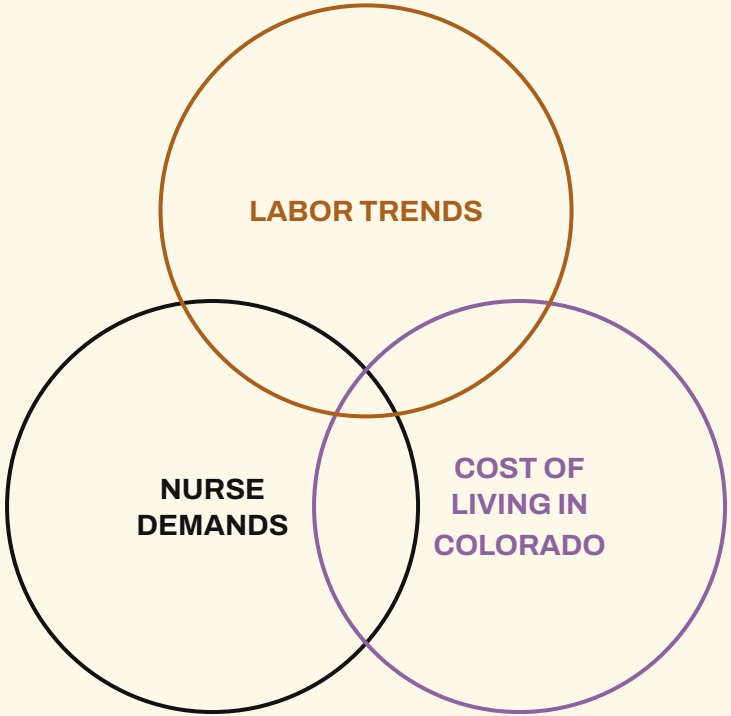
WHAT IS CLINICAL CARE IN THE HOME

PATIENT & FAMILY EXPERIENCE

PATIENT & FAMILY IMPACT

Nursing Workforce in Pediatric Homecare

- Colorado has the **highest nursing shortage** in the Country
- **Competitive Market** - long term care, hospitals, surgery centers, etc
- Nurses have power to dictate terms - *when, where, how long, and* ***for how much***
- Rates are **only reviewed every 3 years**



Detailed & Unbiased Analysis Critical

- **MPRRAC Purpose - to provide a data driven, unbiased and objective analysis:**
  - Clinical and Patient Need
  - Labor Trends
  - Cost of Living
  - Comparable States & Rates

- **Significant Flaws in MPRRAC Process**
  - Minimal Stakeholder Collaboration
  - Lack of Transparency
  - Flaws in Data Analysis
  - Did not account for multiple rate levels

BOTTOM LINE: Did not look at **reimbursement methodology**, only looked at surface rates
- for a service that DOES NOT have a Medicare equivalent

BOTTOM LINE:

MPRRAC did not look at **reimbursement methodology**, only looked at surface rates - *for a service that DOES NOT have a Medicare equivalent*

MPRRAC | Methodology Used to Arrive at the Benchmark

While we generally understand the overall methodology to calculate a baseline, we strongly disagree with the states used within the "comp" analysis

1. 2024 Colorado PDN rates were normalized for Cost of Living Indexes (COLA) as of Feb'24 and multiplied by utilization to arrive at CO repricing [(Base Rates / Colorado COLA 105.1) x (100) x (Utilization) = Colorado Repricing]

2. 7 states "comparable" states were selected based on *"similar geographical settings with extreme rural areas along with urban and more populated areas. In addition, most of these states have comparable benefit packages or cover comparable services, have public fee schedules and use a fee-for-service model similar to Colorado"*

3. Peer averages for rates were calculated based on each states' Medicaid revenue codes or comparable CPT/HCPCS codes

4. Colorado's utilization by revenue code was multiplied by the peer average by revenue code to arrive at a "baseline" [(Colorado Utilization) x (Peer Average Rate) = Baseline per Revenue/CPT/HCPCS code]

5. MPRACC recommended %'s of the "baseline" for each revenue code. Each baseline was adjusted backed to an implied rate. The recommended rates were: 100% of the benchmark for revenue codes 552 (RN) and 559 (LPN). No changes to revenue codes 580 (RN group per client), 581 (LPN group per client), and 582 (Blended group rate per client).

MPRRAC | Rate Table and Calculation

While we agree with the overall methodology to calculate a baseline, we strongly disagree with the states used within the “comp” analysis

MPRRAC Selections – All Medicaid Rates are COLA Adjusted

(CO Hours) x (Peer Avg.)

(CO) / (Benchmark)

Rev Code	Service Description	COLA Adj. Rate	Implied Hours	CO Repricing	California	Illinois	Louisiana	North Carolina	Nebraska	Washington	Massachusetts	Peer Average	Benchmark Repricing	Benchmark Ratio
552	PDN-RN	$49.98	1,232,760	$61,613,357	$41.62	$58.63	$67.75	$54.56	$49.42	$51.55	$44.34	$52.55	$64,791,464	95.09%
559	PDN-LPN	$37.76	317,886	$12,003,362	$26.44	$48.86	$51.18	$54.56	$37.10	$42.38	$36.74	$42.47	$13,497,524	88.93%
580	PDN-RN (Group-per client)	$34.15	468,125	$15,986,456	--	--	$33.88	$54.56	--	$31.45	$63.15	$45.76	$21,423,013	74.62%
581	PDN-LPN (Group-per client)	$27.35	16,598	$453,952	--	--	$25.59	$54.56	--	$26.86	$52.56	$39.89	$662,052	68.57%
582	"Blended" group rate / client	$32.24	302,947	$9,766,997	--	--	$29.74	$54.56	--	$29.16	$57.86	$42.83	$12,976,267	75.27%
All	**Total**	**$42.69**	**2,338,315**	**$99,824,124**	--	--	--	--	--	--	--	**$48.48**	**$113,350,320**	**88.07%**

MPRRAC | Corrected Rate Table and Calculation

After updating the original analysis with the most recent fee schedules and correct revenue codes, Colorado's repricing represents ~82% of the baseline. Which is well below the original analysis of ~88%

MPRRAC Selections – All Medicaid Rates are COLA Adjusted

(CO Hours) x (Peer Avg.)

(CO) / (Benchmark)

Rev Code	Service Description	COLA Adj. Rate	Implied Hours	CO Repricing	California	Illinois	Louisiana	North Carolina	Nebraska	Washington	Massachusetts	Peer Average	Benchmark Repricing	Benchmark Ratio
552	PDN-RN	$49.98	1,232,760	$61,613,357	$43.94	$62.74	$77.94	$54.56	$49.42	$58.53	$48.68	$56.54	$69,705,547	88.39%
559	PDN-LPN	$37.76	317,886	$12,003,362	$31.86	$52.28	$59.70	$54.56	$37.10	$51.54	$40.16	$46.74	$14,858,883	80.78%
580	PDN-RN (Group-per client)	$34.15	468,125	$15,986,456	--	--	$33.88	$54.56	--	$34.59	$68.48	$47.88	$22,412,637	71.33%
581	PDN-LPN (Group-per client)	$27.35	16,598	$453,952	--	--	$25.59	$54.56	--	$29.55	$56.76	$41.62	$690,721	65.72%
582	"Blended" group rate / client	$32.24	302,947	$9,766,997	--	--	$29.74	$54.56	--	$32.07	$62.62	$44.75	$13,556,101	72.05%
All	**Total**	**$42.69**	**2,338,315**	**$99,824,124**								**$48.48**	**$121,223,889**	**82.35%**

MPRRAC Recommendations

- The MPRRAC recommends increasing the rates for PDN revenue codes 552 and 559 to 100% of benchmark, while advising no change to the rates of the other three revenue codes.
- If possible, use the PDN HCPCS codes for the benchmark comparison analysis in the future. This is a review process recommendation instead of policy recommendation.
- The anticipated fiscal impact of the MPRRAC's recommendation is estimated to be $4,910,555 total funds, including $2,455,278 General Fund.

WHAT DOES THIS MEAN?

Absent digging deep into multiple appendices and backing into calculations -

There is no transparent way to interpret the recommended rate.

COLORADO
Department of Health Care Policy & Financing

MPRRAC | Factors That Were Not Considered & Errors

After reexamining the criteria chosen for the existing comp set, we leveraged the following factors to re-calculate the baseline

Factors	Description	Calculation(s)	Source(s)
Population Density 	• Used to measure how densely populated an area is	• 2023 Population / Land Area by State	United States Census Bureau
Total Nurse Supply 	• Used to gauge general labor supply relative to the population	• 2023 RN & LPN Employment / Population Estimates by State / 100K	BLS Bureau of Labor Statistics U.S. Department of Labor

Supply & Demand Dynamics 	• Used to understand how many nurses are available to service the estimated demand	• 2023 RN & LPN Adequacy %
		  • (2023 Supply / Demand)
		• 2023 RN & LPN Surplus / (Deficits)
		  • (2023 Supply – Demand)
			HRSA Health Resources & Services Administration

Labor Market / Wage Rates 	• Used to gauge the implied labor supply and demand pressures on wages	• 2023 RN & LPN Wage Rates	BLS Bureau of Labor Statistics U.S. Department of Labor

Errors found within the MPRRAC Analysis: Incorrect states were chosen, incorrect service codes (California), data was stale (2-year lag)

MPRRAC | Reexamining the Selected "Comp" Set

Relative to Colorado, the selected comp set has: higher COL, more population density, a much higher labor supply, supply/demand dynamics more in-line with the national average, and much higher wages

	Per C2ER	*2023 Population / Land Area (mi)*	*2023 LPN + RN / Population*	*Supply / Demand*		*Supply - Demand*		*2023 BLS Data*	
State	**COLA Index**	**Population Density**	**Total Nurses per 100K**	**RN Adequacy %**	**LPN Adequacy %**	**RN Surplus / (Shortage)**	**LPN Surplus / (Shortage)**	**RN Wage Rate**	**LPN Wage Rate**
California	138.5	238	1,057	89%	99%	(35,450)	(950)	$66.20	$36.82
Illinois	92.1	217	1,277	107%	60%	8,500	(10,600)	$42.14	$31.07
Louisiana	91.0	87	1,197	87%	154%	(6,380)	5,890	$38.83	$24.85
Massachusetts	146.5	663	1,446	132%	93%	20,660	(1,100)	$52.33	$35.29
Nebraska	90.9	26	1,403	83%	96%	(3,150)	(190)	$38.36	$26.98
North Carolina	95.3	201	1,115	87%	65%	(13,870)	(8,030)	$39.68	$27.77
Washington	116.0	110	912	90%	47%	(6,580)	(8,050)	$53.38	$36.26
MPRRAC Peer Average	**110.0**	**220**	**1,201**	**96%**	**88%**	**(5,181)**	**(3,290)**	**$47.27**	**$31.29**
Colorado	**105.1**	**56**	**998**	**77%**	**46%**	**(10,750)**	**(5,570)**	**$44.10**	**$31.11**
National Average	**100.0**	**88**	**1,136**	**92%**	**88%**	**(9,932)**	**(1,709)**	**$43.08**	**$29.10**

MPRRAC | Our Recommended "Comp" Set

After researching publicly available data, we recommend using the following comp set which is more in-line with Colorado

	Per C2ER	*2023 Population / Land Area (mi)*	*2023 LPN + RN / Population*	*Supply / Demand*		*Supply - Demand*		*2023 BLS Data*	
State	**COLA Index**	**Population Density**	**Total Nurses per 100K**	**RN Adequacy %**	**LPN Adequacy %**	**RN Surplus / (Shortage)**	**LPN Surplus / (Shortage)**	**RN Wage Rate**	**LPN Wage Rate**
Arizona	108.4	65	922	74%	46%	(17,210)	(7,310)	$43.96	$32.08
Maine	109.9	39	1,123	87%	30%	(1,980)	(2,440)	$40.55	$34.34
Michigan	90.6	104	1,132	88%	47%	(12,090)	(11,660)	$41.45	$29.77
Nevada	101.0	29	905	91%	63%	(2,450)	(2,040)	$46.97	$32.01
Oregon	114.7	43	1,014	104%	40%	1,710	(5,280)	$54.54	$34.22
Utah	103.2	40	765	91%	30%	(2,270)	(3,750)	$39.95	$27.61
Virginia	101.9	204	1,005	66%	102%	(27,630)	280	$42.48	$27.79
New Peer Average	**104.2**	**75**	**981**	**86%**	**51%**	**(8,846)**	**(4,600)**	**$44.27**	**$31.12**
Colorado	**105.1**	**56**	**998**	**77%**	**46%**	**(10,750)**	**(5,570)**	**$44.10**	**$31.11**
MPRRAC Peer Average	**110.0**	**220**	**1,201**	**96%**	**88%**	**(5,181)**	**(3,290)**	**$47.27**	**$31.29**
National Average	**100.0**	**88**	**1,136**	**92%**	**88%**	**(9,932)**	**(1,709)**	**$43.08**	**$29.10**

MPRRAC | Revised Rate Table and Calculation

After applying the same baseline methodology to the revised states, Colorado is trending well below the baseline for all revenue codes

Revised Selections – All Medicaid Rates are COLA Adjusted

Rev Code	Service Description	COLA Adj. Rate	Implied Hours	CO Repricing	Arizona	Maine	Michigan	Nevada	Oregon	Utah	Virginia	Peer Average	Benchmark Repricing	Benchmark Ratio
												(CO Hours) x (Peer Avg.)		*(CO) / (Benchmark)*
552	PDN-RN	$49.98	1,232,760	$61,613,357	$71.08	$58.27	$63.84	$78.42	$82.41	$50.29	$75.03	$68.48	$84,418,080	72.99%
559	PDN-LPN	$37.76	317,886	$12,003,362	$54.34	$41.31	$54.26	$51.95	$51.35	$50.29	$56.84	$51.48	$16,363,806	73.35%
580	PDN-RN (Group-per client)	$34.15	468,125	$15,986,456	--	$32.03	$95.76	$58.82	--	--	--	$62.20	$29,118,528	54.90%
581	PDN-LPN (Group-per client)	$27.35	16,598	$453,952	--	$22.75	$81.39	$38.96	--	--	--	$47.70	$791,714	57.34%
582	"Blended" group rate / client	$32.24	302,947	$9,766,997	--	--	--	--	--	--	--	$32.24	$9,766,997	100.00%
All	**Total**	**$42.69**	**2,338,315**	**$99,824,124**	--	--	--	--	--	--	--	**$60.07**	**$140,459,125**	**71.07%**

. [1] None of the revised states had revenue code 582, thus, the peer average was left at 100% of the COLA adjusted CO rate.

Conclusions

We realize you have a difficult budget process, please consider:

- ➔ Rates increases only come in cycles
- ➔ We are experiencing cost of living increases, workforce shortages, and wage inflation

We need to receive an appropriate increase to:

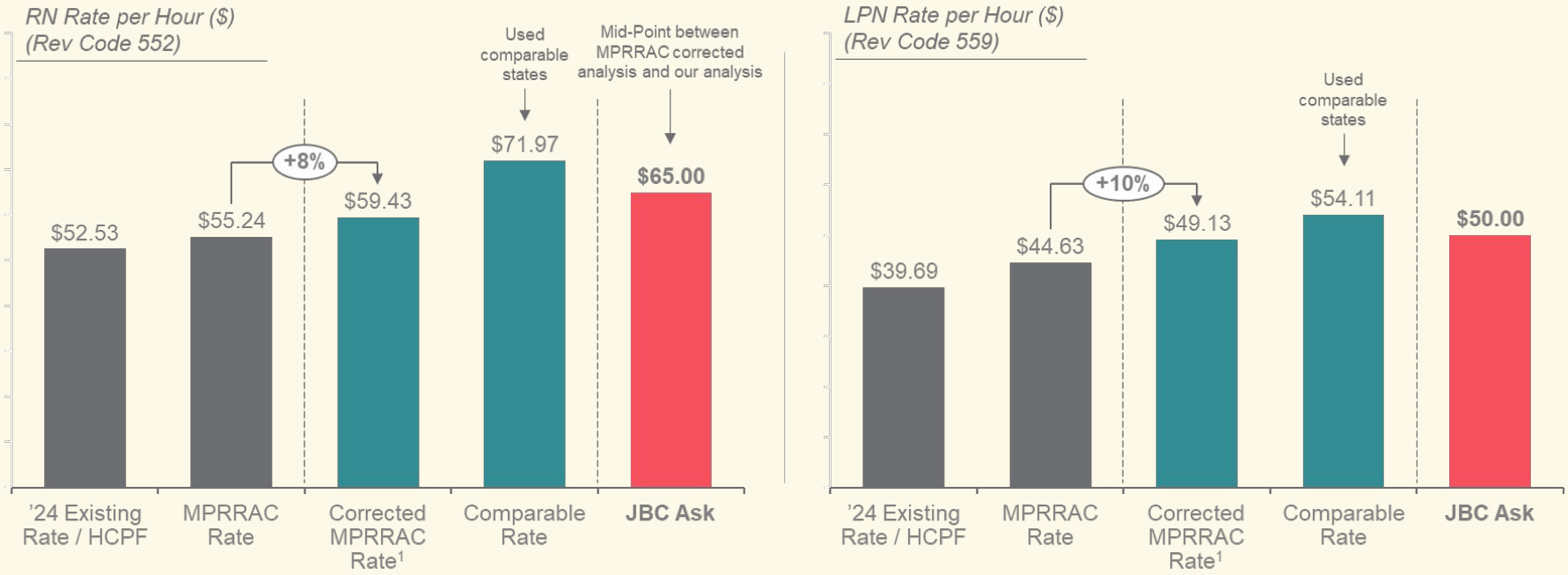
- ➔ Improve care access
- ➔ Expand family desired hours for those who need it
- ➔ Provider better outcomes for patients by avoiding unnecessary and costly readmissions and ER trips
- ➔ Hire qualified nurses
- ➔ Provide competitive pay for our existing labor force

Next Year:

- ➔ You will be grappling with the next round of provider increases from MPRRAC reports
- ➔ If you do not act now, the problem will only be magnified

JBC Ask | Increase in RN & LPN Rates

Our ask is to increase the RN rate to ~$65 and LPN rate to ~$50 | The "JBC Ask" figures below represent the midpoint of MPRRAC's corrected analysis and our analysis using comparable states



[1] Revenue codes for California, Illinois, Louisiana, Washington, and Massachusetts were corrected per the most recent fee schedule and appropriate revenue/HCPCS codes.

Conclusions

- ➔ These rates are for services for **our most vulnerable pediatric populations**
- ➔ An increase will **significantly impact our ability to meet patient and family needs** *for another 3 years*

♦♦♦♦

$65 for RNs and **~$50** for LPNs is needed
to **meet nursing labor workforce** demands

THANK YOU

We are here to work collaboratively with you to find solutions.

The Menges Group

Strategic Health Policy & Care Coordination Consulting

Costs and Benefits of Enhancing Private Duty Nursing Payment Rates in Colorado's Medicaid Program

February 2024

Prepared for:
Home Care and Hospice Association of Colorado

The Menges Group

Strategic Health Policy & Care Coordination Consulting

Table of Contents

The Menges Group

Strategic Health Policy & Care Coordination Consulting

I. Executive Summary

Private Duty Nursing (PDN) is essential in enabling many high-need Medicaid beneficiaries to be supported at home rather than via long-term hospitalization. For patients who are at home, PDN is also valuable in delivering expert care that averts clinical crises requiring hospitalization, and in freeing up family members to work and experience a better quality of life.

However, Colorado's Medicaid payment rates for PDN services are lower than typical Medicaid rates nationally, and even average Medicaid payment rates are below the amounts needed to attract and retain nurses into the PDN sector. Many different types of organizations compete for nurses, and the state's Medicaid rates put PDN providers at a significant disadvantage. Colorado falls short in the supply of PDN labor available to support its Medicaid enrollees.

This report derives the payment rate increase needed to attract adequate PDN service capacity in Colorado. These increases are summarized in Table ES-1.

Table ES-1. Current and Recommended Hourly Medicaid PDN Rates

	Registered Nurse (RN)	Licensed Practical Nurse (LPN)
Current Colorado Medicaid Fee-For-Service Payment Rate	$52.59	$39.69
Recommended Payment Rate	**$72.50**	**$60.38**
Recommended Dollar Increase	$19.91	$20.69
Recommended Percent Increase	37.8%	52.1%

The above recommended payment rate increases were derived by a) tabulating an average national Medicaid fee-for-service (FFS) payment rate for PDN services; b) adjusting this average for Colorado's cost of living; and c) adjusting the rate based on an average percentage differential in Medicaid managed care organization (MCO) payments for PDN services relative to Medicaid FFS rates. Medicaid MCOs have no incentive to "overpay" for PDN services, and collectively deliver a large portion of Medicaid PDN services nationally. Their payment rates therefore likely represent a better benchmark for balancing cost containment, access to PDN services, and quality objectives than do the Medicaid FFS rates derived in the political arena.

We estimate that the enhanced rates will create a 22.5% increase in the supply of PDN labor available to provide care to Colorado's Medicaid population. The combination of the increased rates and the increased labor are projected to nearly double Colorado's Medicaid PDN expenditures, increasing annual Medicaid PDN costs by approximately $85 million in total Medicaid funds.

However, these additional costs are expected to be largely offset by the reduction in inpatient care that the increased PDN volume achieves. We estimate these offsets to be 71% of the enhanced PDN payments. The annual net cost of the increased rates to Colorado Medicaid is estimated at $25 million overall, with $8.3 million to come from state funds and the remainder to be paid by the federal government.

II. Introduction

The Menges Group has been enlisted by the Home Care and Hospice Association of Colorado to evaluate the state's Medicaid Private Duty Nursing (PDN) payment rates. The purpose of the report is to seek to remedy the challenges that many Colorado stakeholders are currently experiencing in serving Medicaid-covered persons, particularly children, in the home-setting rather than the inpatient setting when a transition home is deemed clinically appropriate. A few statistics from a national survey are presented below:[1]

- 36% of households with a medically complex family member have experienced a hospital stay that was longer than clinically necessary due to home-based nursing support not being available.
- 87% of medically complex families had to make significant employment changes due to limited home-based nursing care being available.
- 25% of inpatient discharges for patients in medically complex families occurred with no home-based nursing care being lined up.

One nationwide PDN provider framed their challenges in Colorado by noting that, "The currently established fee schedule in Colorado has prevented us from providing PDN services at scale because we simply can't afford to hire and retain nurses." For this entity, only 0.3% of the Medicaid patients they serve nationally are Coloradans; similarly, only 0.3% of their nationwide nursing team are Colorado-based. These figures are far below proportional -- Coloradans represent 1.8% of nationwide Medicaid enrollees.

A 2019 study focused on children published in Health Affairs, Home Health Care For Children With Medical Complexity: Workforce Gaps, Policy, and Future Directions, summarized the situation as follows:[2]

> "Home health care for children and youth with medical complexity in the United States is a patchwork of policies and programs that does not currently meet the medical needs of many patients; unnecessarily prolongs hospitalizations; and relies on an insufficient, inadequately trained workforce.... it is evident from several national surveys that family caregivers are frequently shouldering enormous burdens that lead them away from their own gainful employment and create social, emotional, and financial hardship."

[1] 2023 State of Home Health Nursing Survey, authored by K. Knight, G. Knight, and B. Jordan.
[2] Foster, Agrwal, and Davis, Children's Hospital of Chicago, published in Health Affairs, June 2019

Additional research in this topic area has been consistent in identifying the shortcomings of current care delivery and models, and in finding that the key opportunities for improvement involve increasing the supply of home-based care. Examples of these research community contributions are conveyed below.

- The Joint Commission, "Home – The Best Place for Health Care," 2011
- Lindsey Paitich, BSN, RN, Chris Luedemann, MD, BSN, RN, Judy Giel, RRT, and Roy Maynard, MD, FAAP, "Allocation of Pediatric Home Care Nursing Hours – The Minnesota Experience," January, 2022.
- Barrett, DL, et al. The Gatekeeper Program. Proactive identification and case management of at-risk older adults prevents nursing home placement, saving healthcare dollars a program evaluation. Home Healthcare Nurse. March 2010;28(3):191-197.
- Leff, B, et al. "Comparison of functional outcomes associated with hospital at home care and traditional acute hospital care." Journal of the American Geriatrics Society. February 2009.
- James Howard, MD, and Tyler Kent, BS, "Improved Cost and Utilization Among Medicare Beneficiaries Dispositioned From the ED to Receive Home Health Care Compared With Inpatient Hospitalization", AJMC, March 4, 2019
- Oleg Bestsennyy, Michelle Chmielewsky, Anne Koffel, and Amit Shah, "From facility to home: How healthcare could shift by 2025, McKinsey & Company, February 2022

Components of This Report

Our report conveys an array of analyses that assess the following dynamics:

a) Where Colorado's Medicaid PDN payment rates compare to those in other states, before and after adjusting for cost of living.

b) The payment increase that would be needed to bring Colorado's PDN payments in line with the national average on a cost-of-living adjusted basis for CY2024.

c) The degree to which the costs of implementing this payment increase would be offset by triggering the following chain of events:

   a. Increasing the supply of PDN nurses serving Medicaid enrollees.

   b. Reducing the degree to which Medicaid-covered children are served in the inpatient setting – transitioning these patients to home-based care leveraging the additional PDN supply.

   c. Permitting additional hours of PDN care to occur at home, freeing up parents/caregivers to work more and attain a better, more multi-dimensional, quality of life.

III. Advantages of Home-Based Care for Patients and Families – Case Examples

All stakeholders agree that high quality care delivered at home rather than in a facility setting, is the preferred model of support. From a policy perspective, the case for home-based care is furthered by the cost advantages. The following pages convey three (3) case examples demonstrating the importance and value of private duty nursing in permitting effective (and cost-effective) care at home rather than in an institutional setting.

Case Example 1: PDN in Lieu of Hospice Care

A 25-year-old female diagnosed with Rett syndrome, a rare and debilitating neurological disorder, has received care from private duty nursing for more than half of her life. She faces significant challenges, being non-verbal and immobile, relying entirely on a feeding tube for nutritional needs.

Her medical challenges also include recurrent aspiration pneumonia and airway clearance impairment, leading to multiple hospitalizations that necessitated frequent life-saving measures, including airway intubations. Unfortunately, due to complications arising after repeated intubations, a tracheostomy became necessary, rendering her ventilator-dependent with a grim prognosis.

In the initial months post-tracheostomy, her mother and primary caregiver experienced a life-altering event, leaving her wheelchair-bound and unable to care for her bedbound adult daughter. Her daughter's prognosis continued to worsen as she became malnourished due to her inability to absorb nutrition properly, experiencing respiratory distress with numerous hospitalizations as her body attempted to adapt to her worsening condition.

Eventually, this led to the need for hospice care. Her mother recognized the potential to improve her daughter's prognosis and quality of life with consistent private duty nursing, so the family decided against hospice care. Private duty nursing has proven invaluable for this young woman and her family, offering specialized care in a familiar environment, and improving her overall well-being.

With round-the-clock monitoring and management of her complex medical needs, private duty nursing staff have addressed challenges related to her tracheostomy, intervening promptly in emergent situations like airway obstruction. This prevented the physical and emotional strain of unnecessary hospitalizations and the need for extraordinary life-saving measures. The continuous care provided by her private duty nurses allowed her primary caregiver to focus on her own rehabilitation, resulting in the elimination of wheelchair dependence and the ability to provide care for her daughter at home, preventing the placement of her daughter in a long-term care facility.

Her mother's quality of life also benefited from having the support of private duty nursing. Private duty nursing staff has played a pivotal role in educating the primary caregiver on managing the patient's complex condition and handling emergent situations at home. This not only prevented hospitalizations but also instilled confidence and competence in the caregivers.

Most notably, the continuous and specialized care provided by private duty nurses significantly improved the patient's overall condition over time, eventually rendering hospice care unnecessary.

Case Example 2: Ventilator Dependent Individual Since Birth

An 11-year-old female, born at 28 weeks gestation with bronchotracheal hypoplasia, subglottic stenosis, and laryngeal stenosis, has undergone several tracheal reconstruction procedures. She has required private duty nursing care for the majority of her life to monitor and manage her tracheostomy, ventilator dependence, and feeding tube for nutritional needs.

Due to airway instability and granulated tracheal tissue, routine tracheostomy changes required the presence of two nurses. She resides at home with her parents and two siblings.

Private duty nursing has played a crucial role in the comprehensive care of this child and the benefits are evident in her progress. With the consistent and stable support of private duty nursing, she successfully weaned from the ventilator and is now able to consume some food orally, although she is at a very high risk for aspiration, necessitating ongoing private duty nursing.

In addition to these achievements, private duty nursing has enabled this child to attend school, fostering social interaction and educational development.

The specialized care provided by private duty nurses ensures a safe and supportive environment, allowing the child to participate in school activities while managing her complex medical needs. Furthermore, the impact extends beyond the patient's physical well-being. Her mother, with the support of private duty nursing, seized the opportunity to obtain her LPN license.

The consistency and stability provided by private duty nursing staff allowed her the time and assurance needed to pursue and accomplish her professional goals, ultimately contributing to the overall well-being of the family and adding to the nursing workforce.

In summary, private duty nursing has not only been essential in the child's medical management, facilitating ventilator weaning and oral intake despite aspiration risk, but it has also empowered the mother to achieve professional milestones. Additionally, it has enabled the child to attend school, promoting socialization and educational

engagement. The continuous and specialized care provided by private duty nurses remains integral to the ongoing health, progress, and enriched life experiences of this child.

Case Example 3: Permitting A Fuller Life for Patient and Family

A 16-year-old female diagnosed with trisomy 9, cerebral palsy, dandy walker malformation, and developmental delay is dependent on a feeding tube for nutritional needs and is a wheelchair user. Private duty nursing plays a crucial role in monitoring and managing her nutritional needs and activities of daily living.

Living at home with her mother and one sibling, this young woman's daily life is significantly impacted by her medical conditions. Private duty nursing not only aids in maintaining her health and well-being but also extends support to her family. Her mother, with the assistance of private duty nursing, can attend work, knowing that her daughter is under the care of trained professionals.

Despite using a wheelchair, the provision of private duty nursing ensures that this 16-year-old can actively participate in school, fostering educational and social development. The specialized care provided addresses her unique challenges, creating an environment that promotes not only her medical stability but also enriches her daily life experiences.

In summary, private duty nursing has become an integral part of this teenager's life, offering crucial assistance in managing her complex medical conditions, supporting her education, and enabling her mother to maintain employment. The continuous care provided by private duty nurses contributes to the overall well-being and quality of life for both the patient and her family.

IV. Comparison of Medicaid PDN Payment Rates Across All States

We obtained Medicaid PDN payment rates for all 50 states and the District of Columbia. Exhibit 1 conveys each state's current hourly payment rates for registered nurse (RN) and licensed practical nurse (LPN) services. Across the 51 jurisdictions, Colorado currently has the 17th-lowest payment for RN services and the 11th-lowest payment for LPN services.

Colorado's Medicaid RN payment rate is $7.05 (11.8%) below the median across all states, and $3.77 (6.7%) below the nationwide weighted average (using each state's Medicaid enrollment to derive the weighted average).

Similarly, Colorado's Medicaid LPN payment rate is $9.04 (18.6%) below the median across all states, and $5.29 (11.8%) below the nationwide weighted average.

Colorado's PDN payments are particularly low when each state's cost of living is taken into consideration. As shown in Exhibit 1, Colorado has the 19th-highest cost of living among all states (and the District of Columbia). As shown in Exhibit 1, Colorado has an unwelcome combination of low PDN payment rates and a relatively high cost of living.

Exhibit 1. 2023 Medicaid PDN Payment Rates – Colorado and US Average

Jurisdiction	Current (2023) PDN Hourly Payment Rate		Cost of Living Index	Rank Among 50 States Plus DC (Highest Payment is Ranked #1)		
	RN	LPN		RN Rate	LPN Rate	Cost of Living Index
Colorado	$52.59	$39.69	106.9	34	40	19
Weighted Average Across All States	**$56.36**	**$44.98**				

Source: Proprietary PDN company research of state Medicaid payments, which was shared with The Menges Group for this report.

Colorado is one of only seven states in the nation that falls *below* the national median in PDN payments but *above* the national median in terms of cost of living for both RN and LPN services.

V. Payment Increases Needed in Colorado

We have estimated the Colorado PDN payment increases that would need to occur to provide the state's nurses with buying power equivalent to the national average. We adjusted these rates for inflation to create parity for CY2024. These tabulations are shown in Exhibit 2 and are described in the paragraphs that follow.

Using each state's PDN payment rates in Exhibit 1 and each state's Medicaid enrollment level as of September 2023, we calculated a weighted average payment rate across the 51 jurisdictions to be $56.36 for RN services and $44.98 for LPN services.

We then multiplied these national averages by Colorado's cost of living index (1.069) to derive the payment rates needed to deliver "national average" buying power to Colorado's nurses.

We also adjusted the "parity rate" from CY2023 to CY2024 based on the Congressional Budget Office's estimated increase of the Consumer Price Index between these years (2.7% for the overall CPI).

These calculations derived a national Medicaid parity rate for Colorado of $60.25 for RN services and $48.09 for LPN services in CY2024.

Exhibit 2. Recommended Payment Rate Derivation

Item #	Description	RN	LPN	Derivation
1	Weighted Average Rate (across all 50 states plus DC)	$56.36	$44.98	Medicaid Enrollment of Each State Used to Derive Weighted Average
2	Colorado Cost of Living Index (relative to national average of 1.000)	1.069	1.069	Source: Missouri Economic Research and Information Center, Cost of Living Data Series, Q3 2023
3	Colorado Payment Rate Needed to Provide Colorado Nurses with Buying Power Equivalent to Nationwide Average	$60.25	$48.09	Item 1 x Item 2
4	National CPI Increase, Q4 2023 to Q4 2024	2.7%	2.7%	Source: Congressional Budget Office publication
5	Payment Rate Needed to Also Capture Inflation from 2023 to 2024	$61.87	$49.38	Item 3 x 1.027
6	Current Colorado Payment Rate	$52.59	$39.69	Exhibit 1
7	Overall % Rate Increase Needed for National Medicaid FFS Parity	17.7%	24.4%	Item 5 / Item 6 (minus 1)
8	Additional Market Increase Needed to Match Medicaid MCO Payment Rates	20.2%	27.7%	Average payment differential derived across multiple PDN companies and multiple states
9	Total Recommended Percentage Increase	37.8%	52.1%	Item 7 + Item 8
10	**Recommended Payment Rate**	**$72.50**	**$60.38**	**Item 6 x (1 + Item 9)**

Reaching Parity Within Medicaid Is Not a Sufficient Payment Strategy

Creating parity in Colorado within the context of national Medicaid rates is not sufficient for the objective of attracting new nursing capacity into the PDN arena. The general inadequacy of PDN payment rates in the Medicaid fee-for-service (FFS) setting is demonstrated by the fact that Medicaid managed care organizations (MCO) often pay PDN providers above the Medicaid FFS rate.

Data shared by multiple PDN providers, not disclosing the payer names nor the states, indicates that Medicaid MCO payment rates for PDN services are typically above – and often far above – Medicaid FFS rates in the same state. Averaging the information together, we derived Medicaid MCO payments for PDN services to be 20.2% above Medicaid FFS for RN services, and 27.7% above Medicaid FFS for LPN services.

The MCOs that are at dollar-for-dollar risk for health care costs have no incentive to "overpay" for PDN services. Their price differential is indicative that the health plans see/expect net value in paying above Medicaid FFS in order to secure adequate PDN nurse capacity for their members requiring these services.

Taking all this information into account, our recommended hourly payment rates for Colorado are $72.50 for RN services and $60.38 for LPN services. On a percentage basis, these recommended rates are 37.8% ($19.91) above Colorado's current hourly rate for RN services and 52.1% ($20.69) above Colorado's Medicaid rate for LPN services.

Overall Cost Estimates for Colorado PDN Services

We estimate that Colorado Medicaid PDN costs will increase for two reasons – the higher rates, plus the higher volume of PDN services that occur under the higher rates (as PDN providers are able to compete more effectively for RN and LPN labor). The key advantage of the PDN rate increases will be that they will foster greater service capacity, with PDN providers better able to attract and retain nursing labor.

Our average percentage PDN rate increase for Colorado Medicaid is 45.0%, which assumes half of PDN spending is for RN services and half for LPN services.

Based on information we received from PDN providers, we have identified that every percentage point rate increase can be expected to create roughly half this percentage in increased PDN labor capacity. Therefore, we estimate that a 22.5% increase in PDN service volume will occur in conjunction with a 45% hourly rate increase.

The additional annual Colorado Medicaid payments for PDN services at these enhanced rates – including the enhanced PDN support these rates will create – are estimated in Exhibit 3 to be $85.4 million overall, $28.5 million coming from state funds.

The overall Medicaid PDN percentage cost increase, including the volume impacts, is projected at 77.7%.

Exhibit 3. Colorado Medicaid PDN Costs at 45.0% Rate Enhancement (Including Estimated 22.5% Increase in Supply of PDN Services)

	Colorado PDN Medicaid Costs -- Total	State Share of Costs	State Share %
FFY2021 (obtained from CMS FMR report)	$110,118,265	$48,204,692	43.8%
FFY2022 (obtained from CMS FMR report)	$110,101,681	$37,051,310	33.7%
SFY2024 (Estimate Reflects Current Payment Rate and Current Labor Supply)	$110,000,000	$36,666,300	33.3%
SFY2024 Estimate at 45.0% Rate Enhancment	$159,491,850	$53,163,418	33.3%
Total Cost Assuming 22.5% Service Capacity Increase Occurs	$195,377,517	$65,125,188	33.3%
Additional PDN Cost at Enhanced Rate, SFY2024	**$85,377,517**	**$28,458,888**	**33.3%**

VI. Offsetting Savings From Inpatient Care Reductions

The previous section estimated the "gross" costs of a PDN rate increase, looking only within the silo of PDN costs.

This section estimates the net costs of this increase in Colorado by also taking into account what the rate increase can reasonably be expected to yield via the reduction in the volume of inpatient bed days that becomes possible when enhanced PDN nursing capacity is available.

A. Number of Additional Persons Who Can be Supported at Home Via PDN Due to Payment Increase

As shown in the top rows of Exhibit 4, approximately 2.4 million hours of PDN support are delivered under Colorado's current Medicaid program structure. A 22.5% increase in this capacity – the amount we project in conjunction with the recommended rate increases – is estimated to yield approximately 536,000 new hours of annual Medicaid PDN support in Colorado.

The bottom half of Exhibit 4 estimates that this additional PDN labor will be sufficient to serve 122 Colorado Medicaid enrollees at home who would otherwise be hospitalized. This substitution of home care for inpatient care includes two groups:

a) Hospitalized persons who can be discharged and cared for at home if additional PDN services are available; and

b) Persons receiving home-based care who can now obtain additional PDN support that prevents clinical crises and hospitalizations from occurring.

This estimate assumes the patients receiving PDN in lieu of inpatient care will receive an average of 12 hours of PDN support per day throughout the year.

Exhibit 4. Derivation of Number of Hospital Transition Cases that Enhanced PDN Capacity Will Be Able to Serve

Statistic	Amount
Current Colorado Program Structure	
Estimated Annual Medicaid PDN Expenditures	$110,000,000
Estimated Average Hourly Payment Rate	$46.14
Estimated Annual PDN Hours Currently Provided	2,384,049
Enhanced Program	
Additional Annual PDN Hours Available (22.5% increase)	536,411
Average PDN Hours Per Patient Per Day (inpatient substitution cases)	12
Additional Patients Who Can Be Served Via PDN Each Day (inpatient substitution cases): 536,411 / 365 / 12	122

C. Degree to Which Currently Hospitalized Colorado Medicaid Enrollees Can be Transitioned Home (if additional PDN capacity is available)

It is challenging to discern the total number of Colorado Medicaid patients who can be served safely and effectively at home in lieu of inpatient care. Piecing together the information we were able to obtain (summarized in the text below), we anticipate that there are likely well over 100 persons who are in this situation at a given point in time.

- One Colorado PDN provider noted that "We currently have 48 referrals waiting on PDN staffing, with 19 patients unable to come home in some capacity."
- Another Colorado PDN provider indicated that they currently have a list of 30 patients who have been referred to them, but who they are unable to support at their current staffing level.
- A Colorado hospital indicated that its facility "currently has a handful of patients who are extended-stay with medical issues and are ready for discharge, waiting on PDN or related home care services where significant gaps in the Medicaid network exist."[3]
- A considerable number of new hospitalizations will be avoided through the professional care enrollees receive at home via enhanced PDN service delivery.

D. Per Case Medicaid Savings When Home-Based PDN Is Used In Lieu of Inpatient Hospital Care

This section estimates the Medicaid savings that accrue when an individual is served at home with PDN support, in lieu of remaining hospitalized. Exhibit 5 estimates costs in the home-based setting.

[3] Colorado hospital representatives conveyed that not all dischargeable Medicaid enrollees will yield the same savings, due to Medicaid not incurring 100% costs for some patients where the hospitalization no longer meets medical necessity criteria.

Exhibit 5. Derivation of In-Home Cost Per Day Estimate

At Home Cost	Amount	Derivation
PDN Cost Per Day		
Average Hourly Rate	$66.44	Assumes 50/50 split between RN and LPN services at this report's recommended payment rates
Estimated Average Hours Per Day	12	Estimated by a PDN Provider
Daily Cost, PDN	$797.27	Multiply above two rows
Estimated Pharmacy Cost/Day	$150.00	Average Medicaid cost per prescription (post rebate) in 2021 was $41; our estimate assumes average at-home patient receives 3 medications at $50 average net cost
Estimated Other Services Cost/Day (e.g, DME)	$70.00	Ventilator cost is approximately $30/day (one-third of persons are estimated to require ventilators); other DME (hospital bed, wheelchair, etc.) estimated at approximately $30/day; other services estimated at $30/day
Total Cost/Day at Home	**$1,017.27**	**Sum of above three rows**

We derived an average *inpatient* daily cost to compare with the figures in Exhibit 5 through the following process:

a) Base Colorado Medicaid baseline payment rates for each Colorado hospital are published on-line by the Colorado Department of Health Care Policy and Financing. https://hcpf.colorado.gov/inpatient-hospital-payment

b) At the same website, the Colorado Department of Health Care Policy and Financing publishes DRG weights and average lengths of stay (ALOS) for each of 1,258 DRGs.

c) Working with this information, we identified the 100 DRGs with the highest ALOS, as a proxy for the types of cases that are most likely to have extended periods where home-based PDN is a clinically viable alternative.

d) We calculated an average Medicaid payment of **$2,369 per day** across these DRGs for Children's Hospital of Colorado, and for all other Colorado acute care hospitals. Children represent a disproportionate share of the cases that have substitutable PDN days. As the region's only pediatric specialty hospital, half of Children's Hospital of Colorado's patient population relies on Medicaid for insurance coverage and the hospital cares for pediatric patients with some of the most complex medical needs. We weighted the average daily payment for Children's Hospital 50%, and weighted all other Colorado hospitals' average daily payment rate 50%.

Exhibit 6 derives Colorado's net annual Medicaid costs based on all the above figures and estimates. The cost tabulations indicate that an annual per person savings of nearly $500,000 will accrue to Colorado's Medicaid program when an individual is served at home in lieu of inpatient care.

Exhibit 6. Derivation of Net Cost Impacts of PDN Rate Increase

Medicaid Cost Comparison	Daily Cost	Annualized Amount
In-Home Care	$1,017	$371,302
Inpatient Care	$2,369	$864,503
In-Home Savings Per Transitioned Person Per Year	$1,351	$493,200
Gross Annual Cost of PDN Rate Increase		$85,377,517
Number of Transitions Needed for Breakeven		173.1
Estimated Transitions that Recommended PDN Rate Increase Enables		122.5
Estimated Net Annual Medicaid Cost of PDN Rate Increase		**$24,976,143**
State Fund Annual Impact (33.3% of total)		**$8,325,381**

To fully offset the $85 million cost of the PDN payment rate increase would require that on an average day, 173 additional Colorado Medicaid enrollees are cared for at home rather than in the hospital. The increased PDN capacity associated with this report's recommended rate increase is estimated to support 122.5 additional Colorado Medicaid enrollees at home per day.

These figures result in an estimate that most (71%) – but not all – of the costs of the PDN rate increase will be recouped via the combination of increased PDN capacity, more home-based care, and fewer hospital days.

The remaining net annual cost of the rate increase after these offsets is estimated to be $25.0 million for the Medicaid program overall, and $8.3 million in state funds.

Appendix A: Methodological Observations and Limitations

This Appendix conveys further context around the quantitative estimates included in the report.

Average Medicaid PDN Payments in Fee-For-Service Setting: We have no reason to doubt the accuracy of the data the PDN providers assembled and shared with us. Data were provided from two sources and the state-by-state payment amounts were nearly identical. In several states, Medicaid PDN rates varied between urban/rural counties, high technology and low technology patients (also sometimes termed as specialty or non-specialty patients), weekday and weekend rates, and/or pediatric and adult patients. In these states, we averaged the published rates together by urban/rural in approximate concert with a state's overall population distribution, by severity using a 50/50 assumption (e.g., between high technology and low technology), and by age cohort (75% child). The national average rate was derived by weighting each state's payment rates by their overall Medicaid enrollment level as of September 2023.

Average Medicaid PDN Payments in MCO Setting Relative to Fee-For-Service Setting: While it was important to understand Medicaid MCO payment rate dynamics for PDN services, we did not want to obtain or disclose the specific payment rates that PDN providers have negotiated with Medicaid MCOs. We therefore surveyed PDN providers requesting that they provide factors by which Medicaid MCO rates differed from Medicaid FFS rates in the states they serve. The data we received back were averaged within a PDN company (averaging their information across states and/or MCO data points), and these figures were then averaged together such that each PDN company contributing data received an equal weighting.

Estimated Degree to Which PDN Service Capacity Will Grow Under Enhanced Colorado Medicaid Payment Rates: We received information from different PDN providers on their experience with staffing before and after Medicaid payment rate increases went into effect. There were only a few situations where large rate increases occurred, and the data we received supported a ratio of roughly 60% (i.e., any given percentage payment rate increase would yield 60% of that percentage in increased PDN nursing capacity). Due to the modest amount of data available, we lowered our estimated ratio to 50% in this report.

Number of Medicaid Enrollees Who Can Be Served Via PDN In Lieu of Inpatient Care: This is the component of our estimates that we felt least confident about. The data available on this issue came from too few sources to extrapolate to a reliable statewide number. The body of the report conveys this data, and our opinions

around what these data mean (e.g., that there are at least 100 Colorado Medicaid enrollees in the hospital on a typical day who could be safely cared for at home if enhanced PDN capacity were available.).

Average Daily Cost of Inpatient Care: The body of the report conveys in detail the approach used to calculate this average. The data published by the Colorado Department of Health Care Policy and Financing provide an excellent baseline for our estimates. However, significant assumptions needed to be made regarding which DRGs to include in the estimate, and how to weight the payment rates across different hospitals. Children's Hospital of Colorado's payment rates received a 50% weighting – not because we expect that this facility "has" 50% of the patient days that can be transitioned – but because the complex cases that Children's disproportionately services are the *types of cases* we anticipate will represent a significant share of the days that shift from hospital to home.

Average Daily Cost of Home Care: Our estimates sought to match up the services that still need to be provided at home to those that occur in the inpatient setting, and these go beyond nursing care. We did not have a sound data set to estimate the daily cost for "all other services" and our assumptions – often crude ones – are conveyed in the body of the report. While these service estimates were somewhat of a "forced guess", we viewed them to be reasonable and made them objectively.