The Menges Group

Strategic Health Policy & Care Coordination Consulting

Costs and Benefits of Enhancing Private Duty/Shift Nursing Payment Rates in Pennsylvania's Medicaid Program

April 2024

Prepared for:
Pennsylvania Homecare Association

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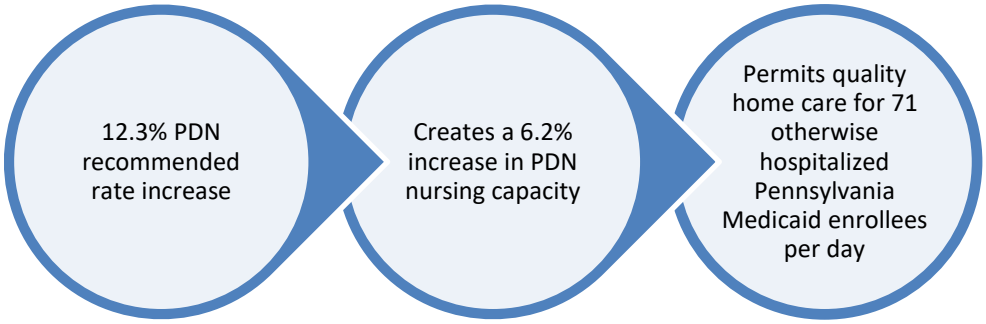
I. Executive Summary

Private Duty Nursing (PDN), often referred to as "shift nursing" in Pennsylvania, 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, average Medicaid payment rates are below the amounts needed to attract and retain nurses into the PDN sector, and Pennsylvania's Medicaid payment rates for PDN services are *even lower* than typical Medicaid rates nationally and in the northeastern US. Many different types of organizations compete for nurses, and Pennsylvania's Medicaid rates put PDN providers at a significant disadvantage.

This report derives the payment rate increase needed to achieve a significant gain in PDN service capacity in Pennsylvania, and the net costs of taking these actions. The key components of our estimates are summarized in Exhibit ES-1 below.

Exhibit ES-1. An Essentially Cost-Neutral Path to Better Outcomes



The report also demonstrates the quality of life value of transitioning persons home when it is clinically appropriate to do so. The quote below provides an example.

> The mother of an infant/child, who came home after more than two years in the hospital, expressed that: "We spent over two years surviving and now we get to live."

Pennsylvania's current Medicaid fee-for-service (FFS) rates for PDN services, and the structure currently used for these rates, are shown in the top rows of Exhibit ES-2. The bottom rows of Exhibit ES-2 convey the report's recommended blended rate.

Exhibit ES-2. Current and Recommended Hourly Medicaid PDN Rates

Program	Office of Long Term Living (OLTL - Adult)	Office of Medical Assistance Program (OMAP – Pediatric)
RN Rate	$66.20	$50.00
LPN Rate	$44.08	$50.00
Recommended Rates	$59.05 (blended)**	$59.05 (blended)**
Recommended Dollar Increase	*$3.91*	*$9.05*
Recommended Percent Increase	7.1%	18.1%

An average current hourly rate of $52.57 was derived through the following steps:

- Calculating an average adult rate of $55.14 (across the DHS Office of Long Term Living rates of $66.20 for RN services and $44.08 for LPN services); and
- Then averaging the adult figure with the DHS Office of Medical Assistance Programs pediatric rate of $50.00 (which is used for both RN and LPN services).

The above recommended blended payment rate of $59.05 simplifies the structure by averaging together current payment rates that are in some cases sending mixed signals. For example, some current rates are higher for adults than children whereas others are higher for children than adults. Also, the RN and LPN services being rendered are often identical to one another but are often generating differential payment levels.

The recommended increases were derived by:

a) tabulating an average regional Medicaid fee-for-service (FFS) payment rate for PDN services across four of Pennsylvania's neighboring peer states;

b) adjusting this average for Pennsylvania'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 based on a sample of Pennsylvania's PDN providers.

The MCO payment rates represent a market-driven benchmark for balancing cost containment, access to PDN services, and quality objectives.

Based on reported experience of PDN providers in other states where rate increases were implemented, we estimate that the enhanced rates will create a 6.16% increase in the supply of PDN labor available to provide care to Pennsylvania's Medicaid population.

The combination of the increased rates and the increased labor are projected to create a 19% increase in Pennsylvania's Medicaid PDN expenditures, increasing annual Medicaid PDN costs by approximately $42 million in total Medicaid funds (federal and state share combined). However, we estimate that the above costs of the PDN rate increase will be almost entirely (97%) offset by the combination of increased PDN capacity, more home-based care, and fewer hospital days.

The inpatient savings are so large at the patient level (approximately $580,000 per person annually), that they essentially "pay for" elevating the PDN rates for the entire body of PDN care that is currently occurring at the FFS rate level. The net annual Medicaid costs are estimated to be $1.4 million for the Medicaid program overall, and $0.6 million in state funds.

Considerable cost savings potential exists for the rate increases to be budget neutral or even yield cost savings. A slight favorable variation in any of the derivation assumptions in this report will yield a net savings. For example, if the PDN nursing capacity increases by 7.0% (instead of the estimated 6.16%), a net overall annual savings of $3.9 million will occur -- including a $1.7 million savings in state funds.

II. Introduction

The Menges Group has been enlisted by the Pennsylvania Homecare Association to evaluate the state's Medicaid Private Duty Nursing (PDN) payment rates. The purpose of this report is to seek to remedy the challenges that many Pennsylvania stakeholders are currently experiencing in serving Medicaid-covered persons, particularly children with special healthcare needs who are in the inpatient setting rather than the home 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 Pennsylvania by noting that, "The currently established fee schedule … has prevented us from providing PDN services at scale because we simply can't afford to hire and retain nurses."

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."

In healthcare support and direct patient care occupations nationwide, workers experienced either stagnant or negative wage growth from 2001-2017[3]. According to a

[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
[3] Real wage growth in the U.S. health workforce and the narrowing of the gender pay gap, authored by Janis Barry, published in Human Resources for Health, August 2021

state-specific study published by Mercer in 2021[4], Pennsylvania is currently in the top five states experiencing the most severe shortage of health care labor at the low end of the wage spectrum, limiting access to home care. Additionally, the Mercer report names Pennsylvania as the state that will experience the greatest nursing shortage over the next few years, illuminating the need for greater compensation.

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.
- Jonathan Gonzalez-Smith, Montgomery Smith, William K. Bleser, and Robert S. Saunders: "Policy Opportunities To Expand Home-Based Care For People With Complex Health Needs," Health Affairs, March 18, 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
- Robert Nelp and Asmaa Albaroudi, "Medicaid Payment Policies to Support the Home- and Community-Based Services (HCBS) Workforce," MACPAC, November 2023

[4] US Healthcare Labor Market, authored by Tanner Bateman, Sean Hobaugh, and Eric Pridgen of Mercer, 2021.

Components of This Report

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

a) Where Pennsylvania's Medicaid PDN payment rates compare to those in neighboring states.

b) The payment increase that would be needed to bring Pennsylvania's PDN payments in line with the neighboring peer group states' average on a cost-of-living adjusted basis for CY2024, estimating the rates paid by Medicaid MCOs.

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.

The report also presents a compilation of patient-specific case examples demonstrating the value of PDN to patients and to their families.

III. Comparison of Medicaid PDN Payment Rates With Geographic and Demographic Peer States

We obtained Medicaid PDN payment rates for all 50 states and the District of Columbia. Exhibit 1 compares Pennsylvania's current hourly payment rates for registered nurse (RN) and licensed practical nurse (LPN) services with four neighboring states – Delaware, Maryland, New Jersey, and Ohio.[5]

Exhibit 1. 2023 Medicaid PDN Payment Rates – Pennsylvania and Neighboring Peer States

Jurisdiction	2023 PDN Hourly Payment Rate		
	RN	LPN	Average Across RN and LPN
Pennsylvania	Adult: $66.20 Pediatric: $50.00	Adult: $44.08 Pediatric: $50.00	$52.57
Delaware	$63.66	$57.04	$60.35
Maryland	$77.18	$50.02	$63.60
New Jersey	$63.00	$51.00	$57.00
Ohio	$68.44	$48.00	$58.22
Weighted Average Across Neighboring Peer States (DE, MD, NJ, OH)	**$68.60**	**$49.72**	**$59.16**

Pennsylvania currently has an array of payment rates for PDN services. The average of $52.57 was derived by first calculating an average adult rate of $55.14 (across the DHS Office of Long Term Living rates of $66.20 for RN services and $44.08 for LPN services), then averaging that with the DHS Office of Medical Assistance Programs pediatric rate of $50.00.

[5] Note that two additional neighboring states, New York and West Virginia, were not included in this peer state comparison. New York's published FFS rates are not used to a significant extent, as PDN services occur predominantly through MCOs and an array of waiver programs (with these payment levels not tied to the FFS rates). West Virginia is geographically and demographically different than all of Pennsylvania's neighboring states, with the nation's lowest cost of living and third largest percentage of its population residing in rural areas.

Note that an additional, tailored PDN rate structure for persons with developmental disabilities was not included in this average due to the relatively small volume of care that occurs at these specialized rates.

Pennsylvania's average Medicaid PDN payment rate – across RN and LPN rates, and across pediatric and adult rates – is $6.59 (12.5%) below the average across the four peer states (using each state's Medicaid enrollment to derive the weighted average).

30 states have higher average Medicaid FFS payments for PDN services than Pennsylvania (when combining/averaging each state's RN and LPN rates when separate rates are used).

"Overall, a rate of at least $60/hour is necessary to provide adequate pay to qualified staff. This rate is even higher when working with high-acuity clients ($70/hour+)"

– Pennsylvania PDN Provider

IV. Recommended Payment Increases in Pennsylvania

We made three adjustments to the figures in Table 1 to estimate appropriate Medicaid hourly rates in Pennsylvania. First, we factored in cost of living, which is 8.75% *lower* in Pennsylvania than across the four neighboring peer states.

Second, the Medicaid rates in each state were obtained as of calendar year 2023. To translate the buying power of these 2023 payments to 2024, we applied an average cost of living adjustment of 2.7% based on national Congressional Budget Office projections.[6]

Third, under Pennsylvania's Medicaid program, PDN services are often paid by managed care organizations (MCOs) rather than through the fee-for-service (FFS) setting.

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 enrollees requiring these services.

Data shared by more than ten PDN providers, indicates that some 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 6.0% above Medicaid FFS (for both RN and LPN services). Notwithstanding the derivation of this average differential, many Pennsylvania MCOs are paying for PDN care at the Medicaid FFS rate. It is therefore important to elevate the FFS rate, so that the health plans that are "indexing to the FFS rate" also pay the PDN providers at a level that helps deliver adequate staffing capacity.

The above rate adjustments are shown in Exhibit 2. After taking all the above factors into account, our calculations derive the recommended Medicaid FFS hourly payment rate to be $59.05. The single blended payment rate across RN and LPN services addresses the dynamic that the PDN care being rendered by RNs and LPNs is often identical – and it is more appropriate to structure the reimbursement to deliver "equal pay for equal work."

The $59.05 blended rate would actually reduce Pennsylvania's current Medicaid FFS payments when PDN services for adults are rendered by RNs, but would increase payments for those services rendered by LPNs. The recommended rate of $59.05 represents an overall rate increase of 12.33% across all PDN services that are currently reimbursed at the FFS rate levels.

[6] https://www.cbo.gov/publication/59431

Exhibit 2. Recommended Payment Rate Derivation

Item #	Description	Blended Rate (for RN and LPN Services)	Derivation
1	Average Rate Across 4 Neighboring Peer States (DE, MD, NJ, OH)	$59.16	Straight Average Calculated Within Each State's RN and LPN Rates; Medicaid Enrollment of Each State Then Used to Derive Weighted Average Across the Four States
2	Pennsylvania Cost of Living Index (relative to the four peer states' weighted average)	0.920	Source: Missouri Economic Research and Information Center, Cost of Living Data Series, Q3 2023
3	Pennsylvania Payment Rate Needed to Provide Nurses with Buying Power Equivalent to Peer State Average	$54.43	Item 1 x Item 2
4	National CPI Increase, Q4 2023 to Q4 2024	2.7%	Source: Congressional Budget Office publication
5	Payment Rate Needed to Also Capture Inflation from 2023 to 2024	$55.90	Item 3 x 1.027
6	Current Pennsylvania Payment Rate	$52.57	Exhibit 1 (averages adult and pediatric rates together)
7	Overall % Rate Increase Needed for Regional Medicaid FFS Parity	6.3%	Item 5 / Item 6 (minus 1)
8	Additional Market Increase Needed to Match Medicaid MCO Payment Rates	6.0%	Average of 15 Pennsylvania PDN providers' reported differential
9	Total Recommended Percentage Increase	12.33%	Item 7 + Item 8
10	**Recommended Payment Rate**	**$59.05**	**Item 6 x (1 + Item 9)**

We have also recommended a single blended rate across pediatric and adult patients. Pennsylvania's current rate structure creates differing rates for adults and pediatric, and these differences are in opposite directions for RN services (where adult payments are higher) and LPN services (where pediatric payments are higher). A blended rate addresses these contradictions and resolves the concerns expressed in the quotes below.

"A home health provider should not be expected to take a significant drop in reimbursement when an individual turns 21." – Pennsylvania PDN Provider

"Pediatric care pays 12% higher of a reimbursement than adult care is currently paying. If pediatric care low level is paying at a higher rate they are naturally going to choose to work where the highest money will be offered. This leaves adults across the board with having more open shifts and less viable options to cover their care, especially if they are trach and vent!"

– Pennsylvania PDN Provider

Similar Policy Approaches in Other States

The recommended payment rate increases for PDN services in Pennsylvania align with the payment policy approach being taken in multiple other states who are seeking to enhance front-line capacity to deliver quality home-based care. Two specific examples are conveyed below.

- Massachusetts recently increased its RN rate 10.8% from $64.36 to $71.32, while increasing its LPN rates by 9.3% from $53.08 to $58.00. Care delivery hours in Massachusetts increased by 22% for one PDN provider. An additional increase to these rates is pending before the Massachusetts assembly with a proposed effective date of August 14, 2024.

- Virginia increased its PDN rates in July 2022 by an average of 79%, now paying $81.62 for RN services in Northern Virginia, $71.29 for RN services in the rest of the state, $63.43 for LPN services in Northern Virginia, and $52.40 for LPN services in the rest of the state. These four current rates average to $67.19 an hour.

Overall Cost Estimates for Pennsylvania PDN Services

Pennsylvania's current Medicaid PDN costs are estimated in Exhibit 3. These costs during 2021 were provided to us by the Pennsylvania Homecare Association and a 3.0% annual cost trend was used to estimate 2024 costs.

Exhibit 3. Estimated Baseline Pennsylvania Medicaid PDN Costs

Medicaid Program Setting	SFY2021	2024 Estimate (annual 3% increase)
Fee-For-Service	$9,251,475	$10,109,337
Community HealthChoices	$115,671,533	$126,397,407
Physical HealthChoices	$461,477,264	$504,268,666
Total	**$586,400,272**	**$640,775,410**

We estimate that Pennsylvania's current Medicaid PDN costs will increase in future years for two reasons – the implementation of higher rates (in the FFS setting and which several Pennsylvania MCOs will then likely match), plus the higher volume of PDN services that occur under the higher rates (as PDN providers are able to compete more effectively for nursing 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.

Working with the data in Exhibit 3, we estimate that the 2024 baseline Medicaid PDN cost that will be affected by the increased FFS rate is $220.3 million. This estimated figure was derived through the following components:

- 100% of FFS PDN costs
- One-third of Community HealthChoices PDN costs[7]
- One-third of Physical HealthChoices PDN costs

We estimate that one-third of the PDN services paid by Medicaid MCOs is tied exactly to the Pennsylvania Medicaid FFS rate structure and amounts.

Based on information we received from PDN providers operating in other states where

[7] The Community HealthChoices (CHC) program is Pennsylvania's Long-Term Services and Supports mandatory managed care for dual-eligible individuals and individuals with physical disabilities. The Physical HealthChoices program is a separate Medicaid managed care program focused on physical health services for more than two million Medicaid adult and pediatric enrollees who are eligible for Medicaid for reasons other than disability or being age 65 or above.

significant rate increases were implemented, we have estimated that every percentage point rate increase can be expected to create roughly half this percentage in increased PDN labor capacity. Therefore, we project that a 6.16% increase in PDN service volume will occur in conjunction with a 12.33% hourly rate increase.

The additional annual Pennsylvania Medicaid payments for PDN services at these enhanced rates – including the enhanced PDN support these rates will create – are estimated in Exhibit 4 to be $42 million overall, with $17 million coming from state funds.

The overall Medicaid PDN percentage cost increase for services paid at the FFS rates, including the volume impacts, is projected at 19.3%. No cost impact is projected for PDN care that is currently being paid (by MCOs) above the FFS rate.

Exhibit 4. Pennsylvania Medicaid PDN Costs at 12.33% Rate Enhancement (Including Estimated 6.16% Increase in Supply of PDN Services)

	Pennsylvania PDN Medicaid	State Share of Costs	State Share %
Payment Rate and Current Labor Supply)	$220,331,361	$99,149,112	45.0%
SFY2024 Estimate at 12.33% Rate Enhancment	$247,498,197	$111,374,189	45.0%
Total Cost Assuming 6.16% Service Capacity Increase Occurs	$262,756,450	$118,240,402	45.0%
Additional PDN Cost at Enhanced Rate, SFY2024	**$42,425,089**	**$19,091,290**	**45.0%**

Note that the general Federal matching rate for Pennsylvania is approximately 54.12% in FY2024, and 55.09% in FY2025 -- creating a state share of approximately 45%.

V. 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 Pennsylvania 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. Additional Persons Who Can be Supported at Home Via PDN Due to Payment Increase

As estimated in the top rows of Exhibit 5, approximately 4.2 million hours of PDN support are delivered under Pennsylvania's current Medicaid program structure at the FFS rates. A 6.16% increase in this capacity – the amount we project in conjunction with the recommended rate increases – is estimated to yield approximately 258,000 new hours of annual Medicaid PDN support in Pennsylvania.

Exhibit 5. Derivation of Number of Medicaid FFS Hospital Transition Cases that Enhanced PDN Capacity Will Be Able to Serve

Statistic	Amount
Current Pennsylvania Program Structure	
Estimated Medicaid PDN Expenditures Currently Occurring at Medicaid FFS Rate	$220,331,361
Estimated Average Hourly Payment Rate	$52.57
Estimated Annual PDN Hours Currently Provided	4,191,200
Enhanced Program	
Additional Annual PDN Hours Available (6.16% increase)	258,387
Average PDN Hours Per Patient Per Day (inpatient substitution cases)	10
Additional FFS Patients Who Can Be Served Via PDN Each Day (inpatient substitution cases: 258,387 / 365 / 12	71

The bottom half of Exhibit 5 estimates that this additional PDN labor will be sufficient to serve 71 Pennsylvania Medicaid enrollees at home who would otherwise be

hospitalized (at an assumed support level of 8 hours per calendar day). 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 10 hours of PDN support per day throughout the year.

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

It is challenging to discern the total number of Pennsylvania 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 bulleted text below), we anticipate that there are likely over 500 persons who are in this situation at a given point in time. Therefore, the recommended rate increase – and corresponding expected increase in PDN nursing capacity – is not going to be sufficient to serve all persons who are hospitalized in Pennsylvania who could be served effectively at home. The rate increase will move Pennsylvania into a considerably better position, however.

- Another PDN provider indicated that they declined 174 referrals in the most recent calendar quarter (second quarter of 2023) where they had tabulated this information.

- Current referrals with pending or decline status since December 2023 are roughly 250 within our PDN population.

- The MCOs send weekly needs spreadsheets which is very evident of the PDN shortage crisis across the state. One MCO alone typically has more than 400 patients on its list.

- Specific to pediatrics, we currently have 10+ referrals in our division (Western Pennsylvania) that are able to come home from a facility. However, staffing is a barrier.

- Our [PDN Provider's] primary focus is pediatrics and is 95% of our service

volume. High acuity patients are the biggest risk for being stuck in hospitalizations and not being discharged to home even when they are ready for discharge. Hospitals want these patients to have full staffing before they will be discharged. The agency begins to piece staffing together but before full staffing can be secured the staffing that was secured becomes anxious at how long the discharge is taking that they bow out and the staffing that was secured falls apart. It is a vicious cycle that repeats itself.

- Our [PDN Provider's] offices receive daily referrals for both adult and pediatric clients (facility and home based) that are not able to either be discharged and start receiving PDN services or receive the full amount of service hours already authorized. These referrals are not able to be immediately accepted and often remain inpatient or not serviced status for several weeks or months until a provider is able to start care. We also have many current clients (many already shared with other agencies) who are not receiving their fully authorized PDN hours due to lack of staffing which leads to a higher hospital re-admission rate. We have also seen children sent to LTC instead of being able to remain at home due to lack of staffing.

- Approximately 50% of our Medicaid population would benefit from additional services which could decrease the number of hospitalizations. Our current Medicaid census is 210 patients.

- Our agency receives approximately 3-5 calls per day requesting skilled nursing services (PDN) for Medicaid participants in PA (children), who are unable to be discharged from the hospital due to a need for home care. Parents are trained and ready to take their children home. However, we do not have nurses available to meet their needs, due to the nursing shortage, and particularly due to the low reimbursement rates which do not allow us to attract nurses to home care.

- 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 6 estimates costs in the home-based setting.

Exhibit 6. Derivation of In-Home Cost Per Day Estimate

At Home Cost	Amount	Derivation
PDN Cost Per Day		
Average Hourly Rate	$59.05	Assumes 50/50 split between RN and LPN services at this report's recommended payment rates
Estimated Average Hours Per Day	10	University of Michigan publication conveys that average PDN hours are 8-12 per day (we used mid-point of 10). https://www.med.umich.edu/1libr/PedHomeVent/PrivateDutyNursing.pdf
Daily Cost, PDN	$590.52	Multiply above two rows
Estimated Pharmacy Cost/Day	$150.00	Average Medicaid cost per prescription (post rebate) in 2021 was $46; our estimate assumes average at-home patient receives 3 medications at a $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	**$810.52**	**Sum of above three rows**

We derived an average *inpatient* daily cost of $2,400 to compare with the figures in Exhibit 6. We were not able to obtain Pennsylvania-specific data on Medicaid costs per admission or per day, and therefore used data from another state to establish this estimate – focusing on average payments within long-stay DRGs where patient transfers to home can often occur.

Exhibit 7 derives Pennsylvania's net annual Medicaid costs based on all the above figures and estimates. The cost tabulations indicate that an annual per person savings of approximately $537,000 will accrue to Pennsylvania's Medicaid program when an individual is served at home in lieu of inpatient care.

Exhibit 7. Derivation of Net Savings Impacts of PDN Rate Increase

Medicaid Cost Comparison	Daily Cost	Annualized Amount
In-Home Care	$811	$295,839
Inpatient Care	$2,400	$876,000
In-Home Savings Per Transitioned Person Per Year	$1,589	$580,161
Gross Annual Cost of PDN Rate Increase		$42,425,089
Number of Transitions Needed for Breakeven		73.1
Estimated Transitions that Recommended PDN Rate Increase Enables		70.8
Offsetting Savings Through Transitions to Home		$41,070,170
Estimated Net Annual Medicaid Cost Associated with PDN Rate Increase		**$1,354,919**
State Fund Annual Cost (45% of total)		**$609,713**

To fully offset the $42.4 million cost of the PDN payment rate increase would require that on an average day, 73 additional Pennsylvania 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 71 additional Pennsylvania Medicaid enrollees at home per day.

These figures result in an estimate that the costs of the PDN rate increase will be almost entirely (97%) offset by the combination of increased PDN capacity, more home-based care, and fewer hospital days.

The inpatient savings are so large at the patient level (approximately $580,000 per person annually), that they essentially "pay for" elevating the PDN rates for the entire body of PDN care that is currently occurring at the FFS rate level. The net annual Medicaid costs are estimated to be $1.4 million for the Medicaid program overall, and $0.6 million in state funds.

Considerable cost savings potential exists for the rate increases to be budget neutral or even yield cost savings. A slight favorable variation in any of the derivation assumptions in this report will yield a net savings. For example, if the PDN nursing capacity increases by 7.0% (instead of the estimated 6.16%), a net overall annual savings of $3.9 million will occur -- including a $1.7 million savings in state funds.

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

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 a set of 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.

In each of these case examples, the advantages of receiving care at home versus continued hospitalization are clear, highlighting the importance of home-based care in enhancing patients' quality of life, reducing financial burden on families, and supporting workforce participation. We have grouped these case examples into three categories:

1. Patient success stories with PDN
2. PDN's positive impact on caregivers and familial socioeconomic status
3. Harmful consequences of going without PDN

1. Patient Success Stories with PDN Across the Life Course

"We have 3 babies who require a ventilator/tracheostomy to survive. In all 3 examples they have come home and been able to thrive and improve on their breathing ability and quality of life as opposed to having to spend the first 6-12 months or their lives in a hospital, away from their family and the parents having to travel back and forth daily to spend time with their newborn child." -- Pennsylvania PDN Provider

Decades-Long Use of PDN Services Allows Patient to Excel as an Educated Advocate

At 6 months of age, an individual with a genetic disease went home as one of the first tracheostomy/ventilator cases in Pennsylvania 40 years ago. At the age of 40 this individual -- who has been cared for by many stakeholders over four decades -- has thrived. This individual has earned their PHD, owns a consulting company, serves as a leader for advocacy of individuals with special needs in the state, and has a family of their own. This person continues to receive in-home PDN services, with minimal hospitalizations and continuity of PDN care across 40 years. Given the ongoing special needs (trach/vent), without in-community services over 40 years, this individual would not be healthy and living their best life today.

Long, Successful Recovery from Gunshot Injuries

At age 11 during 2019, "Brian" was an innocent bystander who got caught in the middle of gunfire while sitting in a car. He suffered a gunshot wound to the face. He was initially taken to Reading Hospital but then was transferred and admitted to two other hospitals through November of 2019. Brian underwent numerous surgeries that resulted in him being trached/vented and required a g-tube for feeding.

Brian was transferred to Good Shepherd Rehabilitation Hospital in Allentown, PA, and primarily remained there from November 2019- March 31st, 2020, until he could be discharged back home with the support of [PDN Provider's] skilled nursing services, which were coordinated through our internal RN Nursing Supervisors/Manager and Operational support teams. Our Nurses (RN/LPN) provided Brian 1 to 1 hourly private duty skilled nursing services delivering the necessary clinical oversight and medical intervention while partnering with his physician and the family to keep him safe in the comfort of his home.

Through years of excellent nursing care that Brian received in the home setting, as of March 2024, we are happy to report that he no longer requires his vent/trach or feeding tube. This is a testament to the incredibly talented nurses who provided care to him from day one, immediately following his long stint in the hospital and rehab center.

Brian was successfully transitioned to our hourly Home Health Aide (1 to 1) services, where he continues to receive the necessary level of care and service within the home setting but no longer requires that higher level of private duty nursing due to his progress and achievement of the goals outlined in his care plan.

Improved Quality of Life for Adult with Significant Respiratory Challenges

"Sarah" is a 45-year-old woman with a chronic respiratory condition that requires frequent hospitalizations for acute exacerbations. After her most recent hospitalization, Sarah's healthcare team and family members explored the option of transitioning her care to home-based management with the support of home health services.

By receiving care at home, Sarah experiences a significant improvement in her quality of life. She can sleep in her own bed, maintain a familiar routine, and enjoy the comfort and privacy of her home environment. With the support of home health nurses and respiratory therapists, Sarah can manage her condition effectively at home, reducing the need for repeated hospitalizations and allowing her to remain more independent.

"The potential for infection is reduced in the home since there are less people in and out of the home compared to being inpatient." – Pennsylvania PDN Provider

Premature Infant Successfully Transitions Out of PDN

A premature infant who was tracheostomy and ventilator dependent was transitioned home for PDN after a full year in a NICU. The in-home nurses assisted with ventilation weaning, leading to tracheostomy decannulation (removal of the tracheostomy tube). Early intervention support included working on developmental targets. At the age of 4, this child no longer required PDN support.

A similar case was highlighted in a Williamsport Sun-Gazette article.[8] The mother of the infant/child, who came home after more than two years in the hospital, expressed that: "We spent over two years surviving and now we get to live."

Supporting an Adult Diagnosed with ALS

An individual was diagnosed in their 40's with ALS leading to tracheostomy, ventilator dependency, a feeding tube and 24/7 care. The patient's significant other needs to work full-time, raise teenage daughters and maintain a home that is able to accommodate all of the patient's needs. A team of support combines to keep the individual healthy, at home and out of the hospital. PDN has been instrumental in preventing hospitalizations and averting the need to live in a long term care facility. The individual has been continually able to live with his family.

Supporting an Adolescent/Adult with Cerebral Palsy and Scoliosis

"Fred" has been diagnosed with cerebral palsy and scoliosis. Only part of his lungs function, and he has a tracheostomy and is ventilator dependent. At age 17, Fred was retained inside of the Children's Home for 359 days due to lack of nursing coverage. The lack of nursing coverage caused the patient's mother to have to quit her job and drain the family's entire life savings. Now 23 years old, Fred has progressed greatly since he has been supported by PDN at home. He hasn't been hospitalized in over 2 years.

HCBS Providing Stability for Mental and Physical Health to Thrive

A patient who, prior to receiving home and community based (HCBS) services, was hospitalized 4 times in a 12 month period (once per quarter). Since he has been receiving HCBS, he has maintained his stability at home and has not returned to inpatient status. His mental and emotional condition has improved and his family has been able to resume their lives with ease.

[8] Loyalsock 2-year-old comes home after 831 days in the hospital | News, Sports, Jobs - Williamsport Sun-Gazette (sungazette.com)

Helping Children Grow and Thrive

"Kevin", a pediatric cardio case, lives with his grandmother and grandfather, who are also his foster parents. Previously, he was unable to sit-up, stand, or walk; struggled with social interactions; and was tube-feed dependent. Since receiving one-on-one nursing, he has thrived; he is ambulatory, goes to school, interacts with children his own age and eats many foods.

Gaining Safety and Stability through Receiving PDN Services

A pediatric client with Cerebral Palsy, who was previously abused by her family, was in foster care when she began receiving skilled nursing. Nursing staff assisted with making it possible for her to attend school and helped her assimilate into the foster family. PDN allowed her to live with this loving, supportive foster family and begin healing. Due to this she was able to thrive and reach developmental milestones that she would otherwise not have met.

2. PDN's Positive Impact on Caregivers and Families

Alleviating the Financial Impact on Families

The "Sanchez" family has a young son, "Miguel," who was born prematurely and requires ongoing medical care due to complications from his premature birth. Miguel has spent the first few years of his life in and out of the hospital, placing a significant financial strain on the family.

With the assistance of a Pediatric Day Nursing (PDN) program, Miguel is able to receive the necessary medical care at home, allowing his parents to avoid the high costs associated with prolonged hospital stays. The family no longer faces expenses such as hospital parking fees, meals outside the home, and lost wages due to extended absences from work. Serving Miguel at home not only improves his health outcomes but also alleviates the financial burden on the Rodriguez family.

Allowing Caregivers to Lead Fulfilling Professional Lives

"John" is a 60-year-old man who suffered a severe stroke that left him with significant physical disabilities and requiring around-the-clock care. Initially, John was admitted to a long-term care facility, where his wife visited him daily, struggling to balance her caregiving responsibilities with her full-time job.

Recognizing the strain on their family and the desire to keep John at home, his wife explored the option of transitioning John's care to a home-based setting with the support of skilled nursing and therapy services. With the assistance of a PDN program, John can receive the necessary care at home, allowing his wife to continue working full-time without the added stress of managing John's care at a facility.

3. Negative Consequences of Going Without PDN: Case Examples

1. "George" was hospitalized in October and was re-hospitalized in December. He came home from the hospital for one week before being re-hospitalized again. Due to the lack of nurses, he has to remain in the hospital until he can be transferred to Boston. His mother has been out of work this entire time.
2. Even with significant effort made to maintain staffing, PDN services were not able to be secured in a rural area. In turn, the patient's primary guardian and single parent lost her employment since she had to work as a caregiver. This resulted in financial hardship and struggles with life resources.
3. A long-term skilled nursing admission without adequate staffing resulted in a drastic decline in health. The patient was admitted to a hospital and received surgeries resulting in tracheostomy which then necessitated much higher skilled staff in home than would initially have been required.
4. A female juvenile patient has been unnecessarily hospitalized for over 6 months due to homecare staff not being available. The patient's behavioral needs were not being met while hospitalized; her self-harming behaviors have exacerbated and become more difficult to control. The parents lost their jobs due to being at the hospital with their daughter.
5. A child was hospitalized since birth. Financially and due to distance to the facility, the family could come and go for visitation but could not be there as often as they wanted to be. This adversely affected bonding. In addition, the family suffered considerable financial strain as the child remained in the hospital, due to the loss of work, the costs of trips to the hospital, etc.
6. This patient wishes to remain at home with their family, but as their parents age, they are growing fearful that if we are unable to recruit and attract nurses for their case, they may have to placed in a facility. One of the biggest benefits of home care, is that patients are able to receive care in the safety and comfort of their own homes surrounded by their loved ones. If we as an agency are unable to remain competitive with our wages, we will not be able to attract and retain the staff we need to continue to meet the needs of our home care clients.
7. "Lauren", a SN case, t/v patient, was admitted to the hospital when loss of care occurred due to routine staffing issues. This resulted in an extended hospital stay, as her primary guardian had other work commitments and no other caregiver was identified that was trained for 24/7 high-tech care.

VII. Importance of Adequate Payments for PDN Providers to Attract and Retain an Optimal Staff Team

Pennsylvania PDN providers were asked to describe the dynamics they are confronting in terms of attracting and retaining staff to serve Medicaid patients. Excerpts from the input we received are shared below.

- We receive a weekly spread sheet from one of our MCOs that has over 400 members that are without medically warranted services due to the staffing shortage. Increase rates would draw nurses to the homecare field and help provide care for many of those members!

- We are losing staff to facilities who are paying more.

- Nurses are going to gravitate to where the money pays.

- The homecare industry has long been underpaid and therefore unable to compete with surrounding facilities which ultimately leads to an access to care problem because we are not able to attract the quality nurses needed to keep people safe while aging in place at home or allowing babies with special needs to come home from the hospital.

- A higher rate leads to more and better qualified nurses. We currently need a rate increase of $10 per hour to be competitive. We speak to several nurses every week but are unable to provide a competitive wage and benefits for them to go into Home Care.

- Home healthcare is very competitive in Western Pennsylvania and ultimately, our ability to recruit/retain staff is determined by what we can pay them.

- A $10 per hour increase in nursing rates is needed to be able to increase hourly wages and be competitive. Hundreds of cases come over from Insurance Company A each week, requesting skilled nursing hours. However, we do not have the additional staff needed to help these families.

- In instances where the reimbursement rate is greater than the Medicaid FFS fee schedule staffing levels are improved. MCO 1 High-Tech rate, ODP Waiver services, single case agreements (SCAs) for clients that face staffing challenges, and our HICU program all yield better staffing outcomes for our clients.

- In 2023, our organization received 1,227 calls or emails directly from Managed Care plans, seeking services for individual patients. 27% of these direct requests came from a plan that does not offer enhanced rates (i.e. above the current Medicaid FFS rate).

- As of 3/26/24, there are 2,266 pediatric patients statewide in need of additional hours or services (needs currently unmet).

- Just look at what hospital are offering for nurses on Indeed. This should be proof enough the [Medicaid] rates are insufficient.

"100% of clients receiving care in the home are at risk of hospitalization if we are unable to secure adequate staff to keep them home safely."
-- Pennsylvania PDN Provider

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 RN and LPN services, 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 license (RN and LPN) by taking a straight average of the two, by urban/rural in approximate concert with a state's overall population distribution, and by severity using a 50/50 assumption (e.g., between high technology and low technology). 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 Pennsylvania 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 Pennsylvania 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: We were not able to obtain Pennsylvania data on Medicaid costs per admission (or per day). We therefore relied on the approximate figure ($2,400) from another state where we were able to tabulate costs per day within DRGs that were deemed to have a strong potential for "transferrable" days to home care.

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.