MARYLAND
Department of Health

Larry Hogan, Governor · Boyd K. Rutherford, Lt. Governor · Robert R. Neall, Secretary

January 3, 2018

The Honorable Thomas V. Mike Miller, Jr.
President of the Senate
H-107 State House
100 State Circle
Annapolis, MD 21401-1925

The Honorable Michael E. Busch
Speaker of the House of Delegates
H-101 State House
100 State Circle
Annapolis, MD 21401-1925

RE: HB 1696 (Ch. 798 of the Acts of 2018) – Report on Rare and Expensive Case Management Reimbursement Rates for Home- and Community-Based Care and the Costs Associated with Providing Service and Care Under Other Home- and Community-Based Programs

Dear President Miller and Speaker Busch:

Pursuant to the requirements in Section 2 of HB 1696 (Ch. 798 of the Acts of 2018), enclosed is a report on Rare and Expensive Case Management reimbursement rates for home- and community-based care and the costs associated with providing service and care under other home- and community-based programs. The Department posted a draft of this report for public comment on its website on October 24, 2018 and shared the draft report via email with service providers on October 26, 2018 (the comment period was open until November 9, 2018). The comments received are listed in Appendix D of the attached report. The comments were reviewed and evaluated by the Hilltop Institute, and their responses to the comments and resulting changes to the final report are noted in Appendix E.

Thank you for your consideration of this information. If you have questions or need more information on the subjects included in this report, please contact Webster Ye, Deputy Chief of Staff at (410) 767-6480 or webster.ye@maryland.gov.

Sincerely,

Robert R. Neall
Secretary

cc: Sarah Albert, Department of Legislative Services (MSAR # 11714)

The Hilltop Institute

Rate Methodology Study
Pursuant to Section 2 of HB 1696 (Chapter 798 of the Acts of 2018)

January 1, 2019

UMBC

Suggested Citation: Henderson, M., & Stockwell, I. (2018, November 26). *Rate Methodology Study Pursuant to Section 2 of House Bill 1696 (2018)*. Baltimore, MD: The Hilltop Institute, UMBC.

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Rate Methodology Study Pursuant to Section 2 of House Bill 1696 (2018)

Introduction

The Maryland Department of Health has asked The Hilltop Institute to complete a rate methodology study of all "Program 3" waivers (Medical Day Care Waiver, Model Waiver, Community Options Waiver) and programs (REM, EPSDT Nursing, CFC, ICS, and CPAS)—as well as the Brain Injury Waiver—in order to compare the rate of reimbursement for these services with the actual cost to providers.

Hilltop examined the services across these waivers and programs and arrived at 50 distinct program-service combinations. Given the significant service overlap between programs—for example, Medical Day Care is offered in multiple programs—Hilltop first condensed these services to create a master list of unduplicated service descriptions and associated provider qualifications. The master list consists of 20 separate services (see Appendix A).

The cost estimate model is based on the following formula, which is a version of the model employed by reimbursement rate methodology studies in Virginia,[1] Maine,[2] and Arizona:[3]

Total Cost = Labor + Transportation + Facility + Supply + Administrative + Program Support

However, not all costs apply to each service. For example, non-facility-based services such as "Behavioral Counseling" do not incur a facility or supply cost; in this case, we set these parameters to zero. We drew our estimates of key parameters from three sources: 1) national data sets such as the Bureau of Labor Statistics' (BLS) National Compensation Survey or the Centers for Disease Control and Prevention's (CDC's) National Study of Long-Term Care Providers; 2) other states' rate reimbursement studies (in particular, Virginia, Maine, and Arizona); and 3) COMAR regulations, waiver applications, and MD provider solicitations. Where applicable, we adapted the inputs to the model to be as granular as possible in order to best approximate specific service-level costs.

Operationally, the per-participant-per-hour cost was estimated using the following formula:

[1] "My Life, My Community – Provider Rate Study" (Virginia – November 12, 2014). Retrieved from http://www.dbhds.virginia.gov/library/developmental%20services/ods-proposed%20waiver%20rate%20models%202014%20november%2012.pdf
[2] "Section 21 Rate-Setting Initiative" (Maine – February 3, 2015). Retrieved from https://www.maine.gov/dhhs/oads/docs/MEOADSRateModelsProposedFinal.pdf
[3] "RebaseBook 2014" (Arizona – June 30, 2014). Retrieved from https://des.az.gov/sites/default/files/rate_rebase_2014.pdf

$$\frac{\left(\frac{Wage}{(1-ERE\ \%)}\right) * Productivity}{Attendance\ Rate * Participants\ per\ Staff} + Transportation + Facility + Supplies$$
$$1 - Administrative\ Cost\ \% - Program\ Support\ \%$$

Below is a more detailed explanation of the cost centers.[4]

Labor

In order to calculate the labor cost per participant hour, it is important to account for three factors: 1) the hourly wage required for an hour of service delivery to one participant; 2) non-wage compensation costs incurred by the provider; and 3) time costs incurred in the provision of services that are legitimate—but not billable—activities. Each of these steps is explained in detail below.

Wage Estimates

Based on the qualifications of providers and the description of the services, Hilltop created a crosswalk of occupations to services, mapping BLS occupation codes and median wages to each service (see Appendix B).[5] Then, based on the language of the regulations, the 2014 National Study of Long-Term Care Providers,[6] and other states' HCBS rate methodology studies, Hilltop estimated the staffing ratio for each service (see Appendix C). This allows us to estimate a weighted "base hourly wage" for each service, which we used as the measure of per-worker-hour wage labor costs to providers. This is intended to capture the hourly labor cost of the "typical" worker within each service. In order to account for wage growth since May 2017, when the BLS estimated these median wages, Hilltop trended the wage estimates forward until January 2019.[7]

[4] This model differs from The Hilltop Institute's 2016 reimbursement rate methodology study for the Community Options waiver in three ways. First, it incorporates transportation, facility, and supply costs as levels, not as percentages. Second, it incorporates a program support factor to account for non-administrative costs that are not related to direct care but which are necessary for operations (rate studies for VA, ME, and AZ all include this factor). Third, we introduce an attendance rate assumption for non-residential facility-based services to account for reduced cost-spreading due to unplanned participant absences.

[5] BLS codes and median salaries from the "May 2017 State Occupational Employment and Wage Estimates – Maryland" (https://www.bls.gov/oes/current/oes_md.htm).

[6] https://www.cdc.gov/nchs/data/nsltcp/2014_nsltcp_state_tables.pdf

[7] We use the Federal Reserve Bank of Atlanta's Wage Growth Tracker (https://www.frbatlanta.org/chcs/wage-growth-tracker.aspx?panel=1) for the South Atlantic Census Division (of which Maryland is one state) to estimate wage growth since May 2017. We average all annual growth rate estimates from May 2017 onward to estimate the annual wage growth has been 3.24%. Then, in order to trend forward to January 2019, which is 20 months after the base period of May 2017, we adjust each of the May 2017 wages by a factor of (1.0324)^(20/12) = 1.055.

We also corrected for the recent increases in state- and county-specific minimum wages in 2017 and 2018.[8]

Employee-Related Expenditures (ERE)

Wage is only one component of labor costs incurred by employers. Firms also offer supplemental benefits such as paid leave, health insurance, dental insurance, and retirement plans, and must contribute to legally defined benefits such as Medicare, Social Security, and federal unemployment insurance. In order to account for these, Hilltop drew upon BLS data on employer costs for employee compensation based on the National Compensation Survey. Hilltop proposes to use .301 as our employee-related cost factor, which is the percentage of total compensation provided as non-wage benefits to private industry health care and social assistance workers as of March 2018.[9]

It is important to note that this is the percentage of *total compensation* that are non-wage benefits. Therefore, in order to incorporate this percentage into our model, Hilltop first translated it to a multiplicative scaling factor for wage.[10]

This value is similar to the values used in other states' rate reimbursement methodology studies. For instance, Nebraska uses a value of .2781, and Minnesota uses .2416. Virginia and Maine use values specific to each service, ranging from .18 -.327 for Virginia and .266-.441 for Maine for services comparable to those in this study.[11]

Productivity

The productivity adjustment is intended to account for provider time that is used for legitimate, service-related purposes (such as training or record-keeping) but is not directly billable. Given

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[8] Prince George's County raised its minimum wage to $11.50 per hour on 10/1/2017, Montgomery County raised its minimum wage to $12.00 per hour on 7/1/2018, and the State of Maryland raised its minimum wage to $10.10 per hour as of 7/1/2018 (https://www.dllr.state.md.us/labor/wages/wagehrfacts.shtml, https://www.dllr.state.md.us/labor/wages/minimumwagelawpg.pdf). However, the extent of this issue is limited: all inflation-adjusted occupational wages in our cost models are above the new Maryland minimum wage of $10.10, and only occupational wage (recreation workers, 39-9032, $10.75 per hour) is below the county-specific minimum wages of $11.50 and $12.00 for Prince George's and Montgomery Counties, respectively. We correct for this by assuming that 1/3 of all services are for enrollees in either Prince George's or Montgomery Counties, and adding a correction factor of (1/3)*(12-10.75) = $0.42 per hour to the wage for recreation workers, for a final occupational wage of $11.16 for these workers. This is intended to reflect the fact that only a fraction of providers will incur the higher labor costs due to the increase in county-specific minimum wages.

[9] https://www.bls.gov/news.release/ecec.t14.htm

[10] This follows from the following algebra: Total Costs = Wage Costs + Benefit Costs.
Benefit costs = .301*Total costs (from the BLS estimates).
Therefore, Total Costs = Wage Costs + .301*Total Costs, or, equivalently, (1-.301)*Total Costs = Wage Costs.
Therefore, Total Costs = Wage Costs/(1-.301).

[11] "Developmental Disabilities Home- and Community-Based Services Rate Development" (Nebraska – October 4, 2011); "Disability Waiver Rate System" (Minnesota – January 15, 2017).

that the provider incurs the cost of these services, it is necessary to include them in order to calculate the true service cost per *billable* hour. For example, suppose that the wage and benefit cost of an hour of employee time is $20, and that employees work eight hours per day. However, because of training, travel, and other activities, suppose that the employee is only able to deliver four hours of direct care services per day. This implies a productivity factor of 8/4, or 2. In order to fully recoup his or her costs, the provider would need to bill $40 ($20*2) per billable hour instead of just the $20 in hourly labor costs.

The productivity factor necessarily depends on the nature of the service. Facility-based services may require activity preparation and cleanup times and staff training to meet licensure standards. Hourly home-based services for licensed professionals require travel time, intensive record-keeping, and training time, and should receive a high productivity adjustment. Home-based services in which providers are unlicensed or un-degreed require travel time but fewer requirements for record-keeping. Daily home-based services (offered for 12 or more hours per day) require minimal transportation time because the provider does not have to travel between clients and should receive a low productivity factor. To that end, Hilltop proposes using the following productivity factors derived from other states' provider cost surveys (see Table 1).

Table 1. Productivity Factors from Other States' Provider Cost Surveys

Grouping	Services Included	Productivity Factor
Facility-based (residential and non-residential)	Medical day care; senior center plus; assisted living; residential habilitation; day habilitation; respite care; supported employment services	1.24[12]
Home-based (hourly), individual provider is licensed/degreed	Case management (REM and non-REM); family training; dietitian and nutritionist; behavioral consultation; private duty nursing; CNA/HHA services; initial nursing assessment; participation by physician in team meeting; nurse monitoring	1.38[13]
Home-based (hourly), individual provider is not licensed/degreed	Personal assistance (hourly); individual support services; consumer training	1.15[14]
Home-based (daily)	Personal assistance (daily)	1.05[15]

[12] This is the average of the following services: ME's "Community Supports-Facility-Based," Tier 1 (1.22), Tier 2 (1.22), and Tier 3 (1.19) and VA's "Day Supports – Facility Services," Tier 1 (1.29), Tier 2 (1.26), Tier 3 (1.25), and Tier 4 (1.23).

[13] This is the average of the following services for VA - "Nursing-Registered Nurse" (1.36), "Nursing-Licensed Practical Nurse" (1.41), "Therapeutic Consultation-Therapists" (1.53), "Therapeutic Consultation-Psychologist/Psychiatrist" (1.53), "Therapeutic Consultation-Other Professionals" (1.53) – and the following services for Maine – "Therapies (Maintenance and Consultative)" (1.30), "Certified Occupational Therapist Assistant" (1.30), "Consultative Services – Behavioral" (1.30), "Consultative Services – Psychological"(1.30), "Skilled Nursing – RN" (1.30), "Skilled Nursing, LPN" (1.30).

[14] This is the average of ME's "Home Support – Short Term" (1.13), ME's "Respite" (1.10) and VA's "In-Home Residential Support, Intermittent" (1.22).

[15] Drawn from ME "Home Support – Long Term" (1.05).

Participants per Staff and Attendance Rate

For certain services, COMAR regulations permit a single staff member to deliver services to multiple participants (for example, in Medical Day Care). This tends to lower the per-participant labor costs, as a single participant receives the hourly services of a "fraction" of a provider. These staffing ratios are from three sources: 1) the language of the COMAR regulations, 2) the National Study of Long-Term Care Providers, and 3) assisted living facility licensure data provided to Hilltop by the Department. Where applicable, Hilltop blended differing requirements for awake and non-awake staffing ratios into one value. See Table 2 below.

Table 2. Proposed Staffing Ratios

Service	Staffing Ratio	Source
Medical Day Care	1 to 4.52[16]	See footnote 16
Senior Center Plus	1 to 8	10.09.54.07.E
Assisted Living (all levels)	1 to 7.4[17]	See footnote 17
Respite	1 to 7.4	Same as assisted living
Residential Habilitation Level 1	1 to 4.67[18]	10.09.46.07.D
Residential Habilitation Level 2	1 to 4	10.09.46.07.D
Residential Habilitation Level 3	1 to 2.67	10.09.46.07.D
Day Habilitation Level 1	1 to 6	10.09.46.08.D
Day Habilitation Level 2	1 to 4	10.09.46.08.D
Day Habilitation Level 3	1 to 1	10.09.46.08.D

In order not to over-estimate the reduction of per-participant labor costs due to staffing ratios, Hilltop also incorporated an attendance factor to account for random non-attendance of scheduled participants in non-residential facility-based services. Hilltop proposes using 90 percent for this, which is used in the 2014 Virginia rate methodology study.

Transportation

It is important to account for transportation costs for two reasons. First, certain facility-based services cover transportation for participants to and from the facility in the case of non-residential services, or in order to facilitate necessary medical care in the case of residential

[16] We estimate this using Maryland-specific data from the 2013-2014 National Study of Long-Term Care Providers. Details available upon request.
[17] We estimate this using Assisted Living Facility licensure data provided by the Department. Details available upon request.
[18] Per COMAR 10.09.46.07 - level 1 residential habilitation "requires a minimum of 1:3 staff to participant ratio during the day and evening shifts and non-awake supervision during overnight shift or an awake staff person covering more than one site during the overnight shift." Assume that for the 8 hours of the overnight shift, participants have a 1:8 staff to patient ratio. This averages to a per-hour ratio of (16/24)*3 + (8/24)*8 = 4.67. Staff ratios for levels 2 and 3 are calculated similarly using a 1:6 staff to patient ratio for the overnight shift.

services.[19] Second, home-based services generally require the site of delivery to be the participant's residence, implying that providers seeing multiple participants per day incur travel costs between appointments. While the time component of this is accounted for in the productivity factor, costs to vehicles are not.

Based on Virginia's rate reimbursement study, Hilltop proposes using the per-participant-per-hour transportation costs presented in Table 3. As these estimates are from November 2014, we adjusted them for inflation and trended them forward to January 2019.[20]

Table 3. Proposed Transportation Costs

Grouping	Services Included	Transportation Cost per Participant per Hour
Facility-based (residential)	Assisted living; residential habilitation; respite care	$0.18[21]
Facility-based (non-residential)	Medical day care; day habilitation; supported employment services	$0.89[22]
Home-based (hourly)	Case management (non-REM); case management (REM); family training; dietitian and nutritionist; behavioral	$4.42[23]

[19] Medical Day Care provides transportation "to enable participants to attend the center and to participate in activity outings, medical appointments, or other participant required services" (COMAR 10.12.04.27.A); Senior Center Plus does not cover transportation (COMAR 10.09.54.15.E.1); Assisted Living must "facilitate access to any appropriate health care and social services" and "provide or arrange transportation" to social and recreational activities, per the resident's service plan (COMAR 10.07.14.28.F,G); transportation requirements for Respite services are assumed to mirror those for Assisted Living; transportation requirements for Residential Habilitation are assumed to mirror those of Assisted Living; Day Habilitation services provide "transportation between a participant's residence and the provider's site, or between habilitation sites if the participant receives habilitation services in more than one place" (COMAR 10.09.46.08.B.4); Supported Employment Services "include transportation or the coordination of transportation between a participant's residence that the supported employment job site" (COMAR 10.09.46.09.B.5).

[20] We use CPI-U for Transportation (from https://fred.stlouisfed.org/series/CPITRNSL) to inflate the transportation cost center. From November 2014 to October 2018, the price index rose from 210.384 to 214.422. We linearly extrapolate to January 2019, and estimate that the price index will be 214.422 + 3*(214.422 - 210.384)/47 = 214.68, implying (214.68 – 210.384)/ 210.384 = 2.0% growth over this period. We use this as our correction factor, and increase the relevant transportation costs from the VA study by 2.0%.

[21] Drawn from VA's "Congregate Residential Support – Group Home w/ Twelve Beds." This estimates weekly mileage cost per participant at $29.50; assuming 24 hour care, this implies an hourly cost of $29.50/(7 * 24) = $0.176. Corrected for inflation, this is $0.176 * (1.02) = $0.18. To the extent that the daily rate for Assisted Living facilities reflects fewer than 24 hours per day of services, we adjust this hourly transportation cost up proportionally (for example, an 18 hour day in assisted living would imply an hourly transport cost of $.18 * (24/18) = $0.24).

[22] Drawn from VA's "Day Supports – Facility Services" ($0.87). Corrected for inflation, this is $0.87 * 1.02 = $0.89. We only use mileage estimates from Virginia, and not both Virginia and Maine, because Virginia's geography and density better approximate that of Maryland than Maine's.

[23] This is the average of the following services for VA – "In-Home Residential Support, Intermittent" ($2.13), "Nursing-Registered Nurse" ($3.81), "Nursing-Licensed Practical Nurse" ($3.95), "Therapeutic Consultation-Therapists" ($5.36), "Therapeutic Consultation-Psychologist/Psychiatrist" ($5.36), "Therapeutic Consultation-Other Professionals" ($5.36). This average is $4.33; corrected for inflation, the value is $4.33 * 1.02 = $4.42.

Grouping	Services Included	Transportation Cost per Participant per Hour
	consultation; private duty nursing; CNA/HHA services; initial nursing assessment; nurse monitoring; personal care; individual support services; consumer training	
Home-based (daily)	Personal Care (daily)	0

Hilltop estimated that home-based daily personal care has a mileage cost of zero because of the nature of the service; that is, participants must receive at least 12 hours of personal care each day in order to qualify for this reimbursement, and we assume that this care is delivered by the same individual provider who does not provide care to other participants on any given day. Additionally, given that Senior Center Plus explicitly does not cover transportation costs (COMAR 10.09.54.15), we set these as zero. Hilltop also assumes that the principal physician participates in team meetings in her office or over the telephone, thus incurring 0 transportation costs. Finally, note that hourly services delivered to the same participant consecutively implies a cost-spreading of the transportation cost center by reducing the likelihood of daily inter-participant travel. Where justified by the language of the regulations or observed shift lengths, we have attempted to incorporate this factor into our models. See the "Other Adjustments" section for more details.

Facility

Facility-based services incur costs to rent or lease the facility or, if the facility is owned, incur depreciation costs. Hilltop proposes using $1.30 as a per-participant-per-hour value of facility costs for non-residential services (comprising medical day care, senior center plus, day habilitation, and supported employment services). [24] While assisted living and residential habilitation are facility-based services, they explicitly do not cover room and board per COMAR regulations; therefore, we do not include the facility cost center in the cost estimate for these services. For respite care, which entails 24-hour care in a residential facility, Hilltop proposes

[24] This is the average of per-participant-per-hour facility costs used in Virginia's rate reimbursement study for "Day Supports – Facility Services": $1.33 per participant per hour for Northern Virginia, and $1.00 per participant per hour for the rest of the state, adjusted for inflation: ((1.33 + 1)/2)*1.118 = 1.30. See footnote 26, below, for details of the 11.8% inflation adjustment.

using $0.20 per-participant-per-hour.[25] As with the transportation cost center, we adjusted our facility cost estimates for inflation and trended them forward to January 2019.[26]

Table 4. Proposed Facility Costs

Grouping	Services Included	Transportation Cost per Participant per Hour
Facility-based (residential)	Respite care	$0.20
Facility-based (non-residential)	Medical day care; senior center plus; day habilitation; supported employment services	$1.30

Supply

Facility-based services incur supply costs in the course of direct care (for example, food, materials for activities, and light medical supplies). Hilltop proposes using $0.35 per participant per hour, the value used in Virginia's "Day Supports – Facility Services" rate model adjusted for inflation. As above, this cost center is not included for assisted living and residential habilitation, which do not cover room and board for participants. Additionally, as with the transportation and facility cost centers, we adjusted this estimate for inflation and trended it forward to apply to January 2019.[27] Additionally, based on input from provider groups, we included a $.20 per-participant-per-hour supply cost for in-home health care (private duty RN, LPN, and CNA/HHA).

Administrative Cost and Program Support

Administrative costs are the expenses associated with the operation of the organization and includes insurance costs, administrative salaries, financial and accounting expenses, and office supplies and equipment. Program support costs are those costs that are neither direct care nor administrative: for example, program development, training, quality assurance, and service

[25] Virginia's non-residential facility rates are based on assumptions of 6 hours of participant attendance per day, 225 days per year. We translate this into a residential facility rate by assuming 24 hours of attendance per day, 365 days per year. Total annual cost is $1.17*6*225 = $1579.5. Adjusted for residential attendance, this is $1579.5/(24*365) = $0.18 per hour. Corrected for inflation, this is $0.18 * (1.118) = $0.20. See footnote 26, below, for details of the 11.8% inflation adjustment.

[26] We propose to use CPI-U: Housing (https://fred.stlouisfed.org/series/CPIHOSNS) to adjust facility costs for inflation. From November 2014 to October 2018, the price index rose from 234.315 to 260.268. We linearly extrapolate to January 2019, and estimate that the price index will be 260.268+ 3*(260.268- 234.315)/47 = 261.92, implying (261.92 – 234.315)/ 234.315 = 11.8% growth over this period. We use this as our correction factor, and increase the relevant facility costs from the VA study by 11.8%.

[27] Given that the supply cost center is intended to capture a variety of items, we propose to use the all-item CPI-U (https://fred.stlouisfed.org/series/CPIAUCSL) to account for price increases. From November 2014 to October 2018, the price index rose from 237.042 to 252.827. We linearly extrapolate the price index across months to January 2019, and estimate that the January 2019 price index will be 252.827 + 3*(252.827- 237.042)/47 = 253.83, implying (253.83 – 237.042)/ 237.042 = 7.1% growth over this period. We use this as our correction factor, and increase the relevant supply costs from the VA study by 7.1%.

coordination. Hilltop proposes using values of 10.33 percent of total costs for administrative cost, and 6 percent of total costs for program support.[28]

Other Adjustments

- The Model Waiver (COMAR 10.09.27.04.A.4.f.i, 10.09.27.04.A.5.b) and EPSDT-Nursing (COMAR 10.09.53.04.D.1) cover CNA/HHA services for shifts of four or more hours (Model Waiver) or two or more hours (EPSDT-Nursing). Hilltop calculated using MMIS claims that in FY2018, the median units per daily claim for non-shared CNA/HHA services was 32 units (8 hours). In order to account for the transportation cost-spreading due to long shifts, Hilltop lowered the travel costs per hour to $4.42/8 =$0.55 and used the lower productivity factor of 1.15.
- The Model Waiver (COMAR 10.09.27.04.A.1.a) only covers shift nursing (both RN and LPN) when "the complexity of the service or the condition of a participant requires the judgment, knowledge, and skills of a licensed nurse for a shift of 4 or more continuous hours." Hilltop calculated using MMIS claims that in FY2018, the median units per daily claim for LPN services was 48 units (12 hours) for non-shared services and 64 units (16 hours) for shared services. Hilltop assumed this implied no daily inter-participant travel, and thus lowered the hourly travel cost to 0. Analogously, Hilltop calculated using MMIS claims that in FY2018 the median units per daily claim for non-shared RN services was 40 units (10 hours). Again, Hilltop assumed that inter-participant daily travel is 0 and lowered the hourly travel cost to 0. This adjustment was also applied to shared RN services. For both set of services – shared and non-shared LPN and RN – Hilltop applied the lower productivity factor of 1.15 to account for the reduced hourly travel requirements.
- The initial nursing assessment (EPDST-Nursing) is covered provided that it lasts for three hours or less. Hilltop presents estimates for both two and three hours, and adjusted hourly transportation costs downward accordingly: to $4.42/2 = $2.21 or $4.42/3 = $1.47, respectively. Due to the reduced hourly travel requirements, Hilltop applied the lower productivity factor of 1.15.

[28] We estimate 10.33% as the average of the administrative cost percentages for Arizona (10%), Virginia (11%), and Maine (10%). While Maine and Virginia used a fixed estimate for program support costs per participant per hour, we believe that it is reasonable to assume that more costly services incur more support costs: therefore, we follow Arizona and use the mid-point of its two values for program support costs (8% and 4%, for an average of 6%). It is important to note that these are estimated as a fraction of total costs, and not labor costs. Therefore, as with the ERE correction to wages, we use the following algebra: Total Costs = Labor + Transportation + Facility + Supplies + Admin + Program Support;
Admin = .1033*Total and Program Support = .06*Total;
Total Costs = Labor + Transportation + Facility + Supplies + .1033*Total + .06*Total;
Total Costs = Labor + Transportation + Facility + Supplies + .1633*Total;
(1-.1633)*Total Costs = Labor + Transportation + Facility + Supplies;
Total costs = (Labor + Transportation + Facility + Supplies)/.8367

- Based on FY18 MMIS claims data, Hilltop estimated that the median shift length for behavioral consultation services is 2 hours. Accordingly, Hilltop adjusted the hourly travel costs to be $4.42/2 = $2.21 and applied the lower productivity factor 1.15 to account for reduced hourly travel time.
- Based on ISAS data provided by the Department, the average personal assistance services provider works 6.52 hours per day and sees 1.18 clients per week. This scales to an average per-client shift length of 6.52/1.18 = 5.53 hours. Accordingly, for non-shared personal assistance services, Hilltop scaled down the hourly travel costs to $4.42/5.53 = $0.80 and applied the lower productivity factor 1.05 to account for the reduced hourly travel time.
- Several services (for example, personal assistance) offer both individual and shared options. Hilltop modeled this as if for a group service with a staffing ratio of two, thereby assuming two participants for every worker, but with two changes. First, we applied the *level* of the administrative and support costs from the non-shared service to each enrollee in the shared service (instead of a percentage). This accounts for the fixed reporting and administrative costs for each enrollee in the shared service. Additionally, we spread the transportation costs over each participant, since we assume that participants using shared services live in the same residence and would not each incur a separate transportation cost.

Table 5. Draft Cost Estimates and MDH Reimbursements

Service	FY 19 Reimbursement	Estimated Cost	Difference
Medical Day Care (6 hour day)	$79.84	$86.90	$7.06
Respite Services (provided in an assisted living facility) (24 hours)	$78.43	$136.38	$57.95
Senior Center Plus (8 hours)	$49.45	$55.04	$5.59
Assisted Living II with MDC (18 hours)	$46.63	$87.83	$41.20
Assisted Living III with MDC (18 hours)	$58.80	$91.74	$32.94
Assisted Living II no MDC (24 hours)	$62.15	$115.39	$53.24
Assisted Living III no MDC (24 hours)	$78.43	$120.60	$42.17
Residential Habilitation Level 1 (24 hours)	$211.72	$274.98	$63.26
Residential Habilitation Level 2 (24 hours)	$280.34	$320.18	$39.84
Residential Habilitation Level 3 (24 hours)	$387.84	$477.10	$89.26
Day Habilitation Level 1 (5 hours)	$54.67	$71.48	$16.81
Day Habilitation Level 2 (5 hours)	$95.35	$99.64	$4.29
Day Habilitation Level 3 (5 hours)	$134.15	$353.01	$218.86
Supported Employment Level 1 (.75 hour)	$32.43	$35.46	$3.03
Supported Employment Level 2 (1 hour)	$54.67	$47.28	-$7.39
Supported Employment Level 3 (4 hours)	$134.15	$189.12	$54.97
Dietitian/Nutritionist Services	$67.97	$85.08	$17.11
Case Management (non-REM)	$63.75	$64.12	$0.37
Behavior Consultation	$67.97	$72.39	$4.42
Family Training	$67.97	$97.16	$29.19
Personal Assistance Services (non-shared) (Hourly)	$17.50	$25.54	$8.04
Personal Assistance Services (non-shared) (Daily) (12 hours)	$225.88	$295.08	$69.20
Personal Assistance Services (shared) (Hourly)	$11.67	$14.86	$3.19
Personal Assistance Services (shared) (Daily) (12 hours)	$150.59	$171.63	$21.04
Nurse Monitoring	$86.39	$93.94	$7.55
Consumer Training	$44.08	$60.95	$16.87
Individual Support Services	$26.51	$33.14	$6.63
Private Duty RN (1 participant) - per 15 minutes	$13.57	$18.53	$4.96
Private Duty RN (2+ participants) - per 15 minutes	$9.36	$10.80	$1.44
Private Duty LPN (1 participant) - per 15 minutes	$8.80	$13.33	$4.53
Private Duty LPN (2+ participants) - per 15 minutes	$6.08	$7.78	$1.70
CNA or HHA (1 participant) - non-CMT – per 15 minutes	$3.85	$7.26	$3.41
CNA or HHA (2+ participants) - non-CMT – per 15 minutes	$2.68	$4.25	$1.57
CNA or HHA (1 participant) – CMT – per 15 minutes	$4.65	$7.29	$2.64
CNA or HHA (2+ participants) – CMT – per 15 minutes	$3.20	$4.27	$1.07

Service	FY 19 Reimbursement	Estimated Cost	Difference
Initial Nursing Assessment (2 hours)	$150.00	$153.05	$3.05
Initial Nursing Assessment (3 hours)	$150.00	$226.93	$76.93
Coordinated Care Fee, Initial Rate (5 hours)	$400.21	$416.46	$16.25
Coordinated Care Fee, Risk Adjusted High Initial (4 hours)	$295.51	$333.17	$37.66
Coordinated Care Fee, Risk Adjusted Low (3 hours)	$176.13	$249.88	$73.75
Coordinated Care Fee, Risk Adjusted Maintenance Level 3 (1.5 hours)	$92.96	$124.94	$31.98
Participation by physician in plan of care meeting (15 minutes)	$40.50	$58.43	$17.93

Appendix A. Program 3 and Brain Injury Waiver Service Definitions and Provider Qualifications*

Waiver Service	Service Definition	Provider Qualifications
Medical Day Care **(ICS, TBI Waiver, CO Waiver, MDC Waiver, Model Waiver)** **79.84/day**	Medical Day Care (MDC) is a program of medically supervised, health-related services provided in an ambulatory setting to medically disabled adults, due to their degree of impairment, need for health maintenance, and restorative services supportive to their community living in accordance with COMAR 10.09.07. MDC includes the following covered services per COMAR 10.09.07.05: (1) Health care services which emphasize primary prevention, early diagnosis and treatment, rehabilitation, and continuity of care (2) Nursing services (3) Physical therapy services (4) Occupational therapy services (5) Assistance with activities of daily living such as walking, eating, toileting, grooming, and supervision of personal hygiene (6) Nutrition services (7) Social work services (8) Activity Programs (9) Transportation Services. According to COMAR 10.09.07.03 (Medical Day Services, Conditions for Participation) MDC's must be open for at least six hours a day, five days a week.	Must be licensed by the Office of Health Care Quality (OHCQ) under COMAR 10.12.04 (Day Care for the Elderly and Adults with a Medical Disability). In accordance with COMAR 10.09.07.04 (Medical Day Services, Staffing Requirements) and 10.12.04.14 (Medical Day Licensure, Staff) staff must consist of: (1) A director: (full or part-time) who must hold a bachelor's degree in the health and human services field or be an RN (2) A licensed social worker (full or part-time) (3) A medical director who is a licensed physician and who has one year of experience in the care of impaired adults (full-time, part-time, or contractual) (4) An RN with at least three years of experience (5) An LPN: who works with the RN and shall meet the nursing service needs when the RN is not on-site (6) A certified nursing assistant (CNA): who is present when an RN or LPN are not on-site (7) An activities coordinator: who possesses a high school diploma or general equivalency diploma (GED) and has at least three years of experience (8) Program assistants: who possess or are enrolled in a program leading to a high school diploma or GED. COMAR 10.12.04.16 (Medical Day Licensure, Program Components) states that the MDC may use specialists on a part-time or consultant basis in: (1) Psychiatry (2) Physiatrics (3) Orthopedics (4) Other specialties according to the needs of the participants.

Waiver Service	Service Definition	Provider Qualifications
Senior Center Plus **(ICS, CO Waiver)** **49.45/day**	Senior Center Plus is a program of structured group activities and enhanced socialization provided on a regularly scheduled basis. The program is designed to facilitate the participant's optimal functioning and to have a positive impact on the participant's orientation and cognitive ability. Senior Center Plus is provided for one or more days per week, at least four hours a day, in an outpatient setting, most often within a senior center. Services available in a Senior Center Plus program include social and recreational activities designed for elderly/disabled individuals, supervised care, assistance with activities of daily living and instrumental activities of daily living and enhanced socialization, as well as one nutritional meal. Health services are not included; therefore, Senior Center Plus is an intermediate option between senior centers and medical day care that is available as a waiver service. Some providers of Senior Center Plus elect to provide transportation even though it is not required (and is not covered in the rate, COMAR 10.09.54.15, Home and Community-Options Waiver, Covered Services, Senior Center Plus). If a Senior Center Plus program does not offer transportation, the waiver participant can request transportation through the transportation program.	Must be certified as a Senior Center Plus provider by the Maryland Department of Aging (MDoA) and also be approved as a nutrition service provider. In accordance with COMAR 10.09.54.07 (Home and Community-Based Options Waiver, Specific conditions for Provider Participation, Senior Center Plus), the provider must employ as the center's manager or in another position an individual who: (1) Is a licensed health professional or a licensed social worker; (2) Has at least 3 years of experience in direct patient care at an adult day care, nursing facility, or health-related facility; and (3) Participates in training specified and approved by the MDoA.

Waiver Service	Service Definition	Provider Qualifications
Respite **(CO Waiver)** **78.43/day**	Respite may be provided on a short-term basis to relieve those family caregivers who normally provide the participant's care. Respite care may be provided in a Medicaid-certified nursing facility or other assisted living facility approved by the state. Respite care that entails performing delegated nursing functions such as assistance with self-administration of medications or administration of medications by the aide are covered if the service is provided by an appropriately trained aide under the supervision of a licensed RN, in accordance with Maryland's Nurse Practice Act, COMAR 10.27.11 Delegation of Nursing Functions. According to COMAR 10.09.54.18-1 (Home and Community-Based Options, Covered Service, Respite Care) respite care services include room and board and overnight care.	Must be licensed by OHCQ (nursing facilities or assisted living facilities for levels two or three) and have appropriate facilities for overnight care. In accordance with COMAR 10.09.54.10-1 (Home and Community-Based Options Waiver, Specific Conditions for Participation, Respite Care) and 10.09.54.05 (Home and Community-Based Options Waiver, Specific Conditions for Provider Participation, Assisted Living) and 10.07.14.14-15,18-20 (Assisted Living Programs) staff must consist of: (1) A manager: who must be a licensed physician, licensed RN, licensed LPN, or have at least 3 years of experience in direct patient care (2) An alternative manager: who has at least two years of experience in a health-related field (3) Additional staff: who must be 18 years or older, unless licensed as a nurse (4) A delegating nurse: who must be an RN.

Waiver Service	Service Definition	Provider Qualifications
Case Management **(ICS, CO Waiver, Model Waiver, CFC, CPAS)** **63.75/hour** **15.9375 per 15-minute unit**	Case management (also called "supports planning" in CFC and CPAS), has two components: transitional comprehensive and ongoing case management. Transitional comprehensive case management is the case management that is provided to the applicants who are applying for enrollment in the waiver or program. The scope of transitional comprehensive case management activities includes: (1) Assisting applicants with obtaining the necessary eligibility determinations (2) Developing a comprehensive plan of service (POS) that identifies services and providers and includes both state and local community resources (3) Coordinating the transition from an institution to the community (4) Ensuring service providers are ready to begin services upon enrollment. Ongoing case management focuses on the ongoing monitoring of the participant's health and welfare, through oversight of the services received by the participant as approved in the participant's POS. The case manager is responsible for initiating the process for determining the participant's level of care, both the initial determination and the annual re-determination. A case manager's caseload may vary from 20 to 45 participants.	In accordance with COMAR 10.09.54.11 (Home and Community-Based Options Waiver, Specific Conditions for Provider Participation, Case Management Services), a provider of case management services under the Community Options waiver must be an area agency or other entity designated by the MDH through a process approved by CMS. Case managers for participants in the Model Waiver (COMAR 10.09.27.03: Home Care for Disabled Children Under a Model Waiver, Conditions for Participation) cannot also be a provider of medical supplies and equipment or nursing services. In accordance with COMAR regulations 10.09.84.07 (Community First Choice, Specific Conditions for Provider Participation, Supports Planning) and 10.09.20.06 (Community Personal Assistance Services, Specific Conditions for Provider Participation, Supports Planning), providers shall either be identified by the department through a solicitation process, or be the area agency on aging that is enrolled to provide case management services under COMAR 10.09.54 (Home and Community-Based Options Waiver).

Waiver Service	Service Definition	Provider Qualifications
Case Management **(REM)** **400.21 (Initial Rate)** **295.51 (Risk Adjusted High Initial)** **176.13 (Risk Adjusted Low)** **92.96 (Risk Adjusted Maintenance Level 3)**	REM participants receive an initial case management assessment, performed by a REM case manager, in which the case manager: 1) Gathers all relevant information needed to determine the participant's condition and needs 2) Consults with the participant's current service providers 3) Evaluates the relevant information and completes a needs analysis. Other case management services include: 1) Assisting the participant with selecting a PCP when necessary 2) Developing a plan of care in conjunction with the participant, the participant's family, and the PCP 3) Implementing the plan of care and assist the participant in gaining access to medically necessary services 4) Monitoring service delivery and performing record reviews 5) As necessary, initiating and implementing modifications to the plan of care 6) Monitoring a recipient's receipt of EPSDT services as specified in COMAR 10.09.67 7) Assisting the participant with the coordination of school health-related services.	In accordance with COMAR 10.09.69.06 (Maryland Medicaid Managed Care Program: Rare and Expensive Case Management, Requirements for Provider Qualifications) case managers for participants in the Rare and Expensive Case Management Program must be: 1) An RN or social worker AND 2) Licensed.

Waiver Service	Service Definition	Provider Qualifications
Behavior Consultation **(ICS, CO Waiver)** **67.97/hour**	Behavior consultation services are provided in a participant's home or the assisted living facility to assist the caregiver(s) in understanding and managing a participant's problematic behavior. The provider performs an assessment of the situation, determines the contributing factors, and recommends interventions and possible treatments. The provider prepares a written report which includes the assessment and the provider's recommendations which are discussed with the waiver case manager, the assisted living providers, or family. The appropriate course of action is determined and the provider may also recommend resources such as medical services available to the participant under the State Plan. Time spent in related activities before or after the home visit are not compensable.	If services are provided by a residential services agency, the agency must be certified in accordance with COMAR 10.07.05. In accordance with COMAR 10.09.54.06 (Home and Community-Based Options Waiver, Specific Conditions for Provider Participation, Behavior Consultation), the individual rendering the services must: (1) Be an RN, a psychologist, a psychiatrist, or a clinical social worker AND (2) Be licensed AND (3) Have direct experience working with adults with behavioral problems.
Family Training **(ICS, CO Waiver)** **67.97/hour**	Training and counseling services are available as needed for family members. For this service, "family" is defined as the person/s that lives with or provides care to a waiver participant, and may include a parent, spouse, children, relatives, foster family, in-laws, or other unpaid "informal" caregivers. Family does not include individuals who are employed to care for the participant. Training may include such topics as how to work with the participant's self-employed personal care aides and other waiver providers. Instruction may also be provided about treatment regimens, dementia, and use of equipment specified in the participant's POS. This service is provided on a one-on-one basis during a home or office visit with the family member. The unit of service is one hour and providers may only bill for the length of the visit, not for related activities performed before or after the visit.	If family training services for Community Options waiver participants are provided by an agency, the agency must be licensed by OHCQ (assisted living, home health agencies, and residential service agencies). A personal care nurse case monitoring agency, such as a local health department, may also provide the service. In accordance with COMAR 10.09.54.08 (Home and Community-Based Options Waiver, Specific Conditions of Provider Participation, Family Training) the individual rendering the services must: (1) Be an RN, OT, PT, or social worker AND (2) Be licensed AND (3) Have experience.

Waiver Service	Service Definition	Provider Qualifications
Dietitian/Nutritionist **(ICS, CO Waiver)** **67.97/hour**	Nutritionist and dietitian services are rendered one-on-one in a participant's home or the provider's office. Services include individualized nutrition care planning, nutrition assessment, and dietetic instruction. The service is provided when the participant's condition requires the judgment, knowledge, and skills of a licensed nutritionist or licensed dietitian to assess participants and assist them and their caregivers with a plan to optimize nutritional outcomes.	In accordance COMAR 10.56.54.09 (Home and Community-Based Options Wavier, Specific Conditions for Provider Participation, Dietitian and Nutritionist Services), the individual rendering the services must be licensed in accordance with the Board of Dietetic Practice (COMAR 10.56.01) and Health Occupations Article, Title 5, Annotated Code of Maryland.

Waiver Service	Service Definition	Provider Qualifications
Assisted Living (all levels) **(ICS, CO Waiver)** **46.63/day – Level II with MDC** **58.80/day – Level III with MDC** **62.15/day – Level II no MDC** **78.43/day – Level III no MDC**	These services are available to all participants regardless of level of care: (1) Three meals per day and snacks ▪ Provision of or arrangement for special diets ▪ Four- week menu cycle approved by a licensed dietitian or nutritionist at the time of licensure approval and licensure renewal (2) Daily monitoring of resident & resident's assisted living service plan ▪ 24-hour supervision (3) Personal care and chore services including: ▪ Assisting with activities of daily living, including instrumental activities of daily living ▪ Routine housekeeping, laundry, and chore services (4) Medication management including administration of medications or regular assessment of a participant's ability to self-medicate, regular oversight by the facility's delegating nurse, and on-site pharmacy review for residents with 9 or more medications (5) Facilitating access to health care, social, and spiritual services (6) Nursing supervision and delegation of nursing tasks by an RN (7) Basic personal hygiene supplies (8) Assistance with transportation to Medicaid covered services. Only level two or three assisted living services are reimbursed, as these levels of service are consistent with the needs of individuals with a nursing facility level of care (NF LOC). Additionally, room and board will not be reimbursed. The provider bills Medicaid for level two without medical day care, level two with medical day care, level three without medical day care, or level three with medical day care assisted living services according to the participant's assessed level of assisted living care and medical day care participation. There is a daily rate reduction in the AL rate when a participant attends MDC. The Medicaid assisted living service daily waiver reimbursement rates for level two with/without medical day care and level three with/without medical day care cover all of the required services listed above including the referral to medical and social services.	Must be licensed by OHCQ (for level two or three) and have appropriate facilities for overnight care. In accordance with COMAR regulations 10.09.54.05 (Home and Community-Based Options Waiver, Specific Conditions for Provider Participation, Assisted Living) and 10.07.14.14-15,18-20 (Assisted Living Programs) staff must consist of: (1) A manager: who must be a licensed physician, licensed RN, licensed LPN, or have at least 3 years of experience in direct patient care (2) An alternative manager: who has at least two years of experience in a health-related field (3) Additional staff: who must be 18 years or older, unless licensed as a nurse (4) A delegating nurse: must be an RN with a current license. Additionally, the aides should have first aid certificates and the facility must always have enough aides with CPR certificates on duty. The facility must have a CMT on duty if medications are to be administered. A CMT works under the supervision of a delegating nurse hired by the ALF.

Waiver Service	Service Definition	Provider Qualifications
Personal Assistance **(CFC, CPAS, ICS)** **11.67/hour – Shared** **17.50/hour – Non-Shared** **150.59/day - Shared** **225.88/day – Non-Shared**	Personal assistance services (also called "attendant care services" in ICS) are intended to assist participants with activities of daily living (e.g., bathing, eating, toileting, dressing, and mobility) and instrumental activities of daily living (e.g., preparing a light meal, performing light chores, or shopping for groceries) and are rendered in a participant's home or in a community setting. Personal assistance also includes delegated nursing functions, such as assistance with the participant's administration of medications or other remedies in the participant's plan of service. This service does not include the cost of food or meals prepared in, or delivered to, the home or otherwise received in the community.	In accordance with COMAR regulations 10.09.84.06 (Community First Choice, Specific Conditions for Provider Participation, Personal Assistance) and 10.09.20.05 (Community Personal Assistance Services, Specific Conditions for Provider Participation, Personal Assistance), providers of personal assistance services must be licensed as residential service agencies under COMAR 10.07.05. Staff must consist of: 1) An RN who shall delegate nursing tasks, as appropriate, to a CNA or CMT 2) Workers who will accept instruction on the personal assistance services required in the plan of care. Pursuant to 10.05.07.05.11.C(5), RSA workers must be trained in CPR. Workers who perform delegated nursing services shall, if required to administer medications, be a CMT. If performing other delegated nursing functions, workers shall also be CNAs.
Consumer Training **(CFC, ICS)** **44.08/hour**	Consumer training services (also called "participant training" in ICS) includes instruction and skill-building in areas such as money-management, budgeting, independent living, meal planning, and other skills necessary for the participant to accomplish ADLs and IADLs. The unit of service is one hour, and is provided on a one-on-one basis at the participant's home. Providers may not bill for related activities performed before or after the visit (including preparation for the training, follow-up, and travel to and from the training).	In accordance with COMAR regulations 10.09.84.08 (Community First Choice, Specific Conditions for Provider Participation, Consumer Training) and 10.09.81.05 (Increased Community Services (ICS) Program, Specific Conditions for Provider Participation, Participant Training), providers may either be self-employed or agency-based trainers. Providers shall demonstrate experience in the skill being taught.
Nurse Monitoring **(CFC, CPAS, ICS)** **86.39/hour**	Nurse monitoring services (also called "nursing supervision of attendants" in ICS) are intended to assess the quality of personal assistance services received by participants. Nurse monitors periodically contact or visit participants in order to assess the participant's condition and observe the performance of the worker. Furthermore, nurse monitors review documentation related to the provision of personal assistance services and maintain an up-to-date client profile in an electronic database designated by the department.	In accordance with COMAR regulations 10.09.84.12 (Community First Choice, Specific Conditions for Provider Participation, Nurse Monitoring) and 10.09.20.07 (Community Personal Assistance Services, Specific Conditions for Provider Participation, Nurse Monitoring), providers shall employ or contract with RNs who hold a current professional license to practice in Maryland.

Waiver Service	Service Definition	Provider Qualifications
Residential Habilitation **(TBI Waiver)** **211.72/day – Level I** **280.34/day – Level II** **387.84/day – Level III**	Residential habilitation services are provided in a community-based facility and assist participants in acquiring, regaining, retaining, or improving self-help skills related to activities of daily living and the socialization and adaptive skills which are necessary to reside successfully in home and community-based settings. This includes: 1) Supervision and support up to 24 hours a day in a residence 2) Nursing supervision for any medication administration or other delegated nursing functions 3) Behavior intervention services 4) Daily coordination of the participant's clinical treatment, rehabilitation, health, and medical services with the other providers of BI waiver services. Level 1 care requires a minimum 1:3 staff to participant ratio during day and evening shifts and non-awake supervision during overnight shift or an awake staff person covering more than one site during the overnight shift. Level 2 care requires a minimum 1:3 staff to participant ratio during day and evening shifts and awake, on-site supervision during the overnight shift. Level 3 care requires a 1:1 staff to participant ratio during day and evening shifts and awake, on-site supervision during the overnight shift. Room and board are not reimbursed by the department.	Provider agencies must be licensed by OHCQ as Community Residential Services Programs (COMAR 10.22.08). Additionally, providers must demonstrate experience in the provision of services to individuals with BI by having: 1) A history of serving individuals with brain injury for 2 years 2) A program of specialized services appropriate for the needs of individuals with brain injuries 3) Availability of licensed healthcare professionals with experience in the provision of services to individuals with BI to supervise, train, or consult with program staff 4) Accreditation by CARF for the provision of brain injury services. Additionally, providers must provide an annual continuing education program for all staff working with waiver participants on the needs of individuals with BI that may include: 1) Types of brain injuries 2) Behavioral, emotional, cognitive, and physical changes after brain injury 3) Strategies for compensation and remediation of deficits caused by a brain injury.

Waiver Service	Service Definition	Provider Qualifications
Day Habilitation **(TBI Waiver)** **54.67/day – Level I** **95.35/day – Level II** **134.15/day – Level III**	Day habilitation services are provided in a non-residential setting, separate from the home or facility in which the individual resides, and are intended to enable the participant to regain, attain, or maintain the participant's maximum functional level. Specific services include: 1) Habilitative or rehabilitative services to assist a participant in acquiring, regaining, retaining, or improving the self-help skills related to activities of daily living and social and adaptive skills, which are necessary to reside successfully in home and community based settings 2) Meals 3) Nursing supervision for any medication administration or other delegated nursing functions 4) Behavior intervention services 5) Transportation between a participant's resident and the provider's site, or between habilitation sites if the participant receives habilitation services in more than one place. The minimum staff to participant ratios by acuity level are: 1) 1:6 staff to participant for level 1 care 2) 1:4 staff to participant for level 2 care 3) 1:1 staff to participant for level 3 care. Services shall regularly be provided for 4 or more hours per day.	Provider agencies must be licensed by OHCQ as Vocational and Day Services Programs (COMAR 10.22.07). Additionally, providers must demonstrate experience in the provision of services to individuals with BI by having: 1) A history of serving individuals with brain injury for 2 years 2) A program of specialized services appropriate for the needs of individuals with brain injuries 3) Availability of licensed healthcare professionals with experience in the provision of services to individuals with BI to supervise, train, or consult with program staff 4) Accreditation by CARF for the provision of brain injury services. Additionally, providers must provide an annual continuing education program for all staff working with waiver participants on the needs of individuals with BI that may include: 1) Types of brain injuries 2) Behavioral, emotional, cognitive, and physical changes after brain injury 3) Strategies for compensation and remediation of deficits caused by a brain injury.
Supported Employment Services **(TBI Waiver)** **32.43/day – Level I** **54.67/day – Level II** **134.15/day – Level III**	Supported employment services are provided in a nonresidential community setting, separate from the home or facility in which the participant resides, and are intended to help individuals obtain and maintain paid work in integrated community settings. The covered services include: 1) A work program that includes support necessary for the participant to achieve desired outcomes 2) Rehabilitation activities needed to sustain the participant's job including support and training 3) Training, skill development, and paid employment for participants for whom competitive employment at or above minimum wage is unlikely and who, because of disabilities, need intensive ongoing support to perform in a work setting	Provider agencies must either be licensed by OHCQ as Vocational and Day Services Programs (COMAR 10.22.07), or approved by OHCQ as Mental Health Vocational Programs (COMAR 10.21.28). In accordance with COMAR 10.21.28.12 (Community Mental Health Programs-Mental Health Vocational Programs (MHVP), Program Staff) Mental Health Vocational Program (MHVP) staff must consist of: 1) A program director 2) Employment specialists 3) Program staff. A provider of MHVP services shall maintain a maximum ratio of one employment

Waiver Service	Service Definition	Provider Qualifications
	4) Transportation or the coordination of transportation between a participant's residence and the supported employment job site. The levels of service are as follows: 1) Level 1 requires that staff members provide daily contact to the participant. 2) Level 2 requires that staff members provide a minimum of 1 hour of direct support per day 3) Level 3 requires that staff members provide continuous support for a minimum of 4 hours of service per day.	specialist serving each 15 individuals receiving MHVP services. Additionally, providers must demonstrate experience in the provision of services to individuals with BI by having: 1) A history of serving individuals with brain injury for 2 years 2) A program of specialized services appropriate for the needs of individuals with brain injuries 3) Availability of licensed healthcare professionals with experience in the provision of services to individuals with BI to supervise, train, or consult with program staff 4) Accreditation by CARF for the provision of brain injury services. Additionally, providers must provide an annual continuing education program for all staff working with waiver participants on the needs of individuals with BI that may include: 1) Types of brain injuries 2) Behavioral, emotional, cognitive, and physical changes after brain injury 3) Strategies for compensation and remediation of deficits caused by a brain injury.
Individual Support Services **(TBI Waiver)** **26.51/hour**	Individual Support Services shall, in 1-hour units and in a community setting (including the participant's home), assist participants to live as independently as possible in their own homes. Specific assistance may include, but not be limited to: 1) Budgeting 2) Medication administration 3) Helping an individual to access and complete the individual's education 4) Participating in recreational and social activities 5) Accessing community services 6) Grocery shopping 7) Behavioral and other services and supports needed by the family of the individual 8) Developing relationships.	Provider agencies must be licensed by OHCQ as Family and Individual Support Services Programs (COMAR 10.22.06). Additionally, providers must demonstrate experience in the provision of services to individuals with BI by having: 1) A history of serving individuals with brain injury for 2 years 2) A program of specialized services appropriate for the needs of individuals with brain injuries 3) Availability of licensed healthcare professionals with experience in the provision of services to individuals with BI to supervise, train, or consult with program staff 4) Accreditation by CARF for the provision of brain injury services. Additionally, providers must provide an annual continuing education program for all staff working with waiver participants on the needs of individuals with BI that may include: 1) Types of brain injuries

Waiver Service	Service Definition	Provider Qualifications
		2) Behavioral, emotional, cognitive, and physical changes after brain injury 3) Strategies for compensation and remediation of deficits caused by a brain injury.
Private Duty Nursing Services **(Model Waiver, EPSDT – Nursing)** **6.08/unit (LPN, 2+ participants)** **8.80/unit (LPN, 1 participant)** **9.36/unit (RN, 2+ participants)** **13.57/unit (RN, 1 participant)**	Private nursing services (RN or LPN) are provided if the complexity of the service or the condition of a participant requires the judgment, knowledge, and skills of a licensed nurse. These services are delivered to the participant in the participant's home or other setting when normal life activities take the participant outside of the house.	Must be licensed by OHCQ as a residential service agency (COMAR 10.07.05) or home health agency (COMAR 10.07.10). In accordance with COMAR 10.09.27.04 (Home Care for Disabled Children Under a Model Waiver, Covered Services) and COMAR 10.05.53.03-04 (EPSDT – Nursing, Conditions for Participation and Covered Services), individuals rendering private duty nursing service shall be licensed RNs or LPNs. Additionally, in accordance with COMAR 10.09.53.03 (EPSDT – Nursing, Conditions for Participation), providers of nursing services shall have on staff at least one registered nurse supervisor.
CNA/HHA Services **(Model Waiver, EPSDT – Nursing)**	Delegated nursing services will be provided by a CNA or HHA when the complexity of the service or the condition of the participant does not require an RN or an LPN. These services include assistance with activities of daily living when performed in conjunction with other delegated nursing services.	Must be licensed by OHCQ as a residential service agency (COMAR 10.07.05) or home health agency (COMAR 10.07.10). In accordance with COMAR 10.09.27.03 (Home Care for Disabled Children Under a Model Waiver, Conditions for Participation) and COMAR 10.09.53.03 (EPSDT –

Waiver Service	Service Definition	Provider Qualifications
2.68/unit – Model (2+ participants) **3.85/unit – Model (1 participant)** **3.20/unit – EPDST (2+ participants)** **4.65/unit – EPSDT (1 participant)**		Nursing, Conditions for Participation), each CNA or HHA rendering services to a participant must: 1) Have a valid, non-temporary certification to provide CNA or HHA services. 2) Be certified in CPR 3) Under EPSDT – Nursing, must also be certified as a CMT. Additionally, providers of CNA/HHA services shall have on staff at least one registered nurse supervisor.
Participation by Principal Physician in Plan of Care Meetings **(Model Waiver)** **40.50**	The principal physician of the participant shall participate in plan of care meetings, including prescribing home care services and approving and signing the plan of care.	The principal physician is a licensed specialty physician who is part of the multidisciplinary team of the participant. The physician must be declared board-certified or eligible by a member board of the American Board of Medical Specialties or has been declared board-certified or eligible, by a specialty board approved by the Advisory Board of Osteopathic Specialists and the Board of Trustees of the American Osteopathic Association.
Initial Nursing Assessment **(EPSDT – Nursing)** **150**	Participants will undergo an initial assessment consisting of: 1) A comprehensive assessment of health status 2) An assessment of the need for services 3) An assessment of the scope and duration of services to be provided 4) An assessment of the recipient's residence 5) Consultation with the primary medical provider to confirm the need for services and to develop a plan of care. The assessment must be 3 hours or less, and does not require pre-authorization.	In accordance with COMAR 10.09.53.04 (EPSDT – Nursing, Covered Services), the initial assessment must be conducted by a licensed RN.

*Waiver service definitions and provider qualifications were taken from waiver applications and COMAR regulations; both were shortened when possible.
Note: Hilltop used COMAR regulations, waiver applications, provider solicitations, national surveys, and other states' reimbursement methodology studies as source materials for all appendix tables.

Appendix B. Program 3 and Brain Injury Waiver Services with Probable Scheme of Bureau of Labor and Statistics Job Classifications*

Waiver Service	Comparable BLS Job Classifications
Medical Day Care **(ICS, TBI Waiver, CO Waiver, MDC Waiver, Model Waiver)** **79.84/day**	**Registered nurses (29-1141):** Assess patient health problems and needs, develop and implement nursing care plans, and maintain medical records. Administer nursing care to ill, injured, convalescent, or disabled patients. May advise patients on health maintenance and disease prevention or provide case management. Licensing or registration required. **Licensed practical and licensed vocational nurses (29-2061):** Care for ill, injured, or convalescing patients or persons with disabilities in hospitals, nursing homes, clinics, private homes, group homes, and similar institutions. May work under the supervision of a registered nurse. Licensing required. **Nursing assistants (31-1014):** Provide basic patient care under direction of nursing staff. Perform duties such as feed, bathe, dress, groom, or move patients, or change linens. May transfer or transport patients. Includes nursing care attendants, nursing aides, and nursing attendants. **Occupational therapists (29-1122):** Assess, plan, organize, and participate in rehabilitative programs that help build or restore vocational, homemaking, and daily living skills, as well as general independence, to persons with disabilities or developmental delays. **Physical therapists (29-1123):** Assess, plan, organize, and participate in rehabilitative programs that improve mobility, relieve pain, increase strength, and improve or correct disabling conditions resulting from disease or injury. **Family and General Practitioners (29-1062):** Physicians who diagnose, treat, and help prevent diseases and injuries that commonly occur in the general population. May refer patients to specialists when needed for further diagnosis or treatment. **Healthcare Social Workers (21-1022):** Provide individuals, families, and groups with the psychosocial support needed to cope with chronic, acute, or terminal illnesses. Services include advising family caregivers, providing patient education and counseling, and making referrals for other services. May also provide care and case management or interventions designed to promote health, prevent disease, and address barriers to access to healthcare. **Social and human service assistants (21-1093):** Assist in providing client services in a wide variety of fields, such as psychology, rehabilitation, or social work, including support for families. May assist clients in identifying and obtaining available benefits and social and community services. May assist social workers with developing, organizing, and conducting programs to prevent and resolve problems relevant to substance abuse, human relationships, rehabilitation, or dependent care. **Personal care aides (39-9021):** Assist the elderly, convalescents, or persons with disabilities with daily living activities at the person's home or in a care facility. Duties performed at a place of residence may include keeping house (making beds, doing laundry, washing dishes) and preparing meals. May provide assistance at non-residential care facilities. May advise families, the elderly, convalescents, and persons with disabilities regarding such things as nutrition, cleanliness, and household activities.

Waiver Service	Comparable BLS Job Classifications
	Dietitians and nutritionists (29-1031): Plan and conduct food service or nutritional programs to assist in the promotion of health and control of disease. May supervise activities of a department providing quantity food services, counsel individuals, or conduct nutritional research. **Recreational therapists (29-1125):** Plan, direct, or coordinate medically approved recreation programs for patients in hospitals, nursing homes, or other institutions. Activities include sports, trips, dramatics, social activities, and arts and crafts. May assess a patient condition and recommend appropriate recreational activity. **Recreation workers (39-9032):** Conduct recreation activities with groups in public, private, or volunteer agencies or recreation facilities. Organize and promote activities, such as arts and crafts, sports, games, music, dramatics, social recreation, camping, and hobbies, taking into account the needs and interests of individual members.
Senior Center Plus **(ICS, CO Waiver)** **49.45/day**	**Personal care aides (39-9021):** See above. **Dietician and nutritionists (29-1031):** See above. **All other social workers (21-1029):** All social workers not listed separately. **Social and human service assistants (21-1093):** See above. **Recreational therapists (29-1125):** See above. **Recreation workers (39-9032):** See above.
Respite **(CO Waiver)** **78.43/day**	**Family and General Practitioners (29-1062):** See above. **Registered nurses (29-1141):** See above. **Licensed practical and licensed vocational nurses (29-2061):** See above. **Nursing assistants (31-1014):** See above. **Personal care aides (39-9021):** See above. **Dietician and nutritionists (29-1031):** See above. **All other social workers (21-1029):** See above. **Social and human service assistants (21-1093):** See above.

Waiver Service	Comparable BLS Job Classifications
	Recreation workers (39-9032): See above.
Case Management **(ICS, CO Waiver, Model Waiver, CFC, CPAS)** **63.75/hour** **15.9375 per 15-minute unit**	**Healthcare social workers (21-1022):** See above. **Social and human service assistants (21-1093):** See above. **Social and community service managers (11-9151):** Plan, direct, or coordinate the activities of a social service program or community outreach organization. Oversee the program or organization's budget and policies regarding participant involvement, program requirements, and benefits. Work may involve directing social workers, counselors, or probation officers. **Registered nurses (29-1141):** See above.
Case Management **(REM)** **400.21 (Initial Rate)** **295.51 (Risk Adjusted High Initial)**	**Registered nurses (29-1141):** See above. **Healthcare social workers (21-1022):** See above.

Waiver Service	Comparable BLS Job Classifications
176.13 (Risk Adjusted Low) **92.96 (Risk Adjusted Maintenance Level 3)**	
Behavior Consultation **(ICS, CO Waiver)** **67.97/hour**	**Registered nurses (29-1141):** See above. **Mental health and substance abuse social workers (21-1023):** Assess and treat individuals with mental, emotional, or substance abuse problems, including abuse of alcohol, tobacco, and/or other drugs. Activities may include individual and group therapy, crisis intervention, case management, client advocacy, prevention, and education. **Clinical, counseling, and school psychologists (19-3031):** Diagnose and treat mental disorders; learning disabilities; and cognitive, behavioral, and emotional problems, using individual, child, family, and group therapies. May design and implement behavior modification programs. **Psychiatrists (29-1066):** Physicians who diagnose, treat, and help prevent disorders of the mind.
Family Training **(ICS, CO Waiver)** **67.97/hour**	**Registered nurses (29-1141):** See above. **Occupational therapists (29-1122):** See above. **Physical therapists (29-1123):** See above. **All other social workers (21-1029):** See above.
Dietitian/Nutritionist **(ICS, CO Waiver)** **67.97/hour**	**Dietician and nutritionists (29-1031):** See above.

Waiver Service	Comparable BLS Job Classifications
Assisted Living (all levels) **(ICS, CO Waiver)** **46.63/day – Level II with MDC** **58.80/day – Level III with MDC** **62.15/day – Level II no MDC** **78.43/day – Level III no MDC**	**Family and General Practitioners (29-1062):** See above. **Registered nurses (29-1141):** See above. **Licensed practical and licensed vocational nurses (29-2061):** See above. **Nursing assistants (31-1014):** See above. **Personal care aides (39-9021):** See above. **Dietitian and nutritionists (29-1031):** See above. **All other social workers (21-1029):** See above. **Social and human service assistants (21-1093):** See above. **Recreation workers (39-9032):** See above.
Personal Assistance **(CFC, CPAS, ICS)** **11.67/hour – Shared** **17.50/hour – Non-Shared** **150.59/day - Shared** **225.88/day – Non-Shared**	**Registered nurses (29-1141):** See above. **Personal care aides (39-9021):** See above. **Nursing assistants (31-1014):** See above.

Waiver Service	Comparable BLS Job Classifications
Consumer Training **(CFC, ICS)** **44.08/hour**	**Occupational therapists (29-1122):** See above. **Occupational therapy assistants (31-2011):** Assist occupational therapists in providing occupational therapy treatments and procedures. May, in accordance with State laws, assist in development of treatment plans, carry out routine functions, direct activity programs, and document the progress of treatments. Generally requires formal training. **Community and Social Service Specialists, All Other (21-1099):** All community and social service specialists not listed separately.
Nurse Monitoring **(CFC, CPAS, ICS)** **86.39/hour**	**Registered nurses (29-1141):** See above.
Residential Habilitation **(TBI Waiver)** **211.72/day – Level I** **280.34/day – Level II** **387.84/day – Level III**	**Rehabilitation counselors (21-1015):** Counsel individuals to maximize the independence and employability of persons coping with personal, social, and vocational difficulties that result from birth defects, illness, disease, accidents, or the stress of daily life. Coordinate activities for residents of care and treatment facilities. Assess client needs and design and implement rehabilitation programs that may include personal and vocational counseling, training, and job placement. **Occupational therapists (29-1122):** See above. **Registered nurses (29-1141):** See above. **Nursing assistants (31-1014):** See above. **Personal care aides (39-9021):** See above. **Mental health and substance abuse social workers (21-1023):** See above.

Waiver Service	Comparable BLS Job Classifications
Day Habilitation **(TBI Waiver)** **54.67/day – Level I** **95.35/day – Level II** **134.15/day – Level III**	**Rehabilitation counselors (21-1015):** See above. **Occupational therapists (29-1122):** See above. **Registered nurses (29-1141):** See above. **Nursing assistants (31-1014):** See above. **Mental health and substance abuse social workers (21-1023):** See above.
Supported Employment Services **(TBI Waiver)** **32.43/day – Level I** **54.67/day – Level II** **134.15/day – Level III**	**Educational, guidance, school, and vocational counselors (21-1012):** Counsel individuals and provide group educational and vocational guidance services. **Rehabilitation counselors (21-1015):** See above. **Social and human service assistants (21-1093):** See above.
Individual Support Services **(TBI Waiver)** **26.51/hour**	**Rehabilitation counselors (21-1015):** See above. **Social and human service assistants (21-1093):** See above. **Personal care aides (39-9021):** See above.

Waiver Service	Comparable BLS Job Classifications
Private Duty Nursing Services **(Model Waiver, EPSDT – Nursing)** **6.08/unit (LPN, 2+ participants)** **8.80/unit (LPN, 1 participant)** **9.36/unit (RN, 2+ participants)** **13.57/unit (RN, 1 participant)**	**Registered nurses (29-1141):** See above. **Licensed practical and licensed vocational nurses (29-2061):** See above.
CNA/HHA Services **(Model Waiver, EPSDT – Nursing)** **2.68/unit – Model (2+ participants)** **3.85/unit – Model (1 participant)** **3.20/unit – EPDST (2+ participants)** **4.65/unit – EPSDT (1 participant)**	**Registered nurses (29-1141):** See above. **Nursing assistants (31-1014):** See above. **Home health aides (31-1011):** Provide routine individualized healthcare such as changing bandages and dressing wounds, and applying topical medications to the elderly, convalescents, or persons with disabilities at the patient's home or in a care facility. Monitor or report changes in health status. May also provide personal care such as bathing, dressing, and grooming of patient.
Participation by Principal Physician in Plan of Care Meetings **(Model Waiver)**	**Family and General Practitioners (29-1062):** See above.

Waiver Service	Comparable BLS Job Classifications
40.50	
Initial Nursing Assessment **(EPSDT – Nursing)** **150**	**Registered nurses (29-1141):** See above.

* Bureau of Labor and Statistics (BLS) associated job classification and definition retrieved from May 2017 State Occupational Employment and Wage Estimates – Maryland (http://www.bls.gov/oes/current/oes_md.htm)

Note: Hilltop used COMAR regulations, waiver applications, provider solicitations, national surveys, and other states' reimbursement methodology studies as source materials for all appendix tables.

Appendix C. Program 3 and Brain Injury Waiver Services Wage Assumptions*

Bureau of Labor and Statistics Title and Code	Median Wage	Medical Day	Senior Center Plus	Respite	Case Management (non-REM)	Case Management (REM)	Behavior Consultation	Family Training	Dietitian/Nutritionist	Assisted Living II no medical day care	Assisted living III no medical day care	Assisted living II with medical day care	Assisted living III with medical day care
29-1062 Family and general practitioners	99.06	1%		1%						1%	1%	1%	1%
29-1141 Registered nurse	37.57	15%		9%	5%	50%	32%	33%		6%	9%	6%	9%
29-2061 Licensed practical nurse	26.99	5%		3%						3%	3%	3%	3%
31-1014 Nursing assistants	15.03	5%		5%						5%	5%	5%	5%
29-1066 Psychiatrists	99.30						4%						
29-1031 Dietitian and nutritionists	33.82	2%	2%	3%					100%	3%	3%	3%	3%
29-1122 Occupational therapists	44.49	2%						16%					
31-2011 Occupational therapy assistants	32.46												
29-1123 Physical therapist	45.13	5%						16%					
29-1125 Recreational therapist	24.74	5%	14%										
21-1015 Rehabilitation counselors	19.26												
21-1022 Health care social worker	28.55	5%			45%	50%							
21-1023 Mental health and subs. abuse social workers	22.36						32%						
21-1029 All other social workers	34.85		10%	1%				35%		1%	1%	1%	1%
19-3031 Clinical, counseling, and school psychologists	38.50						32%						
21-1012 Educ., guidance, school, and voc. counselors	30.95												

		Medical Day	Senior Center Plus	Respite	Case Management (non-REM)	Case Management (REM)	Behavior Consultation	Family Training	Dietitian/Nutritionist	Assisted Living II no medical day care	Assisted living III no medical day care	Assisted living II with medical day care	Assisted living III with medical day care
Bureau of Labor and Statistics Title and Code	**Median Wage**												
11-9151 Social and community service managers	35.60				10%								
21-1093 Social and human service assistants	16.63	5%	5%	1%	40%					1%	1%	1%	1%
21-1099 Comm. and social service specialists, all other	23.54												
39-9021 Personal care aides	12.29	30%	45%	65%						68%	65%	68%	65%
31-1011 Home health aides	12.64												
39-9032 Recreation workers	11.16	20%	24%	12%						12%	12%	12%	12%
Base Hourly Wage		**21.96**	**16.67**	**16.79**	**24.94**	**33.06**	**35.47**	**38.94**	**33.82**	**16.03**	**16.79**	**16.03**	**16.79**

Bureau of Labor and Statistics Title and Code	Median Wage	Personal Assistance	Consumer Training	Nurse Monitoring	Residential Habilitation	Day Habilitation	Supported Employment Services	Individual Support Services	Private Duty Nursing - RN	Private Duty Nursing - LPN	CNA/HHA Services	Participation by principal physician in team conference	Initial Nursing Assessment
29-1062 Family and general practitioners	99.06											100%	
29-1141 Registered nurse	37.57	2%		100%	5%	5%			100%		2%		100%
29-2061 Licensed practical nurse	26.99									100%			
31-1014 Nursing assistants	15.03	33%			15%	15%					49%		
29-1066 Psychiatrists	99.30												
29-1031 Dietitian and nutritionists	33.82												
29-1122 Occupational therapists	44.49		10%		25%	35%							
31-2011 Occupational therapy assistants	32.46		30%										
29-1123 Physical therapist	45.13												
29-1125 Recreational therapist	24.74												
21-1015 Rehabilitation counselors	19.26				25%	35%	25%	17%					
21-1022 Health care social worker	28.55												
21-1023 Mental health and subs. abuse social workers	22.36				10%	10%							
21-1029 All other social workers	34.85												
19-3031 Clinical, counseling, and school psychologists	38.50												
21-1012 Educ., guidance, school, and voc. counselors	30.95						25%						
11-9151 Social and community service managers	35.60												
21-1093 Social and human service assistants	16.63						50%	16%					

		Personal Assistance	Consumer Training	Nurse Monitoring	Residential Habilitation	Day Habilitation	Supported Employment Services	Individual Support Services	Private Duty Nursing - RN	Private Duty Nursing - LPN	CNA/HHA Services	Participation by principal physician in team conference	Initial Nursing Assessment
Bureau of Labor and Statistics Title and Code	**Median Wage**												
21-1099 Comm. and social service specialists, all other	23.54		60%										
39-9021 Personal care aides	12.29	65%			20%			67%					
31-1011 Home health aides	12.64										49%		
39-9032 Recreation workers	11.16												
Base Hourly Wage		**13.70**	**28.31**	**37.57**	**24.76**	**28.68**	**20.87**	**14.17**	**37.57**	**26.99**	**14.31**	**99.06**	**37.57**

*Wages are based on median hourly wage from the BLS May 2017 State Occupational Employment and Wage Estimates – Maryland, retrieved from http://www.bls.gov/oes/current/oes_md.htm. Percentages represent the proportion of that job's wage that makes up the base hourly wage.
Note: Hilltop used COMAR regulations, waiver applications, provider solicitations, national surveys, and other states' reimbursement methodology studies as source materials for all appendix tables.

Appendix D. Provider Comments on HB 1696 Draft Report

Name	Organization	Comment
Leslie G. Hardesty, R.N.	Esther's Place Assisted Living	This is a good step in the right direction. The reimbursement rates for MA waiver residents has been far below fair market value. Many of these residents have multiple serious medical issues that require a great deal of medical oversight and management. ie: Diabetics requiring sliding scale insulins and multiple fingerstick, Congestive Heart failure requiring weight monitoring and diuretic management. What I would ask you to consider is the rate of reimbursement for the Medical Day care days. Very few if any of our resident leave for daycare before 8am or 8:30. Most are picked up after 9am and returned by 2:30. That means they are receiving their medications before 9am; we are giving out those meds. Additionally, we often need to feed them before they go because they needing meds or because they are diabetic. So those cost are incurred by the ALF for staff to administer medicines and the meal they need. This means that's an expense the ADC is expected to incur but usually don't. I would ask your committee to consider this information and would happily allow you to come see for yourselves the reality of who meets what care cost.
Mrs. Morgan	Jobena Assisted Living I-III	I think the daily rate for providers is too low and having to deduct day program cost from daily rate makes it difficult for providers to accept clients going to day programs, which in turn could affect client's access to care.
Alex Petukhov	Personal Assistance Provider	We are an active RSA agency in Montgomery County MD, operating since 2002. Reimbursement rates have not keep up with caregiver wages over the years and we are finding ourselves between a rock and a hard place. Minimum wage is increasing and Medicaid reimbursement for our client population is not keeping up. Funding COF/CO would extend the ability for agencies such as us to take care of our most vulnerable population and lower the overall cost to the State.
Dawn E. Seek Executive Director MNCHA	Maryland-National Capital Homecare Association	Overall, there is concern about the methodology of this report in getting to what is the true cost per billable unit of care provided, especially when compared to costs of care in other settings. The current analysis seems to overlook some important costs that an average home health offices bear. Namely, please refer to the chart on p.13 in the LPN lines and the explanation that leads up to them. (Basing this

Name	Organization	Comment
		on an average office serving 40 private duty nursing clients and 80 LPNs.) · Home health care does not have a $0 facility cost. We are legally obligated to have an office within the jurisdiction where care is provided. Having office space large enough to hold support staff that handle billing, scheduling, nurse oversight, training, etc. plus the electricity, internet and phone, equipment, office supplies, premises insurance etc. can run close to $100,000 per location annually. This is a real cash outlay that is required by law but is unreimbursed. If the office serves 40 clients for 52 weeks with 40 hours of care per client per week: $1.20 unreimbursed cost per billable hour. · Home health does not have a $0 supply cost. An average home health care office serving 40 private duty clients can pay $15,000 annually for items termed personal protective equipment- gloves, masks, soap, sanitizer, gowns… This is a real cash outlay that is not reimbursed. If the office serves 40 clients for 52 weeks with 40 hours of care per client per week: $0.20 unreimbursed cost per billable hour. · Home health care nurses are required to have annual training and competency exams. For an office with 80 nurses, $20,800, annually in the nurses' wages alone. This does not include the development of training, equipment or supplies. If the office serves 40 clients for 52 weeks with 40 hours of care per client per week: $0.25 unreimbursed cost per billable hour. · A well-equipped training room costs more than $50,000 to set up. This is a real cash outlay that is not reimbursed. · Private duty nursing covers many people who have rare conditions and need specialized care and equipment. Home health care nurses must be trained on additional skills relevant to each client before they can provide care. These additional skills training costs an average office about $8,500 annually in direct nurse wages, not including the nursing supervisor's research, time spent training, or the replacement nurse who is caring for the client while training occurs. This is a real cash outlay that is not reimbursed. If the office serves 40 clients for 52 weeks with 40 hours of care per client per week: $0.10 unreimbursed cost per billable hour. · Home health care has a high turnover percentage industrywide. Recruiting and onboarding new nurses costs an average office $85,000 annually. These are real cash outlays that are not reimbursed. If the office serves 40 clients for 52 weeks with 40 hours of care per client per week: $1.02 unreimbursed cost per billable hour. · Home health care, like other settings of care, is encouraged to embrace technology, maintain electronic medical records and coordinate with other providers. The average office spends $20,000 on technology that is in place within the client's home. If the office serves 40 clients for 52 weeks with 40

Name	Organization	Comment
		hours of care per client per week: $0.24 unreimbursed cost per billable hour. Together, these items total $3.01 in costs per billable hour that this analysis does not take into consideration. We object to the use of lower productivity adjustments for home health care (Other Adjustments, p.11) for home health care because of assumed continuity of care throughout a shift. The idea that for each billable hour only 15% of non-billable time supports the home health care nurse- that includes the staffing, preparation, reporting, scheduling, coordination, oversight, insurance verification, billing, etc. of that care- is unsubstantiated.
Afshin Abedi, Ph.D.	Maryland Association of Adult Day Services	On behalf of the Maryland Association of Adult Day Services (MAADS), Maryland's only association representing over 90% of the medical adult day centers in Maryland, we appreciate the opportunity to comment on the rate study performed by The Hilltop Institute (Draft Program 3 and Brain Injury Waiver Rate Methodology Study). This study is the result of House Bill 1696: Task Force to Study Access to Home Health Care for Children and Adults with Medical Disabilities and Report on Home– and Community–Based Services from the 2018 Session. Among other provisions, this legislation required the Maryland Department of Health (MDH) to compare the rate of reimbursement with the actual cost to entities providing home-and-community based services, to the extent information is publicly available. A key component of the legislation was for MDH to consult with persons providing the services, including entities providing adult medical day care, private duty nurses, assisted living providers, and personal care assistance providers. Unfortunately, in conducting the study, Hilltop did not consult with medical adult day centers concerning either their costs or cost factors. During the same time that Hilltop was conducting its study, MAADS developed a comprehensive calculator to accurately capture the aggregate costs to provide medical adult day services across all centers. As such, ● While The Hilltop Institute's report concludes that the estimated cost to provide medical adult day services is $81.88 (a difference of $2.04 from the current reimbursed rate of $79.84), the MAADS study more accurately illustrates that the cost to provide services in 2018 is $85.70. ● This difference can be primarily associated with Hilltop Institute's underestimation of cost in the categories of transportation and labor rates (including minimum wage rates at

Name	Organization	Comment
		the State and county level). It is likely that this study will become a key benchmark for future rate analysis/decisions for the State of Maryland. Therefore, it is imperative that additional care be taken to properly tailor the study to match the realities and conditions present in Maryland rather than the study's current assumptions that many Maryland cost factors are somehow an average of the cost factors published by the three States (Maine, Virginia, and Arizona) referenced by Hilltop Institute. This type of assumption does not provide sufficient depth, documentation, or understanding of Maryland's unique criteria and factors that need to be included in such a pivotal study, which is why it was disappointing that the industry was never consulted as required. The following factors should be recognized in the study to properly reflect Maryland-specific realities and cost factors: ● Minimum wage values : Cost sensitivity to the State and county minimum wage values, their past and future expected/targeted growth rates, and the impact of minimum wage and associated inflationary pressures on the overall medical adult day (MDC) operating cost. ● License capacity: Appropriate weight factor that reflects Maryland's present distribution of Maryland MDC license capacities across the State (based on OHCQ 2018 data) and the impact of center size (and attendance) on daily (or hourly) operating costs. ● Operating models: Consideration of the variations in how many days a center may operate per week - 5, 6 or 7 day a week models, which results in different cost factors (resulting in higher productivity values and the need to allow for overtime pay in the study). ● Transportation : Maryland's transportation related costs including fuel, vehicle purchase, vehicle repair and maintenance, as well as other Department of Transportation (DoT) requirements for vehicle inspections, driver DoT medical examinations, and other Maryland-specific and transportation related costs, including better estimates on mileage, travel time, and driver pay rate and work hours. ● State compliance requirements: A more careful analysis of the differences in compliance requirements between Maryland and the three study comparison states is needed in order to calculate and incorporate a Maryland's Cost of Compliance Factor in the study. This factor provides an indication of the Maryland-specific costs associated with Office of Health Care Quality (OHCQ) and MDH requirements for compliance, and whether they

Name	Organization	Comment
		are more stringent and costly than the other states compared in the study. These costs should include (but not be limited to) the labor type, hours, and expenses associated with generation, maintenance, and submission of participant-specific reports multiple times per year including: ■ Adult Day Care Assessment and Planning System (ADCAPS) ■ LTSS ■ Physician's orders ■ Nurses notes ■ Annual participant revalidation ■ OHCQ Reportable Events ■ MDH Reportable Events ■ Patient emergency room follow-up MAADS would welcome the opportunity to provide feedback, expertise, and information to MDH and The Hilltop Institute to illustrate these points and allow them to incorporate additional and revise data into the study.
Danna Kauffman	LifeSpan	Thank you for the opportunity to provide the comments below regarding The Hilltop Institute's House Bill 1696 Rate Study - Draft Program 3 and Brain Injury Waiver Rate Methodology Study.1 At the onset, LifeSpan supports the letter and position taken by the Maryland Association of Adult Day Services. This letter focuses substantively on the study as it relates to assisted living providers participating in the State's Medicaid program. During the 2018 Legislative Session, this legislation was amended to require the Maryland Department of Health (MDH) to compare the rate of reimbursement with the actual cost to entities providing home-and-community based services, to the extent information is publicly available. In conducting the study, MDH was required to consult with persons providing the services, including entities providing adult medical day care, private duty nurses, assisted living providers, and personal care assistance providers. Unfortunately, in conducting the study, Hilltop did not consult with any assisted living providers that participate in the Medicaid program concerning either their actual costs or cost factors that should be considered for the study. Historically, the assisted living industry has raised concerns regarding the low rate of reimbursement for assisted living services under the Medicaid program. As noted in the study, Medicaid does not pay for room and board. Room and board are paid for by the resident at a cost of only $420/month. This low

Name	Organization	Comment
		rate of reimbursement combined with low reimbursement rates for services makes participating in the Medicaid program near impossible for many providers. Funding issues are exacerbated when you consider that these providers not only have to comply 1 House Bill 1696: Task Force to Study Access to Home Health Care for Children and Adults with Medical Disabilities and Report on Home– and Community–Based Services from the 2018 Session. with the same licensure requirements as non-Medicaid providers but also must comply with additional Medicaid regulations. LifeSpan is pleased that the report did recommend a much-needed increase in the rates for assisted living providers participating in the Medicaid program. However, while implementation of this rate increase is a positive step, it should not be the conclusory step. We believe that the entire reimbursement system for Waiver providers must be re-examined to include room and board (at an appropriate rate) as well as a more detailed study of the cost factors affecting Waiver providers, especially considering recent minimum wage increases and the desire to continue to increase it over the next few years. Again, we appreciate the opportunity to comment and look forward to working further with you.
Elaine Gill Owner / Director of Client Care	Always Best Care Senior Services	Thank you for the opportunity to comment on the study. I noticed there was not a reference to the cost of regular RN assessments of participants by home care agencies where there is no compensation provided. Specifically, the rates for In-Home Services where the Nurse monitor is the local department of Health. Our RNs perform regular assessments and supervision. The local health department RN request our Nurses oversight documentation but there is no payment for these services. These services should be included in the home care rate evaluation along with the other associated costs.

Appendix E. Hilltop Responses to Provider Comments on HB 1696 Draft Report

Name & Organization	Hilltop's Response
Leslie G. Hardesty, R.N. **Esther's Place Assisted Living**	In our analysis, we assumed that ALFs for enrollees in Medical Day Care (MDC) provided 18 hours of direct care, with the client spending the remaining 6 hours in MDC. Given that room and board is not covered for ALF clients, we do not include food as a cost center. Medication administration is factored into the ALF staffing ratios (see Appendix C - 9% RNs, 3% LPNs, and 5% nursing assistants), which is reflected in the labor cost center.
Mrs. Morgan **Jobena Assisted Living I-III**	Our estimates for assisted living costs are constructed on a per-enrollee, per-hour basis. We assume that ALF clients attending MDC are away from the ALF for 6 hours per day, which, according to COMAR 10.09.07.03.C, is the minimum number of hours that MDCs are required to be open each day.
Alex Petukhov **Personal Assistance Provider**	We used the most recently available Maryland-specific wage estimates (May 2017) in order to account for rising labor costs. We will further adjust our estimates to trend labo and other costs forward to incorporate inflation.
Dawn E. Seek **Maryland-National Capital Homecare Association**	Regarding the $1.20 per hour facilities cost, in our cost model, we intend facilities to mean those premises used for direct care of clients. We allocate 16.33% of total costs for administrative costs and program support including, but not limited to, insurance costs, administrative salaries, financial and accounting expenses, office supplies and equipment, program development, training, quality assurance, and service coordination. We assume that this covers administrative office rent. Regarding the $0.20 per hour supply cost, we acknowledge that we did not include this cost center in the draft estimates. We will update our estimates to include this cost center. Regarding the $0.25 annual training and competency costs, we incorporate training costs into both the productivity adjustment and the above-mentioned program support costs. Regarding the $0.10 per hour additional skills training costs, we incorporate training costs into both the productivity adjustment and the above-mentioned program support costs.

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	Regarding the $1.02 per hour recruiting and onboarding costs, we acknowledge that providers incur costs related to training new employees, and that this was not explicitly mentioned in the cost study. However, we feel that these are adequately accounted for in the cost model for two reasons. First, we use median wage estimates from the BLS (as opposed to the 10th or 25th percentile), which might actually overstate the true wages of new hires. To the extent that new hires are not fully productive, then this gap may be offset by the over-estimate in wage costs. Second, we allow for training costs in both the productivity adjustment and the program support costs. Regarding the $0.24 per hour technology cost, we are unaware of regulations mandating the use of technology placed within the client's home as a requirement of the service. The productivity adjustment is intended to account for activities performed by direct-care providers but which are not billed, such as reporting, preparation, or traveling. Other activities mentioned in the comment, such as staffing, scheduling, coordination, oversight, insurance billing, are accounted for under administrative or program support. Given the cost spreading due to multi-hour shifts, we feel that a 1.15 productivity adjustment is not inappropriate.
Afshin Abedi **Maryland Association of Adult Day Services**	Regarding the minimum wage increases in 2017 and 2018, we acknowledge that our data source, which is the most recent available occupational wage data for Maryland (May 2017), pre-dates the county and state increases to minimum wage that occurred in 2017 and 2018. We acknowledge that, for certain occupations, this may have led us to marginally underestimate the current median wage. However, the extent of this issue is limited: all occupational wages in our cost model for Medical Day Care are above the new Maryland minimum wage of $10.10, and only two occupational wages are below the county-specific minimum wages of $11.50 and $12.00 for Prince George's and Montgomery Counties, respectively. Moreover, the extent of the underestimation is further limited given that only 1/3 of Medical Day Care participants reside in these counties.

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	To more accurately account for increases to the labor cost center, however, we will adjust all costs for inflation, and index them to January 2019, which is the mid-point in FY19. Additionally, if any component wages are under $12.00/hour after indexing for inflation, we will increase the component wage by (1/3)*(12 – wage), under the assumption that 1/3 of providers are in the counties with the higher minimum wages and therefore face the higher labor costs. Regarding the need to account for differential license capacity, we believe that we have properly accounted for this. We constructed the model from the enrollee upward, rather than the MDC downward, and therefore do not need to weight our estimates to account for facility size as our estimates are already at the level of enrollee-day. Moreover, our assumption of $1.17 per member per hour facility cost is based on an assumption of 75 square feet per member, which we assume to hold regardless of license capacity. Additionally, our model accounts for 10% unplanned absences. Regarding the consideration of alternative operating models which may result in higher labor costs (such as operating seven days per week), we feel that no adjustment is needed. We aimed to represent the cost of the typical firm which operates in such a way as to minimize costs. As COMAR 10.09.07.03.C states that MDCs must be open for at least 6 days a week, 5 hours per day, we based our estimates on this operating schedule. Regarding the more detailed consideration of Maryland-specific transportation factors, we believe that, consistent with the legislative mandate to use only publicly available information, it is appropriate to use estimates from Virginia's rate study (which was based on a provider survey). However, we acknowledge that their estimate of $.87 per enrollee per hour is from November 2014, and therefore should be updated for inflation and indexed to January 2019. We will change this for the final version of the report. Regarding the request for a more thorough analysis of the compliance differences between Maryland and the comparison states, we do not believe that additional analysis

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	is required. We relied on multiple states for our model inputs precisely to avoid the possibility of using only high-cost, or low-cost, states as sources of information.
Danna Kauffman **LifeSpan**	Hilltop did not consult with providers to obtain cost factors because the language in HB 1696 explicitly required the use of publicly available information in determining actual costs to providers. Regarding a re-examination of the entire reimbursement system, Hilltop believes that this is outside of the scope of the legislative mandate of HB 1696, which is to compare the rate of reimbursement with the actual cost to providers (to the extent information is publicly available).
Elaine Gill **Always Best Senior Care**	We believe that we are already accounting for the cost of RN oversight of personal care services. Per COMAR 10.09.84.06, personal assistance providers must employ an RN to delegate nursing functions and, if need be, certified nursing assistants to do those functions. We incorporate this into the cost estimate for personal assistance through the staffing ratio (in Appendix C), which we assume is 2% RNs. This is based on the assumption that if participants receive 8 hours of care per day, 7 days a week, then an RN oversees the care for 1 hours per week. This implies a staffing ratio of 1/56 = 1.8% RNs, which rounds up to 2%.

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