



MEMORANDUM

To: Mark Leeds, Marc Blowe, Lorraine Nawara, Rebecca Oliver, and Marlana Hutchinson
From: MaryAnn Mood and Ian Stockwell
Date: March 21, 2016
Re: DRAFT Home and Community-Based Options Waiver Rate Methodology Study for the Centers for Medicare and Medicaid Services (CMS)

The Maryland Department of Health and Mental Hygiene (DHMH) has asked The Hilltop Institute to complete a rate methodology study for the Home and Community-Based Options (HCBO) Waiver. A complete list of all the services with rates to be reviewed for the waiver is in Appendix A.

Hilltop is following a similar approach to the one used by the Virginia Department of Behavioral Health and Developmental Services (DBHDS). Virginia worked with Burns and Associates (B&A), who developed and administered a provider cost survey, which gathered information on wage costs, benefit costs, productivity assumptions (amount of time not spent with participants, trainings for example), mileage costs, capital and equipments costs, and agency administrative costs. B&A also relied heavily on wage information from the Bureau of Labor and Statistics (BLS) as a comparison for what providers reported regarding wages. Hilltop also analyzed similar rate studies prepared by Arizona and Maine.

Hilltop will follow a simplified version of the model employed by Virginia and using wage, staffing ratios, capital cost, and administrative overhead rates from Maryland. The service-level rates are based on the following formula:

$$\text{Rate} = \text{Labor} + \text{Capital} + \text{Admin}$$

Where:

- **Labor** is the product of the following components:
 - **Wage:** The average wage for each job classification relevant to each service, weighted based on the assumed skill mix.
 - **Benefit Rate:** Employment-related expenditures as a percentage of wage.
 - **Productivity Adjustment:** A factor that accounts for non-direct care time necessary for the provision of the service.

- **Staffing Ratio:** Adjustment for services without a one-to-one provider to client ratio.
- **Capital** and equipment costs for facility-based services.
- **Transportation:** If appropriate, mileage costs for non-facility-based services, including purchase, upkeep, and fuel for an automobile may be included.
- **Administrative** overhead or indirect costs.
- **Food** costs.

Each cost center will be described in detail in the rest of this memo. In addition, assumptions for all cost centers except for wage and staffing ratios will be split into four groups based on both the qualifications of the service providers (Licensed Professional or Licensed Professional and Unlicensed Direct Care) and the location of the service (In-Home or Facility-Based). The classification of each waiver service using those criteria can be found in the table below.

Home and Community-Based Options Waiver Services	In-Home	Facility
Licensed/Degreed Professional	Dietician/nutritionist	
	Behavior consultation	
	Family training	
	Case management	
Licensed Professional/Unlicensed Direct Care		Medical day care
		Respite
		Senior center plus
		Assisted living II and III, with medical day care and without medical day care

Wage

Estimates for wages will be determined by first cross-walking the waiver’s service and provider qualification descriptions¹ with job classifications retrieved from the BLS.² In order to accurately reflect each waiver service, most of the services require the use of several job classifications. Appendix B contains the definitions of each BLS job classification that will potentially be used for each waiver service.

Base hourly wages will then be computed to help determine the rate for each service. The base hourly wages will use the median hourly salaries for Maryland³ for each BLS job classification, taking into account the weighted job classifications that will be performed. A completed weighted matrix has been included Appendix C.

¹ Retrieved from the most recent waiver applications sent by DHMH in October 2014 and appropriate COMAR regulations.

² Bureau of Labor and Statistics (BLS) associated job classification and definitions retrieved from Standard Occupation Classification-SOC 2010: <http://www.bls.gov/soc/2010/soc310000.htm>.

³ Salaries based on median income BLS job classifications in MD for May 2014, retrieved from http://www.bls.gov/oes/current/oes_md.htm.

Benefit Rate

The benefit rate represents the cost of federal and state taxes, health insurance, paid time off, and other common work benefits. An estimated average benefit rate for private industry workers (30.6 percent) will be used from the Bureau of Labor and Statistics.⁴

Productivity Adjustment

The productivity adjustment accounts for time relevant to the service but not spent with the participant, including travel time, planning, training, and other time not directly billable. As with benefit rates, productivity adjustments will be applied based on the qualifications of the service providers. We propose using the average productivity adjustments from Virginia, Arizona, and Maine, grouping their nursing and therapy services into the Licensed Professional category and all other direct care services into the Licensed Professional/Unlicensed Direct Care category.

Staffing Ratio

While the in-home services offered through the HCBO Waiver have a one-to-one provider-to-client ratio, regulations for most of the facility-based services allow more than one client to be served by each provider. Those services will include the staffing ratio in the following table to account for the amount of direct staff time provided to each client:

Waiver	Service	Staffing Ratio
HCBO	Medical Day Care	1 to 7
	Senior Center Plus	1 to 8
	Assisted Living	1 to 4
	Respite	1 to 4

Capital

A capital cost center will be included in order to account for the operation of appropriate facility-based services. This could include purchase and upkeep of the building and grounds, modifications to comply with ADA requirements, or the installation of necessary medical equipment. We propose using 9.0 percent for capital costs.⁵

Transportation

As appropriate and at the state's discretion, transportation costs will be calculated at 12.2 percent of the total operating costs for Medical Day Care.⁶

⁴ News release from the BLS on March 11, 2015.

⁵ Milligan, C. (2009, September 2). *Nursing facility payment policy: Comparing Maryland to other states*. Presentation to the LTC Payment Workgroup. Baltimore, MD.

⁶ Zelman, W., Elston, J., & Weissart, William. (1991). Financial aspects of adult day care: National survey results. *Health Care Financing Review*. Spring 1991, Volume 12, Number 3.

Food

In addition, food costs will be calculated at 7.5 percent of total operating costs for Medical Day Care and Senior Center Plus.⁷ It is important to note that these percentages are from a national study on the financial aspects of adult day care.

Administrative Overhead

The administrative overhead or indirect costs percentage reimburses providers for costs related to their participation as a provider but not necessarily the provision of the particular service, as well as any non-billable supplies. We propose including the figure of 10.0 percent used in the 1915(i) HCBS benefit for children and youth: state plan amendment rates and methodologies.⁸

Rate Estimates

Rate estimates for the HCBO Waiver services using the methodology outlined above can be found in Appendix D.

In general, the rate estimates in this analysis are close to the current rates offered in Maryland, with some variation among the different services.

⁷ Ibid.

⁸ The Institute for Innovation and Implementation. (2012, March 22). *1915(i) HCBS benefit for children and youth: State plan amendment rates and methodologies*. Baltimore, MD: The University of Maryland School of Social Work.

Appendix A. Home and Community-Based Options Waiver Service Definitions and Provider Qualifications*

Waiver Service	Service Definition	Provider Qualifications
<p>Medical Day Care</p>	<p>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.</p> <p>MDC includes the following covered services per COMAR 10.09.07.05:</p> <ul style="list-style-type: none"> (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 <p>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.</p>	<p>Must be licensed by the Office of Health Care Quality (OHCQ); must meet Medicaid conditions of participation.</p> <p>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:</p> <ul style="list-style-type: none"> (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) An RN with at least three years of experience (4) An LPN: who works with the RN and shall meet the nursing service needs when the RN is not on-site (5) A certified nursing assistant (CNA): who is present when an RN or LPN are not on-site (6) An activities coordinator: who possesses a high school diploma or general equivalency diploma (GED) and has at least three years of experience (7) Program assistants: who possess or are enrolled in a program leading to a high school diploma or GED <p>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:</p> <ul style="list-style-type: none"> (1) Psychiatry (2) Physiatrics (3) Orthopedics (4) Other specialties according to the needs of the participants

Waiver Service	Service Definition	Provider Qualifications
<p>Senior Center Plus</p>	<p>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.</p> <p>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.</p> <p>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.</p>	<p>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.</p> <p>In accordance with COMAR 10.09.54.07 (Home and Community-Based Options Waiver, Specific conditions for Provider Participation, Senior Center Plus) staff must consist of:</p> <p>(1) A center manager: who must be a licensed health professional or a licensed social worker and have three years direct patient care experience</p>

Waiver Service	Service Definition	Provider Qualifications
<p>Respite</p>	<p>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 community care residential 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.</p> <p>According to COMAR 10.09.54.18-1 (Home and Community-Based Options, Covered Service, Respite Care) respite care services include room and board.</p>	<p>Must be licensed by OHCQ (residential service agencies, nursing facilities, and assisted living facilities for levels two or three) and have appropriate facilities for overnight care.</p> <p>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 10.07.14.14,18-19 (Assisted Living Programs) staff must consist of:</p> <ol style="list-style-type: none"> (1) A manager: who must be a licensed physician, licensed RN, licensed LPN, or have at least 3 years 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 <p>Additionally, all respite care aides must have the same certifications as the personal care aide, such as current first aid and CPR certificates. If the respite care aide is performing nurse delegated tasks, they should be a CNA, a certified medication technician (CMT), or a certified medication aide (CMA).</p>

Waiver Service	Service Definition	Provider Qualifications
<p>Case Management</p>	<p>Waiver case management 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.</p> <p>The scope of transitional comprehensive case management activities includes:</p> <ul style="list-style-type: none"> (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 <p>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.</p> <p>A case manager's caseload may vary from 20 to 45 participants.</p>	<p>Case managers must have an understanding of Medicare and private insurance programs as they relate to Medicaid and at least two years of experience in: providing community based case management services and/or supports planning for individuals with complex medical needs and/or older adults and working with medical assistance programs including managed care organizations.</p> <p>MDoA and the providers that were identified through the competitive solicitation process will provide case managers with training sufficient to ensure that the participants will receive services in a safe and effective manner.</p> <p>Case management staff will also receive ongoing guidance and training related to changes in Medicaid and HCBO Waiver policies and procedures when there are changes in services or program operations and on the characteristics and needs of the population served.</p>

Waiver Service	Service Definition	Provider Qualifications
<p>Behavior Consultation</p>	<p>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.</p> <p>Limits on the amount, frequency, or duration of this service: A qualified individual provides services during a home or assisted living facility visit to a participant. Claims are paid in hourly increments, however, time spent in related activities such as preparation or documentation before/after the home visit or the provider's time spent on any supervisory or consultative services are not compensable.</p>	<p>If services are provided by an agency, the agency must be licensed by OHCQ.</p> <p>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:</p> <ol style="list-style-type: none"> (1) Be an RN, a psychologist, or a clinical social worker AND (2) Be licensed AND (3) Have direct experience working with adults with behavioral problems
<p>Family Training</p>	<p>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.</p> <p>Limits on the amount, frequency, or duration of this service: 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.</p>	<p>If services are provided by an agency, the agency must be licensed by OCHQ (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. Additional certifications include being a Medicare outpatient rehabilitation program and being certified by MDoA as a congregate housing services provider.</p> <p>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:</p> <ol style="list-style-type: none"> (1) Be an RN, OT, PT, or social worker AND (2) Be licensed AND (3) Have experience

Waiver Service	Service Definition	Provider Qualifications
Dietician/Nutritionist	<p>Nutritionist and dietitian services include individualized nutrition care planning, nutrition assessment, dietetic instruction, and assistance with meal planning. 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.</p>	<p>In accordance with COMAR 10.56.01 (Dietician/Nutritionist) and 10.56.54.09 (Home and Community-Based Options Wavier, Specific Conditions for Provider Participation, Dietician and Nutritionist Services) the individual rendering the services must be licensed in accordance with the Board of Dietetic Practice and Health Occupations.</p>
Assisted Living (all levels)	<p>These services are available to all participants regardless of level of care as services are not tied to level of care, but rather scope and intensity:</p> <ol style="list-style-type: none"> (1) Three meals per day and snacks <ul style="list-style-type: none"> ▪ 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 <ul style="list-style-type: none"> ▪ 24-hour supervision (3) Personal care and chore services including: <ul style="list-style-type: none"> ▪ 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. <p>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).</p> <p>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.</p>	<p>Must be licensed by OHCQ (for level two or three) and have appropriate facilities for overnight care.</p> <p>In accordance with COMAR 10.09.54.05 (Home and Community-Based Options Waiver, Specific Conditions for Provider Participation, Assisted Living) and 10.07.14.14,18-19 (Assisted Living Programs) staff must consist of:</p> <ol style="list-style-type: none"> (1) A manager: who must be a licensed physician, licensed RN, licensed LPN, or have at least 3 years 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 <p>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.</p> <p>Assisted living facilities in Maryland are licensed to provide certain levels of care based upon the manager’s specialized education and experience, staffing patterns, staff training, and degree of coverage by a registered nurse/s, and the presence of awake overnight staff.</p>

*Waiver service definitions and provider qualifications were taken from the most recent waiver application provided by DHMH and COMAR regulations; both were shortened when possible.

Appendix B. Home and Community-Based Options Waiver Services with Probable Scheme of Bureau of Labor and Statistics Job Classifications *

Waiver Service	Comparable BLS Job Classifications
<p>Medical Day Care</p>	<p>Registered nurse (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.</p> <p>Licensed practical nurse (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.</p> <p>Occupational therapist (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.</p> <p>Physical therapist (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.</p> <p>Physical therapist assistant (31-2021): Assist physical therapists in providing physical therapy treatments and procedures. May, in accordance with State laws, assist in the development of treatment plans, carry out routine functions, document the progress of treatment, and modify specific treatments in accordance with patient status and within the scope of treatment plans established by a physical therapist. Generally requires formal training.</p> <p>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.</p> <p>Dietician and nutritionists (29-1031): See above.</p> <p>All other social workers (21-1029): All social workers not listed separately.</p> <p>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. Excludes "Rehabilitation Counselors" (21-1015), "Psychiatric Technicians" (29-2053), "Personal Care Aides" (39-9021), and "Eligibility Interviewers, Government Programs" (43-4061).</p> <p>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. Excludes "Recreation Workers" (39-9032).</p> <p>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.</p>

Waiver Service	Comparable BLS Job Classifications
Senior Center Plus	<p>Personal care aides (39-9021): See above.</p> <p>Dietician and nutritionists (29-1031): See above.</p> <p>All other social workers (21-1029): See above.</p> <p>Social and human service assistants (21-1093): See above.</p> <p>Recreational therapists (29-1125): See above.</p> <p>Recreation workers (39-9032): See above.</p>
Respite	<p>Registered nurse (29-1141): See above.</p> <p>Licensed practical nurse (29-2061): See above.</p> <p>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. Excludes "Home Health Aides" (31-1011), "Orderlies" (31-1015), "Personal Care Aides" (39-9021), and "Psychiatric Aides" (31-1013).</p> <p>Personal care aides (39-9021): See above.</p> <p>Dietician and nutritionists (29-1031): See above.</p> <p>All other social workers (21-1029): See above.</p> <p>Social and human service assistants (21-1093): See above.</p>
Case Management	<p>All other social workers (21-1029): See above</p> <p>Social and human service assistants (21-1093): See above.</p> <p>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.</p>

Waiver Service	Comparable BLS Job Classifications
<p>Behavior Consultation</p>	<p>Registered nurse (29-1141): See above.</p> <p>All other social workers (21-1029): All social workers not listed separately.</p> <p>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.</p>
<p>Family Training</p>	<p>Registered nurse (29-1141): See above.</p> <p>Occupational therapist (29-1122): See above.</p> <p>Physical therapist (29-1123): See above.</p> <p>All other social workers (21-1029): See above.</p>
<p>Dietician/Nutritionist</p>	<p>Dietician and nutritionists (29-1031): See above.</p>
<p>Assisted Living (all levels)</p>	<p>Registered nurse (29-1141): See above.</p> <p>Licensed practical nurse (29-2061): See above.</p> <p>Nursing assistants (31-1014): See above.</p> <p>Personal care aides (39-9021): See above.</p> <p>Dietician and nutritionists (29-1031): See above.</p> <p>All other social workers (21-1029): See above.</p> <p>Social and human service assistants (21-1093): See above.</p> <p>Recreational therapists (29-1125): See above.</p>

* Bureau of Labor and Statistics (BLS) associated job classification and definition retrieved from Standard Occupation Classification-SOC 2010: <http://www.bls.gov/soc/2010/soc310000.htm>

		Medical Day	Dietician/Nutritionist	Respite	Senior Center Plus	Case Management	Behavior Consultation	Family/Consumer Training	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	BLS Median Hourly Wage MD											
21-1029 All other social workers	\$31.57	5.0%		4.0%	10.0%	50.0%	34.0%	35.0%	3.0%	4.0%	3.0%	4.0%
21-1093 Social and human service assistants	\$14.02	3.0%		6.0%	5.0%	35.0%			5.0%	6.0%	5.0%	6.0%
19-3031 Clinical, counseling, and school psychologists	\$34.76						33.0%					
19-3039 Psychologists, all other	\$49.10											
29-1066 Psychiatrists	\$90.00											
Activity Programs												
29-1125 Recreational therapist	\$22.98	5.0%			14.0%							
39-9032 Recreation workers	\$11.07	3.0%			24.0%							
21-1015 Rehabilitation counselors	\$13.90					15.0%						
Total Percentage		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Base Hourly Wage		\$20.12	\$31.21	\$18.05	\$15.27	\$22.78	\$33.52	\$35.62	\$15.87	\$18.05	\$15.87	\$18.05

Bureau of Labor and Statistics (BLS) associated job classification and definition retrieved from Standard Occupation Classification-SOC 2010 <http://www.bls.gov/soc/2010/soc310000.htm>
Salaries based on median income BLS job classifications in MD for May 2014, retrieved from http://www.bls.gov/oes/current/oes_md.htm
*Percentages represent the proportion of that job's salary that makes up the base hourly wage.

Appendix D. Home and Community-Based Options Rate Assumptions and Calculations

Service	Current Rate	Rate Component	Assumptions
Medical Day Care	\$74.50/day	(Licensed professional/unlicensed direct care/facility)	
		Base hourly wage	\$20.12
		Percent benefits	30.6%
		Productivity assumptions	1.13
		Capital costs	9.0%
		Transportation costs	12.2%
		Administrative costs	10.0%
		Food costs	7.5%
		Staff ratio	1 to 7
		Rate Calculations	
		Daily Rate	\$78.66

Service	Current Rate	Rate Component	Assumptions
Dietician/Nutritionist	\$64.00/hour	(Licensed professional/in-home)	
		Base hourly wage	\$31.21
		Percent benefits	30.6%
		Productivity assumptions	1.38
		Administrative costs	10.0%
		Rate Calculations	
Hourly rate	\$61.87		

Service	Current Rate	Rate Component	Assumptions
Respite	\$73.85/day	(Licensed professional/unlicensed direct care/facility)	
		Base hourly wage	\$18.05
		Percent benefits	30.6%
		Productivity assumptions	1.13
		Administrative costs	10.0%
		Staff ratio	1 to 4
		Rate Calculations	
Daily rate	\$74.59		

Service	Current Rate	Rate Component	Assumptions	
Senior Center Plus	\$46.56/day	(Licensed professional/unlicensed direct care/facility)		
		Base hourly wage	\$15.27	
		Percent benefits	30.6%	
		Productivity assumptions	1.13	
		Capital costs	9.0%	
		Food costs	7.5%	
		Administrative costs	10.0%	
		Staff ratio	1 to 8	
		Rate Calculations		
		Daily Rate	\$43.94	

Service	Current Rate	Rate Component	Assumptions	
Case Management	\$15.005/15 min or \$60.02/hour	(Licensed professional/in-home)		
		Base hourly wage	\$22.78	
		Percent benefits	30.6%	
		Productivity assumptions	1.38	
		Administrative costs	10.0%	
		Rate Calculations		
		Hourly Rate	\$45.16	
Rate for 15 minutes	\$11.29			

Service	Current Rate	Rate Component	Assumptions
Behavior Consultation	\$64.00/hour	(Licensed professional/in-home)	
		Base hourly wage	\$33.52
		Percent benefits	30.6%
		Productivity assumptions	1.38
		Administrative costs	10.0%
		Rate Calculations	
Hourly Rate	\$66.45		

Service	Current Rate	Rate Component	Assumptions
Family/Consumer Training	\$64.00/hour	(Licensed professional/in-home)	
		Base hourly wage	\$35.62
		Percent benefits	30.6%
		Productivity assumptions	1.38
		Administrative costs	10.0%
		Rate Calculation	
		Hourly Rate	\$70.62

Service	Current Rate	Rate Component	Assumptions
Assisted Living II w/ Medical Day Care	\$43.90/day	(Licensed professional/unlicensed direct care/facility)	
		Base hourly wage	\$15.87
		Percent benefits	30.6%
		Productivity assumptions	1.13
		Administrative costs	10.0%
		Staff ratio	1 to 4
		Rate Calculations	
Daily Rate	\$49.18		

Service	Current Rate	Rate Component	Assumptions
Assisted Living III w/ Medical Day Care	\$55.36/day	(Licensed professional/unlicensed direct care/facility)	
		Base hourly wage	\$18.05
		Percent benefits	30.6%
		Productivity assumptions	1.13
		Administrative costs	10.0%
		Staff ratio	1 to 4
		Rate Calculations	
Daily Rate	\$55.94		

Service	Current Rate	Rate Component	Assumptions
Assisted Living II no Medical Day Care	\$58.52/day	(Licensed professional/unlicensed direct care/facility)	
		Base hourly wage	\$15.87
		Percent benefits	30.6%
		Productivity assumptions	1.13
		Administrative costs	10.0%
		Staff ratio	1 to 4
		Rate Calculation	
		Daily Rate	\$65.58

Service	Current Rate	Rate Component	Assumptions
Assisted living III no Medical Day Care	\$73.85/day	(Licensed professional/unlicensed direct care/facility)	
		Base hourly wage	\$18.05
		Percent benefits	30.6%
		Productivity assumptions	1.13
		Administrative costs	10.0%
		Staff ratio	1 to 4
		Rate Calculation	
		Daily Rate	\$74.59