MICHIGAN'S "BUILDING TRAINING...BUILDING QUALITY" PERSONAL and HOME CARE AIDE STATE TRAINING PROGRAM

Final Report
For the Michigan Office of Services to the Aging

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Introduction – Background and Significance

The U.S. population is rapidly aging resulting in a higher demand for in-home long-term supports and services (LTSS) and a shortage of qualified workers to provide the type of home-based LTSS most needed, i.e. assistance with activities of daily living such as bathing, dressing, cooking, and transportation. Personal care aides (PCAs) provide most paid in-home LTSS, which are largely funded by state Medicaid dollars. It is among one of the fastest growing occupations in the United States and demand for these workers is expected to double by 2022, creating jobs and vital economic growth. Yet, no federal PCA training requirements exist and many PCAs work without credentials. Currently, there are only minimum PCA training requirements in Michigan with no competency determination process. The Michigan Medicaid MI Choice Waiver program, known as "the waiver" allows for some in-service training, but federal policies do not allow Medicaid to fund initial PCA training. In comparison, certified nursing assistant (CNA) training programs are funded to teach skills needed in providing LTSS to people living in licensed long-term care facilities. With proper training, PCAs will be able to provide supports and services to people in their own homes, improving the quality of the LTSS provided.

Due to the national importance of training PCAs, Congress mandated the Personal and Home Care Aide State Training (PHCAST) demonstration as part of the Affordable Care Act. In 2010, PHCAST, administered by the U.S. Department of Health and Human Services, Health Resources and Services Administration (HRSA), Bureau of Health Professions, Division of Nursing, funded six states to develop, implement, and test new PCA training programs. The Michigan model, *Building Training…Building Quality (BTBQ)* targeted PCAs who provide LTSS to participants in the waiver serving older adults and people living with disabilities. The BTBQ team strove to identify key characteristics of a "gold-standard" PCA training program that would lead to a competent workforce, improve the lives of PCAs and the participants they serve, and be a model for the nation. Through partnerships with the Michigan Office of Services to the Aging (OSA), RN Project Director, Michigan State University (MSU), and PHI--a national organization dedicated to quality care through quality jobs, waiver agents, and community collaborators, these goals were achieved.

The BTBQ 77-hour, core curriculum was adapted from the PHI Personal Care Services curriculum with the assistance of multi-disciplinary regional workgroups and input from aging and disability networks. It is based on ten federal competency requirements, emphasizes Michigan's Department of Community Health-endorsed, person-centered principles, values, and essential elements, and is taught using adult-learner teaching strategies. The BTBQ curriculum is specific to older adults and people with physical disabilities who want LTSS at home rather than in a nursing home. This community-based, participatory project was implemented in five regions across Michigan. Nearly 400 learners completed the core training and another 797 completed one-day in-services that provided more in-depth content in three key topic areas; Training to

Prevent Adult Abuse and Neglect (TPAAN), Home Skills, and Dementia (Creating Confident Caregivers® using the Savvy Caregiver program).

BTBQ included a robust research component using a quasi-experimental design, a randomized control group and mixed methods of data collection and analyses, which provides evidence of BTBQ's value. Learners gained significant knowledge, skills, and improved employment status and job satisfaction. All BTBQ objectives and most performance measures were met. Twenty-eight, regionally-based trainers with content expertise were identified and recruited to teach the core training and were oriented to person-centered principles and adult-learner teaching strategies. The BTBQ core training program represents a collaborative effort by diverse stakeholders from across the state, joining together with a common vision and commitment to improve the lives of older adults and persons with disabilities. Key to the success of this program is a deep respect for PCAs and the value of their work. The training program designed by BTBQ and the multiple lessons learned, model key characteristics of an ideal PCA training program. BTBQ achievements represent huge steps forward for the state. This report will provide details on how the program was developed and implemented along with the key findings and lessons learned that are of value to others interested in building a competent PCA workforce through an evidence-based training program.

BTBQ: Foundational Principles and Objectives

Principles

- Respect for the valuable role of personal care assistants (PCAs) to provide in-home long-term supports and services for older adults and persons with disabilities;
- A commitment to ensuring that the PCA workforce is trained and competent to provide high-quality supports and services in a safe, respectful way, honoring preferences of those receiving supports and services;
- Person-centeredness as the foundational philosophy of all LTSS;
- Adult learner-centered training incorporating adult learning principles e.g. highly interactive, case-based, and reflective of educational methods that enable learners to build on their existing knowledge and fit learning into real life practice; and
- Collaboration with strategic partnerships representing both local communities and the state aging and disability networks.

Objectives

- Objective A: Create a Model Personal Care Services (PCS) curriculum based on core competencies required by HRSA and needed by MI Choice waiver clients. (Michigan now refers to participants, persons, or people instead of clients or consumers.)
- Objective B: Implement initial PCS training program supported by a continuing education series and peer mentoring.
- Objective C: Develop the pre-post-testing and return demonstration protocols to assess competencies attained through the PCS training.
- Objective D: Explore avenues to expand training to other areas of the state and into other settings.

- Objective E: Explore governmental funding resources to sustain BTBQ systems.
- Objective F: Conduct research to assess program process and outcomes.

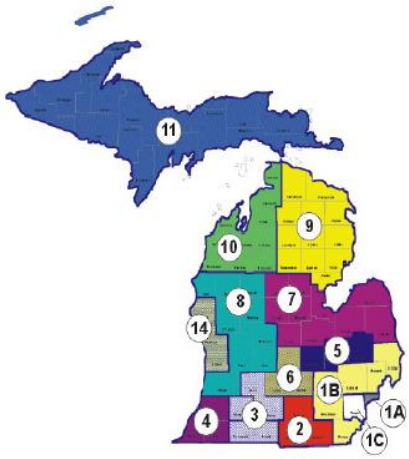
BTBQ Program Structure and Operations

BTBQ represents an important state-academic-community partnership. From its beginning, multiple organizations have been involved in every aspect of the planning, development, implementation, and evaluation. The core team included representatives from key areas of partnership: administration/operations, training development, and evaluation. The grantee agency, the Michigan Office of Services to the Aging (OSA) provided oversight, served as a liaison to HRSA, and contracted with a RN Project Director with experience leading the operation of an in-home LTSS agency. Michigan State University (MSU)/College of Human Medicine led the research component, and PHI-Michigan provided leadership in defining the competencies, adapting its PCS curriculum, and selecting and preparing trainers. Community partners included six waiver agents in five regions (See Table 1 and Figure 1), who collaborated through four subcontracts and were charged with local operations including recruiting and managing trainers and trainings, and paying learner stipends. Additionally, the northern and southern regional workgroups—the Competency and Curriculum Workgroups--were formed and their tasks are described herein. Together, the core team maintained close communication with waiver agents on all aspects of the program and met quarterly to share experiences and make decisions about the project.

Table 1: Waiver Agent Partners

Waiver Agency	AAA Region	Location
The Information Center (T.I.C.)	1c	Taylor
Region 2 Area Agency on Aging	2	Brooklyn
Northeast Michigan Community Services Agency, Inc. (NEMSCA)	9	Alpena
Area Agency on Aging of Northwest Michigan (AAANM)	10	Traverse City
Northern Lakes CMH	10	Traverse City
Upper Peninsula Area Agency on Aging (U.P. AAA)/Upper Peninsula Commission for Area Progress (UPCAP)	11	Escanaba

Figure 1: Area Agency on Aging Regions



The BTBQ program achievements include: engaging multiple, strategic partners in every aspect of the project, developing PCA competencies and a curriculum, conducting 37 core training sessions in five regions of the state, training nearly 400 PCAs, and evaluating the program using a complex experimental research design. This required the development of an organizational infrastructure with the capacity to implement and manage all aspects of a successful operation as well as talented, willing partners. Key aspects of the project's success include:

- Managing resources and investments including staff, time, money, and materials, and oversight of daily operations efficiently and effectively.

- Working closely with all community partners and subcontractors to meet the project objectives: execute and manage contract terms, promote engagement in all aspects of the project, and regularly communicate about operations at the local level including recruitment and payment of trainers and learners, securing training sites, scheduling trainings, marketing, and producing reports.
- Ensuring that the project's marketing strategies targeted audiences including learners, trainers, and community partners.
- Monitoring outcomes and impact – working closely with the MSU evaluation team on data collection and management to assess actual impact of the BTBQ training program on knowledge, skills, and systems.
- Working closely with the Competency and Curricula Workgroups to develop competencies important to Michigan and the best curricula and methods of delivery.
- Overseeing the finances including budgets and accounts receivable and payable.
- Ensuring accountability and performance measures were met including completing project reports, responding to requests from the project manager, and completing the data collection.

Development of the BTBQ Curricula: Strength in Diverse Partnerships

BTBQ adapted and expanded PHI's Personal Care Services (PCS) core competencies and curriculum to highlight and strengthen person-centered principles throughout the adult-learner-centered, 77-hour, 22-module curriculum. Specific clinical tasks were included or excluded based on workgroup input. Medical vocabulary was added at the request of workgroup participants. Key to the success of this curriculum adaptation was our community-based, participatory approach to curriculum development described throughout this report. The Competency and Curriculum workgroups worked to identify core competencies and skills most needed by a PCA workforce. BTBQ Leads also met with the Michigan Systems Change Task Force (SCTF), a group of LTSS consumers who advised BTBQ and other grant-related projects, to provide program updates and receive input. Waiver agency directors and staff served as advisors and partners. Additional input was sought from BTBQ trainers and learners, resulting in improvements to the curriculum and teaching methods throughout the demonstration.

Key Elements of the BTBQ Curricula

- **Person-Centered Principles:** The BTBQ training is based on principles of person-centered supports and services. Many health care organizations are task-centered with a high priority placed on paperwork and adherence to schedules. Others are treatment-centered, meeting the medical needs of people. While adhering to rules and regulations and meeting people's medical needs are important, if these are the central driving force behind all services, the total needs of individuals are not met. These models do not create an environment in which either participants or staff can grow and thrive, and where their choices, decisions and preferences are honored.
- What sets the Michigan BTBQ program apart is a commitment to infusing person-centered philosophy into all curriculum content and emphasizing it as the hallmark of high-quality, safe, and respectful LTSS. The primary goals of person-centered supports and services include:
    - To see the person as a unique individual;
    - To respect the individual's skills and abilities and their right to self-direct;

- To support the person to be successful and maintain maximum independence;
- To support the person as a member of a community; and
- To recognize the central value of developing trust relationships.

Waiver agents, trainers, and learners all agreed that this focus is central to providing high quality LTSS and key to the value and success of the BTBQ curriculum. As U.P. AAA/UPCAP (Region 11) reported, "it has had a significant impact with the learners in coming to terms with true person-centeredness in the provision of assistance, but more importantly in realizing the importance of listening to a participant, rather than simply "assuming" that they know what needs to be done based on written directions from a supervisor or another third-party individual."

- **Adult-Learner Teaching Methods:** Unlike traditional lecture-based education, BTBQ relies on in-person, adult-learner teaching methods geared toward interactivity, small group work, and experiential learning. There is considerable research to support the idea that teaching, particularly adults, is least effective through lecture and reading and most effective through techniques such as discussion groups and "practice by doing." It is very important that adult learning strategies take into consideration learning styles. For example, visual learners learn best through graphic illustrations and demonstrations. Auditory learners may retain more information when it is provided through spoken words and discussions. Tactile/Kinesthetic learners learn best when material is presented through assignments and participation in group activities. A major strength of the BTBQ is that it recognizes all of these different learning styles and incorporates training approaches to effectively reach a wide range of adults. All regions consistently confirmed the value of using adult-learner teaching strategies. Region 11 received further feedback that indicated this approach "allows learners to express personal insights and interact in ways not possible in the traditional way of training. According to one trainer, the adult learner-centered instruction has been instrumental in assisting learners in improving their overall communication skills with peers and supervisors."

- **Core Competencies:** The BTBQ core curriculum aligns with the PHCAST provisions of the Affordable Care Act required competencies that include:
    1. The role and responsibilities of the personal or home care aide
    2. Consumer rights, ethics, and confidentiality
    3. Communication, cultural and linguistic competence, and sensitivity
    4. Problem solving, behavior management, and relationship skills
    5. Personal care skills
    6. Health care support
    7. Nutritional support
    8. Infection control
    9. Safety and emergency training
    10. Training specific to an individual's needs
    11. Self-care

- **Core Curriculum Modules**: Based on the competencies identified by the Competency Workgroup, the BTBQ curriculum includes the following 22, 3.5-hour modules:
    1. Key concepts
    2. Work settings, teamwork, and professionalism
    3. Person-centered thinking
    4. Person-centered conversations
    5. Infection control
    6. Body mechanics
    7. Body systems and common medical conditions
    8. Physical changes as we age
    9. Supporting participants at home
    10. ADL: Transfers, assistive devices, mechanical lifts, assist with walking and making a bed
    11. ADL: Bathing, pericare, catheter care, introduction to an older participant
    12. ADL: Personal care, bathing, showering and grooming; caring for a participant's skin, feet, and nails
    13. Return demonstrations of ADLs Modules 5, 6, 10, 11, and 12
    14. Working with a participant with Alzheimer's disease
    15. Working with adults with physical disabilities
    16. Caregiver relationships and real life situations
    17. Working with a participant experiencing grief, loss or depression, applying person-centered problem solving skills
    18. ADL: Assisting participants with meals
    19. ADL: Assisting participants in the bathroom and dressing
    20. Return demonstrations of ADLs: Modules 18 and 19
    21. Introduction to mental illness, developmental disabilities, and abuse and neglect
    22. Participant & worker rights; managing time and stress

- **BTBQ In-Services:** In addition to the core PCA training, three specialized one-day in-service trainings were offered to augment core content including the following:
    - **Home Skills**: Initially, the 1.5 day Home Skills curriculum was adapted for the BTBQ, based on an existing, tested three-module curriculum developed in Michigan. To maximize resources, it was condensed into a one-day training with continued positive evaluation outcomes. Fifteen trainings were held with 193 learners participating.
    - **Training to Prevent Adult Abuse and Neglect (TPAAN):** 22 in-service classes were held with 308 learners.
    - **Dementia:** Adapted with permission, from the Creating Confident Caregivers® Savvy Caregiver program. Adaptations were overseen by a contracted researcher who helped develop the original program and who held a train-the-trainer session for approved BTBQ trainers in four BTBQ regions. Overall, 296 learners attended 22 dementia in-service trainings.

- A modified **peer mentoring** program was implemented to support the core trainings. Research supports the value of Peer Mentors to creating a welcoming environment for new employees and helping them acclimate to their new job

responsibilities. Applying this philosophy to BTBQ, the Leads and waiver agent partners developed a plan to identify outstanding BTBQ graduates who could serve as peer mentors by assisting trainers with coaching and practicing skills with learners before and during return demonstration sessions. This resulted in a formal BTBQ peer mentor policy, which outlined the criteria for selecting Peer Mentors. The criteria includes demonstrated mastery of the skills, knowledge, and attitudes presented in the BTBQ core curriculum; strong interpersonal and communication skills; ability to perform the defined role(s) outlined by the trainer and the waiver agent; and ability to serve as peer mentors during Return Demonstration modules. Eight PCA graduates in four BTBQ regions were selected and oriented to their role, which was to support the trainers in the classroom versus direct instruction or learner assessment. They each signed a Peer Mentor agreement and received a stipend of $50.00 per half-day of work. Trainers reported that peer mentors improved efficiency and their ability to test every learner in the time allotted for return demonstrations, and helped create a safe, supportive learning environment. As a result, waiver agents recommended that peer mentors also assist learners during the practice portions of the non-return demonstration modules. This additional activity was successfully piloted in four regions.

Key Elements Related to Implementation of the BTBQ Curriculum

- **Recruitment:** Learners for the core training were recruited in multiple ways. A generic brochure and some flyers were developed explaining the project; these could be personalized with the local waiver agency logo and contact information. Waiver agents distributed them through mailings and on-site visits to local provider service agencies, MI Works! offices, and community organizations, who in turn, distributed them to staff and interested learners. Each region also utilized community newspapers, websites, radio programs, and special events for outreach. Once the program started and trainings were in progress, a primary source of recruits was through word-of-mouth. Figure two shows the methods in which recruits heard about BTBQ, the largest being MI Works!, newspaper/radio ads, and family/friends.

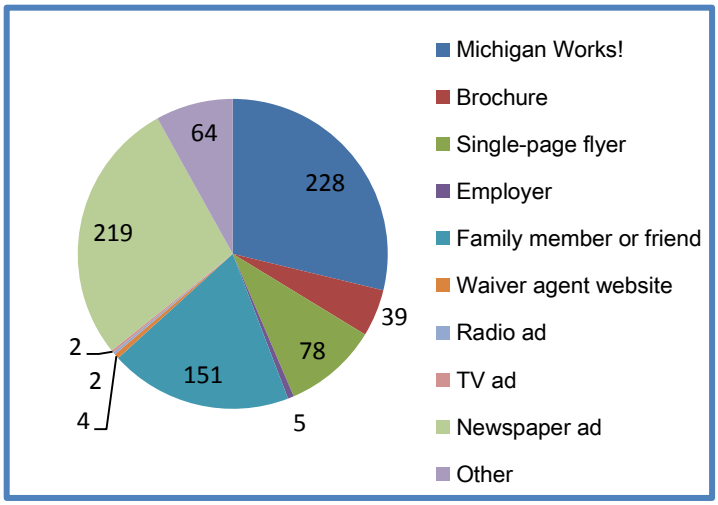


Figure 2: Venues through which recruits heard of BTBQ

Regional differences in recruiting existed, each presenting unique challenges and opportunities. For example, T.I.C.'s (Taylor, MI—the Senior Alliance--AAA Region 1C--the out-county areas of Wayne) recruitment efforts in this urban area resulted in a much higher number of inquiries than in other regions. T.I.C.'s urban status

combined with highly effective recruitment efforts resulted in a high volume of inquiries, but a smaller number of those people were not fully committed to, or intended to become a PCA. Inquiries required multiple follow-up phone calls. T.I.C. invested substantially more staff-time in recruitment than expected and had a higher initial attrition rate compared to other regions, all of which affected budget, performance measures, and human resources.

In contrast, Region 9 the northeast section of the Lower Peninsula, which is a sparsely populated region, had very low numbers of inquiries in response to marketing efforts. However, most persons who enrolled were committed to the BTBQ training and aspired to eventually becoming a PCA. Therefore, once classes began the attrition was lower. These differences underscored the importance of targeted marketing, effective screening, and building in marketing and recruitment strategies that are aligned with both the target population and agency resources. Additional lessons and strategies developed by T.I.C. to successfully address these challenges are detailed in the Key Findings and Analysis sections of this report.

- **Registration:** Potential recruits for the core training were instructed to call their local waiver agency, listed on the flyer, for more information. Each agency designated one or more staff members to be responsible for explaining the project, the research consent procedure, the time commitment, and stipends. Staff then completed an intake interest form for anyone who consented to participate. More than 1,600 persons completed the BTBQ interest form during the project period, which suggests a high demand for a training program that is distinct from CNA training.

- **Enrollment:** With the exception of persons referred by Michigan Works!, everyone who completed an interest form was randomly assigned into either the treatment group (eligible to attend BTBQ core training) or the control group (would complete research paperwork, but not receive training). Attempts were then made to notify individuals that they had been selected to participate in the project and of either the treatment group or the central group. This process was labor intensive, involving multiple phone calls and staff time. Efforts to reach an individual were discontinued after leaving at least three phone messages, at different times of day/evening, for three weeks without a return call. Of the 1,633 registrants, 770 learners (46%) were reached and still interested in participating, 699 confirmed for enrollment and of these, 625 were enrolled in the treatment group and 145 in the control group. Among all registered core learners, 515 learners confirmed and attended the first class and of these, 393 completed all 22 modules (See Table 2).

Table 2: Enrollment. Attendance, and Completion in Treatment Group

Region	# of core trainings	Confirmed via phone	Attendees at 1st class/% confirmed	Completers/% based on 1st attendees
TIC	7	146	93 (64%)	69 (74%)
Region 2	12	234	163 (70%)	117 (72%)
Region 9	4	72	54 (75%)	39 (72%)
Region 10	9	163	139 (85%)	118 (85%)
Region 11	5	84	66 (79%)	50 (76%)
Totals	**37**	**699**	**515 (75%)**	**393 (76%)**

- **Class Sizes:** As strategies for recruitment and retention became more effective and word of BTBQ spread, core class attrition was reduced, and class sizes increased. The challenge was to determine how many people to enroll in each class in order to reach the ideal class size, i.e. how much attrition to expect. Based on literature and experience, the goal was to have 12-14 learners per trainer to maximize adult-learner teaching strategies. Initially, at least twice as many learners had to be enrolled to reach this goal. As attrition declined, class sizes began to exceed the goal and different teaching challenges emerged. Feedback from trainers indicated that classes with more than 14 learners per trainer lost educational value. Field observation notes taken in classes with 22 learners per trainer indicated that the class size restricted the ability of the trainer to facilitate multiple breakout groups, provide individual attention or observation during hands-on practicing of PCA tasks, control individual behavior during class time such as texting or not actively participating, or otherwise optimizing adult-learner teaching strategies. In addition, larger classes sometimes resulted in overcrowded class space and insufficient teaching materials and supplies. These challenges necessitated that the BTBQ Leads closely monitor class sizes and attrition rates, and collect data on the impact of class size via ongoing communications with waiver agents and trainers, field observers, and through a review of course evaluations. When it became apparent that larger class sizes were having a negative impact on training outcomes, several steps were taken.
  - Recruitment and enrollment goals were adjusted to account for higher retention of learners, i.e. fewer learners were recruited and enrolled in each class cohort.
  - When class size exceeded the project recommendations, waiver agent leads were contacted and additional trainers were asked to help with larger classes especially with modules that required intense observation and practice.
  - Budgetary adjustments were made to accommodate larger classes.

  Important lessons were learned throughout this process, i.e. teaching PCA competencies using adult-learner methods of instruction requires that class sizes stay at approximately 12-14 learners per trainer. Lower than 12 learners diminishes the value of the group work and becomes financially unsustainable. More than this, it is not conducive to learning.

- **Training Sites:** The waiver agents worked diligently to locate training sites in their regions that would be both good learning environments and accessible to the learners. Several infrastructure and logistical challenges emerged, which needed to be addressed including:
  - Limited availability of training sites due in part to budget constraints as the project relied heavily on in-kind support from organizations with suitable classroom space. The waiver agents were able to provide space for modules that did not involve learning hands-on tasks or require larger durable medical equipment (DME). It was more difficult to secure sites with space set up like a clinical or home setting with beds and bathroom facilities. Local community colleges with CNA programs offered in-kind space, but BTBQ had to be scheduled around their regular CNA classes.

- Regional differences existed. In rural areas, suitable spaces required long travel for the learners.
- Trainers needed to transport and set-up/take-down equipment and supplies before/after each session. Without a permanent training site, the logistics of purchasing, renting, borrowing, hauling, and storing training supplies was cumbersome and time consuming for the trainers and waiver agents. The waiver agents used multiple training locations as contracting with a single location for all of their trainings was not an option.
- Location often made it difficult for learners to attend. Several learners relied on public transportation. If the training was not on a bus line or training was held during restricted bus service hours, attendance may have been affected. For those with cars, the cost of gas was prohibitive, especially in rural areas. Several learners travelled over 50 miles each way. In one region, learners gave gas money to another learner so that she could keep attending.

Waiver agents addressed these challenges in multiple ways:

- ✓ Two regions were able to develop relationships with local community colleges and arrange BTBQ courses to accommodate the college's schedule. For example, Region 10 reported that they were fortunate that "organizations such as Baker Community College, Kalkaska Memorial Health Center and Northwest Michigan Community College were willing to donate training space. In addition, DME (durable medical equipment) providers such as Airway Oxygen loaned hospital beds and other equipment." However, feedback also indicated that such in-kind contributions would not be expected long-term; both classroom space and supplies need to be built into future budgets to sustain or operate a training program.

- ✓ When adequate facilities were not available, very innovative solutions were devised. For example, Region 11 arranged to hold return demonstration sessions at a local hotel. They rented two rooms where two groups could work simultaneously. Each room had two beds and a complete bathroom. They brought in additional DME. The hotel supplied all needed bedding and towels. This option proved to be very successful logistically and economically and is an accessible option for return demonstrations in all communities that have a hotel willing to partner. Region 9 Area Agency on Aging Northeast Michigan Community Service Agency, Inc. and Area Agency on Aging of Northwest Michigan, Inc. utilized local adult foster care homes as training sites.

All regions improved their ability to schedule locations and times that were most conducive to the learners' needs and resources, which reduced attrition.

- **Supplies:** The availability of supplies was at times challenging, again in part due to the budget. A large amount of supplies was required for both core and in-service trainings, and the grant funds were insufficient to cover the cost. Adult-learner teaching strategies that involve interaction and hands-on practice require enough of each item to allow several people to practice together or simultaneously. For example, models on which to practice gender appropriate pericare were usually

limited to one per learning site. Ideally, each group should have more than one full-sized male and female mannequin. None of the sites had a Hoyer lift. Even if they had, there are many types of lifts and it is unlikely that the one used in class would be the same as their participants. All sites would have benefitted from having multiple gait belts, canes/walkers, elastic socks, catheter bags, wheelchairs, etc. Other supply issues included:

- Trainers' and learners' materials for the core 22-module training included over 1,000 pages that needed to be printed and placed into notebooks.
- Two years into the grant, spending funds for basic snacks and lunches during trainings was disallowed by HSRA. As trainings target low-income learners with limited resources, are held for a day or through a lunch or dinner hour, and involve intense concentration, providing food is critical to recruitment, retention, and successful learning and needs to be taken into consideration. Some waiver agents continued to provide coffee, snacks, and lunches out-of-pocket or from other agency funds. One site, which paid for food with other agency funds, spent $7,000 for food for all of their trainings. Other strategies for providing food included:
    - ✓ Asking learners to bring their own food or organizing a potluck meal for the last day of class.
    - ✓ Asking learners to contribute to a potluck meal--this was not ideal since some learners were coming straight from jobs or had multiple other responsibilities and limited resources.
    - ✓ BTBQ Leads contributed food during site visits out of their own personal funds.

We believe these efforts contributed to the learners being able to be more attentive and learn more. Going forward, we recommend that learners' socioeconomic status be taken into consideration and that federal funds for simple snacks/lunches be allowed to enhance learning.

- **Specialized Trainers: Trainer Recruitment and Orientation -** A comprehensive curriculum holds no value unless it is taught by competent trainers. The BTBQ goal was to develop a cadre of qualified specialized trainers committed to the process of training PCAs in multiple settings, and who are sensitive to different training needs and approaches. Another important goal was to ensure that every learner received the highest quality training consistently, with fidelity to the content as designed. Consistency of training delivery was a necessary component for evaluation purposes as well. A detailed process for recruiting, selecting, and hiring competent trainers based on very specific criteria, was developed by PHI and utilized. These included characteristics of a successful trainer such as being an avid learner, a subject matter expert, open minded, reliable, patient, creative, and persistent. Candidates also needed excellent communication skills, along with a caring compassionate, culturally competent attitude toward others. Also important was the ability to demonstrate the concepts of person-centeredness and a willingness to embrace adult-learner teaching methods.

The waiver agents took the lead on recruiting experienced trainers from their communities in order to build local training capacity. They received trainer lists of state-approved Certified Nurse Aide (CNA) training programs and the Adult Abuse and Neglect Program (AANP) trainers from the BTBQ Leads as a place to start recruiting. Sample applications and interview questions were also developed and provided. Trainer applications were reviewed by the BTBQ Leads and viable candidates from each region were invited to attend a PHI- developed, Trainer Orientation Program (TOP). The three-day TOP focused on skill development and observation, introducing person-centered concepts and adult-learner teaching strategies, and presenting parts of the curriculum. Eighteen trainers completed the initial TOP program and they were approved by the leadership team to train the PCA core curriculum. Although the process was successful, and highly qualified, committed trainers were hired, several challenges or barriers emerged.

- **Diversity**: PCA work is characterized by multiple challenges, i.e. low wages, minimal if any health insurance, part-time hours, lack of guaranteed hours, and high-turnover. The workers are predominately women, disproportionately women of color, who live in or near poverty. These characteristics present unique barriers, challenges and opportunities for educators seeking to develop culturally appropriate, effective and efficient training programs. A clear lack of diversity was apparent among the initial corps trainers, both culturally and professionally, which was identified early in the project. The majority of trainers were female healthcare professionals, many of whom possessed a Bachelor's degree or higher education in nursing, who had a medial model background, and who did not live in or work underserved urban areas. Therefore, a second wave of recruitment efforts intentionally targeted a more diverse pool of trainer candidates including people from multiple disciplines such as social work, managers, and caregivers. Two BTBQ graduates with extensive PCA, supervisory, and mentoring experience in the Detroit area were recruited, trained, and became excellent trainers. Subsequent orientations built on lessons learned from the first attendees and utilized the first set of trainers as mentors for new trainers. Lesson learned – It is important to know the learners' backgrounds in order to meet their needs during training. Including diversity training for all BTBQ strategic partners and corps trainers may have been beneficial for all participating partners and trainers.

- **Medical Model-oriented Trainers**: Most trainers had extensive experience in institutional settings (hospitals, psychiatric facilities, and nursing homes), but lacked experience and knowledge specific to home-care. Consequently, they often used institutional, medical-model based examples, and stories to illustrate points, which was counter to the curricula's person-centered foundation. Therefore, a more efficient, affordable condensed version of the Trainer Orientation Programs (TOPs) was developed that focused primarily on learning and practicing principles of person-centeredness and adult-learner teaching strategies. Team building exercises identified strengths among all potential trainers and encouraged shared experiences and knowledge through interactive group teaching demonstrations. New trainers were intentionally paired with seasoned core trainers within their region for a minimum of two full days of trainings. Comments from trainers who attended this

newly developed TOPs program were positive, including, "This was the best training that I ever attended."

- **Trainer Availability:** There are currently 44 diverse, trainers skilled in delivering the BTBQ core curriculum and the three in-services curricula throughout Michigan. This allows trainer teams to play to each person's teaching strengths. For example, trainers with a background in social work may lead classes on grief and loss; nurses can take the lead in classes requiring hands-on care skills; and health educators are a valuable resource to teach body systems and general health terminology. Moreover, trainers are better able to provide material relevant to the learners' needs. However, the number of trainers and their availability for achieving our goal of training 400 learners in the 77-hour Michigan PCA core curriculum was nevertheless a challenge. Many trainers from the first cohort were employees of the waiver agencies, or worked as full-time employees elsewhere, thus creating limits on the number of BTBQ trainings scheduled. An important lesson learned was the necessity of ongoing trainer recruitment and periodic train-the-trainer sessions to ensure an adequate supply of trainers to meet demand.

  Several of the selected BTBQ trainers had experience educating CNAs and offered valuable input and encouragement for this project. They offered a side-by-side experiential comparison of the two trainings. All agreed that while some of the hands on skills overlap, the focus on person-centeredness and providing supports and services in the home setting is very different. Many of the trainers expressed the preference of training within the Michigan BTBQ curriculum due to the primary focus on person-centeredness and the emphasis on utilizing adult-learner methodologies versus the traditional classroom lecture-type program of the Michigan CNA curriculum.

  Lessons Learned -- Maintaining budgetary requirements for a demonstration project, utilizing a fixed trainer payment, regardless of class size presented a challenge. Throughout this project trainers were paid a daily rate regardless of class size. Many factors must be considered in order to conduct a quality training program. Trainers are encouraged to become familiar with the training material and the adult learner process. It is estimated that for each one hour in the classroom, a trainer needs to spend approximately two hours preparing for the class. This formula may help others determine appropriate pay for trainers in the future.

- **Recruiting Employers** requires significant time and trust. Our ongoing analyses underscored a major lesson learned: effort must go into building relationships with employers, sharing results, helping graduates find jobs within the employer network, and listening and responding to the concerns and questions of the employers, in order to use employers as conduits for referring workers for training. Challenges to employer buy-in and support for robust initial core training programs exist not only in Michigan, but in a large number of other states as well.
  - Based on federally funded workforce surveys conducted for OSA, these employers face a number of structural issues in supporting or sustaining initial training. Most agencies are small with an average of 43 PCAs working, largely part-time. The costs of staff training are not part of the Medicaid rate paid for these services.

As a result, it is very hard to "release" current employees to attend days of training while still providing services to participants. Most MI Choice agencies do not have a human resource department or a full-time scheduler.

- Many LTSS employers are reluctant to send staff to events where they will meet other PCAs, nurses, social workers, etc. Employers explain that they see and fear "poaching" or "recruiting" of staff to work for a competitor. Additionally, employers fear that staff will learn about other employers who pay higher wages.
- With the absence of governmental training requirements or infrastructure, some employers simply do not understand the importance or potential positive outcomes of a training program that lasts more than a few hours or days. For those that do understand the importance of training, setting aside funds for training without direct financial return on investment as in higher hourly reimbursement rates) acts as a barrier toward training these workers. Again, in large measure, reflective of their size and reimbursement policies, most agencies do not have a part-time trainer. Training is usually another task assigned to one of a few part-time nurses or office personnel.

- **Building Relationships with Employers:** The waiver agents worked diligently to continually market the BTBQ training program to employers throughout the project period. They regularly attended employer meetings, sent brochures, and placed media ads. During the graduation ceremony of core training classes in southeast Michigan, the waiver agent provided a list of employers hiring PCAs to the BTBQ graduates. Following this, we learned that some of the BTBQ graduates successfully gained employment as PCAs with MI Choice employers. Additionally, trainers discussed strategies for PCA employment with learners. One learner in northern Michigan submitted an application to the adult foster care (AFC) home where the training was held and the AFC home said they would guarantee her an interview. At the urging of a trainer, another learner placed an ad in the local paper to work with self-directed participants, and she received six offers of PCA employment

Evaluation Methods

***Evaluating* Competency:** Competency evaluation included two main components:

- Pre-post testing to determine knowledge gained.
- Return demonstrations (RD) to document actual mastery of the skills needed to provide competent, person-centered LTSS. An Instructional Design Consultant assisted with development of testing protocols for assessing learner competencies. Based on recommendations regarding industry standards for CNA testing, and sample instruments including those in the original PHI PCS curriculum, a RD protocol was developed for learners to demonstrate their ability to complete LTSS tasks as taught. Two of the 22 modules were dedicated to RD during which learners were individually observed by a trainer to determine how well they performed every step of hands-on tasks taught such as hand washing, body-mechanics, and bathing. Learners were evaluated on two main criteria:
  - Technical skills, and
  - Ability to model person-centeredness. For example, learners were required to demonstrate greeting the person by name and introducing themselves before

starting, explaining the task to the person (assist with washing hands, bathing, cooking, etc.), and its steps while encouraging the participant to do as much as possible, and asking if the person is comfortable throughout the task.

To receive a BTBQ core-training certificate of completion, learners had to demonstrate mastery of each task, person-centeredness, knowledge and skill. An assessment instrument was developed for the trainers to use, which included a check-off box for each step of each task and person-centered approaches. The RD protocol and check-off forms were pilot-tested in all regions by all trainers and refined based on their feedback. This system has proven to be conducive to the BTBQ model, which relies heavily on adult-learner methodologies—interactivity, small group, and experiential learning. Learners were given many opportunities to practice each skill during preceding modules and were generally well prepared for the RD sessions. If they were unable to demonstrate mastery of a task during RD, they were given additional coaching, practice-time and another opportunity to pass the RD. The goal was for all learners to master the skills and complete the course.

During the third grant year, the RD evaluation protocols and procedures underwent major revisions to improve the form. Since the BTBQ curriculum covers 28 individual skills with 616 separate tasks, it took considerable time to complete. With input from trainers, waiver agent leads, and learners about the RD process, the RD evaluation form was revised into a user-friendly RD evaluation tool that maintains fidelity for trainers to observe each learner's skill and evaluate their overall performance. The new RD form allows trainers to check "Y" for yes or "N" for no regarding the observed competency and to record the number of attempts made by the learners to demonstrate their skills. It also includes a comment section for each task and an overall comment section at the end. When learners demonstrate competency and confidence during the observation, trainers may recommend these PCA/learners as potential peer mentors for future classes. This new form reduced the number of recorded entries from 616 to 84 per student. Approved by the research team, the form was piloted in three BTBQ regions prior to full implementation. Positive responses were reported and the revised tool was approved and used for the remaining trainings, which saved time and money.

***MSU Research Design*:** The BTBQ Leads focused on the main purpose of the PHCAST demonstration project--to develop and test a core PCA training program to determine the key elements of a "gold standard" program that could serve as a model for the nation, i.e. determine what elements are essential when preparing learners to provide high quality, person-centered LTSS. Additional goals included the development/adaptation and testing of single topic in-services, but the priority was on the core program as a basic way to develop the PCA workforce. The primary objective of the MSU research team was to conduct a robust, scientifically sound evaluation that would answer the project's central key questions: What was the impact of the core BTBQ PCA training on learners' knowledge, skills, attitudes, job status, and satisfaction? How does the BTBQ PCA training inform the Congressional national inquiry and shed light on the elements of an ideal program–the number of hours, content, and delivery mode?

The team was committed to research practices that would produce sufficiently powered, statistically meaningful results. The federal requirement to include a control group was strengthened by use of randomized assignment. Further design decisions were driven by the process and products envisioned. For example, Michigan intentionally decided to work with the MI Choice waiver agents and build capacity at the local levels. This decision was rooted in the belief that building local buy-in and capacity is the best way to cultivate sustainability post-grant.

Therefore, BTBQ included a robust evaluation with a randomized control group and multiple methods of primary data collection to determine program impact. The study was approved by the MSU Institutional Review Board (IRB) for the protection of human subjects. Primary measurable outcomes of interest included PCA knowledge, skills, attitudes, work status, and satisfaction as well as systems changes related to Michigan's infrastructure and resources for PCA training. Learners were recruited and screened for eligibility. Enrollment was stratified. In compliance with intake requirements, eligible persons who were registered with Michigan Works! (Michigan's local workforce investment boards) were enrolled in the treatment group (received core training). All others were randomly assigned to either the treatment group or control group (did not receive core training). Primary interventions included the PCA training and PCA in-services. The following strategies were used to determine the impact on PCAs.

- All subjects (both treatment and control) completed an extensive learner information form (LIF) and a pre-post knowledge test. The LIF collected demographic and work history and status data.
- All treatment group members completed a course evaluation after each module.
- A voluntary subset of treatment group members completed a paid three-month follow-up survey, replicating many of the questions in the LIF on work status so that job changes could be examined in relation to BTBQ.
- Focus groups with BTBQ graduates were held in all participating regions. The follow-up survey responses and focus groups' input were used to determine the extent that knowledge gained during trainings were sustained and applied, and how it influenced job status and satisfaction.
- Additional data were collected to evaluate program performance through review of literature, PHI, and waiver agent reports/documents, and a survey of dropouts.

***Fidelity*:** To promote fidelity, content experts and experienced trainers were carefully recruited. Trainer orientations emphasized that didactic curriculum and research protocols need to be delivered using the same materials, instruments, and methods for all learners. Fidelity was assessed through course evaluations and on-site direct observations by the project leads using standardized field notes.

***Data* Analyses:** Descriptive statistics and frequencies were generated for all data sources. Comparative analyses were conducted using SPSS. Qualitative data were analyzed using content/narrative analyses.

Key Findings/Project Impact and Analysis:

Performance Measures: Analyses revealed positive results on *performance measures* cited in the initial objectives. Technical experts were consulted as detailed in the project overview. A 22-module, 77-hour core curriculum was produced as described

in Objective A. Twenty-eight trainers were recruited, trained, and deployed after completing a trainer orientation program. Thirty-seven sets of core classes were completed in four regions of the state with 393 learners graduating (98% of goal). Curricula for three in-services were finalized and taught in all regions: 22 TPAAN trainings/308 graduates; 15 Home-Skills in-services/193 graduates; and 16 Dementia in-services/296 graduates; 797 PCAs total completed in-service training (See Table 3).

TABLE 3: Performance Measures – Number of Trainings Held and Number of Completers

	CORE	DEMENTIA	HOME SKILLS	TPAAN
Trainings Held	41 started—37 completed	16	15	22
# of Learners Attended	502--One or more Modules 393—All 22 Modules	296	193	308

Demographics: Core Graduates and Control Group (Table 4): Learners who completed all 22 modules were primarily female (89%), U.S. born (98%), Caucasian (71%), high school graduates (40%) or had some college (34%), ages 30-59 (62%), and low income (<$22,981 or 72%). Prior to training, over half (55%) were unemployed,

Table 4: Demographics of Completers: Treatment (Core Graduates) and Control Groups

	Treatment n=381 (missing data=12)	*Control n=102*
Gender		
Male (%)	*40 (10.6)*	*4 (3.9)*
Female (%)	*336 (89.4)*	*98 (96.1)*
Age		
Mode	*20-29*	*50-59*
Under 20 (%)	*29 (7.7)*	*2 (2.0)*
20-29 (%)	*88 (23.4)*	*15 (14.9)*
30-39 (%)	*69 (18.4)*	*19 (18.8)*
40-49 (%)	*77 (20.5)*	*18 (17.8)*
50-59 (%)	*85 (22.6)*	*28 (27.7)*
60-69 (%)	*24 (6.4)*	*18 (17.8)*
Over 70 (%)	*4 (1.1)*	*1 (1.0)*
Education		
Less than High School	*36 (9.4)*	*7 (6.9)*
High School graduate or GED	*153 (40.2)*	*33 (32.4)*
Some College	*129 (33.9)*	*36 (35.3)*
Associates Degree or Vocational Diploma	*41 (10.8)*	*17 (16.7)*
College/Professional Degree	*20 (5.2)*	*9 (8.8)*
LPN or RN	*2 (0.5)*	*0 (0)*
Annual Household Income		
Mode	*$0 - $22,980*	*$0 - $22,980*
$0 - $22,980	*266 (71.9)*	*48 (49.5)*
$22,981 - $31,020	*40 (10.8)*	*18 (18.6)*
$31,021 - $39,060	*21 (5.7)*	*7 (7.2)*
$39,061 - $47,100	*17 (4.6)*	*3 (3.1)*
$47,101- $55,140	*13 (3.5)*	*3 (3.1)*
$55,141- $63,180	*3 (0.8)*	*5 (5.2)*
$63,181- $71,220	*2 (0.5)*	*3 (3.1)*

$71,221 - $79,260	*4 (1.1)*	*4 (4.1)*
$79,261 or more	*4 (1.1)*	*6 (6.2)*
200% or < Poverty Guidelines	*315 (82.7)*	*67 (66.3)*
Marital Status		
Married	*104 (27.5)*	*40 (39.2)*
Divorced	*90 (23.8)*	*23 (22.5)*
Separated	*13 (3.4)*	*3 (2.9)*
Widowed	*8 (2.1)*	*8 (7.8)*
Never married	*142 (37.6)*	*24 (23.5)*
Member of Unmarried Couple	*21 (5.6)*	*4 (3.9)*
Racial/Ethnic Background		
Hispanic or Latino	*17 (4.6)*	*2 (2.0)*
American Indian or Alaska Native	*15 (4.1)*	*5 (5.1)*
Chinese, Filipino, Japanese, Korean	*2 (0.5)*	*1 (1.0)*
Asian (NOT listed above)	*0*	*0.0*
African American or Black	*103 (28.0)*	*24 (24.0)*
White	*260 (70.5)*	*73 (73.0)*
Native Hawaiian/ other Pacific Islander	*1 (0.3)*	*0.0*
Other	*4 (1.1)*	*5 (5.1)*

(70% among MI Works! and 41% among non-MI Works!). Among employed learners, most worked part-time (66%) with 25 percent making eight to nine dollars per hour, and 60 percent making ten dollars or less per hour.

The treatment and control groups were comparable with several exceptions. A higher percentage of individuals in the control group were employed (63% control versus 45% treatment) due to the agreement with the waiver agents to assign people referred by MI Works! to the treatment group. One objective of MI Works! is to support engagement in training that leads to employment. The majority of MI Works! referrals were unemployed, thereby skewing the treatment group in this direction. However, it is important to note that the unemployment rate within the control group was also substantial (63%, See Table 5). Further, findings from analyses, detailed later, indicate very little difference in the total sample between MI Works! and non-MI Works! learners or between employed and unemployed learners in terms of pre-posttests scores, completion rates, and other measured outcomes.

TABLE 5: Employment Status

	Treatment	Control
	n=393	n=102
Employed	175 (0.45)	91 (0.63)
Unemployed	218 (0.55)	54 (0.37)

The control group also had a higher percentage of women who were slightly older. Although these differences were statistically significant, they do not indicate meaningful differences in the overall profile as the treatment group, like the control group, was still predominantly female (89% versus 98% in the control group) and middle aged (ages 30-59: 62% in treatment group versus 82% in control group). The other major variables on which the treatment and control groups differed are in income and marital status. A greater percentage of the control group was married and had a slightly higher income, a reflection of age and marital status. All of these differences could be due to multiple factors. It may be that people who are slightly older, married with a higher household

income, are less likely to have the time or motivation to commit to 77 hours of training. All of the variables in which they differed were controlled during analyses and findings indicated that they did not compromise the testing of program impact meaning that true differences in impact between treatment and control group were found.

Work Settings: Learners in the treatment group, who completed all 22 modules, worked in multiple settings (See Table 6). The majority were unemployed (245/65%). The majority of those employed worked for a home health agency.

Table 6: Work Setting of Employed Completers In Core Graduate Treatment Group

Work Settings	Frequency (n=381)	Percent
Currently not employed in health care	245	0.65
Home Health Care Agency	92	0.24
Home Help (DHS)	32	0.08
Self-directed [Self-employed; hired directly by client]	22	0.06
Assisted Living Facility or Retirement Home	16	0.04
Adult Foster Care/Home for the Aged	13	0.03
MI Choice Waiver Program	6	0.02
Nursing Home	8	0.02
Hospice	6	0.02
Hospital - general	3	0.01
Missing data	12	0.03

Job Positions (See Table 7): The majority of completers were unemployed (n=218, 55%). Employed learners held a range of positions. Of those employed, the majority were either a PCA (n=56, 33%) or a Home Health Aide (n=64, 38%).

Table 7: Job Positions of Treatment Group Completers Pre-BTBQ

	Frequency	Percent
	n = 168	
Not applicable	43	0.26
Personal Care Aide (PCA)	56	0.33
Homemaker	8	0.05
Home Health Aide	64	0.38
Certified Nursing Assistant	9	0.05
Medical Assistant	2	0.01
Housekeeper	11	0.07
Food Service Worker	6	0.04
Other	23	0.14
Supervisor or Administration	3	0.02
LPN or RN	0	0.00
Social Worker	0	0.00
Recreation Therapist	0	0.00
Therapist (PT,OT, Speech Therapists)	0	0.00

Previous Training (See Table 8): More than half of the completers had prior CPR training (55%) and a substantial percentage had first aid training (46%). However, beyond these basic skills, only 25% had more extensive formal training either at the CNA level (18%) or higher (LPN/RN= .1%). Twenty-seven percent had no prior training and 38% had on-the-job training either alone or in conjunction with other forms of training.

Table 8: Training Prior to BTBQ

Type of Training	Number	Percent
Certified Nursing Assistant	66	0.18
None	102	0.27
LPN or RN	2	0.01
Medical Assistant	22	0.06
Community Mental Health	29	0.08
First Aid	174	0.46
CPR	205	0.55
Facility/Agency Orientation and In-services	71	0.19
Informal Training (on the job)	143	0.38
Adult abuse & neglect prevention, dementia, home skills or other similar training	59	0.16
Other	53	0.14

Pay Rates (See Table 9): Among employed completers in the treatment group, the mode pay rate was between $8.01 and $9.00 per hour; control group members had a higher pay rate, most likely due in part to being slightly older.

Table 9: Pre-Training Pay Rates

Pay Rate/Hour	Treatment n=381	Control n=102
Mode(*Employed*)	$8.01-$9.00	$9.01 - $10
Not applicable - Unemployed	224 (62.0)	43 (42.2)
$7 -$8	30 (8.3)	5 (4.9)
$8.01-$9.00	42 (11.6)	7 (6.9)
$9.01 to $10.00	32 (8.9)	24 (23.5)
$10.01 - $12	22 (6.1)	14 (13.7)
$12.01 - $14	4 (1.1)	3 (2.9)
> than $14	7 (1.9)	6 (5.9)

Length of Time in LTSS (See Table 10): Within the treatment group, 40% had never worked in LTSS and more than a fifth of the remaining learners had only been in the field 1-5 years. Within the control group, nearly a third had never worked in LTSS; another third had 1-5 years of experience.

Table 10: Total Length of Time in LTSS

Length of Time	Treatment	Control
	N=381	N=102
Never	151 (40.2)	29 (28.7)
Less than 6 months	34 (9.0)	3 (3.0)
6 -11 months	20 (5.3)	3 (3.0)
1-5 years	84 (22.3)	31 (30.7)
6-10 years	36 (9.6)	13 (12.9)
11-15 years	24 (6.4)	12 (11.9)
16-20 years	12 (3.2)	3 (3.0)
More than 20 years	15 (4.0)	7 (6.9)

Demographics Summary: the entire sample of completers, both treatment and control, matched national statistics in terms of gender, race, education, and income. In addition, they were heavily weighted toward being unemployed or having limited experience as personal care workers, primarily working in home health care agencies, and had minimal training. This is in part due to the inclusion of MI Works! referrals, and is reflective of the target audience most apt to benefit substantially from PCA training.

Knowledge Gained: A 117 item pre-test to establish baseline knowledge was administered to all enrollees. It included a compilation of four to eight test items from each module. The posttests were comprised of the same four to eight questions pertaining to the particular module. The posttests were administered immediately following each module. No significant differences in pre-post test scores existed in the control group. Treatment group scores increased significantly (alpha=.01) with an average increase of 25-28% in correct responses (95% Confidence Interval) and the standard deviation (SD) decreased from 13.1 to 7.9 (See Table 11).

Table 11: Pre-Posttest Scores for Core and In-Service Completers

Training	Pre		Post			
	Mean	SD	Mean	SD	Sig.	Range (difference)
Core Training	63.6	13.1	89.7	7.9	***	24.6-27.7
TPAAN	71.5	11.7	85.9	8.0	***	12.9-16.1
Dementia	81.8	11.9	91.5	8.9	***	7.96-11.5
Home Skills	73.9	10.7	84.2	10.6	***	8.19-12.5

Posttest scores increased significantly across all subgroups including those referred by MI Works!, and those who were employed, unemployed and CNAs. Related specifically to employment status, employed learners had significantly higher scores in the pre-test compared to unemployed learners; posttest scores indicate no difference between employed and unemployed. In other words, employed learners started out with more knowledge but unemployed individuals "caught up," both groups gained knowledge due to BTBQ, and both scored equally well in posttests. The same is true of those referred by MI Works!. They started out with lower average pre-test scores than non-MI Works! learners, but the posttest scores were substantially higher. CNAs scored higher in pre-tests than non-CNAs. They scored higher in posttests as well but the difference was reduced from 4.04 to 1.21 indicating, again, that non-CNAs "caught up." CNA scores increased indicating that BTBQ training is value added, even for those with prior training (See Table 12).

Table 12: Significant Gains in Knowledge Across All Subgroups Due to BTBQ

	Pre		Post			
	Mean	SD	Mean	SD	Sig.	Range(difference)
MI Works!	62.8	13.9	90.1	8.39	***	25.1-29.5
Non-MI Works!	64.6	11.9	89.3	7.22	***	22.5-26.8
CNA	67.4	13.5	90.9	7.58	***	17.0-30.0
Non-CNA	63.3	13.0	89.7	7.92	***	24.7-27.9
Employed	66.0	12.9	89.5	7.94	***	21.1-25.9
Unemployed	61.9	13.0	89.9	7.93	***	26.0-30.0

Skills Gained: Of all treatment group completers who responded to the three-month survey, almost all (91%) believe new skills were mastered and 94% feel better able to support participants in maintaining or improving self-care (See Figure 3). Respondents were asked to indicate how strongly they agreed with statements such as "I have a better understanding of my role as a PCA," "I have a better understanding of what I can talk about and what should remain confidential," and "I can care for a client better after BTBQ." Focus groups confirmed that BTBQ graduates' confidence and their perceptions of their own PCA skills were substantially improved.

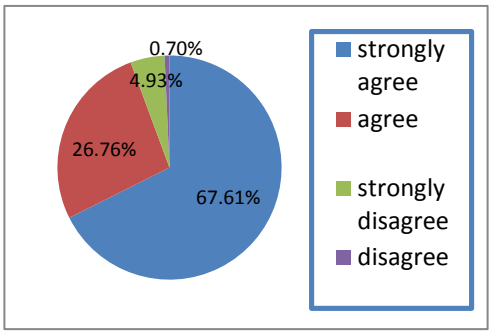


Figure 3: "I can care for a client better after BTBQ."

Several regions used peer support to reinforce skills and build confidence. For example, Region 11 trainers "instituted a system for each module wherein learners paired up with different co-learners. This helped diminish "cliques" and promoted group cohesion and partnerships overall. In many instances this process prompted those learners who were able to quickly pick up on something to assist their peers who may have shown signs of struggling with the concept. Given that different people pick up different concepts at different paces, someone who struggled with one component and received assistance from a peer might be the person offering assistance in the next module. The result was the development of a true air of team work and confidence in one another as well in improvements in personal confidence."

Many learners report gaining increased confidence in their work. One home help worker stated that he wished he had had this training years ago prior to beginning work as a home help provider. "Participating in the BTBQ training, "…meant a lot to me. I am at a place where I needed, wanted to get back on my feet for me and my children. Not just health wise but financially. Now I can…I look forward to pursuing my career in the health field and helping others." Regional providers reported that learners' skill levels are "noticeably improved" due to the BTBQ core or in-services resulting in many giving hiring preference to BTBQ graduates.

PCA Job Status (See Table 13)
BTBQ impact on job status was measured with work-related survey questions at baseline and three months post-training, and with PCA focus groups. The only significant change in the control group was an increase in the control group members providing LTSS to a family member. Multiple significant changes occurred in the treatment group. T-test results (alpha=.05) indicate that the unemployment rate dropped from 58% to 36% between T1 and T2 and those on Medicaid decreased from 40% to 24%. After training, more learners were employed in health care, in the MI Choice program, and as self-directed/self-employed.

In addition, more identified as a PCA/homemaker, particularly among learners not with MI Works and those who identified as PCAs significantly increased (22% to 43%, alpha = .01). In addition, the three-month survey asked a series of questions related to BTBQ graduates' perceptions of the impact of the BTBQ training on their job status.

Thirteen percent stated BTBQ helped them get a job, 38% stated it helped them become a better PCA in the job they already had when they started BTBQ, and 10% felt they had advanced to a better job because of BTBQ (See Table 13).

Table 13: BTBQ Impact on Job Status **Do you feel that participating in the BTBQ training project has helped you in your current employment?**					
Yes, it helped me get a job as a PCA.					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	124	85.5	86.7	86.7
	Yes	19	13.1	13.3	100.0
	Total	143	98.6	100.0	
Missing	System	2	1.4		
Total		145	100.0		
Yes, it has helped me be a better PCA in the job that I had when I started BTBQ.					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	89	61.4	62.2	62.2
	Yes	54	37.2	37.8	100.0
	Total	143	98.6	100.0	
Missing	System	2	1.4		
Total		145	100.0		
Yes, I have advanced to a better job.					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	129	89.0	90.2	90.2
	Yes	14	9.7	9.8	100.0
	Total	143	98.6	100.0	
Missing	System	2	1.4		
Total		145	100.0		

Nearly all (95%) believe the BTBQ training will help them get a job, or a better job, in healthcare (See Table 14). Qualitative data provided examples such as PCAs reporting being hired for direct care positions. A learner, who was homeless and walked two miles to participate in the BTBQ core training, was hired as a PCA, and she now has a home. Another learner put an ad in a local newspaper following training entitled, "Elder Care" as she was looking for people to support. She had six to seven responses and accepted the job closest to her home. She has since become a CNA and acted as a peer mentor for later BTBQ classes." In addition, focus groups repeatedly stated that BTBQ has been a "game-changer," "completely changed my career and life," "opened up doors," and "given me another chance."

Table 14: BTBQ Impact on Job Prospects					
I believe the BTBQ training will help me get a job, or a better job, in healthcare in the future.					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no	7	4.8	4.9	4.9
	yes	135	93.1	95.1	100.0
	Total	142	97.9	100.0	
Missing	System	3	2.1		
Total		145	100.0		

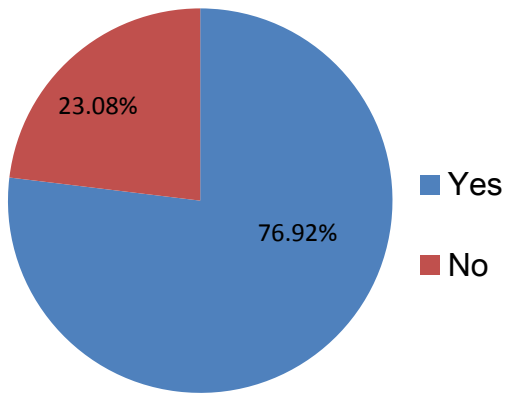


Figure 4: Job Satisfaction Increased after BTBQ

PCA Job Satisfaction: In the three month post-training survey, respondents were asked a series of questions related to job satisfaction. Among those who responded, more than three quarters (77%) stated that their job satisfaction improved due to the BTBQ (See Figure 4.) and 99% would recommend BTBQ to others interested in becoming PCAs. Additional questions related to job satisfaction were asked at baseline--Time 1 using the Learner Information Form and again at Time 2 using the three-month follow-up survey to measure change. For example, a series of questions were asked about intent to leave or stay in the field such as "If you intend to LEAVE your health care job in the next 6 months, why?" Multiple check-off responses were provided including "other" and respondents were asked to check all that apply. No changes were noted in the control group. However, statistically significant differences were found in the treatment group related to several reasons, i.e. intent to leave is associated with pay rate and dissatisfaction with supervisor, and intent to stay is associated with liking their supervisor and "feeling like I can do the job well."[1] These findings are consistent with prior research. Focus groups provided substantial qualitative data confirming the benefit of BTBQ and reasons for wanting to stay in the field. One learner reported having five job offers and being able to accept one near home. Positive statements were repeatedly heard such as "One of the most important things I learned from BTBQ is that the work I do is important and to value myself."

PCA Input on BTBQ Content: Graduates endorsed the BTBQ content, delivery, and value with 98% either satisfied or very satisfied. More than 90% believe the skills learned match what is required to do the job well such as protecting confidentiality, cooking well-balanced meals, preventing the spread of germs, and responding in an emergency. Understanding the importance of person-centeredness increased; focus groups unanimously agreed that two topics in particular "should be mandatory for anyone working with the elderly," person-centeredness and communication skills including how to establish professional boundaries.

[1] Intent to leave is associated with pay rates (p=<.05, mean difference between T1 and T2 =.119, SD=.054, CI=95%) and dissatisfaction with supervisor (p=<.05, mean difference = .066, SD=.030, CI=95%) which is consistent with previous studies. Intent to stay is associated with liking their supervisor (p=<.05, mean difference =.167, SD=.060, CI=95%) and "feeling like I can do the job well" (p=<.05, mean difference = .156, SD=.066, 95% CI), which also confirms prior research.

BTBQ Length and Delivery Methods: The majority of learners (97%) felt that 77-hours were just right or too short, the amount of information covered was just right or too little, and the workload and level of difficulty were acceptable. Focus group members expressed a need for more hours to cover topics such as CPR and first aid, medications, Hoyer lifts, and careers as a PCA including advertising, negotiation skills, liability, and filing taxes. Ninety percent were very satisfied with their trainers and content delivery, endorsing adult-learner teaching methods and hands-on practice as critical. Over half indicated interest in blended instruction--online and in-person, 44% preferred in-person only and 3% wanted online only. Comments from learners following training were supportive of the training materials. One learner stated, "I carry my binder with me in my vehicle. On several occasions, I have referred back to it as a point of reference."

Satisfaction with Trainers: The majority of learner module evaluations consistently rated trainers in all regions highly satisfactory. Qualitative feedback from learner and instructor evaluations, as well as directly from learners and trainers during field visits in every region, included statements such as the following examples from Region 2, "If my high school teachers taught me as good as this program, I would have made it in high school." And, "This program has changed my life in many different ways. The trainers were wonderful at explaining the lessons. I love this program, because it teaches you to respect older people and not treat them as babies, because they once had life before they got in these conditions. And it teaches you to treat people as you want to be treated, because one day you will probably be in the same place. Please keep the program rolling. They need this." Several Region 2 learners composed music or poetry to record their BTBQ experience and express their gratitude; the following is an excerpt from one learner's poetry.

Our teachers are outstanding.
They know what they should do.
We all will leave empowered.
Just by learning from these two.

The following are comments from Region 9 learners:

- "Thanks for making class interesting and fun. You have trained us well. I hope to do this program and you proud. Thanks." (This particular comment was received from a visually challenged learner. Accommodations were made in terms of larger print materials, which made the classes easier for her to participate in a fully engaged manner. She has applied for a position at the AFC location; however, it is unknown if she was hired. She is also a participant of the MI Rehabilitation Services through the State of Michigan.)
- "Thanks for being such a good instructor and listener. You made a difference in my own life and in my future."
- "Your personal approach made the class very enjoyable and the relationship to the class is all the better for it."

Region 10 reported, "We have been blessed with fantastic trainers that have been very flexible and recognize the value of this training. I believe our retention levels are largely due to their skill."

Input from Waiver Agents and Trainers: Participating waiver agents provided invaluable input throughout the grant period and were instrumental in the development and implementation of all aspects of the BTBQ project. There were ongoing communications with the Leads and research team through quarterly in-person meetings, interim phone meetings, quarterly reports, and other regular exchanges. Many of the waiver agents' ideas have been incorporated into the findings summarized earlier in this report, reflecting consensus on multiple issues including the challenges that were faced, the benefits and rewards of being part of BTBQ, and recommendations for going forward. For example, they all agreed that the project took considerably more time than anticipated and administrative fees were not enough to cover the substantial staff hours spent on piloting BTBQ. Staff time and funds were required for recruiting and registering potential trainees, scheduling classes, handling the accounting of paying trainers and learners, following research protocol, arranging for training sites and supplies, and other administrative functions. Several of these tasks were especially challenging such as finding appropriate training space and providing sufficient supplies for all learners to adequately practice a skill. Further, moving supplies from one training site to another proved to be expensive in terms of staff time and travel costs as well as a physical and logistical burden.

There was not enough time to cover the content in several modules and ongoing module improvements are recommended. For example, they suggest condensing some sessions, divide several sessions on topics that require more time, and add modules to introduce other topics not currently covered. All agreed that learner stipends were low, especially for those learners who were employed and faced lost wages, and that training sessions need to include snacks and meals. "The provision of snacks and lunch is an important component in retaining students and enhancing their ability to learn new skills." All regions experienced challenges of learner attrition and learners who were not respectful of other learners in the class or of the training site facilities and policies. Based on these experiences, strategies to reduce attrition and classroom behavior guidelines were developed.

Early in the project, the research team administered an electronic survey (Survey Monkey™) to waiver agents, trainers, and other individuals who were involved with the BTBQ project to gauge progress on meeting project goals. Responses indicated that everyone involved in the BTBQ project was committed to the goal of developing the PCA workforce in order to improve the quality of LTSS for older adults and persons with disabilities in Michigan. The Information Center cited that one of the best rewards of the BTBQ project was to witness the "learners progress and enthusiasm at the end of the course, for what they had learned and how they can use the information in their current jobs or to advance their employment." Region 2 stated that a program such as BTBQ "empowers individuals to feel good about themselves. It helps them examine and figure out what beliefs and values they have pertaining to the care of the participants. It helps the learner figure out problem solving techniques for many situations they will encounter during their care of the participant." Region 9 stated, "It (BTBQ) is a worthy goal and something we in the field have asked for, for many years. A Region 10 respondent stated their conviction that "good training is critical to a quality program…Training is so important. I like the intent of the project - the focus on the direct care worker and empowering them - increasing their sense of professionalism - all

the good things that attracted us to this (project) in the beginning." Region 11 reported that they have "been a strong proponent of a standardized (PCA) training program for its network dating back to the Innovations Grants…and this effort (BTBQ) provided another opportunity to fulfill their goal of having a standardized training program and also one that might be recognized as the first step on a career ladder. Every region reported that BTBQ graduates were securing employment and that word of the program was spreading. BTBQ flyers were found in Michigan Works! offices and relationships were being built with community colleges and career centers. All involved continue to be committed to the goals of the BTBQ and hope to see the program sustained and expanded.

Attrition in Core (See Figure 5): Early in the project, high attrition among those who confirmed their enrollment in the treatment (training) group was evident with an overall average of 38% comprised of "no shows" and dropouts (attended one or more modules then stopped attending). Four sets of classes had to be cancelled due to low learner turnout on the first day. Remaining learners were encouraged to attend the next scheduled set of courses which some did. However, they voiced frustration due to scheduling time off to attend the 77-hour training program. Among confirmed learners, there was an average no-show rate of 21% and drop-out rate of 13% across all core trainings. There were no significant differences in attrition between learners referred by MI Works! and non-MI Works! learners. There was a significant difference in attrition between employed and unemployed learners (alpha = .05) while the mean diffrence is 0.06. Employed learners had a lower attrition rate (0.14, compared with 0.20). There was also variability of drop-out rates across regions. Region 9 experienced a 25% no-show rate, but had relatively low drop out rates and were therefore fairly stable. The Information Center (T.I.C.) had a high no-show rate at first, but then this rate dropped, which may be associated with the introduction of orientation sessions. Region 10's dropout rate stabalized mid-way. It is unclear at this point what the most prominent contributing variables accounting for these differences were. Further analyses are planned. These findings made three major issues clear:

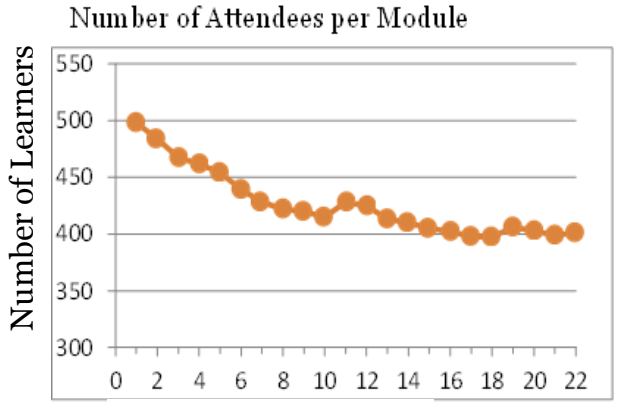


Figure 5: Attrition

- The labor-intensive method of confirming persons for enrollment was not efficient; considerable time was being spent on confirming people who were not completing the program. Recruitment and enrollment processes would have to target people more effectively who were apt to attend, finish, and be hired as a PCA and meet the long-term goal of building a trained PCA workforce.

- Attrition resulted in unexpected small class sizes of five to eight people, a trend that could not be sustained by the budget. In order to reach the goal of training 400 PCAs, additional classes would have to be held, with associated trainer costs.

- It was important to determine reasons for the attrition so that they could be addressed if possible.

Several corrective steps were taken to address attrition:

- A pre-training orientation program was introduced, which is a key strategy used by PHI in urban areas of the country to reduce attrition. The orientation required attendance and allowed trainers to meet with potential learners, provide a clear outline of the training expectations, and gauge level of interest and commitment. It also provided time for attendees to complete preliminary pre-training paperwork, removing this burden from valuable class time. This strategy was successfully piloted in the Detroit area where the no-show rate dropped dramatically, from 31% to a low of zero for session 8 (See Table 15.), and thereby promoting cost efficiency and securing classroom seats for those most interested. The dropout rate also declined (See Figure 6) but it is unclear if this is due to orientations.

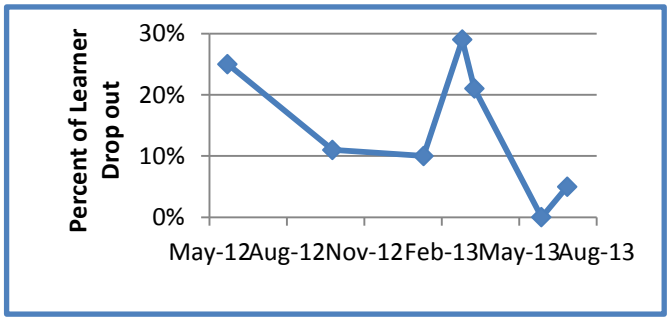


Figure 6: T.I.C. Drop-out Rate

Table 15: Effect of Pre-training Orientation on Enrollment and Completion at T.I.C.			
First 8 Core Trainings	Orientation held before training	Confirmed learners who were "no shows" (%)	Attendees who completed core training (%)
1	no	4 (33%)	5 (63%)
2	no	8 (50%)	Class cancelled due to low turnout
3	no	2 (11%)	14 (88%)
4	**yes**	1 (4%)	11 (79%)
5	**yes**	0 (0%)	9 (69%)
6	**yes**	2 (6%)	10 (67%)
7	**yes**	1 (11%)	9 (100%)
8	**yes**	0 (0%)	11 (91%)

- Flexible attendance policies and ways in which to make up one or two missed classes were developed. Several trainers agreed to help students by meeting with them individually to review missed material. Learners were paired with classmates that showed high levels of competency to practice hands-on skills. Finally, learners that needed to discontinue the program prematurely were given the option of joining another class set, where they had left off.

- MSU developed a brief mail survey and sent it to every person who dropped out of the program with an explanatory cover letter and an offer of a $5 gift card for returning the survey. The survey was a simple check-off of 18 potential reasons for attrition including "other" with a space for writing in reasons. The sample size was too small for responses to be generalizable, but it did offer useful insight. Very few responses related to issues within the BTBQ project's ability to address

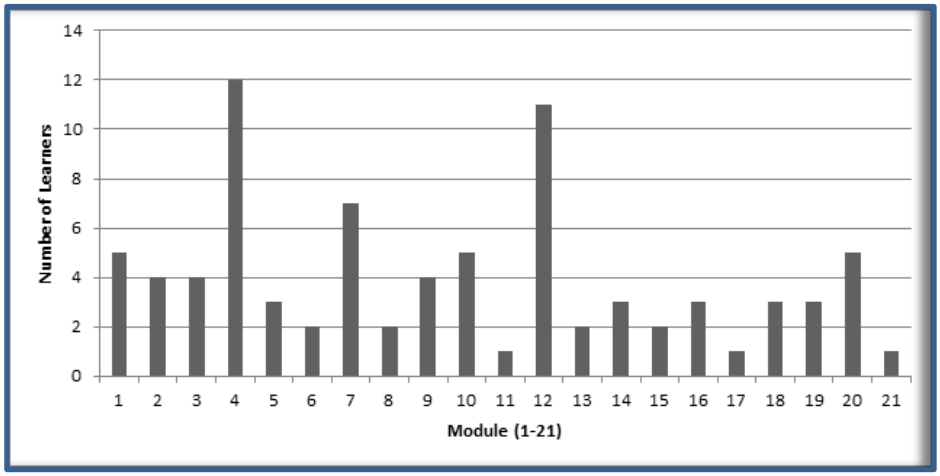
them such as course content, length, or trainer characteristics. The top six reasons for not showing or for dropping out across regions are listed in Table 16.

Table 16: Six most frequently reported reasons for not showing or dropping out of the BTBQ core training in rank order

Reason	Percent of Learners Reporting
Scheduling conflict with work	33%
Transportation problems to/from trainings	23%
I had to stay home to care for a sick family member	15%
I became ill	13%
Scheduling conflict with school	10%
Problems finding reliable child/elder care	10%

- It was also noted that, across all regions, a similar number of learners dropped out after each module with the exception of modules four and twelve; the highest drop-out rates occurred after each of these modules (See Figure 7). The reasons are unclear but it is speculated that students may have dropped to avoid the first Return Demonstration session (Module 13) when skills are evaluated.

Figure 7: Number of Learners Leaving after Completing Each Module (See Page 8 for Core Curriculum Module Training Content)



An improvement was noted in the percent of attendees completing training in the final sessions. It is difficult to separate out specific reasons as it is likely that such improvements can be attributed to multiple factors including implementing the above strategies as well as trainers becoming more comfortable with the curriculum, and trainings running more smoothly.

***Costs of the BTBQ* Program:** Table 17 provides an outline of the BTBQ grant project expenses from 2011-2013. The grant funds were used by the BTBQ project to support the training of as many learners as possible in the BTBQ personal care services curriculum and the three in-services.

Table 17: Actual Grant Project Expenses: 2011-2013*

Expenses	2011 Actual	2012 Actual	2013 Actual	Total Expenses
Salaries & Wages	$134,450	$205,379	$218,084	$557,913
Fringe Benefits	$25,868	$29,701	$37,107	$92,676
Travel	$4,598	$8,939	$9,440	$22,977
Supplies	$7,518	$6,234	$13,363	$27,115
Contractual/Consultants**	$133,677	$217,153	$149,087	$499,917
Trainer Costs/Fees	$0	$75,700	$393,300	$469,000
Trainee Stipends	$0	$41,188	$247,175	$288,363
Miscellaneous***	$18,333	$30,887	$22,814	$72,034
Total Project Expenditures	**$324,444**	**$615,181**	**$1,090,369**	**$2,029,994**

*BTBQ was supported by a grant to OSA from the Division of Nursing (DN), Bureau of Health Professions (BHPr), Health Resources and Services Administration (HRSA), Department of Health and Human Services (DHHS) under the Affordable Care Act Personal and Home Care Aide State Training (PHCAST) Program, Announcement Number HRSA-10-288, Catalog of Federal Domestic Assistance (CFDA) No. 93.512 for $2,030,537.00.
**Contractual/Consultants—Include MI Choice waiver agents: Region 2 Area Agency on Aging (AAA), Region 9 AAA Northeast Michigan Community Services agency, Inc./U.P. AAA UPCAP Services, Inc., AAA of Northwest Michigan, Inc., and The Information Center; OSA, PHI, and MSU.
***Miscellaneous—Administrative Fee for Contracts, Indirect Costs, Mailings, Meeting Sites, Postage, Supplies, Train-the-Trainer Orientation.

Table 18 lists the cost estimates for replicating the BTBQ core and in-service trainings based on 12 learners per class, and paying the learners $40 per session and trainers $400 per session.

Table 18: Cost Estimates for Replicating BTBQ Core and In-Service Trainings Based on 12 Learners per Session

Class Type	Trainer Fees per Session	Learner Stipends per Session	Binders Manuals	Site Fee	Supplies	Est. cost per Class	Est. Cost per Learner
Core 22 Sessions	$400	$40	$38	$1,100	$110	$21,026	$1,752
TPAAN 2 Sessions	$400	$40	$10	$100	$10	$1,990	$166
Home Skills 2 Sessions	$400	$40	$10	$100	$100	$2,080	$173
Dementia 2 Sessions	$400	$40	$10	$100	$10	$1,990	$166

The cost estimates are based on the lessons learned from implementing the BTBQ grant. Class size is very important to the learner's ability to gain the most knowledge from the experience and a class of 12 is the ideal size. The learner stipends provided during the grant ($25 per session) were too low for most learners to cover expenses (lost wages, transportation, childcare, and/or food) for a full day of training. Estimated trainer fees per session are reduced from $500 per session based upon waiver agents' recommendations to lower this cost and increase administrative fees for project management. Each waiver agent was budgeted $20,000 in administrative funds per year, but this was not enough to cover the costs for administering the program in each

region. If BTBQ is replicated in other regions with a formal research evaluation component, then $32,000 allocated to administrative costs is more realistic. Likewise, if learner stipends are not provided, this cost should be deducted from the following estimates.

***Sustainability*: Prospects for Continuing the Project and/or Replicating this Project Elsewhere**

The need for, and benefit of a pre-employment core PCA curriculum is documented in other parts of this report. In Michigan, which currently has few PCA training requirements or infrastructure, the ability to establish training requirements is challenging. Current PCA training requirements in all 50 states and the District of Columbia are posted at www.PHInational.org/Policy/States. The BTBQ training program is a huge step in the right direction for both Michigan and the nation. Everyone involved in the project is committed to not only continuing and expanding the trainings, but also leveraging the progress that has been made to build a sustainable statewide infrastructure in support of a trained PCA workforce. However, these efforts are impeded at the federal level, i.e. Medicaid reimbursement policies do not support pre-employment training of PCAs. In a July 2011 bulletin to State Medicaid Agencies, CMS ruled, "Costs associated with requirements that are prerequisite to being a qualified Medicaid provider are not reimbursable by Medicaid. However, costs associated with maintaining status as a qualified provider may be included in determining the rate for services." This language has been used to deny Medicaid funding for pre-employment training initiated for PCAs working in a Medicaid home and community-based waiver program.

All of the four demonstration sites are nevertheless interested in continuing the core curriculum trainings within their service areas. They are exploring other options for funding--philanthropic, public funds, and provider reimbursements. As an example, Region 11 developed a promising strategy and piloted it with their Provider Network: the network agreed to set aside $.25 per hour for each hour of Personal Care, Homemaker, Respite, Adult Day Care and Community Living Services provided to MI Choice consumers for the purpose of reimbursing staff wages to participate in the BTBQ core and in-service training programs in fiscal year 2014. This would have produced $75,000 of the estimated $200,000 needed to sustain the program and train the region's PCA workforce. Not covered would be the stipends of individuals not employed, and other program costs such as administrative time, trainers, space and supplies. However, this plan is not currently being implemented due to recent statewide changes in capitation rates. Other proactive strategies are currently in motion to ensure continuation of the BTBQ goals. The BTBQ principal investigator, Clare Luz, Ph.D., and the BTBQ Project Director, Daniel Ochylski, M.S., R.N., through the MSU College of Human Medicine, submitted an Innovations Grant application to the federal Centers for Medicare and Medicaid Services (CMS) to expand the MI PHCAST project. While the application was not funded, the search for additional funding will continue to be pursued.

As announced in its three-year state plan submitted to the Administration on Aging, OSA plans to sustain and expand the BTBQ training program within its aging and disability network and with other state departments and new partners. A major goal

during the next three years will be to integrate the BTBQ into core services for area agencies on aging and their provider organizations. OSA also plans to work with the state's home health registry to ensure homecare workers are qualified, and those who have completed the BTBQ core training will be recognized on this registry. OSA will participate on healthcare workforce workgroups to identify current challenges and recommend solutions including adequate training.

Additional Efforts to Sustain PCA Workforce Development

- The BTBQ project findings will be presented to strategic groups of stakeholders and decision-makers. For example, the data related to learners referred by local workforce investment boards on knowledge gained, employment after training, wages, and other factors would be of interest to legislators, and local and state workforce agencies. Findings could potentially attract workforce investment act funding to train PCAs for in-home services. While not prohibited, as in federal Medicaid policies, accessing federal Workforce Investment Training funds has proven difficult in the past. First, the amount of workforce federal funding coming to the state over the three years of the project decreased. Second, the wage rates of PCAs are not attractive to state or regional workforce investment boards because they are not sufficient to sustain a family. However, workforce investment boards referred many people to the project. Nearly half of the BTBQ learners were referred by Michigan Works!, which provides the opportunity for unemployed persons to enter the health services field.
- Expansion efforts will also focus on raising awareness of the difference between the BTBQ PCA training and CNA training, and finding ways for the two programs to augment each other. BTBQ addresses essential skills needed that are specific to the home environment. Further, trainers and learners agreed that while the "hands-on" skills overlap, the BTBQ focus on person-centeredness distinguishes it from the existing Michigan Model CNA curriculum and most existing CNA-approved training programs. Seasoned CNAs reported that this focus changed their outlook dramatically in terms of how to provide LTSS. Another distinction is the use of adult-learner methods versus the traditional classroom, lecture-based program. Trainers believed that observing learners demonstrate mastery of skills and person-centered attitudes during return demonstrations was critical to assessing performance competency.
- Expansion efforts will include proactively engaging employers and developing mutually beneficial relationships. Many employers expressed the belief that the BTBQ program aligned with their mission and vision of promoting health within their communities and realized the value of training these workers. Some employers did not participate as they already have a company-approved training program for their workers. Some regions were more successful in engaging employers, perhaps due to having long-standing relationships and trusted experience in providing training programs for PCAs throughout their communities. In other areas, BTBQ offered an entry-level opportunity to develop this trust and experience.
- Finally, future initiatives will need stakeholder, trainer, and learner feedback about what constitutes an ideal, "gold-standard" PCA training program into consideration. This includes increasing the number of classroom hours to additional time for hands-on practice and modules such as first aid and health care career development strategies and planning. In addition, promoting the BTBQ curricula will continue,

and the use of various modules to augment training offered by providers' with a current PCA training program may be reviewed. Strategies to continue the in-services: TPAAN, Home Skills, and Dementia will also be considered. Waiver agents voiced strong support of the in-services as high-need topics that were manageable and cost-efficient.

Key Lessons Learned and Best/Promising Practices:

- Key to success was the input of competency and curriculum stakeholders. Collaboratively, they helped shape all aspects of the project including the competencies, curricula, infrastructure, and processes such as trainer selection and orientation, learner recruitment, attendance policies, marketing, and evaluation.
- Likewise, aging and disability stakeholder involvement is critical to development of a high quality PCA training infrastructure. BTBQ stakeholders included aging and disability representatives, self-directed participants, PCAs, educators, seasoned trainers, RNs, employers, and staff of workforce development boards. Additional stakeholders, decision-makers, and advocates will need to be on-board to take PCA workforce development to the next level.
- States interested in replicating BTBQ should establish a diverse advisory workgroup at the outset, with multiple partners including participants, PCAs, providers, government agencies, and employers. They should develop a comprehensive communication plan that fosters positive relationships and trust.
- Person-centeredness and good communication skills are essential to high-quality PCA LTSS and should be at the heart of any PCA training program. Learners, including trained certified nursing assistants (CNAs), repeatedly stated that the person-centered concepts they learned dramatically changed their view on how to provide LTSS.
- Also key are adult-learner teaching methods with emphasis on in-person, hands-on interactive exercises and time to practice.
- Although 77-hours of training produced significantly positive results, it is not enough time to prepare PCAs adequately for high quality, person-centered LTSS. We recommend a minimum of 120 hours for "gold-standard" training. Additional time is needed to go into more depth in some topic areas such as dementia and use of durable medical equipment, and additional topics are needed such as first aid, CPR, administering medications, anatomy and physiology, professionalism and preparing to enter the job market.
- Optimal class size is 12 learners per trainer.
- To account for inevitable attrition, register 25-30 learners and provide reminder phone calls to ensure that 8-12 actually attend classes. Although labor intensive, it is necessary to ensure ideal class size and efficient use of the budget. Initially, high attrition led to small class sizes (five to eight PCAs) which negatively affected the budget. Strategies to increase retention were varied by region. In urban, southeast Michigan, orientation meetings prior to enrollment increased participation and reduced attrition.
- Identifying and addressing barriers to learning faced by learners such as socio-economic status, (e.g. availability of transportation, childcare, and literacy level) is very important. Addressing these issues is an economic and workforce development

investment that can minimize attrition and lead to higher employment, wages, job satisfaction, and retention.

- Provide classes at minimal or no cost to learners, many of whom could not afford CNA training, similar trainings, or state certification fees.
- Provide classes beyond the 8:00a.m.-5:00 p.m. timeframe at central locations with bus line access.
- Ensure sufficient supplies are available at each training site for each learner to have maximum opportunity to practice more than once. For example, have multiple catheter bags, walkers, beds, and anatomically correct mannequins.
- Consider building in "real-life" personal care work experience in an actual LTSS home-based setting, perhaps as a practicum or internship requirement.
- PCA stipends, trainer fees, attendance requirements, code of conduct policies are important to establish before training begins and piloted to determine needed modifications; adjust as needed.
- Additionally, all forms/paperwork, supplies, durable medical equipment, training facilities and food for trainings must be organized well before the trainings begin and set up prior to the beginning of each class.
- Recognize the graduates for their achievements. It is important to provide them with a certificate of completion that is recognized by employers. The BTBQ certificate includes a list of all the topics that the graduates have mastered. In addition, a formal ceremony or event to mark the completion of training instills a sense of pride and professional identity. For example, The Information Center hosted a graduation ceremony following every set of classes during which each graduate's name was announced and they "walked" the stage to receive a framed certificate and a handshake from notable guests. The room was decorated and pot-luck food provided. These ceremonies were attended by the graduates' parents, partners and children who were clearly proud; dressed up, taking photographs, and enjoying traditional graduation rituals. The importance of the goals of BTBQ and such milestone occasions was best captured in the words of the graduates who attended in statements such as "I never thought I'd go to college and graduate and here I am. This program has changed my life."

Discussion and Conclusions: The BTBQ Program developed and tested a personal care aide (PCA) training program for PCAs who provide long-term supports and services to participants in MI Choice—Michigan's Medicaid HCBS waiver program. Currently, in Michigan, and like most states, only minimum training requirements exist. There is no certification process for PCAs. The BTBQ adapted and expanded the PHI Personal Care Services Curriculum to create a "gold standard." The State of Michigan's commitment to person-centered planning, which ensures that participants are in control of their own decisions, is incorporated into the BTBQ 77-hour, 22-module core training curriculum. Adult-learner teaching methods are also incorporated. Michigan's aging and disability network input was used to design/enhance competencies based on ten federal competencies. Skill building focused on competencies, shifting to person-centered thinking, and how it changes the way PCA's work with participants in a person-centered manner, critical thinking, and problem solving. PCAs also received specialized training in home skills, Training to Prevent Adult Abuse and Neglect (TPAAN), and dementia training entitled Creating Confident Caregivers® using the Savvy Caregiver

program. These curricula were adapted for the BTBQ by also infusing person-centered thinking and strengthening the adult-learner methods throughout these training programs. Fifty experienced trainers led BTBQ trainings. Research findings provide evidence in support of the BTBQ. It improved knowledge, skills, and job status across multiple sub-groups of participants.

Members of the Michigan BTBQ team and many of the BTBQ partners remain committed to the mission of the project and plan to continue to pursue a range of venues for sustaining the relationships and progress made. As part of the sustainability plan, advocates need to push for policy changes to the CMS ruling that denies Medicaid funding for pre-employment training initiated for PCAs working in a Medicaid home and community-based waiver program serving older adults and people with physical disabilities who need nursing home-level services. Just as pre-employment training for aides working in nursing homes is supported by state and federal Medicaid funds, so should PCA initial training be supported by federal and state Medicaid funds. In addition, advocacy needs to continue in support of PCAs receiving an adequate living wage. Other specific goals include:

- Promote state recognition of standardized PCA training such as BTBQ or an equivalent curriculum that meets specific basic criteria,
- Ensure that the training programs are affordable and any related costs are not prohibitive; implement methods to minimize costs such as cost-sharing options,
- Establish a statewide registry or database for employers and people who need supports and services to learn if a potential worker has completed recognized training,
- Offer incentives to employers for hiring trained workers, and
- Provide supportive services for PCAs such as transportation and childcare to promote entering the workforce, job satisfaction, and retention.

Such measures would reflect a commitment to building the PCA workforce and an investment in high quality care for some of Michigan's most vulnerable citizens.

Michigan Building Training…Building Quality
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We would like to acknowledge the following groups, organizations, and individuals for their contribution to the Michigan Building Training…Building Quality (BTBQ) training project. Throughout the process, these members demonstrated their commitment to provide high quality supports and services to participants and their families in home and community–based and long-term care programs. Their generosity, knowledge, skill, and dedication made this BTBQ Project possible. It is with great respect and appreciation for the work these persons do on a daily basis to help older adults and persons with disabilities across the state of Michigan that we recognize the following members.

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Competency Work Group Members

The following organizations and individuals volunteered their time, energy, and expertise to adapt the 2009 PHI Personal Care Services Curriculum to identify the competencies needed for the Michigan BTBQ PCA Training Project. Throughout the process, competency workgroup members demonstrated their commitment to providing high quality supports and services to participants and their families in home and community–based and long-term care programs. Their generosity, knowledge, skill, and dedication allowed us to formalize competencies that met the federal guidelines while assuring that PCAs receive training in high priority areas that are considered high priority throughout rural, urban, and suburban communities across Michigan. It is with great appreciation that we recognize the following members.

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