MAINE Direct Service Worker Training Program

MAINE DIRECT SERVICE WORKER TRAINING PROJECT PILOT

SUMMARY OF PROJECT RESULTS

MAINE DIRECT SERVICE WORKER TRAINING PROJECT PILOT

SUMMARY OF PROJECT RESULTS

INTRODUCTION

Maine has long required training and certification for unlicensed direct service staff. Over the years a complex array of separate and uncoordinated training programs has developed, as different offices within DHHS have implemented training systems in isolation from each other. This fragmented approach poses barriers to entry and career advancement for workers, and ignores the substantial overlap in job functions across the various segments of the direct service workforce. The system has also limited the ability of these programs to adequately respond to the increasingly complex needs of the people served by the long term services and supports (LTSS) system. In addition, there is more pressure to recruit workers into these roles as demand for home and community based services has escalated. Taken together these factors have pushed DHHS to consider alternate methods of training and certifying its direct service workforce.

In 2010, Maine's DHHS was awarded a 3-year grant from the US DHHS Health Resources and Services Administration (HRSA) to develop a competency-based training and certification program for the three largest job titles in the LTSS system: Personal Support Specialists, Mental Health Support Specialists and Direct Support Professionals. The approach that Maine took was to develop one standardized core curricula and three specialty modules containing the non-overlapping, job-specific content for each certificate. This system allows workers to cross-train more readily as they can earn additional certificates by completing the applicable specialty modules, without repeating the core training. The training content was based on the existing curricula for each certificate and is aligned to key worker competencies identified by HRSA. To maximize efficiency and access to training (particularly for workers in rural parts of the state), Maine's model was developed as a blended approach with some material available online and some in required face-to-face classroom settings.

PROJECT GOALS & DESIGN

The project had three overarching goals:

> (1)   Develop a competency-based core curriculum and three separate specialty curricula for training and certifying three categories of direct service workers who provide hands-on assistance to persons with long term services and support needs in home and community-based settings. Personal Support Specialists (PSS) assist older adults and adults with disabilities; Direct

Support Professionals (DSP) support adults with intellectual disabilities or autism; and Mental Health Support Specialists (MHSS) work with adults with serious and persistent mental illness.

(2) Develop and pretest newly designed courses, one for each job title, comprised of a common core and job-specific course content delivered both in-person and online.

(3) Design and implement a system of training that improves worker access to training and offers workers opportunities for job mobility and career progression. Access to training is improved by employing a mix of online and in-person training, thus reducing travel and scheduling constraints. Job mobility and career progression are enhanced because workers can take advantage of cross training to earn certifications that permit them to work with multiple populations.

To achieve these goals, the project engaged a wide variety of stakeholders. DHHS partnered with a project team from the University of Southern Maine's Muskie School of Public Service to conduct much of the hands-on project work.   Managers across DHHS with varying responsibilities for the certification and training of direct service workers met approximately bimonthly with project staff in order to plan and carry out the grant activities. Additionally, the project recruited approved and experienced instructors from the various certificate programs to teach the reconfigured courses; the trainers provided critically important feedback on content, implementation, and infrastructure needs. Their experience and expertise in the content and delivery were key factors in the project's success.

Employers, consumer groups, workers and advocacy organizations were also engaged through various formal and informal channels throughout the project. In a day-long "design charrette" workshop during the first project year, 46 external stakeholders provided input on the draft Core curriculum and web portal, and gave their perspectives on ways to streamline the training and certification requirements for workers. In addition, a total of seventeen key informant interviews were conducted by project staff so that they could learn about perceived opportunities and challenges to this new model. The project staff also conducted over a dozen presentations for a wide variety of stakeholders across the state, in addition to myriad informal opportunities for feedback from interested individuals during routine interactions. Lastly, at the close of the project in September 2014, external stakeholders were reconvened to review the project accomplishments and provide input into the next steps in integrating the new training system into the existing statewide training infrastructure.

Throughout the project, a team from the University of Southern Maine's Center for Education Policy, Applied Research, and Evaluation provided external evaluation support. They collected data from multiple sources to ensure that the project was implemented as

planned, and to assess whether the activities achieved their intended goals. Evaluation findings are detailed in the Project Impacts section below.

PROJECT ACTIVITY SUMMARY

Training Design

The project team successfully developed and implemented the core plus specialty training model design for the three certificate programs. The core training (common across all three job titles) begins with a half-day in-person training, in which participants receive an overview of the course, set up their online course access, and are introduced to key course topics and initial lessons.

For the Personal Support Specialist (PSS) certificate the schedule includes three additional face-to-face required classes in order for trainees to learn required clinical skills such as conducting safe transfers, basic infection control, and responding to medical emergencies. Trainees must earn badges through interactive games in the online component to proceed in the course. This design allows trainees to learn content through the online lessons and practice the application in a face-to-face setting with the instructor.

The full certificate course for the PSS was delivered over 7 weeks and lasted approximately 50 hours (more or less depending on the trainee's pace during the asynchronous portions of the program). Students received a class schedule and handbook to guide them through the entire course including the exam procedures. Instructors could monitor student progress throughout the course using the learning management system that was employed for this project. Frequent instructor interaction via email and phone provided opportunities for trainee's questions, clarifying material and support. Instructors posed reflection questions weekly as another aid to support student learning. Frequent knowledge checks allowed trainees to monitor their mastery of content throughout the course.

PRACTICAL LEARNING

Application of knowledge gained is a key element of this training program design.

3

Successful completion of the training program required trainees to demonstrate ten clinical skills, this occurred in a lab setting. Upon completion of that portion, trainees could then sit for the comprehensive written exam consisting of 50 questions. Consistent with the current PSS training policy, students could retake the exam once if they were not initially successful in passing it.

Course Schedules

The course schedules for the two other specialty certificates vary slightly from this model but also consisted of both face-to-face instructional time and online asynchronous learning. Like the PSS course, the length of the courses varied somewhat depending on the trainee's pace during the asynchronous portion. Generally these training courses lasted 40 to 50 hours. For both the Direct Support Professional and Mental Health Support Specialist the course included case scenarios in which students applied key concepts from the training to real world situations allowing students to think through and practice how they may respond to situations while on the job. These scenarios were discussed in face- to -face classes at the end of the course, with the instructor guiding discussion and encouraging trainees to apply the knowledge gained. Final comprehensive exams were also required for all DSP and MHSS trainees.

Training Participants

The project prepared a total of 161 direct service workers. Thirteen individuals participated in more than one training, resulting in a total of 176 credentials issued.

Table 1: Individuals Completing Project Trainings

Personal Support Specialist (PSS)	108
Mental Health Support Specialist (MHSS / MHRT I)	43
Direct Support Professional	25
Total Initial Credentials	**176**
Continuing Education Completers (as of 12/2014)	**428**

Additional information about the outcomes for these trainees is provided below in the Project Impacts report section.
In 2012 and 2013, the two years in which PSS courses were offered by the project, there were 196 traditional PSS trainings

PILOT PARTICIPANTS

Trainees in the project included job seekers from publically funded programs, other job seekers and individuals already employed in direct service positons.

resulting in 1,227 total PSS certificates issued in Maine. Two online PSS course providers trained an additional 646 individuals, or 1873 total. The 108 PSS trainees completing the face-to-face, ELL, and hybrid delivery PSS courses as part of this project comprised 5.8% of the state total during these years.

Web Portal

Another key product developed with the grant funding is the Maine Direct Service Worker web portal (http://mainedirectserviceworker.org/). This site is the visible entry point to the training system for both trainees and instructors, who use it to access the online core and specialty curricula. Enrollment information, core course content, specialty content, and quizzes are all available through the portal. Trainees can also request assistance if necessary, as well as monitor their own progress in the course. The instructors also use the web-based portal to access the learning management system, where they can readily track trainee progress in the online modules, review quiz results, maintain trainee records, and respond to trainees' questions.

The web portal also serves as a resource to provide information about direct service careers in Maine. New recruits or job seekers can easily see job requirements for various titles, choose populations and settings in which to work and gain an understanding about career opportunities. These pages also help recruits to locate required training programs.

Continuing Education

In addition, the web portal serves as the access point for several continuing education modules that were developed and implemented during the project. The six modules, ranging in length from 1 to 4 hours, are available to interested direct service workers, free of charge, at any time. Materials to promote the continuing education modules were widely distributed to employers and incumbent workers both electronically and in hard copy to advertise their availability. The modules were selected based on topics identified by direct service workers, provider agencies, and consumer advocates:
(1) Brain Injury Basics

CONTINUING EDUCATION MODULES

✓ *Brain Injury Basics*

✓ *Challenging Behaviors*

✓ *Dementia Basics*

✓ *Infection Control and Prevention*

✓ *Safe At Work: Enhancing Personal Safety for Direct Service Workers*

✓ *Introduction to Substance Abuse*

---

(2)   Dementia Basics
(3)   Infection Control and Prevention
(4)   Introduction to Substance Abuse
(5)   Safe at Work: Enhancing Personal Safety for Direct Service Workers
(6)   Responding to Challenging Behavior.

Access to the Dementia Basics module was procured for a fee from third-party developer Healthcare Interactive; the other five modules were developed by the project and will be freely available after its close. The modules feature downloadable certificates of completion that workers can share with employers. As of March 2015, across all modules, 1313 people have enrolled and 802 have completed a training module (completion rate of 61%). This project investment will continue to be a resource to Maine direct service workers for years to come.

PROJECT IMPACTS

To assess whether the project was meeting its intended goals, the funding from the Health Resources and Services Administration included resources for an external evaluation. The evaluation activities were designed to address these questions:
(1) What was the quality of the direct service worker training program developed by the project?
(2) Did participants who completed the revised Personal Support Specialist training program learn as much as those in the existing training pathways?
(3) Did the hybrid distance delivery format improve participant access to training?
(4) What was learned about the "career lattice" opportunities that are facilitated by the modular training system design?

To answer these questions, external evaluators collected a variety of data from multiple sources, including: questionnaires, exam scores, and exit surveys of project participants, comparison data from existing PSS training pathways, and interviews with selected participants and stakeholders.

TRAINEE FEEDBACK

The improved curriculum model and the more accessible delivery mode were well-received by participants.

1. Training Quality

Participants in all three of the training programs involved in the project redesign (Personal Support Specialist (PSS), Direct Support Professional (DSP), and Mental Health Support Specialist (MHSS) gave their courses very high marks. The exit survey for all three project training types used the same questions as the exit course evaluation for the existing state PSS courses; PSS results can be directly compared to the statewide PSS survey responses. Survey items were grouped into two categories, with the first capturing feedback about the quality of the courses and the second describing instructor quality. The results show that all items had an average rating between "agree" and "strongly agree", and the results of the PHCAST trainings were as good as the comparison training feedback from the same instructors.

Table 2: Course Exit Evaluation Comparison

	PSS Comparison	PHCAST Project Trainings			
	Mean score* (n=50)	Std. Dev.	PSS (N= 45)	MHSS (N=43)	DSP (N=25)
Average Course Quality Rating	4.56	0.53	4.42	4.54	4.70
Average Instructor Quality Rating	4.57	0.54	4.74	4.75	4.91

*: 1= Strongly disagree, 2= Disagree 3 = Neutral, 4= Agree, 5 = Strongly agree

The difference between the course quality scores of the project hybrid PSS delivery model and the existing PSS statewide courses was not statistically significant (t (93) = 1.303, p = .196). The instructor scores were also not significantly different (t (93) = 1.633, p = .106). These results provide the expected assurance that the improved curriculum model and more accessible delivery mode were

Trainees in the project overwhelmingly felt the instructors were responsive to their needs. This finding is an endorsement of the regular communication and support built into this training design.

well-received by participants, and did not reduce the high quality of the current training system.

The ratings across the three project training types are not directly comparable to each other or to the PSS comparison results, as the trainings comprise different specialty content and instructors. However, the summary ratings are included above in table 2 to demonstrate the robust feedback provided by the participants who completed the courses.

The average responses for all individual survey items are included in Appendix A. The PSS course item with the highest average rating was "The material was clear and in a logical sequence", with a mean score of 4.51. The lowest rated item was "The activities contributed to my professional growth" with a still-strong mean rating of 4.28. The instructor item of "The instructor was responsive to participants' needs" received an exceptional average score of 4.86, which is strong endorsement that the weekly instructor communication and supports provided to students during the six-week online portion of the course were valued by those who completed the course.

The trainers who taught the hybrid online courses also had high praise for their overall course experience, including the course materials, learning management system, technical support, curricula, and design for learning activities in both the online and in-person course components. Some instructors provided feedback on minor suggested additions or revisions to the course content. All agreed that by the end of the course, they were adequately prepared with the technology to deliver it again in the hybrid format, though their prior experience with distance learning technology varied greatly—from none at all to prior teaching of fully online courses. Their support for the online delivery mode ranged from mild support to strong enthusiasm; all felt that it was adequate for conveying the content, adequately easy to use, and was a relevant approach for expanding training access to individuals in rural areas or with scheduling challenges that make face-to-face classes difficult. Most were fully comfortable in the medium and several expressed a wish to convert to it as soon as possible in their current training practice. Only one expressed a preference for their traditional

TRAINER EXPERIENCE

Trainers in the project all agreed that by the end of the course they were adequately prepared with the technology despite their varied prior experience with online teaching.

in-person delivery mode. However, because these trainers volunteered to participate in the project and were not selected randomly, this should not be taken as assurance that all current trainers would feel equally comfortable with the format.

Employer feedback to the training curriculum during demonstration sessions was also overwhelmingly positive. Individuals who had the opportunity to view the online course content, including sample videos, reading passages, quizlets, and overall flow of the modules, were enthusiastic about the quality of the course material. They particularly noted the "standardization" of the quality of training, as all course participants would receive the same high-quality delivery of instruction. This was seen as an improvement over the current system, where both the course content and quality of delivery can vary markedly across instructors.

2. Student Learning Outcomes

The comparison data collected as part of the project evaluation plan for the Personal Support Specialist trainings also allow an analysis of student learning. Two student measures were compared: performance on course exit exams, and course attrition rates.

Final PSS exam scores were available for 52 project trainees in the face-to-face course (year 2) and 45 participants in the hybrid distance delivery course. Comparison final exam scores were available for 291 test-takers in comparison trainings. The final PSS exam is a 50-item test drawn from a bank of 249 approved multiple-choice items; in the existing state training certification process, each trainer selects items for each course to cover a range of content. For the project trainings, one exam was used for all courses to ensure comparability across trainers and delivery modes. The final exam has a minimum passing score of 80, and may be retaken twice. Of the 291 comparison trainees, only 6 individuals failed the final exam (2.1%). None of the project trainees were unable to pass the final exam. One-way ANOVA was used to contrast average scores across the three PSS training groups (comparison, face-to-face, and hybrid delivery):

Table 3: PSS Final Exam Scores & Retention Rates

	Comparison PSS (2013 to 2014)	Face-to-Face (2012)	Hybrid Redesign (2014)
Average Final Exam Score	92.25%	91.08%	93.98%
Standard Deviation	6.9	5.6	4.9
Number of participants	291	52	45
Number of training course sections	46	6	6
Overall Retention Rate	94.50%	85.20%	77.60%
Range of individual course retention rates	47.6% to 100%	72.7% to 100%	44.4% to 100%

As hoped for in the initial project logic model, the ANOVA results represent no significant difference in exam scores at the 95% confidence level ($F (2) = 2.398$, $p=.092$). The project trainings were at least as good as the existing PSS training options in learning outcomes. Post-hoc analysis shows that the hybrid courses were markedly improved from the face-to-face training groups implemented as a transition step in year 2 ($t (95) = -2.72$, $p= .01$), but neither of the project PSS models was measurably better or worse than the existing comparison trainings.

In comparison trainings at our partnering agencies, the overall PSS course retention rate was 94.5%, with a range of 47.6% to 100% for the individual courses. For the project face-to-face courses, overall retention was 85.2% and ranged from 72.7% to 100%. The hybrid delivery courses had an overall retention of 77.6%, ranging from 44.4% to 100%; the hybrid course with the lowest retention was somewhat of an outlier, and accounted for two of every five hybrid dropouts.

Results of chi-square analysis of difference show that attrition levels in the project trainings were significantly worse than in comparison groups ($X^2 (2) = 23.64$, $p<.001$). Possible explanations for this include:
- Because the project trainings were intended to be comparable to each other, trainers were instructed to enforce a policy where students were not allowed to miss more than one class, and make-up sessions were not allowed. Trainers reported that they were often more lenient than this in their traditional courses to allow for students' unforeseen situations.

- Students in the project trainings may have had less commitment to completing the courses, as a higher proportion of them were not already working in the field, they had not paid fees to take the course. In typical PSS comparison trainings, most participants are already working in the field and have a financial or other obligation to their employer to complete the course.
- Students are more likely to drop out of courses offered in a distance-delivery format.

Higher attrition in online courses is a well-established phenomenon. Thus it was not entirely unexpected that there would be higher drop-out rates in the hybrid delivery mode than in the other course options. Additional study is warranted to determine whether the drop-out rates in the project were representative of the retention rates that emerge when the hybrid course design is implemented at scale, with more flexible trainer practices and typical trainee profiles. The hybrid delivery format, with some face-to-face contact and regular, structured opportunities for communicating with the instructor, is likely a better method of supporting students than a fully online version. However, additional data collection and analysis are needed over time to assess whether there is an ongoing need for in-person training modes for some learners.

3. Training Access

One goal of the revised training system was to ensure access to high-quality training for workers whose geographic or scheduling constraints make travel to in-person trainings difficult. Evaluators analyzed available participation data to investigate whether the hybrid delivery mode afforded increased opportunities to such students.

In the background questionnaire administered on the first in-person day of training, participants were asked about the time it took them to travel to the class location. The students in the face-to-face PSS course offered in year 2 traveled an average of 26.5 minutes to arrive at their class (median of 20 minutes). By comparison, those in the hybrid online course in year 4 traveled an average of 43.6 minutes, one-way, to their participating site (a median of 40 minutes, double the median of the in-person course). One individual traveled three hours one-way to the hybrid online course. This is a significant

> **ATTRITION**
>
> Additional study is warranted to better understand what factors positively effect trainee retention rates.

difference (t (67.7) = 2.53, p=0.014), revealing that the distance delivery course did serve students from a wider radius to each central training site. In addition, 53% of the year 2 in-person participants indicated they would be "interested" or "very interested" in doing some of their training online instead of coming to class in person. Only 18% were "not at all interested" in an online format, citing a mix of reasons including learning style preferences and lack of access to a computer or the internet. This provides some assurance that the hybrid delivery system increases access for those who are not near a training site, face scheduling constraints, or otherwise prefer an online format.

Interviews with employers also validated the potential value of distance-delivery training options for Maine's direct service worker population. In interviews with key informants, employers and agency-based trainers identified the value in providing flexible scheduling for certification courses. When asked about the potential barriers to participation in online courses, all respondents stated that the technology skills required for training participation were no more demanding than the skills needed on the job to handle preparation and submission of job-related documentation. Some interviewees recognized that access to up-to-date computers, and reliable high-speed internet access, were potential problems for low-income and rural workers. Attempts to address these potential issues are being incorporated into the scale-up plans under development, including such proposals as cooperation with career centers and adult education programs to provide learning space in communities around the state. Adding this high-quality hybrid distance delivery system to the courses available in the state, which balances the need for participant flexibility with preservation of some in-person contact for certain discussion topics, will improve training options and lower one barrier to recruitment of additional workers.

4. Career Lattice

Participation results show that workers have a strong interest in obtaining more than one direct service worker credential. As described in prior sections, there were 13 individuals (8.1% of training participants) who took advantage of the ability to obtain a second (or third) credential without needing

ACCESS TO TRAINING

The distance delivery model developed for this project served trainees from a much wider geographic area than traditional classroom-based programs.

12

to repeat Core curriculum content by participating in multiple project trainings. Seven individuals participated in a PSS training and the MHSS course, three individuals pursued PSS and DSP, one person earned MHSS and DSP, and two individuals earned all three credentials.

In addition, the project trainings attracted 23 individuals (14.3% of participants) who already held one of the three credentials and wished to earn additional certificates. About half of these (48%) were individuals who already held a MHSS or DSP credential and participated in free PSS training. As designed, these individuals did not have a shortened certification path; they were not exempt from taking the Core, as were the individuals who cross-trained within the project courses. However, anecdotal evidence from trainers and selected student interviews revealed that the hybrid online format may have appealed to these individuals, as the online Core component was perceived as a "refresher" experience that could be easily completed. The individuals may also have been attracted by the project's outreach efforts, and because it was free to participants. Added to the 8.1 percent who cross-trained with project courses, this means that over one in five project training participants earned more than one direct service credential within the short time span of the project. It is expected that more would choose to add a second credential when the streamlined training model continues in the future.

Employer interviews validated the online delivery approach as a way to accommodate their workers. However, interviews also revealed mixed opinions on the overall cross-training approach embodied in the core + specialty model. Some were enthusiastic that the opportunities for cross-training would help to attract badly-needed new entry-level workers, as workers would see the potential to progress upward as they gained additional experience. Other employers worried that facilitating easy access to additional credentials would encourage PSS workers to retrain and leave for higher-paying DSP and MHSS jobs, thus exacerbating the shortage of quality front-line staff serving elders. As the above data shows, in the project period there were several individuals who held DSP or MHSS credentials and still invested time to pursue a PSS credential; this may provide some

CROSS-TRAINING WORKERS

One in five training participants earned more than one certificate during the timespan of this project.

encouragement that the cross-training can serve to support all levels of the workforce. However, this is a plausible concern that merits ongoing study, and additional strategies to incentivize entry-level workers to the direct service field.

SUMMARY

The direct service worker training program developed and implemented with federal funds from the Health Resources and Services Administration's Personal and Home Care Aide State Training (PHCAST) project (grant number T82HP20324) was successful. The quality of the training was rated very highly by training participants, experienced trainers, and the employers who viewed the course content. Students in the revised Personal Support Specialist (PSS) training had learning outcomes that were equivalent to students in the existing state training program, indicating that the streamlined curriculum and delivery system was at least as good as the existing training pathways in the state. One in five participants benefited from the improved cross-category training design by taking the opportunity to obtain more than one direct service credential, an endorsement of the intent of the improved training design. The redesigned hybrid distance delivery method improved access to the training, drawing participants from twice the radius of traditional face-to-face courses. Attrition rates in the redesigned courses may be somewhat higher than in traditional face-to-face courses, but appear to be lower than those found in existing online training options. This merits additional data collection and reassessment when the redesigned training model moves forward with participants that have more typical and comparable incentives for completing training.

APPENDIX A: COURSE EXIT EVALUATION RATINGS
Average Exit Evaluation Ratings

	PSS Compar. (N=50)	PHCAST Core + Specialty Model		
		PSS (N=45)	MHSS (N=44)	DSP (N=25)
COURSE QUALITY ITEMS (Scale α = 0.927)				
1a. The topics reflected my professional needs	4.59	4.38	4.51	4.64
1b. The format was helpful in understanding material.	4.64	4.49	4.64	4.84
1e. The material was clear and in a logical sequence.	4.56	4.51	4.64	4.7
1f. The material supplemented my knowledge / skills	4.58	4.39	4.6	4.74
3a. The activities provided much useful information.	4.54	4.42	4.52	4.83
3b. The activities contributed to my professional growth.	4.56	4.28	4.55	4.52
3c. My personal learning objectives were met.	4.62	4.39	4.55	4.61
3d. The training facilities were conducive to learning.	4.36	4.42	4.57	4.7
Average Course Satisfaction	**4.56**	**4.42**	**4.54**	**4.7**
INSTRUCTOR QUALITY ITEMS (Scale α = 0.917)				
2a. The styles of presentation / methods used were conducive to learning.	4.56	4.67	4.67	4.76
2b. The instructor made good use of examples and illustrations	4.62	4.73	4.81	4.96
2c. The instructor's knowledge of the subject matter was demonstrated.	4.62	4.8	4.79	4.96
2d. The instructor was well-prepared and organized.	4.5	4.78	4.74	4.96
Average Instructor Satisfaction	**4.57**	**4.74**	**4.75**	**4.91**
OTHER Items				
1c. The material was up-to-date.	4.46	4.48	4.63	4.76
1d. The material was relevant / applicable to my current job.	4.64	3.96	4.24	4.32
The instructor was responsive to participants' needs.	------	4.86	4.81	4.88

1= Strongly disagree, 2= Disagree 3 = Neutral, 4= Agree, 5 = Strongly agree