THE ASPEN INSTITUTE

BUSINESS VALUE ASSESSMENT OF WORK-BASED LEARNING:

Findings from Research into Temple University Hospital-Episcopal Campus's Work-Based Learning Program for Mental Health Workers

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Jobs to Careers
Promoting Work-Based Learning for Quality Care

Robert Wood Johnson Foundation

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Workforce Strategies Initiative

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ACKNOWLEDGMENTS

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TEMPLE UNIVERSITY HOSPITAL
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We are pleased to have partnered with the Aspen Institute in an evaluation of our *Jobs to Careers* work-based learning pilot, enabling us to gauge our accomplishments and identify areas that will benefit from improvement. We are proud of our participation in Jobs to Careers, and of our mental health workers and supervisors who participated in this ground-breaking initiative.

The *Jobs to Careers* behavioral health program at Temple University Hospital's Episcopal Campus has benefited our workforce, our institution, and our patients. We are most appreciative of how the curriculum developed through this project focused on the interaction between the mental health workers and the patients. More education for the frontline staff through this pilot has translated into improved quality of care. We are also excited that the work-based learning curriculum supports career advancement for the mental health staff by qualifying successful completers with 21 college credits toward a degree as well as a pay increase.

The educational experience our staff helped to design in partnership with the University of Medicine and Dentistry of New Jersey and the District 1199C Training & Upgrading Fund differs significantly from a traditional classroom experience. The competency-based approach to instruction and dynamic on-the-job learning assignments engaged workers in a proactive learning experience with patients, exposing them to a recovery approach to care. The training was also successful in improving the workers' ability to communicate more effectively with clinical staff through better documentation and a higher level of engagement in team meetings. Another outcome of the learning experience was enhanced mutual support among the frontline staff in their work with patients. The impact of *Jobs to Careers* was visible to the clinical team and, most importantly, to the frontline staff.

As we move forward in incorporating *Jobs to Careers* into our learning system at Episcopal Hospital, we do so with a strong foundation provided by the experience of implementing the pilot and a tool kit of resources, including a comprehensive set of work-based competencies, a work-based learning curriculum, on-the-job learning assignments and the Aspen evaluation. In the near future, we will also have access to an on-line version of the curriculum and work-based learning assignments. We are most thankful to the Robert Wood Johnson Foundation for funding this evaluation, and to the funders of the Jobs to Careers initiative, including the Robert Wood Johnson Foundation, The Hitachi Foundation and the U.S. Department of Labor. Thank you as well to Randall Wilson from Jobs for the Future for lending his thoughtful expertise.

Kathleen Barron
Executive Director
Episcopal Hospital
Temple University Health System

This report describes findings from research conducted by the Aspen Institute's Workforce Strategies Initiative (AspenWSI) to determine the ways in which Temple University Hospital's Episcopal Campus (TUH-Episcopal) benefited institutionally from a work-based learning program designed and delivered by District 1199C Training and Upgrading Fund (Training Fund) in collaboration with the University of Medicine and Dentistry of New Jersey (UMDNJ). The work-based learning (WBL) program was developed to train frontline mental health workers (MHWs) in a wide range of competencies considered by TUH-Episcopal to be important to maintaining and improving the quality of care provided to patients at the hospital and to providing a platform of college-accredited work from which MHWs can continue their education and career advancement.

Development of the curriculum used for this work-based learning project was underwritten through Jobs to Careers: Promoting Work-Based Learning for Quality Care, an initiative of the Robert Wood Johnson Foundation, in collaboration with The Hitachi Foundation and U.S. Department of Labor. The Pennsylvania Department of Labor and Industry also provided funds to support curriculum development. The goal of this initiative was to test new models of education and training that incorporate work-based learning with the ultimate aim of creating lasting improvements in the way in which institutions train and advance their frontline workers. Work-based learning "is an approach to adult education and training that emphasizes the employee as learner, and the work process as a source of learning. It involves methods of education and training that capture, document, formalize and reward learning that occurs on the job."[1]

This evaluation is framed as an assessment of the business value of a particular work-based learning initiative. It is important to understand that TUH-Episcopal's primary interest in implementing the WBL program was to improve its training system and, thus, improve the quality of care provided to its patients. Hospital management and staff, however, are keenly aware of the need to work within and maximize the value of hospital resources. Therefore, in designing the business value assessment, we worked with representatives of TUH-Episcopal to identify indicators of favorable outcomes stemming from the WBL program. Where possible, we worked to identify the financial benefits that could be associated with those outcomes. The outcomes that TUH-Episcopal management hoped they would achieve from the work-based learning program include:

1. Mental health workers increasing their capacity and self-confidence to perform a greater range of duties and to participate more actively as members of patient treatment teams — factors that management considers critical to maintaining and improving quality of patient care;

2. A new step toward longer-term career advancement for frontline workers, ultimately leading to careers as registered nurses, behavioral health professionals and other health occupations for some participants;

3. A curriculum that they might be able to use to replace or improve other required in-service training (given that the WBL program was tailored to the hospital's needs and incorporated extensive input about both the skills they need as well as the hospital's particular operating environment).

TUH-Episcopal participated in an intensive feasibility study process with AspenWSI researchers to clarify the outcomes they hoped to achieve through the WBL program, the

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[1] Jobs to Careers. http://www.jobs2careers.org/workbased_learning.php. (Accessed July 21, 2010). Please see the Jobs to Careers Web site for further information about work-based learning and the Jobs to Careers demonstration project.

indicators they believed would point to whether these outcomes had been achieved, and the specific sources of data that they would find compelling and would be available for this research. Through these conversations, we agreed upon a research design for an assessment of business value that examines both the costs and outcomes related to implementation of the WBL program and that was feasible to implement in the context of ongoing hospital operations.

This report documents the results of an innovative pilot program. It is important to understand the context for research findings on two fronts in order to place findings in appropriate perspective. The first area of context is the training program itself. The work-based learning program is ground-breaking among approaches to training frontline mental health workers. TUH-Episcopal management and staff at a variety of levels worked hand-in-hand with curriculum developers from the University of Medicine and Dentistry of New Jersey to first identify a broad range of specific competencies they wanted MHWs to be proficient in — competencies that they believed are integrally linked to providing a more consumer-oriented, recovery-oriented hospital environment. In addition, training designers developed instructional materials over an intensive period that were not only informed by the specific patient care environment at TUH-Episcopal, but that were also designed to be embedded within the employment environment and connected to how MHWs actively conduct their work with patients and interact with their patient care team colleagues. Thus, both the curriculum and the methodology by which the curriculum was introduced to MHW work-based learners were innovative, and it was hoped that over the long-term, this approach would be integrated more systemically into the hospital's learning and patient care culture.

The second area of context that is important to understand in context is the goal of this evaluation effort. TUH-Episcopal and District 1199C Training and Upgrading Fund management and staff, as part of the Jobs to Careers demonstration, were simultaneously participating in other evaluation activities (conducted by the University of North Carolina's Institute on Aging) and program documentation activities (conducted by Jobs for the Future research staff). These other activities were designed to inform questions about WBL program methodology, staff development, and outcomes from the patient-consumer perspective. The focus of AspenWSI's evaluation was to document, from the hospital's perspective, the ways in which the hospital experienced return on its investment in the WBL program and its costs for delivering the program. The WBL program was still being developed, piloted and experimented with during the course of this assessment, so this evaluation also has many formative elements.

While background investigation prior to launching this assessment indicated that questions of interest to TUH-Episcopal could be informed by planned assessment activities and available data sources, as with most pilot programs, the WBL project experienced challenges that affected our research. Some of these challenges had to do with the inevitable deviations from the plan that occur during pilots, as program developers, instructors and others learn in real time about what works and what needs adjusting. Other deviations arose due to unanticipated events that had a significant effect on the operations of the hospital. During our evaluation activities, several implementation challenges in particular affected AspenWSI's ability to collect and analyze information about MHW performance at TUH-Episcopal and other desired WBL program outcomes. These challenges included lower-than anticipated enrollment in the program; the way in which the mentor role was implemented during the pilot WBL program; closure of a sister hospital that affected both management and direct care staff; a nurse's strike that loomed during 2009 and occurred in Spring 2010; and issues related to hospital management's underestimating the (understandably) longer time horizon needed to expand the WBL approach from its "silo" as a program for MHWs to broader activities needed to rationalize and improve other hospital training efforts based on what was learned through the WBL pilot.

Through a variety of data-gathering efforts detailed in this report, we learned about a number of important ways in which the work-based learning program positively affected mental health workers' performance and about the potential for the approach to yield further benefits to both the hospital and participating MHWs. Some of these highlights include the following:

- *Work-based learning can be articulated for college credit. Program graduates earned college credit and continued with college course work beyond the WBL program.* WBL program graduates are eligible for 21 credits at Philadelphia University. Credits are awarded by the University when WBL graduates complete a three-course sequence toward a 30-credit vocational certificate in behavioral health. At the time this report was prepared, four WBL program graduates were enrolled at Philadelphia University for the Fall 2010 term. Another three WBL graduates graduated with associate's degrees in health and human services, one from Philadelphia University and two from the Community College of Philadelphia. Two of these graduates are enrolled in bachelor's degree programs, one at Philadelphia University and one at Drexel University.

- *The WBL program helped improve communication between clinical staff at different levels.* Social workers, behavioral health therapist**s,** nurse managers and physicians all pointed out changes in WBL participants' communication skills that they directly associated with the training. They noted that the WBL participants were able to be more precise in communication about patient condition, and that their communication with and about patients were more positive. MHWs described learning new communication skills and un-learning old communication habits as helping them on the job. They described concrete examples of techniques they learned in the WBL program, and now use on the job, that help them interact more positively with patients; be better listeners, reflectors and questioners; and help them more effectively de-escalate patients who are experiencing crises.

- *WBL participants became more engaged in the patient care team.* The mix of skills and knowledge learned through the WBL program is believed by most staff who work alongside the MHWs to have resulted in MHWs more and more actively participating in treatment planning meetings. MHWs cite the program as helping them to feel more self-confident and, thus, to be more assertive in their communication with other members of the patient care team.

- *Participants improved charting skills.* Nurse managers reported that WBL participants had improved their writing and charting skills as a result of the program. WBL participants described learning new skills in the program that they attribute to their improved ability to write patient chart notes. These included learning relevant medical terminology and practicing targeted writing skills. They noted that the time they spent learning to read charts had helped them with their chart writing skills. Social workers confirmed the MHWs' impression, saying that they think the WBL program has helped the MHWs they work with to improve their charting skills.

Lessons about evaluation design

This report also includes documentation of the assessment process, both as planned and as implemented. It describes the range of data sources consulted for the purposes of assessment and some of the limitations in the usefulness of these sources for the purposes of our research. Some of the lessons about assessment design that we learned through the assessment process may be helpful to other researchers and program managers seeking to determine what types of management information to collect in order to evaluate new programs. A summary of these lessons includes:

- *Planning for an assessment of outcomes in the workplace is most effective when it occurs up-front — simultaneous with workforce service planning and development.* Questions about desired outcomes should inform not only assessment design but also curriculum and service implementation strategy. Understanding up-front what needs to be documented or measured relative to a service in order to understand its impacts may influence how the service should be delivered and monitored. For example, TUH-Episcopal expressed the expectation that the new WBL training approach is one they hope will serve as a catalyst for changes in their approach to a wider variety of other training and staff development. To accomplish this goal, a larger strategic plan and steps for building on what was learned during this pilot would be necessary. The timeframe for pilot implementation and AspenWSI's evaluation activities was short compared to the efforts that hospital management has learned will be required to make this type of shift in approach more broadly.

- *Data collected for other business management purposes are sensitive to a wide variety of changing environmental factors.* These other changes may mask changes that accrue from a workforce service. In this assessment, for example, we explored using hospital data detailing the numbers of calls for assistance in managing patients in crisis (Stat-13 incidents) as a proxy for MHW performance improvement following the WBL program. We learned that Stat-13 frequency is affected by too many factors not related to MHW performance. And while we hoped that quantitative scores of MHW performance, collected as annual performance reviews, would serve to provide benchmarks for performance between groups of WBL trainees and non-trainees over time, the rigor that is necessary to use the data in this manner just wasn't built into the employee evaluation process (as implemented over time for the hospital's primary documentation purposes).

- *Qualitative data is particularly important for learning about the outcomes of a pilot program —especially in the context of a changing business environment.* Qualitative data, confirmed by a variety of perspectives, helps us understand not just what is happening, but also why it is happening. During the course of this assessment, we collected a large amount of qualitative data. It proved to be our most useful data source. A variety of staff who work with mental health workers pointed out specific and positive changes in the skills and work habits among participants in the WBL program. Because the curriculum and learning were embedded in the MHWs' work process, and MHWs' co-workers and supervisors were active participants in the WBL process, these qualitative data that detail observations by a range of staff are especially rich. These are summarized above and described in detail in this report.

In addition to detailing outcomes observed as accruing to the hospital and resulting from the work-based learning program as well as information about assessment methodology and implementation, this report provides detailed documentation of the costs incurred by the hospital to develop and deliver the program. We hope that these findings will prove useful to health-care administrators as well as policy makers and funders who are interested in building training and education systems for frontline health care that continue to evolve to support more consumer-oriented, recovery-oriented practices.

INTRODUCTION

This report describes findings from research conducted by the Aspen Institute's Workforce Strategies Initiative (AspenWSI) to determine the ways in which Temple University Hospital's Episcopal Campus (TUH-Episcopal) has benefited from a work-based learning program designed and delivered by District 1199C Training and Upgrading Fund (Training Fund) in collaboration with the University of Medicine and Dentistry of New Jersey (UMDNJ). The work-based learning (WBL) program was developed to train frontline mental health workers (MHWs) in a wide range of competencies considered by TUH-Episcopal to be important to maintaining and improving the quality of care provided to patients receiving short-term and long-term in-patient behavioral health treatment. It was also intended to provide a credentialed education experience that would serve as a platform for MHWs to continue their education and advance in their careers.

A NOTE ON BUSINESS VALUE ASSESSMENT

AspenWSI has worked extensively with workforce development organizations on the ways in which they can identify and measure the value of the services they provide to their business customers. The business value assessment (BVA) is in many ways similar to a return on investment (ROI) approach, but it allows for greater inclusion of qualitative data and expression of results in non-monetary terms.[2]

For example, a business has a measurement of customer satisfaction that it tracks and sees that satisfaction improves after a customer service training. While improved customer satisfaction may indeed be believed by the business to impact its bottom line, other co-occurring changes, such as a change in the economic climate or in the internal billing and collections system may also have impacted the business' performance. The data needed to determine the portion of the change in revenues generated or profitability that can be attributed to changes in customer satisfaction may be confidential, not readily available, or overly sensitive to the non-training related changes in business environment. Thus, in such a case, it is likely more credible and compelling to reflect the business value of the training investment in terms of the customer satisfaction rating, rather than making a series of assumptions to get to a monetary figure.

Recognizing the challenges of data collection in a fast-changing business environment, the BVA starts by identifying the key measures that will be compelling to the business client, which are often areas in which the business is already collecting data. The level of rigor and the specific study approach is then built around investigating the specific outcomes the business client identified as important. An investigation of the specific costs that accrue to the business client is also critical and should be presented with the discussion of benefit. In the case of a nonprofit or publicly subsidized workforce service provider, however, the total cost of providing the training is not part of the calculation.

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[2] For additional information on AspenWSI's approach to and tools for Business Value Assessment, see http://www.aspenwsi.org/WSIwork-BVAtool.asp; Internet.

INVESTIGATION OF RESEARCH FEASIBILITY

The research design for this assessment of business value was developed through a feasibility study conducted in late 2007 and early 2008, when the WBL program curriculum was being finalized and MHWs recruited for enrollment. We were seeking to understand what the hospital managers hoped to accomplish, what types of data they already collected, their willingness and ability to share specific types of data, and the practicality of supplementing that data with other research activities. This stage was critical to determining whether we might be able to inform questions of interest to the hospital without interfering with hospital operations or placing an unreasonable burden on hospital staff.

During the feasibility study, our focus in discussions with hospital management was to explore the types of costs that the hospital would incur to implement the WBL program as well as the ways in which the hospital believed the program might be a benefit, particularly on a financial level. Specifically, we met with hospital staff to address these questions:

- How might the WBL project complement, enhance or replace elements of TUH-Episcopal's existing training structure and programs?

- What outcomes might the hospital expect from the WBL program? What would the hospital see as a reasonable indicator that such an outcome has occurred?

- Does the hospital currently collect data on any of these indicators?

- Are there opportunities for collecting data that the hospital does not currently collect in order to answer research questions or confirm findings?

- How might monetary values be assigned to measured changes in the indicators of outcomes?

In discussions with TUH-Episcopal management, we explored a wide variety of performance indicators and costs of doing business that might have been affected by implementation of the WBL program. What we found is that TUH-Episcopal has low turnover and few vacancies among frontline MHW positions. It does not use agencies for staffing. The hospital operates consistently at close to full utilization, performs well on regulatory reviews and scores high on Press Ganey Patient Satisfaction surveys. These characteristics render some of the more typical workforce development business value indicators unsuitable for this setting. For example, indicators such as retention rates, staff vacancy rates, staffing agency fees and patient satisfaction scores, which have relatively straightforward quantitative measures and/or financial implications, are not appropriate. Changes related to these types of indicators were neither sought nor anticipated by TUH-Episcopal management.

TUH-Episcopal's interest in implementing the WBL program was not driven by a desire to reduce costs or increase revenue, but rather, the hospital was seeking to improve its training system and, thus, improve the quality of care provided to its patients, and to provide opportunity for education and career advancement. It is important to note that the hospital is a nonprofit institution with goals relating to its service mission of providing high-quality health care. That being said, the hospital must manage with limited resources and, thus, any indicators of cost savings or efficiency gains would certainly be of interest. However, hospital staff members interviewed made clear that they were primarily interestd in supporting improved staff performance in key areas they believed would lead to improved patient care. We, therefore, worked with hospital staff to identify the kinds of indicators of improved performance that they would like to see and a research approach to assessing changes in those indicators.

The specific outcomes that TUH-Episcopal management hoped they would achieve from the work-based learning program include:

- Mental health workers increasing their capacity and self-confidence to perform a greater range of duties and to participate more actively as members of patient treatment teams — factors that management considers critical to maintaining and improving quality of patient care;

- A new step toward longer-term career advancement for frontline workers, ultimately leading to careers as registered nurses, behavioral health professionals and other health occupations for some participants;
- A curriculum that they might later be able to use to replace or improve other required in-service training (given that the WBL program was tailored to the hospital's needs and incorporated extensive input about both the skills they need as well as the hospital's particular operating environment).

TUH-Episcopal noted that if these outcomes were investigated, they did not need monetary values to be estimated in order to understand the value of achieving the outcome. As examples of this, they noted that if MHWs' interactions with patients were to improve, the nurse managers who supervise them would have more flexibility in how they assign MHWs, thereby allowing them to use existing staff more efficiently. Or if MHWs more actively participate in treatment teams, they would readily assume that physicians would save time because they would have more accessible information about patient condition. Through these conversations, we agreed upon a research design informed by qualitative and quantitative data that were available and compelling to TUH-Episcopal and feasible to implement given the context of ongoing hospital operations.

WBL PROGRAM IMPLEMENTATION

The work-based learning program implemented for frontline mental health workers at TUH-Episcopal appeared successful in improving the competency and performance of participating workers in a way that also built capacity for ongoing learning. This is because it is:

- Grounded in the day-to-day operations of the hospital;
- Reinforced by the variety of professional staff who comprise the patient care treatment team;
- Efficient in that it does not require removing MHWs from their patient-care duties for extended periods of time;
- Effective in that it meets the needs of learners with a pedagogical approach that is respectful of and builds on their experiences, while providing opportunities for academic growth that builds on their current skills sets.

Many frontline MHWs, while competent at their jobs, are not well-equipped to pursue traditional academic and clinical health-care training programs. They have financial responsibilities that mandate they work full time. They are low-income and have trouble financing college tuition. They may have academic barriers such as pre-college reading, writing or math levels. They may have experienced negative outcomes in previous academic work. They may lack confidence in their ability to manage college-level course work. At the same time, many bring enormous affinity for and commitment to the type of direct care they provide to patients. Many have years of experience observing and interacting with patients, and these experiences are a solid foundation upon which to build new skills for higher-quality patient care, but also serve as a platform from which to participate in a more traditional higher education setting. The barriers to promotion and advancement for non- or low-credentialed occupations such as entry-level MHWs to occupations such as nursing, counseling and social work are great. Through a methodology such as the WBL program implemented at TUH-Episcopal, MHWs are offered an encouraging and instructive platform from which to build a longer-term education program that also provides a more immediate benefit in terms of job satisfaction and improved quality of patient care.

A key component to the use of WBL as a strategy for career advancement is that it offers opportunities to build skills needed by employers and learners in the workplace and to become accredited, so student-workers can earn college credits for their WBL work. The WBL program delivered at TUH-Episcopal achieved these goals as well as successfully incorporated the components that the Jobs to Careers project designers set as criteria for defining WBL.[3] These include:

- The curriculum is embedded in the work process.
- Learning is embedded in the work process.
- Co-workers and supervisors are active participants in the process.
- Assessment is embedded in the work process.
- There is a strong potential for recognition and rewards as frontline workers build skills and expand knowledge necessary for their current job responsibilities or for advancing to new positions.
- Rewards (raises, promotions, credentials) are given for engaging in the program.
- Educational partners make organizational changes to support work-based learning.
- Employers make organizational changes to support work-based learning.
- Organizational leaders are engaged in the project and motivated to sustain the effort.

[3] *The Work-Based Learning Worksheet*, Jobs for the Future, 2009 (http://www.jobs2careers.org/pdf/J2C_WorkBased_Learning_Worksheet_092909.pdf).

The WBL program was implemented between January 2008 and February 2009. During the feasibility study phase of AspenWSI's work, it was anticipated that approximately 30 MHWs would participate — representing one-third of the 89 MHWs employed at TUH-Episcopal at that time. Actual enrollment totaled 21, and of these, 16 workers successfully completed the WBL program.

Enrollment in the WBL program was voluntary, and participants were given one hour of paid release time each week, which they supplemented with one hour "off-the-clock." Classes were scheduled at mid-afternoon shift-change so that MHWs working on the day shift spent the last hour of their shift in class, and MHWs working on the evening shift spent the first hour of their shift in class. Despite the class schedule being less convenient for him, one MHW from the night shift also participated. Each cohort met regularly on either Tuesday or Wednesday afternoons in a classroom located at TUH-Episcopal. MHWs enrolled in one of two cohorts. Cohort 1 ran from January through December 2008, and Cohort 2 ran from March 2008 through February 2009.

The WBL program consisted of three modules designed by the faculty of the Department of Psychiatric Rehabilitation at UMDNJ. For Cohort 1, Module 1 ran for 14 weeks, Module 2 ran for 16 weeks, and Module 3 ran for 15 weeks. Based on their experience with Cohort 1, program implementers determined that in order to adequately cover the curriculum, each module for Cohort 2 would run for 16 weeks. The following is a summary of the content of the curriculum for the three modules:

Module 1 was designed to provide information about a variety of types of mental illnesses, their symptoms and treatment philosophies that pertain to different types of mental illnesses. The topics covered included:

- Identifying symptoms of mental illnesses and mood disorders
- Role modeling
- Program philosophy
- Recovery — identifying what stage a patient is at and strategies for encouraging them to participate in treatment
- Substance use and how it shows in symptoms and in how patients follow treatment planning (or not)
- Consequences of addiction
- Developmental disabilities

Module 2 was designed to teach skills for communicating with patients, members of the patient treatment team, patients' families, etc. This module also addressed strategies for de-escalating patients in crisis condition. The topics covered included:

- Attending skills
- Observation skills
- Listening skills
- Responding skills
- Interviewing skills
- Cultural competence
- Crisis intervention / De-escalation (using the above skills)
- Communication with family
- Crisis prevention techniques

Module 3 was designed to provide MHWs with strategies for helping patients learn their own activities of daily living (ADLs), as well as extensive work on treatment group dynamics and managing treatment groups, and lessons on documenting treatment progress and communicating with other

members of the treatment team effectively about patient progress. The topics covered included:

- Teaching ADLs
- Group interventions
- Documentation of progress in treatment (SOAP: Subjective, Objective, Assessment, Plan)
- Effective communication with treatment team
- Understanding roles of other patient treatment team members

Instructors from UMDNJ conducted train-the-trainer sessions for faculty and supervisors involved in the WBL program. Classroom instruction was supplemented by action learning assignments that were completed by MHWs outside of the classroom, but while working on the treatment unit. Nurse managers, who supervise MHWs, were provided a one-day training program to orient them to their role in the WBL program as mentors, a half-day curriculum review session for Module 2, and a one-day curriculum review session for Module 3. As mentors, nurse managers would be involved with guiding students and providing input and/or feedback on action learning assignments throughout the course of the program.

ASSESSMENT METHODOLOGY

The overarching objective of this assessment is to inform TUH-Episcopal's questions about costs to implement and outcomes accruing to the hospital from the WBL program, using meaningful qualitative and quantitative data. It is important to note that AspenWSI researchers are not experts in the behavioral health-care field, so we are not in a position to draw conclusions or comment on whether or not the quality of care at TUH-Episcopal has changed. This initiative was also the subject of extensive documentation and evaluation conducted by the University of North Carolina's Institute on Aging as part of the Jobs to Careers demonstration. In addition, Jobs to Careers research staff published extensive documentation of the program model based on their own research.

The value we believe we bring to this assessment is our experience in working with providers to explore what they hope to see change as a result of a workforce development intervention and the ways in which they would know if changes occurred, and in assisting with gathering and analyzing data that can help inform their own conclusions. Through the feasibility study, we refined TUH-Episcopal's questions and explored a number of different data sources to develop a methodology that they agreed would reasonably and fairly allow them to learn about outcomes related to their learning interests.

To explore the costs of implementing the program, we conducted several interviews throughout the course of the study with representatives of TUH-Episcopal's human resources department, the hospital's director of leadership and organizational development, the nurse supervisor who manages training for MHWs, nurse managers who supervise MHWs and served as mentors for the WBL program, staff in TUH-Episcopal's billing department, and representatives of the Training Fund.

To inform questions about whether or not MHWs participating in the program would use the program as a stepping stone to further education and career advancement, we consulted District 1199C Training and Upgrading Fund to learn about their efforts to get the WBL program accredited and to negotiate an articulation agreement with Philadelphia University. We also explored the question of career advancement with WBL participants in focus groups and obtained information from the Training Fund about whether or not any WBL participants had gone on to pursue additional education during the assessment time period.

To learn about TUH-Episcopal's goal of using the WBL curriculum to replace or improve other in-service training, we interviewed a variety of staff over the course of the study about some of the myriad trainings they conduct (and that possibly relate to competencies addressed in the WBL curriculum). We attempted to follow along and learn about ongoing staff development planning as relates to possible use of the curriculum during the assessment time period.

To inform TUH-Episcopal's question about whether the WBL program would result in MHWs increasing their capacity and self-confidence to perform a greater range of duties and to participate more actively as members of patient treatment teams, we developed and implemented a process to learn about changes in the following indicators:

■ **Participation in patient care team**
MHWs work intensively with patients, and their ability to communicate about their patient observations and interactions with other members of the patient care team can improve the information that physicians, social workers, nurses and other members of the patient care team have about individual patients — leading to improved quality of care. The WBL curriculum was expected to give students knowledge in a number of diagnostic areas and improve their facility with identifying symptoms and using relevant terminology. Hospital management believed that better understanding of common treatment practices, procedures and medications would improve

MHWs' confidence and result in more active and informed participation in patient care and in patient care team discussions.

■ **Completeness/accuracy of chart information**
The WBL program was expected to improve MHWs' understanding of how to interpret patient behavior and lead to improvements in their ability to express via chart notes this understanding in appropriate terms. Similar to participation in patient care, TUH-Episcopal believed that better understanding of common treatment practices and procedures, medications and terminology, as well as practice writing chart notes and other documentation could be expected to result in MHWs' being able to provide more complete information on patient charts.

■ **Number of Stat-13 incident reports**
The WBL program included training on a variety of competencies that management believed had the potential to reduce the number of Stat-13 — patient in crisis — incidents. These include recognizing signs of a patient escalating into crisis condition, communication skills, and appropriate responses to patient condition escalation, among others.

We determined with TUH-Episcopal that these indicators could reasonably be informed with information from several different data sources — using some existing hospital data and other new data that AspenWSI researchers would collect during the course of the assessment. Data sources for this assessment included focus groups and in-depth interviews with a large number of staff members performing different patient care and administrative functions, MHW annual employee performance evaluations for 2005-2009, and Stat-13 incident data for 2005-2009.

FOCUS GROUPS AND IN-DEPTH INTERVIEWS

To get descriptive information about perceptions of the WBL program and results of the program in the patient care setting, we conducted focus groups and in-depth interviews with mental health workers, social workers, behavioral health therapists, physicians, nurse managers and representatives of hospital management. The number of informants participating in each of these types of information-gathering forums is detailed in the chart below:

TYPE OF FORUM	STAFF ROLE(S)	NUMBER PARTICIPATING
Focus groups	Mental health workers participating in the WBL program	13
Focus group	Social workers and behavioral health therapists	11
Focus group	Physicians	7
Interviews	Nurse managers	3
Interviews	Other hospital staff	8

Our goal was to get input from staff who interact with MHWs in different ways and perform a variety of patient care roles. Different protocols were developed for each type of focus group or interview. Learning objectives for these focus groups included:

■ Understanding how well different staff are positioned regarding their contact with MHWs to comment on the goals and results of the WBL program;

■ Learning whether or not focus-group participants have direct knowledge about individual MHWs who participated in the program;

■ Obtaining observations and comments about the performance of specific WBL participants relative to the competencies addressed in the WBL program;

■ Learning whether or not focus group participants observed differences in performance subsequent to the WBL program;

- Hearing from MHWs who participated in the WBL program the specific ways in which they felt the program affected their own confidence and performance.

MENTAL HEALTH WORKER PERFORMANCE EVALUATION RECORDS

TUH-Episcopal nurse managers complete annual evaluations to rate the performance of individual MHWs in a wide range of competencies, many of which relate directly to the competencies addressed in the WBL program. Nurse managers rate MHWs' performance on individual competencies using a three-point numeric scale. AspenWSI research staff compiled performance evaluation data from paper forms into a new database detailing scores for each MHW for the years 2005-2009 (depending on MHWs' job tenure). We conducted quality control on our work in the form of double-entry and reconciliation of inconsistencies, giving us great confidence that the new database accurately reflects information recorded on the original paper forms. Examples of the types of competencies that MHWs are evaluated on yearly and that directly relate to the WBL curriculum include:

- Attends Treatment Team and actively participates when assigned;
- Evaluates patient's response to 1:1 interactions;
- Evaluates patient's response in group activities;
- Demonstrates ability to communicate effectively with patients;
- Maintains complete and accurate documentation according to hospital standards;
- Offers constructive suggestions to improve patient care.

Our decision to use this data source was informed by interviews with nurse managers during the feasibility study for this project. We asked them questions about the process by which they completed performance reviews, and learned that they usually completed reviews very close to MHW employment anniversary dates; they consulted with other staff if necessary; they generally reviewed the previous year's evaluation form for individual MHWs; and they did not do more than a few reviews per session. Nurse managers indicated that they were comfortable with AspenWSI using this data source for the purpose of analyzing performance scores relative to implementation of the WBL program. They expressed confidence about both the internal consistency of their reviews and the adequacy of information to review MHW performance. We learned during the data entry process that the review form (which was consistent for the years 2005-2008) was modified during 2008. Two questions relevant to competencies in the WBL program were omitted. We prepared a supplemental review form with these two questions, and nurse managers completed these for the MHWs they supervise.

Our intent in compiling this data was to create a quantitative dataset detailing scores of all MHWs employed at TUH-Episcopal for 2005-2009 and be able to: compare performance of WBL participants pre- and post-program; compare performance of WBL participants to non-WBL participants in similar time periods; and depending on results of these comparisons, examine trends in performance over time with the goal of increasing the statistical confidence we have in results.

All data were first entered in Excel and then transferred to SPSS, an advanced statistical software package, for analysis. The data analysis was conducted in two stages. First, a point-in-time comparison was done between the treatment group of 16 MHWs who successfully completed the WBL program and those in the control group who did not participate in WBL. The 2009 performance evaluations were used for the vast majority, though we used 2008 evaluations for a small subset of study participants who did not have a completed 2009 evaluation and who were not WBL participants. The two groups were compared using mean and median scores for each of the measures on the performance evaluation form. Differences between the groups' mean and median scores were calculated to determine which group scored higher, on average, on each of the measures. Measures were also grouped into indices based on broader performance categories. These indices, which are sums of scores on related measures, allowed us to examine broader areas of performance. For example, participants'

scores on indicators from the employee evaluation related to communication were aggregated to create one measure, a communication index, which we hoped would allow us to look more closely at overall improvements in this area. Means and medians were also calculated for these measures.

For the second stage of analysis, the treatment group was expanded to include all 21 WBL participants who began training. For each participant, we identified the annual evaluations with the closest proximity in time to the scheduled begin and end dates of the WBL training program. These performance evaluations were then used as baseline and outcome data, reflecting MHW performance when training began and again after the end of the training period. We hoped that by comparing participants' pre- and post-WBL evaluations, we would be able to determine areas in which they had improved subsequent to completing training, and for the five MHWs who completed only a portion of the program, to determine if their more limited participation resulted in changes. We repeated this stage of the analysis with only the 16 WBL participants who successfully completed training.

As noted above, some measures on the performance evaluation changed from 2007 to 2009. In order to ensure all WBL participants were evaluated using the same criteria, only common measures on the evaluations from 2007 to 2009 were used in the analysis (this included all except two measures relevant to the WBL program curriculum). After entering the supplemental data obtained from nurse managers, 38 relevant measures were examined during analysis. Means and medians were calculated for pre- and post-WBL training evaluations for each of these measures for the WBL treatment group. Differences between the pre- and post-WBL means and medians for each indicator were calculated to determine if, on average, WBL participants improved in different areas of job performance.

We hoped that data from MHW annual performance reviews would be useful for informing conclusions about changes in performance relative to participation in the WBL program. After compiling and conducting preliminary analysis of this data, we were disappointed to find that the data just are not useful for informing the types of questions we have about performance. The three-point rating scale did not prove fine enough to account for enough levels of variation on individual ratings. Checks of data to verify comments made during interviews by nurse managers and other staff about improvements in specific skills among specific MHWs showed us that the data for these MHWs across multiple time periods did not reflect these known and verbally reported changes in performance. Analysis of the fluctuation in employees' performance evaluations throughout the five-year period revealed that MHWs' scores varied somewhat from year to year, rising and dropping with little discernible pattern. Analysis of all MHWs showed performance evaluation scores down across the board in 2009, when most WBL participants were assessed to evaluate the impact of the WBL training. Despite the fact that many staff commented that the WBL participants were among the highest performing MHWs at TUH-Episcopal — even prior to beginning the WBL program — WBL participants' scores on these evaluations were lower overall and on the majority of measures pre- and post-training. Finally, based on discussions with nurse managers and MHWs, we believe that nurse managers' exposure to and direct observation of MHWs' day-to-day performance seems more limited than we had anticipated.

STAT-13 INCIDENT DATA

TUH-Episcopal provided an electronic data file detailing counts of Stat-13 incidents for all behavioral health units, by month, for the years 2005-2009. A Stat-13 incident occurs when a patient is out of control and requires restraint and/or other interventions to de-escalate his/her condition. Our intent was to analyze this data to determine if there was a measurable change in Stat-13 incidents subsequent to MHWs completing the WBL program. Analysis of Stat-13 data shows that there is no pattern in terms of the numbers of these incidents. Year-to-year the numbers of Stat-13 calls fluctuate dramatically, and there are many non-training related factors that affect these differences. Thus, it is impossible to determine a "normal" baseline number against which to compare post-WBL numbers. And there are no patterns that appear to be seasonal or cyclical. We determined that this data is not helpful in informing TUH-Episcopal's question about whether the WBL program might result in a reduction of Stat-13 calls.

ASPECTS OF WBL PROGRAM IMPLEMENTATION THAT AFFECT ASSESSMENT

The first two cohorts of the WBL program represent the piloting of an extremely innovative pedagogical approach as well as the roll out of a comprehensive new instructional curriculum. A pilot program is bound to experience challenges as program developers, instructors and students are engaged fully and learn in real time about what is working and what still needs work as well as determine how to maximize the effects of the new program. During our evaluation activities, several implementation challenges in particular have affected AspenWSI's ability to collect and analyze information about MHW performance at TUH-Episcopal and desired WBL program outcomes.

One challenge was the lower-than-anticipated enrollment in the program. As noted previously, program implementers anticipated that 30 MHWs would enroll — representing one-third of the MHW workforce at TUH-Episcopal. However, only 21 MHWs began the WBL program, and 16 completed it. While this smaller scale of service delivery is no reflection on the quality of the program, it does affect our ability to determine whether there are any statistically significant differences in performance between WBL participants and non-participants, using data from the employee performance review database.

A second challenge that affected our ability to collect and analyze data was the way in which the mentor role was implemented throughout the program. Program implementers learned that the WBL approach really needs to be continuously reinforced to mentors. Unlike the WBL students, who attended class each week, nurse manager mentors did not have frequent convenings or other reinforcement to sustain their momentum and participation. It became clear during the course of the WBL program that Nurse Managers were stretched because mentoring duties were added to their other (large and time-consuming) responsibilities. Without continuous reinforcement of the mentoring role (and adequate time to perform it), TUH-Episcopal leadership reported that nurse managers slipped more readily into a role of supervising training (meaning that they checked with MHWs to make sure they completed assignments), and they engaged in ongoing curriculum review, but they were less likely than was hoped for to be more actively engaged with the actual performance of assignments. This was confirmed by both nurse managers and WBL students. Lack of time to engage in the mentoring role was exacerbated by a nurse manager position vacancy — which was unusual for TUH-Episcopal and unanticipated. Nurse managers had been expected to be a primary informant for the purposes of AspenWSI's research. However, because nurse manager mentors spent more limited time than was anticipated with MHWs enrolled in the WBL program, the information they could provide was also limited. We believe that this distance from the day-to-day work of the MHWs also contributed to our finding that MHW performance evaluation reports yielded inconclusive information about the performance over time of WBL participants vs. non-participants.

Another challenge relates to implementation of any new training program in a complicated service-delivery work environment. TUH-Episcopal management had hopes that organizational learning from this pilot would expand beyond training for a limited number of MHWs. In particular, they expected that the experience of implementing the WBL program (which they consider to be a more effective pedagogical approach to training than traditional classroom-based methods) and its extensive competency-based curriculum, would inform other efforts to rationalize the large number of required trainings they conduct in-house for a variety of staff who interact with patients in different ways. Building on the WBL program in this manner was a major outcomes goal expressed by TUH-Episcopal management and a focus of AspenWSI's evaluation efforts.

What has been learned during and subsequent to WBL implementation is that, despite involving a variety of representatives from different departments within the hospital in the development of the

curriculum, the program remained "siloed" as a program for MHWs. A variety of factors may have contributed to this situation, ranging from lack of familiarity with the curriculum to perceptions of it only being a pilot and not ready for other uses to just a need for reminders that this resource is available. In the end, while management charged with piloting the WBL program could clearly see how the program might be leveraged to improve other training, staff responsible for these other training programs, who did not perceive a clear mandate to explore its potential uses, did not or could not use it — either because they did not yet have information about its effectiveness or because they simply did not have the time, resources, creativity or charge to do this type of exploration. Although this was a goal for hospital management's perspective, it is probably unfair to charge a new pilot program with changing embedded institutional training and work culture simultaneous with delivering targeted training to frontline workers over a relatively brief time period.

As with most pilot programs, the development and implementation timeframes were very tight for TUH-Episcopal. Management at all levels can now see that it would have benefited from a "pause" after the curriculum was developed, in order to confer with other management representatives and hospital leadership and build broader "ownership" of the training. Managers could have considered how to best implement the program so that training developers and those who have an interest in the types of competencies addressed in the training would have the opportunity to plan more strategically how to get the most out of the program. At this point, hospital leadership, with input from leaders of a number of departments who have seen the value of the program as it has played out in improved MHW performance on the unit, is beginning explorations to determine how they can better leverage the value of the program with follow-up among MHWs who were trained, as well as incorporate aspects of the methodology and curriculum in other required training programs. Management hopes to more systemically integrate the WBL approach into their training structure. Given a longer timeframe, TUH-Episcopal management believes it will make more progress toward these goals.

COSTS TO TUH-EPISCOPAL

To estimate the total cost incurred by TUH-Episcopal to implement the WBL program, we considered several categories of costs. First, to distinguish between costs incurred to develop the program and the costs incurred to deliver it, we categorized costs as relating to either development or implementation. Second, within these categories, we broke out "new costs," which represent an outlay of funds that would not have occurred without the WBL program, and "allocated costs," which did not require an additional outlay of funds (but represent use of a hospital resource for the purpose of this program instead of some other use). For example, the time of salaried staff members is a typical allocated cost because the amount of money the hospital pays for the time of these staff members remains unchanged, but the time of these staff members is a resource that the hospital could have dedicated to some other activity. It should be noted that because our charge is to consider the net value of the WBL program to the hospital, we attempted to document only the costs borne by TUH-Episcopal.

CATEGORIES OF COSTS CONSIDERED IN ORDER TO ESTIMATE TOTAL COST TO TUH-EPISCOPAL	
New costs	Costs that represent an outlay of funds by TUH-Episcopal that would not have occurred in the absence of the WBL program
Allocated costs	Costs incurred by TUH-Episcopal that did not require outlay of new funds, but represent use of a hospital resource for the purpose of the WBL program instead of some other use
Development costs	Includes new and allocated costs incurred by TUH-Episcopal to inform curriculum development and plan for program implementation
Implementation costs	Includes new and allocated costs incurred by TUH-Episcopal to schedule and deliver training to MHWs, train mentors and cover MHW vacancy during training

We interviewed staff and analyzed financial reports to estimate the development and implementation costs of the WBL program. Because this WBL project was part of the national Jobs to Careers demonstration, designed to generate and communicate lessons about WBL frontline worker training to a range of health-care, policy and philanthropic audiences, TUH-Episcopal staff spent a considerable amount of time on activities related to these larger demonstration project goals (in addition to the time spent on the project as it applied to the operations of TUH-Episcopal). For example, TUH-Episcopal staff traveled to several two- or three-day national learning meetings during the course of the project; staff responded to numerous requests for information from the national Jobs to Careers evaluation team, the national program office and from the AspenWSI evaluation team; and staff prepared and delivered presentations in other venues about their experiences utilizing a WBL approach at their institution. While these activities are all worthwhile in expanding knowledge of effective training approaches for frontline health-care workers, they are not necessarily directly related to the management or operations of the WBL program at TUH-Episcopal, nor would they reflect costs another similarly situated institution would expect to incur should they seek to replicate this WBL model. Therefore, financial reports related to grants administration of the WBL project provided a useful starting point in discerning the costs incurred, but conversations with staff were critical in order to determine what portion of these costs should be ascribed to the project as implemented at the hospital.

Cost estimates for staff are based on blended hourly rates that include average costs for salary and benefits for management staff, support staff or hourly staff. Estimates were initially derived

from budget reports and then vetted with the program manager and the director of leadership and organizational development.

DEVELOPMENTAL COSTS

Dr. Ken Gill and his colleagues at the University of Medicine and Dentistry of New Jersey developed the curriculum for the WBL program. The cost for his services was covered by grants from the Robert Wood Johnson Foundation, The Hitachi Foundation and the Pennsylvania Department of Labor and Industry. While TUH-Episcopal did not incur new costs to develop the curriculum, hospital staff facilitated Dr. Gill's understanding of operations at TUH-Episcopal and provided feedback regarding specific competencies and other information needed for Dr. Gill to construct the curriculum. A variety of TUH-Episcopal staff played a role in facilitating Dr. Gill's understanding of the specific competencies needed among mental health workers and provided background information on previous approaches to training the hospital had undertaken. With the exception of minor expenditures for meeting materials and refreshments, all development costs are considered for the purposes of this estimate to be allocated costs. The table below details the TUH-Episcopal staff involved, the roles they played in the development stage, and the associated costs.

TUH-Episcopal Developmental Staff Time for WBL Development Phase

PARTICIPATING STAFF	ROLE	TIME EST. HOURS	COST	
			PER HOUR	TOTAL
Project manager	Set up meetings, facilitated feedback, attended meetings, gathered and forwarded paperwork, etc.	12	$100	$1,200
Director of leadership development	Attended meetings and reviewed curriculum documents (3 hours), developed coaching training for nurse managers prior to program launch and mid-program, developed comprehensive guide for supervisors for all lessons in all modules	31	$100	$3,100
Clinical nurse specialist	Met with curriculum designer, reviewed curriculum documents, provided TUH-Episcopal documents, made follow-up phone calls, etc.	20	$100	$2,000
Director of behavioral health	Met with curriculum designer, made follow-up phone calls, set up meetings with other staff, sat in on one meeting, provided documentation, review competencies, etc.	8	$100	$800
Director of therapeutic recreation	Met with curriculum designer	1	$100	$100
Director of social work	Met with curriculum designer	1	$100	$100
Medical director	Met with curriculum designer	1	$100	$100
Director of nursing	Met with curriculum designer	2	$100	$200
Nurse Managers (4)	6 hours each – Met with curriculum designer, conducted tours of units, made follow-up phone calls, reviewed and ranked competencies	24	$100	$2,400
Mental health workers (4)	Met with curriculum designer during shift on the unit	16	$25	$400
Total allocated development costs				$10,400
New development costs				
Meeting expenses (refreshments, photocopying)				$1,500
TOTAL DEVELOPMENT COSTS				**$11,900**

IMPLEMENTATION COSTS

Implementation of the WBL program included not only conducting classes, but also a wide variety of other activities that included: informing potential participants about the opportunity, implementing a process for registering for the class, working with MHWs' supervisors and training them for their role as mentors, ensuring space for classes was properly prepared for sessions, providing materials as needed, and general program oversight and management.

New implementation costs

New costs related to implementation included funds spent for additional staff needed to cover shifts while the MHWs were in class. As mentioned previously, students spent one hour per week of paid time in class while participating in the WBL program. For the very few night shift staff who participated, both hours of class time were "off the clock" because the training schedule did not overlap with their shift.[4] Staff estimated that the hospital incurred costs to pay for coverage for only one-third of the paid time students spent in training. One possible reason expressed for this is that in developing the cohorts, TUH-Episcopal tried to ensure that not too many people from the same unit and shift participated in the training at the same time, and being down one person for only one hour seemed manageable. As a result, only for two units were there more than one staff person from the same shift participating in the same cohort of work-based learning. Thus, the new costs of coverage can be estimated as follows:

Cohort 1

14 + 15 + 16 weeks = 45 weeks (1 hour per week)

10 MHWs x 45 hours = 450 hours

TUH-Episcopal estimates that MHW shifts were covered by overtime staff 1/3 of the time

450 / 3 = 150 hours

150 hours x $25 (MHW overtime rate provided by TUH-Episcopal) = $3,750

Cohort 2

16 + 16 + 16 weeks = 48 weeks (1 hour per week)

9 MHWs x 48 hours = 432 hours

TUH-Episcopal estimates that MHW shifts were covered by overtime staff 1/3 of the time

432 / 3 = 144 hours

144 hours x $25 (MHW overtime rate provided by TUH-Episcopal) = $3,600

Total estimated new cost to cover overtime MHW coverage during class time
$3,750 + $3,600 = $7,350

Allocated implementation costs

Allocated costs incurred to implement the program included time spent by the program manager to: communicate with a variety of staff about the program, work with supervisors to get their support for their staff members' participation, communicate about the program to staff and enroll them, provide training for nurse managers on their role in the training, and other management activities. Given that this program was a pilot, it is likely that more time was spent on these activities in this first round, but that as hospital staff and administrators become accustomed to the program, the time needed to communicate about the program would decline. However, some outreach and recruitment costs

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[4] Two night staff started the program and one completed.

would still likely be incurred, so we include the cost of the program manager's time here with the operating costs. The chart below details allocated staff costs to implement the WBL program.

TUH-Episcopal staff time (allocated costs)

IMPLEMENTATION PHASE		TIME EST. HOURS	COST	
			PER HOUR	TOTAL
PROJECT START-UP AND PARTICIPANT RECRUITMENT PHASE (3 MONTHS)				
Project manager	Met with variety of project staff (nurse managers, human resources, physicians, social workers, etc.) to explain project, was present at department head meetings, etc. Organized and implemented participant recruitment. Met with small groups of MHWs in recruitment phase, etc. (avg. 15 hours/week)	195	$100	$19,500
Assistant to project manager	Assisted with meetings with MHWs in recruitment phase (2 days of meetings)	16	$25	$400
NURSE MANAGER TRAINING				
Nurse managers	4 nurse managers at 1-day orientation	32	$100	$3,200
	4 nurse managers at ½-day curriculum review for second module	16	$100	$1,600
	3 nurse managers at 1-day curriculum review for 3rd module and mentoring refresher session	24	$100	$2,400
Director of leadership development	Delivered training for nurse managers	20	$100	$2,000
ONGOING PROJECT MANAGEMENT				
Project manager	Averaged 30 min. per week on general project management (beginning of Cohort 1 to end of Cohort 2 – 50 weeks)	25	$100	$2,500
Staffing coordinator	Average 30 min. per week on general project management (beginning of Cohort 1 to end of Cohort 2 – 50 weeks)	25	$25	$625
MHW PARTICIPATION (UNCOVERED TIME) & MENTORS				
Mental health workers-Cohort 1	450 hours x 2/3 time	300	$25	$7,500
Mental health workers-Cohort 2	432 hours x 2/3 time	288	$25	$7,200
4 nurse managers	Estimate average 1.5 hours per week mentoring (50 weeks)	300	$100	$30,000
POST-TRAINING REVIEW				
Project manager	full day review of 3 modules – what worked, what didn't	8	$100	$800
Nurse manager	full day review of 3 modules – what worked, what didn't	8	$100	$800
Director of leadership development	full day review of 3 modules – what worked, what didn't	8	$100	$800
Clinical nurse specialist	full day review of 3 modules – what worked, what didn't	8	$100	$800
2 Mental health workers	full day review of 3 modules – what worked, what didn't	16	$25	$400
TOTAL IMPLEMENTATION PHASE ALLOCATED COSTS				$80,925

SUMMARY OF ESTIMATED COSTS TO TUH-EPISCOPAL

Most (91 percent) of TUH-Episcopal's estimated costs to develop and implement the WBL program were allocated and occurred during the implementation phase (88 percent). Hospital management anticipates that future rounds of the WBL program would require less salaried staff time to manage and implement and, thus, implementation costs would be expected to decline. Because development of the WBL curriculum was heavily subsidized, the hospital incurred very little in the way of either new or allocated costs for the development phase of the project. Given that the curriculum is now publicly available, however, another similarly situated institution would also not incur the development costs that were paid for with grant funds.

PHASE	ALLOCATED COSTS	NEW COSTS	TOTAL COSTS
Development	$10,400	$1,500	$11,900
Implementation	$80,925	$7,350	$88,275
Total estimated costs	**$91,325**	**$8,850**	**$100,175**

FINDINGS FROM THE ASSESSMENT

Our most informative data-gathering work was a series of focus groups and in-depth interviews with mental health workers who participated in the WBL program, behavioral health therapists, social workers and physicians who work collaboratively with MHWs, and nurse managers who supervise MHWs, among other hospital staff. While we initially sought to inform TUH-Episcopal's three main learning questions (MHW capacity to participate more actively as members of patient treatment teams; WBL influences on MHWs' longer-term education outcomes; and utility of the WBL approach and curriculum to meet other hospital staff training needs), we ultimately learned a great deal more.

The remainder of this report describes findings from these rich qualitative data sources. We begin with information that is important for understanding the context for program outcomes, including:

- MHWs' motivation for participating in the WBL program
- Perceptions of other staff about the role of MHWs in patient care treatment teams
- MHWs' perceptions of their own role on the patient care treatment team

Following this is a section describing the influence of the WBL program on the job performance of MHWs who participated. This section describes specific competencies that the variety of focus group and interview informants reported as having improved as a result of the program. Findings about specific competencies and performance are organized into sections describing:

- Knowledge about mental illnesses, symptoms, behaviors and medical terminology
- Writing and patient charting skills
- Communication and patient interactions
- Participation in patient care team

MOTIVATION FOR PARTICIPATING IN WBL

Participation in the WBL program was voluntary, and MHWs themselves described three different types of motivation for participating: (1) the expectation that completing the program would lead to a pay increase or promotion; (2) the expectation of earning college credits; and (3) belief that the program would help them improve their performance.

Expectation of pay raise / promotion

In focus groups conducted with Mental Health Workers, many spoke about the lack of accessible advancement opportunities in the behavioral health field. The pay scale for frontline MHW workers is very flat, and promotion requires completing nursing or other allied health degree programs. WBL participants saw the WBL program and the intent expressed by hospital management to explore providing an increase in pay and/or some type of promotion for successful completers as a way to earn more income and possibly advance in their profession. Comments from focus group participants included:

> *In our field ... [there are] not many ladders as far as rates of pay. Mental health workers get one flat rate. ... We don't know what's going to happen at this point, but that was a possibility — to create a ladder.*

> *I'm here to move up the pay scale — I don't need more college credits.*

A number of WBL participants commented that they thought their colleagues who chose not to participate or who dropped out of the WBL program doubted that completing the program would lead to a raise.

▶ *… When I talked to them, they said, "Well, you know … what can I learn from this? I've been doing this all these years. It's not going to help me move any further up the ladder".*

▶ *[People didn't sign up] because they doubted the increase in pay.*

▶ *A lot of people doubted it. That's why they left.*

At the conclusion of the WBL program, TUH-Episcopal did successfully negotiate with the MHWs' union for a 50-cent per-hour wage differential for WBL program graduates. This wage differential is not calculated as part of base pay and, therefore, it is not included for the purposes of calculating wages when percentage-based increases in pay are negotiated. Rather, it is a flat amount that is added on to regular hourly wages. Management has not yet implemented any new steps along a career ladder for MHWs, and we are not aware of any ongoing labor-management negotiations for new positions such as "lead" MHW within a unit or shift.

Expectation of earning college credits

Several participants noted that they were in the process of pursuing a degree or credential and that the chance to earn college credits through the WBL program was a motivating factor in their decision to participate. A number of other WBL participants had already earned an associate's or bachelor's degree prior to enrolling. One participant noted that the convenience of attending classes at work was particularly helpful in managing family and other life responsibilities and, as a result, decided to forgo enrolling in college while participating in the WBL program. In general, there was widespread agreement in MHW focus groups that the possibility of earning college credits was an attractive feature of the WBL program. The possibility of earning college credits was also linked, at least for some participants, to a desire to move up the career ladder.

▶ *Once you're a mental health worker, seems like there's nowhere to go unless you go to school. … [You] can't move up unless you have a bachelor's [degree].*

Subsequent to the WBL program, District 1199C Training and Upgrading Fund was successful in negotiating an articulation agreement for the program with Philadelphia University. WBL graduates are eligible for 21 credits at Philadelphia University. Credits are awarded by the university when WBL graduates complete a three-course sequence toward a 30-credit vocational certificate in behavioral health. This certification is the foundation of a 60-credit associate's degree in health and human services. This articulation agreement is also in effect for graduates of the Training Fund's behavioral health certificate program. It is important to note for the purposes of comparison, that the WBL program implemented at TUH-Episcopal, because it occurs in the workplace and requires fewer classroom or seminar hours, is far more accessible for incumbent workers than is the classroom-based certificate program. Workers launch or continue progress toward a college degree much more efficiently through the WBL program. The following table shows the differences in amount of time required of students. Both programs are implemented by District 1199C Training and Upgrading Fund.

COMPARISON OF TRADITIONAL CLASSROOM AND WBL MODELS[5]			
Original technical training program		WBL program (3 Modules)	
Classroom hours	303	Seminar hours	72
Clinical hours*	72	Action learning hours**	144
Total hours	375	Total hours	216
21 college credits		21 college credits	

*Pursued off-site, on employees' time
**Some assignments are completed on employees' time (off-the-clock)

At the time this report was prepared, four of the 16 WBL graduates were enrolled at Philadelphia University for the Fall 2010 term. Another three WBL graduates graduated with associate's degrees in Health and Human Services, one from Philadelphia University and two from Community College of Philadelphia. Two of these graduates are enrolled in bachelor's degree programs, one at Philadelphia University and one at Drexel University.

Professional interest

The large majority of MHWs in the focus groups indicated that they were interested in professional development, thought that the training would be interesting, and hoped to perform their jobs more effectively as a result of the program.

▶ *… It's an opportunity to learn something different. I went to community college and I had my associate's degree in behavioral health and human services. But there's still stuff I learned here in class that I didn't get there.*

PERCEPTIONS OF OTHER STAFF ABOUT THE ROLE OF MHWS IN PATIENT CARE TREATMENT TEAMS

An important goal of all of the focus groups conducted with staff other than the MHWs themselves was to learn about the ways in which different staff interact with MHWs. This was important for two reasons: (1) to learn how well-positioned different staff are to comment on MHW performance and (2) to get input from different staff about the performance of MHWs relative to their participation in WBL.

Social workers and behavioral health therapists

The original research design developed with TUH-Episcopal did not include a strategy for learning from social workers and behavioral health therapists (BHTs). After hearing from MHWs about how closely they work with social workers and BHTs and their assertions that these staff are better positioned than are their nurse managers to comment on their day-to-day performance, we added a focus group to learn from them about their perceptions of the WBL program and MHW performance relative to the program. Eleven social workers and BHTs participated in AspenWSI's focus group, and without exception they agreed with MHWs' reports that they interact regularly with MHWs and have many opportunities to observe their work. They were eager to talk about how integral the MHWs' work is to providing quality care to patients:

▶ *They do a lot of, what I would call liaison-type work. They (the MHWs) are the connection between the patient and the social workers. ... They would bring to our attention things that a patient might need or if a need might arise. ... I think that they're almost indispensible to the floor …*

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[5] Source: District 1199C Training and Upgrading Fund

- *They're (MHWs] like the pulse of the unit. ... And they act as a liaison between the doctors and the patient, the BHT, and the social workers. They interact with the patients a lot more than we do on a consistent basis.*

- *I think they're [MHWs] a vital source of information about the patients' attitude and behavior. ... and they're also integral when we're developing behavioral plans for certain patients who need behavior modification.*

- *Every social worker in here has told me that they really like when the mental health workers are more involved in the treatment teams.*

Nurse managers

We completed in-depth individual interviews with three of the four nurse managers who were involved with mentoring MHWs during the WBL program. The nurse managers reported disparate levels of engagement with MHWs during the training. One of the nurse managers reported not playing any substantial role at all in the program and the others reported spending somewhat more time assisting WBL participants. Nurse managers commented:

- *I knew what they were supposed to do, and I would read their papers and kind of make comments on them before they turned them in. Like if I thought things needed to be fixed or if I didn't understand what they were trying to say.*

- *Now as far as my participation with them, it has been in the capacity of coaching them at certain times with certain assignments and signing off on other assignments and helping to explain and basically helping them to tie pieces together when it came to their assignments.*

- *… I know they have assignments, but they have only come to me, that I can remember, two times the entire time they have been there [in the WBL program].*

For two of the nurse managers, their role in the WBL program did not correspond to their initial expectations. Both of these managers believed that they would be more heavily involved in the project and that it would require much more of their time because trainees would be coming to them for advice and questions. Part of this mismatch between expectations and reality was explained by interviewees:

- *I really expected that I would have to be more involved. Assignments didn't require it.*

- *I think initially it wasn't clarified well for the students. They really didn't know what they were supposed to do or ask from me.*

- *Actually, when I looked at the assignments, some of the assignments really didn't require that I get out and do anything.*

Physicians

We convened a focus group with seven physicians who interact regularly with MHWs working in a number of different treatment units at TUH-Episcopal. Only one of the physicians present at the focus group was aware that the WBL program was offered to MHWs at the hospital. For this reason, physician focus-group participants expressed understandable reservations about their ability to and the appropriateness of commenting on outcomes relating to the program. Having said this, physician focus-group participants were all knowledgeable about the performance of at least some of the MHWs who participated in the WBL program. Physicians were provided a list of students, information about timing of the training, and documentation that briefly summarized the WBL learning objectives and curriculum. Provided with this information, physicians expressed more comfort with speaking about their observations of and experiences with individual MHWs' performance relative to the competencies addressed in the WBL curriculum and the timing of the program. Physicians commented:

▶ *I don't think any of us can give you a formal assessment, but I do think we can give you an indirect assessment.*

▶ *I think it's going to be very difficult to tell how much was the result of this [WBL program] versus attending [physicians] who have a sense of care and compassion for their patients. This is not to say this [WBL program] was good, bad or indifferent.*

Physicians all expressed agreement that they value highly the contribution that MHWs make at TUH-Episcopal. Comments included:

▶ *If there's a patient that you're really worried about, the mental health worker that's assigned gives you the update, so that's the person I want to speak to.*

▶ *The one thing that might be important is for them to hear from us how important we view them and how much we value them. I mean I'm sure that's said anyway ... if you feel you're ... on the front lines, or on the lowest end of the food chain, then hearing the people who are on the high end of it say it's important, sometimes that could be additional motivation to think, "Hey, what I do is really important." ... It is important to know this ... they're a critical part of the team. But I imagine they hear it all the time, and that these guys [other physicians in the focus group] spend a good deal of time letting them [MHWs] know how important they are and giving them a lot of reinforcement.*

MHWS' PERCEPTIONS OF THEIR ROLE ON THE PATIENT CARE TEAM

Across the board, MHWs expressed tremendous pride in their work and in the hospital. They view their job as critical to the success of the hospital. They frequently noted how much contact they have with patients relative to other members of the patient care team. They were eager to describe instances in which they feel they have been able to make a positive impact on a patient's progress. Focus group members described the importance of teamwork among their MHW colleagues and cited examples of ways in which the WBL program reinforces collegiality and team-building.

▶ *We exemplify this mental health group here. If you stop by and see the trophies downstairs, that's what we represent.*

▶ *This just enhances our professionalism to the point of a better vocabulary or speaking better. But I don't think the doctors are actually like looking at us and saying you talk better. I don't really think that. I'm just saying we feel better about ourselves, but we've been doing a great job throughout all these years. So it's just the hospital speaks for itself. We're the best in the nation for the last four or five years. So I'm just saying that to say I can't tell you how the doctor feels about me, but I feel good about me.*

We were struck by another recurring theme — that MHWs are aware that they are the lowest level of the hospital and patient care team hierarchy. Members of the focus groups did not report feeling the level of appreciation or respect that social workers, BHTs and physicians indicated in their remarks about them. Yet simultaneously they showed understanding about the time pressures faced by nurses and also described doctors who listen to them and seek their input.

▶ *We run an acute unit. We meet with the team doctors all the time. And most of our doctors respect our decisions. I don't know if they see the difference in us because we've always been professional from the beginning. We feel better about ourselves. So that's what's important to me — not whether Dr. [name] likes me or not. I feel better about when I go to a meeting. I'm more prepared.*

▶ *Doctors write the medication. The nurses give it. The therapists figure out where they're going to when they leave. Everything else from day one to day 10 when they're there is us. We make sure they get the stuff for the shower, make sure they get in the shower, they eat. We teach them things*

about their disease, about that medication. We teach them about coping skills, communication skills. We spend so much time and things with them that when we go to the doctor and say, You know what, we think this patient might need a little extra medication. "Well, who are you? You're just a tech."

▶ *You won't [get that response from a doctor] all the time verbally, but you'll get it non-verbally. You can sense it too.*

▶ *Some nurses, they [are] just so reluctant to give medication. This happened several times, but I told him, "Well, this person, patient needs something." They're getting ready to escalate. We've seen this patient all day. We know that patient, how the patient acts and everything. [The nurse says] "Oh, they'll be fine. They'll be fine." OK. A half hour later, the patient punches another patient in the face. But we don't know [anything]. They'll be fine. And that happens several times. It's just that like, you know, like we lack judgment. And I really don't like that.*

▶ *"We look like sugar honey iced tea." I'm serious. You should hear some of the nurses, the therapists, even the social workers. "You know the mental health workers, the mental health workers." You know, one day I went in there and exploded like, "Look, the mental health workers what?" I said we spend 90 percent of the time with these patients. And we have more insight [about] what these patients [are] doing than anybody on this unit you know. And that's stressful. ... They don't realize we, without us, this hospital cannot run. It can't. I'm sorry. If the nurses don't want to come — I'm talking about the psych unit. But the nurses don't want to come out there. They run behind the glass, you know. We do [go into the unit].*

▶ *We're all we have because we're looked down upon.*

INFLUENCE OF WBL ON MHW JOB PERFORMANCE

As described previously, the WBL curriculum provided instruction and practical exercises intended to help MHWs develop knowledge and skills in a range of areas. Information about how this new knowledge and skill has translated into MHW performance on the unit was learned via focus groups and interviews with MHWs and other staff. Analysis of MHW performance evaluation data did not yield helpful results in assessing whether WBL participants' performance improved relative to non-WBL participant MHWs or pre- and post-WBL training. The areas that came up most frequently in focus groups and interviews included the following:

- Knowledge about mental illnesses, symptoms, behaviors and medical terminology
- Writing and patient charting skills
- Communication and patient interactions
- Participation in patient care team

These categories are, of course, not mutually exclusive. For example, learning more details about a specific mental illness and appropriate medical terminology for describing symptoms were reported by WBL participants as helping them to empathize with patients' struggles, to communicate more effectively with other members of the patient care team, and to write more detailed and relevant notes in patients' charts. In order to organize and summarize MHW and other staff's wide-ranging comments about outcomes of the WBL program, we may have chosen to include an example of demonstration of a skill or knowledge in one category that has ready relevance for another.

Knowledge about mental illnesses, symptoms, behaviors and medical terminology

In focus groups, WBL participants reported learning about a number of mental illnesses. When asked what they recall about their course work and action learning assignments that was especially helpful or interesting to them, they listed topics such as schizophrenia, paranoia, depression, addictive diseases

such as smoking, and other substance abuse, co-occurring and recurring disorders. Most commented that learning the symptoms of different mental illnesses was helpful to them. Comments included:

▶ *We had [sessions] on the brain, on the neurons and serotonins ... how the neurons act in the brain and with serotonins and all ... a lot of people have been out of school for a while ... it's just enhancing what, you know, you may have learned before but totally forgot.*

▶ *You read the notes and ... write down the positive symptoms, negative symptoms, whether they had both of them, what stage they were in.*

▶ *The [training] increases your vocabulary because a lot of times when you're not in school, you know, it's a whole lot of things that you forget you know the meaning of. So it also increases your vocabulary — if you don't know a word, look it up ... instead of skipping over it.*

Behavioral health therapists commented on how the WBL program seemed to affect MHWs' performance. They also commented that enhanced knowledge about mental health, specific illnesses, symptoms and treatments has improved MHWs' performance on the unit.

▶ *[MHW name] with the terminology … they knew more about the psychiatric field after taking the course and they felt proud about knowing that. And also, they didn't look at difficult patients in a punitive way. They look at them in a therapeutic-type way. So I think the course helped them with that.*

▶ *In my groups, [MHW name] gave some suggestions for coping skills to patients, and it was very insightful and something I had never heard him say before.*

▶ *[MHW name] … clearly, clearly her knowledge base has really been growing and is just evident on an ongoing basis. ... The content of what she's saying is showing more and more insight ...*

▶ *... Knowing basic psychiatric information. Sometimes I think we all need a refresher course in that because it can get away from us. So I think that's the greatest change or impact that the course made on them [MHWs] as far as I'm concerned. They just started looking at their job in a different way.*

▶ *... Because of their improved knowledge, they're more knowledgeable about what they're there for, knowing the field, the psychiatric field. Knowing why certain decisions are made, knowing why psychiatrists think a certain way toward the patient, knowing about outcomes, good or poor, things like that, feeling like they're part of the team … besides just putting a person in restraints.*

▶ *[MHW name] was involved in this very large group describing a very difficult patient. I think she had the language, she had the descriptive language. ... I've known [MHW name] for a couple of years. But I was just very impressed with the way she spoke in front of a lot of management people from the city and from the Department of Behavioral Health. And I think that it was obvious that she probably picked up a lot of learning [from the WBL program] and she was able to really use very good descriptive terms in terms of painting a picture of this difficult patient.*

About half of the physicians in their focus group felt comfortable saying that they have seen differences in the performance of MHWs who participated in WBL — and attributing this to increased knowledge about the behavioral health field. One physician noted:

▶ *My sense is that there's not been much change in the way they [WBL participants he knows] handle the patients. But somehow, in the interactions that they've been having in a more formal setting, in a treatment team and so on, they tend to have a better view of why they're doing it. I've had some feeling there, a sense that maybe they are, I don't know. I thought that they were reading on their own. Actually, I was kind of impressed. I didn't know about this thing [the WBL program]. So I got a sense that ... they're really reading about this patient ... then*

I thought they were learning from being in the treatment team [from me]. But not so! ... I did notice that I thought there was a better understanding and a better grasp of what's going on around the patients.

Writing and patient charting skills

WBL participants described a range of ways that they believe their writing and charting skills have improved as a result of their participation in the training program. In focus groups, they described learning a number of new skills that they readily attributed to their improved charting abilities. These included learning relevant medical terminology and performing exercises that challenged them to practice writing skills. A recurring theme among MHWs was the significant amount of attention paid to reading charts in the training. They described doing a variety of activities that showed them how their own chart entries are critical to physicians' ability to prescribe medication and other treatment, and very significantly, that better understanding their patients' histories helps them (MHWs) to communicate with patients more effectively. Focus-group participants described using real patient charts in activities designed to learn more about specific mental illnesses, to practice new communication skills, to practice interviewing techniques, and to practice writing skills, among others.

▸ *We had to pick a patient and do research, and that helped me out ... because the thing that I don't do often is like go to the patient's chart. So this allowed me to go through their whole chart and look when they came from the CRIC and also look up what they typed, you know, how many times the patient's been here. ... And when we have patients come now, I'll check the chart and I'll read the charts to see how many times they've been here and ... learn things about their family and if they've ever been abused or if they're bipolar or schizophrenia or something to that effect.*

▸ *Like before, I didn't even like really read the charts. I was just going by instinct, just by dealing with that person on a day-to-day basis. But now I come in here [WBL], I got so I read the charts more.*

▸ *If you read the chart ... like when we do monitoring the patient ... you write a real note on what you actually observed as opposed to what somebody else said yesterday 24 hours ago. Because you really don't help the patient by saying something that you didn't observe. Because now the doctor might up his medication; he might bring his medication down.*

▸ *The mental health workers spend the most amount of time on the units with the patients. And basically I find on my unit that if a social worker needs a little information like they're trying to place the patient or whatever, they actually will come up and say they read the mental health worker notes ... because the mental health workers actually give them more insight of whether the patients are doing better.*

A variety of skills are required to write good chart notes. Strong observation, knowledge of what's being seen and the ability to write an understandable observation are among the skills that focus group participants described through their comments. The following example illustrates a case where all of these seemed to come together for a participant.

▸ *We have this thing here throughout the hospital. I guess all hospitals have it — called the tracer. ... She actually comes and takes the chart and studies this patient before we even begin the tracer. ... Me, personally, [it] just so happened I did not do a cookie-cutter note this day and again this [WBL] class really helped me a lot with my writing skills. I did her note that particular day. I noticed the patient. She was very "manicky." So, of course, as a diagnosis, I wrote mania, you know, and I explained what she did all day. So upper management asked, asked the doctor, the social worker, the nurse. She actually asked them to read their notes, and so after they all read their notes, I was last. I'm like, "I wonder why she didn't ask me?" She said, "Would y'all think she had mania too?" The doctor didn't even have mania as one of the problems. She said, "[MHW Name], read your note." I read my note, and she said that's how a note should be written. I was like, oh my goodness. So [my] writing skills definitely improved.*

MHWs explained what makes up a good chart note.

▸ *Well, sometimes you're pressed for time. You just write the basic ... if they had their medication, if they ate their meals.*

▸ *My note was more concrete. It depends on the patient.*

▸ *It's straight to the point.*

From respondents who commented on what makes up a bad note:

▸ *It's going to pertain to 10 other patients.*

▸ *It doesn't have its own identity — like a cookie cutter.*

The WBL participants value highly the writing instruction and opportunities to practice writing skills they had throughout the course. They discussed writing skills as something they were proud of improving. They feel more confident writing patient chart notes as a result of this practice.

▸ *In the first module, we had to do a lot of writing. We wrote on schizophrenia. We wrote on depression. So the writing skills, I think, were sharpened because now we were ... reminded of certain things. ... You keep writing the same thing all over again, you know, "Patient hearing voices." But, you know, we start to use different terminologies and it just seems like for me the writing aspect of it was good.*

▸ *I say my writing skills definitely improved.*

Social workers reported using MHW chart notes as an information source for insurance reimbursement. A couple of social workers commented that they think the WBL program has helped the MHWs they work with to improve their charting skills. Their comments in the focus group included:

▸ *The MHWs are the people who see the patients the most throughout the day. And therefore {they} have the most information on how the patient's doing. And all the social workers in this room do the same sort of reviews that I do ... [including] cases that were in the hospital four, five, six months ago. And they get approved for insurance retrospectively. ... So I don't have the ability to go to the MHW and ask, what happened ... with the patient ... because it's so far in the past. So really those [chart] notes are more pivotal in the retrospective reviews ... especially on weekends because our weekend documentation is quite poor to begin with ... because you have one doctor for the entire hospital. You're not getting a PhD or a social worker note on the weekend. So it's primarily RNs and MHWs who are documenting in the chart.*

▸ *... I would say that some of the best mental health worker notes that I see are from the MHWs on this list [WBL participants]. I can't tell what came first and I'm not going to try to decipher that, but I will say some of our best mental health worker note writers are on this list.*

▸ *You know, sometimes you can look at a chart and you could see documentation and you get a different look at the patient — like the patient is a different person. The mental health workers that I work with [WBL participants] .... [their notes] are consistent with the patients and the course of treatment.*

Nurse managers commented in interviews that they also believe that WBL participants had improved their written communication (and charting) skills as a result of the program. They noted:

▸ *I have seen more specifics being included in the documentation, especially among the students that participated in this module. So I've seen more detailed documentation explaining and describing, more descriptive documentation, if I can say, of patients' behaviors, patients' subjective or objective inputs.*

> ▶ *I definitely observed a great difference in the way they wrote notes. ... It's a difficult format to write in and they've really, really done well with it since this class.*

Contrary to what we expected to hear from physicians, they reported that MHWs' charting skills are not important to them. When asked whether or not they had observed any differences in the charting skills of WBL participants with whom they interact regularly, physicians went out of their way to explain how little importance they place on MHW chart writing skills and/or their entries.

> ▶ *No, the [the MHWs' writing notes] doesn't take care of me. What helps my treatment of the patient is what they do with the patient — not what they write.*

Communication and patient interactions

Social workers, behavioral health therapists and nurse managers all pointed out changes in WBL participants' communication skills that they directly associated with the training. Nurse managers described:

> ▶ *They seem to be able to key in on what they want to say faster. ... I think it's because of the vocabulary.*

> ▶ *At the conversation level, their reporting level has enhanced in the sense that now they [MHWs] have definitely much more factual input into patients' data and their reporting on patients, basically. That's what I've seen mainly change over the past year.*

Social workers and BHTs also commented on their observations of improved communication skills among WBL participants. One observed that new communication skills are rubbing off on co-workers on one unit where five MHWs participated in the WBL program.

> ▶ *I used to notice the times that ... you know ... people think they're being encouraging at times, it would actually come out sounding critical. I don't think we're seeing that. ... It's much rarer.*

> ▶ *... I think that overall, the mental health workers on [shift with a large number of WBL participants] are more positive in their language with the consumers.*

MHWs in the focus groups seemed impressed with how learning new communication skills and un-learning old communication habits is helping them on the job. They described very concrete examples of techniques they learned in the WBL program for using different facial expressions, tone of voice, volume and body language. They gave examples of how they are trying to change the way they interact with patients and to be better listeners, reflectors and questioners. These anecdotes gave us the impression that the effectiveness of new ways of acting are giving them greater self-confidence on the job. And they report seeing different reactions from patients approached in these new ways. They described being able to de-escalate patients more effectively and the belief by some focus group participants that the number of Stat-13 calls was declining as a result. While we could not confirm this (due to the highly variable nature of hospital-wide Stat-13 incident data), MHW perceptions and their rationale for why they believe Stat-13 calls to be declining is important to note. Several MHWs described excitement about better managing group discussions with patients. WBL sessions on empathy were cited by several focus-group participants as also being helpful to them in better understanding and communicating with patients.

WBL participants commented about new verbal and non-verbal communication skills they have learned and that they credit with helping them avoid escalating patient condition:

> ▶ *Sometimes you can use non-verbal communication. You know it all depends on your posture. It all depends on your movement. It all depends on your tone of voice and everything. ... With schizophrenia, your voice tone can make them [patients] you know how you say, react different because of their schizophrenia.*

▶ *... The tone of your voice, the body gestures, we talked about the whole thing ... how you can really make a patient worse. ... If you raise your voice at the same time they're raising their voice. It was very interesting, very interesting.*

In response to researcher questions about whether MHWs think their new verbal and non-verbal communication skills have helped to reduce the number of Stat-13 incidents their patients experience, several had comments:

▶ *The communication, that's the whole main part when you're dealing with Stats [Stat-13s]. It's all about communication anyway, how you talk, how you look at somebody when you're talking to them, how to use the words with tone and things like that, with posture. All that stuff is how you learn.*

▶ *Eye contact.*

▶ *Dr. Bonner [the WBL instructor], for instance he would say like three words, but could put in like several different tones like "What are you **doing**? What are **you** doing? **What** are you doing? ... it makes such a difference — tone in your voice, how you approach people.*

Several staff commented on MHWs' new skills at de-escalating patients and otherwise communicating more effectively than they did prior to the WBL program. One nurse manager reported that PRNs, or medications that are given as needed to sedate or relax aggressive or excited patients, had been reduced by two or three incidences per day on her unit due to the MHWs' increased ability to talk to patients and calm them down without resorting to medication.

And according to one physician:

▶ *They [WBL participants] don't get flustered. They get cursed at, and agitation is just part of the problem. I think our staff really do use talk-down techniques and verbal intervention techniques before they go to medication. So if that is the goal of your training, then I think it's been very successful.*

A behavioral health therapist commented:

▶ *I am an ART [appropriate response training] instructor ... so basically we teach our employees how to deal with patient crises before they get to that level [of putting patients in restraints]. And [MHW name] ... he had that down pat ... what can we do before it gets to that level? And he really had that philosophy. So it could be attributed to this [WBL].*

Several WBL participants described the value of learning and practicing interviewing techniques. In discussing action learning assignments related to interviewing, they also noted that conducting these interviews helped them to see patients and their problems with greater sensitivity and understanding.

▶ *One of our projects was, like, interview a patient with one of these disorders and like go through a background check with them. ... Ask them how long they've been abusing, what was first, what came, this and that, ... on our floor we don't go to treatment teams, we're not part of the treatment team, so we miss out on all the real interviews with the patients. So I picked a guy I knew from over the years. I mean maybe almost nine years, and I never really knew. I didn't know him until I did this interview, and I actually look at him now. I can see him ... I won't forget his situation ... because I did a whole interview on him like you would do in a treatment team ... So when I see him now, it's like I know him better. I'm actually even communicating better because he opened up to me. You know he let me know some things. That was helpful.*

▶ *Well, the thing is too, like, we have so many patients on the unit. I mean, my unit has 24 patients. So we really don't have the time to actually talk with patients. So that assignment helped a lot and it showed us other ways of being able to make connections with the other patients, maybe not as in-depth but at least to try to understand them better. But I mean, you*

really don't get the chance because we don't do a treatment team either. The mental health workers aren't included. You don't have time to actually sit down and talk to them. So this gave us an opportunity ...

A few WBL participants expressed enthusiasm for learning to lead patient groups. While this was a minority among respondents, it seems notable to point out this application for new communication and leadership skills.

▶ *I've gotten so that I'm speaking better. .... Just how to conduct a group, keep it under control, you know stop it from getting out of hand, different things like that. I feel more confident. If I really have to run a full group, I could be able to do it a lot better.*

We interviewed a hospital management representative who supervises social workers and behavioral health therapists to learn about her perceptions of outcomes from the WBL program. She had followed up on her own with social workers and BHTs to ask them about job performance of MHWs relative to the WBL. Her own hope was that the training would prepare and encourage MHWs to be able and willing to run more groups. She reported that social workers and BHTs on two units noted that the MHWs who had participated in WBL were running more groups with patients, and that the WBL program was believed by these staff to have made a difference in MHWs' ability, confidence and thoughtfulness in running groups.

One nurse manager described a WBL participant as having increased her capacity to manage and organize patient groups. Another believed the WBL training significantly increased participants' ability and involvement in teaching patients assisted daily living (ADL) activities. This nurse manager commented:

▶ *I've seen the level of participation in helping these patients complete their ADLs, making sure that these patients become independent as we progress through their stay at the hospital. That is definitely something that evolved over the past year.*

The difference between empathy and sympathy is a topic that WBL participants described as standing out for them in the curriculum. The topic of empathy arose in a range of contexts, throughout both focus groups with WBL participants.

▶ *And sometimes, you know, a patient may not exactly want to attack you because of something out in life or their problems that they[are] angry at, but you [are] the one that's in front of them. You know so sometimes their anger is not really toward you. You know how you know sometimes they transfer their anger on to you and it's not really meant for you.*

▶ *It [empathy] helps me out with the patients — being a lot more patient with them.*

▶ *There's another thing that I'm starting to realize after taking these classes that most of the people [patients] that we work with don't have family structures. So when they, they get used to us after a while … because they really don't have [anybody] out there on the outside. They pretend they have all this, but they don't have anything.*

▶ *... That chart says something about the patient but it don't really say everything about a patient… You really get exposed to what the patient's really been through. And you actually have a lot of empathy and sympathy for the patient [as] opposed to thinking that this is a crackhead. This is a person who's trying to get over.*

▶ *... Having the interaction with them [patients] about what they're going through, how they feel their treatment's going. What are their concerns? What are their needs? Because a lot of our patients, many of our patients, are homeless. They've been kicked out of maybe two or three boarding homes or residential treatment places. They don't have many options left, and those are the concerns to them. ... They [social workers and doctors] have their idea of how they're treating them. But some of the things that they [the patients] are really concerned about*

is "Where am I going to live when I leave here?" And they're real hesitant about the treatment because they don't know where they're going to go. "I can't say I'm feeling better then you want to kick me out of here, but I don't have anywhere to go. So yeah, I'm still hearing voices." Once they figure out where they're going, then they're a little more invested in their treatment because now they can see the end of the tunnel. So that empathy part of it is sitting there listening to them and saying, I understand what your problem is, what your needs are, and they're different from patient to patient.

A few physicians commented that they have noticed a change in their units in the way in which MHWs talk about and refer to their patients. They noted that how MHWs talk about patients reflects whether they understand patients' conditions and also affects the treatment environment.

▸ *That may be one of the impacts of the training. I notice now I don't hear the disparaging remarks about difficult patients that I used to hear. ... Staff would say, "They should go home," or "They should go to jail." I don't hear those remarks as much now. And I think that may be an impact of [the WBL] training which is a hard one to measure. But it's an important impact because, when staff quit making those comments, it does change the milieu a lot.*

▸ *There is less of a sense ... of "the patient doesn't belong here." They [MHWs] do express their wish that we discharge the patient. ... But it's not the sense of feeling dislike of the patient. ... It seems that they have a better understanding of the position the patient is in.*

Participation in patient care team

All of the competencies and observations about competencies that are described in this report have implications for how actively and effectively MHWs participate in patient care teams. In this section we describe findings from focus-group participants who discussed how the WBL program has helped MHWs to be more assertive and self-confident in their communication with other members of the patient care team.

▸ *[The WBL program helped me with] ... how you can get heard, be better heard, and how to communicate.*

▸ *I think when you go and talk to the doctors or when the doctors come and talk to you, [skills learned in the WBL program] helps you communicate more. It's like helping us communicate better being in these classes and it helps you.*

▸ *Like when they [doctors] come and ask you something, and you know [how to respond]. Being here, I feel more comfortable talking to the doctors knowing that I've been here [in WBL class].*

▸ *We had a class about ... it's OK if you don't know because everything is supposed to be in other words understandable. And if a doctor says something or says a word or something that you don't know, ask them … what do you mean by that? … You know don't be afraid to ask him because you're not a doctor and you don't know some of their terminologies they use … But sometimes when doctors get to talking in treatment team they use ... words that you're not familiar with, terminologies that you don't know. Ask someone what it is. Because you know there's a lot of medical terms that you know when I was sitting in treatment team or just sitting in the report in the mornings that they use and I said well, what is that? Because I didn't know what it was.*

▸ *Yeah because before I just said, oh well, I guess they [are] talking their doctor talk, but now you know. I mean it's like you're a part of this team and unless you make it understood to them that you're a part of this team … and they would kind of, not willingly, but shut you out. So therefore they'll be more mindful that you may not know all of the medical terminology they use. So now they may say well, use a medical term, but say that means this. You know what I'm saying? Because they know you may not know their medical term. So it's like you know in other words, we had a class [on] don't be afraid to speak up if you don't know.*

▶ *You know if you had something to say instead of saying ... "Oh, they ain't going to pay me no mind." Go tell it anyway because you know they may pay you mind. So I mean it's better to, like, be communicating with each other. And you find out a lot of times you have to take that extra step you know instead of sitting back and saying, "No, they ain't going to do this." You know, things like that.*

Two of the nurse managers confirmed this, noting that changes in communication were also evidenced in WBL participants' increased critical-thinking skills. One nurse manager commented:

▶ *I've seen my staff ask more questions and think critically in the sense that they want to know why things are being done in a certain way or why things are happening this way with a patient and why certain treatments are working and certain other treatments are not.*

Nurse managers also reported that MHWs participating in the WBL program began attending more treatment planning meetings, and their participation had increased in treatment planning. They noted,

▶ *I see them [MHWs] more confident in asking questions and in participating.*

▶ *I think they feel maybe a little more like they are not just the bouncer or the bedmaker or this person that gets the patient in the shower. I think once you can go to treatment team, you can realize that you do have a valuable contribution to make and sometimes I don't think mental health workers think that.*

▶ *I think it [WBL] gives them a little bit of confidence in themselves and their ability. Some of them [MHWs] really know a whole lot. They have been doing this for a long time, and I [think] that sometimes a certificate makes you feel better about yourself.*

ROLE OF WBL IN SUPPORTING MHWS

Over and over during the focus groups, MHWs described how the WBL program helps them in a way that we had not anticipated. They described the classroom as a place where they can de-brief, away from the stresses of the unit. They described it as a place where they could talk about their work and get helpful feedback about their patient interactions in a safe, non-judgmental environment. And they noted many times how much they value the team-building, seemingly therapeutic, aspect of the WBL program.

▶ *[WBL class] is group dynamics. It's called therapy talk awareness, you know, just making you aware of what environment you really are in.*

▶ ***Moderator:*** *"Do you all have other forums for de-briefing about your work?"*
Participant: *"No, no, no outlet like that kind of forum. The managers had it but we didn't have it. But now we have it now doing these little groups."*

▶ *I found the one day I came down here very angry and very upset because of something that had went down on the floor with a patient that escalated and how they were handled. And I was in disagreement on it. And I was very upset, and I was kind of asked to leave and go to class. So I came down here very angry and upset and I kind of like threw it out here to my fellow students, and I got their feedback. And then when I went home I still was kind of a little hot. But when I went home and I actually thought about it with their feedback and everything, it helped me look at it in a different perspective and handled it differently you know [than] what I was planning to do. It was good.*

Several WBL participants commented that the opportunity to self-reflect in class was helpful to them being able to separate out their own experiences and possible biases toward patients' behaviors

or illnesses. This theme recurred across both focus groups and was brought up by participants in a number of contexts, including this comment by a participant about how he hadn't realized how much his own experiences affect his work with patients.

> The one thing we did in Module 2 more than Module 1 was a lot of self-reflection exercises where we didn't have to take our projects to the manager. ... I know personally I have a hard time dealing with people with substance abuse because I've had experiences in my personal life with people with substance abuse. When I see another person with that it affects me personally. And I was able to come in the class and share that with my co-workers and share that and look at it from a different perspective. ... I couldn't say it to my boss that you know what this time I messed up. I said something I shouldn't have — that's reason to get written up or reason for them to frown upon your behavior. But I was able to come in and share, to reflect that, and to absorb some good feedback from my co-workers and people with the same experiences to find out how to better treat the, how to better handle a situation like that in the future. And I think it's better that we did it without the supervisor looking over our shoulder where we can kind of self-reflect, and it helped me to become better. You know, knowing yourself is just as important as knowing about the people you're around too.

WBL participants described the program as helping them demonstrate new skills to both other WBL participants and, importantly, to MHWs who are not participating in the WBL program.

> A lot of times the skills that we were able to learn and put into use we get to demonstrate in front of our co-workers and they get to observe the things that we're doing. ... I see people now that see me doing these things and they'll say, "I saw you do that." I had some, one of my co-workers come to me and he said, "You know, I had never thought to do that the way you're doing it."

> We'd sit around — you know on every unit there's a little downtime sometimes. ... They're [the patients are] in groups, and we're trying to get our work-based learning assignment together. And we're talking about it, and then two of our other co-workers [who] are in the other module [will join us]. So we all get a chance to sit around and talk about it. And we kind of integrate some of these things together. And so that's fun.

> ... The one thing I do like most about the class is that my co-workers and with the instructors, the people from 1199C, they really want you to succeed. They don't ever want you to be left behind. They always take a few extra minutes to make sure you really understand the project and allow you to ask questions. So what I liked a lot about it is that it's an encouraging thing … you know we're in a big group huddle. You know if somebody falls down, we've got to pick them back up and bring them with us because this is for everybody you know, and we all kind of understand that. ... It's strengthening our team core values that we take from the class back to the unit because we're all trying to support each other and they're really wanting us to succeed.

Several focus group participants described how the WBL program is generally challenging them to perform better on the job.

> I expect a lot more from me.

> We actually challenge each other on a lot of things. Like I said, group dynamics go into these decisions. But he (Dr. Bonner) [gets us] to think you know [as] opposed to just reacting to everything. Because normally that's what we do. It's almost like you think you're a daycare provider and you're not.

> I look at it [WBL teachings] as always having that, you know, bow around your finger — like a constant reminder, you know, of things you have to be always being listening to. Like a constant reminder ... because you come every week and you go do different things and then you [will] be like, "Oh, my goodness you know, I do that." You know, even though sometimes you sit here and you listen and say, "Oh, my god, I do that."

FEEDBACK ABOUT CONTINUATION OF THE WBL PROGRAM AND OTHER USES FOR THE CURRICULUM

The WBL program has been offered to date to the two cohorts of mental health workers whose experiences are described in this report. Across the variety of staff interviewed as part of AspenWSI's business value assessment, there was widespread agreement that the program is valuable, should be offered to more MHWs, and likely has applications for training staff who perform other patient care functions at the hospital. In particular, physicians noted that they thought nursing staff, who do not always have behavioral health experience, could benefit from the program. Other staff, in interviews to learn if the WBL curriculum had been adapted for use in any other training at TUH-Episcopal, also noted that they thought the curriculum would be appropriate for nursing staff training.

From social workers and behavioral health therapists, we heard a variety of comments about the program. They indicated they would like to see the program offered to more MHWs and they observed that the program helps MHWs take a more active role in treatment. They also commented that from their perspective, one of the results of the program is that participating MHWs seem as if they feel more a part of the patient care treatment team. Some of their comments include:

▶ *I'd like to see it [offer the WBL program to more MHWs] happen.*

▶ *I think that a lot of mental health workers, they're really the Marines. They're at the front line, and I think that for them they've been sort of seen as ... OK. ... When somebody acts up ... they come in. ... Especially if they're big [in terms of body type and size]. I think this kind of thing [WBL program] is really helpful to bring them in, to educate them, and I think it gets them involved. And I think they're really very much a valued member of the team. And I sort of sense that the more education they can get and the more involvement they can get on a larger scale. ... I think that the better that will be for them instead of just feeling like, "We're just the guards" so to speak. And I think this program would be really helpful for them to feel a bigger part.*

▶ *It [WBL program] is good. It is beneficial, and it should continue. The [WBL program] involves mental health workers' writing skills and observation levels. About five of these people [WBL participants] I'm working with every day. And when they were going to WBL, the enthusiasm they had, talking about getting credits for it and all of this [improvement in] skill and education level. ... And that they can feel good about themselves. Some people feel better about their work, and I think that will show in their level of work.*

All three of the nurse managers interviewed agreed that offering the WBL program to additional MHW participants would be helpful. They noted:

▶ *Any chance that they [MHWs] would have to have better interaction is a positive thing. It's a win/win.*

▶ *I think it would be good for everyone because I think that it [the WBL program] gives them a little more confidence in themselves.*

Nurse managers had the most suggestions to offer in terms of modifications they'd like to see if the WBL program was continued. They reported experiencing challenges finding substitutes to fill in for WBL participants for the hour they were off the floor and in class each week. They noted that co-workers who remained on the unit experienced additional responsibility and stress when substitutes could not be found. They commented,

▶ *It [the WBL program] has put more responsibility on peers, on other peers that are still on the unit ... and sometimes you can find coverage, sometimes you cannot. So that created some stressful factors to the environment that had not been calculated for, in my opinion.*

▶ *To be honest, you really can't afford to send more than one person at a time off the unit.*

▶ *I heard the nurses really complain about it, most of them, because they are losing their team.*

▶ *I would have days that at 3:00, when only one [of the] mental health workers was here to work because the other two were at class until 4:00. That's our of the biggest problem — too many people going at the same time.*

One nurse manager suggested that only one person from each unit should be scheduled to attend training at a time. Or if multiple MHWs from one unit are to attend training, then they should attend class on different days of the week.

A nurse manager commented that there was not enough time to mentor all of the participants in training. TUH-Episcopal management is aware of this challenge — and also the challenge of recruiting mentors who work more closely with MHWs on a day-to-day basis in the unit. They have explored recruiting behavioral health therapists and/or other health-care staff who are qualified and want to fill this role if they provide additional opportunities for MHWs to enroll in the WBL program.

Because the first two cohorts of the WBL program were delivered just as the curriculum was being finalized, there was not much time to develop supervisor/mentor training or support materials. Nurse managers commented on this, noting that they needed additional resources so they could more fully and effectively participate in the WBL program with their staff. One nurse manager noted:

▶ *A mentor manual or a mentor aide instruction manual — that would have been extremely helpful — if it guides me assignment by assignment or helps me with assignments to guide these students.*

Simultaneous with implementation of this pilot program, TUH-Episcopal's director of leadership and organizational development created a detailed mentor guide that highlights all assignments for each unit and identifies "coaching" questions. This guide is now available for use with future training.

A hospital management representative interviewed suggested that if TUH-Episcopal offers the WBL program to MHWs again, that the hospital should consider assigning a clinical instructor / supervisor to monitor the work of mentors (whether they are nurse managers again or other staff). She thinks that having a lead staff assigned to monitor the program would improve what the hospital would get out of the program, make it more consistently applied, and also put them in a better position to know how effective the training is.

During the course of the business value assessment, hospital management explored more generally the topic of required training, and included in these discussions was the ways in which the WBL curriculum could be used to satisfy other training needs. It seems likely, based on discussions with hospital training staff, that the WBL program will be offered to more MHWs and modified for training other categories of staff who need a primer on behavioral health. For example, TUH-Episcopal staff teach at Newman University, and the university has a summer nursing clinical program at the hospital. The WBL program includes a number of exercises that they are considering using with these nursing students to orient them to behavioral health work — and having the curriculum will help them because appropriate learning activities are already prepared. They also reported that they are exploring whether or not they can use the WBL curriculum (or parts of the curriculum) for in-house training for crisis response technicians and unit nurses without prior behavioral health experience.

To date, the WBL program has not replaced any required in-service trainings at TUH-Episcopal. As described earlier in this report, in the section on implementation challenges, during the feasibility study for this assessment, TUH-Episcopal management expressed the hope that as they learned more about the WBL curriculum content and its effectiveness at training frontline staff in a range of competencies, they would be able to use the curriculum for other training and staff development purposes at the hospital. Specifically they anticipated that they would be able to either: a) exempt some WBL trainees from some of the other training or b) carve out parts of the WBL program and replace current mandatory training programs with stand-alone lessons that are more directly related to the hospital's needs. In particular, they thought that in-service training topics of "managing the

aggressive patient" and "co-occurring disorders" might be something the WBL participants would have covered sufficiently to exempt them from additional training on those topics. Because the WBL program was very lengthy and comprehensive, however, they did not anticipate that as delivered for the first two cohorts of MHW training, it would replace any of the short and mandatory trainings that the hospital runs for its other employees. However, they did express confidence that the curriculum includes content that fulfills some of the requirements of other training.

Other training programs in use at the hospital include off-the-shelf programs purchased from outside vendors. Hospital management expressed low satisfaction with some of these programs, but they are known to satisfy JHACO accreditation requirements. TUH-Episcopal management expected at the start of the WBL program that the WBL would be higher quality training than what they are purchasing off-the-shelf — not only because it is more lengthy and intensive, but also because it was designed to address the hospital's specific behavioral health-care skill needs. But it is not yet known if the WBL curriculum will lend itself to having components pulled out of it to replace shorter, topic-specific training for a wider variety of staff.

Currently, District 1199C Training and Upgrading Fund is finalizing an on-line training product based on the work-based learning curriculum developed by Dr. Kenneth Gill (University of Medicine and Dentistry New Jersey) for the Behavioral Health Bridging Jobs to Careers project. When complete, the on-line curriculum will include lesson plans, teaching instructions, exercises, handouts and action learning assignments, as well as provisions for discussions and live chats between students, instructors and coaches.[6] TUH-Episcopal management has expressed support for this application, and the curriculum should prove to be a valuable resource to other behavioral health-care providers. Because the curriculum is very modular (meaning that pieces of the curriculum can be used to deliver shorter-term training on targeted topics), includes instruction materials and assignments covering a wide range of competencies, and was developed with the support of philanthropic funds, it will offer a low-cost, adaptable alternative to off-the-shelf packages available for purchase from training vendors.

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[6] For additional information about the forthcoming on-line work-based learning curriculum for frontline behavioral health workers, please contact BHonline@1199ctraining.org.

CONCLUSION

Leadership and staff at TUH-Episcopal overwhelmingly reported to us that they found the WBL program valuable. Staff performing different functions had different types of observations, but all who had direct knowledge of the program (and some who had more indirect knowledge) reported that it was valuable and should be continued. We found substantial qualitative evidence that the work-based learning program was competently (and creatively) designed and implemented. It was well-received by mental health worker participants. As described above, credible sources described how the program resulted in MHWs improving their performance in a number of competencies deemed critical to good patient care. TUH-Episcopal management expresses plans to deliver the program to additional cohorts of MHWs and to continue work in-house to build aspects of the curriculum and work-based learning training approach into future training for other types of staff. And it is clear from early data on WBL graduates' continuing on with their education, that the WBL experience served as a catalyst for their continuing course work toward career advancement.

There is also reason to believe that the WBL approach to training is less expensive for the hospital to administer than traditional classroom training. Staff spend fewer hours in a classroom; thus, less time is spent away from patient care duties. In this case, however, the training was not required and did not serve as a substitute for another course. So the cost of the training could not be directly compared to the cost of a specific training alternative. Although it does seem reasonable to believe that elements of this training (because the curriculum is in a very modular format) could be used in a modified form to replace some of the currently required trainings, perhaps at considerable cost-savings to the hospital, this outcome has not as yet occurred and, therefore, could not be assessed or measured as part of this study.

Throughout this report, we've described challenges we experienced in attempting to use different types of existing hospital administrative data as indicators of changes that might be related to the WBL program. Measuring outcomes that relate to implementation of the WBL program in quantitative terms proved to be challenging.

This report has also discussed the challenges TUH-Episcopal has experienced to date in getting full value from the curriculum and training approach. Timing for development and implementation was tight, and with hindsight it is clear that building greater awareness among different staff and departments within the hospital might have expanded the sense of "ownership" of the new curriculum and perhaps have resulted in greater interest in and faster "uptake" of the training resource and work-based learning approach. Given this was a new and very innovative pilot program, we believe this learning curve likely reflects a reasonable lag. But we point it out because other care providers who might be considering implementing this program would likely benefit from a more expansive, less "siloed" approach to planning, implementation and evaluation.

Substantial evidence suggests that the WBL program and pedagogical approach were beneficial to the hospital, and that the hospital is poised to reap further benefits by continuing the program. It would be worthwhile to encourage other behavioral health institutions to explore how this curriculum could be used in their environments. In addition, follow-up assessment of the longer term results, with a particular focus on the potential for the WBL curriculum to contribute to a more efficient training system and to learn more about the ongoing educational attainment and career advancement of WBL participants, would contribute substantially to understanding the overall value of this approach.