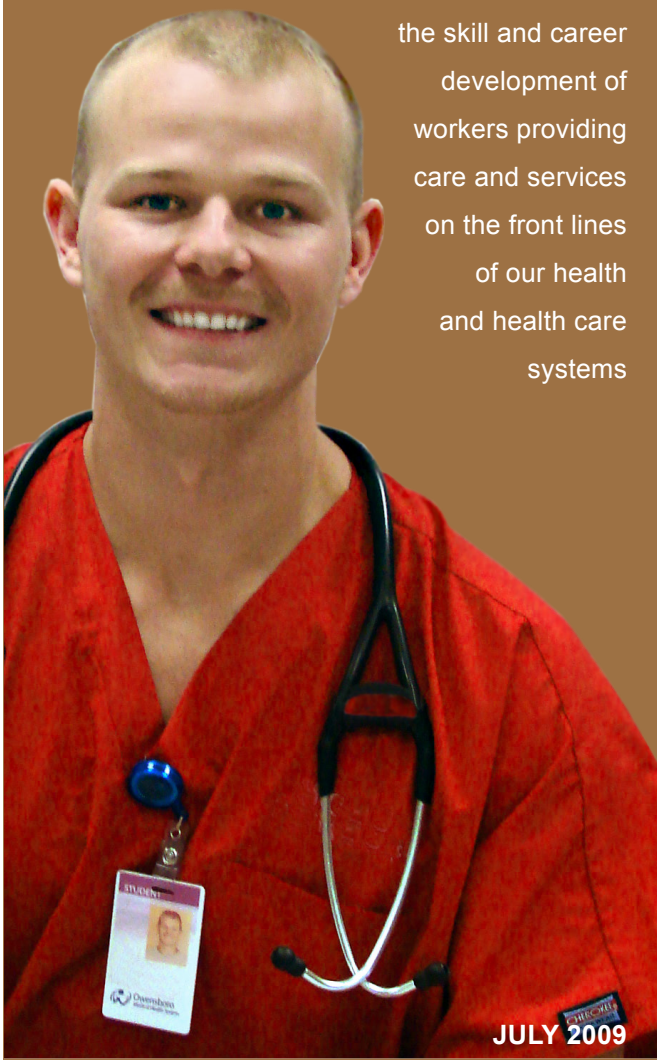
Jobs to Careers

Promoting Work-Based Learning for Quality Care.

Practice Brief

Part of a series of reports and practice briefs on advancing and rewarding the skill and career development of workers providing care and services on the front lines of our health and health care systems



JULY 2009

From Competencies to Curriculum:

Building Career Paths for Frontline Workers in Behavioral Health

By Randall Wilson

Robert Wood Johnson Foundation

THE HITACHI FOUNDATION

JOBS FOR THE FUTURE

Jobs to Careers

Promoting Work-Based Learning for Quality Care.

Jobs to Careers supports partnerships to advance and reward the skill and career development of incumbent workers providing care and services on the front lines of our health and health care systems. The initiative is a national program of the Robert Wood Johnson Foundation, in collaboration with the Hitachi Foundation and with additional support from the U.S. Department of Labor, Employment and Training Administration. *Jobs to Careers* supports partnerships of employers, educational institutions, and other organizations to expand and redesign systems to:

- Create lasting improvements in the way institutions train and advance their frontline workers; and
- Test new models of education and training that incorporate work-based learning.

The core concept of *Jobs to Careers* is "work-based learning," which represents a novel approach to meeting labor force needs in health care as well as in other fields.

Key Components of *Jobs to Careers*

Work-based learning is a key component of an overall skill building strategy that may also include an array of other learning approaches, such as more traditional off-site, on-site, technology-enabled, or experience-based learning.

- Career paths are developed and are readily available to frontline workers.
- Both the employer and education partners develop and implement changes that recognize the needs of working adults and that improve access to and success in skill-building efforts by frontline workers.
- Frontline workers are recognized and rewarded as they build skills and expand knowledge necessary for their current job responsibilities or for advancing to new positions.

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Executive Summary

Workers on the front lines of behavioral health play a critical role in the care of people with mental illness, substance abuse problems, and other disorders. Their work includes de-escalating crises, ensuring patient safety, and promoting recovery, yet these staff members often lack clear guidelines and training on how to perform their roles. They also lack paths to higher-skilled, higher-paying occupations, leading many of the best to leave behavioral health for better opportunities.

This case study examines a unique effort to address this gap by identifying the competencies needed for frontline workers in behavioral health. It documents the work of "Southeastern Pennsylvania Behavioral Health Initiative: Bridging *Jobs to Careers*," a Philadelphia-based partnership anchored by a labor/management training fund and two of the city's leading employers serving people with mental illness. This partnership is part of *Jobs to Careers*, a national initiative that is developing the skills and career paths of workers on the front lines of health and health care. The hallmark of *Jobs to Careers* is "work-based learning," an approach to educating workers that taps the potential for instruction and skill development in the job itself, using job tasks and responsibilities to teach both work-related and academic skills. Work-based learning builds on the competencies needed by workers to perform their jobs and links learning activities to job tasks requiring these competencies.

The education of this vital workforce is being redefined by the project, which was initiated by Philadelphia's District 1199C Training and Upgrading Fund, a joint labor-management partnership of a union and 53 local hospitals and long-term care employers in Philadelphia. Partnering with the Training Fund is a team of researchers from the University of Medicine and Dentistry of New Jersey and two behavioral health employers: Temple Episcopal Hospital and Public Health Management Corporation.

Temple Episcopal is a 114-bed behavioral health facility affiliated with Temple University Health System. It employs 91 full-time and part-time behavioral health workers and 10 crisis response technicians. Public Health Management Corporation, a nonprofit public health provider, serves over 88,000 consumers in the Philadelphia region and has over 1,000 employees.

The project uses job competencies as the foundation for creating a curriculum and career paths for frontline workers in behavioral health. To do so, it focuses on the tasks and skills necessary to perform behavioral health jobs. This is the first effort to analyze job requirements systematically for frontline workers in behavioral health and to link that analysis to workforce and career development.

This report is written for employers and educators of the frontline workforce in health care—providers of direct care and support to patients, whose work often goes unrecognized. It demonstrates why competencies matter, especially for jobs lacking formal credentials or career paths. By defining the skills and knowledge needed to perform jobs, competencies give workers the tools to serve patients well, and their employers guidance on promoting and developing first-tier staff for higher skilled positions.

Launching *Jobs to Careers* in Philadelphia

A growing movement in behavioral health seeks to build advancement opportunities for frontline workers. Advocates believe that not only would the workers themselves and their families benefit, but so would the consumers, employers, and funders of behavioral health services. At the center of this movement is the Training Fund.

In 2006, the Training Fund received a grant to participate in *Jobs to Careers* with a project to improve career advancement opportunities for behavioral health workers. Despite the

Training Fund's history of training behavioral health workers, it had not focused on changing the industry's basic workforce practices. Education and training continued to be minimal in most workplaces, and a curriculum offered by the Training Fund and Philadelphia University, while providing the basics for frontline psychiatric jobs, did not provide frontline mental health workers with the full range of competencies and knowledge necessary to advance on a career path or to support consumers' recovery. A major goal of the *Jobs to Careers* project is to use newly identified competencies to upgrade the behavioral health curriculum. The university, in turn, will assess the new curriculum to determine the number of credits awarded to those completing it.

What It Takes to Do the Job: Identifying Competencies

The Training Fund engaged Kenneth J. Gill, Ph.D., and his colleagues at the University of Medicine and Dentistry of New Jersey–School of Health Related Professions to oversee the identification of competencies and the development of curriculum to match them. The UMDNJ team had two major tasks: documenting the competencies required to carry out behavioral health work as currently practiced in the employer sites; and injecting competencies that move the work to a higher level of performance and responsibility.

Both tasks require "validation"—getting expert confirmation that the competencies identified are the right ones and reflect the best knowledge in the field. The team relied on two kinds of expertise. First, they combed the academic and professional literature, including previous job analysis and task delineation studies in behavioral health and research on "evidence-based practice" in psychiatry. The second kind of validation, and for Gill the most critical, came from "subject matter experts," the men and women who do the jobs, their direct supervisors, and, in some cases, behavioral health consumers.

From Competencies to Curriculum

After documenting the competencies, the UMDNJ team refined the definitions of tasks suggested by workers and supervisors into specific learning objectives. These provided the skeleton for a behavioral health curriculum. The results point to the ambitious and comprehensive effort mounted for *Jobs to Careers*, as well as to the genuine complexity of frontline behavioral health workers' jobs.

In cooperation with the employers and the Training Fund, the research team grouped the competencies and associated learning objectives into three modules, based on similar areas of competency. The modules, each of which is roughly equivalent to six academic credits, are: Core Behavioral Health Knowledge; Interpersonal Competencies and Crisis Intervention; and Skills Training, Group Skills, and Teamwork. For each module there is a series of desired job role behaviors, which in turn are accompanied by learning objectives, or what the worker needs to know to be competent in that behavior.

Matching specific learning objectives to distinct learning modes demonstrates the importance of job competencies to work-based learning. Learning factual information and theories—about program policies, symptoms of mental illness, or approaches to recovery, for example—lends itself to the lecture-and-discussion format of a seminar. Demonstrating how these and other facets of the job are applied, and testing them against the real experiences of workers and consumers, requires learning from action, or work-based learning. Educators, project managers, and behavioral health workers in the project have all noted this essential difference in both curriculum and instruction.

Transforming Professional Development

As of fall 2008, two cohorts of frontline workers at Temple Episcopal Hospital and one from Public Health Management Corporation had completed the Core Behavioral Health Competencies and Interpersonal Skills/Crisis Intervention modules of the new curriculum. Findings on the impact of competency-based training will be available in 2010, with the release of final results from the *Jobs to Careers* national evaluation, as well as a study of return on investment from the Temple Episcopal project.

Those results could have important consequences. One is rooted in the potential to

offer better service to consumers, based on the notion that those with mental illness have the potential to recover. Another is the impact of a work-based, competency-oriented curriculum on human resources and organizational practices.

The competency approach also has a strong potential role in the creation of wage and career advancement pathways for participants completing behavioral health training. The development of standard, competency-based curricula could enrich and expand "in-service" or required professional education. There is also potential to sustain this model financially by incorporating the curriculum into in-service education. Workers who attain competencies through work-based learning would also be building a foundation for college study.

Perhaps the most far-reaching consequence of the competency approach and work-based learning in *Jobs to Careers* would be its impact on the wider field of behavioral health. This project provides an example of what it means to take frontline workers' jobs seriously—understanding workers' contributions, while expanding their knowledge and their role in the care-giving process. And the careful research, validation, and translation of competencies into curriculum lays a promising foundation for other employers, educators, and regulatory and funding bodies.

From Competencies to Curriculum: Building Career Paths for Frontline Workers in Behavioral Health

INTRODUCTION

What does it take to do a job? The question is not trivial; especially when the health, safety, and recovery of health care consumers rides on the answer. Expecting workers on the frontlines of health care to perform their jobs well presumes that there are clear standards for the skills, knowledge, and abilities required to deliver care. But often this is not the case in fields such as behavioral health, which lack standardized definitions of competency and performance for entry-level jobs. As a consequence, orientation and training of workers is haphazard, what training exists is not well grounded in work requirements, and employers lack objective standards for assessing performance and advancing workers on a career path.

This case study examines a unique effort to address this gap, by identifying the competencies needed for frontline workers in behavioral health. It documents the work of the "Southeastern Pennsylvania Behavioral Health Initiative: Bridging *Jobs to Careers*," a Philadelphia-based partnership anchored by a labor/management training fund and two of the city's leading employers in serving persons with mental illness. This partnership is part of *Jobs to Career*s, a national initiative that is developing the skills and career paths of workers on the front lines of health and health care. The hallmark of *Jobs to Careers* is "work-based learning," an approach to educating workers that taps the potential for instruction and skill development in the job itself, using job tasks and responsibilities to teach both work-related and academic skills. Work-based learning builds on the competencies needed by workers to perform their jobs and links learning activities to job tasks requiring these competencies.

The report charts the experience of defining competencies for this workforce, and its use in developing work-based curriculum and instruction for behavioral health. Competencies play a pivotal role in work-based learning initiatives. By specifying the tasks and skills necessary to perform a job, *Jobs to Careers* projects seek to:

- Formalize and professionalize occupations that are critical to patient care but underrecognized and informal;
- Create standards for performance that enable employers to upgrade jobs while providing the potential for portability; and
- Establish a basis for a career progression with increased wages.

In the Philadelphia effort, the competencies of behavioral health workers form the building blocks for a work-based curriculum that directly involves workers, supervisors, and academic instructors in the learning process.

This report is written for employers and educators of the frontline workforce in health care—providers of direct care and support to patients, whose work often goes unrecognized. It demonstrates why competencies matter, especially for jobs lacking formal credentials or career paths. By defining the skills and knowledge needed to perform jobs, competencies give workers the tools to serve patients well, and their employers guidance on promoting and developing first-tier staff for higher skilled positions. After documenting this process in Philadelphia, the report outlines the challenges encountered there, and the benefits it offers workers, employers, and the fields of health care and workforce development.

Competencies for the Frontline of Behavioral Health

Workers on the front lines of behavioral health play a critical role in the care of people with mental illness, substance abuse prob-

lems, and other disorders. The work includes de-escalating crises, ensuring patient safety, and promoting recovery, yet these workers typically lack clear guidelines and training on how to perform their roles. They also lack paths to higher-skilled, higher-paying occupations within their field, leading many of the best frontline staff to leave jobs in behavioral health for better opportunities.

Until now, there has been no comprehensive curriculum—grounded in the tasks and duties performed on the job every day—to develop and deepen the competencies required of "first responders" in mental health facilities. The education of this vital workforce is being redefined by "Southeastern Pennsylvania Behavioral Health Initiative: Bridging *Jobs to Careers*," a partnership of Philadelphia's District 1199C Training and Upgrading Fund, a team of researchers from the University of Medicine and Dentistry of New Jersey, and two behavioral health employers—Temple Episcopal Hospital and Public Health Management Corporation.

Until now, there has been no comprehensive curriculum—grounded in the tasks and duties performed on the job every day—to develop and deepen the competencies required of "first responders" in mental health facilities.

Temple Episcopal is a 114-bed behavioral health facility affiliated with Temple University Health Systems. It employs 91 full-time and part-time behavioral health workers and 10 crisis response technicians.[1] The hospital considers itself a "learning organization," committed to the advancement of its staff, and an "employer of choice." Turnover is low compared for the area, and patient satisfaction is high, according to hospital managers.[2] Besides offering higher-than-average wages and generous benefits to employees, Temple Episcopal provides tuition benefits to both staff and their children.

Public Health Management Corporation, a nonprofit public health provider, serves over 88,000 consumers in the Philadelphia region and has over 1,000 employees. It houses over 200 health and social service programs. Among these programs is a network of behavioral health services, including seven treatment facilities employing seventy mental health technicians, supervisors, and resident assistants. For *Jobs to Careers*, PHMC targeted four programs: a treatment facility for adolescent boys with mental health and substance abuse problems; a residential program for women with substance abuse problems and their children; a long-term residence for seriously mentally ill adults; and a program for adolescent girls who have both mental health and substance abuse disorders.

The partnership uses job competencies as the foundation for creating a curriculum and career paths for frontline workers in behavioral health. To do so, it has defined the tasks and skills necessary to perform behavioral health jobs. While analyzing job requirements is not new, this is the first effort to do it systematically for frontline workers in behavioral health and to link that analysis to workforce and career development.

Employers in both the private and public sectors have long used the process of identifying competencies—to assess skill and training needs, develop curricula, and develop human resources policies (Ennis 2008). For example, the U.S. Office of Personnel Management has codified the process of "job analysis and role delineation," which begins by identifying discrete tasks required for a job, then determining the knowledge and skills needed to complete it (U.S. OPM 2003) For *Jobs to Careers*, Kenneth J. Gill and his colleagues of the University of Medicine and Dentistry of New Jersey adapted the Office of Personnel Management's framework to map the competencies employed by behavioral health workers. This innovative effort connects frontline workers to a tradition of competency-based learning and assessment, such as apprenticeships in skilled trades and clinical rounds in health care, as well as to recent initiatives to define skill requirements for workers and employers. *(See the appendix for additional background on these models.)*

The Behavioral Health Workforce

There are about one million behavioral health workers in the United States.[3] The field is roughly evenly divided between licensed behavioral health professionals (e.g., therapists, social workers, and psychiatric nurses) and mental health technicians—direct support workers who generally do not require Bachelor's or advanced degrees (Robiner 2006).

Frontline workers in behavioral health perform many jobs and go by many titles:

behavioral health technician; psychiatric aide; orderly; mental health worker; direct care staff; and crisis response technician; among others. They work in a wide range of settings: inpatient and outpatient facilities; hospitals and community residences; neighborhood clinics; and schools. But regardless of the title, job, or setting, they all typically care for people whose disabilities—cognitive, emotional, developmental—prevent them from participating fully in "activities of daily living," such as dressing, bathing, and eating, or otherwise exercising their capacities fully.

Even though they are not therapists, nurses, or counselors, frontline behavioral health workers may at times take on tasks requiring comparable skills, such as support for patient rehabilitation. Their responsibilities have expanded far past their traditional restriction to helping people with everyday activities. Indeed, frontline workers often have critical responsibilities for the safety and well-being of the consumers of behavioral health care. They need to ask the right questions at intake, document changes in patient behavior and condition, and—during a crisis—make rapid decisions and de-escalate dangerous situations.

The expanded roles of frontline workers derive from the "recovery model," a philosophy that assumes that people with mental illness, addictions, or related disorders can recover enough to live independently.[4] To support their clients' recovery, frontline workers now play an active role: running therapeutic groups and activities, taking part in case meetings, and understanding and reinforcing the values of recovery and consumer empowerment (Baron 2007). There is also a greater need for direct care workers who can respond to patients who have more than one disorder, such as a combination of psychiatric and substance abuse problems or developmental and physical disabilities.

Responsibilities once reserved for professionals have been "pushed down" to frontline workers but without compensation, training, or reward. As one Philadelphia-based technician put it, they are expected "to deliver Master's-level care for high school diploma salaries" (Baron 2007). Take-home pay is often low. Workers in community-based care settings earn $9 to $12 per hour; even those employed in institutions like psychiatric hospitals earn only $14 to $16 per hour (Baron 2007; U.S. BLS 2008). Full-time workers generally receive health benefits, but almost one in three direct support workers have part-time jobs and are far less likely to have insurance.

Unlike their professional peers, the tasks and the skills that frontline workers use on the job lack formal recognition or certification. Beyond orientation and periodic in-service trainings, they receive little systematic training or supervision. And the work, while critical to patient care, is often unacknowledged or misunderstood. There are limited opportunities to advance beyond low-wage, entry-level jobs without acquiring a Bachelor's degree, and the field provides few guideposts or maps to support career development. Only California, Colorado, Kansas, and Arkansas recognize psychiatric technicians as an occupation requiring a license to practice (Schindel et al. 2006).

Launching *Jobs to Careers* in Philadelphia

A growing movement seeks to build advancement opportunities for frontline workers in behavioral health. Advocates believe that not only would the workers themselves and their families benefit, but so, too, would the consumers, employers, and funders of behavioral health services.

At the center of this movement is the District 1199C Training and Upgrading Fund, based in Philadelphia and affiliated with District 1199C, a local of the National Union of Hospital and Health Care Employees (American Federation of State, County, and Municipal Employees). The Training Fund is a joint labor-management partnership of the union and 53 local hospitals and long-term care employers. Founded in 1974, it provides a wide range of education and training services, from instruction in basic educational skills and pre-college programs to awarding of Practical Nursing degrees. It is the largest provider of health care education in the Philadelphia region, serving both 1199C union members and community residents.

Why Employers Want Better Ways to Meet Workforce Needs

From the point of view of behavioral health employers, a primary motivation for changing their human resources practices is a shrinking labor force. Many workers in the field are nearing retirement, while the number of adults needing treatment is already far beyond the capacity of the system. Of the 25 million adults with mental health disorders, 44 percent obtain treatment; only 10 percent of the nearly 24 million needing substance abuse treatment receive care (SAMHSA 2008).

Workers are not only aging out but also leaving their jobs. Turnover runs as high as 90 percent a year by one estimate (Baron 2007).[5] Given the growing emphasis on continuity of care and strong relationships between staff and consumers, such turnover reduces quality. Moreover, it is expensive, both to employers and to those who pay the bills for care, whether they are insurers or patients. One estimate puts the cost of replacing lost workers at $4.1 billion annually, including advertising, interviewing, and orienting new staff (Larson, Hewitt, & Lakin 2004).

The causes of turnover among frontline health workers are straightforward: poor rewards; dead-end jobs; difficult work; patients who can be disruptive or even dangerous. And frontline behavioral health workers often lack the education that would qualify them for better jobs in the field—and often the level of education needed to perform their current jobs well. Some possess two-year or four-year college degrees, but educational attainment varies widely. In Pennsylvania, 56 percent of behavioral health workers in residential facilities and 29 percent of those working in hospital or day settings have less than an Associate's degree (Baron 2007).

A national model for supporting career advancement for lower-wage workers, the Training Fund consistently seeks new ways to serve the region's health care workforce and employers (Goldberger 2005). In 2006, the Training Fund received a grant to participate in the *Jobs to Careers* initiative. Its project to improve conditions for behavioral health workers seeks to achieve four objectives:

- Create career ladder job classifications in which higher skill levels and responsibilities are based on validated competencies.
- Integrate work-based learning into Associate's and Bachelor's degree programs.
- Integrate job competencies and in-services into work-based learning that engages supervisors as coaches and instructors.
- Implement human resources policies and practices to support the participation of frontline workers in educational offerings and advancing on career ladders.

The Training Fund proposed those objectives to serve the interrelated goals of upgrading frontline workers' skills, improving patient care, and providing opportunities for career advancement and attainment of academic credentials.[6] Cheryl Feldman, director of the Training Fund, became the director of the *Jobs to Careers* project.

The project built on the state-funded Southeastern Pennsylvania Behavioral Health Industry Partnership, a coalition established in 2005 to strengthen the behavioral health industry in service of employers, workers, and consumers by developing effective and rewarding career paths for direct support workers. Managed by the Training Fund, the partnership received a grant from the Pennsylvania Department of Labor and Industry to mobilize the region's service providers, employees, educators, consumer advocates, workforce agencies, and public and private funders.

The Training Fund's choice of Temple Episcopal and Public Health Management Corporation as sites for a project centered on

competencies was deliberate. By identifying competencies and designing curricula that span two very different organizations, the Training Fund sought a model that would apply to the wider field of behavioral health, which encompasses diverse settings *(see box, "Two Organizations")*.

While most of the Training Fund's education services involve hospital and long-term care settings, it has a long history with behavioral health instruction. Since 1978, it has offered training for behavioral health technicians, with over 600 students completing the program. Philadelphia University, a private institution and a partner in the *Jobs to Careers* project, reviewed that program's curriculum in 2004, for equivalency with university requirements. The university determined that program graduates could obtain 21 credits that they could apply toward obtaining a 30-credit Certificate in Behavioral Health. The university's certificate program, in turn, articulates with Associate's and Bachelor's degrees in behavioral health.

Two Organizations

The contrasts between the two employers in the Philadelphia Jobs to Careers project are striking. The modality of treatment differs, with one based in a hospital and the other in assorted residential, community-based facilities. The two have differing patient populations, with Temple Episcopal serving a higher proportion of adults with longer-term, chronic mental illnesses. And the workforces diverge. Temple Episcopal's hospital-based workers are concentrated at one site and share one job title (mental health worker); PHMC's residential workers are scattered among numerous facilities and work under a variety of titles, such as mental health technician, residential assistant, and milieu counselor. Temple Episcopal has a large and unionized workforce; PHMC's smaller workforce is not unionized.

The two workforces also differ in educational levels. Over half of Temple Episcopal's frontline workers hold two-year or four-year college degrees, and nearly all have some college. Few PHMC's caregivers have attained degrees.[7] Temple Episcopal's technicians all serve under the supervision of psychiatric nurses; residential caregivers at PHMC facilities do not.

A major goal of the project is to use the newly identified competencies to upgrade the behavioral health curriculum.

Despite its history of training behavioral health workers, the Training Fund had not changed the industry's basic workforce practices. Education and training continued to be minimal in most workplaces—a few hours per year of required in-service sessions. And the curriculum offered by the Training Fund and Philadelphia University, while providing the basics for frontline psychiatric jobs, did not provide frontline mental health workers with the full competencies and knowledge necessary to advance on a career path or to support consumers' recovery. A major goal of the project is to use the newly identified competencies to upgrade the behavioral health curriculum. Philadelphia University, in turn, will assess the new curriculum to determine the number of credits awarded to those completing it.

What It Takes to Do the Job: Identifying Competencies

To address these gaps Gill and his colleagues at the University of Medicine and Dentistry of New Jersey were engaged to identify competencies and develop curriculum to match them. Gill is founding chair and professor in the UDMNJ's Department of Psychiatric Rehabilitation and Counseling Professions. A nationally recognized expert in psychiatric rehabilitation, he is deeply involved in the movement to define new educational models and practices for psychiatric care, with a focus on recovery. His department is the first of its kind in the country to offer Associate's, Bachelor's, Master's, and Doctoral degrees in psychiatric rehabilitation.

"The workplace is the best place to find subject matter experts," explains Gill; experienced, competent employees are most familiar with the tasks performed on the job.

The UMDNJ team had two major tasks in *Jobs to Careers*: documenting the competencies required to carry out behavioral health work as currently practiced in the employer sites; and injecting competencies that move the work to a higher level of performance and responsibility.[8] Both of these tasks require "validation"—getting expert confirmation that the competencies identified are the right ones and reflect the best knowledge in the field.

The UMDNJ team, composed of faculty in psychiatric rehabilitation, looked to two kinds of expertise. First, they combed the academic and professional literature for previous job analyses and role delineation studies in behavioral health and research on "evidence-based practice" in mental health services and psychiatric rehabilitation.[9] Of special importance here is the practice of psychiatric rehabilitation and recovery. Grounding competencies in current research would help the project build a model that could be standardized and adopted by other behavioral health providers in Pennsylvania and beyond.[10] It would also help expand and update the curriculum already in use by the Training Fund and Philadelphia University for certifying behavioral health technicians.

The second kind of validation, and for Gill the critical one, would come from "subject matter experts": the men and women who do the jobs, their direct supervisors, and, in some cases, behavioral health consumers. "The workplace is the best place to find subject matter experts," explains Gill; experienced, competent employees are most familiar with the tasks performed on the job (Gill 2008). Subject matter experts in the workplace are essential to the accurate delineation of job roles and competencies. And they are especially vital in *Jobs to Careers*, which emphasizes learning that is linked directly to the work itself. To develop curricular content that is work-based, a competency study must elicit the tasks most needed for behavioral health workers to do their jobs as well as possible. It must illuminate what they do on the job—something that is second nature to those doing it but not codified in a systematic way. Yet it must also reveal why they do particular tasks; how they might perform them better, according to best practice standards in the field; and what they do not do but should as members of a recovery-based care team.

Tasks uncovered from a literature review are typically broadly defined, and this study was no exception. They include thinking, problem solving, decision making, and effective communication. These can also be gleaned from observations of workplaces, certification exams, or experts in human resources. But, as Gill explains, these very general domains of work tasks must be grounded in the practices of specific workplaces.

Gill's team members analyzed jobs and delineated the roles performed by behavioral health workers in several steps. They asked workers at Temple Episcopal and PHMC to say which tasks are most important to their jobs, which are most critical, and which they do most often. The team followed up with additional interviews. Sifting out the most urgent or critical tasks matters because frontline workers may face life-threatening situations, particularly with patients who suffer from severe mental or substance abuse disorders. Critical tasks are the ones that a behavioral health worker must learn immediately. But identifying the most critical tasks is also a practical matter for organizing work, supervision, and training. For learning to be work-based, the curriculum must be efficient, focusing on the skills and knowledge most needed on the job.

Expanding the Competency Framework

Before proceeding with the job analysis, Gill sought to understand the variety of programs and frontline positions represented by the two employers. Given a multitude of services, job descriptions, and titles, his team engaged in more site visits to learn about the employers' diverse services from individual program directors and managers.

The UMDNJ team proceeded to visit Temple Episcopal Hospital and PHMC's residential treatment facilities in early 2007. After becoming familiar with each facility's program models and the populations they treated, Gill interviewed behavioral health workers, individually at Temple and in groups at PHMC's diverse facilities. The staff members spoke in detail about the jobs they did, how they did them, and what they needed to know to do

them effectively, including the most critical and most frequently performed tasks. The researchers also met with supervisors—to confirm or complete workers' accounts and to determine which skills and tasks were missing from workers' accounts or from the jobs themselves as currently constituted. Additional group discussions and interviews provided further cross checks and helped the research team assign priorities to various tasks.

This process confirmed what the UMDNJ team had learned from previous competency studies: frontline workers generally know more than anyone else about what it takes to do their jobs. While supervisors augmented their accounts—mainly about the things that people "don't know that they don't know," in Gill's words—they added few tasks to those described by the direct care staff.

A good example of this is a task reported in many interviews: "crisis de-escalation." One worker reported that "an important part of my job is to keep things calm on the hospital unit." Upon further inquiry with this worker, his or her peers, and supervisors, the researcher uncovered specific tasks and skills involved in calming agitated patients. These include observing and consulting with co-workers about symptoms and changes in behavior, notifying supervisors, and using behavioral techniques to help the patient calm down. Supervisors from Temple Episcopal and PHMC validated this finding, agreeing that crisis de-escalation is important, critical and frequent, and new employees need to master it quickly. They also supplemented worker accounts of the knowledge and skill needed to calm patients effectively, adding the ability to recognize and understand specific symptoms and to use body language that is confident but not aggressive.

After the interviews, the UMDNJ team grouped job tasks into larger categories—"domains"—weighting them based on the ratings given to each by the subject matter experts. Thus, the team assigned more weight to domains of knowledge and skill more important, more frequently used, and/or more urgent. Using their experience in teaching skills needed for psychiatric care, the faculty members refined the definitions of tasks suggested by workers and supervisors into specific learning objectives for each domain.

It was this set of objectives that provided the skeleton for a behavioral health curriculum. The results point to the comprehensive effort mounted for *Jobs to Careers*, as well as to the complexity of frontline behavioral health workers' jobs. The interviews identified 49 tasks, grouped into eight domains *(see box, "The Skills of Frontline Workers in Behavioral Health," on the following page)*.

One surprising finding from this process, according to Gill, is the similarity of responses for competencies across Temple Episcopal and PHMC's workplaces. The similarities at the level of broad requirements for behavioral health workers helped realize the goal of a core set of competencies spanning the two organizations. The researchers omitted very specific competencies, such as those needed for working with PHMC's particular populations (adolescent boys with addictions, mothers with mental illness) in favor of more general ones, such as those needed for treating addictions, recognizing symptoms of mental illnesses, or responding to crises.

Another revelation, according to Gill, was the importance accorded to helping all service recipients gain skills of daily living. It was by far the highest weighted domain, yet it is not typically part of formal job descriptions.

Another revelation, according to Gill, was the importance accorded to helping all service recipients gain skills of daily living. It was by far the highest weighted domain, yet it is not typically part of formal job descriptions. There was also a high priority granted to crisis management. However, applying program philosophy was weighted lower, although important enough to be part of the curriculum.

From Competencies to Curriculum

The UMDNJ team, in cooperation with the employers and District 1199C Training and Upgrading Fund, grouped the competencies and associated learning objectives into three large modules, based on similar areas of competency. For example, it takes strong interpersonal skills to cope with a patient in crisis, just as running effective therapeutic groups requires good teamwork skills. The team combined the material into three modules to keep the curriculum manageable for delivery in the workplace and to demonstrate the relationships among different competen-

The Skills of Frontline Workers in Behavioral Health

A reserach team from the University of Medicine and Dentistry of New Jersey identified eight skill domains that are central to the work of frontline behavioral health workers. These are listed in order of importance, beginning with the most important.

Skill Development Methodology: Lists the Activities of Daily Living and social skills most commonly needed by service recipients; identifies the four phases in the process of teaching an ADL or social skill ("tell, show, do, review")

Crisis De-escalation: Knows procedures for asking for help from others; knows documentation process for crisis situations

Ethics and Boundaries: Maintains appropriate client confidentiality; understands when confidentiality must and should be breached (e.g. to avoid serious harm)

Interpersonal Competencies (especially for informal communication): Uses listening skills; analyzes conversations for gaps, themes, intensity

Basic Behavioral Health Care Knowledge: Knows symptoms of major mental illnesses; identifies symptoms of substance abuse disorders that are similar to other medical and mental health conditions

Team Participation: Provides the team with relevant information using professional language; identifies factors that cause breakdown in team communication

Group Skills: Defines the common types of group interventions; records individual progress made in each group session

Applying Program Philosophy: Understands varying definitions of recovery; understands which definitions are most applicable to own program

cies. Each module is roughly equivalent to six academic credits.

The three modules are:

1. Core Behavioral Health Knowledge—including program philosophy, ethics and boundaries, and knowledge of addictions and co-occurring disorders
2. Interpersonal Competencies and Crisis Intervention
3. Skills Training, Group Skills, and Teamwork

For each module there is a series of desired job role behaviors. These, in turn, are accompanied by learning objectives, or what the worker needs to know to be competent in that behavior. For example, the learning necessary for the competency "Core Behavioral Health Knowledge" leads to these desired job role behaviors:

- Describes a variety of techniques and skills used for de-escalating a crisis, such as the use of conciliatory and calming language, tone of voice, non-threatening approach, active listening skills; and
- Describes appropriate physical safety techniques that can be used as last resorts in deescalating a crisis.

The detailed outline for the modules specifies the instructional methodology to be used for each learning objective: didactic instruction, a workplace seminar; work-based learning, through "action learning assignments" carried out as part of one's job responsibilities; or a combination of seminar- and work-based methods. Developing this methodology involved back and forth among the research team, employers, and staff of the Training Fund. Gill asked for input on the modules' content, whether the content and its order made sense, and what important elements were missing. He also consulted supervisors about the appropriateness of the assignments associated with each week's curriculum.

Matching specific learning objectives to distinct learning modes demonstrates the

importance of job competencies to work-based learning. Learning factual information and theories—about program policies, symptoms of mental illness, or approaches to recovery, for example—lends itself to the lecture-and-discussion format of a seminar. Demonstrating how these and other facets of the job are applied, and testing them against the real experiences of workers and consumers, requires learning from action, or work-based learning *(see box, "An Example Of Instruction Methods by Job Behavior: Crisis De-escalation").*

The assignments given to help participants master the learning objectives also illustrate the contrast between traditional and work-based modes of learning. For the latter, participants take on concrete tasks related directly to their work with patients and peers in the wards or residences. In one assignment, for example, they must use observation and evaluation skills to determine if a potential crisis is occurring. They would then follow up with their supervisor to offer evidence of their observations of a potential crisis.

Learning factual information and theories—about program policies, symptoms of mental illness, or approaches to recovery, for example—lends itself to the lecture-and-discussion format of a seminar. Demonstrating how these and other facets of the job are applied, and testing them against the real experiences of workers and consumers, requires learning from action, or work-based learning.

An Example of Instruction Methods by Job Behavior: Crisis De-escalation

Desired Job Role Behavior	Learning Objectives Required For Competency	Seminar	Work-based Learning
Participates in follow-up procedures once a crisis situation is over	Knows documentation process for crisis situations	✓	
	Utilizes documentation process after crisis situations		✓
	Evaluates the crisis event with co-workers to determine what worked and what didn't work	✓	✓
	Assists in follow-up discussions with clients who may have witnessed the crisis		✓
	Assists in follow-up discussions with the people involved in the crisis		✓

Other assignments ask caregivers to hone their skills during and after a crisis. In the midst of crises, they learn to practice a variety of techniques. For example, they learn to use an even tone of voice when speaking to consumers and to help the person in crisis focus on the present. They also learn to listen non-judgmentally to the person in crisis.

For assignments in each case, behavioral health workers evaluate themselves about whether they have demonstrated the competency in question. They also consult peers to assess whether they have used the skills, and then meet with supervisors to discuss how the technique has worked for them during the crisis.

Supervisors play a critical role in both the traditional and the work-based assignments. In both cases, they must verify that the competency was attained. Designers of the new curriculum intend for this to be much more than a simple "check-off"—as a traditional teacher might do to document that homework was completed correctly. Particularly in the "action learning" assignments associated with work-based learning, supervisors need to move beyond competency demonstration to helping workers explore and even question what they are learning.[11]

Educators, project managers, and behavioral health workers in the Training Fund's project have all noted this essential difference in both curriculum and instruction. Under traditional approaches to teaching, a person working in psychiatry might learn about diagnosing a particular disorder, such as schizophrenia, by reading the standard text, the Diagnostic

and Statistical Manual of Mental Disorders. Under the work-based model, workers at Temple Episcopal Hospital or PHMC choose a diagnosis of interest, observe and interact with a patient with an illness on the schizophrenic spectrum, and read his or her chart and medical records. As part of the assignment, the worker might also interview one or two people, such as a doctor on staff or a nurse-supervisor. The worker then reflects on whether the diagnosis in the chart accurately reflects the patient's actual behavior. Upon returning to the seminar, workers discuss their experience of the assignment and describe their observations and analysis.

Similarly, where a student might have mastered the concept of "recovery" by consulting a textbook, he or she now would study it in a reflective, multi-dimensional way. The homework would still involve reading the standard definition, but the work-based learning would engage the student in discussions with supervisors, peers, other staff, and consumers regarding their definitions and experience of recovery. The workers would weigh all the information gained in this way alongside the textbook definition.

Treat competency identification as a work in progress, with continuous attention to improving quality. The researchers built repeated quality checks by employers and subject matter experts into the process of mapping job competencies.

Challenges to Implementing a Competency-based Curriculum

Implementing a competency-based curriculum is complex and demands considerable staff effort, curriculum expertise, and instructional time. For this project, the delineation of competencies took almost one year to accomplish, even though an initial analysis had been done previously for Temple Episcopal. Course time, originally planned to be 12 weeks for each module, takes 16 weeks. However, classroom time overall has been reduced to 144 hours from the 300 hours required for Philadelphia University's traditional course, in part because the project is comprehensive. Rather than teach one or a few work-related skills, the project team opted to revamp an entire course of instruction for all aspects of an occupation.

Gill also attributes the lengthy startup to the need for thoroughness, as well as to accommodate employers' schedules and unexpected events in the workplace. Conducting individual interviews and focus groups, as well as paying the close attention to frontline workers (as opposed to relying solely on managers' written descriptions and/or literature reviews) also added time.

Because competencies will be taught largely through work-based learning, entirely new assignments were required. And because much of the content—recovery, psychiatric rehabilitation—was new to the program, the previous behavioral health curriculum had to be almost completely revamped.

Another challenge lay in setting priorities. Assigning weights to certain areas of behavioral health work was made difficult by employers' beliefs in the value of all competencies. This resulted in real but small differences in priority among particular items, such as teaching skills to consumers versus applying program philosophy

Lessons for Practice

Organizations considering a competency approach to designing curricula can apply lessons gleaned from the experience to date of the Training Fund, its partner employers, and educators:

- *Get expert assistance.* Kenneth Gill and his team's previous experience with job analysis and curriculum development contributed depth and legitimacy to this effort and the resulting product.

- *Listen to experts on the ground.* As Gill notes, the ultimate experts about the jobs are the individuals who spend the most hours with consumers. Gill's team could have relied on written surveys of workers, or relied on their managers, but the group and interview studies enriched and deepened understanding of job competencies.
- *Collect data from diverse sites.* The job analysis was enriched by its demonstration of common competencies across very different work environments.
- *Treat competency identification as a work in progress, with continuous attention to improving quality.* The researchers built repeated quality checks by employers and subject matter experts into the process of mapping job competencies. There will be further refinement as successive cohorts of workers and supervisors engage the competencies through work-based learning and classroom instruction.
- *Recognize that assessment requires more than a "check-off."* Supervisors need to be engaged in an open-ended learning process that encourages workers to consider multiple approaches and answers to problems. This moves beyond expecting workers to demonstrate competencies and answer rote questions.
- *Training the trainers takes more than one session.* A day's introduction to "coaching" methods is not enough to convey a different role, orientation, and methods of instruction and assessment to supervisors in behavioral health. Booster sessions are valuable, but more orientation to the philosophy and methods of competency-driven, work-based learning will be necessary.
- *Be prepared for extra preparation.* To master a curriculum that is both experiential and theory-based, frontline workers need to be assessed early on for academic readiness. Preparation in foundational skills, such as reading and critical thinking, may be necessary before embarking on more demanding competency-based coursework.

Transforming Professional Development

As of February 2009, two cohorts of frontline workers at Temple Episcopal Hospital and one from PHMC had completed the Core Behavioral Health Competencies and Interpersonal Skills/Crisis Intervention modules of the new curriculum. They are currently completing the final module, involving leading groups and training consumers in skills of daily living. Thirty-three workers have participated, and further cohorts are planned for both organizations. It is too early to report impacts on worker performance or patient/consumer outcomes, but the development of the new, competency-based curriculum is clearly changing both organizations' approaches to educating their frontline staff. Until now, neither has had a standardized, uniform set of competencies on which to base training and development. Findings on the impact of competency-based training will be available in 2010, when final results from the *Jobs to Careers* national evaluation are released, as well as a study of return on investment from the Temple Episcopal project.[12]

The initiative could provide many longer-term benefits, both to participating workers and employers and to the field of behavioral health. One is the potential to offer better service to consumers, rooted in the recovery model and in current research on evidence-based practices in psychiatric rehabilitation. Another is the impact of a work-based, competency-oriented curriculum on human resources and organizational practices. Implementing the curriculum has required supervisors and workers to change their roles and relationships with one another. Rather than overseeing performance of tasks and obtaining "check offs" on demonstrated competencies, supervisors are encouraged to help workers pose problems and generate their own answers.

Another key use of the competency approach is the creation of wage and career advancement pathways for participants completing the behavioral health training. While Temple Episcopal and PHMC are implementing wage progression through different means—collective bargaining through the labor-management system in the first, cataloging of diverse job titles and descriptions across facilities to

develop career paths at the second—both are employing the competency process and the resulting curriculum to rework human resource practices, including wages and advancement.

The development of standard, competency-based curricula also has the potential to enrich and expand "in-service" or required professional education. There is also potential to sustain this model financially by incorporating the new curriculum into in-service education—part of the requirements for licensure by the Joint Commission on the Accreditation of Health Care Organizations. However, it will be challenging to align the curriculum with current in-service requirements (which in some cases are not up to date with best practices and research in the field).

Workers who attain competencies through work-based learning will also be building a foundation for college study. The District 1199C Training and Upgrading Fund is developing a "crosswalk" of the competencies and curriculum with the fund's existing certificate course for behavioral health technicians, developed by Philadelphia University. The goal is to determine the amount of credit that workers can earn at the university, and ensure that it is transferable for those going on to earn an Associate's or Bachelor's degree. The University of Medicine and Dentistry of New Jersey may also integrate the curriculum with its degree and certificate programs. A career coach engaged for this program is developing education plans with employees to help them determine short-term and longer-term education and career goals.

Perhaps the furthest reaching consequence of the competency approach and work-based learning in *Jobs to Careers* would be for the field of behavioral health to pay greater attention to frontline workers and their jobs. This project provides an example of what it means to take frontline workers' jobs seriously—understanding workers' contributions, while expanding their knowledge and their role in the care-giving process. And the careful research, validation, and translation of competencies into curriculum lays a promising foundation for other employers, educators, and regulatory and funding bodies.

APPENDIX

Competencies in Context

The U.S. Department of Labor defines "competency" (or the abilities or skill sets necessary to perform a job) as "the capability to apply or use a set of related knowledge, skills, and abilities required to successfully perform critical work functions" in a defined work setting (Sten et al. 2006). The definition notes that "competencies often serve as the basis for skill standards that specify the level of knowledge, skills, and abilities required for success in the workplace as well as potential measurement criteria for assessing competency attainment."

Competencies can be either foundational or technical. Foundational competencies include general skills that may be personal (readiness to learn), academic (reading, using a computer), or workplace-related (working with teams, problem solving). Technical competencies are associated with particular industries, occupations, or workplaces. In behavioral health care, foundational competencies include reading a patient chart for information or communicating successfully to calm a patient. Diagnosing symptoms of schizophrenia or understanding the "12-step" approach to recovery are examples of technical competencies.

The tradition of competency-based learning and assessment stretches back to craft apprenticeships in ancient and medieval times. More recently, licensing and accrediting authorities in health professions have long used clinical demonstration of standard competencies as a required gateway to practice. Licensed professionals in behavioral health, such as therapists, addictions counselors, and psychiatric nurses, face similar requirements. But until recently, there was less emphasis on standard skills or job definitions for workers on the frontlines of these fields.

Recent moves to define and adopt competencies for all levels in the workplace have been fueled by employers' needs for objective measures for selecting job candidates and determining policies for compensation, promotion, and staff development. Competency advocates look for the knowledge, skills, abilities, and personal characteristics that predict or enhance successful performance on the job. In addition, a competency-based approach considers the ways that organizational characteristics affect individual performance and motivation (Hoge, Tondora, & Marrelli 2005). A variety of employers, including hospitals and manufacturers, have analyzed job skill requirements—sometimes using off-the-shelf tools and software programs—to identify skills and skill levels needed to perform jobs in a specific workplace and to create occupational profiles spanning a number of employers (ACT WorkKeys 2008; Putnam 2008).[13]

The Department of Labor has further refined the practice of job analysis by collecting and disseminating "Industry Competency Models" in a variety of fields, including financial services, information technology, and advanced manufacturing (U.S. DOL ETA 2008; Ennis 2008). These efforts build on a number of initiatives to create formal definitions and standards for job-related skills and knowledge across industry and occupational categories. The latter include the National Skills Standard Board, a publicly funded coalition of leaders from business, labor, education, and community groups, and "O*NET," the Occupational Information Network, a database developed by the U.S. Department of Labor. Both efforts conceptualized work in terms of information about jobs, and their requirements, and information about people, and their skills, abilities, and interests (Leff et al. 1999; Wilcox 2002).

Under the NSSB, voluntary skills standards were developed for manufacturing and the sales and service industry sectors, and research was initiated in other areas as well, including retail and public administration. The federal government withdrew from this effort in 2003, but a membership foundation, the National Skills Standard Board Institute, carried on with researching the development and use of industry skill requirements in manufacturing, retail, and other areas (AYPB 2002).

O*NET, and its "Content Model" or conceptual framework, has become a standard public resource for occupational information. The database is updated at regular intervals through surveys of workers in a range of occupations. It supports online applications for researching occupations and careers. The O*NET Content Model defines key aspects of an occupation in terms of measurable descriptors, such as worker characteristics and occupational requirements. It enables users to "cross walk" occupational information across jobs, sectors or industries, and within specific occupations. For more information, see www.onetcenter.org.

ENDNOTES

[1] Episcopal Hospital, the city's charity hospital, was acquired by TUHS in 1998 (along with the Newman Center, another psychiatric rehab provider) to create Temple Episcopal Hospital to provide in-patient mental health services.

[2] Out of eighty frontline staff, just six had turned over in the prior year. One of those leaving on a voluntary basis had done so to enroll in nursing school.

[3] This figures includes those treating persons with developmental disabilities. But this estimate may understate the number employed, due to the many disciplines and settings where mental health services are offered, overlapping roles, and ambiguous job titles, as well as a paucity of data on the number of workers treating substance abuse (Robiner 2006). The field is projected to grow modestly, with workers in residential mental health and mental retardation facilities accounting for the increase. At the same time, employment in psychiatric hospitals will decline (U.S. BLS 2007).

[4] In Pennsylvania, a work group convened by the Office of Mental Health and Substance Abuse Services drafted a blueprint for building a recovery-oriented service system. A Call for Change: Towards a Recovery-Oriented Mental Health Service System for Adults was subsequently endorsed and adopted by the agency (Anglin et al. 2005).

[5] While the cited figure was drawn from research on long-term care (for elders and people with disabilities), it is comparable to estimates for turnover within specializations in behavioral health. For example, direct support workers in residences for people with developmental disabilities turn over at rates of 40 to 70 percent (Larson et al. 2004).

[6] While career advancement is a central goal of the project, this report focuses on the development and use of job competencies, which are expected to support the creation of career steps.

[7] Mental health workers in Temple's hospital setting are generally required to have 12 units of college credit.

[8] The team members from the UMDNJ School of Health Professions were Kenneth J. Gill, Ph.D.; Nora M. Barrett, MSW, CPRP, Undergraduate Program Director, Psychiatric Rehabilitation and Treatment; Peter M. Baston, M.S, CPRP; Amy Cottone Spagnolo, M.S., and Petra Kottseiper, Ph.D.

[9] "Evidence-based practice" in psychiatry is an extension of "evidence-based medicine." It emphasizes clinical decision-making based on the careful collection and application of evidence, while integrating the best research findings into clinical practice (Geddes et al. 1997; Carey & Hall 1999).

[10] Gill's sources included earlier studies of competencies in mental health and substance abuse work. One previous competency study in mental health, undertaken with a panel of expert opinion, was commissioned by the U.S. Center for Mental Health, Substance Abuse and Mental Health Services Administration (SAMHSA) in 2000 (See Coursey et al. 2000). Gill also consulted a role delineation study carried out with 300 subject matter experts around the U.S (Columbia Assessment Services and IAPSRS 2001). For a study of competencies for frontline supervisors and direct support professionals serving persons people with intellectual and developmental disabilities, see Larson et al. (2007).

[11] The training of supervisors in this project, and their challenges in adopting new roles as they participate in implementing the new curriculum and assessing competency attainment, will be documented in a separate brief, using examples of supervisory practice across a number of Jobs to Careers projects.

[12] The national evaluation of *Jobs to Careers* is being conducted by the University of North Carolina Institute on Aging. The Aspen Institute Workforce Strategies Institute is conducting a Return on Investment evaluation at Temple Episcopal Hospital.

[13] WorkKeys, a computerized assessment tool applied in workplaces and educational organizations, is used to determine individual job readiness and broad skill requirements for particular jobs and occupations. It measures competency levels in areas such as reading for information, locating information, and applied mathematics. See www.act.org/workkeys.

REFERENCES

ACT WorkKeys. 2008. "Jobs Skills Assessment System Measures Real World Skills." Available at: www.act.org/workkeys/index.html.

Anglin, Kim, et al. 2005. *A Call for Change: Towards a Recovery-Oriented Mental Health Service System for Adults*. Harrisburg, PA: Pennsylvania Department of Public Welfare, Office of Mental Health and Substance Abuse Services.

American Youth Policy Forum. 2002. *National Skills Standard Board: Integrating Manufacturing Skill Standards into Education and Training Programs*. Washington DC: AYPF. Available at jwww.aypf.org/forumbriefs/2002/fb020102.htm.

Baron, Richard C. 2007. *A Report from the Southeastern Pennsylvania Behavioral Health Industry Partnership*. October. Philadelphia: The Southeastern Pennsylvania Behavioral Health Industry Partnership.

Carey, Stephen & David J. Hall. 1999. "Psychiatrists' Views of Evidence Based Psychiatric Practice." *Psychiatric Bulletin*. Number 23.

Columbia Assessment Service and IAPSRS. 2001. *Role Delineation Report of the Certified Psychiatric Rehabilitation Practitioner*. Morrisville, NC: Columbia Assessment Services.

Coursey, Robert D., et al. 2000. "Competencies for Direct Service Staff Members Who Work with Adults with Severe Mental Illnesses: Specific Knowledge, Attitudes, Skills, and Bibliography." *Psychiatric Rehabilitation Journal*. Vol. 23. No. 4

Ennis, Michelle R. 2008. "Competency Models: A Review of the Literature and the Role of the Employment and Training Administration (ETA)." Pilots and Demonstration Team, Division of Evaluation and Research, Employment and Training Administration, U.S. Department of Labor. January 29.

Geddes, John and Stuart Carney. 1997. "Recent Advances in Evidence-Based Psychiatry." *Canadian Journal of Psychiatry*. Number 46.

Gill, Kenneth J. 2008. "Competency Identification: Laying the Groundwork for Work-based Learning." Learning Collaborative Roundtable for *Jobs to Careers*: Work-based Learning for Quality Care. Boston: Jobs for the Future. April 22. Available at: www.jobs2careers.org/pdf/Gill%20powerpoint%20WBL.pdf

Goldberger, Susan. 2005. *From the Entry Level to Licensed Practical Nurse: Four Case Studies of Career Ladders in Health Care*. Boston: Jobs for the Future.

Hoge, Michael A., Janis Tondora, & Anne F. Marrelli. 2005. "The Fundamentals of Workforce Competency: Implications for Behavioral Health." *Administration and Policy in Mental Health*. Volume 32, No. 5/6.

Larson, Sheryl A., Robert Doljanac, Derek K. Nord, Patricia Salmi, Amy S. Hewitt, & Susan O'Neill. 2007. *National Validation Study of Competencies for Frontline Supervisors and Direct Support Professionals*. Minneapolis, MN: University of Minnesota, Research and Training Center on Community Integration.

Larson, Sheryl A., Amy S. Hewitt, & C.K. Lakin. 2004. "Multiperspective Analysis of Workforce Challenges and their Effects on Consumer and Family Quality of Life." *American Journal of Mental Retardation*. Volume 109, No. 6.

Leff, Judith, Joyce Malyn Smith, & Elisabeth Hiles. 1999. *Making Skill Standards Work: Highlights from the Field*. Newton, MA: Education Development Center, Inc.

Putnam, Laura. 2008. "Career Ladders/Lattices: New Tools for Talent Development." Webinar. Washington, DC: U.S. Department of Labor, Employment and Training Administration, Workforce3One, October 22. Available at: www.workforce3one.org/public/webinars/details.cfm?id=394&info=1

Robiner, William N. 2006. "The Mental Health Professions: Workforce Supply and Demand, Issues, and Challenges." *Clinical Psychology Review*. No. 26.

SAMHSA. 2008. *Behavioral Health Workforce Development Initiative*. U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration.

Schindel, Jennifer, David Cherner, Edward O'Neil, Kim Solomon, Brian Iammartino, & Janine Santimauro. 2006. *Workers Who Care: A Graphical Portrait of the Frontline Health and Health Care Workforce*. San Francisco, CA: Health Workforce Solutions LLC, for the Robert Wood Johnson Foundation. Available at: www.jobs2careers.org/publications.php.

Sten, Jan, Pam Frugoli, & LeeSa Page. 2006. "Competency Model Clearinghouse—Tools for Talent Development." Webinar. Washington, DC: U.S. Department of Labor, Employment and Training Administration, Workforce3One, October 5. Available at www.workforce3one.org/public/webinars/details.cfm?id=124&info=1.

U.S. Bureau of Labor Statistics. 2008. Occupational and Employment Statistics. *Occupational Employment and Wages, May 2007. 31-1013: Psychiatric Aides*. Available at www.bls.gov/oes/current/oes311013.htm.

U.S. Department of Labor, Employment and Training Administration. 2008. *Competency Model Clearinghouse*. Washington, DC: U.S. Department of Labor. Available at www.careeronestop.org/CompetencyModel/learnCM.aspx

U.S. Office of Personnel Management. 2003. *Sample Job Analysis Worksheet for Competencies*. Washington, DC: U.S. Office of Personnel Management. Available at: www.opm.gov/deu/Handbook_2003/deoh-sample-2.asp.

Wilcox, Dave. 2002. *The National Skills Standard Board: Building the Foundation for a Dynamic Workforce*. Washington, DC: National Skills Standard Board. Available at www.umanitoba.ca/unevoc/2002conference/text/papers/wilcox-rohr.pdf.

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ACKNOWLEDGEMENTS

The author would like to acknowledge the support and assistance of Cheryl Feldman and Lorraine Wise-Kirven, District 1199C Training and Upgrading Fund; Dr. Kenneth J. Gill, University of Medicine and Dentistry of New Jersey, Department of Psychiatric Rehabilitation and Behavioral Health Care; Kay Graham and Pam Shadzik, Temple Episcopal Hospital; Jay Wussow and Michael Ogden, Public Health Management Corporation; Sallie Petrucci George and Andrea Daitz, Robert Wood Johnson Foundation; Barbara Dyer and Mark Popovich, Hitachi Foundation; Marlene Seltzer, Richard Kazis, Maria Flynn, Rebecca Starr, Marc S. Miller, and Jean-Pierre LeGuillou, Jobs for the Future; and Maureen Conway and Amy Blair, the Aspen Institute, Workforce Strategies Initiative.

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