

DRAFT

Measuring Long-Term Care Work:

*A Guide to Selected Instruments to Examine
Direct Care Worker Experiences and Outcomes*

November 2003

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Chapter 1: Introduction and Purpose of Guide

Background

Research has shown that employees' feelings about certain aspects of their jobs often affect their commitment, their overall job satisfaction, and the likelihood that they will remain with their employer (e.g., Kuokkanen and Katajisto, 2003; Laschinger, Finegan, and Shamian, 2001; Burke, 2003). Some providers survey their DCWs on a regular basis as part of their effort to retain employees, while others do not. Providers that already survey workers or collect information on retention and turnover may find the instruments reviewed here useful for enhancing their efforts. Providers that do not collect information on their DCWs will learn some of the benefits and become more informed of possible ways to measure DCWs' experiences and behaviors. Providers can benefit by using appropriate instruments as tools to understand what their DCWs want and how providers are doing in keeping DCWs.

The Institute for the Future of Aging Services (IFAS) has developed this Guide to help LTC organizations improve their use of measurement tools to understand direct care workforce problems and to inform their solutions. This Guide has been funded by the Office of the Assistant Secretary for Planning and Evaluation (ASPE) of the U.S. Department of Health and Human Services and the Office of Policy of the U.S. Department of Labor.

This Guide relies heavily on a review of existing workforce measures by researchers at The Pennsylvania State University (PSU), who assessed the utility of instruments for measuring the direct care workforce. The choice of topics and instruments included in this Guide was made jointly by PSU and IFAS teams and will be discussed in further detail in Chapter 4. The choice of instruments was also based on review and input from 24 individuals with expertise in analyzing and/or evaluating workforce recruitment and retention practices and who represent potential users of the Guide – providers, worker groups, researchers, workforce development representatives, and state agencies. A Technical Expert Panel (TEP) shared ideas for further development of the Guide at a meeting in September 2003. Appendix A lists the reviewers, TEP members, and their affiliations.

Key Terminology

Certain terms that are used frequently in this Guide have particular meanings. The following terms and definitions will be used:

Direct care workers (DCWs): Nursing assistants (NAs), home health and home care aides, personal care workers and personal care attendants who provide hands-on care, supervision and emotional support to people with chronic illnesses and disabilities. DCWs work in a variety of settings, including nursing homes, assisted living and other residential care settings, adult day care and private homes.

Formula: An equation that uses data (or information), often administrative records, to calculate something specific, such as a turnover rate.

Instrument: A form intended to collect data that measures topics of interest, using one or multiple measures or subscales. Examples of instruments are surveys (questionnaires) or formulas.

Measure: A device used to quantify a topic of interest. A measure is often a part of a survey instrument (questionnaire). A subscale is one type of measure.

Questionnaire or survey: A form used to collect data for analysis.

Response scale: A way to rate responses to a question posed in a survey (questionnaire). An example of a scale may be “1 = strongly agree, 2 = agree, 3 = neutral, 4 = disagree, 5 = strongly disagree.”

Scale: Average of subscale scores for a topic measured in a questionnaire.

Subscale: A subscale usually contains multiple survey items intended to measure the same aspect or dimension of a topic (e.g., autonomy is a subscale of 5 items measuring one aspect of empowerment).

Purpose of the Guide

Measurement of LTC direct care worker (DCW) perceptions and outcomes is a field that is in its early stages of development. This Guide provides a range of instruments and subscales that are available for measuring 11 topics of greatest relevance to DCWs, many of which have been applied in health care or LTC settings. This Guide explains why each of the instruments and subscales is useful, key issues to consider in selecting which instruments or subscales to use, and potential limitations.

While this Guide may be helpful to many audiences – providers, state agencies, workforce development groups, worker groups and researchers – this first version is intended for providers in institutional, home care and other residential settings. In addition, the instruments in this first version of the Guide are generally more applicable to nursing homes than other provider settings, because few instruments have been developed for home and community-based care settings.

The Guide is meant to serve as a starting point for measurement of LTC workforce problems and possible solutions. Some topics, instruments or subscales that are relevant to the LTC workforce may not have been included in this Guide because we did not know they exist. Through feedback from users of this Guide, updates and improvements will be made. Therefore, we encourage you to submit the User Feedback form to IFAS.

Ultimately, the measurement of LTC workforce issues and solutions would benefit from a uniform but limited set of measures and instruments that would permit providers to compare

their performance with others. Such benchmarking would allow providers to learn from other organizations with low turnover and high retention rates about how best to improve their own performance. However, the first step in the development of a uniform or core set of measures is for providers to use this Guide to inform their DCW data collection efforts.

Scope of the Guide

Measurement is only a tool, a means (gain relevant information to inform decision making) to an end (improved work environment and DCW retention). The use of measurement is intended to complement, not substitute for, organizational goal setting. Your organizational workforce goals, such as improved retention or enhanced skills in providing care, should determine your choice of particular instruments or subscales. This Guide is not a retention program in itself. However, information gained from use of the instruments and subscales could lead to improved staff retention if your organization takes appropriate actions based on the information and then measures how you are doing.

This Guide presents a collection of instruments that quantify different ways to look at worker outcomes and worker experiences through employee surveys. These instruments have been used in the real world to assess how employees feel and think about their jobs and their employer and whether they stay or leave their jobs.

Instruments to measure 11 topics are included in this Guide. It excludes certain topics, such as absenteeism and use of temporary workers, when valid instruments for measuring them were unavailable. Instruments had to meet specific criteria to be included in this Guide, and will be discussed in further detail in Chapter 4. Instruments not ready for use with DCWs and instruments meant to measure manager needs or experiences are not the focus of this Guide, but a few are included in the Appendix B for consideration.

Two major types of instruments are in this Guide. One type uses formulas to calculate rates based on data already collected through employment records. A second type requires the collection of new data in order to understand DCWs' perceptions and attitudes about their jobs or the organization. This type of information is collected through survey questionnaires administered to DCWs.

While all of the instruments in the Guide have been used in work settings, in Chapter 4 we highlight ones that have been used in health care settings and ideally with DCWs. [However, we strongly encourage you to “pre-test” any instrument with a small number of DCWs in your setting before using it with your entire community, facility, agency or unit. Testing can help uncover questions that do not make sense to DCWs, are hard to understand, or are not appropriate.]

This Guide is not a “how-to” manual. It will not tell you which instrument is the “best” for every possible circumstance, nor will it tell you how to select or use specific instruments, how to administer surveys to your DCWs, or how to undertake other data collection efforts. The Guide

will not provide tips on how to build capacity in your organization to gather, analyze and use information or how to conduct evaluations of programs and practices you have in place.

The Guide is intended to help you...

- Think about how measurement can inform your DCW retention efforts
- Plan to use measurement to see what to target to improve DCW retention
- Become a more informed user of survey-based and records-based data

If your organization does not have anyone with research skills, we encourage you to work with a local researcher, university (e.g., survey research center, nursing department, organizational studies or labor department) or survey organization.

Overview

This Chapter has provided a background and outlined the purpose and scope of this Guide.

Chapter 2 discusses how you can benefit from using these instruments and provides examples of how others use information collected from measurement instruments in a meaningful way.

Chapter 3 briefly discusses issues you should think about when planning and implementing a data collection and analysis process.

Chapter 4 reviews the workforce topics, instruments and subscales included in the Guide, how they were selected, and identifies those currently ready for use.

Appendix A lists the names and affiliations of reviewers and TEP members who provided comments and suggestions as we developed this Guide.

Appendix B provides additional instruments that may be helpful, but require some adaptation before they are ready for use.

Chapter 2: How This Guide Can Help Your Organization Use Information to Increase Job Retention and Quality Among DCWs

Why You Should Use this Guide

Measurement is a tool you can use to pursue the goal of improving quality in LTC. Research has shown that administrators, supervisors and DCWs feel a large obstacle to achieving desired quality of care is the need to constantly address vacancies from staff turnover and a revolving door of new staff (Harahan, et al, 2003). An Institute of Medicine report on LTC quality acknowledges that “quality of (long-term) care depends largely on the performance of the caregiving workforce” (Wunderlich, 2000). High turnover among DCWs impacts the quality of care that residents or clients receive. Continuity of care is interrupted. Quality of care may also be affected if DCWs feel unappreciated or burned out because of having to frequently “work short.”

High turnover among DCWs also impacts employers financially. Constant turnover often requires employers to hire temporary staff which is costly (and, may affect the quality of care provided). Training new hires to replace positions that turn over is expensive, especially when employees leave within months of receiving training.

It is essential for LTC organizations to determine why employees are leaving and which organizational actions are necessary to create an environment where DCWs are less likely to leave. Using measurement instruments, such as those provided in this Guide, is a good way to understand your workforce and establish ways to maintain a stable and qualified workforce that provides optimal care to residents and clients.

Potential Uses for Data Obtained through Instrument Use

There are many ways you can use the data collected through measurement instruments. While we offer suggestions for how these data may be used, this Guide is not a “how to” manual for doing these things. We encourage you to work with a research organization, research consultant or university faculty to collaborate in data collection, analysis, and use of the data to inform workforce improvements. Potential uses may include:

1. Benchmarking
2. Learning more about your employees
3. Determining how to make the best use of your resources
4. Achieving quality
5. Evaluating the effect of your programs and practices
6. Increasing your marketability

Benchmarking

Information collected can be utilized to benchmark against other providers in your area, for example. You may want to see how your staff turns over in relation to other providers, so you might compare turnover rates. You could also use instruments to monitor your own progress over time. For example, you may measure turnover rates from year to year to determine whether they are increasing or decreasing. In order to benchmark effectively, the same instruments must be used across providers and across time.

Learning more about your employees

Measurement in LTC can also be used to learn more about your DCWs. You can see what makes them happy or not. For instance, you may be able to answer the questions “are my employees happy with their jobs” or “are my employees happy with their supervisors?” by administering a survey to DCWs. If you find the answer is “no,” you can find ways to make DCWs more satisfied. If an employee survey reveals that DCWs feel their job offers no opportunities for advancement, you may implement a career ladder. You can then test (measure) whether what you developed and implemented (in this example, a career ladder) actually increased DCWs’ satisfaction.

Achieving quality

Measurement may allow you to identify areas that need improvement so you can make the appropriate organizational changes. Addressing needs and continuously making changes for improvement helps you achieve continuous quality improvement (CQI).

Determining the best use of your resources

Data collected from worker questionnaires or administrative records can be used to evaluate your workforce improvement initiatives. For example, let’s say you administer a survey to your DCWs and find that they feel unempowered in their jobs. In response, you develop and implement interdisciplinary teams where DCWs participate in care planning. If you consistently measure retention rates in the same way before and after implementation of these teams, you can determine whether these teams have impacted whether DCWs remain in their jobs.

Increasing your marketability

An organization able to show that employees have remained for many years is likely to be attractive to families trying to find the best home for their loved ones. High retention among staff may also be an effective recruiting tool since it suggests that you treat your employees well and that they are happy with their jobs.

Examples of Measurement Use in LTC

As discussed, data collected through the use of measurement instruments can be used in many ways. Here are a few actual examples of how data collection efforts have been used in LTC workforce improvement initiatives:

CNA Recruitment and Retention Project – Iowa Caregivers Association (ICA)

The Iowa Caregivers Association (ICA) managed the two-year CNA Recruitment and Retention Project, whose goal was to reduce CNA turnover by assessing the needs of DCWs in nursing facilities, and providing programs and services responsive to their needs. Interventions implemented in facilities included: 1) training in work skills (e.g., conflict resolution, team/building/communication, and clinical skills such as communicating with dying residents, caring for Alzheimer’s patients; 2) a CNA mentoring program; and, 3) support group activities. Community-based interventions included a public awareness campaign, CNA recognition programs, and CNA support groups facilitated by local community colleges.

One evaluation of the overall program compared the retention rates of nursing facilities that implemented interventions with the retention rates of facilities that did not. Those which implemented the program experienced retention rates nearly double those of facilities which did not receive the interventions.

A second evaluation of the peer mentoring program involved satisfaction surveys of participating nursing home administrators, mentors, and “mentees.” Mentors, mentees, and administrators generally felt positively about the peer mentoring program. Surveys also revealed that nursing homes did not have a plan for making use of the skills of their returning, newly trained mentors (Richardson & Graf, 2002). As a result, project staff developed a training program for administrative staff on CNA mentor program implementation.

Retention, Earnings, and Career Advancement in the Home Health Care Sector strategy – Boston Private Industry Council (PIC), conducted as part of a U.S. Department of Labor demonstration project

The Boston PIC’s Retention, Earnings and Career Advancement in the Home Health Care Sector training strategy was designed to improve retention of newly hired home health care workers by providing a more effective orientation to the work they were expected to perform. Retention rates of trained home health care workers were calculated after the first year of this new training. An evaluation of the training program was completed by comparing the retention rates of those trained under the new program with the retention rates of hires from previous years who were not. Results showed that retention rates of trainees under the new program were 15 percent higher than those from previous measurement periods (before the training was implemented).

Data retained by the organization on client feedback found that there were fewer complaints about home health care workers that participated in the new training which suggests that the new training program had an impact on the quality of service provided to patients as well.

State Nurse Aide Registries –How Data Are Used to Understand the Direct Care Workforce

Federal law requires every state to maintain a nurse aide registry that contains a list of individuals with the minimum training needed to work in skilled nursing facilities. However, only about 10 states include other types of LTC paraprofessionals in their registries, and many do not regularly update the information. States with comprehensive, up-to-date lists of all certified, licensed or registered direct care paraprofessionals can produce more accurate pictures of total supply, the extent or severity of shortages, and the adequacy of training programs' capacity to meet demand. Such registries can also be helpful in evaluating the effectiveness of state or regional efforts to increase recruitment and retention, and allowing LTC organizations to compare their efforts to recruit, retain and train workers with averages at the state, regional or facility-type level.

North Carolina's nurse aide registry identifies those who completed training at any time since 1990 and is updated to show active (those currently working as nursing aides) and inactive registrants. The data show, for example, that an estimated 38 percent of active registrants were not working as CNAs in 2001. Between July 2000 and June 2002, the number of newly certified nursing assistants outpaced the number of assistants becoming inactive. However, it is not clear whether this is due to an increase of CNAs committed to the occupation or to less availability of other employment in the currently depressed job market. State analysts are able to link individuals in the nurse aide registry with their earnings record, maintained on a state employment database that tracks wages paid to employees. The linked data set shows that inactive registrants earned higher wages and were more stably employed than active registrants. It also showed that the wages of CNAs working in nursing homes were relatively flat over the 10-year period, in contrast to CNAs working in hospitals who tended to have more consistent upward wage trajectories. This suggests that more competitive wages are needed to keep nursing assistants and other frontline workers in the LTC sector.

Kansas' nurse aide registry includes information on all direct care professionals in all health care facilities and requires all health care employers to register their workers by a specific date each year. The state has also invested in new technology that permits an efficient interface for data sharing between state agencies. The Kansas system produces a more accurate picture of the types of workers in each health care setting and makes it easy to disseminate information to many types of users. Other states can build on existing nurse aide registries to obtain more useful information for policy and planning purposes, and for benchmarking by providers in the state.

Chapter 3: Data Collection Planning and Implementation Issues

Introduction

As noted previously, this Guide is not a “how to” manual that will enable you to conduct a data collection effort from start to finish. Instead, it is a guide to selected, reviewed instruments and subscales you may select to use in your efforts to collect information to enhance your direct care workforce retention efforts. Chapter 3 is intended to help you become a more informed consumer of survey- and records-based data collection. Having a better understanding of these standardized measurement approaches can help you collaborate more productively with researchers¹ you work with in data collection efforts at your organization. As recommended earlier, we encourage you to partner with a reputable researcher (consultant, in-house if you have such services, or university-based) and/or data collection vendor to collaborate in data collection, analysis, and use of the data to inform your workforce improvement efforts. Working with a third party viewed as independent and impartial can also help convey to employees that it is safe to provide honest answers to survey questions.

Chapter 3 is intended mainly for providers who have not yet collected information on their DCWs using a questionnaire or records-based data. However, it may also be valuable for providers who have been collecting data (either themselves or working with researchers), to enhance their data collection efforts or understanding of these activities.

Chapter 3 outlines some of the basic issues that you and the researcher(s) will need to decide as you plan your work. This chapter gives only an introduction to a variety of issues to consider in collecting data. A number of issues in this chapter are relevant to both questionnaires and records-based data collection. Where there are differences (e.g., particularly in how data are collected), we highlight some of these differences. However, we encourage you to discuss details of your particular data collection effort with your research partner.

Consult with your research partner for suggested text resources for additional information on any of the issues below, as well as other issues to address as you design and implement your effort. Walking through the issues below with your research partner can be a valuable conversation in planning your work.

Issues to Consider in Planning the Data Collection Effort

Specify the purpose for your data collection effort

As noted in Chapter 2, data collection can be a useful tool to help you address a variety of workforce-related purposes and problems. You can use data for benchmarking your organization

¹ We use the terms “researchers” and “data collection vendors” throughout this chapter because we assume that most providers will work with such partners in their data collection and use efforts.

over time or to compare with other providers (and between facilities within the same corporation if you are in a multi-facility organization). Other uses include learning more about your employees, evaluating the effect of particular workforce initiatives, and (if you are doing well in keeping your staff) marketing to both potential residents/clients and staff.

Focusing on your key purpose for doing data collection and a short list of the problems or questions you want to address with the data will become invaluable to your team as you move forward in your efforts. Since we all work in an environment of limited resources, you will likely find that you need to make numerous trade-offs as you plan for and collect data. Having developed a clear sense of your key problem/purpose and short set of questions to answer will enable you to make these trade-offs more easily because you will have set the boundaries for what you will (and will not) do. At a minimum, your key purpose and questions will drive what topics you measure and what measures you include.

Answering these questions will help you to specify your main purpose for the data collection effort:

- Why are you collecting the information?
- What do you want to learn from the information collected?
- How do you intend to use the information you gain?
- Who are the intended audiences for the results?
- What changes, if any, do you hope to bring about as a result of what you learn?

Answering these questions should help you be able to focus on your key goals for the effort. Be sure to make your goals realistic given the financial resources, time, and staffing available to your team. Examples of possible goals include:

- To help your organization's management team understand how employees feel about their jobs and about the organization.
- To help your organization's management team see areas where employees may not be satisfied or areas where employees are having problems with the work environment.
- To help your organization's management team see how well a new workplace initiative is doing in improving employees' work experiences and retention.
- To enable HR staff to share information with your employees on a regular basis about employee satisfaction and work experiences.
- To help potential residents/clients and their families see how well you do at keeping employees, as a measure of the positive environment you support.
- To help potential workers see how well you do at keeping employees, as a measure of the positive work environment you support.

Specify your target population for data collection

As noted in Chapter 1, this Guide focuses on DCWs, including nursing assistants (NAs, CNAs), home health and home care aides, personal care workers and personal care attendants. DCWs work in a variety of settings, including nursing homes, assisted living and other residential care settings, adult day care and private homes. In many cases, the target population for your questionnaire or records-based data collection is your entire group of CNAs, for example.

However, there may be times, depending on your purpose, when you want to focus on a subset of DCWs. For instance, if you want to see how well a new peer mentoring program is doing in helping you keep new CNAs longer, your target population would be new CNAs, rather than all CNAs you employ. You may want to track retention rates among the new CNAs. Another target population of interest may be the experienced CNAs who were mentors, and you may want to track their retention before and after the program started as well.

Within your target population, you may want to be able to compare between subgroups of workers. For example, you may want to understand whether younger workers differ from older workers in their satisfaction and commitment, or whether workers on different units or at different locations differ in their responses. You will need to see whether you have enough workers in each subgroup to make meaningful comparisons between them. Determining the minimum number of people needed to make appropriate comparisons depends on a number of factors, including the measures you use, how big a difference you expect there to be between groups, and how confident you want to be that you will see a subgroup difference in the results if it really exists. A researcher well-trained in statistics and survey design can help you make these decisions.

Once you define your target population for your data collection, it is important to try to ensure that your results end up being representative of your larger target population. For example, if your population for a worker questionnaire is all CNAs, then when you administer it in your organization, you need to be sure that CNAs on all shifts know about the questionnaire and the importance of completing it.

Determine project team, budget, and schedule

A data collection effort usually requires a team effort, at a minimum including representatives from your provider organization and persons with research skills to design, implement, and analyze the results. As you plan for the data collection effort, consider what is available to you for the effort, including staff resources with relevant expertise, financial resources to conduct the data collection, and time to complete the work. All three types of resources will determine what you can realistically do in the data collection effort.

Designing and managing a data collection effort is not simple. It is not unlike juggling multiple balls in the air. Letting one drop can cause problems with the entire effort. To ensure that your data collection effort runs smoothly and that you are able to handle unexpected problems, it is important to establish a project management strategy early in the effort. This strategy should include specifying what needs to be done, who needs to do it (assignments), and the timing of each task/step. It is also important to address how team members will communicate, clarify expectations for costs and timing, and develop a good working relationship with a researcher and/or data collection vendor.

Two key parts of an effective data collection effort are a clear budget and a realistic schedule. Both will evolve as you go beyond the planning phase into the implementation phase. However, keeping the budget and schedule in mind as you develop your data collection design helps ensure that your plans are feasible within the time and resources you have. One way to begin is to list

out the key set of activities involved; each set of activities has budget and schedule implications. Start with a budget and schedule that you would ideally like to carry out. Then adjust as needed given your resources of time, staff, and budget. Be sure to include a cushion for unanticipated costs and build in some time for activities that might take longer than expected.

For budgeting and scheduling purposes, you can group activities into these categories:²

- Project planning and coordination
- Consulting with researcher(s)/data collection and analysis vendors
- Instrument design and pretesting
- Developing list of workers on whom to collect information
- Data collection (typically conducted through researcher/vendor)
- Data preparation and analysis (typically conducted through researcher/vendor)
- Dissemination of results to key audiences
- Developing and implementing ways to use the results to inform workforce improvements (this step contains multiple activities whose cost and budget will depend on what is done)

Examples of the variety of design decisions that will affect your schedule and budget include: how many workers you will collect information for; how large is your audience for receiving the results; and, whether you can use in-house expertise (in-kind contribution) to conduct some activities versus having to hire a researcher/vendor. If you will conduct a survey, additional considerations include: whether you will collect questionnaires by mail, telephone, or in-person; how long the questionnaire will be; and, how much follow-up effort you will make to increase the number of responses to your questionnaire.

If you are collecting records-based information, an additional consideration is how many measures you are collecting from records (which will affect how much time it will take to collect the information and how much staffing effort is needed to collect the information). Another issue that will affect budget and schedule for records-based data collection is whether your records are computerized or paper only. If your records are in a computer-readable form, there may be ways to create an electronic data set from the relevant information in your records that can be analyzed using either a basic spreadsheet software package (e.g., Excel) or statistical package (e.g., SAS, SPSS). Talk with your research partner about these issues, preferably someone who has some experience working with records-based information.

Decide whether to include all members of your population or a sample

When collecting data through a survey or records collection, you can either collect it from all members of your target population (a census) or from a systematically chosen sample drawn from the full population. Either way, you will work with a list of eligible target population members, often called a “frame.” When generating a frame, it is important to review it carefully

² This section on budgeting and scheduling is excerpted from “Chapter 2: Preparing for a CAHPS® Health Plan Survey,” from the *CAHPS Survey and Reporting Kit 2.0*, developed by Westat, Rockville, MD.

to ensure that your frame is inclusive of all employees who meet your definition of eligible members of the target population while excluding those (e.g., agency staff) who do not meet the definition. It is also important to avoid duplication of the same employee (which can happen if an employee leaves and returns and your employment records system counts these changes as two separate records).

Many data collection efforts used today employ a sample because the full population is too large to pursue given the resources available. For example, if you have ever been called at home as part of a market research survey or a poll to ask you about whom you will vote for in an election, these surveys likely used a sample. However, with an employee survey, there is a real benefit in giving every employee a chance to be heard. Conducting a census conveys an important message to your staff—no one should feel like their employer does not care what they think because they were not surveyed. This is especially true if you conduct a periodic staff survey (e.g., yearly), report the results back to staff, and use the results to inform management and work environment changes.

Another benefit of using a census rather than a sample is that you do not need to be concerned about “sampling error,” a type of error that occurs because the sample drawn does not accurately reflect the target population. There are various types of error that can occur in the process of going from framing your purpose and questions to developing the instrument to developing the frame to drawing the sample to collecting the data to analyzing the data. An “error” in data collection is anything that lessens the ability of your data collection effort to provide an accurate reflection of your population on the measures of interest.

If you use a sample, it is important not to use a “convenience” sample, for example giving an employee questionnaire only to those workers on a certain shift or those who happen to be around on a certain day. You can never know whether the findings from a convenience sample represent the larger employee population or not. Therefore, it would be imprudent to invest resources in a workforce initiative that is based largely on the results of a convenience sample. In contrast, a systematic random sample that gives each member of the population an equal chance of being included in the sample enables you to draw a sample that is representative of the target population.³

Not having to be concerned with sampling error as one form of error is helpful. However, you still need to be concerned about error introduced because the workers who complete the questionnaire are somehow different from the workers who do not. That is why, regardless of whether you use a sample or census, it is critical that management emphasizes the importance of completing the questionnaire and that every effort is made to facilitate workers completing the questionnaire. This will be addressed further in the section below on “For a questionnaire, decide how it will be administered and set your response rate goal.”

³ For more information on sampling, Chapter 2 of *Survey Research Methods*, 2nd edition, by Floyd J. Fowler, Jr. (Sage Publications, Newbury Park, CA; 1993), provides a good overview of a variety of sampling issues and the relationship between sample size and the precision of your results.

If you have records-based data collection using paper rather than computer records, error can be introduced if the staff collecting relevant information from the records (called “records abstraction”) do not do so consistently. Training is an important step for this process.

If you have 300 or fewer DCWs in your target population, consider using a census. However, if you have more than 300 employees in your frame, consider using a sample. Talk with your research partner about the comparative benefits of a sample versus a census and which better fits your situation.

Issues to Consider in Designing the Data Collection Instrument

Decide the topics, subscales, and/or formulas on which to collect information

There are 25 instruments covering 11 topics in this Guide. Eight of these instruments measure four worker outcomes topics based on records-based data collection (i.e., using data you already collect). Seventeen of these instruments measure seven job characteristics or organizational characteristics topics based on worker questionnaire-based data collection (i.e., requiring new data collection). Given constraints on budget, staffing, and time, and the need to minimize burden on employee respondents to a questionnaire, you are unlikely to measure all of these topics.

Using your purpose and key questions or problems to steer you, review the topics in Chapter 4 of this Guide with an eye toward which are most relevant to addressing your organization’s specific needs for this data collection effort. Once you have narrowed down the topics to a subset, look at the instruments and measures (subscales or formulas) in your selected topics to see which are most relevant to address your information needs. Using a team approach can be very valuable in this narrowing down process, since the different perspectives can help clarify your core needs and which topics and measures are most appropriate. Especially when creating a questionnaire, it is not uncommon for a team to develop an initial list of measures then realize it needs to be shortened because the questionnaire is too long (burdensome) to ensure that workers will complete it.

For a questionnaire, decide how it will be administered and set your response rate goal

A questionnaire of workers can be administered in a variety of ways (or “modes of data collection”), including self-administered (by mail or in a small group setting), by telephone, in-person, or on-line via the Internet. You may use one mode or multiple modes. For example, it is a common approach when using a mail questionnaire to follow-up with telephone interviews with non-responders, to increase the percentage of people completing the questionnaire (the “response rate”). The choice of mode to use depends on a number of factors including your schedule, budget, the reading level and complexity of your questionnaire, and your employees’ reading and writing skills. There are numerous differences among the modes, but here are some key ones to consider:⁴

⁴ Chapter 4 (pages 64 – 67) of *Survey Research Methods*, 2nd edition, by Floyd J. Fowler, Jr. (Sage Publications, Newbury Park, CA; 1993), provides a nice summary comparison of the potential advantages and disadvantages of in-person interviewing, telephone interviewing, mail questionnaires, and group administration.

- Mail mode tends to take longer to complete than telephone, on-line, or group administration modes. In-person (one-on-one) interviews can tend to take longer than telephone, on-line, or group administration, depending on staffing available to conduct the interviews.
- In-person interviewing tends to cost more than the other modes, followed by telephone, mail, and on-line approaches.
- If you have workers for whom English is a second language or you have concerns about their ability to understand and complete a questionnaire, in-person interviewing or telephone interviewing enables the interviewer to help clarify questions (placing less burden on the worker's reading and writing skills). However, it is important that interviewers convey the questions as intended, so as to minimize error introduced because of interviewer behavior.
- In-person and group administration modes tend to get higher response rates, followed by telephone, mail, and on-line approaches.
- Workers may feel more obliged to give more positive responses (called "socially desirable" responses) when they are talking with someone, as occurs in interviewer-administered modes of telephone and in-person data collection.

The questionnaire items in Chapter 4 can be used in a self-administered format, where a worker completes the questionnaire on her own. These questionnaire items generally tend to be simple and straightforward with a readability level that we believe is within range for someone who has completed high school. You may find different results with your employees. That is one of the reasons why it is important to pretest your questionnaire before you administer it to your employees larger scale. Workers are the best experts to let you know if the questionnaire is understandable or not, as well as in what mode(s) they would prefer to complete the questionnaire.

Another administration issue to consider is whether your survey will be anonymous. That is, workers will not put their names on the questionnaire and there will be no way to link a person's answers with her/him. Some employers do this with their periodic surveys, so that instead of tracking change over time in individual workers, they track change among their workers in general.

One administration approach to consider, especially if you will administer the questionnaire anonymously and you are at a facility, is to administer the questionnaire in a common area over a day or a couple of days. Each worker gets a questionnaire when they get in (across all shifts), they complete the questionnaire at a pre-appointed time in a common area, and then place the questionnaire in a locked box or mail bag (so it does not go to another employee). Providing light refreshments can make the experience more inviting. Employers using this approach tend to have high response rates (nearly 100%), with non-response usually due to absenteeism or scheduling (out sick, days off). One issue to consider in using this approach is whether, even if done anonymously, employees will feel comfortable being completely honest in their responses if required to complete the questionnaire at work in a group setting. Having the locked box or other neutral repository for returning the completed questionnaire should help address this concern.

Response rate is a concern for a well-designed survey because it can affect how representative your findings are of your target population. The response rate for a survey is the total number of completed questionnaires (or interviews) divided by the total number of respondents who were selected to be surveyed. The more people who respond from among those whom you survey, the more representative will be your findings. The more representative your findings, the more confidence you have in using your findings to inform workforce initiatives. That is why it is important to try to get as high a response rate as possible (whether doing a census or a sample) given your resources and schedule.

There are steps you can take to help improve your response rate. For example, if you use mail to administer your questionnaire, here are some steps you can take that have been found to help increase response rates:

- sending an advance letter (this can also work well with a telephone survey)
- following up with a postcard reminder about a week after sending the questionnaire
- sending a second questionnaire packet to non-responders sometime after the initial questionnaire package
- having telephone follow-up to non-responders.

These additional actions obviously have associated costs, so it is important to be clear about the trade-offs you are making between cost and response rate. For an employer survey, announcing that the survey is being conducted and having the management team convey the importance of completing the survey can help increase your response rate.

Talk with your research partner about the trade-offs of different modes, realistic and acceptable response rates for your purposes, how they calculate response rate, and what data collection and response rate enhancement approach(es) make most sense for your needs.

Design and pretest the questionnaire

Chapter 4 includes 17 instruments across 7 topics that look at DCW job and organizational characteristics. These instruments contain question wording for almost 40 separate subscales among which you can choose to include in your own worker questionnaire. While you may choose to use an entire instrument that measures one main topic, you need not do so. We encourage you to review the instruments within the topics you chose earlier (see “Decide the topics, subscales, and/or formulas on which to collect information”) and carefully select those subscales that you believe best meet your needs.

You will need to balance your desire to measure a variety of topics with the need to create a questionnaire short enough to be completed by respondents. It is important to include all items in a subscale because our review and the findings on the properties of the instruments reported in this Guide are based on the entire subscales (not individual items within each subscale). If you choose to take only some items from a subscale, the properties we reported (e.g., reading level, reliability, validity) do not apply to the individual items.

Once you have chosen your subscales, you will need to decide in what order to include them in your questionnaire. Because many of the instruments we included in Chapter 4 were simply item wording and response scale wording (rather than a complete ready-to-administer questionnaire), work with your research partner to ensure that your questionnaire has the following elements:

- an appropriate, brief introduction that is meaningful and understandable to workers and explains how to complete the questionnaire (if self-administered)
- transitional text, as needed, to lead from one section of the questionnaire to others
- correct and understandable skip instructions,⁵ if not all respondents are intended to answer all questions
- appropriate formatting of question wording and response scale wording
- correct sequential numbering of questions
- a brief yet compelling cover letter (if self-administered) or interviewer script (if in-person or telephone) conveying the importance of completing the survey and how its results will benefit workers (having the letter come from your CEO/Director or person who is most influential to workers can be beneficial).

All of the questionnaire items in the Guide are in English only. If you will need to translate your questionnaire into another language, use professional translators who are native speakers of that language. Make sure that the translation is both culturally and linguistically relevant as well as a true and accurate translation of the English questionnaire. Translators should be instructed to produce colloquial translations that will be understood by the general public. At the same time, the meaning of the translated questions should be the same as that of the English questions. After the questionnaire has been translated, it is recommended that you back-translate it into English. The back-translation is a control mechanism that allows you to judge if the translated version is true to the original English questionnaire. One source for professional translation is the American Translation Association directory, which can help you identify a translator in your city or county.

Producing culturally and linguistically appropriate research instruments should be viewed as a process. Ensuring an adequate translation is only the first step. Ideally, the translated instrument should be subject to testing to analyze the reliability, validity, and equivalence of

⁵ Skip instructions are directions used in self-administered questionnaires to direct respondents where to go next in the questionnaire. Skip instructions are used when, based on a particular response, not all respondents should go to a subsequent set of questions. For example, say you have a questionnaire for your DCWs and you want to ask workers who have been with you for at least three months the main reason why they have stayed while you do not ask that of your workers who have been with you less than three months. Those DCWs who answer question #1 about how long they have been with you by choosing “less than 3 months” should follow the direction (usually written to the right of the response category) to “GO TO QUESTION 3” because they should not answer question 2 asking why they have stayed this long. Part of data cleaning is to determine whether a respondent should have skipped but did not or should not have skipped but did, and correct for this in the data where possible.

the instrument in measuring workers' perceptions.⁶ However, such extensive testing is not always possible. Even if you cannot conduct testing to examine the reliability and validity of your translated instrument, pretesting the instrument with some workers who speak the language will provide you helpful information on how they interpret the questions and whether the translated version of questions has the same meaning as the original English version. Talk with your research partner about translation issues and how they recommend you proceed, if you will need to translate your questionnaire for workers.

While pretesting requires additional time and resources to conduct, it need not be cumbersome and can provide tremendous benefits in creating a questionnaire that is understandable and likely to be completed by workers. Pretesting is one of the least expensive ways to reduce error in your measurement and results.⁷ If time is short, you can conduct 1 or 2 small focus groups (ideally 6 – 8 workers, but less is okay if that is what you have available) with workers. It is better to conduct a couple of small rounds with questionnaire improvements between rounds than one larger round without being able to test your changes. Have workers complete the questionnaire first and then discuss their experiences. Focus on finding out what workers thought about the questionnaire, what they thought of specific questions, any comments they had about particular questions or words used, the appropriateness of the response scales used for questions, and any thoughts they have on how best to administer the questionnaire.

If you have more time, consider conducting some one-on-one pretest interviews (sometimes called “cognitive testing”). A one-on-one interview allows you to probe on each question and get some more in-depth information on how well individual items are interpreted by workers. When possible, try to pretest using the mode in which you plan to administer the questionnaire during the full-scale data collection.

Work with your research partner or data collection vendor to develop a well-formatted and pretested questionnaire.

For records-based data collection, determine what information you will need to include in your data set and how it will be obtained

The benefit of using records you already maintain (or have another entity maintain, for example as some providers do with payroll records) is that you will not have to spend resources on new data collection. However, you need to keep in mind that the records are kept to meet a purpose other than your own. Therefore, the information you need from the records may not appear in exactly the form you need. In addition, records can contain a good deal of missing information. It is important to understand how good the data in your records are for the information you need

⁶ This section on questionnaire translation into other languages is excerpted from “Article 6: Guidelines for Translating CAHPS® into Other Languages,” from the *CAHPS Survey and Reporting Kit 2.0*, developed by Westat, Rockville, MD. If you have any questions about this section, please contact their SUN Help Line at 800-492-9261 or via e-mail at cahps1@westat.com.

⁷ *Survey Research Methods*, 2nd edition, by Floyd J. Fowler, Jr. (Sage Publications, Newbury Park, CA; 1993).

and to think through with your research partner, records vendor, and/or data collection vendor how to get the information you need from the records.

Obtaining the appropriate information from records will be easier if the records are computerized. If they are only available in print form, then staff will need to review the print records and transfer the needed information from the records into a form (often called an “abstraction form”) that can then be used to enter the information into a computerized data set. For both print and computerized records, an important step is to learn which type of information that you need for the employees is available in the records. For example, for measures of retention and turnover, you will want to know the start date for every employee, the type of position they hold (e.g., CNA, LPN, RN), and their status (part-time, full-time).

Your team will also need to decide what reference period you will use for measuring your work outcomes topics. Measures of turnover, retention, vacancies, and illnesses/injuries are all defined in terms of a specific time frame. For example, Eaton’s measure of turnover looks at the number of full-time workers hired in the previous 12 months divided by the average number of workers employed over those same 12 months. If you plan to track these measures periodically (e.g., quarterly, annually), you will want to define your reference period accordingly. Such measures often use the calendar as a starting point, but that not need be the case, as long as you use a consistent reference period. For example, if comparing turnover from 2001 to turnover in 2002, use the same 12 month period for each year.

Other issues to talk with your team about when using records-based data that have been collected for another purpose (e.g., payroll, human resources) include:

- how you will handle DCWs who quit and are rehired during your reference period
- how you will handle temporary staff
- how you will handle staff on a leave of absence
- ensuring that staff who get married and change names are still considered the same person in the records
- deciding how you will handle cases (which can often occur in home care) where aides may declare a leave of absence but then never return to work
- deciding how you will handle situations where home care aides can refuse work for several weeks or pay periods without actually resigning.

Issues to Consider in Collecting Data

Monitor data collection

For the purposes of this Guide, we assume that someone other than your organizational team will be collecting the questionnaires and/or the data from your records (i.e., the researcher or data collection vendor). In this case, you will want to monitor the progress of the vendor. The following tools are especially helpful if the data collection will take place over an extended period (such as with a mail, in-person interview, or telephone survey). This approach is generally used for questionnaire data collection but may also be applied to records-based data collection. These tools can help you oversee the monitoring process:

- a project timeline from the vendor that you will monitor for adherence to ensure the data collection is proceeding on time
- weekly data collection reports from the vendor (number of completions, including by key subgroups of workers if any, e.g., mentors versus mentees)
- if the data collection runs for over a month, monthly progress reports, which include status of data collection, a cost report to date, and a report of any deviation from the project's response rate goals
- weekly conference calls with your team and the vendor/researcher to discuss the project's status, next steps, problems, and plans to resolve them. This will help keep you updated and bring early attention to any potential problems.

Maintaining confidentiality

Just as it is important to protect the private information of your residents/clients, it is vital to ensure that individual employees' survey answers do not get linked to their names or work records. Let your employees know that you will protect their confidentiality and that what they say in the survey will never be used against them at work. Clearly explaining how you will keep their answers confidential may help increase their likelihood of giving honest responses. Talk with your research partner/vendor to determine how this will be accomplished for your data collection effort.

Issues to Consider in Data Preparation, Analysis, and Use

Identify ineligible questionnaires, code, clean, and enter collected data

Your data collection vendor or research partner will need to conduct several steps to prepare the data received from completed questionnaires from worker surveys or abstraction forms from records-based data collection. These steps include identifying and excluding ineligible cases, coding, data entry, data cleaning (e.g., check for out-of-range values, check for skip pattern problems), and handling missing data. Talk with your vendor/research partner about all of these steps, how they will handle them given your choice of data collection mode or source of records-based data (i.e., computerized versus print records), and what questions you may have about them.

Analyze data and present findings

Questionnaires

All questionnaire items in Chapter 4 that measure DCW job characteristics use a type of response scale called a "Likert scale."⁸ The Likert scale is the most common form of an intensity question, where a respondent is asked to rate a concept, event, experience, or situation

⁸ The Nursing Home Culture Adaptation of the Hospital Culture Inventory, the instrument in Chapter 4 that measures organizational culture, does not use a Likert scale and is not analyzed in the same way as the other instruments. Respondents assign a total of 100 points among four types of nursing homes in each of six sets of questions. The Organizational Culture Instrument Chart in Chapter 4 describes how the results are to be analyzed.

on a single dimension of quantity or intensity ranging from less to more. Here are examples of the Likert response scales used among the questionnaire items in Chapter 4:

- strongly disagree to strongly agree
- extremely concerned to not at all concerned
- no knowledge to know a lot
- none to a lot
- no confidence to complete confidence
- rarely to very often
- not at all true to extremely true
- very little to very much.

The Likert scales used in these instruments have either five, seven, or 11 points in their response scale. For example, the Role Overload Scale from the Michigan Organizational Assessment Questionnaire (MOAQ) (to measure workload) uses a 7-point Likert response scale, where strongly disagree is assigned a “1” and strongly agree is assigned a “7.” Each of the five points in between has its own label.

All subscales in Chapter 4 that measure DCW job characteristics are created in one of two ways – taking either an **average** or a **sum** of the scores of everyone on the items in the subscale. Here is a simple example using only three workers to explain the process. Hypothetical provider ABC wants to see how committed its CNAs are, how empowered they feel, and whether those who feel more empowered are more likely to be committed to their employer. Its three employees are surveyed. The questionnaire contains the three items from the “Intent to Turnover” subscale (behavioral intent to leave job) from the Michigan Organizational Assessment Questionnaire⁹ and three items from the opportunity subscale of the “Conditions for Work Effectiveness Questionnaire II.”¹⁰

Below are the scores that correspond to the answers that each worker gave to the six questionnaire items.

Worker ID	Intent to Turnover Items (response scale ranges from 1 to 7)			Conditions for Work Effectiveness Questionnaire II Items (response scale ranges from 1 to 5)		
	Item #1	Item #2	Item #3	Item #1	Item #2	Item #3
Worker #1	2	3	3	4	3	3
Worker #2	6	4	2	4	2	2
Worker #3	3	3	4	5	4	3

To calculate the score for each employee for the behavioral intent to leave job subscale, **sum** the scores given for all three items. In this example, below are the scores for each worker on this organizational commitment measure.

⁹ See Organizational Commitment section in Chapter 4 for item wording.

¹⁰ See Empowerment section in Chapter 4 for item wording.

Worker #1: $8 = (2 + 3 + 3)$

Worker #2: $12 = (6 + 4 + 2)$

Worker #3: $10 = (3 + 3 + 4)$

Lower scores on this measure indicate greater organizational commitment, with possible scores on this 3-item measure ranging from 3 to 21. At the individual worker level, worker #1 shows the highest commitment (score of 8) followed by worker #3 (score of 10), with worker #2 (score of 12) showing the least commitment.

To calculate the score for each employee for the opportunity subscale of the “Conditions for Work Effectiveness Questionnaire II,” **average** the scores given for all three items. In this example, below are the scores for each worker on this empowerment measure.

Worker #1: $3.3 = [(4 + 3 + 3)/3] = 10/3$ items

Worker #2: $2.7 = [(4 + 2 + 2)/3] = 8/3$ items

Worker #3: $4.0 = [(5 + 4 + 3)/3] = 12/3$ items

Higher scores on this measure indicate greater empowerment in the form of more perceived opportunity, with possible scores on this 3-item measure ranging from 1 to 5. At the individual worker level, worker #3 shows the greatest level of empowerment (score of 4.0) followed by worker #1 (score of 3.3), with worker #2 (score of 2.7) showing the least empowerment.

The average is usually the statistic used to indicate the summary score on a measure across all respondents when using Likert-type response scales. Using the empowerment measure above as an example, here is how to calculate the average empowerment score for all respondents.

$$\frac{\text{Worker \#1 total score} + \text{Worker \#2 total score} + \text{Worker \#3 total score}}{3 \text{ (number of respondents)}}$$

Working through this formula we get these figures below, for an average of 3.3 among all three workers:

$$3.3 + 2.7 + 4.0 = 10/3 = 3.3$$

So, on average, workers at provider ABC tend to feel that they have “some” opportunities at work. However, based on the score of 3.3, there is room for improvement toward a score of 4 or 5.

For your purposes, it may be sufficient to determine the types of scores calculated above and see how your workers score on each of your subscales of interest. However, you may also want to look at whether there is a relationship between your measures. For example, do empowered workers show greater commitment? There are a number of ways that this can be examined, depending on the skills and resources of the team member(s) doing the analysis. For example, with Likert response scales you can look at a measure of association statistic such as a correlation.

The “Pearson product-moment correlation” (or “Pearson’s R”) is the most commonly used measure of correlation. It ranges from -1.0 (strong negative relationship where the value of one measure goes up as the other goes down) to + 1.0 (strong positive relationship where the value of one measure goes up as the other goes up). A correlation of .55 indicates a stronger relationship than a correlation of .25. A value of 0 means that there is no relationship between the two measures. In our example, this would mean that an employee’s sense of empowerment has no relationship to their sense of commitment to their employer. Talk with your research partner about which statistics would be appropriate to analyze your results.

If you have subgroups of interest (e.g., new workers and experienced workers, different units of a facility, different facilities within a multi-facility provider), it will be valuable to compare their scores on your measures to see the extent to which there are differences.

Records

Just as worker questionnaires are used to collect information at the worker level, so records-based information can be collected at the worker level. In both cases, information at the worker level can be examined at the organizational level (i.e., “aggregated”). For example, you can find out from employee records when each DCW started with your organization. This can be used to develop a measure that shows how long each employee has been with your organization as of a certain date. You can then average (summarize across) your DCWs to find out what percentage of workers in your organization have been with you less than three months as of a certain date. Alternatively, you can see what the average length of time is for DCWs in your organization. This can be helpful if you decide that one of your goals is to increase the average length of employment among your DCWs (as a measure of retention).

An advantage of obtaining both survey results and records-based information at the individual worker level is that both types of data can be included in the same data set. That way, you can look at the relationship between records-based and survey-based measures (e.g., empowerment and turnover).

The analysis discussion above for questionnaires applies also for analyzing records-based data. Talk with your research partner about which statistics would be appropriate to analyze your results.

Most of the results you report to your team (both survey- and records-based) will likely be in the form of frequencies and percentages, arranged by measure or subscale. If you are using your data collection as a tool to benchmark your performance or to evaluate a particular initiative, it can be helpful to display this information over time in the form of bar or line graphs. Consult with your team on the best way to present the findings in a way that is easy for your audience(s) to understand and use for decision making. Include a brief methods section describing any issues they should be aware of on how the data were collected, prepared, or analyzed.

Decide how to use the data to answer your questions and next steps

Return to your key purpose, goals, and problem/questions. As a team, think about how the results can help you answer your questions or begin to develop an action plan to address your problem. If you are benchmarking, look at the direction of your measures – are you improving, maintaining the course, or is it time to take some action (and what will that be)? If you are trying to understand what your DCWs think about their jobs, their supervisors, and/or their employer, what have you found? Is there room for improvement? Do the findings suggest that there are particular aspects of the workplace or jobs that could be targeted for change? What type of change might be needed?

If you are evaluating the effect of a new way of doing things to improve the workplace, how well did it do? Did it result in improvements in the outcomes you selected to measure (e.g., reduced turnover, increased retention) or workers' perceptions of their jobs that you surveyed (e.g., empowerment, satisfaction, commitment)? If so, you should gain greater confidence that the initiative you are pursuing is worthwhile and worth investing in (or worth repeating in other locations). If not or, if often occurs, the results are mixed, see if you can figure out what happened.¹¹ Are there aspects that should be tweaked or is this initiative just not worth pursuing further?

While the data cannot tell you what steps to take in response to the findings, data collection is a valuable tool in helping you see where you are and how you are doing along your path toward workforce improvement in your organization.

¹¹ Using focus groups or in-depth interviews with staff may help shed light on how an initiative was implemented. This qualitative information can be a good complement to the quantitative findings from surveys or records-based data.

Chapter 4: Ready to Use Instruments

Criteria for Inclusion of Instruments

Specific criteria were applied to each instrument under consideration for inclusion in this Guide.

The instruments included in the Guide (in Chapter 4 and Appendix B)....

- are quantitative in nature.
- have some evidence of reliability and validity, when possible. At a minimum, they have solid face validity (e.g., appear on the surface to be a reasonable measure of the concept of interest).
- have already been used in (or are able to be applied to) health care or LTC settings.

The instruments in Chapter 4 also....

- are practical and applicable to DCWs in LTC.
- are free to use or available for free when used for research purposes.

Types of Instruments Included in this Guide

Chapter 4 contains two main categories of workforce topics:

1. Topics whose instruments use data you already collect (i.e., use administrative records)
2. Topics whose instruments require new data collection (i.e., use worker questionnaires)

There are 4 topics that use data you already collect and 7 topics that require new data collection.

The following 4 topics require the use of data you already collect: injuries and illnesses, retention, turnover, and vacancies.¹² Instruments that use data already collected are generally formulas in which calculations are made using factual information available from administrative records. Records used to calculate measures might include employee payroll records, cost reports, human resource records, employment records, or nurse aide registries. The data for some measures in this section come from surveys (also called questionnaires) completed by employer representatives (e.g., Human Resources staff, administrator). In these cases, the respondents are asked to complete the survey by using information from their employer records.

The following 7 topics require the use of newly collected information: empowerment, job design, job satisfaction, organizational commitment, organizational culture, worker-supervisor

¹² Absenteeism and use of temporary workers were excluded because valid instruments for measuring them were unavailable.

relationships, and workload.¹³ Instruments that require new data collection use questionnaires (also called surveys), scales and subscales (also referred to as measures) to collect information on respondents' attitudes and perceptions of their experiences. Employers can assess organizational factors that may be contributing to recruitment and retention problems by examining the feelings and perceptions of their employees.

Instruments for which new data are required have been divided into two groups in this Guide: 1) instruments that measure DCW job characteristics; and, 2) instruments that measure the organization. The instruments that measure DCW job characteristics are focused on DCWs specifically and assess their feelings and perceptions of various aspects of their jobs. The instruments that measure the organization are focused on employees at all levels in the organization (not just DCWs) and assess employees' feelings and perceptions about the organization by which they are employed.

Caveats about the Instruments in this Chapter

Chapter 4 presents a collection of instruments for you to consider as you address workforce issues in your setting. Here are some caveats about these instruments.

- Not all instruments are applicable for use in all LTC settings.
- Many were not developed to be used with LTC DCWs specifically and have not been tested with DCWs. Rather, many have been used with employees (e.g., usually nurses) in hospital settings.
- There is a range of reliability and validity across instruments.
- Some instruments intended to be used in questionnaires are simply a list of questions that need to be formatted into a survey questionnaire.
- Certain instruments in this chapter are ready for immediate use, while others need minor alteration. For example, minor wording changes to make them more applicable to your LTC setting, such as changing the word “hospital” to “nursing home” may be needed in a survey. Or simplification of words used in questions asked of DCWs in surveys may be necessary. For these reasons, it is important to pre-test survey questionnaires with a small number of your DCWs. This will provide you with a sense of whether the content and wording of questions in a survey are appropriate for them or whether their readability levels need to be adapted to be used with your DCWs.

Differences Between Chapter 4 and Appendix B

- Certain subscales in some instruments are not applicable to the nature of DCWs' jobs so they have been included in Appendix B. Applicable subscales have been included in this

¹³ Some surveys in this Guide address wages and benefits by asking employees how they feel about their wage and benefit offerings. This topic will be further explored by the research team in the future.

chapter. It is important that, when you use a subscale, you ask all questions of your DCWs in that subscale because scoring, reliability and validity have been done on a subscale level.

- The remainder of Chapter 4 introduces instruments and subscales of instruments that are currently ready (or nearly ready) for use. Appendix B includes instruments and subscales that require adaptation before they are ready for use and/or charge a fee for use. As mentioned, these instruments include the subscales considered irrelevant to DCWs, but that may be fruitful for future development and adaptation for use with DCWs. For three topics in this Guide –organizational structure, peer-to-peer work relationships and worker-client/resident relationships—none of the instruments are considered ready for use because they are not geared towards DCWs and/or because they have associated costs. Therefore, the instruments and subscales we identified in these topics have been included only in Appendix B.

Overview Charts of Ready-to-Use Instruments

The following Charts provide overviews of information on instruments that are ready (or nearly ready) for use for each of the 10 topic areas. Following the two charts are sections that provide details on each instrument/set of subscales by topic.

Chart A – Instruments which use data you already collect (from your administrative records)

Chart A includes the following information:

- Where they have been used (e.g., in a health care or LTC setting)
- Whether they are applicable to nursing home and/or home care settings, based on face validity
- What the formulas are measuring

Chart B – Instruments which require new data collection (from worker questionnaires)

Chart B includes the following information:

- Where they have been used (e.g., in a health care or LTC setting)
- Whether they are applicable to nursing home and/or home care settings, based on face validity
- Who they have been used with/type of caregiver (e.g., CNAs, nurses, hospital orderlies, etc.), to the extent it is possible
- Which specific wording changes are needed for applicability to a specific LTC setting (designated in bold type)
- Which specific words you may consider simplifying or clarifying before using with your DCWs (designated in italic type)

Chart A: Overview of Ready-to-Use Instruments that Use Data You Already Collect

Topic/Instruments	Setting Previously Used	Potential LTC Setting Applicability	What Formulas Are Measuring
Injuries and Illnesses			
BLS Illnesses and Injuries Instrument	Unknown if used in health care or LTC care setting	Seems applicable to all LTC settings	Measures new injuries or illnesses in the past year relative to the number of employee hours worked.
Retention			
Leon, et al Retention Instrument	Nursing homes	Nursing homes, not home care	Measures the number of nurse aides employed for a specified period of time relative to the total number of employees during that time.
Remsburg, Armacost, & Bennett Retention Instrument	Nursing homes	Nursing homes, not home care	Measures the number of nurse aides employed for a specified period of time relative to the total number of employees during that time. Calculates the length of service for terminated employees and employees who remained.
Turnover			
Eaton Turnover Instruments	Nursing homes	Nursing homes, not home care	Measures the number of newly hired employees in a category (e.g., nurse aide) relative to the number of employees in that category over a one-year period.
Price and Mueller Turnover Instrument	Unknown if used in health care or LTC setting	Nursing homes, not home care	Measures “quit rates.”
Vacancies			
Job Opening and Labor Turnover Survey (JOLTS)	Unknown if used in health care or LTC setting	Nursing homes. Home care questionable due to the nature of agency organization.	Measures the number of job openings for full- and part-time positions relative to the number employed at a specific period of time.
Job Vacancy Survey (JVS)	Unknown if used in health care or LTC setting	Nursing homes. Home care questionable due to the nature of agency organization.	Provides characteristics of vacant positions, distinguishes between full- and part-time positions, includes temporary positions and provides wage and benefits information for vacant positions.
Leon, et al Job Vacancies Instrument	Nursing homes	Nursing homes, not home care	Measures number of job openings relative to the number of full-time equivalent (FTE) positions.

Chart B: Overview of Ready-to-Use Instruments that Require New Data Collection

Topic/Instruments	Setting Previously Used	Potential LTC Setting Applicability	Type of Caregiver	Wording to Be Changed for LTC Applicability	Wording to Be Changed to Simplify/Clarify for DCWs
Measures of DCW Job Characteristics					
Empowerment					
Conditions for Work Effectiveness Questionnaire II (CWEQ II) (3 of 5 subscales)	Hospital	Nursing home, not home care	Nurses	None needed	Empowers Empowering
The Empowerment Questionnaire (2 of 3 subscales)	Hospital	Nursing home, not home care	Hospital workers	Hospital Manager Department	None needed
Perception of Empowerment Instrument (PEI)	Unknown if used in health care or LTC setting	Seems applicable to all LTC settings	Unknown	Department	Solicited Autonomy
Psychological Empowerment Instrument	Unknown if used in health care or LTC setting	Seems applicable to all LTC settings	Unknown	Department	Self-assured Significant autonomy
Reciprocal Empowerment Scale (RES)	Hospital	Nursing home, not home care	Nurses	Leader Department	Vision Barriers to implementation Give and take Resents Delegates Impacts Alternatives Stimulates
Job Design					
Job Characteristics Scale of the Job Diagnostic Survey (JDS) Revised (4 of 5 subscales)	Unknown if used in health care or LTC setting	Seems applicable to all LTC settings	Unknown	None needed	Autonomy Standardized Complex or sophisticated skills Complex or high-level skills Initiative and judgment Significant Scheme
Job Role Quality	Unknown if used in health care or LTC setting	Seems applicable to all LTC settings	Unknown	Supervisor	Monotony Strenuous Authority

Chart B: Overview of Ready-to-Use Instruments that Require New Data Collection (continued)

Topic/Instruments	Setting Previously Used	Potential LTC Setting Applicability	Type of Caregiver	Wording to Be Changed for LTC Applicability	Wording to Be Changed to Simplify/Clarify for DCWs
Measures of DCW Job Characteristics (continued)					
Job Satisfaction					
General Job Satisfaction for the Job Diagnostic Survey (JDS) Revised	Hospital	Seems applicable to all LTC settings	Nurses	None needed	None needed
Grau Job Satisfaction Scale	Nursing homes and home care setting	Seems applicable to all LTC settings	Nurse aides and home health aides	None needed	Authority
Single Item Measures of Job Satisfaction	Unknown if used in health care or LTC setting	Seems applicable to all LTC settings	Unknown	None needed	None needed
Visual Analog Scale (VAS)	LTC settings	Seems applicable to all LTC settings	Nurses	Hospital Unit organization	None needed
Organizational Commitment					
Intent to Turnover Measure from the Michigan Organizational Assessment Questionnaire (MOAQ)	Unknown if used in health care or LTC setting	Seems applicable to all LTC settings	Unknown	None needed	None needed
Organizational Commitment Questionnaire (OCQ)	Home care setting	Seems applicable to all LTC settings	Home care attendants	None needed	None needed
Worker-Supervisor Relationships					
Reciprocal Empowerment Scale (RES) (1 of 3 scales)	Hospital	Nursing home, not home care	Nurses	Leader Department	Vision Give and take Resents Delegates Alternatives Stimulates
Workload					
Quantitative Workload Scale from the Quality of Employment Survey (QES)	Unknown if used in health care or LTC setting	Seems applicable to all LTC settings	Unknown	None needed	None needed
Role Overload Scale from the MOAQ	Home care settings	Seems applicable to all LTC settings	Home care workers	None needed	None needed
Measures of the Organization					
Organizational Culture					
Nursing Home Adaptation of the Hospital Culture Inventory (HCI)	Nursing homes	Nursing homes, not home care	Nursing home staff, including CNAs	None needed	Productivity Efficiency Seniority Predictability Objectives

How the Instruments in this Chapter are Organized

The instruments and subscales in this Chapter were chosen because they are ready (or nearly ready) for providers to “take off the shelf” and apply in their settings, as appropriate. These instruments require no sophisticated software for scoring. Surveys (questionnaires) for which slight modification in wording (either through changing words to reflect the appropriate setting type or wording simplification for DCWs) were selected based on the fact that these alterations would enhance, not compromise (or change the meaning of) the instrument being used. Readability levels for surveys included in this Chapter appeared to be reasonable for DCWs, based on face validity and feedback from contributors to this Guide. Subscales of instruments that are relevant to DCWs are also included in this Chapter. (For those interested in seeing the other subscales for these instruments, they can be located in Appendix B.)

Each of the topics in Chapter 4 includes three main sections:

1. An introduction describing the topic and its relation to the workforce;
2. A summary chart comparing each alternative instrument (or subscales of an instrument) for the topic on key features; and,
3. A brief discussion of the alternative instruments or subscales, where appropriate.

For each alternative instrument included in the third section, there are two sub-sections:

1. A description of the instrument (usually the subscales of the instruments); and,
2. For instruments that use surveys to gather information, the survey item/instrument wording.

It should be noted that the information included in these sub-sections for the topics that use information already collected often differ. These instruments are usually formulas calculated using information from employment records and do not contain subscales. When this is the case, a description and survey questionnaire are not included because they are not applicable. In a few cases where these instruments are based on a survey, descriptions of instruments and their survey questionnaires are included.

Summary Chart for Topics and Their Instruments

A summary chart is provided in each of the topic sections. The chart contains information on the following features: administration, scoring, availability, reliability, and validity of each instrument or set of subscales. An overview chart describing these features for instruments that use data already collected and for instruments that require new data collection is included below.

Overview of Topic Chart Features

	Topics whose instruments use data you already collect (Based on administrative records or surveys completed by employer representatives)	Topics whose instruments require new data collection (Based on surveys, questionnaires of workers)
Measure	Proposed formula or way to calculate a measure	<p><u>Name of questionnaire and its subscale labels</u> <u>Subscale:</u> A subscale usually contains multiple survey items intended to measure the same aspect or dimension of a topic (e.g., autonomy is a subscale of 5 items measuring one aspect of empowerment).</p>
Administration	<p>Specifies data source to be used. Data to make calculations for measures may come from sources such as:</p> <ul style="list-style-type: none"> Employee payroll records Cost reports Human resource records Employment records Nurse aide registries Surveys of administrators or nurse aides 	<p><u>Survey administration</u></p> <ol style="list-style-type: none"> 1) Whether survey is meant to be conducted using paper and pencil or in-person interviews and/or whether the survey can be adapted for administration in either way 2) Length of time required to complete the survey 3) Number of questions in the survey 4) The types of response scales given to people taking the survey, such as: 1=strongly disagree, 2=disagree, 3=not sure, 4=agree, and 5=strongly agree <p><u>Readability</u> = the reading level of the survey instrument <i>Flesch-Kincaid Grade Level Index</i> = readability test designed to show how easy or difficult a text is to read. The Index uses a formula based on the number of words in sentences and the number of syllables per word. The Index score rates text on a U.S. grade-school level. For example, a score of 8.0 means that an eighth grader can understand the document. This measure will be useful to providers in thinking about whether the reading levels in each survey are appropriate for their workers. Note: the Flesch-Kincaid Grade Level Index tends to underestimate the actual reading level; aim for 8th grade or less and pretest with your employees.</p>
Scoring	<p><u>Scoring</u> = the method used to tally survey results or to make calculations</p> <ol style="list-style-type: none"> 1) Whether scoring can be computed by hand, by using software, or either way 2) Method used for scoring of measure; range of possible scores (low – high) 3) Meaning of scores (what a low score indicates, what a high score indicates) 	
Availability	<p>Which category the instrument falls into for use:</p> <ol style="list-style-type: none"> 1) Free 2) Free with permission from author -- email author to request permission to use 3) Fee or costs associated with use 	

Overview of Topic Chart Features (continued)

	Topics whose instruments use data you already collect (Based on administrative records or surveys completed by employer representatives)	Topics whose instruments require new data collection (Based on surveys, questionnaires of workers)
Reliability	<p>To date, there is little evidence available on the reliability of the records-based measures. Reliability for these measures is designated as N/A.</p>	<p><u>Reliability</u> <i>Internal consistency</i> (Cronbach's Alpha) = a measure of how well a set of items measures a single one dimensional construct For example, internal consistency might measure how well a set of questions measures job satisfaction. A score of internal consistency that is .7 or higher (range 0 - 1) shows that a measure is reliable.</p>
Validity	<p>To date, there is little evidence available on validity other than face validity for records-based measures. Validity for these measures is designated as N/A.</p>	<p><u>Validity</u> = how close what is being measured is to what was intended to be measured. Answers the question "did you measure what you were supposed to measure?" The closer that the validity measure is to 1 (range 0 – 1), the more valid the measure.</p> <p>There are multiple types of validity. The charts in this topic show the types of validity available for the selected measures.</p> <p><i>Face validity</i> = when the quality of a measure appears on the surface to be a reasonable measure of the concept of interest. For example, a group of experts may not agree on what should be included in a retention measure, but they likely would agree that retention rates in a nursing facility have implications for workforce stability.</p> <p><i>Criterion-related validity</i> (predictive validity) = the degree to which a measure relates to or predicts something. For example, the validity of a job satisfaction measure may be determined by the quality of a worker's relationship with his or her supervisor or fellow workers.</p> <p><i>Construct validity</i> = the degree to which logical relationships exist between items (includes convergent and discriminate validity). For example, one might assert that retention relates to empowerment and job design. If an analysis shows that this relationship exists, then your measure has construct validity.</p> <p><i>Content validity</i> = the degree to which a measure covers the range of meanings included in the concept. For example, a test of employee empowerment would not be limited to access to opportunity alone, but would also need to include support, information and resources (and so forth) in an individual's work setting.</p>

Instruments Which Use Data You Already Collect

Injuries and Illnesses

Introduction

Definition of *Injuries and Illnesses*

Occupational injuries and illnesses are those which occur as a result of an individual completing the tasks required of them in their job. For example, DCWs in LTC often suffer from the strain and repetitive stress injuries that result from lifting or repositioning residents or clients.

Overview of Selected Instruments for *Injuries and Illnesses*

One instrument included in this Guide calculates injuries and illnesses:

1. Bureau of Labor Statistics (BLS) Measure of Injuries and Illnesses

Issues to Consider When Selecting Instruments of *Injuries and Illnesses*

- Incidence rates cannot be calculated if worker's compensation data (as opposed to the number of reportable injuries) are being used because it is not possible to obtain data on the denominator (hours worked) from worker's compensation databases.

Injuries and Illnesses Instruments

	Bureau of Labor Statistics (BLS) Measure of Injuries and Illnesses
Measure	<u>Number of nonfatal injuries and illnesses X 200,000</u> Number of all employee hours worked (not including non-work time, such as vacation, sick leave, holidays, etc.)
Administration	Data collected from employers via survey and payroll records.
Scoring	Can be scored by hand.
Availability	Free.
Reliability	N/A
Validity	N/A

Alternatives for Measuring Injuries and Illnesses

Bureau of Labor Statistics (BLS) Instrument for Injuries and Illnesses

Description

This instrument calculates injuries and illnesses as “incidence rates” as used by the Bureau of Labor Statistics. The incidence rate is the number of nonfatal injuries and illnesses for the year divided by the number of all employee hours worked for the year.

The numerator can be calculated by counting the number of recordable cases of occupational injuries and illnesses for the year, as reported from the Occupational Safety and Health’s (OSHA) Log and Summary of Occupational Illnesses and Injuries. This form is required of employers covered by the Occupational Safety and Health (OSH) Act, except for those with ten or fewer employees. The 200,000 hours in the formula represents the equivalent of 100 employees working 40 hours per week, 50 weeks per year, and provides the standard base for incidence rates. The denominator can be determined through payroll or other time records.

Issues to Consider When Using the *BLS Instrument for Injuries and Illnesses*

- Using this instrument, the BLS publishes annual statistics on injuries and illnesses for standard industry classifications. These data are obtained through employer surveys and are aggregated up to the industry classification level. They are not, however, available on specific industries or companies. Therefore, comparisons of rates calculated by users of this measure with those in the BLS database will be limited.

Contact Information

Not needed for use of this instrument.

Survey Items

The instrument for injuries presented here uses a formula calculated using data from various sources; therefore, no survey instrument is included here.

Retention

Introduction

Definition of *Retention*

Retention generally refers to the number of employees who remain at their job within an organization over time. Worker retention rates measure the proportion of staff that has been employed in an organization over a specified period of time. Other measures of retention include tenure or length of stay.

Overview of Selected Instruments for *Retention*

Two instruments for staff retention rates have been included here. These instruments were taken from published literature on retention among nurse aides (see “retention instruments” chart for sources of these studies).

These instruments identify two main concepts in the measurement of retention. Both examine the number of staff employed for a specified period of time relative to the total number of employees in an organization. One measure also looks at retention as length of service or tenure of both terminated employees and employees that remain.¹⁴

Issues to Consider When Selecting Instruments for *Retention*

- While retention rates are often thought of as the reciprocal of turnover, having high turnover does not necessarily mean low retention. For example, an organization with a high annual turnover rate may also maintain a large proportion of their staff for the year, suggesting that terminations are concentrated within a few positions. Therefore, when assessing the stability of an organization, it is important to look at both turnover and retention rates. This is especially true for LTC organizations, where discontinuity of paraprofessional nursing staff may adversely affect the quality of care (Wunderlich et al., 1996).
- Time periods used in measuring retention rates differ so comparisons of retention rates across organizations must be made with caution. For example, some have assessed retention rates for one year, while others have measured two, three, or even ten-year retention rates.
- Retention rates may include the entire workforce or specific subgroups. Subgroups for measuring retention might include employees who remain with the organization, yet have been promoted to another position (career ladders), or newly hired employees who have remained at the organization for a specified period of time. Consideration of subgroups might be of interest in LTC where new hires often leave their positions after only a few short

¹⁴ Numerous instruments have been developed which measure retention similarly to those selected: CMS/Abt Associates (2001); Garland, Oyabu & Gipson (1988); Iowa Caregivers Association (2000); Kettlitz, Zbib & Motwani (1998); Konrad & Morgan (2002); Stone, et al (2001). For more information on these instruments, consult the Retention section of the References at the end of this Guide.

months of employment or during the initial orientation period (Bowers & Becker, 1992; Pillemer, 1997).

- In measuring both turnover and retention of DCWs, it is often more difficult to assess rates of home care workers due to the nature of employment. According to Feldman et al. (1990), distinctions between stayers and leavers in the home care industry are not always clear. Home aides can refuse work for several weeks or even for several pay periods without actually resigning. Furthermore, aides may declare a leave of absence from which they do not return.

Retention Instruments

	Leon, et al Retention Instrument (2001)	Rensburg, Armacost, & Bennett Retention Instrument (1999)
Measure	<p><u># of nurse aides employed for less than one year</u> total # employees at time of survey</p> <p><u># of nurse aides employed for 3 years or more</u> total # employees at time of survey</p> <p><u># of nurse aides employed for ten years or more</u> total # employees at time of survey</p>	<p><u># of nurse aides employed for more than one year</u> # of nurse aides on payroll on the last day of the fiscal year</p> <p>length of service for terminated employees and staff who remained</p>
Administration	Data collected from nursing home administrator via survey.	Data collected from human resource records.
Scoring	Can be scored by hand.	Can be scored by hand.
Availability	Free.	Free.
Reliability	N/A	N/A
Validity	N/A	N/A

Alternatives for Measuring Retention

Leon, et al Retention Instrument (2001)

Description

Retention data were collected in a statewide study of LTC organizations in Pennsylvania (see Leon et al., 2001). As part of a telephone interview, LTC administrators were asked to report the number of DCWs that have been with them for specific periods of time (less than one year, 3 or more years, 10 or more years) and the total number of DCWs. The retention rate for the organization was calculated as the percentage of DCWs who worked for a certain time period (less than one year, 3 or more years, 10 or more years) divided by the total number of DCWs at the time of the telephone interview.

Issues to Consider When Using the *Leon, et al Retention Instrument*

- To date, no issues have been identified for this instrument.

Contact Information

Not needed for use of this instrument.

Survey Items

The instrument for retention presented here uses a formula calculated using data from various sources; therefore, no survey instrument is included here.

Remsburg, Armacost, & Bennett Retention Instrument (1999)

Description

Remsburg, et al, refer to retention rates as “stability rates” and measure them in two ways. Annual retention rates were calculated for a study of a 255-bed LTC facility as the number of nurse aides (NAs) employed for more than one year divided by the number of employees on the payroll on the last day of the fiscal year. In addition, Remsburg, et al, looked at retention by calculating the length of service for terminated employees and employees who remained.

Issues to Consider When Using the *Remsburg, Armacost, & Bennett Retention Instrument*

- To date, no issues have been identified for this instrument.

Contact Information

Not needed for use of this instrument.

Survey Items

The instrument for retention presented here uses a formula calculated using data from various sources; therefore, no survey instrument is included here.

Turnover

Introduction

Definition of *Turnover*

Many references to employee turnover refer to the termination of employment, which can be voluntary or involuntary. The turnover of positions within an organization might also occur through promotions or transfers.

Overview of Selected Measures of *Turnover*

Two main ways to measure turnover have been included here. These measures were taken from published and unpublished literature on employee turnover (see “turnover instruments” chart for sources of these studies). These instruments include valuable information that is important when measuring turnover among LTC organizations. The Price and Mueller Instrument for Measuring Turnover is the most widely used approach. The Eaton Instrument for Measuring Turnover provides a more precise way of measuring turnover among LTC organizations than is used by most others. These two measures are described in more detail in the remainder of this section.¹⁵

Issues to Consider When Selecting Measures of *Turnover*

- There is debate about the usefulness of distinguishing between voluntary and involuntary turnover. Some argue that, no matter the reason for people leaving positions (e.g., moving to a different state or being fired), there is still turnover within an organization. Others find this distinction is important because it might be useful for suggesting different management responses. For instance, if employees are being terminated due to a lack of proficiency in the job (e.g., involuntary turnover), there may be a training issue that needs to be addressed.
- Variation among reference periods may test the accuracy of some instruments. Instruments for turnover over a 12-month period, for example, may be preferable to a 6-month period in that they may capture more movement of employees in and out of the organization over time.
- Some suggest that turnover among certain sub-groups of employees (e.g., part-time versus full-time status, new hires versus employees who have remained with the organization over time, etc.) should be measured separately so that issues can be addressed for specific sub-groups within which there are higher turnover rates.

¹⁵ Numerous instruments have been developed which measure turnover similarly to those selected (though they may not capture as much detail): AHCA (2003); Anderson, et al (2002); Banaszak-Hall & Hine (1996); Brannon, et al (2002); Bureau of Health Information, Wisconsin Division of Health Care Financing; CMS/Abt Associates (2001); Florida Department of Elder Affairs (2000); Halbur & Fears (1986); Hollinger-Smith (2002); Konrad (2002); Remsburg, Armcost & Bennett (1999); Straker & Atchley (1999); Stryker (1982); Gordon & Stryker (1994); U.S. Department of Labor (JOLTS); U.S. Department of Personnel; Wagnild (1988); Parsons, et al (1998); Waxman, et al (1984). For more information on these instruments, consult the Turnover section of the References at the end of this Guide.

- In measuring both turnover and retention of DCWs, it is often more difficult to assess rates of home care workers due to the nature of employment. There is often minimal record keeping on when home care workers no longer work for clients or when their clients have died.
- Making turnover calculations may involve additional collection of data by facilities or agencies. For example, at the facility level, additional data collection might include maintaining accurate records of employees by full-time and part-time status as well as recording reasons for employee separations over a specified time period (usually one year).
- Monitoring the continuity of employment might be recommended to ensure a more accurate measurement of turnover. For example, it has been suggested that an employee who leaves and returns after several months should be counted in the turnover measure. While the separation of this worker may not significantly affect training costs, it may affect continuity of care, workload, and the work environment for staff that remains.

Turnover Instruments

	Eaton Instrument for Measuring Turnover (1997)	Price & Mueller Instrument for Measuring Turnover (1986; 1981)
Measure	<p><u># full-time new hires over 12 months</u> average # staff employed in that category over 12 months</p> <p><u># part-time new hires over 12 months</u> average # staff employed in that category over 12 months</p>	<p>Total # employed at Time 1 -- # still employed at 12- <u>month follow-up + involuntary terminations</u> # employed at Time 1</p>
Administration	Data collected from Medicaid cost reports.	Data collected from employee payroll records.
Scoring	Can be scored by hand.	Can be scored by hand.
Availability	Free.	Free.
Reliability	N/A	N/A
Validity	N/A	N/A

Alternatives for Measuring Turnover

Eaton Instrument for Measuring Turnover (1997)

Description

Eaton measured turnover of LTC employees as the number of newly hired employees in a certain category (e.g., registered nurses, licensed practical nurses, nurse aides) divided by the number of employees in that category over a 12-month period. For example, if an organization had employed 50 nurse aides during the year and had hired 20 over the course of the year, the turnover rate would be 40 percent (e.g., 20/50).

Use of a rate is readily understandable when expressed in percentages. Use of the same reference period enhances accuracy of the measure.

Issues to Consider When Using the *Eaton Instrument for Measuring Turnover*

- Use of cost reports prohibits the distinction between voluntary and involuntary turnover which may provide useful information.
- While not reflected in the turnover rate, it may be beneficial to also count the number of times the same position turns over.
- Eaton distinguished full-time from part-time employees. In this instance, if a job is filled with two part-time employees working half time each, two people were included in the calculation of the rate. This is important to consider if/when utilizing FTEs in the calculation because residents/clients interact with individuals, rather than accounting figures.

Contact Information

Not needed for use of this instrument.

Survey Items

The instrument for turnover presented here uses a formula calculated using data from various sources; therefore, no survey instrument is included here.

Price & Mueller Instrument for Measuring Turnover (1986; 1981)

Description

Price and Mueller measure turnover as a “quit rate.” The quit rate is computed as the number of employees who leave voluntarily during a period divided by the number employed at the beginning of that period.

The quit rate is relatively easy to compute. While it may take some attention to obtain the list of voluntary terminations, it is generally not a problem to obtain the average number of employees during the time period. The quit rate is readily understandable when expressed in percentages; (e.g. a 50-percent rate is higher than a 25-percent rate). The quit rate is widely, but not exclusively, used in LTC organizations.

Issues to Consider When Using the *Price & Mueller Instrument for Measuring Turnover*

- Price and Mueller advise that voluntary and involuntary turnover be distinguished in organizational-level turnover measures. Voluntary quits and involuntary turnover occur for different reasons and often require different organizational responses.
- The time period for computing quit rates recommended by Price and Mueller is 12 months. The denominator can be computed in different ways. For example, if there is a large fluctuation in the number of employees during the period, the average number of employees on the 15th day of each month can be used and divided by 12. If there is little fluctuation over the course of one year, the number of employees on January 1st can be added to the number as of December 31st and divided by 2. This would involve an understanding and tracking of employees over previous time periods.
- The rate has no precise meaning. For example, one cannot tell from a high quit rate whether it is due to the same position turning over many times or many positions each turning over one time. These two different ways of producing a high quit rate can have different implications for the work environment and workload of employees who stay.
- The rate does not account for the stability of the employees. High turnover rates among a few positions may be appropriate if the organization maintains a stable core of employees despite the rate.
- It may be difficult to decipher how both voluntary and involuntary terminations are defined in turnover measurements. For example, some resignations that appear to be voluntary may, in fact, be forced resignations. If possible, interviews should be conducted to determine these definitions. If the employee is not available, information obtained from management can be used, especially in smaller organizations where there are more informal interpersonal relationships. In larger organizations, most personnel officers rely on written documentation for dismissals making it more difficult to validate the reason for termination.
- Use of payroll records must be used with caution. The authors of this measure identify five issues that need to be addressed when using payroll records to compute a quit rate.

- o Members of governing boards may appear on payroll records and should be deleted.
- o Women who marry may change their names—these changes should be documented.
- o Some employees quit and are rehired between the two periods of measurement—these employees should be located and considered “stayers.”
- o Individuals who go on “leaves of absence” should be labeled as such and remain in the employee pool, even if they are not on the payroll for the specified time period.
- o “Temporary” workers should be identified and not be included in the turnover rate.

Contact Information

Not needed for use of this instrument.

Survey Items

The instrument for turnover presented here uses a formula calculated using data from various sources; therefore, no survey instrument is included here.

Vacancies

Introduction

Definition of *Vacancies*

Vacancies refer to job openings for which employers are seeking employees. Vacancies are the most commonly cited indicator of labor shortages when measuring the demand for labor. A large number of vacant positions, relative to some expected level of vacancies, is often considered as evidence of a labor shortage (Institute of Medicine, 1989).

Overview of Selected Instruments for *Vacancies*

Three instruments for vacancies have been included here. On the federal level, the Job Openings and Labor Turnover Survey (JOLTS) measures job openings, hires and separations in business and government. On the state level, the Job Vacancy Survey (JVS) has been used by several states (CO, LA, MN, OK, TX, WI) to assess state labor market conditions, and Leon, et al, has measured vacancies to understand the extent of recruitment and retention problems from a provider's perspective.

All three measures calculate vacancies as rates. While they share the same numerators, the denominators used to calculate these rates differ. The JOLTS and JVS calculate vacancy rates in a similar manner, but the JVS provides vacancy data by certain occupations and industry and supplies additional details about the specific positions that are available. The vacancy rate instrument used by Leon, et al uses a different denominator (full-time equivalents) than the JOLTS or JVS and has been used specifically in LTC settings.¹⁶

Issues to Consider When Selecting Instruments for *Vacancies*

- Vacancy rates should be interpreted with caution because high vacancy rates may not necessarily represent a labor shortage, but rather a labor “imbalance.” For example, if wages are kept below the level that would balance supply and demand of workers, then employer demand will surpass the number of individuals who are willing to work at that wage. Thus, the reported vacancy rates may not reflect a worker shortage per se, but may be the result of organizational or industry characteristics that contribute to the difficulty in recruiting for vacant positions. In contrast, low vacancy rates may simply be the result of a high availability of workers due to factors such as a recession.
- The use of vacancies with other indicators of labor demand, such as turnover, would provide a more accurate picture of the need for employees within the industry. There are always some vacancies in a particular job due to employee turnover and higher vacancy rates occur in occupations that experience the highest turnover (Institute of Medicine, 1989).

¹⁶ A 2003 American Health Care Association (AHCA) study used a vacancy rate calculation similar to the one used by Leon, et al. For more information on this instrument, consult the Vacancies section of the References at the end of this Guide.

- Calculating rates for both full-time and part-time positions may provide a more accurate picture of employer demand by more specifically defining the types of vacancies that are present. Although the total number of *positions* within the organization may not be collected as part of the original survey, a question asking the respondent to report a total number of full and part-time positions, respectively, can be added. This could be used to determine the vacancy rates for full and part-time positions rather than an overall vacancy rate using the number of employees as the denominator.

Vacancies Instruments

	Job Openings and Labor Turnover Survey (JOLTS)	Job Vacancy Survey (JVS)	Leon, et al Job Vacancies Instrument (2001)
Measure	<u># job openings on last day of month</u> total # employed for pay period that includes the 12 th of the month (for full-time or part-time)	<u># job openings</u> total # employed OR total # positions	<u># job openings</u> total number of FTE positions on the day of the interview
Administration	Data collected from human resources records via survey.	Data collected from human resources records via survey. No time frame specified for when to make calculation.	Data collected from human resources records via survey.
Scoring	Can be scored by hand.	Can be scored by hand or by using purchased software.	Can be scored by hand.
Availability	Free.	Free.	Free.
Reliability	N/A	N/A	N/A
Validity	N/A	N/A	N/A

Alternatives for Measuring Vacancies

Job Openings and Labor Turnover Survey (JOLTS)

Description

Introduced in 2001, the JOLTS collects counts of job openings on a monthly basis using the last business day of the month as the reference point. While using the middle of the month was considered in order to remain consistent with other JOLTS data, the pilot study revealed that job vacancies were not always available at that time (Levin et al., 2000). The goal of JOLTS is to produce monthly measures of unmet labor demand in the form of rates and numbers of job openings. For a job to be considered “open,” three conditions must apply:

- A specific position must exist and there is work available for that position. The position can be full-time, part-time, permanent or short-term.
- The job could start within 30 days.
- The organization is actively recruiting workers from outside the organization.

Issues to Consider When Using the *Job Openings and Labor Turnover Survey (JOLTS)*

- The instrument does not include positions for which employees have been hired but not yet started working or positions to be filled by temporary help agencies or outside contractors on an ongoing basis. Positions that are being filled by the use of temporary agencies are counted as vacancies if the above three criteria are met.
- Currently, JOLTS provides national and regional estimates of job vacancies (by aggregating across employer-level vacancies), but does not offer vacancy rates by occupation (whereas the JVS does).

Contact Information

Not needed for use of this instrument.

Survey Items

Exhibit 1. Sample JOLT form with instructions

Job Openings and Labor Turnover Report

U.S. Department of Labor



Bureau of Labor Statistics, JOLTS DCC, 61 Forsyth Street SW, Rm 7T50, Atlanta, GA 30303 / Phone: (800) 341-4620 / FAX: (800) 876-2815 / www.bls.gov

This report is authorized by 29 U.S.C.2. Your voluntary cooperation is needed to make the results of this survey comprehensive, accurate, and timely. The Bureau of Labor Statistics will use the information you provide for statistical purposes only and will hold the information in confidence to the full extent permitted by law.

BLS Form No. BLS-1411-C1
Form Approved
OMB No. 1220-0170
Approval Expires 3/31/2003

IWR# SIC4 O A AUXNA6 CTY TWP ANAVEMP RUN M

(999) 999-9999 Ext. 9999 FAX (999) 999-9999

LEGAL-NAME XXXXXXXXXXXXXXXXXXXXXXXX35
TRADE NAME XXXXXXXXXXXXXXXXXXXXXXXX35
ATTN: CONTACT NAMEXXXXXXXXXXXXXXXXXX??
JOLTS ADDRESSXXXXXXXXXXXXXXXXXXXXX35
JOLTS ADDRESS2XXXXXXXXXXXXXXXXXXXXX35
JOLTS CITYXXXXXXXXXXXXXXXXXXXXX30 ST ZIP5X-ZIP4

Your reporting number is: **12345678**

Need help with this form?
Call 1-800-341-4620.

1 This form requests information about job openings and employee turnover at:
 TRADE NAME OR LEGAL NAME XXXXXXXX35 COUNTY: XXXXXXXXXXXXXXXXXXXX20
 PHYS LOCATION OR JOLTS ADDRESSXX035 RPT-UNIT-DESCR XXXXXXXXXXXXXXXXXXXX35
 PHYS LOCATION 2 OR JOLTS ADDRESS2X35 UI: 1234567890 in STATEXXXXXXXXXXXXXXXXXX
 PL-CITY OR JOLTS CITYXX30 ST 12345-6789

2 Please check all that apply: Employees are paid
 each week every two weeks twice a month once a month other

3 Please provide data for the time period indicated for each item. Enter 0 if none.
 See the explanation of these terms on the back of this page.

Report for month of:	EMPLOYMENT	JOB OPENINGS	HIRES	SEPARATIONS		
	Number of full- or part-time employees who worked or received pay for the pay period that includes the 12th of the month	A job is open if it meets all three conditions: <ul style="list-style-type: none"> • A specific position exists • Work could start <i>within 30 days</i> • You are actively seeking workers from outside this location to fill the position 	A hire is any addition to your payroll, and: <ul style="list-style-type: none"> • May be new, rehired, or recalled from layoff • May be permanent, short-term, or seasonal 	Report by type of separation in the columns below. Column D Quits, except retirements Column E Layoffs, discharges, and other terminations initiated by the employer Column F Other separations due to: retirements; transfers from this location; deaths; employee disability		
	A	B	C	D	E	F
	Total Employment for the pay period that includes the 12th of the month	Number of Job Openings on the last business day of the month	Hires for the entire month	Quits	Layoffs and Discharges	Other Separations
	----- for the entire month -----					
Jan 2000						
Feb 2000						
Mar 2000						
Apr 2000						
May 2000						
Jun 2000						

Job Vacancy Survey (JVS)

Description

The Job Vacancy Survey (JVS) produces vacancy statistics as a measure of employer demand for workers within states and local communities. The Bureau of Labor Statistics (BLS), the Employment and Training Administration, and State Labor Market Information Offices collaborated to produce the JVS. The JVS was created in order to obtain reliable information on job vacancies that can be used in concert with other labor statistics to assess the health of state and local labor markets.

From the survey, job vacancy rates are calculated as the total number of vacancies reported divided by the total number of employees in the organization at a single point in time.

In addition to determining job vacancy rates in certain occupations and industries, the survey provides an analysis of the characteristics of these vacancies, including wages and benefits, educational requirements, full versus part-time positions and length of time a position has been vacant (see “survey items” below). The additional information included in the questionnaire regarding characteristics of vacant jobs provides important supplemental information on reported vacancies.

Issues to Consider When Using the *Job Vacancy Survey (JVS)*

- To date, no issues have been identified for this instrument.

Contact Information

Not needed for use of this instrument.

Survey Items

2002 Job Vacancy Survey: Occupations in Demand

DIRECTIONS

- Please direct this survey to the manager or human resources professional responsible for hiring and recruitment at this location of your business.
- Please respond before <month> <day>. Your cooperation will allow us to complete this survey in a timely manner.
- Surveys can be returned by mail, fax, or Internet. Return your survey by fax at (999) 999-9999. Submit it via the Internet at www.<yourorganization>.org/lmi/jobvacancy.
- No data identifying individual firms, directly or indirectly, will be published or released.
- Summary results will be available on the Internet in <Month and year> at www.<yourorganization>
- If you have any questions about the survey, please call: Mary Smith at (999) 999-9999 or John Jones at (999) 999-9999 or visit our website at www.<yourorganization>.org/lmi/jobvacancy.
- Callers outside the metro area can phone toll-free, (877) 999-9999.
- Answer Part A below, and then turn the form over to complete Part B.

(pre-printed establishment identification label here)

Part A – About Your Business

This form asks for information about the business, institution or organization listed in the upper right hand corner of this form.

<p>1: Total number of employees:</p> <p>_____</p> <p>If you have multiple locations, please fill out the survey for the entity listed in the upper right hand corner of this form.</p>	<p>2: Who is responding to this survey?</p> <p>Your name _____</p> <p>Title _____</p> <p>Phone Number _____</p>	<p>3: Do you have vacancies at this location?</p> <p><input type="checkbox"/> Yes Turn over survey and complete Part B</p> <p><input type="checkbox"/> No Mail or fax survey back to the contact listed above. ↔</p> <p>It is important for you to return the survey even if you have no vacancies. You may also notify us by phone at (999) 999-9999 if you have no vacancies.</p>
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Comments:

If you would like a copy of the survey results mailed to you, please check this box.

survey ID number

Leon, et al Job Vacancies Instrument

Description

Job vacancy data were collected in a statewide study of LTC organizations in Pennsylvania (see Leon et al., 2001). As part of a telephone interview, LTC administrators were asked to report the number of full time equivalents (FTEs) and the number of vacant positions on the day of the interview. The job vacancy rate for the organization was calculated as the percentage of vacant jobs over all jobs. Further, vacancy rates were categorized as low (rates greater than 0 but less than 10%), moderate (rates between 10 and 20%) and high (rates greater than 20%).

Issues to Consider When Using the *Leon, et al Job Vacancies Instrument*

- To date, no issues have been identified for this instrument.

Contact Information

Not needed for use of this measure.

Survey Items

2. How many full-time equivalent [WORKER] positions do you currently have at your [PROVIDER]? Please count a full-time [WORKER] as one person and a 20-hour per week [WORKER] as half a person. For example, if you had two people working 20 hours each, that would be one full time equivalent.

_____ # OF POSITIONS

6. How many job openings for [WORKERS] do you currently have?

_____ # OF OPENINGS

**Instruments Which Require
New Data Collection -
Measures of DCW Job
Characteristics**

Empowerment

Introduction

Definition of *Empowerment*

Much has been written about empowerment at three different levels: individual/psychological, sociological, and management/organizational. The focus here is on the management/organizational perspective.

Empowerment is often explained as the delegation of authority and decentralization of decision-making. However, when empowerment is more broadly defined, it speaks to the ability of management to create a working environment that shapes an individual's perceptions of his or her work role in a way that motivates positive work behavior (Conger and Kanungo, 1988). This broader definition of empowerment includes workers' perceptions of the meaning of their job to them, their sense of competence in the job, how much self-determination they believe they have in the job, and how much impact they believe they have in their job (Thomas and Velthouse, 1990).

Studies have found that nurses in hospitals who feel more empowered have higher job satisfaction, more commitment to their employer, and are less likely to voluntarily quit (Kuokkanen and Katajisto, 2003; Larrabee et al., 2003; Radice, 1994; Laschinger, Finegan, and Shamian, 2001).

Measuring worker empowerment in the workplace can help managers to identify and remove conditions in the organization that foster powerlessness and provide structural processes that foster empowerment.

Overview of Selected Measures of *Empowerment*

The five instruments reviewed here measure multiple dimensions of empowerment.

1. Conditions for Work Effectiveness Questionnaire (CWEQ I) and (CWEQ II Short Form) (4 of 5 subscales)
2. The Empowerment Questionnaire (2 of 3 subscales)
3. Perception of Empowerment Instrument (PEI)
4. Psychological Empowerment Instrument
5. Reciprocal Empowerment Scale (RES)

Issues to Consider When Selecting Measures of *Empowerment*

- Some survey items in the reviewed instruments may need to be simplified for DCWs.
- Some survey items may need to be modified to be more applicable to DCWs than to nurses or other professionals (for which the instruments were initially developed).

Empowerment Instruments

	Conditions for Work Effectiveness Questionnaire II (CWEQ II) (3 of 5 subscales)	The Empowerment Questionnaire (2 of 3 subscales)	Perception of Empowerment Instrument (PEI)	Psychological Empowerment Instrument	Reciprocal Empowerment Scale (RES)
Measure	<u>Subscales (3 of 5)</u> 1) Opportunity 2) Support 3) Global Empowerment Scale	<u>Subscales (2 of 3)</u> 1) Verbal empowerment 2) Outcome empowerment	<u>Subscales</u> 1) Autonomy 2) Responsibility 3) Participation	<u>Subscales</u> 1) Meaning 2) Competence 3) Self-Determination 4) Impact	<u>Subscales</u> 1) Reciprocity 2) Ownership 3) Synergy
Administration	<u>Survey Administration</u> 1) Paper and pencil 2) 6 minutes 3) 8 questions 4) 5-point Likert scale (none to a lot; no knowledge to know a lot; strongly disagree to strongly agree) <u>Readability</u> Flesch-Kincaid: 7.9	<u>Survey Administration</u> 1) Paper and pencil 2) 6-8 minutes 3) 14 questions 4) 11-point Likert scale (no confidence to complete confidence) <u>Readability</u> Flesch-Kincaid: 7.8	<u>Survey Administration</u> 1) Paper and pencil 2) 5-10 minutes 3) 15 questions 4) 5-point Likert scale (strongly agree to strongly disagree) <u>Readability</u> Flesch-Kincaid: 4.6	<u>Survey Administration</u> 1) Paper and pencil 2) 5-10 minutes 3) 12 questions 4) 7-point Likert scale (very strongly agree to very strongly disagree) <u>Readability</u> Flesch-Kincaid: 8.1	<u>Survey Administration</u> 1) Paper and pencil 2) 15 minutes 3) 36 questions 4) 5-point Likert scale (not at all true to extremely true) <u>Readability</u> Flesch-Kincaid: 6.3
Scoring	1) Simple calculations. 2) <u>Subscale score</u> = Average of items on the subscale (Range 1 – 5); <u>Global Empowerment score</u> : Sum and average 2 global items at end of questionnaire. 3) Higher scores indicate higher perceptions of empowerment.	1) Simple calculations. 2) <u>Subscale score</u> = Sum of items on the subscale (Range 0 – 88, depending on subscale) 3) Higher scores indicate higher confidence in performing tasks.	1) Simple calculations. 2) <u>Subscale score</u> = Sum of items on the subscale (Range 4 – 30, depending on subscale) 3) Higher scores indicate higher perceptions of empowerment.	1) Simple calculations. 2) <u>Subscale score</u> = Sum of items on the subscale (Range 3 – 21) <u>Total scale score</u> = Average of subscale scores (Range 3 – 21). 3) Higher scores indicate higher perceptions of empowerment.	1) Simple calculations. 2) <u>Subscale score</u> = Sum of items on the subscale (Range 6 – 95, depending on subscale) <u>Total scale score</u> = Sum of subscale scores (Range 36 – 180). 3) Higher scores indicate higher perceptions of empowerment.
Availability	Free with permission from the author.	Free with permission from the author.	Free with permission from the author.	Free if used for research or non-commercial use with permission from the author.	Free if used for research or non-commercial use.
Reliability	Internal consistency ranges from .78 to .91 for the global empowerment scale, and from .59 to .89 for the subscales.	Internal consistency ranges from .83 to .87 for the subscales.	Internal consistency ranges from .80 to .87 for the subscales.	Internal consistency ranges from .62 to .74 for the total scale and from .79 to .85 for the subscales.	Internal consistency of total scale is .95; and ranges from .82 to .95 for subscales.
Validity	<ul style="list-style-type: none"> The CWEQ II has been validated in a number of studies. Detailed information can be obtained at: publish.uwo.ca/~hkl/ Construct validity of the CWEQ II was supported in a confirmatory factor analysis; CWEQ II was significantly related to a global measure of empowerment ($r=.64$). 	Construct validity: <ul style="list-style-type: none"> Managers scored significantly higher than non-managers. Empowerment subscale scores significantly related to measures of leadership and discretionary behavior that promotes organizational effectiveness. 	Criterion-related validity reported as .82; however, specific criterion used is unclear.	Criterion-related validity: subscale scores were significantly but moderately related to career intentions and organizational commitment.	Construct validity <ul style="list-style-type: none"> Correlations between subscales ranged from .32 to .60. Total scale scores positively correlated with empowerment Total scale scores negatively correlated with alienation.

Alternatives for Measuring Empowerment

Conditions for Work Effectiveness Questionnaire II (CWEQ II)

Description

The Conditions for Work Effectiveness Questionnaire (CWEQ I) is a 31-item questionnaire designed to measure four empowerment dimensions—perceived access to opportunity, support, information and resources in an individual’s work setting—based on Kanter’s (1977) ethnographic study of work empowerment (Laschinger, 1996). Opportunity refers to opportunities for growth and movement within the organization as well as opportunity to increase knowledge and skills. Support relates to the allowance of risk taking and autonomy in making decisions. Information refers to having information regarding organizational goals and policy changes. Resources involve having the ability to mobilize resources needed to get the job done. Chandler (1986) adapted the CWEQ from Kanter’s earlier work to be used in a nursing population.

A short form of the CWEQ, called the CWEQ II or short form (Laschinger, Finegan, Shamian, and Wilk, 2000), was developed consisting of 12 items (3 for each of Kanter’s 4 empowerment dimensions measured in the CWEQ). Because the CWEQ II is shorter to administer while still having comparable readability and measurement properties, only the CWEQ II survey items are provided.

The CWEQ II has been studied and used frequently in nursing research since 2000 and has shown consistent reliability and validity. The University of Western Ontario Workplace Empowerment Research Program has been working with and revising the CWEQ I and II in nursing populations for over 10 years.

Issues to Consider When Using the *CWEQ II*

- Questionnaire assumes an organizational structure that does not exist in home care settings.
- Words to consider simplifying if used with DCWs: empowers, empowering

Contact Information

Permission to use the CWEQ II can be obtained on-line at <http://publish.uwo.ca/~hkl/> or by contacting the author, Heather Laschinger, at (hkl@uwo.ca), University of Western Ontario, School of Nursing, London, Ontario, CA N6A 5C1, (519) 661-4065.

Conditions for Work Effectiveness Questionnaire II (CWEQ II) (3 of 5 subscales)

Survey Items

Key to Which Questions Fall into Which Subscales							
O = Opportunity subscale (3 items)							
S = Support subscale (3 items)							
GE = Global Empowerment scale (2 items)							

HOW MUCH OF EACH KIND OF OPPORTUNITY DO YOU HAVE IN YOUR PRESENT JOB?

			None		Some		A Lot
O	1.	Challenging work.	1	2	3	4	5
O	2.	The chance to gain new skills and knowledge on the job.	1	2	3	4	5
O	3.	Tasks that use all of your own skills and knowledge.	1	2	3	4	5

HOW MUCH ACCESS TO SUPPORT DO YOU HAVE IN YOUR PRESENT JOB?

			None		Some		A Lot
S	1.	Specific information about things you do well.	1	2	3	4	5
S	2.	Specific comments about things you could improve.	1	2	3	4	5
S	3.	Helpful hints or problem solving advice.	1	2	3	4	5

			Strongly Disagree				Strongly Agree
GE	1.	Overall, my current work environment empowers me to accomplish my work in an effective manner.	1	2	3	4	5
GE	2.	Overall, I consider my workplace to be an empowering environment.	1	2	3	4	5

The Empowerment Questionnaire (2 of 3 subscales)

Description

The Empowerment Questionnaire (Irvine et al., 1999) was designed to measure empowerment among hospital workers. Empowerment was defined as the process whereby employees feel confident that they can successfully take a certain course of action. The Empowerment Questionnaire contains items for three subscales: behavioral empowerment, verbal empowerment and outcome empowerment. Behavioral empowerment refers to having confidence in learning new skills and executing job tasks. Verbal empowerment involves having confidence in participating in group discussions and expressing and debating opinions in the workplace. Outcome empowerment refers to having confidence in the ability to influence organizational outcomes.

Issues to Consider When Using the *Empowerment Questionnaire*

- Assumes a group setting that does not apply to home care.
- Words to replace to make applicable to a specific LTC setting: hospital, manager, department

Contact Information

The questionnaire is available with permission of the author who can be reached at: Diane Doran, University of Toronto, 50 St. George Street, Room 205A, Toronto, Ontario, CA M5S 3H4, (416) 978-2866, diane.doran@utoronto.ca

The Empowerment Questionnaire (2 of 3 subscales)

Survey Items

Key to Which Questions Fall into Which Subscales

V = Verbal Empowerment subscale (8 items)
 O = Outcome Empowerment subscale (6 items)

A number of work tasks which you might encounter on your job are given below. You are asked to indicate how *confident* you are in your ability to *successfully* perform each of these tasks. Please write a number in the blank beside each work task to indicate how confident you are in your ability to successfully perform the task. There are no right or wrong answers.

Write a number in the blank for each statement, based on the following scale:

How confident are you that you can successfully perform this task?

0 1 2 3 4 5 6 7 8 9 10

**No
Confidence
At All**

**Complete
Confidence**

V	1.	Work in a group to solve work problems.	
V	2.	Identify work problems that need to be improved.	
O	3.	Make a difference to the effectiveness of the hospital that I work in.	
O	4.	Help my coworkers make improvements at work.	
O	5.	Help my manager make improvements at work.	
O	6.	Bring about changes in the way I do my work in this hospital.	
O	7.	Bring about improvements in the way work is done in this hospital.	
O	8.	State my opinion about work problems to my manager.	
V	9.	State my opinion about work problems to managers who are outside my own department.	
V	10.	Work with coworkers in a group.	
V	11.	Debate my point of view in a group setting.	
V	12.	Debate my point of view with coworkers.	
V	14.	Participate in decisions concerning my work.	

Perception of Empowerment Instrument (PEI)

Description

The Perception of Empowerment Instrument measures three dimensions of empowerment—autonomy, participation, and responsibility. Autonomy refers to an individual's perception of the level of freedom and personal control that he or she possesses and is able to exercise in performing job tasks. Participation measures perceptions of influence in producing job outcomes and the degree to which employees feel they have input into organizational goals and processes. Responsibility measures the psychological investment an individual feels toward his/her job and the commitment he/she brings to the job.

Issues to Consider When Using the *Perception of Empowerment Instrument (PEI)*

- Word to replace to make applicable to a specific LTC setting: department
- Words to consider simplifying if used with DCWs: solicited, autonomy

Contact Information

The instrument is available on-line and can be used with the author's permission. The author can be reached at:

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1515 Jefferson Davis Highway #1405
Arlington, VA 22202
(703) 416-6618
kroller225@aol.com

Perception of Empowerment Instrument (PEI)

Survey Items

Key to Which Questions Fall into Which Subscales

A = Autonomy subscale (5 items)
R = Responsibility subscale (4 items)
P = Participation subscale (6 items)

Provide your reaction to each of the following by putting a number from the scale below in the column to the right of the statement.

5 = Strongly Agree
4 = Agree
3 = Neutral
2 = Disagree
1 = Strongly Disagree

	ITEM #	ITEM	RESPONSE
A	1	I have the freedom to decide how to do my job.	
P	2	I am often involved when changes are planned.	
A	3	I can be creative in finding solutions to problems on the job.	
P	4	I am involved in determining organizational goals.	
R	5	I am responsible for the results of my decisions.	
P	6	My input is solicited in planning changes.	
R	7	I take responsibility for what I do.	
R	8	I am responsible for the outcomes of my actions.	
A	9	I have a lot of autonomy in my job.	
R	10	I am personally responsible for the work I do.	
P	11	I am involved in decisions that affect me on the job.	
A	12	I make my own decisions about how to do my work.	
A	13	I am my own boss most of the time.	
P	14	I am involved in creating our vision of the future.	
P	15	My ideas and inputs are valued at work.	

Psychological Empowerment Instrument

Description

The Psychological Empowerment Instrument was designed to measure the four dimensions of empowerment based on Thomas and Velthouse's (1990) definition—meaning, competence, self-determination, and impact. Meaning refers to the value of the work goals or purposes; it involves a fit between values, beliefs and behaviors and the work role. Competence is a reflection of an individual's self-efficacy or one's belief in his/her capability of performing work tasks. Self-determination involves believing that one has a choice in initiating actions in the workplace. Impact is the degree to which an employee can influence the outcomes of the organization.

Issues to Consider When Using the *Psychological Empowerment Instrument*

- Word to replace to make applicable to a specific LTC setting: department
- Words to consider simplifying if used with DCWs: self-assured, significant autonomy
- This instrument may be very useful if combined with others.

Contact Information

The instrument is available from the author, Gretchen Spreitzer, who can be contacted at: Department of Organizational Behavior and HRM, University of Michigan, 701 Tappan Street, Room A2144, Ann Arbor, MI 48109, (734) 936-2835, spreitze@bus.umich.edu

Psychological Empowerment Instrument

Survey Items

Key to Which Questions Fall into Which Subscales

M = Meaning subscale (3 items)
C = Competence subscale (3 items)
S = Self-determination subscale (3 items)
I = Impact (3 items)

7-point response scale, ranging from very strongly agree to very strongly disagree

- M 1. The work I do is meaningful.
- M 2. The work I do is very important to me.
- M 3. My job activities are personally meaningful to me.

- C. 1. I am confident about my ability to do my job.
- C 2. I am self-assured about my capability to perform my work.
- C 3. I have mastered the skills necessary for my job.

- S 1. I have significant autonomy in determining how I do my job.
- S 2. I can decide on my own how to go about doing my work.
- S 3. I have considerable opportunity for independence and freedom in how I do my job.

- I 1. My impact on what happens in my department is large.
- I 2. I have a great deal of control over what happens in my department.
- I 3. I have significant influence over what happens in my department.

Reciprocal Empowerment Scale (RES)

Description

The Reciprocal Empowerment Scale was developed to measure empowerment of staff nurses with the underlying assumption that empowerment is a reciprocal process involving both leaders and followers. The instrument measures three dimensions of empowerment—reciprocity, synergy and ownership. Reciprocity focuses on the leadership role and emphasizes leader behaviors such as sharing power, support, and information. Synergy involves the formation and communication of a vision, including contributions toward the development of the vision and the long-term direction of the organization. Ownership reflects the follower's internalization of the vision and organizational commitment.

Issues to Consider When Using the *Reciprocal Empowerment Scale (RES)*

- Word to replace to make applicable to a specific LTC setting: leader, department
- Words to consider simplifying if used with DCWs: vision, barriers to implementation, give and take, resents, delegates, impacts, alternatives, stimulates
- This instrument has a lot of value but may be limited in its three dimensions of reciprocity, synergy, and ownership.

Contact Information

The instrument is available from the author, Marilyn Klakovich who can be reached at: 1753 Brentwood Avenue, Upland, CA 91784, (626) 815-5406, mklakovich@apu.edu.

Reciprocal Empowerment Scale (RES)

Survey Items

Key to Which Questions Fall into Which Subscales

R = Reciprocity subscale (19 items)
 S = Synergy subscale (11 items)
 O = Ownership subscale (6 items)

Please circle the response that best indicates TO WHAT EXTENT, that is, how much each of the following statements is TRUE for you in YOUR PRACTICE or POSITION. There are no right answers.

When an item, refers to your leader, please consider this to be the individual to whom you most directly report (e.g. Director of Nursing). For the purpose of this survey, vision is defined as a statement which clarifies the current situation and induces commitment to the future.

		1 = NOT AT ALL TRUE (NT) 2 = SLIGHTLY TRUE (ST) 3 = MODERATELY TRUE (MT) 4= VERY TRUE (VT), 5 = EXTREMELY TRUE (ET)	NT	ST	MT	VT	ET
S	1.	I am involved in all key aspects of my job.	1	2	3	4	5
R	2.	My leader communicates clear, consistent expectations.	1	2	3	4	5
R	3.	My leader has a strong vision for the department and the organization.	1	2	3	4	5
S	4.	I have the right to be deeply involved in all decisions that affect my work.	1	2	3	4	5
R	5.	My leader has no idea what I really do in my job.	1	2	3	4	5
O	6.	I do extra things that aren't just part of my job because I care.	1	2	3	4	5
S	7.	I feel energized by the vision.	1	2	3	4	5
R	8.	My leader explains where we are going as an organization in a way that makes me want to go along.	1	2	3	4	5
S	9.	Important decisions about how we do our jobs are made by me and my coworkers.	1	2	3	4	5
R	10.	My leader creates the feeling that good things are happening.	1	2	3	4	5
R	11.	My leader is too controlling.	1	2	3	4	5

Reciprocal Empowerment Scale (RES) (continued)

Survey Items

O	12.	I am worthy of the trust my leader has in me.	1	2	3	4	5
S	13.	I actively participate in organizational goal-setting.	1	2	3	4	5
R	14.	I am treated with respect and dignity.	1	2	3	4	5
S	15.	The vision gives me a sense of purpose.	1	2	3	4	5
R	16.	My leader makes me believe that I can make a difference.	1	2	3	4	5
R	17.	I sometimes feel as though I don't have any alternatives.	1	2	3	4	5
O	18.	I feel that I make a unique contribution to the organization.	1	2	3	4	5
R	19.	My leader stimulates and challenges me to contribute.	1	2	3	4	5
S	20.	I can help to mold/shape/change the vision.	1	2	3	4	5
R	21.	My leader uses my recommendations.	1	2	3	4	5
R	22.	I feel free to give my leader feedback about the direction of the department and the organization.	1	2	3	4	5
R	23.	All of the communication is one-way from the leader down.	1	2	3	4	5
O	24.	I am aware of the strengths that I bring to this job.	1	2	3	4	5
S	25.	My voice is heard in decision-making.	1	2	3	4	5
R	26.	My leader shares important information with me that I need to do my job.	1	2	3	4	5
S	27.	I can assist to remove barriers to implementation of the vision.	1	2	3	4	5
R	28.	There is a lot of give and take between me and my leader.	1	2	3	4	5
R	29.	My leader resents feedback that I share with her/him.	1	2	3	4	5
O	30.	I experience joy in doing my job right.	1	2	3	4	5
R	31.	My leader delegates appropriate assignments to me along with the authority to implement them.	1	2	3	4	5
S	32.	I feel as though I own part of the organization.	1	2	3	4	5
R	33.	My leader is a role model for me.	1	2	3	4	5
S	34.	What I do in my job really impacts the direction of the organization as a whole.	1	2	3	4	5
R	35.	My leader rarely provides feedback on how I am doing.	1	2	3	4	5
O	36.	I get the feeling of pride from the work I do.	1	2	3	4	5

Job Design

Introduction

Definition of *Job Design*

Job design includes the characteristics of the tasks that make up a given job that influence its potential for producing motivated work behavior. Job design comes from a line of research started more than 50 years ago looking at the impact on workers of assembly-lines with highly specialized and repetitive jobs and external control over the pace of production. Job design describes perceptions of jobs by job incumbents themselves, and is distinguished from more objective job or task analysis techniques used to classify jobs for compensation systems or other human resource management functions. Job design is associated with job satisfaction, job stress, and job performance among nursing staff (Bailey, 1995; Banaszak-Holl and Hines, 1996; Streit and Brannon, 1994; Peterson and Dunnagan, 1998; Tonges, 1998; Tonges, Rothstein, and Carter HK.,1998).

Overview of Selected Measures of *Job Design*

The two major approaches to measuring job incumbents' perceptions of job design—(1) the Job Characteristics Scale of the Job Diagnostic Survey (4 of 5 subscales) and (2) the Job Role Quality measure—both focus on the description of several job characteristics. They differ in terms of which characteristics are measured. Both are represented in the chart below and described in the remainder of this section.

Issues to Consider When Selecting Measures of *Job Design*

Major issues related to the use of perceptual measures of job design are:

- Since job perceptions are subjective responses to presumed objective features of work, they are likely to be moderated by individual personality differences such as the need for growth and locus of control as well as job knowledge and skill and demographic characteristics. There is strong evidence, however, that perceived job characteristics are reasonably accurate reflections of objective job design features (Fried and Ferris 1987).
- Perceptual measures are valid for measuring variability in perceptions within similar job categories including change over time. However, they are less informative when comparing distinctly different jobs given that job incumbents have only their own experience by which to frame assessments of their job. For example, stock brokers and home health aides may both rate their work as very significant, but the comparison is not very useful.

Job Design Instruments

	Job Characteristics Scales (JCS) of the Job Diagnostic Survey (JDS) Revised (4 of 5 subscales)	Job Role Quality
Measure	<u>Subscales (4 of 5)</u> 1) Skill variety 2) Task significance 3) Autonomy 4) Job feedback	<u>Subscales</u> Concern Factors: 1) Overload 2) Dead-end 3) Hazards 4) Supervision 5) Discrimination Reward factors: 1) Helping others 2) Decision authority 3) Challenge 4) Supervision 5) Support 6) Recognition 7) Satisfaction with salary
Administration	<u>Survey Administration</u> 1) Paper and pencil 2) 5-8 minutes 3) 12 questions 4) 7-item Likert scale (very little to very much) <u>Readability</u> Flesch-Kincaid: 6.8	<u>Survey Administration</u> 1) Designed for face-to-face interview, but may be possible to adapt to paper and pencil, self-administered 2) Data on time not available 3) 36 questions 4) 4-item Likert scale (not at all (concerned/rewarding) to extremely (concerned/rewarding)) <u>Readability</u> Flesch-Kincaid: 5.9
Scoring	1) Simple calculations. 2) <u>Subscale score</u> = Average of items on the subscale (Range 1 – 7); 3) Higher scores indicate better job design features.	1) Simple calculations. 2) <u>Subscale score</u> = Average of items on the subscale (Range 1 – 4) 3) Lower scores on Job Concern subscales indicate better job design features; Higher scores on Job Reward subscales indicate better job design features.
Availability/price	Free.	Free.
Reliability	Internal consistency ranges from .75 to .79 for the subscales.	Internal consistency ranges from .48 to .87 for the subscales.
Validity	Criterion-related validity: Job design correlates with intent to leave and is predictive of absenteeism and job satisfaction	Construct validity: <ul style="list-style-type: none"> • Subscales were confirmed using confirmatory factor analysis • Logical variations in scores among social workers and LPNs. Criterion-related validity: Hospital LPNs and nursing home LPNs report quite different job demands. Hospital LPNs reported more overload and less decision authority than those in nursing homes.

Alternatives for Measuring Job Design

Job Characteristics Scales (JCS) of the Job Diagnostic Survey (JDS) Revised (4 of 5 subscales)

Description

The Hackman and Oldham Job Characteristics Model (1975;1980) is the dominant model for studying the impact of job characteristics on affective work outcomes (e.g., job satisfaction, empowerment, and motivation) and to a more limited extent behavioral outcomes (e.g., performance, absenteeism, and turnover intentions). The Job Characteristics Scales (JCS) are a component of the Job Diagnostic Survey (JDS), the most widely used instrument across many types of jobs to measure perceived job characteristics. The JDS was revised in 1987 (Idaszak & Drasgow) to eliminate a measurement artifact resulting from reverse-worded questionnaire items. Only the revised version should be used.

The JCS contain five subscales—skill variety, task significance, autonomy, task identity and feedback. The JCS is often combined in surveys with other measures of workers' feelings about and satisfaction with their jobs. Hackman and Oldham (1980) recommend that it be administered during regular work hours in groups of no more than 15 respondents at a time. Hackman and Oldham provide substantive guidelines for administration (1980).

Issues to Consider When Using the Job Characteristics Scales (JCS) of the Job Diagnostic Survey (JDS) Revised (4 of 5 subscales)

- Words to consider simplifying if used with DCWs: autonomy, standardized, complex or sophisticated skills, complex or high-level skills, initiative and judgment, significant, scheme
- Using the JCS for longitudinal studies tracking within-subject changes may be less useful than comparing group (job) means at multiple points in time.
- Seven-point response scales may be confusing and may not result in greater differentiation.

Contact Information

Not needed for use of the instrument.

Job Characteristics Scales (JCS) of the Job Diagnostic Survey (JDS) Revised (4 of 5 subscales) (continued)

Survey Items

Key to Which Questions Fall into Which Subscales

SV = Skill Variety subscale (3 items)
 TS = Task Significance subscale (3 items)
 A = Autonomy subscale (3 items)
 F = Feedback from the Job Itself subscale (3 items)

On the following pages, you will find several different kinds of questions about your job. Specific instructions are given at the start of each section. Please read them carefully. It should take no more than 10 minutes to complete the entire questionnaire. Please move through it quickly.

The questions are designed to obtain your perceptions of your job. There are no trick questions. Your individual answers will be kept completely confidential. Please answer each item as honestly and frankly as possible. Thank you for your cooperation.

Section One

This part of the questionnaire asks you to describe your job listed above as objectively as you can. Try to make your description as accurate and as objective as you possibly can. Please do not use this part of the questionnaire to show us how much you like or dislike your job.

A sample question is given below.

A. To what extent does your job require you to work overtime?

1---	---2---	---3---	---4---	---5---	---6---	---7
Very little; the job requires almost no overtime hours.		Moderately; the job requires overtime at least a week.			Very much; the job requires overtime more than once a week.	

You are to circle the number which is the most accurate description of your job.

If, for example, your job requires you to work overtime two times a month—you might circle the number six, as was done in the example above

Job Characteristics Scales (JCS) of the Job Diagnostic Survey (JDS) Revised (4 of 5 subscales) (continued)

Survey Items

(A) 1. How much autonomy is there in the job? That is, to what extent does the job permit a person to decide on his or her own how to go about doing the work?

1---	---2---	---3---	---4---	---5---	---6---	---7
Very little; the job gives me almost no personal “say” about deciding how and when the work is done.		Moderate autonomy; many things are standardized and not under my control but I can make some decisions about the work.			Very much; the job gives a person almost complete responsibility for deciding how and when the work is done.	

(SV) 2. How much variety is there in your job? That is, to what extent does the job require you to do many different things at work, using a variety of his or her skills and talents?

1---	---2---	---3---	---4---	---5---	---6---	---7
Very little; the job requires the person to do the same routine things over and over again.		Moderate variety			Very much; the job requires the person to do many different things, using a number of different skills and talents.	

(TS) 3. In general, how significant or important is your job? That is, are the results of your work likely to significantly affect the lives or well-being of other people?

1---	---2---	---3---	---4---	---5---	---6---	---7
Not at all significant: the outcomes of the work are not likely to affect anyone in any important way.		Moderately significant			Highly significant; the outcomes of the work can affect other people in very important ways.	

(F) 4. To what extent does doing the job itself provide you with information about your work performance? That is, does the actual work itself provide clues about how well you are doing—aside from any “feedback” co-workers or supervisors may provide?

---1---	---2---	---3---	---4---	---5---	---6---	---7---
Very little; the job itself is set up so a person could work forever without finding out how well he or she is doing.		Moderately; sometimes doing the job provides “feedback” to the person; sometimes it does not.			. Very much; the job is set up so that a person gets almost constant “feedback” as he or she works about how well he or she is doing.	

Job Characteristics Scales (JCS) of the Job Diagnostic Survey (JDS) Revised (4 of 5 subscales) (continued)

Survey Items

Section Two

Listed below are a number of statements which could be used to describe a job.

You are to indicate whether each statement is an accurate or an inaccurate description of your job.

Once again, please try to be as objective as you can in deciding how accurately each statement describes your job— regardless of you like or dislike your job.

Write a number in the blank beside each statement, based on the following scale:

How accurate is the statement in describing your job?

1	2	3	4	5	6	7
Very Inaccurate	Mostly Inaccurate	Slightly Inaccurate	Uncertain	Slightly Accurate	Mostly Accurate	Very Accurate

- (SV) ___ 1. The job requires me to use a number of complex or sophisticated skills.
- (F) ___ 2. Just doing the work required by the job provides many chances for me to figure out how well I am doing.
- (SV) ___ 3. The job requires me to use a number of complex or high-level skills.
- (TS) ___ 4. This job is one where a lot of other people can be affected by how well the work gets done.
- (A) ___ 5. The job gives me a chance to use my personal initiative and judgment in carrying out the work.
- (F) ___ 6. After I finish a job, I know whether I performed well.
- (A) ___ 7. The job gives me considerable opportunity for independence and \ freedom in how I do the work.
- (TS) ___ 8. The job itself is very significant and important in the broader scheme of things.

Job Role Quality Questionnaire

Description

The Job Role Quality questionnaire (Marshall et al., 1991) was developed through a National Institute of Occupational Safety and Health (NIOSH)-funded project. The Job Role Quality questionnaire was developed as a response to research findings from the widely used Job Content Questionnaire (JCQ).¹⁷ This research has shown that satisfaction and health outcomes are impacted by the strain that results when jobs combine heavy demands and low decision latitude with little social support. This model has been applied in some health care settings and the occupation “nurse aide” is categorized as a high strain one, combining relatively high demands and low decision latitude. A major problem with the model underlying this approach, however, has been that it is based predominantly on data from male workers. The Job Role Quality Questionnaire was designed to adapt the JCQ to more accurately reflect women’s psychosocial responses to service work. While it is derived from the Job Content Questionnaire and includes the same concepts, the Job Role Quality scales are not identical. Further, the Job Role Quality items of “helping others” and “discrimination” were added to assess their moderating role on job strain. These modifications suggest a good fit for studies of DCWs.

The Job Role Quality questionnaire is intended to measure job strain that leads to negative psychological and physical health outcomes. It contains 5 Job Concern subscales—overload, dead-end job, hazard exposure, poor supervision, and discrimination. It also contains 6 Job Reward subscales—helping others, decision authority, challenge, supervisor support, recognition, and satisfaction with salary.

Overall, decision authority, challenge and the opportunity to help others are each important buffers of heavy work demands. Supervisor support and helping others most consistently buffer the negative health effects of overload (Marshall and Barnett, 1993; Marshall et al., 1991).

Issues to Consider When Using the *Job Role Quality Questionnaire*

- Word to replace to make applicable to a specific LTC setting: supervisor
- Words to consider simplifying if used with DCWs: monotony, strenuous, authority
- As described in the literature (Marshall et al., 1991; Marshall and Barnett, 1993), the instrument was developed as part of a two-hour face-to-face interview in combination with data collection about job strain, psychological distress, and general health. The items appear to lend themselves to being used in written questionnaire form, though we did not find evidence that this has been done.

Contact Information

Not needed for use of the instrument.

¹⁷ The Job Content Questionnaire is managed by Dr. Karasek at the JCQ Center. The instrument is copyrighted and not in the public domain. Use of the instrument for research purposes is free for studies involving fewer than 750 subjects. The use fee for studies involving 750-2000 subjects is \$.50 per subject and for studies with sample sizes 20,000-40,000, it is \$.10. You can contact Dr. Robert Karasek to obtain use contract at Professor of Work Environment, University of MA Lowell, One University Ave., Kitson 200, Lowell, MA 01854-2867.

Job Role Quality Questionnaire

Survey Items

Key to Which Questions Fall into Which Subscales

The 36 items are organized below into their respective 11 subscales (5 job concern subscales and 6 job reward subscales).

Job Concern Factors

Instructions. Think about your job right now and indicate on a scale of 1 (not at all) to 4 (extremely), to what extent, if at all, each of the following is of concern.

Overload

1. Having too much to do
2. The job's taking too much out of you
3. Having to deal with emotionally difficult situations

Dead-End Job

1. Having little chance for the advancement you want or deserve
2. The job's not using your skills
3. The job's dullness, monotony, lack of variety
4. Limited opportunity for professional or career development

Hazard Exposure

1. Being exposed to illness or injury
2. The physical conditions on your job (noise, crowding, temperature, etc.)
3. The job's being physically strenuous

Poor Supervision

1. Lack of support from your supervisor for what you need to do your job
2. Your supervisor's lack of competence
3. Your supervisor's lack of appreciation for your work
4. Your supervisor's having unrealistic expectations for your work

Discrimination

1. Facing discrimination or harassment because of your race/ethnic background
2. Facing discrimination or harassment because you're a woman

Job Reward Factors

Instructions: Think about your job right now and indicate on a scale of 1 (not at all) to 4 (extremely) to what extent, if at all, each of the following is a rewarding part of your job.

Helping Others

1. Helping others
2. Being needed by others
3. Having an impact on other people's lives

Decision Authority

1. Being able to make decisions on your own
2. Being able to work on your own
3. Having the authority you need to get your job done without having to go to someone else for permission
4. The freedom to decide how you do your work

Challenge

1. Challenging or stimulating work
2. Having a variety of tasks
3. The sense of accomplishment and competence you get from doing your job
4. The job's fitting your interests and skills
5. The opportunity for learning new things

Supervisor Support

1. Your immediate supervisor's respect for your abilities
2. Your supervisors concern about the welfare of those under him/her
3. Your supervisor's encouragement of your professional development
4. Liking your immediate supervisor

Recognition

1. The recognition you get
2. The appreciation you get

Satisfaction with Salary

1. The income
2. Making good money compared to other people in your field

Job Satisfaction

Introduction

Definition of *Job Satisfaction*

Job satisfaction is generally defined as the degree to which individuals have a positive emotional response towards employment in an organization. It is not the same as morale, which includes other concepts such as commitment, discouragement, and loyalty.

Organizations care about job satisfaction because it is thought to be related to employees' emotional and behavioral responses to work. However, the evidence on these relationships is mixed. Extensive literature reviews, meta-analyses, and organizational studies conducted in the 1970s found that the relationship between job satisfaction and productivity, absence, and turnover is negligible (Landy, 1989; Steers and Rhoades, 1978; Mobley, Horner, and Hollingsworth, 1978; and Locke, 1976). In contrast, more recent studies have found that job dissatisfaction is strongly associated with job stress and organizational commitment among nurses (Blegen, 1993; Cohen-Mansfield, 1997; Lundstrom et al., 2002; Upenieks, 2000).

Overview of Selected Measures of *Job Satisfaction*

Job satisfaction can be measured globally as a single measure of whether you are generally satisfied (or dissatisfied) with your job (Porter and Lawler, 1968). With this global approach, job satisfaction is measured as a general, overall emotional response to a person's current work situation. Three measures identified for this topic address overall job satisfaction:

1. Job in General Scale from the Job Descriptive Index (short form)
2. General Job Satisfaction Scale from the Job Diagnostic Survey
3. Various single-item measures including the Visual Analog Satisfaction Scale

In contrast to a global approach, some argue that job satisfaction should be assessed in terms of multiple dimensions such as in response to tasks, supervisor, coworkers, or pay (e.g., Smith, Kendall, and Hulin, 1969). This multi-dimensional or facet approach assumes that people have reactions to specific aspects of their work that a general measure fails to recognize. Satisfaction on different dimensions does not simply combine to produce a general or overall measure of satisfaction. One measure identified for this topic use this multi-dimensional approach.

1. Grau Job Satisfaction Scale

Issues to Consider When Selecting Measures of *Job Satisfaction*

- For many years it has been assumed that multi-item measures of satisfaction were psychometrically superior to single items. Recent evidence (summarized in “Single Item Measures of Job Satisfaction” later in this topic) suggests that it is possible to construct one-item measures that have good measurement properties. This possibility may be significant to users with limited time and budget resources. Single item measures have proven popular in many studies of health care workers where job satisfaction is not the focus of the research, but one among many data points collected in a study.

Job Satisfaction Instruments

	General Job Satisfaction Scale (GJS, from Job Diagnostic Survey)	Grau Job Satisfaction Scale	Single Item Measures of Job Satisfaction	Visual Analog Scale (VASS)
Measure	1) Overall (global) satisfaction.	<u>Subscales</u> 1) Intrinsic job satisfaction 2) Satisfaction with benefits	1) 1) Single item measures have generally been used to assess overall job satisfaction, but may be adapted to address specific dimensions or facets.	1) Overall job satisfaction. While examples of dimensions that might affect overall satisfaction are given, subjects are encouraged to make their rating in terms of their overall emotional reaction to whatever aspects of their job are important to them.
Administration	<u>Survey Administration</u> 1) Paper and pencil or interview 2) < 5 minutes 3) 5 questions 4) 7-point Likert scaling (strongly disagree to strongly agree) <u>Readability</u> Flesch-Kincaid: 5.3	<u>Survey Administration</u> 1) Paper and pencil or interview 2) 5 minutes 3) 14 questions 4) 4-point Likert scaling (very true to not true at all) <u>Readability</u> Flesch-Kincaid: 3.2	<u>Survey Administration</u> 1) Paper and pencil or interview 2) < 1 minute 3) 1 question 4) Typically a 5-point Likert scale anchored by levels of satisfaction. <u>Readability</u> Typical Flesch-Kincaid levels range from 4-6	<u>Survey Administration</u> 1) Paper and pencil 2) < 1 minute 3) 1 question 4) Graphical rating scale: The subject's evaluation of his/her job satisfaction is indicated by placing a marker on an anchored analog scale that ranges from no satisfaction to greatest possible satisfaction. <u>Readability</u> Flesch-Kincaid: 8.5
Scoring	1) Simple calculations. 2) <u>Overall score</u> = Average of the 5 items after reverse coding the two negatively worded items (Range 1 – 7). 3) Higher scores indicate higher job satisfaction.	1) Simple calculations. 2) <u>Subscale score</u> = Sum of items on the subscale (Range 4 – 52, depending on subscale). 3) Lower scores indicate higher job satisfaction.	1) Simple calculations. 2) Subject's response is used as his/her "score" on the measure. 3) Depends on direction of scores.	1) Simple calculations. 2) The VAS score is the distance (using a ruler) from the lowest end of a 100ml analog scale on which the respondent records their response. 3) Depends on which end of scale is reference point for measuring.
Availability	Free.	Free.	Free.	Free.
Reliability	Internal consistency of scale ranges from .74 – .80.	Internal consistency is .84 for intrinsic satisfaction scale and .72 for job benefits scale.	Internal consistency measures are not applicable to single item measures.	Internal consistency measures are not applicable to single-item measures.
Validity	Construct validity: GJS is negatively related to organizational size and positively related to job level, tenure, performance, and motivational fit between individuals and their work.	No published information is available.	Recent research indicates that single- item measures of overall or global job satisfaction correlate well ($r \geq .60$) with multi-item measures, and may be superior to summing up multi-item facet scores into an overall score.	VAS and similar graphical rating scales are believed to be a valid measure of job satisfaction. It is argued that they capture respondents' global affective reactions to their work situation. The global nature of the question allows respondents to identify and respond to aspects of work that are most personally relevant or important

Alternatives for Measuring Job Satisfaction

General Job Satisfaction Scale (GJS, from Job Diagnostic Survey or JDS)

Description

The General Job Satisfaction Scale is a short 5-item measure of overall job satisfaction that is derived from the theoretical and conceptual work that resulted in the Job Diagnostic Survey (Hackman and Oldham, 1975, 1980). Job satisfaction is defined as “an overall measure of the degree to which the employee is satisfied and happy with the job”. As a component of the JDS, the scale has been used in a wide variety of jobs, including telephone companies, factory workers, clerical workers, supervisors, and nursing and technical staff. An example of the use of the JDS in a long-term care setting is Schaefer’s (1996) work on the effect of stressors and work climate on staff morale and functioning.

Issues to Consider When Using the *General Job Satisfaction Scale*

- To date, no issues have been identified for this instrument.

Contact Information

Not needed for use of the instrument.

General Job Satisfaction Scale (GJS, from Job Diagnostic Survey or JDS)

Survey Items

Key to Which Questions Fall into Which Subscales
--

All 5 items go into the General Job Satisfaction scale.

Note that two items, marked ®, are reverse worded. Their responses must be recoded prior to scoring.

1. Generally speaking, I am very satisfied with this job.
2. I frequently think of quitting this job ®
3. I am generally satisfied with the kind of work I do in this job.
4. Most people on this job are very satisfied with the job
5. People on this job often think of quitting ®

Each item is to be answered using the following 7-point response scale:

1. Disagree strongly
2. Disagree
3. Disagree slightly
4. Neutral
5. Agree slightly
6. Agree
7. Agree strongly

Grau Job Satisfaction Scale

Description

A two-dimension measure of job satisfaction was developed by Grau, et al (1991) for a study of nurse aides in nursing homes. The instrument was based on earlier work by Cantor and Chichin (1989) for a study of homecare workers. Although the instrument included items related to multiple job satisfaction dimensions (economic characteristics, sense of accomplishment, personal satisfaction, job responsibilities, supervision, and job convenience), factor analysis of the instrument provided evidence of only two dimensions (Grau, et al., 1991). These two dimensions are general job satisfaction and job benefits. The instrument has been used in a study of home health aides who cared for AIDS patients (Grau, Colombotos, and Gorman, 1992) and nurse aides in a long term care facility (Grau, Chandler, Burton, and Kilditz, 1991).

Issues to Consider When Using the *Grau Job Satisfaction Scale*

- Words to consider simplifying if used with DCWs: authority

Contact Information

Not needed for use of the instrument.

Grau Job Satisfaction Scale

Survey Items (Exact wording below)

Key to Which Questions Fall into Which Subscales

The survey items are grouped as shown below into the two respective subscales (13 items in Intrinsic Job Satisfaction subscale and 4 items in Job Benefits subscale).

The 4-point response scale is: 1. very true; 2. somewhat true; 3. not too true; 4. not true at all

Intrinsic Job Satisfaction

1. See the result of my work
2. Chances to make friends
3. Sense of accomplishment
4. My job prepares me for better jobs in health care.
5. Get to do a variety of things on the job.
6. Responsibilities are clearly defined.
7. Have enough authority to do my job.
8. I am given a chance to do the things I do best.
9. I get a chance to be helpful to others.
10. I am given a chance to be helpful to others.
11. I am given freedom to decide how I do my work.
12. The work is interesting.
13. The people I work with are friendly.

Job Benefits

14. The fringe benefits are good.
15. The security is good.
16. The pay is good.
17. The chances for promotion are good.

Single Item Measures of Job Satisfaction

Description

Over time, the trend in measuring job satisfaction has been towards multi-item, multi-scale instruments. Many currently available instruments have grown out of theories of satisfaction that emphasize employees' emotional reactions to multiple aspects of their job. For example, one of the most heavily researched and widely used instruments, the JDI, is based on a model that identifies five important aspects of work: the task, pay, coworkers, supervision, and promotion. However, the long form of this instrument consists of 72 items, and even a shorter, more streamlined version still contains 25 statements. Yet simpler and more adaptable measures may be available to the researcher. For example, Aiken, et al (2002) used a single job satisfaction question rather than a lengthy multi-item instrument in her study of nursing burnout and found satisfaction significantly related to nurse-patient ratio.

Issues to Consider When Using the *Single Item Measures of Job Satisfaction*

Compared to multi-item measures, single item measures have a number of features that may make them more attractive:

- Single item measures take substantially less space in a survey.
- Single item measures usually require less time for subjects to complete.
- A single item is almost always more cost effective.
- Single items often have more face validity to respondents, an important consideration in organizations with poor employee relations.
- Single item measures can be easily adapted to measure particular facets of jobs for which no measures exist.
- There are no special scoring instructions to understand and follow.
- Single item measures of overall satisfaction correlate fairly well (0.63 or higher) with multi-item measures (Wanous et al., 1997).
- A single item measure of overall satisfaction is believed to be superior to summing up multi-item facet scales because the multi-item scales almost certainly overlook some dimensions of a job that are important to the respondent (Ironson, et al., 1989; Scarpello and Campbell, 1983; Wanous, et al., 1997).
- On the down side, single item measures have been criticized because they cannot be assessed in terms of internal consistency measures of reliability, nor can they be used in structural or measurement models (Wanous, et al., 1997).

Contact Information

Not needed for use of the instrument.

Single Item Measures of Job Satisfaction

Examples of Survey Items

- Scarpello and Campbell (1983), in a review of job satisfaction measures, concluded that the best global rating of satisfaction is a single item, 5-point scale asking “Overall, how satisfied are you with your job?”
- Nagy (2002) suggests that single item measures are most likely to have acceptable measurement properties if they use a discrepancy format. That is, their wording should follow a form such as “How does the amount of satisfaction [or some other area of interest] compare to what it should be?” The measure should use a multi-level response, such as a five-point scale ranging from “not at all satisfying” to “very satisfying.”

Visual Analog Satisfaction Scale (VASS)

Description

The Visual Analog Satisfaction Scale (VASS) is a one-item graphical rating scale. Unlike the other instruments described here, the VASS is not an instrument, per se, but an approach to measurement that can be implemented easily. McGilton and Pringle (1999) describe the VASS and the significant relationship they found among nurses in LTC between job satisfaction (using the VASS) and perceived organizational control and clinical control.

Issues to Consider When Using the *Visual Analog Satisfaction Scale (VASS)*

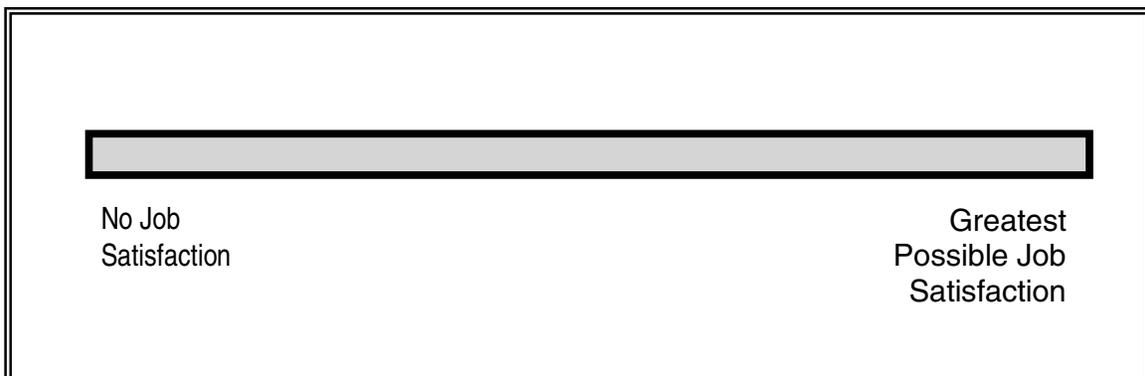
- Word to replace to make applicable to a specific LTC setting: hospital, unit organization

Contact Information

Not needed for use of the instrument.

Survey Item

I would like you to think about how satisfied you are with your job. Think about all the different parts of your work life. This could include things like hospital management, unit organization, and relationships with co-workers and supervisors. How satisfied are you?



The diagram illustrates the Visual Analog Satisfaction Scale (VASS). It consists of a horizontal bar with a thick black outline and a light gray fill. Below the bar, the text "No Job Satisfaction" is positioned on the left side, and "Greatest Possible Job Satisfaction" is positioned on the right side. The entire diagram is enclosed in a double-line rectangular border.

Organizational Commitment

Introduction

Definition of *Organizational Commitment*

Organizational commitment is the strength (or lack thereof) of an individual's expressed attachment to a particular organization. This attachment has been measured in two ways: affective (or emotional) and behavioral (intent to leave). In some studies, most notably with direct care staff in psychiatric hospitals, organizational commitment has been more effective than job satisfaction at discriminating stayers from leavers (Porter et al., 1974).

Overview of Selected Measures of *Organizational Commitment*

The Intent to Turnover measure (from the Michigan Organizational Assessment Questionnaire) focuses on behavioral intent whereas the Organizational Commitment questionnaire addresses both affective attachment and behavioral intent.

Issues to Consider When Selecting Measures of *Organizational Commitment*

- To date, no issues have been identified for this instrument.

Organizational Commitment Measures

	Intent to Turnover (from the Michigan Organizational Assessment Questionnaire or MOAQ)	Organizational Commitment Questionnaire (OCQ)
Measure	Behavioral intent to leave job	Affective attachment to organization
Administration	<u>Survey Administration</u> 1) Paper and pencil 2) < 5 minutes 3) 3 questions 4) 7-point or 5-point Likert scaling (strongly disagree to strongly agree; not at all likely to extremely likely) <u>Readability</u> Flesch-Kincaid: 7.1	<u>Survey Administration</u> 1) Paper and pencil 2) 5 minutes (short form), 10 minutes (long form) 3) 9 (positively worded) questions in short form and 15 questions (both positively and negatively worded) in long form 4) 7-point or 5-point Likert scaling (strongly agree to strongly disagree) <u>Readability</u> Flesch-Kincaid: 8.9 (9-item short form) and 9.4 (15-item long form)
Scoring	1) Simple calculations. 2) Score = Sum of the 3 items (Range 3 – 21). 3) Lower scores indicate greater organizational commitment.	1) Simple calculations. 2) Score = Average of the items, after reversing negatively worded items if long form is used (Range 1 – 7). 3) Higher scores indicate greater organizational commitment.
Availability/price	Free.	Free.
Reliability	Internal consistency of scale is .83 from diverse occupational sample at 11 sites.	Internal consistency of scale ranges from .8 - .9 for the long version (not known for short version).
Validity	Logical relationships found between “look for new job” item and age, loneliness, and satisfaction with pay and benefits in study of home health aides.	Construct validity: <ul style="list-style-type: none"> • Factor analysis supports a single scale. • Correlated with intent to leave, turnover, job satisfaction, and supervisors’ ratings of employee commitment; may not be clearly distinct from job satisfaction.

Alternatives for Measuring Organizational Commitment

Intent to Turnover

(The Michigan Organizational Assessment Questionnaire, MOAQ)

Description

Developed initially in 1975 as part of a larger survey instrument measuring employee perceptions, the three-item instrument has been used with many different occupational samples (Cammann et al. 1983). This set of items focuses on behavioral intent rather than affective attachment as indicating degree of commitment to the organization.

Issues to Consider When Using the *Intent to Turnover measure*

- Readability levels might need to be examined to ensure they are appropriate for DCWs.
- Question Item #3 (finding a job with another employer) may not be useful as it is very state- (or even market-) specific.

Contact Information

Not needed for use of the instrument.

Intent to Turnover
(The Michigan Organizational Assessment Questionnaire, MOAQ)

Survey Items

Here are some statements about you and your job. How much do you agree or disagree with each?

1. I will probably look for a new job in the next year.

- 1-strongly disagree
- 2-disagree
- 3-slightly disagree
- 4-neither agree nor disagree
- 5-slightly agree
- 6-agree
- 7-strongly agree

2. I often think about quitting.

- 1-strongly disagree
- 2-disagree
- 3-slightly disagree
- 4-neither agree nor disagree
- 5-slightly agree
- 6-agree
- 7-strongly agree

Please answer the following question.

3. How likely is it that you could find a job with another employer with about the same pay and benefits you now have?

- 1-not at all likely
- 2-
- 3-somewhat likely
- 4-
- 5-quite likely
- 6-
- 7-extremely likely

Organizational Commitment Questionnaire (OCQ)
Mowday and Steers (1979)

Description

The Organizational Commitment Questionnaire (OCQ) is the most thoroughly studied instrument in the literature that measures *affective* attachment to the organization. The OCQ was developed over a 9-year period on research from diverse samples (n=2563) including hospital employees and psychiatric technicians (DCWs). It includes the extent to which the individual: 1) accepts and believes in the organization's goals; 2) is willing to exert effort on behalf of the organization; and 3) wants to continue involvement in the organization. These first two components represent attitudinal commitment, whereas the third one is behavioral (Price and Mueller, 1986).

Issues to Consider When Using the *Organizational Commitment Questionnaire (OCQ)*

- Feldman (personal communication) used the 9-item short form without problems in a 1990 survey of home care attendants. Feldman reports that the instrument worked well with this population using a 5-item Likert scale (1-strongly disagree, 2-disagree, 3-neither agree nor disagree, 4-agree, 5-strongly agree) rather than a 7-item scale.
- Question item #6, "I am proud to tell others that I am part of this organization," may not be valid for LTC settings, since public perceptions about LTC are negative and can influence workers' responses to this question.
- There may be too many items in the instrument and they may be redundant. The shorter Intent to Turnover measure may be just as effective as the Organizational Commitment Questionnaire.
- The readability level is likely too high for DCWs.
- Organizational commitment may not be viewed by home care workers in the way it is measured in the Organizational Commitment Questionnaire.

Contact Information

Not needed for use of the instrument.

Organizational Commitment Questionnaire (OCQ)
Mowday and Steers (1979)

Survey Items

Listed below are a series of statements that represent possible feelings that individuals might have about the company or organization for which they work. With respect to your own feelings about the particular organization for which you are now working (company/agency name) please indicate the degree of your agreement or disagreement with each statement by checking one of the seven alternatives for each statement.

- 1-strongly disagree
- 2-moderately disagree
- 3-slightly disagree
- 4-neither disagree nor agree
- 5-slightly agree
- 6-moderately agree
- 7-strongly agree

1. I am willing to put in a great deal of effort beyond that normally expected in order to help this organization be successful.
2. I talk up this organization to my friends as a great organization to work for.
3. I feel very little loyalty to this organization (reverse scored).
4. I would accept almost any type of job assignment in order to keep working for this organization.
5. I find that my values and the organization's values are very similar.
6. I am proud to tell others that I am part of this organization.
7. I could just as well be working for a different organization as long as the type of work was similar. (reverse scored)
8. This organization really inspires the very best in me in the way of job performance.
9. It would take very little change in my present circumstances to cause me to leave this organization. (reverse scored)
10. I am extremely glad that I chose this organization to work for over others I was considering at the time I joined.
11. There's not too much to be gained by sticking with this organization indefinitely. (reverse scored)
12. Often, I find it difficult to agree with this organization's policies on important matters relating to its employees. (reverse scored)
13. I really care about the fate of this organization.
14. For me this is the best of all possible organizations for which to work.
15. Deciding to work for this organization was a definite mistake on my part. (reverse scored)

Worker-Supervisor Relationships

Introduction

Definition of *Worker-Supervisor Relationships*

The quality of worker-supervisor work relationships topic addresses workers' perceptions of their relationships with their supervisors, as well as their perceptions of their peers' relationships with their supervisors. It is concerned with both workers' feelings for their supervisors, and for workers' attitudes toward their peer group's relationship to their supervisors.

The importance of considering worker-supervisor relationships when attempting to maximize retention and limit turnover cannot be overstated. In residential care research, supervision has been cited as a primary reason for leaving an organization (Howe, 2003). Conversely, perceived supervisor support has been found to be associated with high job satisfaction (Moniz, 1997; Gleason, 1999; Poulin, 1992).

Overview of Selected Measures of *Worker-Supervisor Relationships*

One job satisfaction instrument, the Reciprocal Empowerment Scale (RES), provides a subscale assessing the respondent's satisfaction with the worker-supervisor relationship.

Issues to Consider When Selecting Measures of *Worker-Supervisor Relationships*

- To date, no issues have been identified.

Worker-Supervisor Relationships Instruments

	Reciprocal Empowerment Scale (RES) (1 of 3 subscales)
Measure	<u>Subscales</u> (1 of 3) 1) Reciprocity
Administration	<u>Survey Administration</u> 1) Paper and pencil 2) 7-8 minutes 3) 19 questions 4) 5-point Likert scale (not at all true to extremely true) <u>Readability</u> Flesch-Kincaid: 6.3
Scoring	1) Simple calculations. 2) <u>Subscale score</u> = Sum of items on the subscale (Range 6 – 95, depending on subscale) 3) Higher scores indicate higher perceptions of empowerment.
Availability	Free if used for research or non-commercial use.
Reliability	Internal consistency ranges from .82 to .95 for subscales.
Validity	Construct validity <ul style="list-style-type: none"> • Correlations between subscales ranged from .32 to .60.

Alternatives for Measuring Worker-Supervisor Relationships

The Empowerment chapter of this Guide provides details on the subscale of the instrument in the above chart.

Workload

Introduction

Definition of *Workload*

Subjective workload is a measure of a worker's perception of the *amount* of work assigned to him/her, the *lead time* available to perform it, and the extent to which the worker can *control* the pace of his/her work. High amounts of work load pressure lead to situations in which the worker can exercise little job discretion because the pace, scheduling and standards for work tasks are externally controlled. Studies among nurses have found that as perceived workload increases, job satisfaction decreases (e.g., Burke, 2003; Lyons et al., 2003).

Overview of Selected Measures of *Workload*

Two measures of worker-perceived workload are reviewed here:

1. Quantitative Workload Scale from the Quality of Employment Survey
2. Role Overload Scale from the Michigan Organizational Assessment Questionnaire (MOAQ)

Issues to Consider When Selecting Measures of *Workload*

- Staff-resident/client ratios for different shifts is an important part of workload.
- None of the measures included were developed for nursing homes or assisted living environments. Although one was developed for home care, the issue of workload is quite different in nursing home versus home care settings.
- Asking DCWs how many residents/clients they feel they can take care of (by shift, by unit, with the kind of patients you have) in order to feel good about your job would be very useful information to collect.

Workload Instruments

	Quantitative Workload Scale from the Quality of Employment Survey	Role Overload Scale from the Michigan Organizational Assessment Questionnaire (MOAQ)
Measure	Workload	Role Overload
Administration	<u>Survey Administration</u> 1) Paper and pencil 2) 2 minutes 3) 4 questions 4) 5-point Likert scale (very often to rarely) <u>Readability</u> Flesch-Kincaid: 3.8	<u>Survey Administration</u> 1) Paper and pencil 2) 2 minutes 3) 3 questions 4) 7-point Likert scale (strongly disagree to strongly agree) <u>Readability</u> Flesch-Kincaid: 4.7
Scoring	1) Simple calculations. 2) <u>Score</u> = Average of the 4 items (Range 1 – 5). 3) Higher scores indicate higher workload.	1) Simple calculations. 2) <u>Score</u> = Average of the 3 items after reverse scoring item #2 (Range 1 – 7). 3) Higher scores indicate higher workload.
Availability	Free.	Free.
Reliability	Internal consistency of scale is not reported. However, since items are highly correlated (.5 - .6), it may be suitable to use only one item.	Internal consistency of scale is .65 in original sample of 400 respondents with varied jobs.
Validity	Criterion validity: <ul style="list-style-type: none"> • Scale is negatively related to job satisfaction (higher workload, lower satisfaction) • Scale is distinct from role conflict and role clarity in factor analysis. 	Criterion validity: The scale is negatively related to overall job satisfaction (higher workload, lower satisfaction).

Alternatives for Measuring Workload

Quantitative Workload Scale from the Quality of Employment Survey

Description

The Quantitative Workload Scale was developed for the Department of Labor as one component of the Quality of Employment Survey (Quinn & Shepard, 1974). Variations have been observed in many kinds of jobs.

Issues to Consider When Using the *Quantitative Workload Scale from the Quality of Employment Survey*

- Answers may vary based on each individual worker's perception of what constitutes "very hard," "very fast," etc.

Contact Information

Not needed for use of this instrument.

Survey Items

These questions deal with different aspects of work. Please indicate how often these aspects appear in your job. The following response scale is used:

- 5-very often
- 4-fairly often
- 3-sometimes
- 2-occasionally
- 1-rarely

1. How often does your job require you to work very fast?
2. How often does your job require you to work very hard?
3. How often does your job leave you with little time to get things done?
4. How often is there a great deal to be done?

Role Overload Scale from the Michigan Organizational Assessment Questionnaire (MOAQ)

Description

This scale is part of a widely used battery of assessment scales with reliabilities and validity well-established with industrial workers (Camman et al. 1983). Feldman(1990) reports using the MOAQ with some adaptations with home care workers but does not report on this scale.

Issues to Consider When Using the *Role Overload Scale from the Michigan Organizational Assessment Questionnaire (MOAQ)*

- To date, no issues have been identified for use of this instrument.

Contact Information

Not needed for use of the instrument.

Survey Items

A seven-point Likert scale is used as follows:

- 1--strongly disagree
- 2--disagree
- 3--slightly disagree
- 4--neither agree nor disagree
- 5--slightly agree
- 6--agree
- 7--strongly agree

1. I have too much work to do to do everything well.
2. The amount of work I am asked to do is fair. (reverse-scored)
3. I never seem to have enough time to get everything done.

**Instruments Which Require
New Data Collection -
Measures of the Organization**

Organizational Culture

Introduction

Definition of *Organizational Culture*

Culture is defined as the values, beliefs, and norms of an organization that shape its behavior. Data on culture should be collected from workers at all levels of the organization. Significant organizational change, such as the transition to a continuous quality improvement mode of operating, requires a culture that supports both the process of change and the substance of the intended change. Type of organizational culture has been found to be related to continuous quality improvement (CQI) implementation (Wakefield et al., 2001). There is increasing acknowledgement among providers and researchers alike about the importance of assessing capacity for change by tapping into organizational culture (Scott et al., 2003).

Overview of Selected Measures of *Organizational Culture*

There are several approaches to measuring organizational culture. The measure included here was selected because it has been used in LTC organizations and is free to use:

1. Nursing Home Adaptation of the Hospital Culture Inventory (currently under development)

Issues to Consider When Selecting Measures of *Organizational Culture*

- Some have argued that organizational culture (as distinct from but related to organizational climate) may not be adequately measured through attitudinal close-ended surveys (Bowers, 2001).
- If surveys are to be used to examine culture, instruments that tap multiple dimensions and ways of thinking about culture should be considered (to aim toward tapping some of the complexity of organizational culture).

Organizational Culture Instrument

	Nursing Home Adaptation of the Hospital Culture Inventory (HCI)
Measure	<p><u>Subscales (e.g., Culture Types)</u></p> <ol style="list-style-type: none"> 1) Group 2) Developmental 3) Hierarchical 4) Rational
Administration	<p><u>Survey Administration</u></p> <ol style="list-style-type: none"> 1) Paper and pencil 2) 10 minutes 3) 24 questions (4 in each of 6 sets) 4) Distribution of 100 points for each of 6 sets of 4 categories. Respondents must know basic math. <p><u>Readability</u> Flesch-Kincaid: 10.9</p>
Scoring	<ol style="list-style-type: none"> 1) Simple calculations. 2) <u>Subscale (culture type) score</u> = For each type for each respondent, average of the scores for the type if there are ≥ 3 valid responses for the type. Average the scores for each type across respondents (For each culture type, Range 0-100). 3) For each type, higher scores indicate the organization is perceived to reflect more characteristics of this type (than other types).
Availability	Free with permission from the author.
Reliability	Internal consistency of nursing-home adapted scales not reported. However, internal consistency of precursor Hospital Culture Inventory subscales ranges from .47 to .79 when used with hospital staff.
Validity	Construct validity: Validity of nursing-home adapted scales not reported. However, several hospital-based quality improvement studies using the HCI show a relationship between better performing health care organizations (on CQI implementation and system performance) and a group or developmental culture.

Alternatives for Measuring Organizational Culture

Nursing Home Adaptation of the Hospital Culture Inventory

Description

The Hospital Culture Inventory (HCI) of the Shortell et al. (1995) Quality Improvement Implementation Survey was developed by Zammuto and Krakower (1991). The 20-item instrument was based on the model of organizational culture as the expression of competing values (Quinn and Kimberly, 1984).

There are four basic culture types that correspond with the questions in each subsection of the HCI.

1. **Group.** The extent to which the respondent perceives the culture to be based on norms and values associated with affiliation, teamwork, and participation (questions referencing organization A).
2. **Developmental.** The extent to which the respondent perceives the culture to be based on risk-taking innovation and change (questions referencing organization B).
3. **Hierarchical.** The extent to which the respondent perceives the culture to reflect the values and norms associated with bureaucracy (questions referencing organization C).
4. **Rational.** The extent to which the respondent perceives the culture to emphasize efficiency and achievement (questions referencing organization D).

The chart below describes the characteristics of the four organization culture types. It is adapted from Zammuto and Krakower (1991) and reported in the Quality Improvement Implementation Survey Guide (Shortell et al. 2002).

CULTURE TYPE	EMPHASIS	LEADERSHIP STYLE	GOALS	DECISION-MAKING
GROUP	Flexibility, trust, belonging, participation	Participative and supportive	Development of human potential	Seek out diverse opinions, integrate viewpoints
DEVELOPMENTAL	Flexibility, growth, resource acquisition	Entrepreneurial, idealist, risk-taking	Growth, develop new markets	Intuition; made quickly, adjusted as needed
RATIONAL	Productivity, performance, achieving goals	Directive, goal-oriented	Planning, efficiency, productivity	Focus on general principles; data-oriented, rarely changed
HIERARCHICAL	Efficiency, following rules, uniformity, coordination, stability	Conservative, cautious, detail-oriented	Control, stability, and efficiency	Data used to determine and justify single-best solution

It is not expected that any organization will be totally characterized as only one of the culture types mentioned above (e.g., hierarchical, group) when perceptions of multiple respondents are combined. However, some studies have found that the group or developmental culture type is more associated with likelihood to succeed in implementing CQI.

Work is currently under way by Jill Scott and colleagues in Colorado which involves a promising adaptation of the HCI for use with nursing home staff. Dr. Scott (in personal communication) reports that the adapted scale reliabilities are good based on data from use of the instrument with 1700 nursing home staff (including CNAs) and that the aspects of culture reported are consistent with qualitative, observable indicators of quality measures of organizational performance in an on-going study.

Issues to Consider When Using the *Nursing Home Adaptation of the Hospital Culture Inventory*

- The math skills required by respondents to complete the questionnaire (e.g., divide 100 points among four categories) may be too complex.
- Some of the items (value statements) in the questionnaire seem to be addressing the same concept in a single question (making it hard to give one answer).
- The instrument likely can be used by many levels of staff.
- The instrument might be able to be used to facilitate culture change, and to see if turnover is related to culture type.

Contact Information

For information on the status of the instrument and its availability, contact Jill Scott, PhD, RN, University of Colorado Health Sciences Center, School of Nursing, 4200 East 9th Ave., Box C288, Denver CO. (303) 315-0484. jill.scott@uchsc.edu.

Nursing Home Culture Adaptation of the Hospital Culture Inventory

Survey Items

Key to Which Questions Fall into Which Subscales

- All "A" statements fall into the "Group" subscale (6 items)
- All "B" statements fall into the "Developmental" subscale (6 items)
- All "C" statements fall into the "Hierarchical" subscale (6 items)
- All "D" statements fall into the "Rational" subscale (6 items)

Listed below are 6 questions about your nursing home. Each question has 4 parts (value statements) that might describe where you work. Please divide 100 points across the 4 parts to show how much each part describes your nursing home.

The following examples show how you might do this:

Example #1	Example #2	Example #3
A. 100	A. 25	A. 40
B. 0	B. 25	B. 05
C. 0	C. 25	C. 55
D. 0	D. 25	D. 00
Total = 100	Total = 100	Total = 100

My nursing home is:

- A. A very personal place like belonging to a family _____
 - B. A very business-like place with lots of risk-taking _____
 - C. A very formal and structured place with lots of rules and policies _____
 - D. A very competitive place with high productivity _____
- Total: 100 points

The nursing home administrator is:

- A. Like a coach, a mentor, or a parent figure _____
 - B. A risk-taker, always trying new ways of doing things _____
 - C. A good organizer; an efficiency expert _____
 - D. A hard-driver; very competitive and productive _____
- Total: 100 points

Nursing Home Culture Adaptation of the Hospital Culture Inventory (continued)

Survey Items

The management style at my nursing home is:

- A. Team work and group decision making _____
- B. Individual freedom to do work in new ways _____
- C. Job security, seniority system, predictability _____
- D. Intense competition and getting the job done _____

Total: 100 points

My nursing home is held together by:

- A. Loyalty, trust and commitment _____
- B. A focus on customer service _____
- C. Formal procedures, rules and policies _____
- D. Emphasizing productivity, achieving goals, getting the job done _____

Total: 100 points

The work climate in my nursing home:

- A. Promotes trust, openness, and people development _____
- B. Emphasizes trying new things and meeting new challenges _____
- C. Emphasizes tradition, stability, and efficiency _____
- D. Promotes competition, achievement of targets and objectives _____

Total: 100 points

My nursing home defines success as:

- A. Team work and concern for people _____
- B. Being a leader in providing the best care _____
- C. Being efficient and dependable in providing services _____
- D. Being number one when compared to other nursing homes _____

Total: 100 points

Appendix A: Guide Reviewers

Key Informants

Marcie Barnette	National Association for Home Care (NAHC)
Ted Benjamin, PhD	University of California, Los Angeles
Chris Condeelis	American Health Care Association (AHCA)
Howard Croft	SEIU
Farida Ejaz, PhD	Benjamin Rose Margaret Blenkner Research Center
Cheryl Feldman	District 1199C Training & Upgrading Fund
Di Findlay	Iowa Caregivers Association (ICA)
Sandra Fitzler	American Health Care Association (AHCA)
Penny Hollander Feldman, PhD	Visiting Nurse Service (VNS) of New York
Linda Hollinger-Smith, PhD	Mather Institute on Aging
Ruta Kadanoff	American Association of Homes and Services for the Aging (AAHSA)
Rosalie Kane, PhD	University of Minnesota
Dean Mertz	The Evangelical Lutheran Good Samaritan Society
Douglas Pace	American Association of Homes and Services for the Aging (AAHSA)
Pat Parmelee, PhD	Emory University Department of Medicine
Karl Pillemer, PhD	Cornell University
Shelley Sabo	National Center for Assisted Living (NCAL)
Vera Salter, PhD	Paraprofessional Healthcare Institute
Mary Tellis-Nayak	American College of Health Care Administrators (ACHCA)

Key Informants (continued)

Linda Velgouse	American Association of Homes and Services for the Aging (AAHSA)
Mary Ann Wilner, PhD	Direct Care Alliance
Barbara Wisnefski	Kenosha County Job Center
Dale Yeatts, PhD	University of North Texas
Sheryl Zimmerman, PhD	Cecil G. Sheps Center for Health Services Research The University of North Carolina at Chapel Hill

Technical Expert Panel

Barbara Bowers, PhD	University of Wisconsin, Madison
Diane Brannon, PhD	The Pennsylvania State University
Suzanne Broderick, PhD	New York State Department of Health
Steven Dawson	Paraprofessional Healthcare Institute
Susan Harmuth	North Carolina Department of Health and Human Services
Dale Laninga	Pennsylvania Intra-Governmental Council on Long Term Care Pennsylvania Department of Aging
Robert Logan, PhD	Council on Aging, Southwestern Ohio
Connie March	Provena Senior Health Services
Carol Raphael	Visiting Nurse Service (VNS) of New York
William Spector, PhD	Agency for Healthcare Research and Quality (AHRQ)
Suzanne Teegarden	Workforce Learning Strategies
Mary Vencill	Berkeley Policy Associates

Appendix B: Measures Needing Work

Instruments Included in this Appendix

This Appendix provides additional instruments that require some adaptation before they can be used, such as making questions more applicable to DCWs (beyond wording simplification), lowering readability levels, or changing the language of a survey. While this Guide is not a “how-to” manual for making these alterations, here are a few things for you to consider.

1. If possible, you should work with researchers within your organization or make contact with a local researcher, university (e.g., survey research center, nursing department, organizational studies or labor department) or survey organization as you adapt these instruments. This will ensure that these adaptations are done correctly and do not change the overall meaning and intent of these instruments.
2. Some subscales are not relevant to DCWs. Other subscales have a few questions that may need alteration in order to make them applicable to DCWs, however. It is important to ask all of the questions in a subscale so that the information is meaningful.
3. Pre-testing is important as you adapt instruments. For instruments to be used effectively, you must ensure that your DCWs find the content, language, wording and readability to be understandable.

How the Instruments in this Appendix are Organized

The instruments in this Appendix include only those which require new data collection. They are presented in the same way as Chapter 4, with an introduction to the topic, a summary chart of instruments and a brief description of each instrument.

Instruments Not Ready for Use, by Topic

Instruments which require new data collection – measures of DCW job characteristics

Empowerment

- Conditions for Work Effectiveness Questionnaire II (CWEQ II) (2 of 5 subscales)
- The Empowerment Questionnaire (1 of 3 subscales)

Job Design

- Subscale of Job Characteristics Scales (JCS) of the Job Diagnostic Survey (JDS) Revised (1 of 5 subscales)

Job Satisfaction

- Index of Work Satisfaction (IWS)
- Job Descriptive Index Facet Scales
- Minnesota Satisfaction Questionnaire
- Misener Nurse Practitioner Satisfaction Scale

Peer-to-Peer Work Relationships

- Index of Work Satisfaction (IWS) Subscale: Nurse-Nurse Interaction
- Job Descriptive Index (JDI) Subscale: Satisfaction with Co-Workers

Worker-Client/Resident Relationships

- Maslach Burnout Inventory Depersonalization Subscale

Worker-Supervisor Relationships

- Index of Work Satisfaction (IWS) Subscale: Nurse-Nurse Interaction
- Job Descriptive Index (JDI) Subscale: Satisfaction with Co-Workers
- Minnesota Satisfaction Questionnaire Subscale: External Satisfaction

Instruments which require new data collection –measures of the organization

Organizational Culture

- Nursing Home Adaptation of the Organizational Culture Profile (OCP)

Organizational Structure

- Agency Formalization
- Documentation Formalization
- Decision-Making Structure
- Communication and Leadership (LTC Adaptation of the Shortell Organization and Management Survey)
- Hierarchy (Administrative Span of Control)

**Instruments Which Require
New Data Collection -
Measures of DCW Job
Characteristics**

Empowerment

Introduction

Definition of *Empowerment*

Much has been written about empowerment at three different levels: individual/psychological, sociological, and management/organizational. The focus here is on the management/organizational perspective.

Empowerment is often explained as the delegation of authority and decentralization of decision-making. However, when empowerment is more broadly defined, it speaks to the ability of management to create a working environment that shapes an individual's perceptions of his or her work role in a way that motivates positive work behavior (Conger and Kanungo, 1988). This broader definition of empowerment includes workers' perceptions of the meaning of their job to them, their sense of competence in the job, how much self-determination they believe they have in the job, and how much impact they believe they have in their job (Thomas and Velthouse, 1990).

Studies have found that nurses in hospitals who feel more empowered have higher job satisfaction, more commitment to their employer, and are less likely to voluntarily quit (Kuokkanen and Katajisto, 2003; Larrabee et al., 2003; Radice, 1994; Laschinger, Finegan, and Shamian, 2001).

Measuring worker empowerment in the workplace can help managers to identify and remove conditions in the organization that foster powerlessness and provide structural processes that foster empowerment.

Overview of Selected Measures of *Empowerment*

The two instruments reviewed here measure multiple dimensions of empowerment.

1. Conditions for Work Effectiveness Questionnaire (CWEQ I) and (CWEQ II Short Form) (2 of 5 subscales)
2. The Empowerment Questionnaire (1 of 3 subscales)

Issues to Consider When Selecting Measures of *Empowerment*

- Some survey items in the reviewed instruments may need to be simplified for DCWs.
- Some survey items may need to be modified to be more applicable to DCWs than to nurses or other professionals (for which the instruments were initially developed).

Empowerment Instruments

	Conditions for Work Effectiveness Questionnaire II (CWEQ II) (2 of 5 subscales)	The Empowerment Questionnaire (1 of 3 subscales)
Measure	<u>Subscales</u> (2 of 5) 1) Information 2) Resources	<u>Subscale</u> (1 of 3) 1) Behavioral empowerment
Administration	<u>Survey Administration</u> 1) Paper and pencil 2) 4 minutes 3) 6 questions 4) 5-point Likert scale (none to a lot; no knowledge to know a lot; strongly disagree to strongly agree) <u>Readability</u> Flesch-Kincaid: 7.9	<u>Survey Administration</u> 1) Paper and pencil 2) 3 minutes 3) 7 questions 4) 11-point Likert scale (no confidence to complete confidence) <u>Readability</u> Flesch-Kincaid: 7.8
Scoring	1) Simple calculations. 2) <u>Subscale score</u> = Average of items on the subscale (Range 1 – 5); 3) Higher scores indicate higher perceptions of empowerment.	1) Simple calculations. 2) <u>Subscale score</u> = Sum of items on the subscale (Range 0 – 88, depending on subscale) 3) Higher scores indicate higher confidence in performing tasks.
Availability	Free with permission from the author.	Free with permission from the author.
Reliability	Internal consistency ranges from .59 to .89 for the subscales.	Internal consistency ranges from .83 to .87 for the subscales.
Validity	<ul style="list-style-type: none"> • The CWEQ II has been validated in a number of studies. Detailed information can be obtained at: publish.uwo.ca/~hkl/ • Construct validity of the CWEQ II was supported in a confirmatory factor analysis; 	Construct validity: <ul style="list-style-type: none"> • Managers scored significantly higher than non-managers. • Empowerment subscale scores significantly related to measures of leadership and discretionary behavior that promotes organizational effectiveness.

Alternatives for Measuring Empowerment

Conditions for Work Effectiveness Questionnaire II (CWEQ II) (2 of 5 subscales)

Description

The Conditions for Work Effectiveness Questionnaire (CWEQ I) is a 31-item questionnaire designed to measure four empowerment dimensions—perceived access to opportunity, support, information and resources in an individual’s work setting—based on Kanter’s (1977) ethnographic study of work empowerment (Laschinger, 1996). Opportunity refers to opportunities for growth and movement within the organization as well as opportunity to increase knowledge and skills. Support relates to the allowance of risk taking and autonomy in making decisions. Information refers to having information regarding organizational goals and policy changes. Resources involve having the ability to mobilize resources needed to get the job done. Chandler (1986) adapted the CWEQ from Kanter’s earlier work to be used in a nursing population.

A short form of the CWEQ, called the CWEQ II or short form (Laschinger, Finegan, Shamian, and Wilk, 2000), was developed consisting of 12 items (3 for each of Kanter’s 4 empowerment dimensions measured in the CWEQ). Because the CWEQ II is shorter to administer while still having comparable readability and measurement properties, only the CWEQ II survey items are provided.

The CWEQ II has been studied and used frequently in nursing research since 2000 and has shown consistent reliability and validity. The University of Western Ontario Workplace Empowerment Research Program has been working with and revising the CWEQ I and II in nursing populations for over 10 years.

Issues to Consider When Using the *CWEQ II*

- The goals and management of top management (in the information subscale) may be too removed from DCWs.
- Question wording needs to be reviewed and changed to be more appropriate for DCWs in long-term care (compared to current focus on nurses in acute care settings).
- Questionnaire assumes an organizational structure that does not exist in home care settings.

Contact Information

Permission to use the CWEQ II can be obtained on-line at <http://publish.uwo.ca/~hkl/> or by contacting the author, Heather Laschinger, at (hkl@uwo.ca), University of Western Ontario, School of Nursing, London, Ontario, CA N6A 5C1, (519) 661-4065.

Conditions for Work Effectiveness Questionnaire II (CWEQ II)

Survey Items

Key to Which Questions Fall into Which Subscales

I = Information subscale (3 items)

R = Resources subscale (3 items)

HOW MUCH ACCESS TO INFORMATION DO YOU HAVE IN YOUR PRESENT JOB?

			No Know- edge		Some Know- ledge		Kno w A Lot
I	1.	The current state of the hospital.	1	2	3	4	5
I	2.	The values of top management.	1	2	3	4	5
I	3.	The goals of top management.	1	2	3	4	5

HOW MUCH ACCESS TO RESOURCES DO YOU HAVE IN YOUR PRESENT JOB?

			None		Some		A Lo t
R	1.	Time available to do necessary paperwork.	1	2	3	4	5
R	2.	Time available to accomplish job requirements.	1	2	3	4	5
R	3.	Acquiring temporary help when needed.	1	2	3	4	5

The Empowerment Questionnaire (1 of 3 subscales)

Description

The Empowerment Questionnaire (Irvine et al., 1999) was designed to measure empowerment among hospital workers. Empowerment was defined as the process whereby employees feel confident that they can successfully take a certain course of action. The Empowerment Questionnaire contains items for three subscales: behavioral empowerment, verbal empowerment and outcome empowerment. Behavioral empowerment refers to having confidence in learning new skills and executing job tasks. Verbal empowerment involves having confidence in participating in group discussions and expressing and debating opinions in the workplace. Outcome empowerment refers to having confidence in the ability to influence organizational outcomes.

Issues to Consider When Using the *Empowerment Questionnaire*

- Assumes a group setting that does not apply to home care.
- Questions about written/analytical work are rarely part of a DCW's job.

Contact Information

The questionnaire is available with permission of the author who can be reached at: Diane Doran, University of Toronto, 50 St. George Street, Room 205A, Toronto, Ontario, CA M5S 3H4, (416) 978-2866, diane.doran@utoronto.ca

The Empowerment Questionnaire

Survey Items

Key to Which Questions Fall into Which Subscales
--

B = Behavioral Empowerment subscale (7 items)

A number of work tasks which you might encounter on your job are given below. You are asked to indicate how *confident* you are in your ability to *successfully* perform each of these tasks. Please write a number in the blank beside each work task to indicate how confident you are in your ability to successfully perform the task. There are no right or wrong answers.

Write a number in the blank for each statement, based on the following scale:

How confident are you that you can successfully perform this task?

0 1 2 3 4 5 6 7 8 9 10

**No
Confidence
At All**

**Complete
Confidence**

B	1.	Use analytic skills to collect data about work problems and recommend solutions.	
B	2.	Learn new skills related to my current job.	
B	3.	Use mathematical/statistical skills on the job.	
B	4.	Help people from different departments determine the root cause of problems within the hospital.	
B	5.	Work with other hospital employees outside of my own work group to solve work problems.	
B	6.	Handle a more challenging job.	
B	7.	Prepare written reports about work problems.	

Job Design

Introduction

Definition of *Job Design*

Job design includes the characteristics of the tasks that make up a given job that influence its potential for producing motivated work behavior. Job design comes from a line of research started more than 50 years ago looking at the impact on workers of assembly-lines with highly specialized and repetitive jobs and external control over the pace of production. Job design describes perceptions of jobs by job incumbents themselves, and is distinguished from more objective job or task analysis techniques used to classify jobs for compensation systems or other human resource management functions. Job design is associated with job satisfaction, job stress, and job performance among nursing staff (Bailey, 1995; Banaszak-Holl and Hines, 1996; Streit and Brannon, 1994; Peterson and Dunnagan, 1998; Tonges, 1998; Tonges, Rothstein, and Carter HK.,1998).

Overview of Selected Measures of *Job Design*

One subscale of an instrument measuring job incumbents' perceptions of job design is presented here—(1) the Task Identity subscales of the Job Characteristics Scale of the Job Diagnostic Survey. It is represented in the chart below and described in the remainder of this section.

Issues to Consider When Selecting Measures of *Job Design*

Major issues related to the use of perceptual measures of job design are:

- Since job perceptions are subjective responses to presumed objective features of work, they are likely to be moderated by individual personality differences such as the need for growth and locus of control as well as job knowledge and skill and demographic characteristics. There is strong evidence, however, that perceived job characteristics are reasonably accurate reflections of objective job design features (Fried and Ferris 1987).
- Perceptual measures are valid for measuring variability in perceptions within similar job categories including change over time. However, they are less informative when comparing distinctly different jobs given that job incumbents have only their own experience by which to frame assessments of their job. For example, stock brokers and home health aides may both rate their work as very significant, but the comparison is not very useful.

Job Design Instrument

	Subscale of Job Characteristics Scales (JCS) of the Job Diagnostic Survey (JDS) Revised (1 of 5 subscales)
Measure	Task identify
Administration	<u>Survey Administration</u> 1) Paper and pencil 2) 3-5 minutes 3) 3 questions 4) 7-item Likert scale (very little to very much) <u>Readability</u> Flesch-Kincaid: 6.8
Scoring	1) Simple calculations. 2) <u>Subscale score</u> = Average of items on the subscale (Range 1 – 3) Higher scores indicate better job design features.
Availability/price	Free.
Reliability	Internal consistency ranges from .75 to .79 for the subscales.
Validity	Criterion-related validity: Job design correlates with intent to leave and is predictive of absenteeism and job satisfaction

Alternatives for Measuring Job Design

Job Characteristics Scales (JCS) of the Job Diagnostic Survey (JDS) Revised (1 of 3 subscales)

Description

The Hackman and Oldham Job Characteristics Model (1975;1980) is the dominant model for studying the impact of job characteristics on affective work outcomes (e.g., job satisfaction, empowerment, and motivation) and to a more limited extent behavioral outcomes (e.g., performance, absenteeism, and turnover intentions). The Job Characteristics Scales (JCS) are a component of the Job Diagnostic Survey (JDS), the most widely used instrument across many types of jobs to measure perceived job characteristics. The JDS was revised in 1987 (Idaszak & Drasgow) to eliminate a measurement artifact resulting from reverse-worded questionnaire items. Only the revised version should be used.

The JCS contain five subscales—skill variety, task significance, autonomy, task identity and feedback. The JCS is often combined in surveys with other measures of workers' feelings about and satisfaction with their jobs. Hackman and Oldham (1980) recommend that it be administered during regular work hours in groups of no more than 15 respondents at a time. Hackman and Oldham provide substantive guidelines for administration (1980).

Issues to Consider When Using the *Job Characteristics Scales (JCS) of the Job Diagnostic Survey (JDS) Revised*

- Using the JCS for longitudinal studies tracking within-subject changes may be less useful than comparing group (job) means at multiple points in time.
- Seven-point response scales may be confusing and may not result in greater differentiation.

Contact Information

Not needed for use of the instrument.

Job Characteristics Scales (JCS) of the Job Diagnostic Survey (JDS) Revised (1 of 3 subscales)

Survey Items

Key to Which Questions Fall into Which Subscales

TI = Task Identity subscale (3 items)

On the following pages, you will find several different kinds of questions about your job. Specific instructions are given at the start of each section. Please read them carefully. It should take no more than 10 minutes to complete the entire questionnaire. Please move through it quickly.

The questions are designed to obtain your perceptions of your job. There are no trick questions. Your individual answers will be kept completely confidential. Please answer each item as honestly and frankly as possible. Thank you for your cooperation.

Section One

This part of the questionnaire asks you to describe your job listed above as objectively as you can. Try to make your description as accurate and as objective as you possibly can. Please do not use this part of the questionnaire to show us how much you like or dislike your job.

A sample question is given below.

A. To what extent does your job require you to work overtime?

1---	---2---	---3---	---4---	---5---	---6---	---7
Very little; the job requires almost no overtime hours.		Moderately; the job requires overtime at least a week.		Very much; the job requires overtime more than once a week.		

You are to circle the number which is the most accurate description of your job.

If, for example, your job requires you to work overtime two times a month—you might circle the number six, as was done in the example above

Job Characteristics Scales (JCS) of the Job Diagnostic Survey (JDS) Revised (1 of 3 subscales) (continued)

Survey Items

(TI) 1. To what extent does your job involve doing a whole and identifiable piece of work? That is, is the job a complete piece of work that has an obvious beginning and end? Or is it only a small part of the overall piece of work, which is finished by other people or by automatic machines?

1---	---2---	---3---	---4---	---5---	---6---	---7
The job is only a tiny part of the overall piece of work; the results of the person's activities cannot be seen in the final product or service.		The job is a moderate-sized "chunk" of the overall piece of work; the person's own contribution can be seen in the final outcome.				The job involves doing the whole piece of work, from start to finish; the results of the person's activities are easily seen in the final product or service.

Section Two

Listed below are a number of statements which could be used to describe a job.

You are to indicate whether each statement is an accurate or an inaccurate description of your job.

Once again, please try to be as objective as you can in deciding how accurately each statement describes your job— regardless of you like or dislike your job.

Write a number in the blank beside each statement, based on the following scale:

How accurate is the statement in describing your job?

1	2	3	4	5	6	7
Very Inaccurate	Mostly Inaccurate	Slightly Inaccurate	Uncertain	Slightly Accurate	Mostly Accurate	Very Accurate

(TI) ___ 1. The job is arranged so that I can do an entire piece of work from beginning to end.

(TI) ___ 2. The job provides me with the chance to finish completely any work I start.

Job Satisfaction

Introduction

Definition of *Job Satisfaction*

Job satisfaction is generally defined as the degree to which individuals have a positive emotional response towards employment in an organization. It is not the same as morale, which includes other concepts such as commitment, discouragement, and loyalty.

Organizations care about job satisfaction because it is thought to be related to employees' emotional and behavioral responses to work. However, the evidence on these relationships is mixed. Extensive literature reviews, meta-analyses, and organizational studies conducted in the 1970s found that the relationship between job satisfaction and productivity, absence, and turnover is negligible (Landy, 1989; Steers and Rhoades, 1978; Mobley, Horner, and Hollingsworth, 1978; and Locke, 1976). In contrast, more recent studies have found that job dissatisfaction is strongly associated with job stress and organizational commitment among nurses (Blegen, 1993; Cohen-Mansfield, 1997; Lundstrom et al., 2002; Upenieks, 2000).

Overview of Selected Measures of *Job Satisfaction*

In contrast to a global approach, some argue that job satisfaction should be assessed in terms of multiple dimensions such as in response to tasks, supervisor, coworkers, or pay (e.g., Smith, Kendall, and Hulin, 1969). This multi-dimensional or facet approach assumes that people have reactions to specific aspects of their work that a general measure fails to recognize. Satisfaction on different dimensions does not simply combine to produce a general or overall measure of satisfaction. Four measures identified for this topic use this multi-dimensional approach.

1. Index of Work Satisfaction.
2. Job Descriptive Index Facet Scales.
3. Minnesota Satisfaction Questionnaire.
4. Misener Nurse Practitioner Satisfaction Scale.

Job Satisfaction Instruments

	Index of Work Satisfaction (IWS, from NDNQI)	Job Descriptive Index (JDI) (Short Form) (includes Job in General scale)	Minnesota Satisfaction Questionnaire (MSQ)	Misener Nurse Practitioner Satisfaction Scale
Measure	<u>Subscales</u> 1) Task 2) Nurse-nurse interaction 3) Nurse-physician interaction 4) Decision making 5) Autonomy 6) Professional status 7) Pay	<u>Subscales</u> 1) Work on present job 2) Present pay 3) Opportunities for promotion 4) Supervision 5) Coworkers A separate overall satisfaction scale (Job in General, or JIG) is also available	<u>Subscales</u> 1) Intrinsic job factors 2) Extrinsic job factors	<u>Subscales</u> 1) Collegiality 2) Challenge / autonomy 3) Professional, social, and community interaction 4) Professional growth 5) Time 6) Benefits
Administration	<u>Survey Administration</u> 1) Paper and pencil 2) 5-8 minutes 3) 64 questions 4) 6-point Likert scaling (strongly agree to strongly disagree) <u>Readability</u> Flesch-Kincaid: 6.8	<u>Survey Administration</u> 1) Paper and pencil 2) 5-10 minutes 3) 25 questions (plus 8 items for Job in General) 4) Respondent indicates if each item does or does not describe their work situation <u>Readability</u> Flesch-Kincaid: 3.9	<u>Survey Administration</u> 1) Paper and pencil 2) 5 minutes 3) 20 questions 4) 5-point Likert scaling (extremely satisfied to not satisfied) <u>Readability</u> Flesch-Kincaid: 3.8	<u>Survey Administration</u> 1) Paper and pencil 2) 5-10 minutes 3) 44 questions 4) 6-point Likert scaling (very dissatisfied to very satisfied) <u>Readability</u> Flesch-Kincaid: 7.5
Scoring	1) T-score transformation and aggregation to represent unit t-scores. 2) <u>Subscale score</u> = t-score transformation with mean of 50 and standard deviation of 10 (Scores < 40 are low, 40 – 60 are moderate, and > 60 are high). 3) Higher scores indicate higher job satisfaction.	1) Scoring algorithms are described in the User's Manual. SAS and SPSS scoring code is available. 2) Not known. 3) Not known.	1) Simple calculations. 2) <u>Subscale scores</u> = Sum of items on the subscale. 3) Higher scores indicate higher job satisfaction.	1) Simple calculations. 2) <u>Subscale scores</u> = Sum of items on the subscale. 3) Higher scores indicate higher job satisfaction.
Availability	Free to participants in the National Database of Nursing Quality Indicators; Instrument is also available free on the web.	Cost depends on user status (academic or commercial) and whether the user is willing to share collected data with the JDI research group. User manuals and software are extra cost options.	Fee charged.	Free.
Reliability	Internal consistency of scales range from .63 – .91.	Internal consistency has been consistently shown to be > .70 for all subscales.	Internal consistency ranges from .84 - .91 for the Intrinsic subscale, from .77 - .82 for the Extrinsic subscale, and from .87 - .92 for the General Satisfaction scale.	Internal consistency ranges from .79 - .94 for the subscales.
Validity	Criterion-related validity: the IWS accounts for 56% of the variance in the Job Enjoyment Scale (an established measure of general job satisfaction).	An extensive meta-analysis of the measurement properties of the JDI found that content, criterion-related, and convergent validity are well established (e.g., correlates as expected with turnover, and other job satisfaction measures).	Construct validity: <ul style="list-style-type: none"> Extensive reviews have rated construct validity as “adequate”, but some find that validity could be improved by dropping or reassigning several items. Intrinsic satisfaction is more strongly related to job involvement than extrinsic. Intrinsic has a more emotional basis than extrinsic. 	Construct validity: correlations between subscales range from .33 to .72, suggesting that the subscales are measuring separate dimensions.

Alternatives for Measuring Job Satisfaction

Index of Work Satisfaction Scale (IWS from National Database of Nursing Quality Indicators or NDNQI)

Description

The Index of Work Satisfaction is a multiscale tool for assessing job satisfaction. The instrument, developed for the National Database of Nursing Quality Indicators, was adapted from Stamp's (1997) Index of Work Satisfaction. It differs from Stamp's instrument in that it is worded to reflect an individual's perceived satisfaction of his or her work group, rather than his/her own satisfaction with work. Seven dimensions of satisfaction are assessed: 1) task; 2) nurse-nurse interaction; 3) nurse-physician interaction; 4) decision making; 5) autonomy; 6) professional status; and 7) pay.

Issues to Consider When Using the *Index of Work Satisfaction Scale*

- Before it can be used, the instrument would need to be revised and tested to lower the reading level and to adapt the items from their focus on the professional nurse in a hospital setting to DCWs in LTC.
- Instrument is lengthy.
- The instrument seems to overlap with empowerment and job design.
- Questions about pay need to be carefully worded and may not be appropriate.
- The face validity of asking respondents to describe how their colleagues feel may be questionable.

Contact Information

Information on participation in the National Database of Nursing Quality Indicators can be obtained from: National Center for Nursing Quality, School of Nursing, University of Kansas Medical School, 3901 Rainbow Blvd., Kansas City, KS, 66160, (913) 588-1691, ndnqi@kumc.edu.

Survey Items

Key to Which Questions Fall into Which Subscales

T = Task subscale (6 items)
NN = Nurse-Nurse Interaction subscale (6 items)
NP = Nurse-Physician subscale (6 items)
DM = Decision-Making subscale (7 items)
A = Autonomy subscale (7 items)
PS = Professional Status subscale (6 items)
PA = Pay subscale (6 items)

Task

Response options: strongly agree, agree, tend to agree, tend to disagree, disagree, strongly disagree.

Nurses with whom I work would say that:

- T1. They are satisfied with the nursing care they provide to patients.
- T2. They could do a better job if they did not have so much to do all the time.
- T3. They have plenty of time to discuss patient care problems with other nursing service personnel.
- T4. They have sufficient time for direct patient care.
- T5. They have plenty of opportunity to discuss patient-care problems with other nursing service personnel.
- T6. They could deliver much better patient care if they had more time with each patient.

Nurse-Nurse Interaction

Nurses with whom I work would say that:

- NN1. Nursing personnel pitch in and help each other when things get in a rush.
- NN2. It is hard for new nurses to feel “at home” on the unit.
- NN3. There is a good deal of teamwork among nursing personnel.
- NN4. They are satisfied with the interactions among the nursing staff.
- NN5. Nursing personnel are not as friendly and outgoing as they would like.
- NN6. The nurses on our unit support each other.

Nurse-Physician Interaction:

Nurses with whom I work would say that:

- NP1. Physicians in general cooperate with nursing staff.
- NP2. They are not satisfied with their interactions with hospital physicians.
- NP3. There is a lot of teamwork between nurses and doctors on our unit.
- NP4. Physicians at this hospital look down too much on the nursing staff.
- NP5. Physicians respect the skill and knowledge of the nursing staff.
- NP6. Physicians at this hospital generally appreciate what the nursing staff do.

Survey Items

Decision-Making

Nurses with whom I work would say that:

- DM1. There is ample opportunity for nursing staff to participate in the administrative decision-making process.
- DM2. Administrative decisions at this hospital interfere too much with patient care.
- DM3. They are not satisfied with their participation in decision-making for the unit.
- DM4. They have all the voice they want in planning policies and procedures for the unit.
- DM5. Nursing administrators generally consult with the staff on daily problems.
- DM6. They have the freedom in their work to make important decisions.
- DM7. They can count on their supervisors to back them up.

Autonomy

Nurses with whom I work would say that:

- A1. They have sufficient input into the program of care for each of their patients.
- A2. They have too much responsibility and not enough authority.
- A3. Nurses have a good deal of control over their own work.
- A4. They are frustrated sometimes because their activities seem programmed for them.
- A5. They are required sometimes to do things on the job that are against their better professional judgment.
- A6. Nurses need more autonomy in their daily practice.
- A7. They are free to adjust their daily practice to fit patient needs.

Professional Status

Nurses with whom I work would say that:

- PS1. Staff in other departments appreciate nursing.
- PS2. They are proud to talk to other people about what they do on the job.
- PS3. They are satisfied with the status of nursing in the hospital.
- PS4. Patients (family members) acknowledge nursing's contribution to their care.
- PS5. They recommend this hospital to others as a good place for nurses to work.
- PS6. Their work contributes to a sense of personal achievement.

Pay

Nurses with whom I work would say that:

- PA1. Their present salary is satisfactory.
- PA2. A lot of nursing personnel at this hospital are dissatisfied with their pay.
- PA3. The pay they get is reasonable, considering what is expected of nursing service personnel at this hospital.
- PA4. The latest salary increases for nursing service personnel at this hospital are unsatisfactory.
- PA5. They are being paid fairly compared to what they hear about nursing personnel at other hospitals.
- PA6. An upgrading of pay schedules for nursing personnel is needed at this hospital.

Job Descriptive Index (JDI) (Short Form)

Description

The Job Descriptive Index is perhaps the premier instrument for assessing job satisfaction. It is a multi-faceted assessment of job satisfaction that has been extensively used in research and applied settings for over 40 years. The JDI comes in both long (90 item) and short (25 item) versions. The short form, described here, poses less of an administrative and scoring burden and is, therefore, the version included here.

Five facets of job satisfaction are assessed by the JDI. In the short form, each facet (or subscale) is composed of 5 items (25 items total). The facets are: work on present job; present pay; opportunities for promotion; supervision; and, coworkers.

The JDI adheres to the idea that overall job satisfaction is not simply the sum of satisfaction with different aspects of work. Therefore, an additional scale, Job in General (JIG), evaluates overall job satisfaction. The short form of the JIG scale consists of 8 items.

Issues to Consider When Using the *Job Descriptive Index (JDI) (Short Form)*

- Non-academic users must pay a fee for the test booklets and scoring code. The base price for non-academic users for data collection instruments is \$100 per test booklet (100 forms). Additional cost items include SAS/SPSS scoring code (\$10.00) and the *Users Manual*: (\$50.00). Complete pricing information is available at: <http://www.bgsu.edu/departments/psych/JDI/price.html>
- For academic research, fees for the data collection instruments may be waived in return for the user sharing item level data collected with the instrument with the JDI Research Group.
- The binary nature of the response options (e.g., yes/no, does this describe you?) may result in less variation than desired. However, because the scoring approach for the JDI is not publicly available, we cannot determine what the implications of this response option approach is for results.

Contact Information

The JDI is available from JDI Research Group, Bowling Green State University, Department of Psychology, Bowling Green, OH 43403, Phone: 419-372-8247, jdi_ra@bgnet.bgsu.edu.

Job Descriptive Index (JDI)
© Bowling Green University

Sample Survey Items

NOTE: Below is only a sample of the items in the Job Descriptive Index (JDI). The complete JDI is not available without charge; therefore, we cannot include here.

Key to Which Questions Fall into Which Subscales

Only a subset of items in each of the 6 subscales is provided below.

Think of the work you do at present. How well does each of the following words or phrases describe your job? In the blank beside each word or phrase: below, write:

- Y for "Yes" if it describes your work
 N for "No" if it does NOT describe it
 ? for "?" if you can not decide

Work on Present Job (5 items total)

- Fascinating
 Boring
 Can see results

Present Pay (5 items total)

- Fair
 Well-paid
 Bad

Opportunities for Promotion (5 items total)

- Good opportunities for promotion
 Promotion on ability
 Infrequent promotions

Supervision (5 items total)

- Knows job well
 Doesn't supervise enough
 Around when needed

Co-Workers (5 items total)

- Stimulating
 Unpleasant
 Smart

Job in General (8 items total)

- Pleasant
 Worse than most
 Worthwhile

Minnesota Satisfaction Questionnaire (MSQ) (Short Form)

Description

The Minnesota Satisfaction Questionnaire (MSQ) is a popular measure of job satisfaction that conceptualizes satisfaction as being related to either intrinsic or extrinsic aspects of the job. Intrinsic satisfaction is related to how people feel about the nature of their job tasks, while extrinsic satisfaction is concerned with aspects of the job that are external or separate from job tasks or the work itself. The MSQ has been in use for over 30 years in a wide range of jobs, including factory and production work, management, education (primary, secondary, college), health care (including nurses, physicians, and mental health workers), and sales. Several studies of nursing assistants in long term care facilities have used the MSQ (e.g., Friedman, et al., 1999; Grieshaber, et al., 1995; Waxman, et al., 1984).

Issues to Consider When Using the *Minnesota Satisfaction Questionnaire (MSQ) (Short Form)*

- The short form is available in quantities of 50 or more for \$0.39 per copy. A users' manual is also available, for \$4.95. An order form for the MSQ can be found at: <http://www.psych.umn.edu/psylabs/vpr/orderform.html>
- Scoring can be done by the user following the simple rules described in the users' manual. Alternatively, surveys may be machine scored by the vocational Psychology Institute at a cost of \$1.10 per form.
- An overall satisfaction score can be computed by summing all items, although this is not a general practice in the job satisfaction literature.
- Schriesheim, et al (1993) and Hirschfeld (2000) present evidence indicating that several items on the intrinsic scale do not adequately assess that construct and should be eliminated. Cook, et al (1981) suggest that three intrinsic scale items may not represent universally valued aspects of a job. Their elimination may improve the content validity of the instrument. (Note that this is not a suggestion supported by the users' manual).
- Some items may not be appropriate for DCWs.

Contact Information

The instrument is available from: Vocational Psychology Research, N657 Elliott Hall
University of Minnesota, Minneapolis MN 55455-0344, Phone 612-625-1367, Fax 612-626-0345, email to: vpr@tc.umn.edu.

Minnesota Satisfaction Questionnaire (MSQ)

© Vocational Research Institute, University of Minnesota

Survey Items

Key to Which Questions Fall into Which Subscales

IS = Intrinsic Satisfaction subscale (12 items)

ES = Extrinsic Satisfaction subscale (6 items)

GI = General items (2 items)

Ask yourself: How satisfied am I with this aspect of my job?

5=extremely satisfied

4=very satisfied

3=satisfied

2=somewhat satisfied

1=not satisfied

IS	1. Being able to keep busy all the time.
IS	2. The chance to work alone on the job.
IS	3. The chance to do different things from time to time.
IS	4. The chance to be somebody in the community.
ES	5. The way my boss handles his/her workers.
ES	6. The competence of my supervisor in making decisions.
IS	7. Being able to do things that don't go against my conscience.
IS	8. The way my job provides for steady employment.
IS	9. The chance to do things for other people.
IS	10. The chance to tell people what to do.
IS	11. The chance to do something that makes use of my abilities.
ES	12. The way company policies are put into practice.
ES	13. My pay and the amount of work I do.
ES	14. The chances for advancement on this job.
IS	15. The freedom to use my own judgment.
IS	16. The chance to try my own methods of doing the job.
GI	17. The working conditions.
GI	18. The way my coworkers get along with each other.
ES	19. The praise I get for doing a good job.
IS	20. The feeling of accomplishment I get from the job.

Misener Nurse Practitioner Satisfaction Scale

Description

The Misener Nurse Practitioner Satisfaction Scale is designed to assess six dimensions of job satisfaction: 1) Intrapractice partnership/collegiality; 2) Challenge/autonomy; 3) Professional, social, and community interaction; 4) Professional growth; 5) Time; and 6) Benefits.

Issues to Consider When Using the *Misener Nurse Practitioner Satisfaction Scale*

- Misener and Cox (2001) suggest that an overall satisfaction score can be obtained from her instrument by summing the 44 items into a single score. However, the use of a single measure to assess both facet and overall scores is not a general practice in the job satisfaction literature.
- Questions about pay need to be carefully worded and may not be appropriate.
- Most of the questions are specifically designed for the nurse practitioner role, and would need to be modified or dropped from a survey of DCWs.

Contact Information

Not needed for use of the instrument.

Misener Nurse Practitioner Job Satisfaction Scale

Survey Items

Key to Which Questions Fall into Which Subscales

IP/C = Intrapractice partnership/collegiality subscale (14 items)

C/A = Challenge/autonomy subscale (10 items)

PSCI = Professional, social, and community interaction subscale (8 items)

PG = Professional growth subscale (6 items)

T = Time subscale (3 items)

B = Benefits subscale (3 items)

The following is a list of items known to have varying levels of satisfaction among nurse practitioners. There may be items that do not pertain to you, however, please answer them if you are able to assess your satisfaction with the item based on the employer's policy.

How satisfied are you in your current job as a nurse practitioner with respect to the following factors?

6=Very Satisfied

5=Satisfied

4=Minimally satisfied

3=Minimally dissatisfied

2=Dissatisfied

1=Very dissatisfied

B	1. Vacation/leave policy
B	2. Benefit package
B	3. Retirement plan
T	4. Time allotted for answering messages
PG	5. Time allotted for review of lab and other test results
IP/C	6. Your immediate supervisor
C/A	7. Percentage of time spent in direct patient care
T	8. Time allocation for seeing patients
IP/C	9. Amount of administrative support
PSCI	10. Quality of assistive personnel
T	11. Patient scheduling policies and practices
C/A	12. Patient mix
C/A	13. Sense of accomplishment
PSCI	14. Social contact at work
PSCI	15. Status in the community
PSCI	16. Social contact with your colleagues after work
PSCI	17. Professional interaction with other disciplines
PG	18. Support for continuing education
PG	19. Opportunity for professional growth

Misener Nurse Practitioner Job Satisfaction Scale (continued)

Survey Items

PG	20. Time off to serve on professional committees
PG	21. Amount of involvement in research
C/A	22. Opportunity to expand your scope of practice
PSCI	23. Interaction with other NPs including faculty
IP/C	24. Consideration given to your opinion and suggestions for change in the work setting or office practice
IP/C	25. Input into organizational policy
IP/C	26. Freedom to question decisions and practices
C/A	27. Expanding skill level / procedures within your scope of practice
C/A	28. Ability to deliver quality care
PG	29. Opportunities to expand your scope of practice and time to seek advanced education
IP/C	30. Recognition for your work from supervisors
PSCI	31. Recognition of your work from peers
C/A	32. Level of autonomy
IP/C	33. Evaluation process and policy
IP/C	34. Reward distribution
C/A	35. Sense of value for what you do
C/A	36. Challenge in work
IP/C	37. Opportunity to develop and implement ideas
IP/C	38. Process used in conflict resolution
IP/C	39. Amount of consideration given to your personal needs
C/A	40. Flexibility in practice protocols
IP/C	41. Monetary bonuses that are available in addition to your salary
IP/C	42. Opportunities to receive compensation for services performed outside your normal duties
IP/C	43. Respect for your opinion
PSCI	44. Acceptance and attitudes of physicians outside of your practice

Peer-to-Peer Work Relationships

Introduction

Definition of *Peer-To-Peer Work Relationships*

The peer-to-peer work relationships topic addresses workers' perceptions of their relationships with peer co-workers. It is concerned with both workers' feelings for their peer co-workers, and for workers' attitudes toward their peer group at large (e.g., DCWs' attitudes toward all DCWs, not just those in their organization).

Peer-to-peer work relationships are important for organizations to consider, as coworker relationships have been found to strongly predict turnover (Pillemer, 1997). Further, the nature of coworker relationships has been shown to contribute to job commitment and accepting attitudes toward the elderly in long-term care facilities (Robertson, 1989).

Overview of Selected Measures of *Peer-To-Peer Work Relationships*

Two instruments reviewed under the Job Satisfaction section of this Measure Review (the Index of Work Satisfaction (IWS) and the Job Descriptive Index (JDI)) provide subscales assessing the respondent's satisfaction with his/her relationships with peer co-workers.

Issues to Consider When Selecting Measures of *Peer-To-Peer Work Relationships*

- Although the Misener Nurse Practitioner Satisfaction Scale provides an assessment of collegiality, the scale is not targeted at particular relationships and includes questions regarding the respondent's relationship with both peers and supervisors. Given this, the Misener scale is not included here.

Peer-To-Peer Work Relationships Instruments

	Subscale from the Index of Work Satisfaction (IWS)	Subscale from the short form of the Job Descriptive Index (JDI)
Measure	Satisfaction with Nurse-Nurse Interaction	Satisfaction with Co-Workers
Administration	<u>Survey Administration</u> 1) Paper and pencil 2) Approximately 2 minutes or less 3) 6 questions 4) 6-point Likert scale (strongly agree to strongly disagree) <u>Readability</u> Flesch-Kincaid: 5.3	<u>Survey Administration</u> 1) Paper and pencil. 2) Approximately 2 minutes or less 3) 5 questions 4) Respondent indicates if each question does or does not describe their work situation <u>Readability</u> Flesch-Kincaid: 3.9
Scoring	1) T-score transformation and aggregation to represent unit t-scores. 2) <u>Subscale score</u> = t-score transformation with mean of 50 and standard deviation of 10 (Scores < 40 are low, 40 – 60 are moderate, and > 60 are high). 3) Higher scores indicate higher job satisfaction.	1) Scoring algorithms are described in the User's Manual. SAS and SPSS scoring code is available. 2) Not known. 3) Not known.
Availability	Free. The subscale is not available separately from the IWS, which is available to participants in the National Database of Nursing Quality Indicators.	The subscale is not available separately from the JDI. Cost of using the JDI depends on user status (academic or commercial) and whether the user is willing to share collected data with the JDI research group. User manuals and software are extra cost options.
Reliability	Internal consistency of the nurse-nurse interaction subscale is .83.	Internal consistency of the scale has been consistently shown to be >.70.
Validity	No information on criterion validity is available.	An extensive meta-analysis of the measurement properties of the JDI found that content, criterion-related, and convergent validity are well established (e.g., correlates as expected with turnover and other job satisfaction measures).

Alternatives for Measuring Peer-To-Peer Work Relationships

The Job Satisfaction section in Appendix B of this Guide provides details on the two instruments in the above chart.

Worker-Client/Resident Relationships

Introduction

Definition of *Worker-Client/Resident Relationships*

The worker-client/resident relationships topic addresses workers' perceptions of their relationships with care recipients. It is concerned with both workers' feelings for the care recipients, and with workers' perceptions of how their feelings have been affected by relationships with care recipients.

Worker-client/resident relationships are important for organizations to consider, as turnover has been found to decelerate as a result of workers sharing kin-like relationships with clients (Karner, 1998). In a study of nursing home nursing assistants, worker-resident relationships were identified as the most important work issue, and the major reason for worker retention (Parsons, 2003). Conversely, the involvedness of relationships that develop between residential care workers and residents has also been found to be especially stressful for workers (Maslach, 1981). Further, low levels of empathy and negative attitudes towards older people are associated with nursing staff burnout (Astrom, 1991).

Pringle (2000) details the dearth of studies on what constitutes an appropriate worker-client/resident relationship. Current literature does not provide guidance for the type of relationships health-care aides or nurses should develop with residents (Pringle, 2000). At this time, no measures exist that focus on the positive aspects or feelings of worker-client/resident relationships. Rather, measures emphasize the negative and difficult features these relationships entail.

Overview of Selected Measures of *Worker-Client/Resident Relationships*

The Maslach Burnout Inventory (MBI) (Maslach, 1981) is widely used in health care occupations (Cocco, 2003). The MBI consists of three subscales, measuring Depersonalization, Emotional Exhaustion, and Personal Accomplishment. Depersonalization addresses worker-client/resident relationships.

The Depersonalization subscale describes the development of a negative or cynical attitude toward one's clients. Depersonalization measures an unsympathetic and distant response toward recipients of one's service, care, or treatment (Rohland, 1998). Long-term care workers experiencing depersonalization treat individuals as objects rather than people, and are characterized by insensitivity (Cordes, 1993). Employees in the depersonalization phase of burnout will take a distant attitude toward work and the people on the job (Maslach, 1997).

Issues to Consider When Selecting Measures of *Worker-Client/Resident Relationships*

- No measures designed to *exclusively* assess the quality of worker-client/resident relationships have yet been developed.

Worker-Client/Resident Relationships Instruments

	Depersonalization Subscale from the Maslach Burnout Inventory
Measure	<u>Subscale</u> 1) Depersonalization
Administration	<u>Survey Administration</u> 1) Paper and pencil 2) 2 – 4 minutes 3) 5 questions 4) 7-point Likert scale (never to every day) <u>Readability</u> Flesch-Kincaid: 5.4
Scoring	1) No special software needed. 2) <u>Subscale Score</u> = Sum of questions on the subscale (Range 0 – 30). 3) Higher scores indicate higher levels of depersonalization. A score of 0 is assigned where respondents answer ‘never’ and the score increases by one for each point of the scale to 6 where respondents answer ‘every day’. These 5 scores are summed, and matched to a level of depersonalization: low, medium or high.
Availability	Fee for manual. The Depersonalization subscale and supporting materials are available in the MBI Manual.
Reliability	Internal consistency for the depersonalization subscale is reported as .79 for frequency and .73 for intensity.
Validity	<ul style="list-style-type: none"> ▪ Construct Validity: Significant positive correlation between an individual’s self-report ratings and the ratings of someone who knew that individual well. ▪ The MBI exhibits significant positive correlations with job satisfaction. ▪ No significant correlations have been found between MBI scores and the Crowne-Marlowe Social Desirability Scale, thus reducing the possibility of socially desirable responses.

Alternatives for Measuring Worker-Client/Resident Relationships

The Maslach Burnout Inventory Depersonalization Subscale

Description

The Maslach Burnout Inventory (MBI) (Maslach, 1996) is a widely used measure of burnout in health care (Cocco, 2003). Depersonalization is an independent subscale of the MBI.

The Depersonalization Subscale assesses depersonalization by determining how people respond to each of five questions.

The statements address feelings about work, and respondents state the frequency of such feelings, with a six-point, fully-anchored response format. The Likert-type scale ranges from never (0) to every day (6).

Scores are determined by finding the sum of all responses. Scores range from 0 to 30. Scores are categorized according to the following chart:

Categorization of Depersonalization Scores			
MBI Subscale	Low (lower third)	Average (middle third)	High (upper third)
Depersonalization	≤6	7-12	≥13

Issues to Consider When Using the *Depersonalization Subscale of the Maslach Burnout Inventory*

- The price of the MBI manual is \$44.00. All requests regarding use of the MBI (including permissions and translations) should be directed to Consulting Psychologists Press: www.cpp-db.com
- Using just the Depersonalization subscale of the MBI is supported by Maslach and Jackson's (1986) report that the scores from the three subscales are independent, and do not combine to create a single, meaningful score.

Contact Information

All requests for use of the MBI should be directed to Consulting Psychologists Press: www.cpp-dbi.com.

*The Maslach Burnout Inventory
Depersonalization Subscale*

Survey Items

6 = Everyday

5 = A few times a week

4 = Once a week

3 = A few times a month

2 = Once a month or less

1 = A few times a year or less

0 = Never

On the above scale of 0 (never) to 6 (every day), state how often you feel that the following statements apply to you:

1. I feel I treat some people in an impersonal manner.
2. I've become more callous toward people since I took this job.
3. I worry that this job is hardening me emotionally.
4. I don't really care what happens to some people I encounter at work.
5. I feel others at work blame me for some of their problems.

Worker-Supervisor Relationships

Introduction

Definition of *Worker-Supervisor Relationships*

The quality of worker-supervisor work relationships topic addresses workers' perceptions of their relationships with their supervisors, as well as their perceptions of their peers' relationships with their supervisors. It is concerned with both workers' feelings for their supervisors, and for workers' attitudes toward their peer group's relationship to their supervisors.

The importance of considering worker-supervisor relationships when attempting to maximize retention and limit turnover cannot be overstated. In residential care research, supervision has been cited as a primary reason for leaving an organization (Howe, 2003). Conversely, perceived supervisor support has been found to be associated with high job satisfaction (Moniz, 1997; Gleason, 1999; Poulin, 1992).

Overview of Selected Measures of *Worker-Supervisor Relationships*

Two job satisfaction instruments – the Index of Work Satisfaction (IWS) and the Job Description Index (JDI) – provide subscales assessing the respondent's satisfaction with the worker-supervisor relationship. Note that the JDI scale is oriented towards the worker's perception of the quality of supervision he/she receives. In addition, the long version of the Minnesota Satisfaction Questionnaire (MSQ) includes a 5-question supervision (human relations) scale.

Issues to Consider When Selecting Measures of *Worker-Supervisor Relationships*

- Although the Misener Nurse Practitioner Satisfaction Scale provides an assessment of collegiality, the scale is not targeted at particular relationships and includes questions regarding the respondent's relationship with both peers and supervisors. Given this, the Misener scale is not recommended for the explicit assessment of either peer-to-peer or worker-supervisor relationships.

Worker-Supervisor Relationships Instruments

	Subscale from the Index of Work Satisfaction (IWS)	Subscale from the short form of the Job Descriptive Index (JDI)	Subscale from the Minnesota Satisfaction Questionnaire (MSQ)
Measure	Satisfaction with Nurse-Nurse Interaction	Satisfaction with Co-Workers	External Satisfaction (ES)
Administration	<u>Survey Administration</u> 1) Paper and pencil 2) Approximately 2 minutes or less 3) 6 questions 4) 6 point Likert scale (strongly agree to strongly disagree) <u>Readability</u> Flesch-Kincaid: 5.3	<u>Survey Administration</u> 1) Paper and pencil 2) Approximately 2 minutes or less 3) 5 questions 4) Respondent indicates if each question does or does not describe their work situation <u>Readability</u> Flesch-Kincaid: 3.9	<u>Survey Administration</u> 1) Paper and pencil 2) Approximately 2 minutes or less 3) 6 questions 4) 5-point Likert scale (not satisfied to extremely satisfied) <u>Readability</u> Flesch-Kincaid: 4.2
Scoring	1) T-score transformation and aggregation to represent unit t-scores. 2) <u>Subscale score</u> = t-score transformation with mean of 50 and standard deviation of 10 (Scores < 40 are low, 40 – 60 are moderate, and > 60 are high). 3) Higher scores indicate higher job satisfaction.	1) Scoring algorithms are described in the User's Manual. SAS and SPSS scoring code is available. 2) Not known. 3) Not known.	1) Simple calculations. 2) <u>Subscale scores</u> = Sum of items on the subscale (Range 0 – 30). 3) Higher scores indicate higher job satisfaction.
Availability	Free. The subscale is not available separately from the IWS, which is available to participants in the National Database of Nursing Quality Indicators.	The subscale is not available separately from the JDI. Cost of using the JDI depends on user status (academic or commercial) and whether the user is willing to share collected data with the JDI research group. User manuals and software are extra cost options.	Fee.
Reliability	Internal consistency of the nurse-nurse interaction subscale is .83.	Internal consistency of the scale has been consistently shown to be >.70.	Internal consistency of the External Satisfaction (ES) subscale ranges from .77 - .82.
Validity	No information on criterion or predictive validity is available.	An extensive meta-analysis of the measurement properties of the JDI found that content, criterion-related, and convergent validity are well-established (e.g., correlates as expected with turnover and other job satisfaction measures).	As with MSQ generally, psychometric investigations have rated the construct validity of the scale as adequate.

Alternatives for Measuring Worker-Supervisor Relationships

The Job Satisfaction section in Appendix B of this Guide provides details on the two instruments in the above chart.

**Instruments Which Require
New Data Collection -
Measures of the Organization**

Organizational Culture

Introduction

Definition of *Organizational Culture*

Culture is defined as the values, beliefs, and norms of an organization that shape its behavior. Data on culture should be collected from workers at all levels of the organization. Significant organizational change, such as the transition to a continuous quality improvement mode of operating, requires a culture that supports both the process of change and the substance of the intended change. Type of organizational culture has been found to be related to continuous quality improvement (CQI) implementation (Wakefield et al., 2001). There is increasing acknowledgement among providers and researchers alike about the importance of assessing capacity for change by tapping into organizational culture (Scott et al., 2003).

Overview of Selected Measures of *Organizational Culture*

There are several approaches to measuring organizational culture. The measure included here has been used health care organizations and they are free to use:

1. Nursing Home Adaptation of the Organizational Culture Profile.

Issues to Consider When Selecting Measures of *Organizational Culture*

- Some have argued that organizational culture (as distinct from but related to organizational climate) may not be adequately measured through attitudinal close-ended surveys (Bowers, 2001).
- If surveys are to be used to examine culture, instruments that tap multiple dimensions and ways of thinking about culture should be considered (to aim toward tapping some of the complexity of organizational culture).

Organizational Culture Instrument

	Nursing Home Adaptation of the Organizational Culture Profile
Measure	<u>Subscales</u> 1) Concern 2) Teamwork 3) Being the best
Administration	<u>Survey Administration</u> 1) Q Card sort (not a survey) 2) Time not reported 3) 18 values statements, each on a separate card 4) Raters group cards into a forced bell-shaped distribution, to produce more variation than may occur with a Likert scale <u>Readability</u> Flesch-Kincaid: 6.6
Scoring	1) Q-sort requires multivariate statistics and is not recommended. Adapting the value statements on the cards into survey questions would be preferable. 2) Scoring currently requires factor analysis and is not recommended. 3) Scoring of subscales is not applicable here.
Availability	Free.
Reliability	Not reported and not applicable, since the items are value statements without response options.
Validity	Construct validity: <ul style="list-style-type: none"> • Factor analysis of the 18 sorted card results confirmed 3 dimensions or subscales. • Significant differences by facility in the culture dimensions; these differences discriminated between high and low-performing facilities on the Baldrige standards for CQI implementation.

Alternatives for Measuring Organizational Culture

Nursing Home Adaptation of the Organizational Culture Profile

Description

Sheridan et al. (1995) developed the Nursing Home Culture Profile in a study of continuous quality improvement initiatives in 30 nursing homes in Texas. The instrument is an adaptation of the more general Organizational Culture Profile (OCP) (O'Reilly et al. 1991) that involved having employees identify the culture values shared by organization members rather than relying on researchers' expectations. Accordingly, 6 staff focus groups were used to generate a list of statements that represent values that may be shared by nursing home staff. This represents a more grounded approach to culture, not based on previously established measures of what constitutes important dimensions of culture.

Respondents from all levels and departments are included and the exercise can be administered on site. The format used by Sheridan et al. was a Q-sort procedure in which each respondent was given a stack of 18 cards each containing one of the value statements. They were instructed to sort the cards into categories that created a forced (2,4,6,4,2) bell-shaped distribution where the two most important were labeled 5, the two least important labeled 1, etc. The logic of forcing the distribution is that a variety of natural rating biases will result in little variation if staff is asked to simply rate (on a Likert type scale) these values. Personal communication with the lead researcher indicated that this process was cumbersome and challenging for some respondents, however.

In the Texas study, the responses from the 747 raters in the 30 facilities were factor analyzed and three dimensions were identified (4 items did not appear to load on any factor):

Concern—the importance of mutual trust and concern between administration and employees as well as caring attitudes of staff toward residents (5 items)

Teamwork—the importance of cooperation and balanced priorities among staff, administration and resident families in providing care (5 items)

Being Best—the importance of problem-solving and improvement initiatives by employees and administrative support to provide the best care possible (4 items).

Issues to Consider When Using the *Nursing Home Adaptation of the Organizational Culture Profile*

- The initial process of generating the list would likely need to be repeated for long term care organizations that are not nursing homes.
- There is mixed reaction to whether or not the Q Sort technique (rather than a survey) is more cumbersome for workers. However, since the Q sort approach does not result in a straight-forward set of scores, it would be worthwhile to create and test a different type of forced choice format that is amenable to a survey.

- The labels for the three dimensions of the factor analysis should be revisited to see if they really are a good reflection of the statements loading on each factor.

Contact Information

Not needed for use of this instrument.

Nursing Home Adaptation of the Organizational Culture Profile

Survey Items (Q Sort Card Items)

Value statement in NHCP instrument	<i>Factor 1</i> Concern	<i>Factor 2</i> Teamwork	<i>Factor 3</i> Being Best
Trust – Employees feel free to state their problems and ideas with other staff and administration.	.40	.03	.02
Well Being – Our pay, benefits, and training show that this home is concerned about us.	.50	.12	.28
Listening – Supervisors and Administrators listen to the ideas of employees. They do something about these ideas.	.63	.12	.04
Caring Attitude – We all enjoy helping residents and take time to do the little things that make them feel at home.	.56	.02	.06
Resident Rights – We respect all residents – even those who may be difficult.	.49	.28	.30
Responsibility – Employees come to work and do their fair share of the work.	.09	.56	.17
Balanced Priorities – The needs of the residents are as important as budget worries.	.13	.49	.07
Self-Initiative – When things need to be done, employees do it even though it may not be their job.	.19	.45	.27
Teamwork – Employees respect each other and work together as a team.	.12	.61	.14
Family Involvement – Families know what is going on with their loved ones and are encouraged to stay involved in the home.	.26	.53	.00
Support for Employees – We have enough staff and supplies so that we can give the best care to all residents.	.29	.18	.50
Reputation – We are proud to work here because it has a good reputation in the community.	.04	.27	.57
Problem Solving – We like to solve problems on our own and look for better ways to do our jobs.	.03	.13	.51
Be the Best – Employees work very hard to be the best nursing home in the area.	.28	.04	.57
Resident Focus – We try to guess what residents need and look for ways to please residents and their families.	.31	.28	.03
Cooperation – Dietary, housekeeping, and nursing work well together to meet all the residents' needs.	.06	.02	.25
Good Communication – We are kept totally informed about any changes that will affect us.	.30	.18	.15
Changes – We are encouraged to find new ways to improve the quality of services. Our ideas are supported and welcomes.	.36	.23	.23
Eigenvalue	2.32	1.74	1.45

Organizational Structure

Introduction

Definition of *Organizational Structure*

There are numerous different definitions of organizational structure. In one sense, organizational structure is the way duties are arranged to get work done. While there are many features of organizational structure, we focus on those that have been shown to affect the work life of DCWs. Some aspects of organizational structure are appropriate to be measured mainly from the perspective of management (e.g., are formal procedures used to manage the work of home health aides). However, other aspects of organizational structure (e.g., decision making structure, communication, leadership) are best addressed by measuring perceptions at multiple levels within the organization (e.g., nurse aide, charge nurse, DON, administrator).

Overview of Selected Measures of *Organizational Structure*

Research on organizational structure in long term care settings is scarce, the collection of measures included here are not comprehensive, and this topic needs further development. We include five measures addressing dimensions of organizational structure: (1) general formalization; (2) clinical formalization; (3) decision-making influence; (4) communication; and (5) hierarchy. This section describes each of these measures.

Issues to Consider When Selecting Measures of *Organizational Structure*

- To date, no issues have been identified for use of these instruments.

Organizational Structure Instruments

	Agency Formalization	Documentation (Formalization)	Decision-Making Structure
Measure	Agency Formalization	Documentation	Decision-Making Structure
Administration	<u>Survey Administration</u> 5) Paper and pencil 6) < 1 minute 7) 2 questions 8) 3-point Likert scale (to a small extent to a large extent; percentage ranges) <u>Readability</u> Flesch-Kincaid: 12.0	<u>Survey Administration</u> 1) Paper and pencil 2) < 1 minute 3) 1 question 4) Check all that apply <u>Readability</u> Flesch-Kincaid: 6.7	<u>Survey Administration</u> 5) Paper and pencil 6) 2 minutes 7) 5 questions 8) 5-point Likert scale (none to very much) <u>Readability</u> Flesch-Kincaid: 12.0
Scoring	4) Simple calculations. 5) <u>Score</u> = Average of the 2 items (Range 1 – 3). 6) Higher scores indicate greater formalization.	1) Simple calculations. 2) <u>Score</u> = Number or percentage of respondents who checked “written documentation by aide” (Percentage range 0% - 100%). 3) Higher scores indicate greater formalization.	4) Simple calculations. 5) <u>Score</u> = Average for each item (Range 1 – 5). [Compare average at each level of the hierarchy.] 6) Higher scores indicate more perceived influence on care.
Availability	Free.	Free.	Free.
Reliability	The two items are significantly correlated, therefore combining them is justified.	Internal consistency not applicable to a single-item measure.	Not reported.
Validity	Criterion validity: The scale was a positive predictor of both a director’s reported use of CQI in managing home health aides, and of a director’s perceived human resource practices.	Construct validity: The measure varied as expected in that formalization was performed more frequently for physical care than for psychosocial care.	Construct validity: <ul style="list-style-type: none"> • Charge nurses rated themselves as having more influence than CNAS rated themselves as having. • The amount of influence CNAs rated themselves as having was related to turnover, involvement, and delegation.

Organizational Structure Instruments (continued)

	Communication and Leadership (LTC Adaptation of the Shortell Organization and Management Survey)	Hierarchy (Administrative Span of Control)
Measure	<u>Subscales</u> 1) Connectedness 2) Timeliness & Understanding 3) Organizational Harmony 4) Clinical Leadership 5) Perceived Effectiveness	Hierarchy
Administration	<u>Survey Administration</u> 1) Paper and pencil 2) 25 minutes 3) 69 questions 4) 5-point Likert scale (strongly agree to strongly disagree) <u>Readability</u> Flesch-Kincaid is not yet available.	<u>Survey Administration</u> 1) Paper and pencil 2) < 1minute 3) 1 question 4) Number of departments <u>Readability</u> Flesch-Kincaid: 12.
Scoring	1) Simple calculations. 2) <u>Score</u> = Average of the items in a subscale, after reversing negatively worded items (Range 1 – 5). 3) Higher scores indicate better perceived communication (or leadership).	1) Simple calculations. 2) <u>Score</u> = number of departments (Range unlimited). 3) Higher scores indicate less hierarchy (wider administrative span of control).
Availability	In development. Not yet known if instrument will be free.	Free.
Reliability	Internal consistency of subscales ranges from .83 to .94, in a sample of CNAs, LPNs, and RNs.	Internal consistency is not applicable to a single-item measure.
Validity	Not yet reported for adaptation. The precursor ICU communication measure has been shown to be related to nurse turnover, greater perceived technical quality of care, and perceived ability to meet family members' needs.	Construct validity: Wider administrative span of control (less middle management) was related to lower rates of nurse aide turnover.

Alternatives for Measuring Organizational Structure

Agency Formalization (General Measure of Formalization)

Description

Formalization is the extent to which the organization uses standard, written procedures and protocols in managing the work of employees. Two measures of formalization are included here—a general measure and one related to clinical documentation. Both are designed to be asked of management staff about the whole organization.

The degree to which procedures that are intended to guide behavior are written in a procedures manual or other common source of documentation provides evidence of formalization in the organization. While it can be argued that some nursing homes are overly formalized, Brannon and Dansky (2001) (adapted from Van de Ven and Ferry, 1980) found that formalization was an enabling condition in CQI implementation in home health agencies. The measure was adapted from the Job Standardization Scale (Van de Ven and Ferry Organizational Assessment Instruments 1980)

Issues to Consider When Using the Agency Formalization (General Measure of Formalization)

- Measures of formalization may not be useful given the high degree of regulation-driven formalization required in nursing homes.
- It may be valuable to collect this measure from nurse aides as well as from charge nurses, to compare the perspectives.

Contact Information

Not needed for use of this instrument.

Agency Formalization (General Measure of Formalization)

Survey Items

Brannon and Dansky (2001) asked agency directors the following 2 questions in a mail questionnaire:

- 1) To what extent, in comparison with other agencies like yours, do you rely on formal procedures and protocols in managing the work of home health aides?
 - 1—to a small extent or not at all
 - 2—to some extent
 - 3—to a large extent or completely

- 2) Please estimate using the following categories, what percentage of these procedures and protocols are written in a procedures manual.
 - 1—0%-33%
 - 2—34%-67%
 - 3—68%-100%

Documentation (Formalization) Measure

Description

Since the highly regulated nature of health care and nursing home care, in particular, makes it difficult to identify actual variation in formalization, an alternative approach was taken involving asking about the extent to which written documentation of tasks is required by nurse aides (Zinn et al, In press).

Charge nurses in nursing facilities were asked about a matched pair of clinical processes, one in the psychosocial domain and one in the physical care domain. This approach has the advantage of being more specific and thus less liable to global responses that are more vulnerable to social desirability bias (saying the acceptable thing rather than giving an accurate response).

Issues to Consider When Using the *Documentation (Formalization) Measure*

- Measures of formalization may not be valuable given the high degree of regulation-driven formalization required in nursing homes.
- It might be valuable to collect this measure from nurse aides as well as from charge nurses, to compare the perspectives.

Contact Information

Not needed for use of this instrument.

Survey Item

For a typical nurse aide, how do you ensure that the aide has performed the [type of task, e.g., pressure ulcer, social well-being] tasks assigned to her? (Check all that apply.)

- Written documentation by the aide
- Scheduled verbal report at the end of shift
- Verbal unscheduled reports throughout shift
- Intermittent observation of aides' activities
- Other (please specify)

Decision-Making Structure Measure

Description

Another important consideration in assessing organizational structure is the process by which decisions are made regarding work-related tasks and patient care decisions. Many current long-term care culture change initiatives entail increasing DCWs' involvement in job-related tasks, creating a less centralized decision-making structure in the organization. Centralization of decision-making refers to the degree to which choices made in the performance of work are influenced by various levels of the organization. When decision-making is decentralized, therefore, involvement also occurs at levels below management. We include this measure of influence rather than one of formal authority on the grounds that it is a more valid representation of actual behavior. Assessing the amount of influence DCWs' have relative to other levels of the hierarchy can serve as an indicator of a decentralized decision-making structure.

Each of the five survey questions is treated as a separate, independent measure.

Issues to Consider When Using the *Decision-Making Structure Measure*

- To date, no issues have been identified for use of this instrument.

Contact Information

Not needed for use of this instrument.

Survey Items

The multi-level single item is as follows:

How much influence does each of the following have in deciding how care related to resident physical (psychosocial) care is performed in your unit?

	None	Little	Some	Quite a Bit	Very Much
Facility management?	1	2	3	4	5
Outside clinical staff?	1	2	3	4	5
You, as supervisor?	1	2	3	4	5
Your nurse aides?	1	2	3	4	5
You and your aides as a group?	1	2	3	4	5

***Communication and Leadership
(LTC Adaptation of the Shortell Organization and Management Survey)***

Description

Communication among those involved in providing care has been shown to be a critical factor in quality of care and in turnover in hospital intensive care units (Shortell et al 1991). A number of reports about the working conditions of DCWs in long term care have indicated that communication is a highly meaningful aspect of DCWs' being recognized as part of a care team. However, direct measurement of communication quality in LTC settings has been lacking.

Shortell and colleagues (1991) developed and tested a measure of communication among professional staff in Intensive Care Units (ICUs) as part of their larger Organization and Management Survey. The multi-item communication subscales included openness, accuracy, timeliness, understanding and satisfaction with communication. The subscales were highly correlated in the ICU study.

Scott and her colleagues at the University of Colorado are adapting and testing Shortell et al.'s (1991) Organization and Management Survey for use in nursing homes. Scott et al. surveyed RNs, LPNs, and CNAs in a sample of 32 Colorado nursing homes. Factor analysis (a statistical technique used to explore what items go together to measure an underlying concept) of 69 items collected from this sample resulted in five factors (or groupings among the items) (Scott et al., 2003). These factors (shown as subscales in the Chart above) include two about leadership, two about communication, and one that is a mix of items on leadership and communication.

Issues to Consider When Using the LTC Adaptation of the Shortell Organization and Management Survey

- Although the survey is currently not available for public use, it shows promise as a tool that may be used to measure organizational communication after final revisions have been made.

Contact Information

For information on the status and availability of the survey, contact Jill Scott, PhD, RN, University of Colorado Health Sciences Center, School of Nursing. 4200 East 9th Ave., Box C288, Denver CO. (303) 315-0484. jill.scott@ucshc.edu.

Communication and Leadership
(LTC Adaptation of the Shortell Organization and Management Survey)

Survey Items

NOTE: Below is only a sample of the items in the survey. The complete JDI is currently under development

Key to Which Questions Fall into Which Subscales

Only a subset of items in each of the 5 subscales is provided below.

Response options use a 5-point Likert scale (1=strongly disagree to 5=strongly agree).

Connectedness (total number of items not yet known)

1. I take pride in this facility
2. I identify with the facility goals
3. I am part of the team

Timeliness and Understanding (total number of items not yet known)

1. We get information when we need it
2. Physicians are available when they are needed
3. We get information about changes in resident status

Organizational Harmony (total number of items not yet known)

1. Nurses are uncertain where they stand (reversed)
2. Nursing leadership is out of touch with staff concerns (reversed)
3. Decisions are made without staff input

Clinical Leadership (total number of items not yet known)

1. Staff meetings are used to resolve
2. Staff interests are represented at higher levels of the facility
3. Standards of excellence are emphasized

Perceived Effectiveness

1. Our facility meets patient care goals
2. Our residents experience very good outcomes
3. Our facility does a good job of meeting family needs

Hierarchy (Administrative Span of Control) Measure

Description

Hierarchy is a fundamental aspect of organizational structure that describes the shape of the organization's authority system. Classic bureaucracies tend to be tall, e.g., have many vertical levels and they grant a limited span of control over subordinates to each position. Other organizational structures have few or no levels of management between the front line worker and top management. Variation in this aspect of structure is related to the ease with which organizational change can occur and the extent to which coordination across units is likely to happen. In small organizations, the extent of hierarchy may also provide evidence of the capacity to supervise and develop front line workers.

Given that long-term care organizations are as a group relatively small, a useful measure of how tall or short the hierarchy is involves the top manager or "administrative span of control." The question can be included in a survey of managers or assessed from organizational charts.

Issues to Consider When Using the *Hierarchy (Administrative Span of Control) Measure*

- To date, no issues have been identified for use of this instrument.

Contact Information

Not needed for use of this instrument.

Survey Item

A respondent such as the organization's top manager is asked the following:

How many different departments report to the administrator (or top manager or director)?

References

References are organized to reflect the two main types of instruments: those which use data already collected and those that require new data collection. Workforce topics are arranged in alphabetical order (by instrument, when applicable) under these two types of instruments.

Instruments which use data already collected

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