

## **Considerations in Survey Selection and Implementation and Special Issues for Nursing Home Surveys**

### **Satisfaction Survey Design, Development, and Testing**

Surveys can serve a number of important roles for administrators and managers. At the organizational level, surveys are an effective way to measure central attitudes, perceptions and behaviors. However, in order for a survey instrument to deliver on its ability to inform organizational leaders about core patterns and trends, it must be well designed, reliable and valid. In other words, the survey must be designed or selected in a manner that insures that the variables (satisfaction or experience with care, for example) are actually capturing what they are meant to measure. A scientifically sound satisfaction survey tool should be well thought out and have undergone a rigorous development and testing process. Many well established tools have been designed using focus groups and other methods that can insure adequate reliability and validity. For example, questions may undergo cognitive testing to determine if items and response categories are comprehensible for the target population. A methodologically sound survey tool will have gone through testing to determine whether it is valid and reliable. Ejaz (2000) provides an overview of the entire process of developing and conducting these surveys in nursing homes.

Validity estimates the extent that the instrument measures what it is intended to measure, i.e., the accuracy of the measurement. Content validity is most commonly used in determining if a satisfaction tool is valid. It is measured by a literature review of satisfaction measurement and often focus groups with target populations about factors that contribute to their satisfaction or dissatisfaction, and with long term care experts' viewpoint. Construct validity is evaluated by assessing the relationship of the satisfaction scales or subscales with other measures of theoretically related and unrelated concepts (e.g., examining the relationship between satisfaction with care from staff and whether a resident would recommend the facility).

Reliability estimates the consistency (or repeatability) of the survey instrument measurement for a given concept. Cronbach's  $\alpha$  (alpha) or internal consistency is the most commonly used statistic that indicates how well a set of items measures the same concept; an alpha of at least 0.6 is recommended. We provide reliability estimates for surveys where available for resident, family members, and staff surveys.

Effective survey research consists of asking the right questions, in the right format, and to the right people given what one wants to measure. It is important that the issues addressed in the survey are relevant to respondents; this will help increase their willingness to participate in the survey. Desirable survey characteristics include:

- **Items and topic areas (domains) relevant to the target population** – In order to assure that individuals are willing to respond to a survey, it is important that it covers topics that are important to them. Surveys can cover one domain or be multi-dimensional, covering several domains that are relevant to the population and what the nursing home wants to know. Multiple domains are desirable since someone may be satisfied in one area but not

another. For residents and families, domains can include autonomy/privacy, interaction with staff, activities, environment, food and dining, and family involvement. For staff, these domains include their attitudes and perceptions about work and their experience and relationships with the management and culture of the facility as well as their sense of autonomy and well-being with the work they are doing. For the identified surveys, we provide information on the domains measured in the tool.

- **Brevity both in number of items and length of time to respond** – This is particularly important consideration for nursing home residents who may get easily fatigued. For staff, this is an important consideration given the amount of work and other responsibilities that they have.
- **Items and response formats that are conducive to accurate responses** – Response format is important depending on the target population and the depth of data a facility wants to gather. A response format such as yes/no may be easier for those with dementia to understand. But, this response category may limit a facility's ability to determine the degree of satisfaction or dissatisfaction that would be possible with a more discriminating scale, such as a 0 to 10 scale or a five-point Likert scale.
- **Reading Levels** - For residents, family members and staff, it is important that the tool is written in easy to understand language that is not at a high grade reading level (usually no higher than 8<sup>th</sup> grade). The surveys presented are measured by the Flesch-Kincaid grade level.

### **Selecting the Target Population for the Nursing Home Survey**

There are multiple potential populations to be surveyed in the nursing home including residents, their family members/caregivers, and staff. There are important considerations to be taken when approaching survey work with each group.

#### **Residents and Family Member/Caregivers**

Among residents, there are at least four distinct populations based on their reason for using nursing home services and their clinical condition:

- Short-term rehabilitation;
- End of life care (e.g., hospice);
- Long-term care (no or mild cognitive impairment); and
- Long-term care (cognitively impaired).

The short-term rehabilitation population often is admitted following a hospitalization and require short-term physical, occupational or speech therapy to regain function lost as a result of their acute illness and hospitalization. Their clinical needs are often very different from those of long term residents and their stay on average is often under 30 days. Collecting information from this population may require a unique survey instrument and questions (e.g., including questions on therapy services but not on activities).

There are some issues, however, that are common to both short-stay and long-term care residents such as environment and food, and it may be appropriate to include current residents receiving rehabilitation services in facility-wide resident satisfaction data collection.

Nursing home residents who are receiving hospice services are often excluded from surveys populations because their end of life experience may not be typical of long stay residents.

In addition to length and type of stay, nursing home residents can be divided into those able to respond to satisfaction surveys and those that are unable. Cognitive impairment limits a large proportion of this population from responding to survey questions. Several studies have shown that useful information can be obtained from at least 60 percent of all nursing home residents (Schnelle 2003; Kane et al 2003). Many residents with memory loss or dementia can answer basic questions about their care well into the disease (Kane et al 2003).

Family members and caregivers of nursing home residents often are involved in the selection of nursing homes and may visit the resident frequently. Surveying family members is very important for residents who cannot respond to a survey (e.g., residents with advanced dementia). Collecting data from families/caregivers provides additional and important information that can both help potential consumers select a nursing home as well as nursing homes monitor their quality of care.

There is some debate in the literature about whether family members/caregivers can serve as “proxies” for residents in the assessment of satisfaction. One side of the debate cautions against the use of families as proxies while the other side believes that families can sometimes serve as reasonable proxies, especially for more concrete questions (Castle 2007; Ejaz 2000). We believe that in the nursing home setting both the resident and the family are important consumers that provide different perspectives on the quality of care. We recommend that both resident and families/caregivers be surveyed using separate instruments, with satisfaction results reported and analyzed separately for each population. In selecting a survey instrument, one should consider whether the questions for the resident survey are exactly the same as for the family survey (i.e., family assumed to be proxy for resident) or if the questions differ. Depending on the survey’s purpose (e.g., public reporting), data should **not** be aggregated to form a common measure of satisfaction; instead the data should be looked at independently and used to develop themes and strategies to address satisfaction issues raised by each.

### **Nursing Home Staff**

When approaching survey work with nursing home staff, there are several factors to consider. It is important that nursing homes engage all staff – nursing, including licensed practical nurses and certified nursing aides (CNAs), dietary, activities, and housekeeping - in measuring their attitudes and perceptions including satisfaction with their work. Satisfaction and dissatisfaction levels may differ across departmental settings and shifts and survey instruments should include this type of information for each individual respondent. Recognizing these differences will help nursing facilities identify patterns and trends and develop strategies to address areas with poor satisfaction and strengthen those areas where satisfaction is strong.

There also may be circumstances where it is necessary to survey select staff in a facility. For example, there has been recent attention to the satisfaction and experience of CNA staff. CNAs play a critical role in the care of individuals in nursing facilities. It is estimated that CNAs provide 80 to 90% of hands on care to residents. Conversely, they also experience very high levels of turnover – recent data from AHCA shows nursing homes experienced a 65.5% turnover rate for CNA staff in 2007. Understanding and addressing satisfaction issues of these workers will play a critical role in stabilizing this workforce. As noted above, the population surveyed should reflect the underlying question the organization is interested in exploring.

## **Survey Administration /Implementation**

### **Proprietary and Non-Proprietary Surveys**

Nursing facilities have non-proprietary and proprietary survey tools at their disposal for doing satisfaction surveys, each of which have strengths and weaknesses (Crawford 2000). We have included both types of surveys in the Resident/Family and Staff Survey Tool Tables.

A facility can use a non-proprietary survey tool that has been developed and tested by the academic community or non-profit organizations. The benefit of using this type of survey is that it is free to use and only require that the survey source be cited and acknowledged when it is printed and/or if results are published. These types of tools are diverse in the domains (topics) that are covered and will allow a nursing home to choose a tool that best meets their needs in measuring satisfaction. The primary disadvantage associated with using a non-proprietary survey is that it requires an organization to do more planning and setting aside resources, both in terms of staff time and costs to assure confidentiality, developing adequate survey administration protocol, and tabulating and reporting data. Another option, though, would be for the facility to select a survey that fits their needs and then select a vendor to administer the survey and conduct analyses.

Proprietary survey tools have been developed by private organizations. There are several benefits to using these tools, including having the support of those who are experienced with survey administration and data analysis and the opportunity to compare the results of your agency with a wider audience. The primary disadvantage associated with the use of proprietary tools is that they can be expensive and may not allow for as much tailoring in the domains that are measured with the survey.

### **Assuring Confidentiality**

Privacy assurances are central to encouraging respondent participation and obtaining honest answers. This is important both for the protection of respondents and to reduce the introduction of bias into the results. There should be standard procedures in place for maintaining the confidentiality of respondents' names and for insuring that identifying information, such as names and addresses, are **not** linked to the actual survey responses. For example, a survey instrument should only have a unique identifier placed on it in lieu of a respondent's name anywhere on survey.

Use of a third-party vendor/independent party for administering these surveys and tabulating data can enhance the confidentiality of the survey process. Use of a vendor increases the likelihood that respondents will participate and provide unbiased responses without fear that their answers might affect their treatment or of their family member in the nursing home. Many survey vendors also require employees to sign statements of confidentiality ensuring that they will not reveal the names of respondents or any results linked to specific individuals. In order to assure that respondents cannot be identified by their responses to the interview, it is recommended that the vendor not present summary data to the nursing home until at least a certain number interviews (usually 25-30) per facility have been completed.

If one decides not to use a third party vendor, special attention to confidentiality procedures should be given, in addition to the measures indicated above.

- **Individuals who provide care or services to the nursing home residents being surveyed should not be interviewers.** Significant positive bias was found when staff interviewed nursing home residents compared with outside interviewers (Hodlewsky and Decker, 2002).
- **Allowing staff or family members to distribute or assist in completing resident surveys should be done with caution.** Facility dissemination of surveys, if not done systematically, could have potential for introducing bias as to who responds. In addition, residents who receive assistance from facility staff in completing surveys may fear retribution if they provide negative feedback, so their responses may not be a true reflection of their satisfaction; or the family member may provide their own perspective instead of the resident's (Moore et al 2004)
- **Limit the number of staff that have access to survey responses and/or raw data.** It is important to identify trusted staff member(s) who will have access to data and make this person known to staff. This will help to minimized fear or concern from survey participants regarding who will be seeing their responses.
- **Report data in the aggregate.** Remove identifying information from survey responses when reporting both quantitative and qualitative data.

### **Selection of Survey Mode for Nursing Home Surveys**

Crawford (2000) discusses the various survey methodologies that can be used by nursing homes. These options include:

- In-person interview
- Self administration, by mail or distributed in the nursing home
- Telephone or interactive voice response (IVR)
- Combination of mail and telephone (e.g., mail with phone follow-up)
- Online (emerging option)

Each mode has advantages and disadvantages and should be carefully selected for the target population (resident, family or staff). In choosing a survey mode, the advantages and disadvantages should be balanced against the costs of the different modes.

A self-administered family member or staff satisfaction survey is considered a feasible approach for these populations (Moore et al 2004) while in-person interviews with residents may be considered ideal, if budget permits (Kane et al 2003). As mentioned earlier, in-person interviews should be done by people who are not employees (management or front-line staff) of the nursing home to remove bias and ensure confidentiality of respondents. Residents and staff may not be willing to provide negative feedback under this circumstance. Below are some advantages and disadvantages of each survey mode:

#### *Mail/Self-administered questionnaires*

##### Advantages

- The opportunity to solicit responses from a large group of individuals that are all capable of completing such a survey.
- Costs per completed survey are also less for self-administered questionnaires than by phone or in-person.
- Provides flexibility in responding in terms of time and location

##### Disadvantages

- Low response rates compared to in-person interviews
- Difficulty in conducting a cognitive screen to determine which residents should be eligible for the survey.
- No control for whom actually fills out the survey or who may assist the resident complete the survey. Family members or staff may complete or assist the resident to complete self-administered surveys. The inability to control for who completes the survey raises questions about the validity of results from a self-administered survey (i.e., is survey measuring only resident satisfaction or some mix of resident and family or staff's perception of resident's satisfaction?) (Moore et al 2004)

#### *Telephone interviews*

##### Advantages

- Ability to probe if necessary
- Lower costs than in-person interview
- Higher level of comfort for staff to discuss sensitive workplace issues
- May have a higher level of reliability

##### Disadvantages

- Potential for miscommunication, given hearing impairment experienced by many long-term care residents
- More expensive than self-administered surveys
- Lack of availability of phones to all residents,
- Difficulty reaching staff by phone due to work schedules and incorrect or disconnected phone numbers

### *In-person interviews*

#### Advantages

- Live, in-person interview method is considered the “gold standard” for resident satisfaction measurement by many long term care experts (Kane et al 2003; Moore et al 2004)
- Allows for immediate clarifications when necessary.
- Increases response rate considerably
- May increase reliability

#### Disadvantages

- Longer and more expensive per interview completed than both self-administered and telephone surveys
- Without properly trained interviewers, incorrect information may be obtained
- Risk of interviewers being perceived as employees of the nursing home, as this can affect residents’ responses to questions.
- May raise concerns of confidentiality for staff

### *Online*

#### Advantages

- Analysis of results can be easier and quicker with online data entry

#### Disadvantages

- Lack of computer experience may intimidate target population
- Computer access may be limited

### Use of cognitive screens for residents

A high percentage of nursing home residents have some level of cognitive impairment screen and the survey sponsor may wish to exclude those with the highest level of impairment. Several surveys use some type of screen based on MDS data or other medical or administrative record information. Some surveys that are administered in-person use a rule of attempting to elicit responses from residents for at least 3 or 4 questions in a row before deciding to cut off the interview. We indicate which resident surveys use a cognitive screen.

### When survey is administered

Timing of when a survey is administered is also important for residents, family members, and staff. For residents and family members, if the stay in nursing home too short, the resident or family member may not have had sufficient time to form an opinion that reflects the experience of the average nursing home resident. To avoid this bias, it is acceptable to set parameters on when surveys may be administered to residents based on minimum stay in the nursing home, such as 14 or 30 days. This parameter is noted in the surveys described on the Resident Survey Tool table.

For staff, similar considerations should be made regarding timing. While the goal is to capture the experience of all staff, it is important to look for differences in staffs’ experience and

satisfaction depending on their length of service with the facility. It is also important to be aware of factors that may influence satisfaction based on factors related to the culture or environment of the facility. For example, has there been a major change in policies or procedures in the facility or a significant staffing or resident change that has impacted the attitudes and morale of staff.

#### Other Issues

There are several additional issues to consider in survey administration including sampling strategies, response rates, data analysis and use of data for quality improvement. The American Statistical Association has a primer on survey research methods at <http://www.amstat.org/sections/srm>. Ejaz (2000) and Krowinski and Steiber (1996) provide background on these issues.

## REFERENCES

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### Resources:

What is a Survey?"

- Survey Research Methods Section of the American Statistical Association
- <http://www.amstat.org/sections/srm>