2008 Preliminary Comparative Results:
Nursing Home Survey on Patient Safety Culture

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Purpose and Use of this Document

- Preliminary comparative results are provided for the items and safety culture dimensions on the *AHRQ Nursing Home Survey on Patient Safety Culture* to allow nursing homes to compare their survey results against the results from 40 nursing homes that participated in a pilot test of the survey in the United States in late 2007 and early 2008.
- **NOTE:** When comparing your nursing home's results against the comparative results provided in this document, keep in mind that these results are from limited numbers of staff and nursing homes and will provide only a general indication of how your nursing home compares with other nursing homes in the United States.

  At this time, there is no central repository for nursing homes to submit data for benchmarking purposes. However, similar to the *AHRQ Hospital Survey on Patient Safety Culture Comparative Database* (www.ahrq.gov/qual/hospculture)*,* AHRQ plans to support an annual U.S. comparative database on the nursing home survey which will provide more extensive comparative data. More details will be forthcoming from AHRQ about when data submission will begin and when the new comparative results will be available.

Overview

- Preliminary comparative data are provided for the survey items and for composite scores on the safety culture dimensions based on pilot data obtained from 3,698 staff from 40 nursing homes.
- Basic descriptive data are provided about the respondents and nursing homes that participated in the pilot study.
- This document also contains a description of how to calculate your nursing home's composite scores on the *Nursing Home Survey on Patient Safety Culture*.

Survey Background

The *Nursing Home Survey on Patient Safety Culture* is an expansion of AHRQ's *Hospital Survey on Patient Safety Culture*, which was pilot tested and made available to the public in November 2004 (www.ahrq.gov/qual/hospculture). The *Nursing Home Survey on Patient Safety Culture* was specifically designed to measure the culture of resident safety in nursing homes from a staff perspective.

Safety culture can be defined as the set of values, beliefs, and norms about what is important, how to behave, and what attitudes are appropriate regarding patient safety in a work group or organization. The *Nursing Home Survey on Patient Safety Culture* is intended to help a nursing home assess the extent to which its organization's culture emphasizes the importance of resident

safety, facilitates open discussion and teamwork, and creates an atmosphere of continuous learning.

The survey design team reviewed the literature on resident safety problems and issues in nursing homes; interviewed more than two dozen long-term care experts, researchers, nursing home administrators, and staff to identify appropriate survey topics; and drafted sets of survey dimensions and items for review by experts. The subsequent draft was pretested with nursing home staff to ensure that the questions were easy to understand and answer and that the items were relevant. The pilot test survey was then administered in 40 nursing homes. The data were analyzed, the psychometric properties of the survey (reliability and factor structure) were examined, and the length was shortened by dropping items. The final version of the *Nursing Home Survey on Patient Safety Culture* is below a 6th-grade reading level.

The final survey includes 42 survey items that measure the following 12 areas of organizational culture pertaining to resident safety:

1. Communication openness
2. Compliance with procedures
3. Feedback and communication about incidents
4. Handoffs
5. Management support for resident safety
6. Nonpunitive response to mistakes
7. Organizational learning
8. Overall perceptions of resident safety
9. Staffing
10. Supervisor expectations and actions promoting resident safety
11. Teamwork
12. Training and skills

The survey uses either 5-point frequency scales ("Never" to "Always") or 5-point agreement scales ("Strongly disagree" to "Strongly agree"). Most items include a "Does not apply or Don't know" option.

The survey also includes two overall rating questions that ask respondents to indicate whether or not they would tell friends the nursing home was safe for their family, and to provide an overall rating on resident safety. The last section of the survey asked respondents to write any comments they had about resident care and safety in their nursing home.

Description of the 40 Pilot Study Nursing Homes

The nursing home survey was pilot tested with staff and physicians from 40 nursing homes in the United States in late 2007 to early 2008. Nursing homes varied by bed size, urbanicity, ownership, and geographic region, but the nursing homes that voluntarily participated in the pilot study were not a statistically representative sample of all nursing homes in the United States.

Tables 1 to 5 show overall statistics about the participating nursing homes and respondent characteristics. A few highlights about the pilot study nursing homes are:

- 85 percent of the nursing homes had between 51 and 199 beds.
- Nearly two-thirds of the 40 nursing homes were located in an urban area.
- Nursing homes were equally distributed between for profit and not for profit.
- Almost half of the nursing homes were located in the South; only 8 percent were in the West.

Note: Column percent totals in the tables may not sum to exactly 100 percent because of rounding of decimals.

Table 1. Overall statistics for participating nursing homes[1]

Total number of participating nursing homes	40
Total number of individual survey respondents	3,698
Total number of surveys administered	5,065
Overall response rate	73%
Average number of completed surveys per nursing home (range: 23 to 233 surveys)	92
Average number of surveys administered per nursing home (range: 55 to 292 surveys)	134
Overall average response rate	72%

Table 2. Distribution of pilot study nursing homes and respondents by bed size

Bed Size	2008 Pilot Study Nursing Homes		2008 Pilot Study Respondents	
	Number	Percent	Number	Percent
≤50 beds	2	5%	70	2%
51-99beds	16	40%	1,144	31%
100-199 beds	18	45%	1,755	47%
200 or more beds	4	10%	729	20%
TOTAL	40	100%	3,698	100%

Table 3. Distribution of pilot study nursing homes and respondents by urbanicity

Urbanicity	2008 Pilot Study Nursing Homes		2008 Pilot Study Respondents	
	Number	Percent	Number	Percent
Urban	26	65%	2,765	75%
Rural	14	35%	933	25%
TOTAL	40	100%	3,698	100%

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[1] Most of the pilot test nursing home points of contact received remuneration to help promote the survey and encourage response and most individual nursing home staff received $5 prepaid cash as an incentive to complete the pilot survey. Therefore pilot test response rates reported here are likely to be higher than those obtained in nursing homes where no monetary incentives are provided.

Table 4. Distribution of pilot study nursing homes and respondents by ownership

Ownership and Control	2008 Pilot Study Nursing Homes		2008 Pilot Study Respondents	
	Number	Percent	Number	Percent
For profit	20	50%	1,819	49%
Not for profit	20	50%	1,879	51%
TOTAL	40	100%	3,698	100%

Table 5. Distribution of pilot study nursing homes and respondents by region

Census Bureau Region	2008 Pilot Study Nursing Homes		2008 Pilot Study Respondents	
	Number	Percent	Number	Percent
South	19	48%	1,710	46%
Northeast	10	25%	1,150	31%
Midwest	8	20%	641	17%
West	3	8%	197	5%
TOTAL	40	101%	3,698	99%

Note. States are categorized into Census Bureau regions as follows:
South: AL, AR, DE, DC, FL, GA, KY, LA, MD, MS, NC, OK, SC, TN, TX, VA, WV
Northeast: CT, ME, MA, NH, NJ, NY, PA, RI, VT
Midwest: IL, IN, IA, KS, MI, MN, MS, NE, ND, OH, SD, WI
West: AK, AZ, CA, CO, HI, ID, NM, MT, UT, NV, OR, WA, WY

Description of Nursing Home Pilot Study Respondents

Tables 6 to 8 illustrate the distributions of respondents across work areas/units, interaction with residents, and staff position.

Note: Individuals who did not respond to a question are shown as missing in the following tables and are excluded from total percentages. Column percent totals in the tables may not add to exactly 100% because of rounding of decimals.

Table 6. Distribution of respondents by work area/unit: Pilot study nursing homes

Work Area/Unit	All Pilot Study Respondents	
	Number	Percent
Many different areas in this nursing home/No specific area or unit	1,321	42%
Other area or unit	793	25%
Skilled nursing unit	579	18%
Alzheimer's/Dementia unit	241	8%
Rehab unit	220	7%
TOTAL	3,154	100%
Missing: No answer	544	
Overall total	3,698	

Table 7. Distribution of respondents by interaction with residents: Pilot study nursing homes

Respondent Interaction With Residents	All Pilot Study Respondents	
	Number	**Percent**
YES, I work directly with residents most of the time	2,262	69%
NO, I do NOT work directly with residents most of the time	1,007	31%
TOTAL	3,269	100%
Missing: No answer or question was not asked	429	
Overall total	3,698	

Table 8. Distribution of respondents by staff position: Pilot study nursing homes

Staff Position	All Pilot Study Respondents	
	Number	**Percent**
Nursing Assistant/Aide	1,034	33%
Support Staff	649	20%
Licensed Nurse	531	17%
Administrator/Manager	328	10%
Direct Care Staff	302	10%
Administrative Support Staff	172	5%
Other	115	4%
Physician (MD, DO)	31	1%
Other Provider	17	1%
TOTAL	3,179	100%
Missing: No answer	519	
Overall total	3,698	

Respondents in the overall pilot study also reported the following workplace characteristics:

Tenure in current nursing home
- 6 years or more – 41%
- 3 to 5 years – 22%
- 1 to 2 years – 20%
- Less than a year – nearly 18%

Usual hours worked per week
- Less than 25 hours per week – 14%
- 25 to 40 hours per week – 60%
- More than 40 hours per week – 26%

Shift worked most often
- Day shift – 73%
- Evening shift – 18%
- Night shift – 10%

Staffing agency status
- Paid by a staffing agency – 6%

Item-Level Comparative Results

To compare your nursing home's results on any item from the *Nursing Home Survey on Patient Safety Culture,* you first need to calculate your nursing home's **percentage of positive response** on each item.
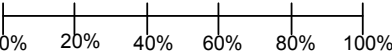
- **For *positively* worded items**, this means simply calculating the total percentage of respondents who answered positively (combined percentage of "Strongly agree" and "Agree" responses, or the "Always" and "Most of the time" responses, depending on the response categories used for the item).
- **For *negatively* worded items**, calculate the total percentage of respondents who answered negatively (combined percentage of "Strongly disagree" and "Disagree" responses, or "Never" and "Rarely" responses, since a *negative* answer on these items indicates a *positive* response).

Once you have calculated your nursing home's percentage of positive response on each item, compare your item-level results with the average percentage of positive response from the 40 pilot test nursing homes, shown in Chart 1. Chart 1 also shows the minimum score from the lowest scoring nursing home and the maximum score from the highest scoring nursing home for each survey item.

- **Use a difference of 5 percentage points as a rule of thumb when comparing your medical office's results to the comparative results.** Your nursing home's percentages should be at least 5 points higher than the comparative results to be considered "better" (e.g., 75% vs. 70%) and should be at least 5 points lower to be considered "lower" than the comparative results (e.g., 60% vs. 65%).
- **Keep in mind that this information provides only *relative* comparisons**. Even though you may find your nursing home's results are better than the comparative results, you may still believe there is room for improvement in an *absolute* sense.

Chart 2 shows the distribution of responses to the Recommendation question. Chart 3 shows the distribution of responses to the Resident Safety Rating question.

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Chart 1. Item-Level Comparative Results from 40 Pilot Test Nursing Homes

Item	Survey Items By Resident Safety Culture Area	Survey Item % Positive Response	All Pilot Nursing Homes Average % Positive	
			MIN	**MAX**
	1. Overall Perceptions of Resident Safety			
D1	1. Residents are well cared for in this nursing home.	86%	41%	100%
D6	2. This nursing home does a good job keeping residents safe.	86%	49%	98%
D8	3. This nursing home is a safe place for residents.	88%	53%	100%
	2. Feedback and Communication About Incidents			
B4	1. When staff report something that could harm a resident, someone takes care of it.	84%	62%	98%
B5	2. In this nursing home, we talk about ways to keep incidents from happening again.	83%	43%	98%
B6	3. Staff tell someone if they see something that might harm a resident.	89%	68%	98%
B8	4. In this nursing home, we discuss ways to keep residents safe from harm.	84%	44%	98%
	3. Supervisor Expectations & Actions Promoting Resident Safety			
C1	1. My supervisor listens to staff ideas and suggestions about resident safety.	83%	69%	100%
C2	2. My supervisor says a good word to staff who follow the right procedures.	72%	45%	87%
C3	3. My supervisor pays attention to resident safety problems in this nursing home.	87%	73%	98%

Scale: 0% 20% 40% 60% 80% 100%

Note: The item's survey location is shown to the left. An "R" indicates a negatively worded item, where the percent positive response is based on those who responded "Strongly disagree" or "Disagree," or "Never" or "Rarely" (depending on the response category used for the item).

Chart 1. Item-Level Comparative Results from 40 Pilot Test Nursing Homes, continued

Item	Survey Items By Resident Safety Culture Area	Survey Item % Positive Response	All Pilot Nursing Homes Average % Positive	
			MIN	MAX
	4. Organizational Learning			
D3R	1. This nursing home lets the same mistakes happen again and again.	77%	42%	98%
D4	2. It is easy to make changes to improve resident safety in this nursing home.	67%	42%	86%
D5	3. This nursing home is always doing things to improve resident safety.	81%	34%	100%
D10	4. When this nursing home makes changes to improve resident safety, it checks to see if the changes worked.	78%	37%	95%
	5. Management Support for Resident Safety			
D2	1. Management asks staff how the nursing home can improve resident safety.	71%	36%	94%
D7	2. Management listens to staff ideas and suggestions to improve resident safety.	71%	29%	98%
D9	3. Management often walks around the nursing home to check on resident care.	74%	35%	94%
	6. Training & Skills			
A7	1. Staff get the training they need in this nursing home.	78%	42%	98%
A11	2. Staff have enough training on how to handle difficult residents.	56%	25%	77%
A13	3. Staff understand the training they get in this nursing home.	81%	54%	95%

0%   20%   40%   60%   80%   100%

Note: The item's survey location is shown to the left. An "R" indicates a negatively worded item, where the percent positive response is based on those who responded "Strongly disagree" or "Disagree," or "Never" or "Rarely" (depending on the response category used for the item).

Chart 1. Item-Level Comparative Results from 40 Pilot Test Nursing Homes, continued

Item	Survey Items By Resident Safety Culture Area	Survey Item % Positive Response	All Pilot Nursing Homes Average % Positive	
			MIN	**MAX**
	7. Compliance with Procedures			
A4	1. Staff follow standard procedures to care for residents.	84%	51%	100%
A6R	2. Staff use shortcuts to get their work done faster.	47%	15%	73%
A14R	3. To make work easier, staff often ignore procedures.	69%	38%	90%
	8. Teamwork			
A1	1. Staff in this nursing home treat each other with respect.	70%	38%	89%
A2	2. Staff support one another in this nursing home.	69%	39%	92%
A5	3. Staff feel like they are part of a team.	63%	23%	93%
A9	4. When someone gets really busy in this nursing home, other staff help out.	66%	41%	88%
	9. Handoffs			
B1	1. Staff are told what they need to know before taking care of a resident for the first time.	68%	35%	98%
B2	2. Staff are told right away when there is a change in a resident's care plan.	58%	29%	90%
B3	3. We have all the information we need when residents are transferred from the hospital.	54%	28%	75%
B10	4. Staff are given all the information they need to care for residents.	74%	37%	93%

0%   20%   40%   60%   80%   100%

Note: The item's survey location is shown to the left. An "R" indicates a negatively worded item, where the percent positive response is based on those who responded "Strongly disagree" or "Disagree," or "Never" or "Rarely" (depending on the response category used for the item).
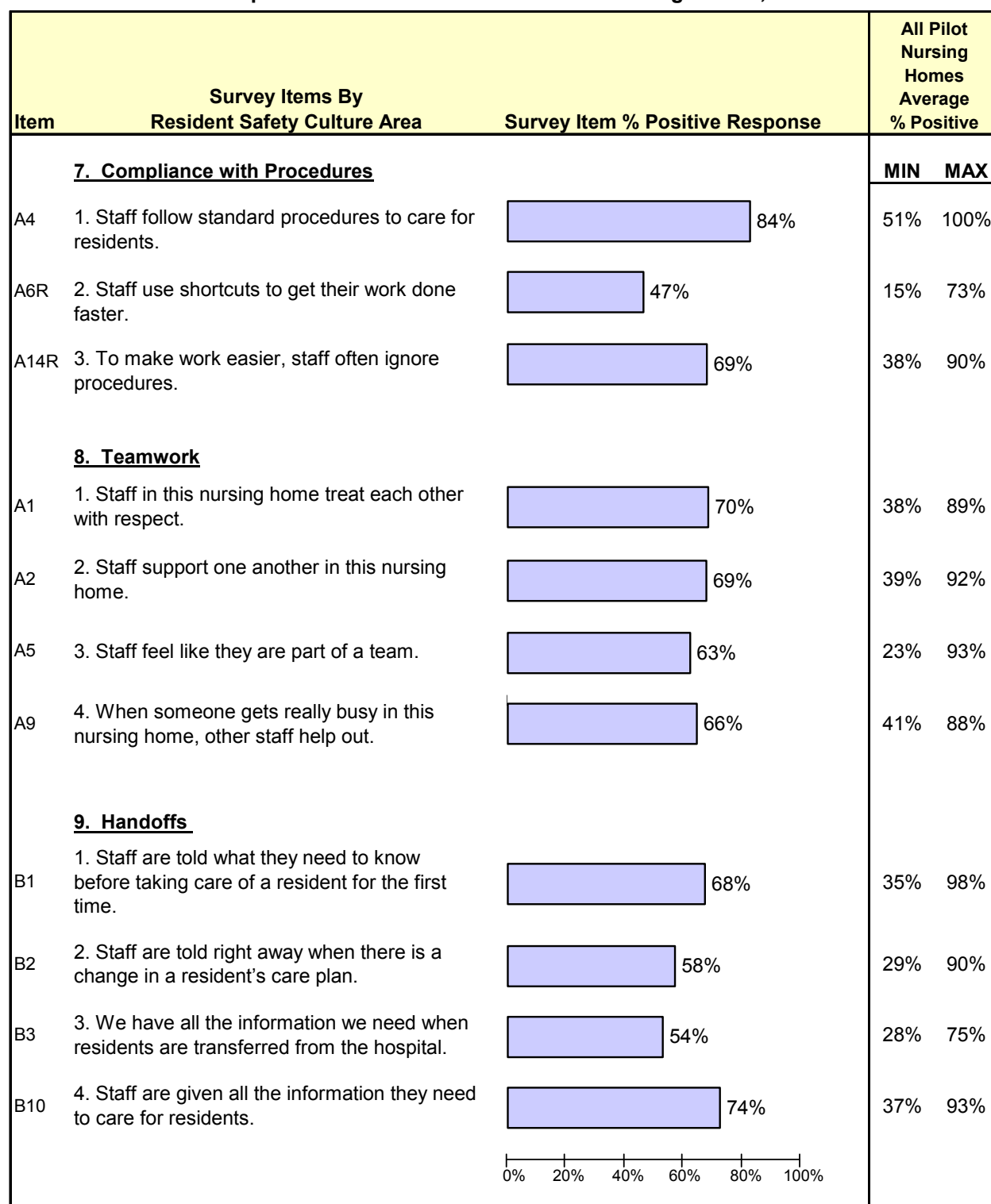
Chart 1. Item-Level Comparative Results from 40 Pilot Test Nursing Homes, continued

Item	Survey Items By Resident Safety Culture Area	Survey Item % Positive Response	All Pilot Nursing Homes Average % Positive	
			MIN	**MAX**
	10. Communication Openness			
B7	1. Staff ideas and suggestions are valued in this nursing home.	60%	22%	94%
B9R	2. Staff opinions are ignored in this nursing home.	56%	27%	92%
B11	3. It is easy for staff to speak up about problems in this nursing home.	59%	32%	90%
	11. Nonpunitive Response to Mistakes			
A10R	1. Staff are blamed when a resident is harmed.	42%	20%	81%
A12R	2. Staff are afraid to report their mistakes.	58%	31%	78%
A15	3. Staff are treated fairly when they make mistakes.	61%	27%	83%
A18	4. Staff feel safe reporting their mistakes.	58%	22%	83%
	12. Staffing			
A3	1. We have enough staff to handle the workload.	34%	9%	82%
A8R	2. Staff have to hurry because they have too much work to do.	33%	11%	63%
A16	3. Residents' needs are met during shift changes	63%	33%	91%
A17R	4. It is hard to keep residents safe here because so many staff quit their jobs.	61%	21%	95%

0% 20% 40% 60% 80% 100%

Note: The item's survey location is shown to the left. An "R" indicates a negatively worded item, where the percent positive response is based on those who responded "Strongly disagree" or "Disagree," or "Never" or "Rarely" (depending on the response category used for the item).
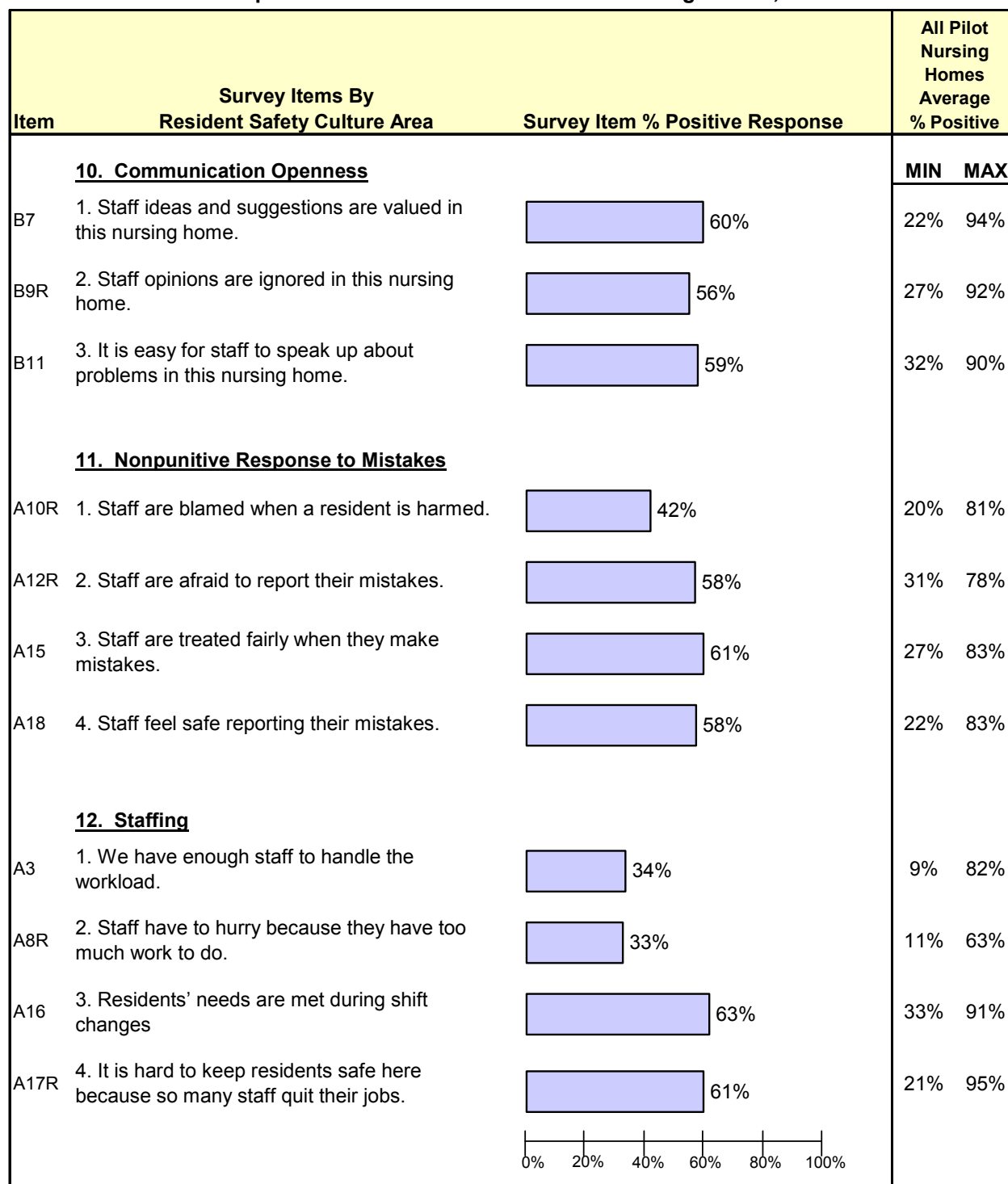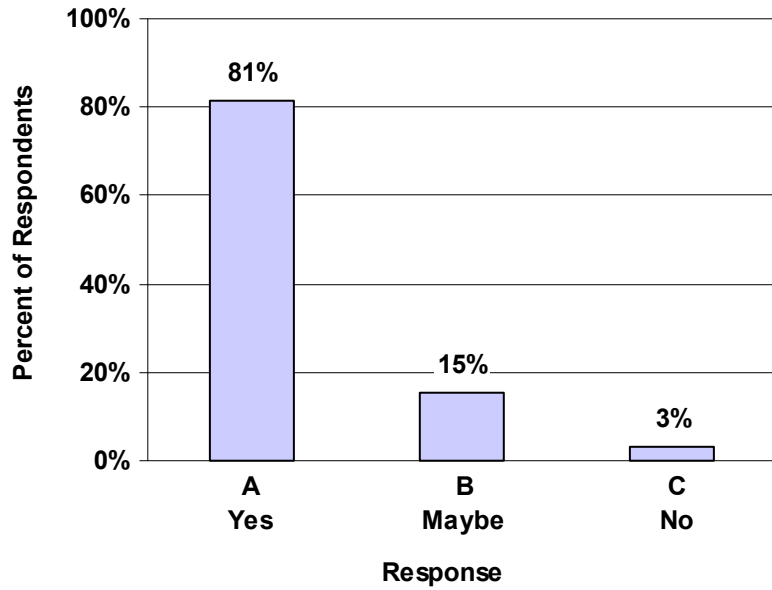
Chart 2. Nursing Home Recommendation

I would tell friends that this is a safe nursing home for their family.

Chart 2 data:

Response	Percent of Respondents
A / Yes	81%
B / Maybe	15%
C / No	3%

Response

Chart 3. Comparative Results for Overall Rating on Resident Safety

Give this nursing home an overall rating on resident safety.

Chart 3 data:

Overall Safety Rating	Percent of Respondents
Excellent	29%
Very Good	39%
Good	23%
Fair	8%
Poor	1%

Overall Safety Rating

Composite-Level Comparative Results

In addition to comparing your nursing home's results on *each item,* you can obtain a summary view of how your nursing home compares to other nursing homes by examining composite scores. A composite score summarizes how respondents answered *groups of items* that all measure the same thing. A composite score summarizes how respondents answered *groups of items* that all measure the same thing. Composite scores on the 12 patient safety culture survey dimensions tell you the average percentage of respondents who answered positively when looking at the survey items that measure each safety culture dimension. Composite scores allow a summary comparison because you compare against only 12 safety culture dimensions rather than 42 separate survey items.

Composite Percent Positive Scores

To calculate your nursing home's composite score on a particular safety culture dimension, simply average the percent positive response on each item that is included in the composite. Here is an example of computing a composite score for Staffing:

1. There are four items in this composite—two are positively worded (items A3 and A16) and two are negatively worded items (items A8 and A17). Keep in mind that DISAGREEING with a negatively worded item indicates a POSITIVE response.
2. Calculate the percent positive response at the item level (see example in Table 9).

Table 9. Example of How To Calculate Item and Composite Percent Positive Scores

Four items measuring "Staffing"	For <u>positively</u> worded items, the # of "Strongly agree" or "Agree" responses	For <u>negatively</u> worded items, the # of "Strongly disagree" or "Disagree" responses	Total # of responses to the item (excluding NA/DK & missing responses)	Percent positive response on item
Item A3-positively worded: "We have enough staff to handle the workload"	120	NA*	260	120/260=46%
Item A16-positively worded: "Residents' needs are met during shift changes"	130	NA*	250	130/250=52%
Item A8-negatively worded: "Staff have to hurry because they have too much work to do"	NA*	110	240	110/240=46%
Item A17-negatively worded: "It is hard to keep residents safe here because so many staff quit their jobs"	NA*	140	250	140/250= 56%
* NA = Not applicable	**Average percent positive response across the 4 items = 50%**			

In this example, there were four items, with percent positive response scores of 46 percent, 52 percent, 46 percent, and 56 percent. Averaging these item-level percent positive scores (46% + 52% + 46% + 56% / 4 = 50%) results in a composite score of .50 or 50 percent on Staffing. That is, an average of about 50 percent of the respondents responded positively on the survey items in this composite.

- **Use a difference of 5 percentage points as a rule of thumb when comparing your medical office's results to the comparative results.** Your nursing home's percentages should be at least 5 points higher than the comparative results to be considered "better" (e.g., 75% vs. 70%) and should be at least 5 points lower to be considered "lower" than the comparative results (e.g., 60% vs. 65%).
- **Keep in mind that this information provides only *relative* comparisons**. Even though you may find your nursing home's results are better than the comparative results, you may still believe there is room for improvement in an *absolute* sense.

Chart 4 shows the average percent positive response from the 40 pilot study nursing homes on each of the survey's patient safety culture composites, in order from most positive to least positive. The minimum score from the lowest scoring nursing home and the maximum score from the highest scoring nursing home are also shown for each composite.

Chart 4. Composite-Level Comparative Results from 40 Pilot Test Nursing Homes

Patient Safety Culture Composites	% Positive Response	All Pilot Nursing Homes Average % Positive	
		MIN	MAX
1. Overall Perceptions of Resident Safety	87%	48%	99%
2. Feedback & Communication About Incidents	85%	54%	98%
3. Supervisor Expectations & Actions Promoting Resident Safety	81%	63%	94%
4. Organizational Learning	76%	39%	93%
5. Management Support for Resident Safety	72%	33%	92%
6. Training & Skills	72%	43%	88%
7. Compliance with Procedures	67%	36%	85%
8. Teamwork	67%	37%	89%
9. Handoffs	63%	35%	88%
10. Communication Openness	58%	30%	92%
11. Nonpunitive Response to Mistakes	55%	27%	80%
12. Staffing	48%	22%	80%