Surveys on Patient Safety Culture™

Results From the 2014 Pilot Study of the AHRQ SOPS™ Value and Efficiency Supplemental Items for the Hospital SOPS Survey

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> **None of the investigators has any affiliations or financial involvement that conflicts with the material presented in this report.**

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1. Purpose and Use of This Document

In 2014, the Agency for Healthcare Research and Quality (AHRQ) Center for Delivery, Organization, and Markets (CDOM) sponsored the development and pilot testing of survey items assessing the culture of value and efficiency in U.S. hospitals and medical offices. Because the survey items assess aspects of organizational culture in health care organizations, AHRQ's Center for Quality Improvement and Patient Safety collaborated with CDOM to release the survey items as a supplement to AHRQ's Surveys on Patient Safety Culture™ (SOPS™) for hospitals and medical offices.

This report presents results from 47 hospitals that participated in the pilot study. Although the hospital and medical office value and efficiency survey items were developed in parallel, a separate report presents results from 96 medical offices that participated in the pilot study.

The hospitals and medical offices that participated in the pilot study were not selected to be a statistically representative sample of the population of U.S. hospitals and medical offices. Therefore, estimates of survey scores presented in this report that are based on these participating sites may reflect biased estimates.

The SOPS Value and Efficiency Supplemental Items for the Hospital Survey are to be used in conjunction with the AHRQ Hospital Survey on Patient Safety Culture.

2. Item Development

A culture of value and efficiency can be defined as the set of values, beliefs, and norms about what is important and what attitudes and actions are appropriate when reducing waste and improving the value and efficiency of health care. The *Value and Efficiency Supplemental Items for the Hospital Survey* are intended to assess the extent to which hospitals place a priority on and adopt practices to promote efficiency, waste reduction, patient centeredness, and high-quality care at a reasonable cost.

The development team reviewed the literature on value, efficiency, waste reduction, leadership, and patient-centeredness in health care delivery organizations; interviewed experts and researchers on value and efficiency in hospitals; identified appropriate topics; and drafted items for review by a technical expert panel. The draft supplemental items were cognitively tested with hospital providers and staff to ensure that the questions were easy to understand and answer and that the items were relevant.

In 2014, a pilot administration was conducted with 47 hospitals throughout the United States. The pilot data were analyzed to examine the psychometric properties (reliability and factor structure) of the items, with the end goal of shortening the supplemental items, including only the best items.

The final supplemental item set includes 25 items that measure four areas of organizational culture pertaining to value and efficiency (Table 1a). For these four areas, the supplemental items use either 5-point agreement scales (*Strongly disagree* to *Strongly agree*) or frequency scales (*Never* to *Always*). These response scales also include a *Does not apply* or *Don't know* option.

The supplemental items also include eight *Yes/No* questions about respondents' personal experiences with activities to improve efficiency in their facilities (Table 1b). In addition, the supplemental item set asks respondents to rate their hospital's overall performance on each of the following four areas: patient centered, effective, timely, and efficient. The 5-point rating scale ranges from *Poor* to *Excellent*.

Table 1a. Hospital Value and Efficiency Composites and Definitions

Value and Efficiency Composite	Definition: The extent to which…
Supervisor, Manager, or Clinical Leader Support for Improving Efficiency and Reducing Waste	The supervisor, manager, or clinical leader takes action to address workflow problems, recognizes those who offer ideas for improving efficiency, provides reports on unit performance, and sets a high priority on working efficiently without compromising patient care.
Patient Centeredness and Efficiency	Staff and others working in the hospital take steps to reduce patient wait time, seek patient or family member input on how to make patient visits more efficient, and make appropriate workflow changes as a result of their preferences.
Efficiency and Waste Reduction	Staff and others working in the hospital work on improving patient flow and try to find ways to reduce waste in their work, including eliminating unnecessary tests and procedures for patients.
Empowerment To Improve Efficiency	Staff and others working in the hospital are involved in proposed work changes, encouraged to offer ideas for working more efficiently, and given opportunities to try out solutions.

Table 1b. Personal Experience With Value and Efficiency Improvement Activities

Value and Efficiency Experience	Definition: The extent to which…
Experience With Activities To Improve Efficiency	Individual survey respondents have been trained to identify waste and inefficiencies in their work and are involved in any of seven possible activities to improve efficiency in their hospitals. These questions provide a measure of the penetration of efficiency activities among staff and others working in the hospital.

3. Pilot Study Survey Administration Statistics

To ensure the pilot study included a diverse sample, hospitals were recruited from a range of ownership types, sizes, and regions in the United States. The study only included facilities that had 50 beds or more.

Nearly 4,000 staff from 47 participating hospitals completed the items in 2014. Overall response statistics are summarized in Table 2.

Table 2. Overall and Average Response Statistics for 47 Pilot Study Hospitals

Overall Response Rate Information	Pilot Hospital Statistic
Number of respondents	3,951
Number of surveys administered	9,375
Overall response rate	42% (range: 13% to 67%)
Average Response Rate Information	**Pilot Hospital Statistic**
Average number of respondents per site	84 (range: 25 to 132)
Average number of surveys administered per site	199 (range: 184 to 204)
Average site response rate	42% (range: 13% to 67%)

4. Characteristics of Pilot Study Hospitals

Tables 3 and 4 display the characteristics of the 47 pilot study hospitals by geographic region, bed size, teaching status, accountable care organization (ACO) status, and value and efficiency training (e.g., Lean Six Sigma).

Table 3. Distribution of Pilot Hospitals by Geographic Region, Bed Size, and Teaching Status

Hospital Characteristic	U.S. AHA-Registered Hospitals[i] (n = 6,317)		Pilot Hospitals (n = 47)	
Geographic Region[ii,iii]	**Number**	**Percent**[iv]	**Number**	**Percent**
New England/Mid-Atlantic	834	13%	9	19%
South Atlantic	1,009	16%	6	13%
East Central	1,437	23%	22	47%
West Central	1,878	30%	5	11%
Mountain/Pacific	1,159	18%	5	11%
Licensed Bed Size Category	**Number**	**Percent**	**Number**	**Percent**
Small (6-99)[v]	3,428	54%	17	36%
Medium (100-299)	1,964	31%	18	38%
Large (300 or more)	925	15%	12	26%
Teaching Status	**Number**	**Percent**	**Number**	**Percent**
Teaching	1,537	24%	11	23%
Nonteaching	4,780	76%	36	77%

Table 4. Distribution of Pilot Hospitals by ACO and Value and Efficiency Training

Hospital Characteristic	Pilot Hospitals (n = 47)	
Part of an ACO	**Number**	**Percent**
Yes	18	38%
Considering	1	2%
No	28	60%
Value and Efficiency Training (e.g., Lean Six Sigma)	**Number**	**Percent**
Yes	21	45%
No	26	55%

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[i] American Hospital Association (AHA)-registered hospitals are shown for comparison.
[ii] States and territories are categorized into AHA-defined regions as follows:

- New England: CT, MA, ME, NH, , RI, VT
- Mid-Atlantic: NJ, NY, PA
- South Atlantic/Associated Territories: DC, DE, FL, GA, MD, NC, SC, VA, WV, PR, VI
- East North Central: IL, IN, MI, OH, WI
- East South Central: AL, KY, MS, TN
- West North Central: IA, KS, MN, MO, ND, NE, SD
- West South Central: AR, LA, OK, TX
- Mountain: AZ, CO, ID, MT, NM, NV, UT, WY
- Pacific/Associated Territories: AK, CA, HI, OR, WA

[iii] East North Central and East South Central regions were combined into East Central. West North Central and West South Central were combined into West Central. There was no representation for West North Central in the pilot study. New England and Mid-Atlantic regions were combined into New England/Mid-Atlantic. Mountain and Pacific regions were combined into Mountain/Pacific.
[iv] For tables in this document, column percent totals may not add to exactly 100 percent because of rounding.
[v] No hospital with fewer than 50 beds was included in this pilot study.

5. Characteristics of Pilot Study Respondents

Tables 5 to 7 display the characteristics of the pilot study hospital respondents by unit/work area, staff position, hospital tenure, tenure within unit/work area, and hours worked per week.

Table 5. Distribution of Respondents by Unit/Work Area in Hospital

Unit/Work Area	Pilot Respondents	
	Number	**Percent**
Many different hospital units/ No specific unit	269	7%
Patient Care Units	**1,521**	**39%**
Combined Medical/Surgical Unit	320	8%
Rehabilitation/Physical Medicine	247	6%
Emergency Department	194	5%
Psychiatry/Behavioral Health	164	4%
Labor and Delivery/Obstetrics and Gynecology	155	4%
Medical Unit (Nonsurgical)	146	4%
ICU (all adult types)	134	3%
Pediatrics (including NICU/PICU)	69	2%
Surgical Unit	49	1%
Oncology/Hematology	43	1%
Surgery	**208**	**5%**
Surgical Services (Pre-Op, Operating Room/Suite, Post-Op, Peri-Op)	191	5%
Anesthesiology	17	<1%
Clinical Services	**797**	**20%**
Pharmacy	296	8%
Radiology/Imaging	235	6%
Pathology/Lab	176	5%
Respiratory Therapy	90	2%
Management/Administration	**355**	**9%**
Management/Administration, Quality, Risk Management, Patient Safety, Human Resources, Training	216	6%
Information Technology, Health Information Management, Clinical Informatics	139	4%
Support Services	**445**	**11%**
Patient Financial Services, Billing, Admitting	170	4%
Facilities	81	2%
Food Service/Dietary	81	2%
Environmental Services/Housekeeping	58	1%
Security Services	41	1%
Transport	14	<1%
Other	**312**	**8%**
Other	312	8%
Total	3,907	100%
Missing	44	
Overall total	3,951	

Table 6. Distribution of Respondents by Hospital Staff Position

Staff Position	Pilot Respondents	
	Number	Percent
Nursing Staff	**1,272**	**34%**
Registered Nurse (RN)	981	26%
Patient Care, Nursing Assistant	205	6%
Licensed Vocational Nurse (LVN), Licensed Practical Nurse (LPN)	64	2%
Advanced Practice Nurse (NP, CRNA, CNS, CNM)	22	<1%
Medical Staff	**197**	**5%**
Physician, Attending, Hospitalist	187	5%
Physician Assistant	8	<1%
Resident, Intern	2	<1%
Other Clinical Staff	**959**	**26%**
Technician (e.g., EKG, Lab, Radiology)	360	10%
Pharmacist	155	4%
Physical, Occupational, or Speech Therapist	123	3%
Pharmacy Technician	121	3%
Respiratory Therapist	102	3%
Clinical Psychologist, Social Worker	67	2%
Dietitian	31	1%
Department Managers, Senior Leaders	**348**	**9%**
Manager, Department Manager, Administrator	304	8%
Senior Leader, Executive, C-Suite	44	1%
Other Support Staff	**797**	**21%**
Clerk, Secretary, Receptionist, Office Staff	476	13%
Facilities Staff	73	2%
Technology Staff	68	2%
Food Services, Dietary Staff	64	2%
Environmental Services, Housekeeping Staff	53	1%
Security Staff	47	1%
Transporter	16	<1%
Other	**144**	**4%**
Other	144	4%
Total	3,717	100%
Missing	234	
Overall total	3,951	

Table 7. Distribution of Respondents by Tenure in the Hospital, Tenure in Unit/Work Area, and Hours Worked per Week

Respondent Characteristics	Pilot Respondents	
Tenure in the Hospital	**Number**	**Percent**
Less than 2 months	311	8%
2 months to less than 1 year	1,103	29%
1 year to less than 3 years	862	23%
3 years to less than 6 years	583	15%
6 years to less than 11 years	293	8%
11 years or more	645	17%
Total	3,797	100%
Missing	154	
Overall	3,951	
Years in Hospital Unit/Work Area	**Number**	**Percent**
Less than 1 year	405	11%
1 to 5 years	1,342	36%
6 to 10 years	886	23%
11 to 15 years	489	13%
16 to 20 years	246	7%
11 years or more	408	11%
Total	3,776	100%
Missing	175	
Overall	3,951	
Hours Worked per Week in Hospital	**Number**	**Percent**
1 to 20 hours per week	193	5%
21 to 40 hours per week	2,450	65%
41 to 50 hours per week	870	23%
51 to 60 hours per week	142	4%
61 or more hours per week	130	3%
Total	3,785	100%
Missing	166	
Overall	3,951	

6. Composite-Level and Item-Level Results

The charts on the following pages display the composite-level and item-level results from the 47 pilot study hospitals. The methods for calculating the percent positive scores at the item and composite levels are described in Appendix A.

Chart 1 shows the average percent positive response for each of the value and efficiency composites, in order from most positive to least positive.

Chart 2 provides the average percent positive response for the items in each composite.

Chart 3 shows the average distribution of responses for the Overall Ratings on Value and Efficiency.

Chart 1. Composite-Level Results From Pilot Study Hospitals

Value and Efficiency Composites	% Positive Response
Supervisor, Manager, or Clinical Leader Support for Improving Efficiency and Reducing Waste	78%
Patient Centeredness and Efficiency	73%
Efficiency and Waste Reduction	69%
Empowerment To Improve Efficiency	64%

Chart 2. Item-Level Results From Pilot Study Hospitals

Survey Items By Value and Efficiency Composite	% Positive Response

Supervisor, Manager, or Clinical Leader Support for Improving Efficiency and Reducing Waste

Your supervisor, manager, or clinical leader…

1. Recognizes us for our ideas to improve efficiency. — 71%

2. Provides us with reports on our unit performance. — 81%

3. Takes action to address workflow problems that are brought to his or her attention. — 77%

4. Places a high priority on doing work efficiently **without** compromising patient care. — 81%

Patient Centeredness and Efficiency

1. In our unit, we take steps to reduce patient wait time. — 84%

2. We ask for patient or family member input on ways to make patient visits more efficient. — 67%

3. Patient and family member preferences have led to changes in our workflow. — 67%

Efficiency and Waste Reduction

1. We try to find ways to reduce waste (such as wasted time, materials, steps, etc.), in how we do our work. — 67%

2. In our unit, we are working to improve patient flow. — 79%

3. We focus on eliminating unnecessary tests and procedures for patients. — 61%

Chart 2. Item-Level Results From Pilot Study Hospitals (continued)

Survey Items By Value and Efficiency Composite	% Positive Response

Empowerment To Improve Efficiency

1. We are encouraged to come up with ideas for more efficient ways to do our work. **72%**

2. We are involved in making decisions about changes to our work processes. **59%**

3. We are given opportunities to try out solutions to workflow problems. **61%**

Experience With Activities To Improve Efficiency*

1. I received training on how to identify waste and inefficiencies in my work. **48%**

2. I helped to map a workflow process to identify wasted time, materials, steps in a process, etc. **37%**

3. I shadowed/followed patients in this hospital to identify ways to improve their care experience. **18%**

4. I looked at visual displays or graphs to see how well my unit was performing. **63%**

5. I made a suggestion to management about improving an inefficient work process. **64%**

6. I made a suggestion to management about improving patients' care experiences. **56%**

7. I served on a team or committee to make a work process more efficient. **37%**

8. I monitored data to figure out how well an activity to improve efficiency was working. **29%**

* These items do not represent a composite. The percent positive is the percentage of respondents responding "Yes."

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Chart 3. Overall Ratings

Overall, how would you rate your unit/work area on each of the following areas?

Patient Centered

Is responsive to individual patient preferences, needs, and values.
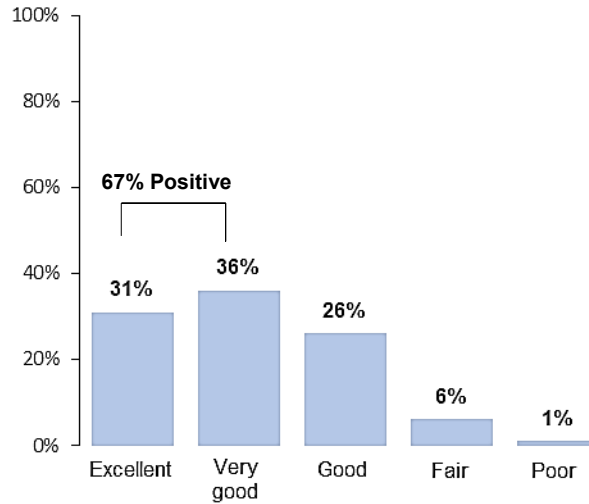
Effective

Provides services based on scientific knowledge to all who could benefit.
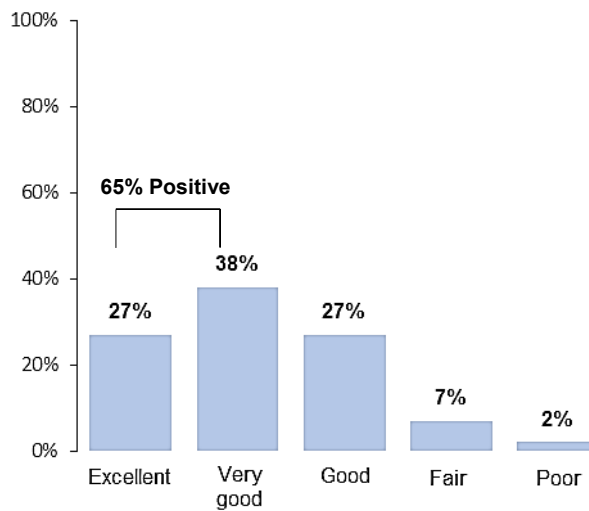
NOTE: All five percentages may not add to 100 percent because of rounding.

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Chart 3. Overall Ratings (continued)

Overall, how would you rate your unit/work area on each of the following areas?

Timely

Minimizes waits and
potentially harmful delays.
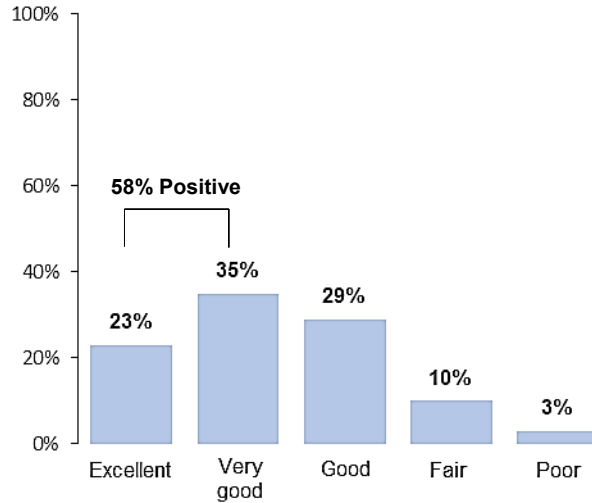
Efficient

Ensures cost-effective care
(avoids waste, overuse, and
misuse of services).
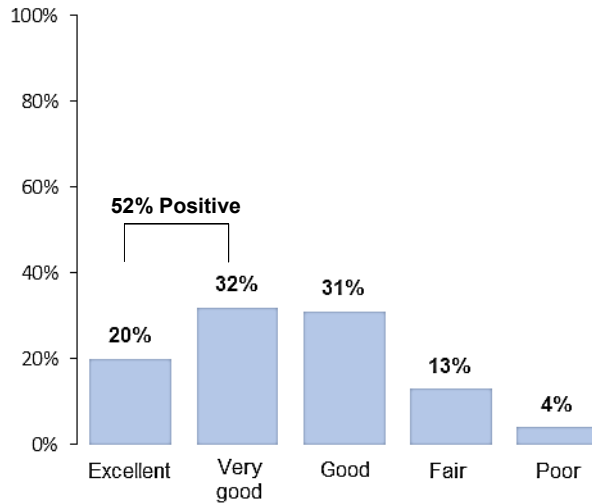
NOTE: All five percentages may not add to 100 percent because of rounding.

Overall Results by Hospital Site Characteristics

7. Composite-Level and Item-Level Results by Hospital Bed Size

Tables 8 through 10 show the average percent positive scores for the composites and items across the 47 pilot study hospitals by bed size. Only responses with at least 5 respondents are included.

On average, large hospitals had higher scores than medium or small hospitals.

NOTE: The numbers of hospitals and respondents in each bed size category is shown in each table. However, the precise numbers of hospitals and respondents corresponding to each data cell in a table vary, because of individual nonresponse/missing data.

Table 8. Composite-Level Average Percent Positive Response by Hospital Bed Size

Value and Efficiency Composites	Hospital Bed Size		
	Small (50-99)	Medium (100-299)	Large (300+)
# Hospitals	17	18	12
# Respondents	1,702	1,366	883
Supervisor, Manager, or Clinical Leader Support for Improving Efficiency and Reducing Waste	76%	78%	80%
Patient Centeredness and Efficiency	72%	73%	73%
Efficiency and Waste Reduction	67%	68%	72%
Empowerment To Improve Efficiency	64%	64%	63%
Average Across Composites	70%	71%	72%

Table 9. Item-Level Average Percent Positive Response by Hospital Bed Size

Survey Items by Composite	Hospital Bed Size		
	Small (50-99)	**Medium (100-299)**	**Large (300+)**
# Hospitals	17	18	12
# Respondents	1,702	1,366	883
Supervisor, Manager, or Clinical Leader Support for Improving Efficiency and Reducing Waste			
1. Recognizes us for our ideas to improve efficiency.	71%	70%	74%
2. Provides us with reports on our unit performance.	80%	83%	81%
3. Takes action to address workflow problems that are brought to his or her attention.	75%	78%	80%
4. Places a high priority on doing work efficiently **without** compromising patient care	80%	81%	84%
Patient Centeredness and Efficiency			
1. In our unit, we take steps to reduce patient wait time.	83%	85%	85%
2. We ask for patient or family member input on ways to make patient visits more efficient.	67%	67%	66%
3. Patient and family member preferences have led to changes in our workflow.	65%	67%	68%
Efficiency and Waste Reduction			
1. We try to find ways to reduce waste (such as wasted time, materials, steps, etc.) in how we do our work.	66%	68%	67%
2. In our unit, we are working to improve patient flow.	77%	79%	81%
3. We focus on eliminating unnecessary tests and procedures for patients.	59%	58%	68%

Table 9. Item-Level Average Percent Positive Response by Hospital Bed Size (continued)

Survey Items by Composite	Hospital Bed Size		
	Small (50-99)	**Medium (100-299)**	**Large (300+)**
# Hospitals	17	18	12
# Respondents	1,702	1,366	883
Empowerment to Improve Efficiency			
1. We are involved in making decisions about changes to our work processes.	73%	72%	72%
2. We are encouraged to come up with ideas for more efficient ways to do our work.	59%	59%	58%
3. We are given opportunities to try out solutions to workflow problems.	61%	61%	59%
Experience With Activities To Improve Efficiency			
1. I received training on how to identify waste and inefficiencies in my work.	44%	50%	49%
2. I helped to map a workflow process to identify wasted time, materials, steps in a process, etc.	31%	41%	42%
3. I shadowed/followed patients in this hospital to identify ways to improve their care experience.	14%	21%	20%
4. I looked at visual displays or graphs to see how well my unit was performing.	62%	65%	61%
5. I made a suggestion to management about improving an inefficient work process.	62%	66%	65%
6. I made a suggestion to management about improving patients' care experiences.	54%	57%	57%
7. I served on a team or committee to make a work process more efficient.	34%	37%	41%
8. I monitored data to figure out how well an activity to improve efficiency was working.	24%	32%	31%

NOTE: For items in the *Experience With Activities To Improve Efficiency* section, the percent positive is the percentage of respondents responding "Yes."

Table 10. Overall Ratings on Value and Efficiency by Hospital Bed Size

Overall Ratings on Value and Efficiency	Hospital Bed Size		
	Small (50-99)	Medium (100-299)	Large (300+)
# Hospitals	17	18	12
# Respondents	1,702	1,366	883
Patient centered – Is responsive to individual patient preferences, needs, and values.			
Excellent or Very Good	68%	68%	66%
Excellent	33%	31%	29%
Very Good	35%	37%	37%
Good	26%	25%	27%
Fair	6%	6%	6%
Poor	1%	1%	1%
Effective – Provides services based on scientific knowledge to all who could benefit.			
Excellent or Very Good	64%	64%	66%
Excellent	26%	26%	29%
Very Good	38%	38%	37%
Good	28%	27%	26%
Fair	7%	7%	6%
Poor	1%	2%	1%

NOTE: Percentages may not sum to 100 because of rounding. In addition, the percentages for Excellent and Very Good may not add to the subtotal for "Excellent or Very Good" due to rounding.

Table 10. Overall Ratings on Value and Efficiency by Hospital Bed Size (continued)

Overall Ratings on Value and Efficiency		Hospital Bed Size		
		Small (50-99)	Medium (100-299)	Large (300+)
	# Hospitals	17	18	12
	# Respondents	1,702	1,366	883
Timely – Minimizes waits and potentially harmful delays.				
	Excellent or Very Good	57%	58%	58%
	Excellent	24%	22%	22%
	Very Good	34%	35%	36%
	Good	30%	29%	30%
	Fair	10%	11%	10%
	Poor	3%	3%	2%
Efficient – Ensures cost-effective care (avoids waste, overuse, and misuse of services).				
	Excellent or Very Good	51%	53%	52%
	Excellent	21%	20%	20%
	Very Good	30%	34%	32%
	Good	32%	31%	31%
	Fair	13%	12%	14%
	Poor	4%	3%	3%

NOTE: Percentages may not sum to 100 because of rounding. In addition, the percentages for Excellent and Very Good may not add to the subtotal for "Excellent or Very Good" due to rounding.

Overall Results by Hospital Respondent Characteristics

8. Composite-Level and Item-Level Results by Hospital Primary Unit/Work Area

Tables 11 through 13 show the average percent positive scores for composites and items across the 47 pilot study hospitals, broken out by primary unit/work area. Only the hospital primary units/work areas with at least 5 respondents in the unit/work area are included: patient care units, surgery, clinical services, management/administration, and support services.

Management/Administration had the highest average percent positive response across composites (81 percent positive). Surgery had the lowest (67 percent positive).

NOTE: The numbers of hospitals and respondents in each unit/work area is shown in each table. However, the precise numbers of hospitals and respondents corresponding to each data cell in a table vary, because of individual nonresponse/missing data.

Table 11. Composite-Level Average Percent Positive Response by Hospital Primary Unit/Work Area

Value and Efficiency Composites	Hospital Primary Unit/Work Area				
	Patient Care Units	Surgery	Clinical Services	Mgmt./Admin.	Support Services
# Hospitals	47	41	47	47	46
# Respondents	1,521	208	797	355	445
Supervisor, Manager, or Clinical Leader Support for Improving Efficiency and Reducing Waste	78%	75%	75%	86%	76%
Patient Centeredness and Efficiency	72%	67%	69%	79%	76%
Efficiency and Waste Reduction	64%	65%	71%	78%	71%
Empowerment To Improve Efficiency	60%	59%	65%	80%	66%
Average Across Composites	**69%**	**67%**	**70%**	**81%**	**72%**

NOTE: Respondents who selected "Other" and missing are not shown.

Table 12. Item-Level Average Percent Positive Response by Hospital Primary Unit/Work Area

Survey Items by Composite	Hospital Primary Unit/Work Area				
	Patient Care Units	**Surgery**	**Clinical Services**	**Mgmt./Admin.**	**Support Services**
# Hospitals	47	41	47	47	46
# Respondents	1,521	208	797	355	445
Supervisor, Manager, or Clinical Leader Support for Improving Efficiency and Reducing Waste					
1. Recognizes us for our ideas to improve efficiency.	70%	70%	69%	82%	73%
2. Provides us with reports on our unit performance.	86%	79%	77%	80%	76%
3. Takes action to address workflow problems that are brought to his or her attention.	77%	69%	75%	87%	75%
4. Places a high priority on doing work efficiently **without** compromising patient care.	80%	75%	81%	92%	79%
Patient Centeredness and Efficiency					
1. In our unit, we take steps to reduce patient wait time.	83%	79%	88%	85%	88%
2. We ask for patient or family member input on ways to make patient visits more efficient.	68%	60%	58%	72%	67%
3. Patient and family member preferences have led to changes in our workflow.	65%	62%	62%	83%	73%
Efficiency and Waste Reduction					
1. We try to find ways to reduce waste (such as wasted time, materials, steps, etc.) in how we do our work.	58%	65%	69%	83%	72%
2. In our unit, we are working to improve patient flow.	76%	74%	80%	83%	83%
3. We focus on eliminating unnecessary tests and procedures for patients.	56%	58%	66%	68%	59%

NOTE: Respondents who selected "Other" and missing are not shown.

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Table 12. Item-Level Average Percent Positive Response by Hospital Primary Unit/Work Area (continued)

Survey Items by Composite	Hospital Primary Unit/Work Area				
	Patient Care Units	Surgery	Clinical Services	Mgmt./Admin.	Support Services
# Hospitals	47	41	47	47	46
# Respondents	1,521	208	797	355	445
Empowerment To Improve Efficiency					
1. We are involved in making decisions about changes to our work processes.	69%	67%	73%	87%	72%
2. We are encouraged to come up with ideas for more efficient ways to do our work.	54%	55%	61%	76%	58%
3. We are given opportunities to try out solutions to workflow problems.	56%	55%	60%	77%	67%
Experience With Activities to Improve Efficiency					
1. I received training on how to identify waste and inefficiencies in my work.	48%	51%	47%	51%	51%
2. I helped to map a workflow process to identify wasted time, materials, steps in a process, etc.	33%	39%	40%	50%	37%
3. I shadowed/followed patients in this hospital to identify ways to improve their care experience.	22%	21%	15%	16%	16%
4. I looked at visual displays or graphs to see how well my unit was performing.	74%	64%	58%	53%	56%
5. I made a suggestion to management about improving an inefficient work process.	64%	71%	67%	69%	58%
6. I made a suggestion to management about improving patients' care experiences.	66%	67%	51%	45%	35%
7. I served on a team or committee to make a work process more efficient.	39%	41%	29%	55%	30%
8. I monitored data to figure out how well an activity to improve efficiency was working.	28%	34%	27%	44%	25%

NOTE: (1) Respondents who selected "Other" and missing are not shown. (2) For items in the *Experience With Activities To Improve Efficiency* section, the percent positive is the percentage of respondents responding "Yes."

Table 13. Overall Ratings on Value and Efficiency by Hospital Primary Unit/Work Area

Overall Ratings on Value and Efficiency	Hospital Primary Unit/Work Area				
	Patient Care Units	Surgery	Clinical Services	Mgmt./Admin.	Support Services
# Hospitals	47	41	47	47	46
# Respondents	1,521	208	797	355	445
Patient centered – Is responsive to individual patient preferences, needs, and values.					
Excellent or Very Good	68%	70%	67%	67%	64%
Excellent	34%	37%	29%	29%	29%
Very Good	35%	33%	39%	39%	35%
Good	24%	26%	26%	28%	30%
Fair	6%	4%	6%	4%	5%
Poor	1%	0%	1%	0%	1%
Effective – Provides services based on scientific knowledge to all who could benefit.					
Excellent or Very Good	64%	67%	69%	66%	56%
Excellent	28%	31%	31%	24%	23%
Very Good	37%	36%	39%	42%	33%
Good	26%	25%	24%	30%	35%
Fair	8%	7%	6%	3%	6%
Poor	2%	1%	1%	1%	3%

NOTE: (1) Respondents who selected "Other" and missing are not shown; (2) Percentages may not sum to 100 because of rounding; (3) The percentages for Excellent and Very Good may not add to the subtotal for "Excellent or Very Good" due to rounding.

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Table 13. Overall Ratings on Value and Efficiency by Hospital Primary Unit/Work Area (continued)

Overall Ratings on Value and Efficiency	Hospital Primary Unit/Work Area				
	Patient Care Units	Surgery	Clinical Services	Mgmt./ Admin.	Support Services
# Hospitals	47	41	47	47	46
# Respondents	1,521	208	797	355	445
Timely – Minimizes waits and potentially harmful delays.					
Excellent or Very Good	55%	55%	65%	63%	56%
Excellent	23%	26%	25%	24%	23%
Very Good	32%	30%	40%	39%	32%
Good	30%	29%	24%	32%	34%
Fair	11%	15%	9%	5%	8%
Poor	4%	1%	2%	0%	2%
Efficient – Ensures cost-effective care (avoids waste, overuse, and misuse of services).					
Excellent or Very Good	47%	50%	59%	62%	54%
Excellent	18%	18%	23%	24%	24%
Very Good	29%	33%	36%	37%	29%
Good	33%	33%	27%	26%	33%
Fair	16%	13%	11%	11%	10%
Poor	5%	3%	3%	1%	3%

NOTE: (1) Respondents who selected "Other" and missing are not shown; (2) Percentages may not sum to 100 because of rounding; (3) The percentages for Excellent and Very Good may not add to the subtotal for "Excellent or Very Good" due to rounding.

9. Composite-Level and Item-Level Results by Hospital Staff Position

Tables 14 through 16 show the average percent positive scores for the composites and items across the 47 pilot study hospitals, by staff position. Only staff positions with at least 5 respondents in that staff position are included: nursing staff, medical staff, other clinical staff, department managers/senior leaders, and other support staff.

Department managers and senior leaders had the highest average percent positive across the four survey composites (82 percent). Medical staff had the lowest (67 percent).

NOTE: The numbers of hospitals and respondents in each staff position are shown in each table. However, the precise numbers of hospitals and respondents corresponding to each data cell in a table vary, because of individual nonresponse/missing data.

Table 14. Composite-Level Average Percent Positive Response by Hospital Staff Position

Value and Efficiency Composites	Hospital Staff Position				
	Nursing Staff	Medical Staff	Other Clinical Staff	Dept. Managers/Senior Leaders	Other Support Staff
# Hospitals	47	38	47	47	47
# Respondents	1,272	197	959	348	797
Supervisor, Manager, or Clinical Leader Support for Improving Efficiency and Reducing Waste	77%	76%	75%	87%	79%
Patient Centeredness and Efficiency	73%	65%	71%	81%	73%
Efficiency and Waste Reduction	65%	64%	70%	75%	74%
Empowerment To Improve Efficiency	61%	62%	63%	86%	65%
Average Across Composites	**69%**	**67%**	**70%**	**82%**	**73%**

Table 15. Item-Level Average Percent Positive Response by Hospital Staff Position

Survey Items by Composite	Hospital Staff Position				
	Nursing Staff	**Medical Staff**	**Other Clinical Staff**	**Dept. Managers/Senior Leaders**	**Other Support Staff**
# Hospitals	47	38	47	47	47
# Respondents	1,272	197	959	348	797
Supervisor, Manager, or Clinical Leader Support for Improving Efficiency and Reducing Waste					
1. Recognizes us for our ideas to improve efficiency	70%	72%	67%	84%	74%
2. Provides us with reports on our unit performance	86%	74%	79%	82%	79%
3. Takes action to address workflow problems that are brought to his or her attention	74%	81%	75%	88%	80%
4. Places a high priority on doing work efficiently **without** compromising patient care	80%	76%	79%	92%	84%
Patient Centeredness and Efficiency					
1. In our unit, we take steps to reduce patient wait time.	83%	76%	86%	92%	86%
2. We ask for patient or family member input on ways to make patient visits more efficient.	71%	58%	64%	73%	65%
3. Patient and family member preferences have led to changes in our workflow.	65%	63%	64%	79%	68%

Table 15. Item-Level Average Percent Positive Responses by Hospital Staff Position (continued)

Survey Items by Composite	Hospital Staff Position				
	Nursing Staff	**Medical Staff**	**Other Clinical Staff**	**Dept. Managers/Senior Leaders**	**Other Support Staff**
# Hospitals	47	38	47	47	47
# Respondents	1,272	197	959	348	797
Efficiency and Waste Reduction					
1. We try to find ways to reduce waste (such as wasted time, materials, steps, etc.) in how we do our work.	62%	53%	67%	78%	74%
2. In our unit, we are working to improve patient flow.	77%	76%	77%	85%	85%
3. We focus on eliminating unnecessary tests and procedures for patients.	57%	65%	65%	63%	63%
Empowerment To Improve Efficiency					
1. We are involved in making decisions about changes to our work processes.	70%	66%	71%	89%	74%
2. We are encouraged to come up with ideas for more efficient ways to do our work.	55%	63%	59%	84%	58%
3. We are given opportunities to try out solutions to workflow problems.	56%	56%	58%	83%	64%

Table 15. Item-Level Average Percent Positive Responses by Hospital Staff Position (continued)

Survey Items by Composite	Hospital Staff Position				
	Nursing Staff	**Medical Staff**	**Other Clinical Staff**	**Dept. Managers/Senior Leaders**	**Other Support Staff**
# Hospitals	47	38	47	47	47
# Respondents	1,272	197	959	348	797
Experience With Activities To Improve Efficiency					
1. I received training on how to identify waste and inefficiencies in my work.	50%	35%	44%	62%	46%
2. I helped to map a workflow process to identify wasted time, materials, steps in a process, etc.	33%	38%	35%	71%	35%
3. I shadowed/followed patients in this hospital to identify ways to improve their care experience.	24%	16%	13%	28%	12%
4. I looked at visual displays or graphs to see how well my unit was performing.	73%	55%	58%	76%	53%
5. I made a suggestion to management about improving an inefficient work process.	63%	71%	67%	82%	53%
6. I made a suggestion to management about improving patients' care experiences.	64%	72%	55%	72%	32%
7. I served on a team or committee to make a work process more efficient.	40%	50%	29%	72%	26%
8. I monitored data to figure out how well an activity to improve efficiency was working.	27%	40%	25%	65%	19%

NOTE: For items in the *Experience With Activities To Improve Efficiency* section, the percent positive is the percentage of respondents responding "Yes."

Table 16. Overall Ratings on Value and Efficiency by Hospital Staff Position

Overall Ratings on Value and Efficiency	Hospital Staff Position				
	Nursing Staff	Medical Staff	Other Clinical Staff	Dept. Managers/Senior Leaders	Other Support Staff
# Hospitals	47	38	47	47	47
# Respondents	1,272	197	959	348	797
Patient centered – Is responsive to individual patient preferences, needs, and values.					
Excellent or Very Good	68%	67%	68%	76%	65%
Excellent	32%	33%	30%	31%	30%
Very Good	36%	34%	38%	45%	35%
Good	25%	28%	24%	21%	29%
Fair	6%	4%	7%	3%	5%
Poor	1%	0%	1%	0%	1%
Effective – Provides services based on scientific knowledge to all who could benefit.					
Excellent or Very Good	64%	72%	68%	73%	61%
Excellent	26%	34%	28%	30%	26%
Very Good	38%	38%	40%	43%	35%
Good	27%	22%	23%	24%	31%
Fair	8%	5%	7%	3%	6%
Poor	2%	1%	1%	0%	2%

NOTE: (1) Respondents who selected "None of the above/Other" and missing are not shown. (2) Percentages may not sum to 100 because of rounding; (3) The percentages for Excellent and Very Good may not add to the subtotal for "Excellent or Very Good" due to rounding.

Table 16. Overall Ratings on Value and Efficiency by Hospital Staff Position (continued)

Overall Ratings on Value and Efficiency	Hospital Staff Position				
	Nursing Staff	Medical Staff	Other Clinical Staff	Dept. Managers/Senior Leaders	Other Support Staff
# Hospitals	47	38	47	47	47
# Respondents	1,272	197	959	348	797
Timely – Minimizes waits and potentially harmful delays.					
Excellent or Very Good	54%	55%	62%	65%	58%
Excellent	21%	21%	24%	24%	25%
Very Good	32%	34%	39%	42%	33%
Good	31%	28%	26%	28%	31%
Fair	12%	14%	10%	7%	9%
Poor	4%	3%	2%	0%	2%
Efficient – Ensures cost-effective care (avoids waste, overuse, and misuse of services).					
Excellent or Very Good	48%	47%	56%	59%	55%
Excellent	18%	14%	21%	24%	22%
Very Good	30%	33%	34%	35%	33%
Good	32%	29%	29%	32%	31%
Fair	16%	20%	12%	8%	11%
Poor	4%	5%	4%	1%	3%

NOTE: (1) Respondents who selected "None of the above/Other" and missing are not shown; (2) Percentages may not sum to 100 because of rounding; (3) The percentages for Excellent and Very Good may not add to the subtotal for "Excellent or Very Good" due to rounding..

10. Composite-Level and Item-Level Results by Hospital Tenure in Unit/Work Area

Tables 17 through 19 show the average percent positive scores on the composites and items across the 47 pilot study hospitals, by tenure in unit/work area. Tenure in unit/work area was measured by less than 1 year, 1 to 5 years, 6 to 10 years, 11 to 15 years, 16 to 20 years, and 21 years or more.

Respondents who were in their hospital work area/unit less than 1 year were more positive than other respondents on all composites and the Overall Value and Efficiency Ratings. Respondents who were in their hospital unit/work area for 16 to 20 years had the lowest average score across composites and the overall ratings.

NOTE: The numbers of hospitals and respondents by tenure in unit/work area is shown in each table. However, the precise number of hospitals and respondents corresponding to each data cell in a table varies because of individual nonresponse/missing data.

Table 17. Composite-Level Average Percent Positive Response by Hospital Tenure in Primary Unit/Work Area

Value and Efficiency Composites	Hospital Tenure in Primary Unit/Work Area					
	Less Than 1 Year	1 to 5 Years	6 to 10 Years	11 to 15 Years	16 to 20 Years	21 Years or More
# Hospitals	45	47	47	47	45	44
# Respondents	405	1,342	886	489	246	408
Supervisor, Manager, or Clinical Leader Support for Improving Efficiency and Reducing Waste	81%	77%	77%	78%	76%	80%
Patient Centeredness and Efficiency	75%	72%	71%	70%	71%	74%
Efficiency and Waste Reduction	73%	69%	69%	68%	58%	71%
Empowerment To Improve Efficiency	70%	65%	62%	61%	60%	68%
Average Across Composites	**75%**	**71%**	**70%**	**69%**	**66%**	**73%**

Table 18. Item-Level Average Percent Positive Response by Hospital Tenure in Primary Unit/Work Area

Survey Items by Composite	Hospital Tenure in Primary Unit/Work Area					
	Less Than 1 Year	1 to 5 Years	6 to 10 Years	11 to 15 Years	16 to 20 Years	21 Years or More
# Hospitals	45	47	47	47	45	44
# Respondents	405	1,342	886	489	246	408
Supervisor, Manager, or Clinical Leader Support for Improving Efficiency and Reducing Waste						
1. Recognizes us for our ideas to improve efficiency.	72%	71%	70%	69%	69%	74%
2. Provides us with reports on our unit performance.	83%	80%	80%	82%	81%	85%
3. Takes action to address workflow problems that are brought to his or her attention.	81%	78%	76%	78%	77%	76%
4. Places a high priority on doing work efficiently **without** compromising patient care.	89%	80%	82%	82%	77%	83%
Patient Centeredness and Efficiency						
1. In our unit, we take steps to reduce patient wait time.	87%	83%	83%	83%	84%	88%
2. We ask for patient or family member input on ways to make patient visits more efficient.	71%	67%	66%	63%	67%	69%
3. Patient and family member preferences have led to changes in our workflow.	69%	67%	66%	65%	66%	67%

Table 18. Item-Level Average Percent Positive Response by Hospital Tenure in Primary Unit/Work Area (continued)

Survey Items by Composite	Hospital Tenure in Primary Unit/Work Area					
	Less Than 1 Year	1 to 5 Years	6 to 10 Years	11 to 15 Years	16 to 20 Years	21 Years or More
# Hospitals	45	47	47	47	45	44
# Respondents	405	1,342	886	489	246	408
Efficiency and Waste Reduction						
1. We try to find ways to reduce waste (such as wasted time, materials, steps, etc.) in how we do our work.	68%	67%	67%	68%	59%	68%
2. In our unit, we are working to improve patient flow.	83%	78%	80%	79%	69%	80%
3. We focus on eliminating unnecessary tests and procedures for patients.	68%	63%	60%	56%	48%	65%
Empowerment To Improve Efficiency						
1. We are involved in making decisions about changes to our work processes.	77%	72%	71%	69%	69%	79%
2. We are encouraged to come up with ideas for more efficient ways to do our work.	62%	60%	57%	56%	54%	62%
3. We are given opportunities to try out solutions to workflow problems.	70%	63%	58%	58%	56%	64%

Table 18. Item-Level Average Percent Positive Response by Hospital Tenure in Primary Unit/Work Area (continued)

Survey Items by Composite	Hospital Tenure in Primary Unit/Work Area					
	Less Than 1 Year	1 to 5 Years	6 to 10 Years	11 to 15 Years	16 to 20 Years	21 Years or More
# Hospitals	45	47	47	47	45	44
# Respondents	405	1,342	886	489	246	408
Experience With Activities To Improve Efficiency						
1. I received training on how to identify waste and inefficiencies in my work.	53%	50%	47%	48%	46%	44%
2. I helped to map a workflow process to identify wasted time, materials, steps in a process, etc.	35%	38%	38%	34%	32%	39%
3. I shadowed/followed patients in this hospital to identify ways to improve their care experience.	21%	17%	18%	16%	18%	21%
4. I looked at visual displays or graphs to see how well my unit was performing.	63%	61%	62%	64%	66%	65%
5. I made a suggestion to management about improving an inefficient work process.	58%	65%	64%	64%	65%	72%
6. I made a suggestion to management about improving patients' care experiences.	52%	57%	59%	54%	53%	56%
7. I served on a team or committee to make a work process more efficient.	29%	39%	36%	40%	34%	41%
8. I monitored data to figure out how well an activity to improve efficiency was working.	25%	31%	28%	27%	27%	34%

NOTE: For items in the *Experience With Activities To Improve Efficiency* section, the percent positive is the percentage of respondents responding "Yes."

Table 19. Overall Ratings on Value and Efficiency by Hospital Tenure in Primary Unit/Work Area

Overall Ratings on Value and Efficiency	Hospital Tenure in Primary Unit/Work Area					
	Less Than 1 Year	1 to 5 Years	6 to 10 Years	11 to 15 Years	16 to 20 Years	21 Years or More
# Hospitals	45	47	47	47	45	44
# Respondents	405	1,342	886	489	246	408
Patient centered – Is responsive to individual patient preferences, needs, and values.						
Excellent or Very Good	71%	68%	68%	65%	64%	62%
Excellent	33%	32%	31%	28%	29%	30%
Very Good	37%	36%	37%	36%	35%	32%
Good	25%	24%	25%	30%	27%	32%
Fair	4%	6%	6%	5%	7%	5%
Poor	0%	1%	1%	0%	2%	1%
Effective – Provides services based on scientific knowledge to all who could benefit.						
Excellent or Very Good	70%	65%	65%	62%	58%	62%
Excellent	29%	28%	26%	25%	27%	27%
Very Good	41%	37%	39%	38%	31%	35%
Good	22%	26%	25%	30%	32%	33%
Fair	7%	7%	8%	7%	8%	4%
Poor	1%	2%	3%	1%	2%	1%

NOTE: Percentages may not sum to 100 because of rounding. In addition, the percentages for Excellent and Very Good may not add to the subtotal for "Excellent or Very Good" due to rounding.

Table 19. Overall Ratings on Value and Efficiency by Hospital Tenure in Primary Unit/Work Area (continued)

Overall Ratings on Value and Efficiency	Hospital Tenure Primary Unit/Work Area					
	Less than 1 Year	1 to 5 Years	6 to 10 Years	11 to 15 Years	16 to 20 Years	21 Years or More
# Hospitals	45	47	47	47	45	44
# Respondents	405	1,342	886	489	246	408
Timely – Minimizes waits and potentially harmful delays.						
Excellent or Very Good	64%	56%	60%	54%	52%	59%
Excellent	26%	23%	23%	21%	24%	22%
Very Good	38%	33%	37%	33%	27%	36%
Good	28%	30%	28%	33%	31%	29%
Fair	8%	11%	10%	10%	14%	11%
Poor	0%	3%	3%	3%	4%	1%
Efficient – Ensures cost-effective care (avoids waste, overuse, and misuse of services).						
Excellent or Very Good	56%	50%	52%	53%	45%	53%
Excellent	18%	20%	21%	20%	19%	20%
Very Good	38%	30%	31%	32%	26%	33%
Good	29%	33%	31%	31%	31%	31%
Fair	13%	13%	13%	11%	17%	13%
Poor	1%	3%	4%	5%	6%	3%

NOTE: Percentages may not sum to 100 because of rounding. In addition, the percentages for Excellent and Very Good may not add to the subtotal for "Excellent or Very Good" due to rounding.

Appendix: Explanation of Calculations

Calculating Item Percent Positive Scores

Percent positive is the total percentage of respondents who answered positively--combined percentage of "Strongly agree" and "Agree" responses, or "Always" and "Most of the time" responses, depending on the response categories used for the item. For single items that are not part of a composite (*Experience With Activities To Improve Efficiency* and *Overall Ratings* sections), percent positive is the total percentage of respondents who answered "Yes" or a combined percentage of "Excellent" and "Very good," respectively.

Calculating Composite Percent Positive Scores

A composite score summarizes how respondents answered *groups of items* that all measure different aspects of the same thing. Composite scores on the four value and efficiency survey composites tell you the average percentage of respondents who answered positively when looking at the survey items that measure each value and efficiency composite.

To calculate a composite score on a particular value and efficiency area, determine the average of the percent positive responses for the items included in the composite. An example of computing a composite score for the Efficiency and Waste Reduction composite is provided in Table 20.

Table 20. Example of How To Calculate Item and Composite Percent Positive Scores

Three items measuring Efficiency and Waste Reduction	Number of positive responses (e.g., "Strongly agree" or "Agree")	Total number of responses to the item (excluding "Not applicable/Do not know" and missing responses)	Percent positive response on item
We try to find ways to reduce waste (such as wasted time, materials, steps, etc.) in how we do our work.	10	14	10/14=71%
In our unit, we are working to improve patient flow.	9	12	9/12=75%
We look at staff actions and the way we do things to understand why mistakes happen.	7	10	7/10=70%
Average percent positive response across the 3 items = 72%			

This example has three items, with percent positive response scores of 71 percent, 75 percent, and 70 percent. Averaging these item-level percent positive scores ([71% + 75% + 70%]/3) results in a composite score of 72 percent on Efficiency and Waste Reduction. That is, an average of 72 percent of respondents responded positively on the survey items in this composite.